# POWER CABLES PRODUCT CATALOGUE

HES® KABLO

Reliable Technology

OVER 140 COUNTRIES CARRY
HES KABLO MARK!

## HES HACILAR ELEKTRİK SANAYİ VE TİCARET A.Ş.

Established in 1974 to produce energy cables, HES Cable has made a very rapid development and has a wide range of products that appeal to the entire cable and conductor sector by producing copper communication cable, fiber optic cable, energy cable, aluminum conductor, enamel coil wire, solar cable and weak current cables.

Acting with the slogan of "Reliable Technology", HES Cable has become a well-known and respected brand in the international arena with its "know-how" and high quality products with nearly 50 years of experience.

Production in integrated facilities with a total area of 250,000 m², 120,000 m² of which is closed, is carried out in accordance with ISO 9001 standards and considering the requirements of ISO 10002, ISO 14001, ISO 45001, ISO 27001 and ISO 50001, by a team of approximately 1000 experts with knowledge and experience in the field, using machines and methods suitable for modern and technological developments. Quality certificates such as ISO, TSE, VDE, BASEC, SII, GOST, ETL, UKRSEPRO and KEMA given as a result of the periodic inspections carried out by national and international surveillance companies are an expression of trust in HES Cable brand and products. HES Cable, which ensures that high quality products are delivered to the customer by using modern test devices and control methods at every stage of production, develops products according to special customer specifications and requests as well as products manufactured according to international and domestic standards.

According to 2024 data, HES, which ranks 104th in the "Turkey's Top 500 Industrial Enterprises" ranking determined by Istanbul Chamber of Industry every year, continues to lead the sector and reaches more than 140 countries. According to the 2024 data, it ranked 90th in the "Turkey's top 1000 exporters" ranking determined every year by the Turkish Exporters Assembly, and became Turkey's 7th largest Electrical and Electronics Exporter and the export champion in its sector and in Kayseri.

# CONTENTS


| | |
|---|---|
| Solar Cables | 1 |
| Building Wires and Cables | 2-20 |
| PVC Insulated Low Voltage Cables | 21-70 |
| XLPE Insulated Low Voltage Cables | 71-119 |
| HFFR Building Wires | 120-122 |
| HX Building Wires | 123-124 |
| HFFR Cables | 125-159 |
| Fire Resistant Low Voltage Cables | 160-165 |
| Medium Voltage Cables | 166-336 |
| High Voltage Cables | 337-366 |
| Aluminium Rods | 368 |
| Aluminium Overhead Conductors | 369-377 |
| AER and ABC Cables | 378-381 |
| Optical Ground Wire (OPGW) | 382-386 |
| Copper Rods | 387-388 |
| Copper Conductors | 389-390 |
| Enamelled Wires | 391-395 |
| Technical Data | 396-422 |

This catalog has been arranged for product promotion purposes only.
Content information and images are not guaranteed to be free of errors; therefore, HES KABLO cannot be held responsible.
There is no legal binding of the related contents.
HES KABLO reserves the right to make changes in the content, information and images without any notice.

For any other special requests, please contact hes@hes.com.tr

Solar Cables

# THE FUTURE INFRASTRUCTURE IS ALREADY DONE

HES KABLO

# AC: 1,0/1,0 kV , DC: 1,5 kV
# HX Insulated Single Core Solar Cables

Code: H1Z2Z2-K

Standards: EN 50618, TS EN 50618

| Technical Data | |
|---|---|
| Operating temperature for 20.000 hours up to 120°C | : -40°C to +90°C |
| Max storage temperature | : +40°C |
| Min. temperature for installation and handling | : -25°C |
| (20 ± 10 ) °C' ta Min. bending radius D<12 | : 3 x D (Cable diameter) |
| (20 ± 10 ) °C' ta Min. bending radius D>12 | : 4 x D (Cable diameter) |

| Electrical Properties | |
|---|---|
| Nominal voltage | : DC: 1,5 kV<br>AC: 1,0/1,0 kV |
| Max. AC Operating Voltage | : 1,2/1,2 kV |
| Max. DC Operating Voltage | : 1,8 kV |

Construction

1. Flexible tinned copper conductor / Class 5 (EN 60228, IEC 60228, DIN VDE 0295)
2. Halogen-free and cross-linked insulating material EN 50618, TS EN 50618
3. Halogen-free, flame retardant and cross-linked sheath material EN 50618, TS EN 50618

Fire Performance Tests

Vertical Flame Propagation / EN 60332-1-2, IEC 60332-1-2, DIN EN 60332-1-2 (VDE 0482-332-1-2)
Smoke Emission Test ( Light Transmittance) / EN 61034-2, IEC 61034-2, DIN EN 61034-2, VDE 0482-1034-2,
Assessment of halogen for all non-metallic materials EN 50525-1, EN 60754-2, EN 50267-2-1

Resistance to Different Environmental Conditions

Weathering / UV Resistance on sheath / EN 50289-4-17, VDE 0819-289-4-17
Ozone Resistance Test / EN 60811-403, VDE 0473-811-403
Sheaths resistance aganist acid and alkaline solution / EN 60811-404, VDE 0473-811-404
Dynamic Penetration Test / TS EN 50618

Applications

Designed for connections between various system elements such as solar panels and inverters in photovoltaic applications.
Used within cable canals or similar closed systems without protection in indoor or outdoor facilities.

| MECHANICAL AND ELECTRICAL PROPERTIES | | | | | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Conductor Resistance at 20°C | Net Weight (approx) | Overall Diameter (approx) | Current Carrying Capacity in Air (60°C) | Current Carrying Capacity on Surface (60°C) | Short Circuit Current (1s/250°C) |
| mm² | Ω/km | kg/km | mm | A | A | kA |
| 1x1,5 | 13,7 | 29,8 | 4,6 | 30 | 29 | 0,2 |
| 1x2,5 | 8,21 | 40,7 | 5,1 | 41 | 39 | 0,4 |
| 1x4 | 5,09 | 56,4 | 5,6 | 55 | 52 | 0,6 |
| 1x6 | 3,39 | 76,8 | 6,2 | 70 | 67 | 0,9 |
| 1x10 | 1,95 | 121,0 | 7,6 | 98 | 93 | 1,4 |
| 1x16 | 1,24 | 179,5 | 9,1 | 132 | 125 | 2,3 |
| 1x25 | 0,795 | 275,8 | 11,1 | 176 | 167 | 3,6 |
| 1x35 | 0,565 | 378,1 | 12,7 | 218 | 207 | 5,0 |
| 1x50 | 0,393 | 531,3 | 14,8 | 276 | 262 | 7,2 |
| 1x70 | 0,277 | 728,1 | 16,9 | 347 | 330 | 10,0 |
| 1x95 | 0,21 | 942,2 | 19,1 | 416 | 395 | 13,6 |
| 1x120 | 0,164 | 1197,7 | 21,1 | 488 | 464 | 17,2 |
| 1x150 | 0,132 | 1508,4 | 23,6 | 566 | 538 | 21,5 |
| 1x185 | 0,108 | 1797,0 | 26,4 | 644 | 612 | 26,5 |
| 1x240 | 0,0817 | 2377,6 | 29,5 | 775 | 736 | 34,3 |

Installation Cables

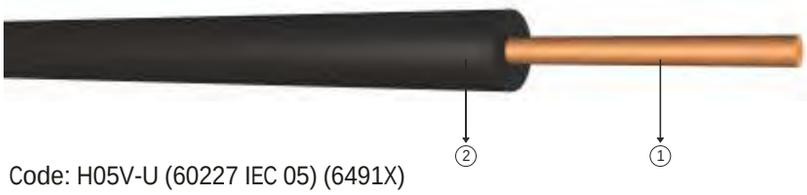
Low Voltage Cables

HES KABLO

Reliable Technology

hes.com.tr

# PVC insulated, single core cables, with copper conductor



Code: H05V-U (60227 IEC 05) (6491X)
H07V-U (60227 IEC 01) (6491X)
H07V-R (60227 IEC 01) (6491X)

U: Solid Conductor
R: Stranded Conductor

Standards: EN 50525-2-31, DIN EN 50525-2-31(VDE 0285-525-2-31), IEC 60227, BS EN 50525-2-31, SI 60227 Part 3

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V<br>450/750 V |

Application

In dry rooms, switch and distribution boards, for laying in conduit on and under plaster and on insulating supports above plaster.

*RE : Single conductor wire*
*RM : Stranded Conductor*

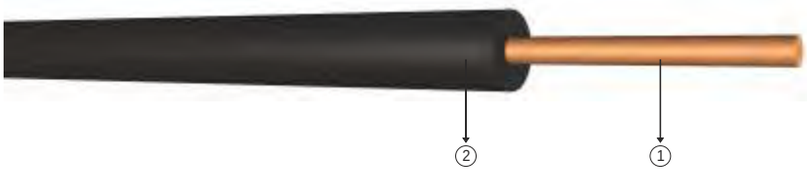
** : 300/500 V (H05V - U, 60227 IEC 05, 6491x) ** : RM or RE*

Construction

1 Solid or stranded copper conductor 2 PVC insulation

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| * 0,5 RE | 2,1 | 8 | 100 | 36,0 | - | 9 |
| * 0,75 RE | 2,3 | 11 | 100 | 24,5 | - | 15 |
| * 1 RE | 2,5 | 14 | 100 | 18,1 | 11 | 19 |
| **1,5RE | 2,8 | 20 | 100 | 12,1 | 15 | 24 |
| **2,5RE | 3,3 | 31 | 100 | 7,41 | 20 | 32 |
| **4RE | 3,8 | 46 | 100 | 4,61 | 25 | 42 |
| **6RE | 4,3 | 65 | 100 | 3,08 | 33 | 54 |
| 10RM | 6,0 | 111 | 100 | 1,83 | 45 | 73 |
| 16RM | 7,0 | 170 | 1000 | 1,15 | 61 | 98 |
| 25RM | 8,5 | 260 | 1000 | 0,727 | 83 | 129 |
| 35RM | 9,5 | 355 | 1000 | 0,524 | 103 | 158 |
| 50RM | 11,0 | 490 | 1000 | 0,387 | 132 | 198 |
| 70RM | 13,0 | 694 | 1000 | 0,268 | 165 | 245 |
| 95RM | 15,0 | 938 | 1000 | 0,193 | 197 | 292 |
| 120RM | 16,5 | 1172 | 1000 | 0,153 | 235 | 344 |
| 150RM | 18,0 | 1465 | 1000 | 0,124 | - | 391 |
| 185RM | 20,0 | 1808 | 1000 | 0,0991 | - | 448 |
| 240RM | 23,0 | 2343 | 1000 | 0,0754 | - | 528 |

# PVC insulated, single core cables, with copper conductor



Code: H05V2-U (60227 IEC 07), H07V2-U, H07V2-R

U: Solid Conductor
R: Stranded Conductor

Standards: EN 50525-2-31, DIN EN 50525-2-31(VDE 0285-525-2-31), IEC 60227, BS EN 50525-2-31, SI 60227 Part 3

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V<br>450/750 V |

Application

In dry rooms, switch and distribution boards, for laying in conduit on and under plaster and on insulating supports above plaster.

*RE : Single conductor wire*
*RM : Stranded Conductor*

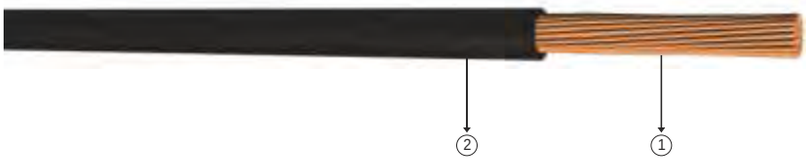
** : 300/500 V (H05V2 - U, 60227 IEC 07)  ** : RM or RE*

Construction

1 Solid or stranded copper conductor  2 PVC insulation (90°C)

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| *0,5 RE | 2,1 | 8 | 100 | 36,0 | - | 12 |
| *0,75 RE | 2,3 | 11 | 100 | 24,5 | - | 18 |
| *1 RE | 2,5 | 14 | 100 | 18,1 | 12 | 22 |
| **1,5RE | 2,8 | 20 | 100 | 12,1 | 17 | 26 |
| **2,5RE | 3,3 | 31 | 100 | 7,41 | 22 | 35 |
| **4RE | 3,8 | 46 | 100 | 4,61 | 28 | 46 |
| **6RE | 4,3 | 65 | 100 | 3,08 | 36 | 59 |
| 10RE | 5,6 | 108 | 100 | 1,83 | 50 | 80 |
| 10RM | 6,0 | 111 | 100 | 1,83 | 50 | 80 |
| 16RM | 7,0 | 170 | 1000 | 1,15 | 67 | 108 |
| 25RM | 8,5 | 260 | 1000 | 0,727 | 91 | 142 |
| 35RM | 9,5 | 355 | 1000 | 0,524 | 113 | 174 |
| 50RM | 11,0 | 490 | 1000 | 0,387 | 145 | 218 |
| 70RM | 13,0 | 694 | 1000 | 0,268 | 182 | 270 |
| 95RM | 15,0 | 938 | 1000 | 0,193 | 217 | 321 |
| 120RM | 16,5 | 1172 | 1000 | 0,153 | 259 | 378 |
| 150RM | 18,0 | 1465 | 1000 | 0,124 | - | 430 |
| 185RM | 20,0 | 1808 | 1000 | 0,0991 | - | 493 |
| 240RM | 23,0 | 2343 | 1000 | 0,0754 | - | 581 |

# PVC insulated, single core cables, with flexible copper conductor



Code: H05V-K (60227 IEC 06) (2491X)
H07V-K (60227 IEC 02) (2491X)

K: Flexible Conductor

Standards: EN 50525-2-31, VDE 0281, IEC 60227, BS 6004, HD 21.3 S3, SI 60227 Part 3

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/500 V
450/750 V

Application

For protected installation and light fitting. Also for in conduit, on and under plaster.

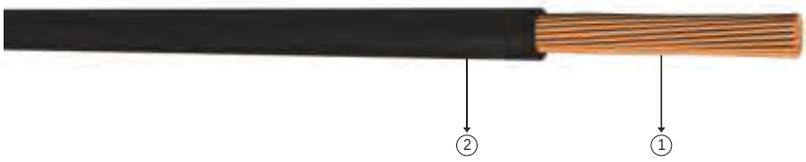
** : 300/500 V (H05V - K, 60227 IEC 06, 2491x)*

Construction

1 Flexible copper conductors
2 PVC insulation

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20°C | In air at 30°C |
| 0,5 * | 2,1 | 9 | 100 | 39,0 | - | 11 |
| 0,75 * | 2,3 | 11 | 100 | 26,0 | - | 16 |
| 1 * | 2,5 | 14 | 100 | 19,5 | 11 | 20 |
| 1,5 | 3,0 | 20 | 100 | 13,3 | 15 | 24 |
| 2,5 | 3,6 | 32 | 100 | 7,98 | 20 | 32 |
| 4 | 4,2 | 46 | 100 | 4,95 | 25 | 42 |
| 6 | 4,8 | 65 | 100 | 3,30 | 33 | 54 |
| 10 | 6,5 | 115 | 100 | 1,91 | 45 | 73 |
| 16 | 8,0 | 175 | 100 | 1,21 | 61 | 98 |
| 25 | 10,0 | 270 | 1000 | 0,780 | 83 | 129 |
| 35 | 11,0 | 350 | 1000 | 0,554 | 103 | 158 |
| 50 | 13,5 | 525 | 1000 | 0,386 | 132 | 198 |
| 70 | 15,0 | 700 | 1000 | 0,272 | 165 | 245 |
| 95 | 17,5 | 900 | 1000 | 0,206 | 197 | 292 |
| 120 | 19,5 | 1200 | 1000 | 0,161 | 235 | 344 |
| 150 | 22,0 | 1500 | 1000 | 0,129 | - | 391 |
| 185 | 24,0 | 1860 | 1000 | 0,106 | - | 448 |
| 240 | 27,5 | 2400 | 1000 | 0,0801 | - | 528 |

# PVC insulated, single core cables, with flexible copper conductor



Code: H05V2-K (60227 IEC 08), H07V2-K

K: Flexible Conductor

Standards: EN 50525-2-31, VDE 0281, IEC 60227, BS 6004, HD 21.3 S3, SI 60227 Part 3

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V<br>450/750 V |

Application

For protected installation and light fitting. Also for in conduit, on and under plaster.

** : 300/500 V (H05V2 - K, 60227 IEC 08)*

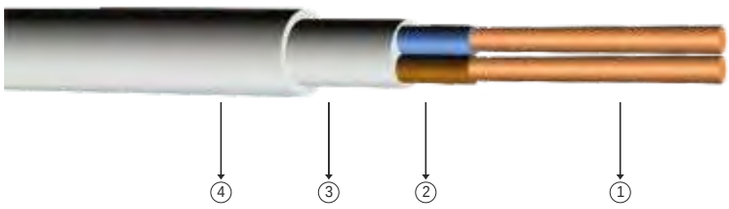
Construction

1 Flexible copper conductors

2 PVC insulation (90°C)

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20°C | In air at 30°C |
| 0,5 * | 2,1 | 9 | 100 | 39,0 | - | 12 |
| 0,75 * | 2,3 | 11 | 100 | 26,0 | - | 18 |
| 1 * | 2,5 | 14 | 100 | 19,5 | 12 | 22 |
| 1,5 | 3,0 | 20 | 100 | 13,3 | 17 | 26 |
| 2,5 | 3,6 | 32 | 100 | 7,98 | 22 | 35 |
| 4 | 4,2 | 46 | 100 | 4,95 | 28 | 46 |
| 6 | 4,8 | 65 | 100 | 3,30 | 36 | 59 |
| 10 | 6,5 | 115 | 100 | 1,91 | 50 | 80 |
| 16 | 8,0 | 175 | 100 | 1,21 | 50 | 80 |
| 25 | 10,0 | 270 | 1000 | 0,780 | 67 | 108 |
| 35 | 11,0 | 350 | 1000 | 0,554 | 91 | 142 |
| 50 | 13,5 | 525 | 1000 | 0,386 | 113 | 174 |
| 70 | 15,0 | 700 | 1000 | 0,272 | 145 | 218 |
| 95 | 17,5 | 900 | 1000 | 0,206 | 182 | 270 |
| 120 | 19,5 | 1200 | 1000 | 0,161 | 217 | 321 |
| 150 | 22,0 | 1500 | 1000 | 0,129 | 259 | 378 |
| 185 | 24,0 | 1860 | 1000 | 0,106 | - | 430 |
| 240 | 27,5 | 2400 | 1000 | 0,0801 | - | 493 |

# PVC insulated, building cables, with copper conductor



Code: NYM, CU/PVC/PVC, NVV

Standards: HD 21.4 S2, DIN VDE 0250-204 (VDE 0250-204)

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/500 V

Application

For household appliances (refrigerators, spin dryers, etc.) under medium mechanical stresses, also in damp and wet spaces.

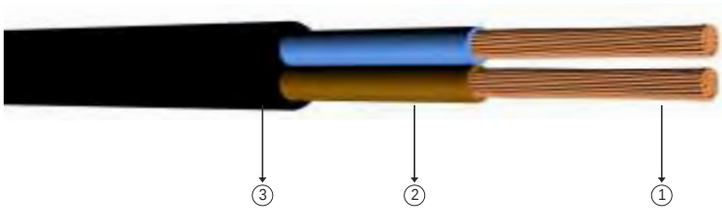
*RE : Single conductor wire*
*RM : Stranded Conductor*

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 2 x 1,5 RE | 8,8 | 125 | 100 | 12,1 | 18 |
| 2 x 2,5 RE | 10,0 | 165 | 100 | 7,41 | 26 |
| 2 x 4 RE | 11,0 | 200 | 100 | 4,61 | 34 |
| 2 x 6 RE | 12,0 | 250 | 100 | 3,08 | 44 |
| 2 x 10 RM | 15,0 | 470 | 1000 | 1,83 | 61 |
| 2 x 16 RM | 17,5 | 650 | 1000 | 1,15 | 82 |
| 2 x 25 RM | 21,5 | 930 | 1000 | 0,727 | 108 |
| 2 x 35 RM | 24,5 | 1240 | 1000 | 0,524 | 135 |
| 3 x 1,5 RE | 9,2 | 130 | 100 | 12,1 | 18 |
| 3 x 2,5 RE | 10,5 | 180 | 100 | 7,41 | 26 |
| 3 x 4 RE | 11,5 | 250 | 100 | 4,61 | 34 |
| 3 x 6 RE | 13,0 | 330 | 100 | 3,08 | 44 |
| 3 x 10 RM | 16,5 | 520 | 1000 | 1,83 | 61 |
| 3 x 16 RM | 18,5 | 750 | 1000 | 1,15 | 82 |
| 3 x 25 RM | 23,5 | 1180 | 1000 | 0,727 | 108 |
| 3 x 35 RM | 26,5 | 1550 | 1000 | 0,524 | 135 |
| 4 x 1,5 RE | 10,0 | 160 | 100 | 12,1 | 18 |
| 4 x 2,5 RE | 11,5 | 220 | 100 | 7,41 | 26 |
| 4 x 4 RE | 13,0 | 320 | 100 | 4,61 | 34 |
| 4 x 6 RE | 14,5 | 430 | 100 | 3,08 | 44 |
| 4 x 10 RM | 17,5 | 650 | 1000 | 1,83 | 61 |
| 4 x 16 RM | 20,0 | 950 | 1000 | 1,15 | 82 |
| 4 x 25 RM | 26,0 | 1500 | 1000 | 0,727 | 108 |
| 4 x 35 RM | 29,0 | 2000 | 1000 | 0,524 | 135 |
| 5 x 1,5 RE | 11,0 | 190 | 100 | 12,1 | 14 |
| 5 x 2,5 RE | 12,5 | 270 | 100 | 7,41 | 20 |
| 5 x 4 RE | 14,5 | 400 | 100 | 4,61 | 26 |
| 5 x 6 RE | 16,0 | 520 | 100 | 3,08 | 33 |
| 5 x 10 RM | 20,0 | 800 | 1000 | 1,83 | 46 |
| 5 x 16 RM | 22,5 | 1180 | 1000 | 1,15 | 62 |
| 5 x 25 RM | 28,5 | 1850 | 1000 | 0,727 | 81 |
| 5 x 35 RM | 32,0 | 2450 | 1000 | 0,524 | 101 |

# PVC insulated, building cables, with flexible copper conductor



Code: H03VV-F, H05VV-F, 2182Y, 2183Y, 2184Y, 3182Y, 3183Y, 3184Y, 3185Y

F: Flexible Conductor

Standards: EN 50525-2-11, BS EN 50525-2-11, DIN EN 50525-2-11 (VDE 0285-525-2-11)

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/300 V
300/500 V

Application

For household appliances (refrigerators, spin dryers, etc.) under medium mechanical stresses, also in damp and wet spaces.

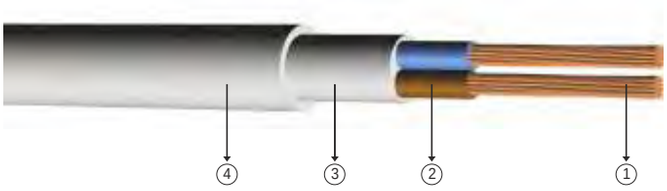
** : 300/300 V (H03VV - F 2182Y, 2183Y, 2184Y)*

Construction

1. Flexible copper conductor
2. PVC insulation
3. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 2x0,5* | 5,5 | 48 | 100 | 39,0 | 8 |
| 2x0,75 | 6,2 | 55 | 100 | 26,0 | 13 |
| 2x1 | 6,6 | 80 | 100 | 19,5 | 16 |
| 2x1,5 | 7,6 | 105 | 100 | 13,3 | 20 |
| 2x2,5 | 9,8 | 160 | 100 | 7,98 | 27 |
| 2x4 | 11,0 | 210 | 100 | 4,95 | 34 |
| 3x0,5* | 5,4 | 55 | 100 | 39,0 | 8 |
| 3x0,75 | 6,5 | 65 | 100 | 26,0 | 13 |
| 3x1 | 7,2 | 80 | 100 | 19,5 | 16 |
| 3x1,5 | 8,5 | 110 | 100 | 13,3 | 20 |
| 3x2,5 | 10,0 | 165 | 100 | 7,98 | 27 |
| 3x4 | 11,4 | 230 | 100 | 4,95 | 34 |
| 4x0,5* | 6,4 | 65 | 100 | 39,0 | 8 |
| 4x0,75 | 7,1 | 75 | 100 | 26,0 | 13 |
| 4x1 | 7,8 | 95 | 100 | 19,5 | 16 |
| 4x1,5 | 9,5 | 140 | 100 | 13,3 | 20 |
| 4x2,5 | 11,0 | 200 | 100 | 7,98 | 27 |
| 4x4 | 12,5 | 290 | 100 | 4,95 | 34 |
| 5x0,75 | 8,0 | 100 | 100 | 26,0 | 13 |
| 5x1 | 8,5 | 115 | 100 | 19,5 | 16 |
| 5x1,5 | 10,5 | 170 | 100 | 13,3 | 20 |
| 5x2,5 | 12,5 | 260 | 100 | 7,98 | 27 |
| 5x4 | 14,5 | 370 | 100 | 4,95 | 34 |

# PVC insulated, building cables, with flexible copper conductor



Code: 60227 IEC 71 c (07VV-F)

F: Flexible Conductor

Standards: IEC 60227-6

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 450/750 V

Application

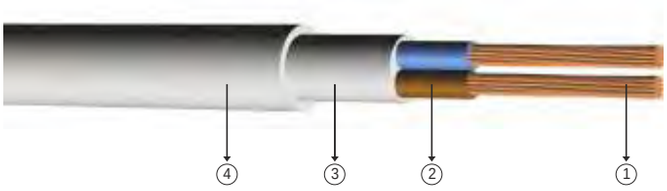
For household appliances (refrigerators, spin dryers, etc.) under medium mechanical stresses, also in damp and wet spaces.

Construction

1. Flexible copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20 °C | In air at 30 °C |
| 2x6 | 11,89 | 252 | 1000 | 3,30 | 68 | 48 |
| 2x10 | 16,03 | 445 | 1000 | 1,91 | 90 | 66 |
| 2x16 | 18,16 | 615 | 1000 | 1,21 | 116 | 89 |
| 2x25 | 21,18 | 886 | 1000 | 0,780 | 150 | 118 |
| 3x6 | 13,24 | 321 | 1000 | 3,30 | 56 | 43 |
| 3x10 | 17,07 | 534 | 1000 | 1,91 | 75 | 60 |
| 3x16 | 19,94 | 776 | 1000 | 1,21 | 98 | 80 |
| 3x25 | 22,56 | 1095 | 1000 | 0,780 | 128 | 106 |
| 4x6 | 14,46 | 399 | 1000 | 3,30 | 56 | 43 |
| 4x10 | 19,05 | 682 | 1000 | 1,91 | 75 | 60 |
| 4x16 | 21,86 | 972 | 1000 | 1,21 | 98 | 80 |
| 4x25 | 25,59 | 1426 | 1000 | 0,780 | 128 | 106 |
| 5x6 | 15,78 | 482 | 1000 | 3,30 | 56 | 43 |
| 5x10 | 21,46 | 855 | 1000 | 1,91 | 75 | 60 |
| 5x16 | 23,92 | 1180 | 1000 | 1,21 | 98 | 80 |
| 5x25 | 28 | 1735 | 1000 | 0,780 | 128 | 106 |
| 7x1,5 | 11,42 | 226 | 1000 | 13,3 | 16 | 12 |
| 7x2,5 | 13,99 | 347 | 1000 | 7,98 | 20 | 16 |
| 7x4 | 15,51 | 468 | 1000 | 4,95 | 26 | 22 |
| 7x6 | 17,49 | 639 | 1000 | 3,30 | 34 | 28 |
| 8x1,5 | 13,98 | 317 | 1000 | 13,3 | 13 | 13 |
| 9x1,5 | 14,4 | 341 | 1000 | 13,3 | 13 | 13 |

# PVC insulated, building cables, with flexible copper conductor



Code: 60227 IEC 71 c (07VV-F)

F: Flexible Conductor

Standards: IEC 60227-6

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 450/750 V

Application

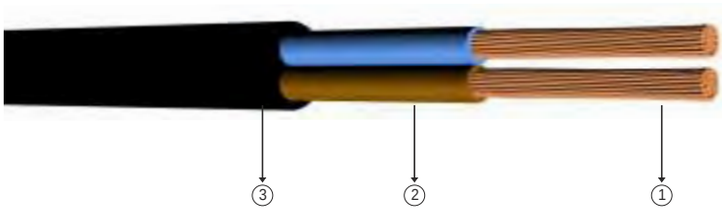
For household appliances (refrigerators, spin dryers, etc.) under medium mechanical stresses, also in damp and wet spaces.

Construction

1. Flexible copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20 °C | In air at 30 °C |
| 10x1,5 | 14,99 | 372 | 1000 | 13,3 | 13 | 13 |
| 10x2,5 | 17,92 | 555 | 1000 | 7,98 | 17 | 17 |
| 11x1,5 | 14,99 | 380 | 1000 | 13,3 | 12 | 9 |
| 12x1,5 | 15,47 | 408 | 1000 | 13,3 | 12 | 9 |
| 12x2,5 | 19,1 | 635 | 1000 | 7,98 | 15 | 12 |
| 14x1,5 | 16,21 | 456 | 1000 | 13,3 | 12 | 9 |
| 15x1,5 | 17,07 | 499 | 1000 | 13,3 | 11 | 9 |
| 16x1,5 | 17,07 | 508 | 1000 | 13,3 | 10 | 9 |
| 16x2,5 | 21,06 | 791 | 1000 | 7,98 | 14 | 12 |
| 18x1,5 | 18,27 | 583 | 1000 | 13,3 | 10 | 8 |
| 19x1,5 | 18,27 | 591 | 1000 | 13,3 | 10 | 8 |
| 19x2,5 | 22,15 | 898 | 1000 | 7,98 | 14 | 11 |
| 20x1,5 | 19,85 | 675 | 1000 | 13,3 | 9 | 7 |
| 20x2,5 | 24,15 | 1027 | 1000 | 7,98 | 12 | 10 |
| 21x1,5 | 19,85 | 683 | 1000 | 13,3 | 9 | 7 |
| 24x1,5 | 21,84 | 818 | 1000 | 13,3 | 9 | 7 |
| 24x2,5 | 26,58 | 1246 | 1000 | 7,98 | 12 | 10 |
| 25x1,5 | 21,84 | 826 | 1000 | 13,3 | 8 | 6 |
| 25x2,5 | 26,58 | 1260 | 1000 | 7,98 | 10 | 9 |
| 30x1,5 | 23,06 | 941 | 1000 | 13,3 | 8 | 6 |
| 30x2,5 | 28,07 | 1436 | 1000 | 7,98 | 10 | 9 |

# PVC insulated, building cables, with flexible copper conductor



Code: H03V2V2-F, H05V2V2-F

F: Flexible Conductor

Standards: EN 50525-2-11, BS EN 50525-2-11, DIN EN 50525-2-11 (VDE 0285-525-2-11)

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/300 V
300/500 V

Application

For household appliances (refrigerators, spin dryers, etc.) under medium mechanical stresses, also in damp and wet spaces.

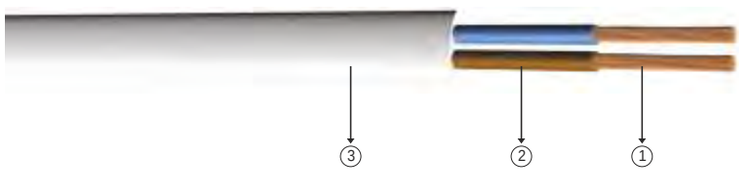
** : 300/300 V (H03VV - F)*

Construction

1. Flexible copper conductor
2. PVC insulation (90°C)
3. PVC outer sheath (90°C)

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 2x0,5* | 5,5 | 48 | 100 | 39,0 | 10 |
| 2x0,75 | 6,2 | 55 | 100 | 26,0 | 16 |
| 2x1 | 6,6 | 80 | 100 | 19,5 | 20 |
| 2x1,5 | 7,6 | 105 | 100 | 13,3 | 24 |
| 2x2,5 | 9,8 | 160 | 100 | 7,98 | 32 |
| 2x4 | 11,0 | 210 | 100 | 4,95 | 42 |
| 3x0,5* | 5,4 | 55 | 100 | 39,0 | 10 |
| 3x0,75 | 6,5 | 65 | 100 | 26,0 | 16 |
| 3x1 | 7,2 | 80 | 100 | 19,5 | 20 |
| 3x1,5 | 8,5 | 110 | 100 | 13,3 | 24 |
| 3x2,5 | 10,0 | 165 | 100 | 7,98 | 32 |
| 3x4 | 11,4 | 230 | 100 | 4,95 | 42 |
| 4x0,5* | 6,4 | 65 | 100 | 39,0 | 10 |
| 4x0,75 | 7,1 | 75 | 100 | 26,0 | 16 |
| 4x1 | 7,8 | 95 | 100 | 19,5 | 20 |
| 4x1,5 | 9,5 | 140 | 100 | 13,3 | 24 |
| 4x2,5 | 11,0 | 200 | 100 | 7,98 | 32 |
| 4x4 | 12,5 | 290 | 100 | 4,95 | 42 |
| 5x0,75 | 8,0 | 100 | 100 | 26,0 | 16 |
| 5x1 | 8,5 | 115 | 100 | 19,5 | 20 |
| 5x1,5 | 10,5 | 170 | 100 | 13,3 | 24 |
| 5x2,5 | 12,5 | 260 | 100 | 7,98 | 32 |
| 5x4 | 14,5 | 370 | 100 | 4,95 | 42 |

# PVC insulated, flat cables, with flexible copper conductor



Code: H03VVH2-F, H05VVH2-F, 2192Y, 3192Y

F: Flexible Conductor

Standards: EN 50525-2-11, BS EN 50525-2-11
DIN EN 50525-2-11 (VDE 0285-525-2-11)

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/300 V
300/500 V

Application

For use in passenger and goods lifts and special applications like hoists and travelling cranes.

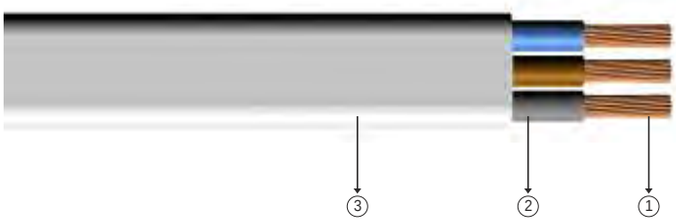
*** : 300/300 V (H03VVH2-F, 2192Y)*

Construction

1. Flexible copper conductor
2. PVC insulation
3. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Outer Dimension (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm (H x W) | kg/km | m | Ω/km | A |
| 2x0,5* | 3,4x5,4 | 33 | 100 | 39,00 | 3 |
| 2x0,75* | 3,4x5,8 | 39 | 100 | 26,00 | 6 |
| 2x0,75 | 4,1x6,6 | 49 | 100 | 26,00 | 6 |
| 2x1 | 4,3x6,9 | 55 | 100 | 19,50 | 10 |

# PVC insulated, flat cables, with flexible copper conductor



Code: H07VVH6-F

F: Flexible Conductor

Standards: EN 50214, IEC 60227-6

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 450/750 V

Application

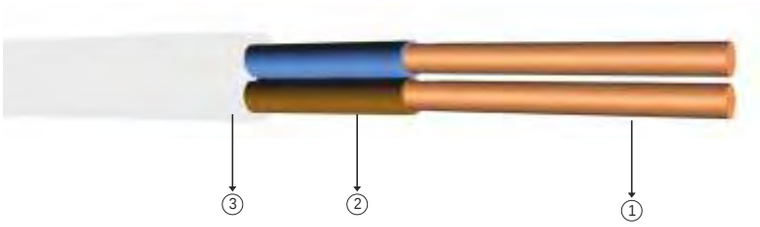
For use in passenger and goods lifts and special applications like hoists and travelling cranes.

Construction

1 Flexible copper conductor
2 PVC insulation
3 PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Outer Dimensions (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm (H x W) | kg/km | m | Ω/km | A |
| 3x1,5 | 4,9x11,7 | 120 | 1000 | 13,3 | 20 |
| 3x2,5 | 5,6x14,4 | 170 | 1000 | 7,98 | 27 |
| 3x4 | 6,6x16,2 | 240 | 1000 | 4,95 | 34 |
| 3x6 | 7,1x17,7 | 300 | 1000 | 3,30 | 44 |
| 3x10 | 9,1x22,5 | 500 | 1000 | 1,91 | 61 |
| 3x16 | 10,3x25,9 | 720 | 1000 | 1,21 | 82 |
| 3x25 | 12,3x31,3 | 1070 | 1000 | 0,78 | 108 |
| 4x1,5 | 4,9x14,6 | 150 | 1000 | 13,3 | 20 |
| 4x2,5 | 5,6x18,0 | 220 | 1000 | 7,98 | 27 |
| 4x4 | 6,6x20,4 | 300 | 1000 | 4,95 | 34 |
| 4x6 | 7,1x22,4 | 390 | 1000 | 3,30 | 44 |
| 4x10 | 9,1x28,8 | 640 | 1000 | 1,91 | 61 |
| 4x16 | 10,3x33,2 | 940 | 1000 | 1,21 | 82 |
| 4x25 | 12,3x40,4 | 1400 | 1000 | 0,78 | 108 |

# PVC insulated, building cables, with copper conductor



Code: 6181Y, 6192Y, 6193Y

Standards: BS 6004

Technical Data
Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/500 V

Application
Fixed installation in dry or damp areas for domestic and light industrial wiring. Also used in connection to (smart)meters.

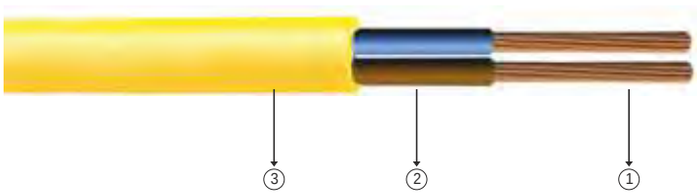
*RE : Solid conductor*
*RM : Stranded Conductor*

Construction

1. Copper conductors
2. PVC insulation
3. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 1x1 RE | 3,9 | 26 | 1000 | 18,1 | 16 |
| 1x1,5 RE | 4,4 | 34 | 1000 | 12,1 | 20 |
| 1x2,5 RE | 4,9 | 47 | 1000 | 7,41 | 27 |
| 1x4 RM | 5,9 | 70 | 1000 | 4,61 | 34 |
| 1x6 RM | 6,4 | 92 | 1000 | 3,08 | 44 |
| 1x10 RM | 7,7 | 140 | 1000 | 1,83 | 61 |
| 1x16 RM | 8,9 | 206 | 1000 | 1,15 | 82 |
| 1x25 RM | 10,7 | 313 | 1000 | 0,727 | 120 |
| 1x35 RM | 11,7 | 406 | 1000 | 0,524 | 150 |
| 2x1 RE | 6,5x4,1 | 51 | 1000 | 18,1 | 16 |
| 2x1,5 RE | 7,3x4,6 | 67 | 1000 | 12,1 | 20 |
| 2x2,5 RE | 8,7x5,3 | 99 | 1000 | 7,41 | 27 |
| 2x4 RM | 10,1x6,1 | 140 | 1000 | 4,61 | 34 |
| 2x6 RM | 11,5x6,8 | 191 | 1000 | 3,08 | 44 |
| 2x10 RM | 14,2x8,3 | 300 | 1000 | 1,83 | 61 |
| 2x16 RM | 16,3x9,5 | 436 | 1000 | 1,15 | 82 |
| 2x1,5 RM | 7,7x4,7 | 71 | 1000 | 12,1 | 20 |
| 2x2,5 RM | 9,1x5,6 | 104 | 1000 | 7,41 | 27 |
| 3x1 RE | 8,8x4,1 | 74 | 1000 | 18,1 | 16 |
| 3x1,5 RE | 10,1x4,6 | 98 | 1000 | 12,1 | 20 |
| 3x2,5 RE | 12x5,3 | 145 | 1000 | 7,41 | 27 |
| 3x4 RM | 14,2x6,1 | 213 | 1000 | 4,61 | 34 |
| 3x6 RM | 16,1x6,8 | 283 | 1000 | 3,08 | 44 |
| 3x10 RM | 20,1x8,3 | 446 | 1000 | 1,83 | 61 |
| 3x16 RM | 23,2x9,5 | 650 | 1000 | 1,15 | 82 |

# Arctic grade PVC insulated, building cables, with flexible copper conductor



Code: 3182A, 3183A, 3184A, 3185A, Arctic PVC Cables

Standards: BS 6004

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Min. operating temperature | : -40°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V |

Application

Cables are designed to withstand severe external temperatures and will remain flexible at temperatures down to -40°C. Making them particularly suitable for outdoor applications and for use where flexibility is required at sub zero temperatures. At normal temperatures the cable is very flexible, offering some of the characteristics usually found in elastomeric cables.

Construction

1. Flexible copper conductors
2. Arctic grade PVC insulation
3. Arctic grade PVC sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 2x0,5 | 6,3 | 57 | 1000 | 39 | 8 |
| 2x0,75 | 6,7 | 67 | 1000 | 26 | 13 |
| 2x1 | 7,1 | 76 | 1000 | 19,5 | 16 |
| 2x1,5 | 8,0 | 100 | 1000 | 13,3 | 20 |
| 2x2,5 | 9,8 | 150 | 1000 | 7,98 | 27 |
| 2x4 | 11,0 | 200 | 1000 | 4,95 | 34 |
| 3x0,75 | 6,6 | 65 | 1000 | 26 | 13 |
| 3x1 | 7,0 | 76 | 1000 | 19,5 | 16 |
| 3x1,5 | 8,2 | 106 | 1000 | 13,3 | 20 |
| 3x2,5 | 10,0 | 162 | 1000 | 7,98 | 27 |
| 3x4 | 11,3 | 222 | 1000 | 4,95 | 34 |
| 4x0,75 | 7,2 | 80 | 1000 | 26 | 13 |
| 4x1 | 7,9 | 97 | 1000 | 19,5 | 16 |
| 4x1,5 | 9,2 | 135 | 1000 | 13,3 | 20 |
| 4x2,5 | 11,0 | 201 | 1000 | 7,98 | 27 |
| 4x4 | 12,4 | 276 | 1000 | 4,95 | 34 |
| 5x0,75 | 8,1 | 108 | 1000 | 26 | 13 |
| 5x1 | 8,6 | 127 | 1000 | 19,5 | 16 |
| 5x1,5 | 10,2 | 182 | 1000 | 13,3 | 20 |
| 5x2,5 | 12,2 | 270 | 1000 | 7,98 | 27 |
| 5x4 | 14,0 | 377 | 1000 | 4,95 | 34 |

# Arctic grade PVC insulated, flat type building cables, with flexible copper conductor

Code: 3192A, Arctic PVC Cables

Standards: BS 6004

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Min. operating temperature | : -40°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V |

Application

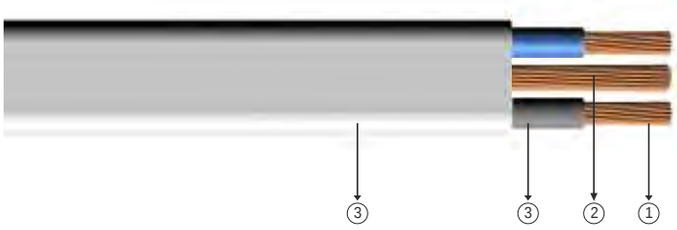
Cables are designed to withstand severe external temperatures and will remain flexible at temperatures down to -40°C. Making them particularly suitable for outdoor applications and for use where flexibility is required at sub zero temperatures. At normal temperatures the cable is very flexible, offering some of the characteristics usually found in elastomeric cables.

Construction

1. Flexible copper conductors
2. Arctic grade PVC insulation
3. Arctic grade PVC sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Outer Dimensions (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm (H x W) | kg/km | m | Ω/km | A |
| 2x0,75 | 6,25 x 3,92 | 42 | 1000 | 26 | 13 |
| 2x1 | 6,6 x 4,1 | 48 | 1000 | 19,5 | 16 |

# PVC insulated, flat type twin and earth cables, with circuit protective conductor



Code: 6241Y, 6242Y, 6243Y

Standards: BS 6004

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/500 V

Application

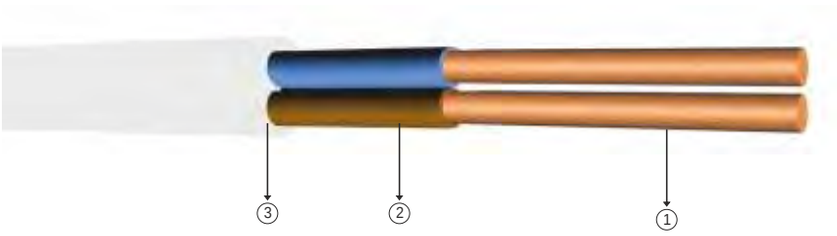
Domestic wiring cable. Can be installed in fixed installations in dry or damp premises clipped to surface, on trays or in free air where the risk of mechanical damage would not be an issue. Suitable for laying in conduit or trunking where mechanical protection is required.

Construction

1. Copper conductors
2. Circuit Protective Conductor (CPC)
3. PVC insulation
2. PVC sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Outer Dimensions (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm (H x W) | kg/km | m | Ω/km | A |
| 1x1+1 | 5,3x4,1 | 47 | 1000 | 18,1 | 16 |
| 1x1,5+1 | 5,7x4,6 | 58 | 1000 | 12,1 | 20 |
| 1x1,5+1 | 5,9x4,7 | 60 | 1000 | 12,1 | 20 |
| 2x1+1 | 7,6x4,1 | 63 | 1000 | 18,1 | 16 |
| 2x1,5+1 | 8,4x4,6 | 80 | 1000 | 12,1 | 20 |
| 2x2,5+1,5 | 10x5,3 | 117 | 1000 | 7,41 | 27 |
| 2x4+1,5 | 11,5x6,1 | 159 | 1000 | 4,61 | 34 |
| 2x6+2,5 | 13,2x6,8 | 221 | 1000 | 3,08 | 44 |
| 2x10+4 | 16,7x8,3 | 351 | 1000 | 1,83 | 61 |
| 2x16+6 | 19,3x9,5 | 510 | 1000 | 1,15 | 82 |
| 2x1,5+1 | 8,8x4,7 | 83 | 1000 | 12,1 | 20 |
| 2x2,5+1,5 | 10,5x5,6 | 122 | 1000 | 7,41 | 27 |
| 3x1+1 | 9,9x4,1 | 89 | 1000 | 18,1 | 16 |
| 3x1,5+1 | 11,2x4,6 | 115 | 1000 | 12,1 | 20 |
| 3x2,5+1,5 | 13,4x5,3 | 171 | 1000 | 7,41 | 27 |
| 3x4+1,5 | 15,6x6,1 | 244 | 1000 | 4,61 | 34 |
| 3x6+2,5 | 17,8x6,8 | 330 | 1000 | 3,08 | 44 |
| 3x10+4 | 22,5x8,3 | 530 | 1000 | 1,83 | 61 |
| 3x16+6 | 26,2x9,5 | 772 | 1000 | 1,15 | 82 |

# XLPE insulated, building cables, with copper conductor



Code: 6181B, 6182B, 6183B, 6184B, 6185B

Standards: BS 7211

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 450/750 V

Application

Fixed installation in walls, on boards and in channels or embedded in plaster. Low smoke emission and corrosive gasses in case of fire.

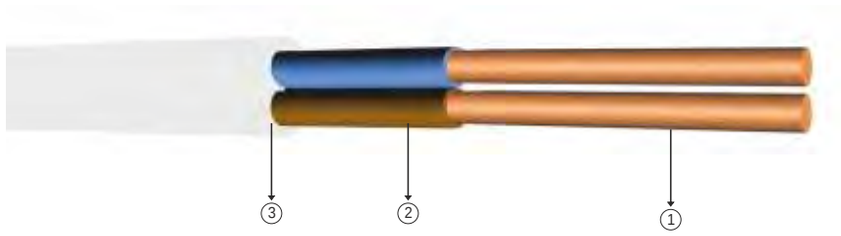
*RE : Single conductor wire*
*RM : Stranded Conductor*

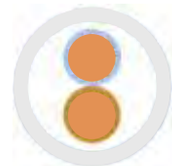
Construction

1. Copper conductors
2. XLPE insulation
3. HFFR sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 1x1 | 4,1 | 26 | 1000 | 18,1 | 23 |
| 1x1,5 | 4,4 | 32 | 1000 | 12,1 | 32 |
| 1x2,5 | 4,7 | 42 | 1000 | 7,41 | 42 |
| 1x4 | 5,4 | 61 | 1000 | 4,61 | 56 |
| 1x6 | 5,9 | 80 | 1000 | 3,08 | 71 |
| 1x10 | 6,7 | 122 | 1000 | 1,83 | 96 |
| 2x1 | 8,3 | 98 | 1000 | 18,1 | 23 |
| 2x1,5 | 8,7 | 115 | 1000 | 12,1 | 32 |
| 2x2,5 | 9,5 | 146 | 1000 | 7,41 | 42 |
| 2x4 | 10,4 | 192 | 1000 | 4,61 | 56 |
| 2x6 | 11,4 | 244 | 1000 | 3,08 | 71 |
| 3x1 | 8,7 | 110 | 1000 | 18,1 | 17 |
| 3x1,5 | 9,2 | 130 | 1000 | 12,1 | 24 |
| 3x2,5 | 10,0 | 169 | 1000 | 7,41 | 32 |
| 3x4 | 11,0 | 228 | 1000 | 4,61 | 42 |
| 3x6 | 12,0 | 296 | 1000 | 3,08 | 53 |

# XLPE insulated, building cables, with copper conductor



Code: 6181B, 6182B, 6183B, 6184B, 6185B

Standards: BS 7211

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 450/750 V

Application

Fixed installation in walls, on boards and in channels or embedded in plaster. Low smoke emission and corrosive gasses in case of fire.

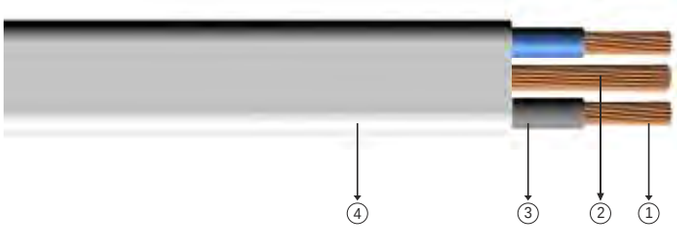
*RE : Single conductor wire*
*RM : Stranded Conductor*

Construction

1. Copper conductors
2. XLPE insulation
3. HFFR sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm | kg/km | m | Ω/km | A |
| 4x1 | 9,3 | 129 | 1000 | 18,1 | 17 |
| 4x1,5 | 9,9 | 155 | 1000 | 12,1 | 24 |
| 4x2,5 | 10,8 | 204 | 1000 | 7,41 | 32 |
| 4x4 | 12,0 | 280 | 1000 | 4,61 | 42 |
| 4x6 | 13,5 | 380 | 1000 | 3,08 | 53 |
| 5x1 | 10,0 | 151 | 1000 | 18,1 | 13 |
| 5x1,5 | 10,7 | 182 | 1000 | 12,1 | 24 |
| 5x2,5 | 11,7 | 242 | 1000 | 7,41 | 32 |
| 5x4 | 13,4 | 348 | 1000 | 4,61 | 42 |
| 5x6 | 15,0 | 472 | 1000 | 3,08 | 53 |
| 2x10 | 13,4 | 369 | 1000 | 1,83 | 96 |
| 3x10 | 14,6 | 471 | 1000 | 1,83 | 73 |
| 4x10 | 15,9 | 586 | 1000 | 1,83 | 73 |
| 5x10 | 17,3 | 707 | 1000 | 1,83 | 73 |

# XLPE insulated, flat type twin and earth cables, with circuit protective conductor



Code: 6241B, 6242B, 6243B

Standards: BS 7211

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 300/500 V

Application

Installation in walls, on boards and in channels or embedded in plaster. For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment.

Construction

1. Copper conductors
2. Circuit Protective Conductor (CPC)
3. XLPE insulation
4. HFFR Sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Outer Dimensions (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity |
| mm² | mm (H x W) | kg/km | m | Ω/km | A |
| 1x1+1 | 5,5x4,3 | 48 | 1000 | 18,1 | 16 |
| 1x1,5+1 | 5,7x4,6 | 55 | 1000 | 12,1 | 28 |
| 2x1+1 | 8,0x4,3 | 63 | 1000 | 18,1 | 16 |
| 2x1,5+1 | 8,4x4,6 | 75 | 1000 | 12,1 | 28 |
| 2x2,5+1,5 | 9,6x5,1 | 106 | 1000 | 7,41 | 38 |
| 2x1+1 | 8,3x4,5 | 66 | 1000 | 18,1 | 16 |
| 2x1,5+1 | 8,8x4,7 | 78 | 1000 | 12,1 | 28 |
| 2x2,5+1,5 | 10,1x5,4 | 110 | 1000 | 7,41 | 38 |
| 2x4+1,5 | 11,1x5,9 | 145 | 1000 | 4,61 | 52 |
| 2x6+2,5 | 12,8x6,6 | 205 | 1000 | 3,08 | 65 |
| 2x10+4 | 15,2x7,7 | 315 | 1000 | 1,83 | 86 |
| 2x16+6 | 17,8x8,9 | 463 | 1000 | 1,15 | 96 |
| 3x1+1 | 10,5x4,3 | 85 | 1000 | 18,1 | 16 |
| 3x1,5+1 | 11,2x4,6 | 102 | 1000 | 12,1 | 28 |
| 3x2,5+1,5 | 12,8x5,1 | 145 | 1000 | 7,41 | 38 |
| 3x4+1,5 | 15,0x5,9 | 203 | 1000 | 4,61 | 52 |
| 3x6+2,5 | 17,2x6,6 | 286 | 1000 | 3,08 | 65 |
| 3x10+4 | 20,5x7,7 | 438 | 1000 | 1,83 | 86 |
| 3x16+6 | 24,0x8,9 | 656 | 1000 | 1,15 | 96 |

# 0,6/1 kV PVC insulated, single core cables, with copper conductor

Code: YVV-U, YVV-R, CU/PVC/PVC, NYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

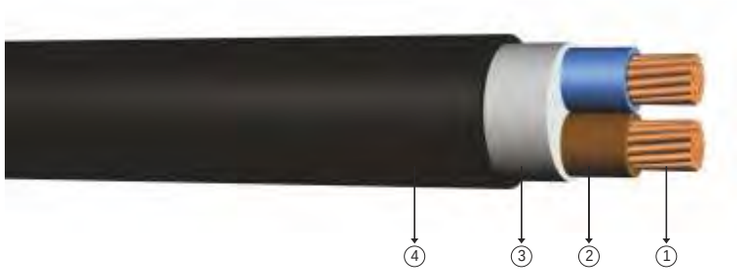
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | ** | *** | ** |
| 1x1,5 | 5,8 | 50 | 1000 | 12,1 | - | 30 | 25 | 20 |
| 1x2,5 | 6,2 | 60 | 1000 | 7,41 | - | 39 | 34 | 27 |
| 1x4 | 7,0 | 85 | 1000 | 4,61 | - | 50 | 45 | 37 |
| 1x6 | 7,5 | 105 | 1000 | 3,08 | - | 62 | 57 | 48 |
| 1x10 | 9,0 | 160 | 1000 | 1,83 | - | 83 | 78 | 66 |
| 1x16 | 10,0 | 215 | 1000 | 1,15 | 127 | 107 | 103 | 89 |
| 1x25 | 11,5 | 320 | 1000 | 0,727 | 163 | 137 | 137 | 118 |
| 1x35 | 12,5 | 420 | 1000 | 0,524 | 195 | 165 | 169 | 145 |
| 1x50 | 14,0 | 570 | 1000 | 0,387 | 230 | 195 | 206 | 176 |
| 1x70 | 15,5 | 780 | 1000 | 0,268 | 282 | 239 | 261 | 224 |
| 1x95 | 18,0 | 1050 | 1000 | 0,193 | 336 | 287 | 321 | 271 |
| 1x120 | 19,5 | 1300 | 1000 | 0,153 | 382 | 326 | 374 | 314 |
| 1x150 | 21,0 | 1600 | 1000 | 0,124 | 428 | 366 | 428 | 361 |
| 1x185 | 23,5 | 1950 | 1000 | 0,0991 | 483 | 414 | 494 | 412 |
| 1x240 | 27,0 | 2550 | 1000 | 0,0754 | 561 | 481 | 590 | 484 |
| 1x300 | 30,5 | 3150 | 1000 | 0,0601 | 632 | 542 | 678 | 549 |
| 1x400 | 34,0 | 4200 | 1000 | 0,0470 | 730 | 624 | 817 | 657 |
| 1x500 | 37,0 | 5200 | 1000 | 0,0366 | 823 | 698 | 940 | 749 |
| 1x630 | 42,0 | 6450 | 500 | 0,0283 | 866 | 775 | 1042 | 858 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20 ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30 ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
** : Trefoil formation
Number of system : 1

# 0,6/1 kV PVC insulated, multi-core cables, with copper conductor



Code: YVV-U, YVV-R, CU/PVC/PVC, NYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 10,5 | 165 | 1000 | 12,1 | 32 | 20 |
| 2x2,5 | 11,2 | 215 | 1000 | 7,41 | 42 | 27 |
| 2x4 | 13,0 | 300 | 1000 | 4,61 | 54 | 37 |
| 2x6 | 14,0 | 350 | 1000 | 3,08 | 68 | 48 |
| 2x10 | 15,5 | 500 | 1000 | 1,83 | 90 | 66 |
| 2x16 | 18,5 | 675 | 1000 | 1,15 | 116 | 89 |
| 2x25 | 22,5 | 1000 | 1000 | 0,727 | 150 | 118 |
| 2x35 | 24,5 | 1250 | 1000 | 0,524 | 181 | 145 |
| 2x50 | 27,5 | 1650 | 1000 | 0,387 | 215 | 176 |
| 2x70 | 31,0 | 2200 | 1000 | 0,268 | 264 | 224 |
| 2x95 | 35,5 | 2950 | 1000 | 0,193 | 317 | 271 |
| 2x120 | 39,0 | 3650 | 1000 | 0,153 | 360 | 314 |
| 2x150 | 43,0 | 4450 | 1000 | 0,124 | 406 | 361 |
| 2x185 | 48,0 | 5550 | 500 | 0,0991 | 458 | 412 |
| 2x240 | 54,0 | 7150 | 500 | 0,0754 | 537 | 484 |
| 2x300 | 61,5 | 9000 | 500 | 0,0601 | 604 | 556 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, multi-core cables, with copper conductor

Code: YVV-U, YVV-R, CU/PVC/PVC, NYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

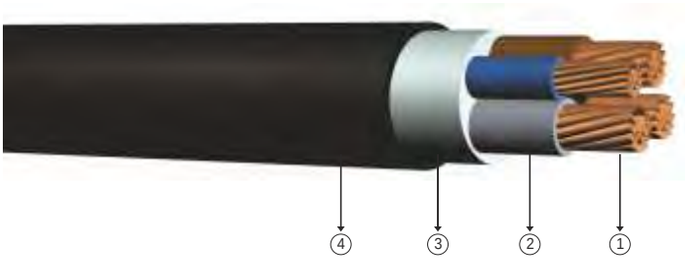
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 11,0 | 200 | 1000 | 12,1 | 26 | 18.5 |
| 3x2,5 | 11,8 | 230 | 1000 | 7,41 | 34 | 25 |
| 3x4 | 13,6 | 340 | 1000 | 4,61 | 44 | 34 |
| 3x6 | 15,5 | 425 | 1000 | 3,08 | 56 | 43 |
| 3x10 | 17,5 | 620 | 1000 | 1,83 | 75 | 60 |
| 3x16 | 19,5 | 835 | 1000 | 1,15 | 98 | 80 |
| 3x25 | 24,0 | 1250 | 1000 | 0,727 | 128 | 106 |
| 3x35 | 26,0 | 1600 | 1000 | 0,524 | 157 | 131 |
| 3x50 | 29,5 | 2100 | 1000 | 0,387 | 185 | 159 |
| 3x70 | 33,5 | 2900 | 1000 | 0,268 | 228 | 202 |
| 3x95 | 38,0 | 3900 | 1000 | 0,193 | 275 | 244 |
| 3x120 | 42,0 | 4800 | 1000 | 0,153 | 313 | 282 |
| 3x150 | 46,0 | 5900 | 500 | 0,124 | 353 | 324 |
| 3x185 | 51,0 | 7300 | 500 | 0,0991 | 399 | 371 |
| 3x240 | 58,0 | 9450 | 500 | 0,0754 | 464 | 436 |
| 3x300 | 65,0 | 11800 | 250 | 0,0601 | 524 | 481 |
| 3x400 | 71,0 | 15500 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, multi-core cables, with copper conductor



Code: YVV-R, CU/PVC/PVC, NYY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

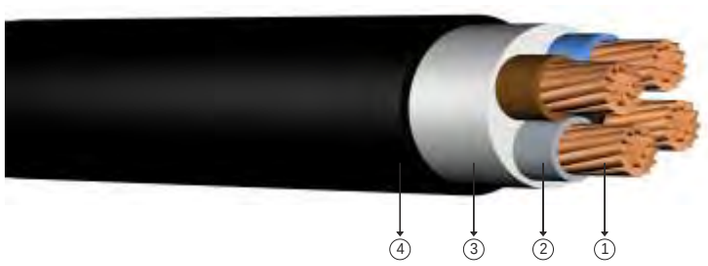
Construction

1. Stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 21,5 | 970 | 1000 | 1,15 | 98 | 80 |
| 3x25+16 | 25,0 | 1400 | 1000 | 0,727 | 128 | 106 |
| 3x35+16 | 27,0 | 1750 | 1000 | 0,524 | 157 | 131 |
| 3x50+25 | 31,0 | 2400 | 1000 | 0,387 | 185 | 159 |
| 3x70+35 | 35,0 | 3300 | 1000 | 0,268 | 228 | 202 |
| 3x95+50 | 40,0 | 4400 | 1000 | 0,193 | 275 | 244 |
| 3x120+70 | 44,5 | 5550 | 500 | 0,153 | 313 | 282 |
| 3x150+70 | 48,0 | 6550 | 500 | 0,124 | 353 | 324 |
| 3x185+95 | 53,0 | 8200 | 500 | 0,0991 | 399 | 371 |
| 3x240+120 | 60,5 | 10600 | 500 | 0,0754 | 464 | 436 |
| 3x300+150 | 68,0 | 13100 | 250 | 0,0601 | 524 | 481 |
| 3x400+185 | 76,0 | 17000 | 250 | 0,0470 | 600 | 560 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, multi-core cables, with copper conductor



Code: YVV-U, YVV-R, CU/PVC/PVC, NYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 11,6 | 235 | 1000 | 12,1 | 26 | 18.5 |
| 4x2,5 | 12,6 | 270 | 1000 | 7,41 | 34 | 25 |
| 4x4 | 14,8 | 400 | 1000 | 4,61 | 44 | 34 |
| 4x6 | 16,0 | 520 | 1000 | 3,08 | 56 | 43 |
| 4x10 | 18,0 | 690 | 1000 | 1,83 | 75 | 60 |
| 4x16 | 21,5 | 1050 | 1000 | 1,15 | 98 | 80 |
| 4x25 | 26,0 | 1550 | 1000 | 0,727 | 128 | 106 |
| 4x35 | 28,5 | 2000 | 1000 | 0,524 | 157 | 131 |
| 4x50 | 33,0 | 2750 | 1000 | 0,387 | 185 | 159 |
| 4x70 | 37,5 | 3750 | 1000 | 0,268 | 228 | 202 |
| 4x95 | 42,5 | 5000 | 1000 | 0,193 | 275 | 244 |
| 4x120 | 46,5 | 6200 | 500 | 0,153 | 313 | 282 |
| 4x150 | 51,5 | 7600 | 500 | 0,124 | 353 | 324 |
| 4x185 | 57,0 | 9450 | 500 | 0,0991 | 399 | 371 |
| 4x240 | 65,0 | 12200 | 500 | 0,0754 | 464 | 436 |
| 4x300 | 73,0 | 15200 | 250 | 0,0601 | 524 | 481 |
| 4x400 | 79,0 | 19500 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, multi-core cables, control cables with copper conductor

Code: YVV-U, YVV-R, CU/PVC/PVC, NYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

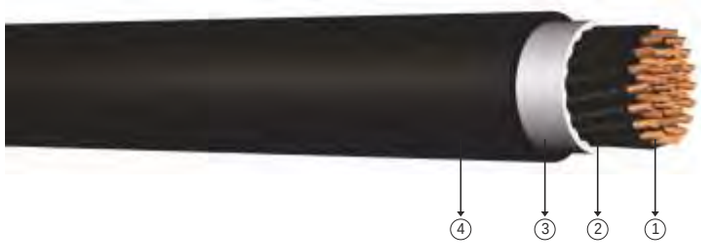
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x1,5 | 12,0 | 270 | 1000 | 12,1 | 18,2 | 14,0 |
| 6x1,5 | 13,5 | 290 | 1000 | 12,1 | 16,9 | 13,0 |
| 7x1,5 | 13,5 | 325 | 1000 | 12,1 | 15,6 | 12,0 |
| 8x1,5 | 16,0 | 385 | 1000 | 12,1 | 14,3 | 11,1 |
| 10x1,5 | 16,5 | 475 | 1000 | 12,1 | 13,0 | 10,2 |
| 12x1,5 | 17,0 | 515 | 1000 | 12,1 | 12,3 | 9,7 |
| 14x1,5 | 18,0 | 565 | 1000 | 12,1 | 11,7 | 9,3 |
| 16x1,5 | 18,5 | 630 | 1000 | 12,1 | 11,1 | 8,8 |
| 19x1,5 | 19,5 | 700 | 1000 | 12,1 | 10,4 | 8,3 |
| 21x1,5 | 20,5 | 775 | 1000 | 12,1 | 9,9 | 8,0 |
| 24x1,5 | 22,5 | 920 | 1000 | 12,1 | 9,1 | 7,4 |
| 27x1,5 | 23,0 | 975 | 1000 | 12,1 | 8,8 | 7,2 |
| 30x1,5 | 24,5 | 1050 | 1000 | 12,1 | 8,6 | 7,0 |
| 37x1,5 | 26,5 | 1230 | 1000 | 12,1 | 8,1 | 6,7 |
| 40x1,5 | 27,5 | 1330 | 1000 | 12,1 | 7,8 | 6,5 |
| 48x1,5 | 30,0 | 1600 | 1000 | 12,1 | 7,3 | 6,1 |
| 52x1,5 | 31,0 | 1730 | 1000 | 12,1 | 6,7 | 5,8 |
| 61x1,5 | 33,0 | 1975 | 1000 | 12,1 | 6,5 | 5,6 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, multi-core cables, control cables with copper conductor



Code: YVV-U, YVV-R, CU/PVC/PVC, NYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

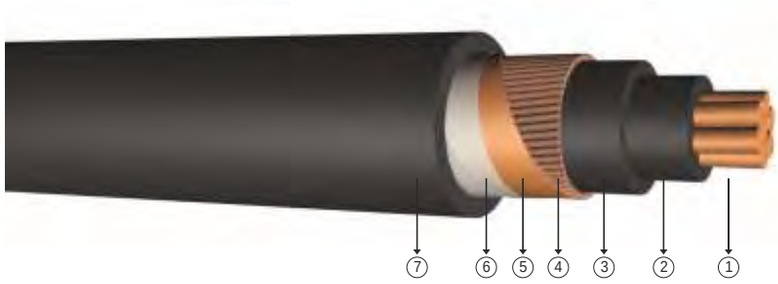
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x2,5 | 13,5 | 320 | 1000 | 7,41 | 23,8 | 18,8 |
| 6x2,5 | 14,5 | 375 | 1000 | 7,41 | 22,1 | 17,5 |
| 7x2,5 | 14,5 | 415 | 1000 | 7,41 | 20,4 | 16,3 |
| 8x2,5 | 17,0 | 500 | 1000 | 7,41 | 18,7 | 15,0 |
| 10x2,5 | 18,0 | 595 | 1000 | 7,41 | 17,0 | 13,8 |
| 12x2,5 | 18,5 | 650 | 1000 | 7,41 | 16,2 | 13,1 |
| 14x2,5 | 19,5 | 730 | 1000 | 7,41 | 15,3 | 12,5 |
| 16x2,5 | 20,5 | 825 | 1000 | 7,41 | 14,5 | 11,9 |
| 19x2,5 | 21,5 | 920 | 1000 | 7,41 | 13,6 | 11,3 |
| 21x2,5 | 22,5 | 1010 | 1000 | 7,41 | 12,9 | 10,8 |
| 24x2,5 | 24,8 | 1190 | 1000 | 7,41 | 11,9 | 10,0 |
| 27x2,5 | 25,3 | 1280 | 1000 | 7,41 | 11,6 | 9,7 |
| 30x2,5 | 27,0 | 1380 | 1000 | 7,41 | 11,2 | 9,4 |
| 37x2,5 | 29,5 | 1660 | 1000 | 7,41 | 10,6 | 9,1 |
| 40x2,5 | 30,5 | 1800 | 1000 | 7,41 | 10,2 | 8,8 |
| 48x2,5 | 32,5 | 2135 | 1000 | 7,41 | 9,5 | 8,3 |
| 52x2,5 | 34,5 | 2320 | 1000 | 7,41 | 8,9 | 7,8 |
| 61x2,5 | 37,0 | 2630 | 1000 | 7,41 | 8,5 | 7,5 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, concentric wire screen, single core cables with copper conductor



Code: YVCV-U, YVCV-R, CU/PVC/SC/PVC, NYCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

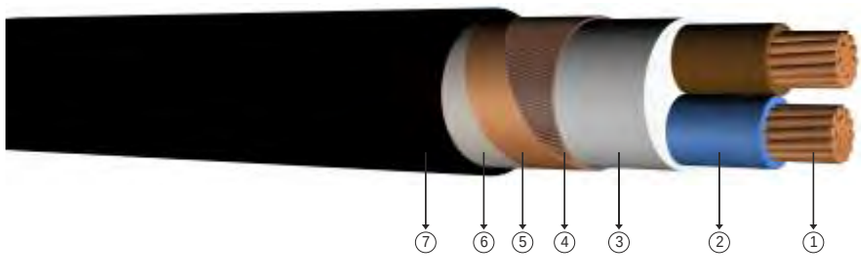
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. PVC inner sheath
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | **** | *** | **** |
| 1x1,5/1,5 | 10,5 | 145 | 1000 | 12,1 | - | 30 | 25 | 20 |
| 1x2,5/2,5 | 11,0 | 150 | 1000 | 7,41 | - | 39 | 34 | 27 |
| 1x4/4 | 12,0 | 200 | 1000 | 4,61 | - | 50 | 45 | 37 |
| 1x6/6 | 12,5 | 250 | 1000 | 3,08 | - | 62 | 57 | 48 |
| 1x10/10 | 13,5 | 350 | 1000 | 1,83 | - | 83 | 78 | 66 |
| 1x16/16 | 15,0 | 450 | 1000 | 1,15 | 127 | 107 | 103 | 89 |
| 1x25/16 | 16,5 | 600 | 1000 | 0,727 | 163 | 137 | 137 | 118 |
| 1x35/16 | 17,5 | 700 | 1000 | 0,524 | 195 | 165 | 169 | 145 |
| 1x50/25 | 19,0 | 950 | 1000 | 0,387 | 230 | 195 | 206 | 176 |
| 1x70/35 | 21,0 | 1250 | 1000 | 0,268 | 282 | 239 | 261 | 224 |
| 1x95/50 | 23,5 | 1650 | 1000 | 0,193 | 336 | 287 | 321 | 271 |
| 1x120/70 | 25,5 | 2100 | 1000 | 0,153 | 382 | 326 | 374 | 314 |
| 1x150/70 | 27,0 | 2400 | 1000 | 0,124 | 428 | 366 | 428 | 361 |
| 1x185/95 | 30,0 | 3000 | 1000 | 0,0991 | 483 | 414 | 494 | 412 |
| 1x240/120 | 33,5 | 3850 | 1000 | 0,0754 | 561 | 481 | 590 | 484 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, concentric wire screen, multi-core cables with copper conductor



Code: YVCV-U, YVCV-R, CU/PVC/SC/PVC, NYCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

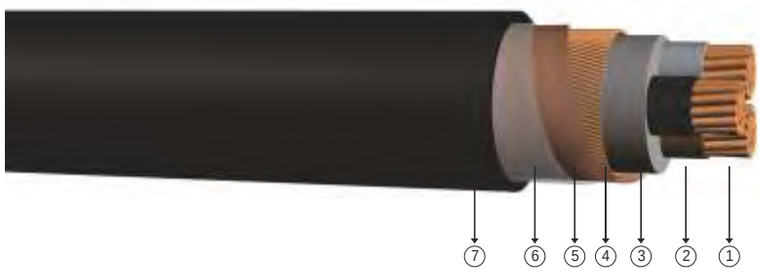
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5/1,5 | 13,0 | 240 | 1000 | 12,1 | 32 | 20 |
| 2x2,5/2,5 | 13,5 | 250 | 1000 | 7,41 | 42 | 27 |
| 2x4/4 | 15,5 | 280 | 1000 | 4,61 | 54 | 37 |
| 2x6/6 | 16,5 | 420 | 1000 | 3,08 | 68 | 48 |
| 2x10/10 | 19,0 | 600 | 1000 | 1,83 | 90 | 66 |
| 2x16/16 | 21,0 | 850 | 1000 | 1,15 | 116 | 89 |
| 2x25/16 | 24,0 | 1150 | 1000 | 0,727 | 150 | 118 |
| 2x35/16 | 26,0 | 1400 | 1000 | 0,524 | 181 | 145 |
| 2x50/25 | 29,0 | 1900 | 1000 | 0,3870 | 215 | 176 |
| 2x70/35 | 32,5 | 2550 | 1000 | 0,268 | 264 | 224 |
| 2x95/50 | 37,5 | 3450 | 1000 | 0,193 | 317 | 271 |
| 2x120/70 | 41,5 | 4300 | 1000 | 0,153 | 360 | 314 |
| 2x150/70 | 45,0 | 5100 | 500 | 0,124 | 406 | 361 |
| 2x185/95 | 50,5 | 6450 | 500 | 0,0991 | 458 | 412 |
| 2x240/120 | 57,0 | 8300 | 500 | 0,0754 | 537 | 484 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, concentric wire screen, multi-core cables with copper conductor



Code: YVCV-U, YVCV-R, CU/PVC/SC/PVC/, NYCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

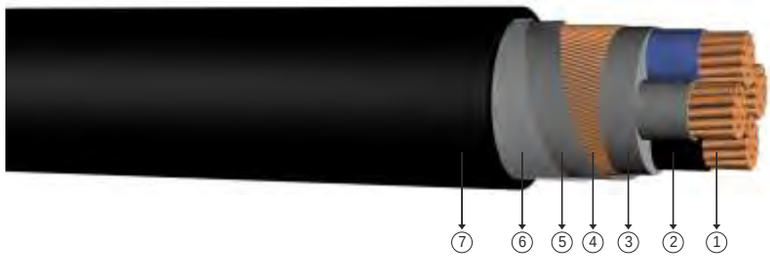
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5/1,5 | 14,0 | 240 | 1000 | 12,1 | 26 | 18.5 |
| 3x2,5/2,5 | 15,0 | 300 | 1000 | 7,410 | 34 | 25 |
| 3x4/4 | 17,0 | 420 | 1000 | 4,610 | 44 | 34 |
| 3x6/6 | 17,5 | 530 | 1000 | 3,080 | 56 | 43 |
| 3x10/10 | 20,0 | 730 | 1000 | 1,830 | 75 | 60 |
| 3x16/16 | 22,0 | 1000 | 1000 | 1,150 | 98 | 80 |
| 3x25/16 | 25,5 | 1400 | 1000 | 0,727 | 128 | 106 |
| 3x35/16 | 27,5 | 1750 | 1000 | 0,524 | 157 | 131 |
| 3x50/25 | 31,0 | 2350 | 1000 | 0,387 | 185 | 159 |
| 3x70/35 | 35,0 | 3200 | 1000 | 0,268 | 228 | 202 |
| 3x95/50 | 39,5 | 4300 | 1000 | 0,193 | 275 | 244 |
| 3x120/70 | 43,5 | 5350 | 500 | 0,153 | 313 | 282 |
| 3x150/70 | 47,5 | 6450 | 500 | 0,124 | 353 | 324 |
| 3x185/95 | 52,0 | 8000 | 500 | 0,0991 | 399 | 371 |
| 3x240/120 | 59,5 | 10350 | 250 | 0,0754 | 464 | 436 |
| 3x300/150 | 66,5 | 12850 | 250 | 0,0601 | 524 | 481 |
| 3x400/185 | 78,0 | 17300 | 250 | 0,0470 | 600 | 560 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, concentric wire screen, multi-core cables with copper conductor



Code: YVCV-U, YVCV-R, CU/PVC/SC/PVC/, NYCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

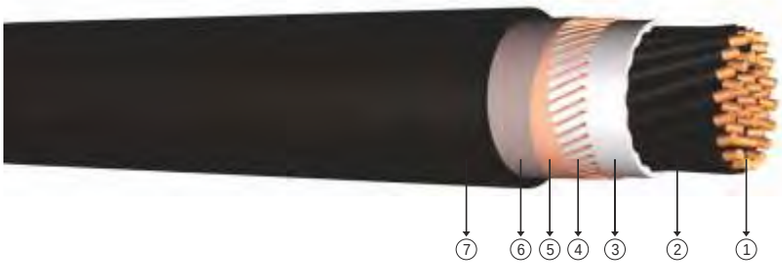
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5/1,5 | 14,5 | 290 | 1000 | 12,1 | 26 | 18.5 |
| 4x2,5/2,5 | 15,5 | 350 | 1000 | 7,41 | 34 | 25 |
| 4x4/4 | 17,5 | 490 | 1000 | 4,61 | 44 | 34 |
| 4x6/6 | 18,5 | 600 | 1000 | 3,08 | 56 | 43 |
| 4x10/10 | 22,0 | 890 | 1000 | 1,83 | 75 | 60 |
| 4x16/10 | 24,0 | 1200 | 1000 | 1,15 | 98 | 80 |
| 4x25/16 | 28,0 | 1750 | 1000 | 0,727 | 128 | 106 |
| 4x35/16 | 30,0 | 2200 | 1000 | 0,524 | 157 | 131 |
| 4x50/25 | 34,0 | 3000 | 1000 | 0,387 | 185 | 159 |
| 4x70/35 | 39,0 | 4050 | 1000 | 0,268 | 228 | 202 |
| 4x95/50 | 46,0 | 5500 | 500 | 0,193 | 275 | 244 |
| 4x120/70 | 50,0 | 6900 | 500 | 0,153 | 313 | 282 |
| 4x150/70 | 54,0 | 8300 | 500 | 0,124 | 353 | 324 |
| 4x185/95 | 61,0 | 10400 | 250 | 0,0991 | 399 | 371 |
| 4x240/120 | 69,0 | 13300 | 250 | 0,0754 | 464 | 436 |
| 4x300/150 | 74,0 | 16300 | 250 | 0,0601 | 524 | 481 |
| 4x400/185 | 83,0 | 20500 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, concentric wire screen, control cables with copper conductor



Code: YVCV-U, YVCV-R, CU/PVC/SC/PVC, NYCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application Used as control cables, indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 7x1,5/2,5 | 16,0 | 350 | 1000 | 12,1 | 15,6 | 12,0 |
| 8x1,5/2,5 | 18,2 | 400 | 1000 | 12,1 | 14,3 | 11,1 |
| 10x1,5/2,5 | 19,0 | 500 | 1000 | 12,1 | 13,0 | 10,2 |
| 12x1,5/2,5 | 19,5 | 550 | 1000 | 12,1 | 12,3 | 9,7 |
| 14x1,5/2,5 | 20,0 | 600 | 1000 | 12,1 | 11,7 | 9,3 |
| 19x1,5/4 | 22,0 | 750 | 1000 | 12,1 | 10,4 | 8,3 |
| 24x1,5/6 | 25,0 | 1000 | 1000 | 12,1 | 9,1 | 7,4 |
| 27x1,5/6 | 26,0 | 1000 | 1000 | 12,1 | 8,8 | 7,2 |
| 30x1,5/6 | 26,5 | 1100 | 1000 | 12,1 | 8,6 | 7,0 |
| 37x1,5/10 | 28,0 | 1350 | 1000 | 12,1 | 8,1 | 6,7 |
| 7x2,5/2,5 | 17,5 | 450 | 1000 | 7,41 | 20,4 | 16,3 |
| 8x2,5/2,5 | 20,5 | 550 | 1000 | 7,41 | 18,7 | 15,0 |
| 10x2,5/4 | 21,0 | 650 | 1000 | 7,41 | 17,0 | 13,8 |
| 12x2,5/4 | 22,0 | 700 | 1000 | 7,41 | 16,2 | 13,1 |
| 14x2,5/2,5 | 22,3 | 800 | 1000 | 7,41 | 15,3 | 12,5 |
| 19x2,5/6 | 24,3 | 1000 | 1000 | 7,41 | 13,6 | 11,3 |
| 24x2,5/10 | 28,5 | 1350 | 1000 | 7,41 | 11,9 | 10,0 |
| 27x2,5/10 | 28,0 | 1470 | 1000 | 7,41 | 11,5 | 9,8 |
| 30x2,5/10 | 29,0 | 1550 | 1000 | 7,41 | 11,2 | 9,4 |
| 37x2,5/10 | 31,0 | 1800 | 1000 | 7,41 | 10,6 | 9,1 |
| 7x4/4 | 20,0 | 650 | 1000 | 4,61 | 26,4 | 22,1 |
| 8x4/6 | 23,0 | 800 | 1000 | 4,61 | 24,2 | 20,4 |
| 10x4/6 | 24,5 | 950 | 1000 | 4,61 | 22,0 | 18,7 |
| 12x4/6 | 25,0 | 1050 | 1000 | 4,61 | 20,9 | 17,9 |
| 14x4/6 | 25,5 | 1200 | 1000 | 4,61 | 19,8 | 17,0 |
| 19x4/10 | 28,0 | 1500 | 1000 | 4,61 | 17,6 | 15,3 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, round aluminium wire armoured, single core cables with copper conductor

Code: YVY2V-R, CU/PVC/AWA/PVC , NYR(A)Y

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

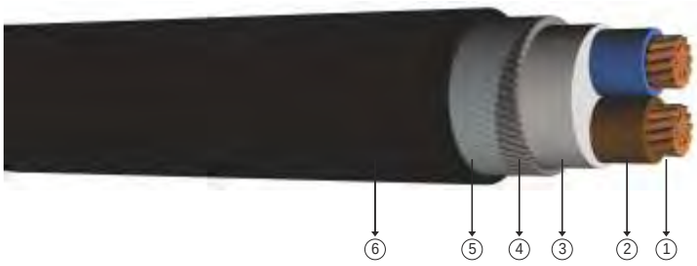
Construction

1. Stranded copper conductors
2. PVC insulation
3. Inner sheath
4. Round aluminium wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x25 | 17,5 | 550 | 1000 | 0,727 | 163 | 137 | 137 | 118 |
| 1x35 | 18,5 | 650 | 1000 | 0,524 | 195 | 165 | 169 | 145 |
| 1x50 | 20,0 | 800 | 1000 | 0,387 | 230 | 195 | 206 | 176 |
| 1x70 | 21,5 | 1050 | 1000 | 0,268 | 282 | 239 | 261 | 224 |
| 1x95 | 24,5 | 1400 | 1000 | 0,193 | 336 | 287 | 321 | 271 |
| 1x120 | 26,0 | 1650 | 1000 | 0,153 | 382 | 326 | 374 | 314 |
| 1x150 | 27,5 | 2000 | 1000 | 0,124 | 428 | 366 | 428 | 361 |
| 1x185 | 30,0 | 2400 | 1000 | 0,0991 | 483 | 414 | 494 | 412 |
| 1x240 | 33,0 | 3050 | 1000 | 0,0754 | 561 | 481 | 590 | 484 |
| 1x300 | 37,5 | 3750 | 1000 | 0,0601 | 632 | 542 | 678 | 549 |
| 1x400 | 41,5 | 4750 | 500 | 0,0470 | 730 | 624 | 817 | 657 |
| 1x500 | 46,0 | 5850 | 500 | 0,0366 | 823 | 698 | 940 | 749 |
| 1x630 | 50,0 | 7450 | 500 | 0,0283 | 866 | 775 | 1108 | 920 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6 / 1 kV PVC insulated, round steel wire armoured, multi-core cables with copper conductor



Code: YVZ2V-U, YVZ2V-R, CU/PVC/SWA/PVC, NYRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

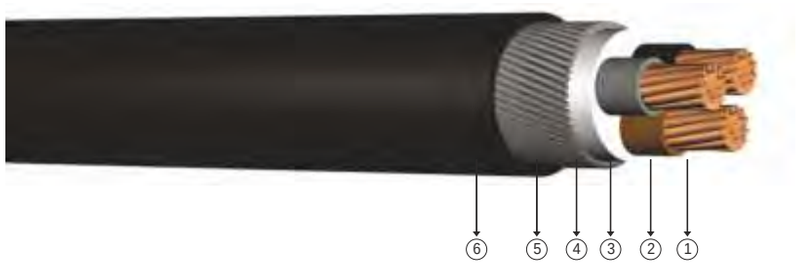
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 13,5 | 370 | 1000 | 12,1 | 32 | 20 |
| 2x2,5 | 14,5 | 420 | 1000 | 7,41 | 42 | 27 |
| 2x4 | 16,0 | 500 | 1000 | 4,61 | 54 | 37 |
| 2x6 | 18,0 | 700 | 1000 | 3,08 | 68 | 48 |
| 2x10 | 20,5 | 900 | 1000 | 1,83 | 90 | 66 |
| 2x16 | 22,5 | 1100 | 1000 | 1,15 | 116 | 89 |
| 2x25 | 26,0 | 1650 | 1000 | 0,727 | 150 | 118 |
| 2x35 | 28,0 | 1950 | 1000 | 0,524 | 181 | 145 |
| 2x50 | 31,5 | 2500 | 1000 | 0,387 | 215 | 176 |
| 2x70 | 35,5 | 3400 | 1000 | 0,268 | 264 | 224 |
| 2x95 | 40,5 | 4350 | 1000 | 0,193 | 317 | 271 |
| 2x120 | 44,0 | 5150 | 500 | 0,153 | 360 | 314 |
| 2x150 | 48,5 | 6500 | 500 | 0,124 | 406 | 361 |
| 2x185 | 53,5 | 7850 | 500 | 0,0991 | 458 | 412 |
| 2x240 | 60,0 | 9750 | 500 | 0,0754 | 537 | 484 |
| 2x300 | 67,0 | 11900 | 250 | 0,0601 | 604 | 556 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6 / 1 kV PVC insulated, round steel wire armoured, multi-core cables with copper conductor



Code: YVY2V-U, YVZ2V-R, CU/PVC/SWA/PVC, NYRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 14,0 | 400 | 1000 | 12,1 | 26 | 18.5 |
| 3x2,5 | 15,0 | 420 | 1000 | 7,41 | 34 | 25 |
| 3x4 | 17,5 | 670 | 1000 | 4,61 | 44 | 34 |
| 3x6 | 18,5 | 780 | 1000 | 3,08 | 56 | 43 |
| 3x10 | 21,5 | 1050 | 1000 | 1,83 | 75 | 60 |
| 3x16 | 23,5 | 1300 | 1000 | 1,15 | 98 | 80 |
| 3x25 | 27,5 | 1950 | 1000 | 0,727 | 128 | 106 |
| 3x35 | 29,5 | 2350 | 1000 | 0,524 | 157 | 131 |
| 3x50 | 33,5 | 3050 | 1000 | 0,387 | 185 | 159 |
| 3x70 | 38,0 | 4200 | 1000 | 0,268 | 228 | 202 |
| 3x95 | 43,0 | 5350 | 500 | 0,193 | 275 | 244 |
| 3x120 | 46,5 | 6400 | 500 | 0,153 | 313 | 282 |
| 3x150 | 52,0 | 8150 | 500 | 0,124 | 353 | 324 |
| 3x185 | 57,0 | 9750 | 500 | 0,0991 | 399 | 371 |
| 3x240 | 64,0 | 12250 | 250 | 0,0754 | 464 | 436 |
| 3x300 | 72,0 | 15000 | 250 | 0,0601 | 524 | 481 |
| 3x400 | 82,0 | 20000 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, round steel wire armoured, multi-core cables with copper conductor

Code: YVZ2V-R, CU/PVC/SWA/PVC, NYRY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

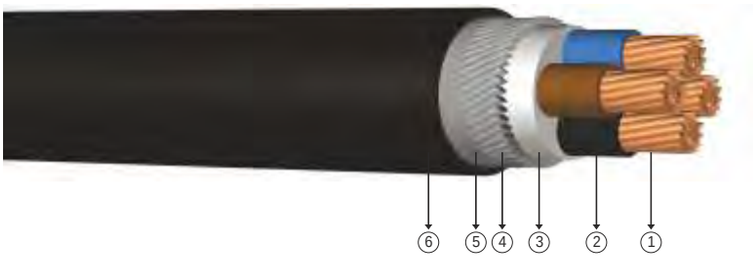
Construction

1. Stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 25,5 | 1600 | 1000 | 1,15 | 98 | 80 |
| 3x25+16 | 28,5 | 2150 | 1000 | 0,727 | 128 | 106 |
| 3x35+16 | 30,5 | 2550 | 1000 | 0,524 | 157 | 131 |
| 3x50+25 | 35,5 | 3600 | 1000 | 0,387 | 185 | 159 |
| 3x70+35 | 39,5 | 4650 | 500 | 0,268 | 228 | 202 |
| 3x95+50 | 44,5 | 5950 | 500 | 0,193 | 275 | 244 |
| 3x120+70 | 50,5 | 7700 | 250 | 0,153 | 313 | 282 |
| 3x150+70 | 53,5 | 8900 | 250 | 0,124 | 353 | 324 |
| 3x185+95 | 59,0 | 10800 | 250 | 0,0991 | 399 | 371 |
| 3x240+120 | 66,5 | 13500 | 250 | 0,0754 | 464 | 436 |
| 3x300+150 | 73,5 | 16500 | 250 | 0,0601 | 524 | 481 |
| 3x400+185 | 84,0 | 21800 | 250 | 0,0470 | 600 | 560 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, round steel wire armoured, multi-core cables with copper conductor



Code: YVZ2V-U, YVZ2V-R, CU/PVC/SWA/PVC, NYRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 15,0 | 400 | 1000 | 12,1 | 26 | 18.5 |
| 4x2,5 | 15,5 | 480 | 1000 | 7,41 | 34 | 25 |
| 4x4 | 18,5 | 770 | 1000 | 4,61 | 44 | 34 |
| 4x6 | 20,0 | 900 | 1000 | 3,08 | 56 | 43 |
| 4x10 | 23,0 | 1200 | 1000 | 1,83 | 75 | 60 |
| 4x16 | 26,0 | 1700 | 1000 | 1,15 | 98 | 80 |
| 4x25 | 29,5 | 2300 | 1000 | 0,727 | 128 | 106 |
| 4x35 | 32,5 | 2870 | 1000 | 0,524 | 157 | 131 |
| 4x50 | 37,5 | 4000 | 1000 | 0,387 | 185 | 159 |
| 4x70 | 41,5 | 5150 | 1000 | 0,268 | 228 | 202 |
| 4x95 | 48,0 | 7050 | 1000 | 0,193 | 275 | 244 |
| 4x120 | 52,5 | 8450 | 500 | 0,153 | 313 | 282 |
| 4x150 | 57,0 | 10050 | 500 | 0,124 | 353 | 324 |
| 4x185 | 63,0 | 12150 | 500 | 0,0991 | 399 | 371 |
| 4x240 | 70,5 | 15300 | 500 | 0,0754 | 464 | 436 |
| 4x300 | 79,0 | 18700 | 250 | 0,0601 | 524 | 481 |
| 4x400 | 90,0 | 25000 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, round steel wire armoured, control cables with copper conductor

Code: YVZ2V-U, YVZ2V-R, CU/PVC/SWA/PVC, NYRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

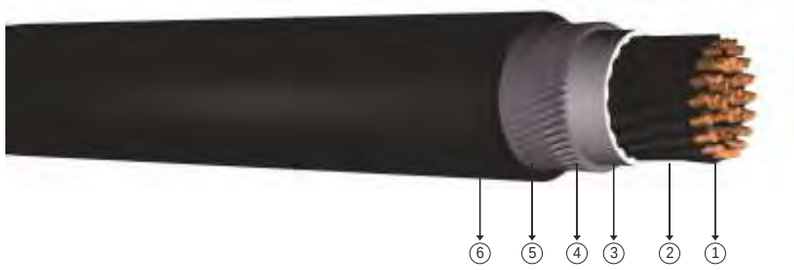
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x1,5 | 15,5 | 460 | 1000 | 12,1 | 18,2 | 14,0 |
| 6x1,5 | 16,5 | 520 | 1000 | 12,1 | 16,9 | 13,0 |
| 7x1,5 | 16,5 | 530 | 1000 | 12,1 | 15,6 | 12,0 |
| 8x1,5 | 18,5 | 820 | 1000 | 12,1 | 14,3 | 11,1 |
| 10x1,5 | 20,5 | 870 | 1000 | 12,1 | 13,0 | 10,2 |
| 12x1,5 | 21,0 | 920 | 1000 | 12,1 | 12,3 | 9,7 |
| 14x1,5 | 21,5 | 1000 | 1000 | 12,1 | 11,7 | 9,3 |
| 16x1,5 | 22,5 | 1100 | 1000 | 12,1 | 11,1 | 8,8 |
| 19x1,5 | 24,0 | 1300 | 1000 | 12,1 | 10,4 | 8,3 |
| 21x1,5 | 25,0 | 1400 | 1000 | 12,1 | 9,9 | 8,0 |
| 24x1,5 | 27,0 | 1600 | 1000 | 12,1 | 9,1 | 7,4 |
| 27x1,5 | 27,5 | 1700 | 1000 | 12,1 | 8,8 | 7,2 |
| 30x1,5 | 28,0 | 1800 | 1000 | 12,1 | 8,6 | 7,0 |
| 37x1,5 | 30,0 | 2050 | 1000 | 12,1 | 8,1 | 6,7 |
| 40x1,5 | 31,0 | 2150 | 1000 | 12,1 | 7,8 | 6,5 |
| 48x1,5 | 34,5 | 2750 | 1000 | 12,1 | 7,3 | 6,1 |
| 52x1,5 | 36,0 | 2950 | 1000 | 12,1 | 6,7 | 5,8 |
| 61x1,5 | 37,5 | 3250 | 1000 | 12,1 | 6,5 | 5,6 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, round steel wire armoured, control cables with copper conductor



Code: YVZ2V-U, YVZ2V-R, CU/PVC/SWA/PVC, NYRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

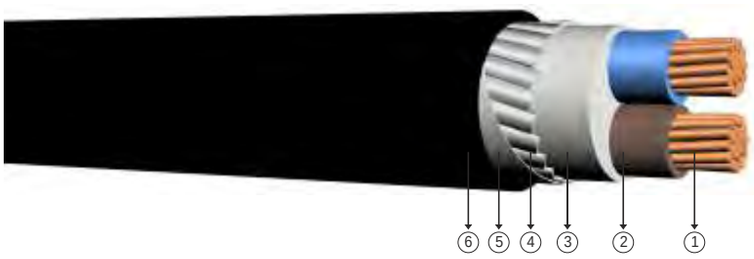
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x2,5 | 16,5 | 550 | 1000 | 7,41 | 23,8 | 18,8 |
| 6x2,5 | 18,5 | 750 | 1000 | 7,41 | 22,1 | 17,5 |
| 7x2,5 | 18,0 | 760 | 1000 | 7,41 | 20,4 | 16,3 |
| 8x2,5 | 20,0 | 880 | 1000 | 7,41 | 18,7 | 15,0 |
| 10x2,5 | 22,0 | 1050 | 1000 | 7,41 | 17,0 | 13,8 |
| 12x2,5 | 22,5 | 1100 | 1000 | 7,41 | 16,2 | 13,1 |
| 14x2,5 | 24,0 | 1350 | 1000 | 7,41 | 15,3 | 12,5 |
| 16x2,5 | 25,0 | 1500 | 1000 | 7,41 | 14,5 | 11,9 |
| 19x2,5 | 26,0 | 1600 | 1000 | 7,41 | 13,6 | 11,3 |
| 21x2,5 | 27,0 | 1750 | 1000 | 7,41 | 12,9 | 10,8 |
| 24x2,5 | 29,5 | 2000 | 1000 | 7,41 | 11,9 | 10,0 |
| 27x2,5 | 30,0 | 2100 | 1000 | 7,41 | 11,6 | 9,7 |
| 30x2,5 | 31,0 | 2250 | 1000 | 7,41 | 11,2 | 9,4 |
| 37x2,5 | 33,0 | 2600 | 1000 | 7,41 | 10,6 | 9,1 |
| 40x2,5 | 35,0 | 3800 | 1000 | 7,41 | 10,2 | 8,8 |
| 48x2,5 | 38,5 | 3550 | 1000 | 7,41 | 9,5 | 8,3 |
| 52x2,5 | 39,5 | 3700 | 1000 | 7,41 | 8,9 | 7,8 |
| 61x2,5 | 41,5 | 4150 | 1000 | 7,41 | 8,5 | 7,5 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YVZ3V-R, NYFGY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

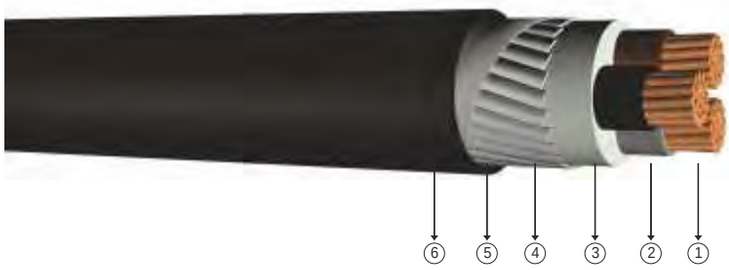
Construction

1. Stranded copper conductors
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x16 | 21,5 | 1180 | 1000 | 1,15 | 116 | 89 |
| 2x25 | 24,5 | 1450 | 1000 | 0,727 | 150 | 118 |
| 2x35 | 26,5 | 1750 | 1000 | 0,524 | 181 | 145 |
| 2x50 | 30,0 | 2200 | 1000 | 0,387 | 215 | 176 |
| 2x70 | 34,0 | 2850 | 1000 | 0,268 | 264 | 224 |
| 2x95 | 38,0 | 3700 | 1000 | 0,193 | 317 | 271 |
| 2x120 | 41,5 | 4450 | 1000 | 0,153 | 360 | 314 |
| 2x150 | 45,0 | 5350 | 1000 | 0,124 | 406 | 361 |
| 2x185 | 50,0 | 6500 | 500 | 0,0991 | 458 | 412 |
| 2x240 | 56,5 | 8200 | 500 | 0,0754 | 537 | 484 |
| 2x300 | 64,0 | 10300 | 500 | 0,0601 | 604 | 556 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YVZ3V-R, NYFGY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

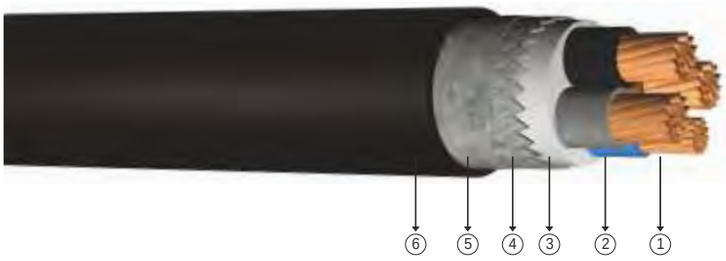
Construction

1. Stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16 | 23,0 | 1250 | 1000 | 1,15 | 98 | 80 |
| 3x25 | 26,0 | 1700 | 1000 | 0,727 | 128 | 106 |
| 3x35 | 28,0 | 2100 | 1000 | 0,524 | 157 | 131 |
| 3x50 | 32,0 | 2750 | 1000 | 0,387 | 185 | 159 |
| 3x70 | 36,0 | 3600 | 1000 | 0,268 | 228 | 202 |
| 3x95 | 41,0 | 4700 | 1000 | 0,193 | 275 | 244 |
| 3x120 | 44,5 | 5650 | 500 | 0,153 | 313 | 282 |
| 3x150 | 49,0 | 6900 | 500 | 0,124 | 353 | 324 |
| 3x185 | 54,0 | 8350 | 500 | 0,0991 | 399 | 371 |
| 3x240 | 61,0 | 10700 | 250 | 0,0754 | 464 | 436 |
| 3x300 | 69,0 | 13200 | 250 | 0,0601 | 524 | 481 |
| 3x400 | 77,0 | 17150 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YVZ3V-R, NYFGY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductors
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 24,0 | 1450 | 1000 | 1,15 | 98 | 80 |
| 3x25+16 | 27,5 | 2000 | 1000 | 0,727 | 128 | 106 |
| 3x35+16 | 29,5 | 2300 | 1000 | 0,524 | 157 | 131 |
| 3x50+25 | 33,5 | 3050 | 1000 | 0,387 | 185 | 159 |
| 3x70+35 | 37,5 | 4000 | 1000 | 0,268 | 228 | 202 |
| 3x95+50 | 43,0 | 5250 | 1000 | 0,193 | 275 | 244 |
| 3x120+70 | 47,5 | 6500 | 500 | 0,153 | 313 | 282 |
| 3x150+70 | 50,5 | 7600 | 500 | 0,124 | 353 | 324 |
| 3x185+95 | 56,0 | 9400 | 500 | 0,0991 | 399 | 371 |
| 3x240+120 | 63,0 | 11900 | 250 | 0,0754 | 464 | 436 |
| 3x300+150 | 70,0 | 14600 | 250 | 0,0601 | 524 | 481 |
| 3x400+185 | 79,0 | 18900 | 250 | 0,0470 | 600 | 560 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with copper conductor

Code: YVZ3V-R, NYFGY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius D | : 15 x D |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

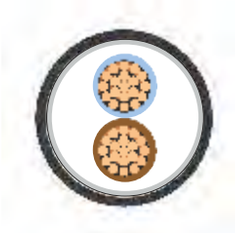
Construction

1. Stranded copper conductors
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x10 | 22,0 | 1150 | 1000 | 1,83 | 75 | 60 |
| 4x16 | 24,5 | 1500 | 1000 | 1,15 | 98 | 80 |
| 4x25 | 28,0 | 2050 | 1000 | 0,727 | 128 | 106 |
| 4x35 | 31,0 | 2600 | 1000 | 0,524 | 157 | 131 |
| 4x50 | 35,0 | 3450 | 1000 | 0,387 | 185 | 159 |
| 4x70 | 39,5 | 4500 | 1000 | 0,268 | 228 | 202 |
| 4x95 | 45,0 | 5850 | 500 | 0,193 | 275 | 244 |
| 4x120 | 49,0 | 7150 | 500 | 0,153 | 313 | 282 |
| 4x150 | 54,0 | 8700 | 500 | 0,124 | 353 | 324 |
| 4x185 | 59,5 | 10650 | 500 | 0,0991 | 399 | 371 |
| 4x240 | 67,0 | 13550 | 250 | 0,0754 | 464 | 436 |
| 4x300 | 76,0 | 16750 | 250 | 0,0601 | 524 | 481 |
| 4x400 | 85,5 | 21850 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, double steel tape armoured, multi-core cables with copper conductor



Code: YVZ4V-U, YVZ4V-R, NYBY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

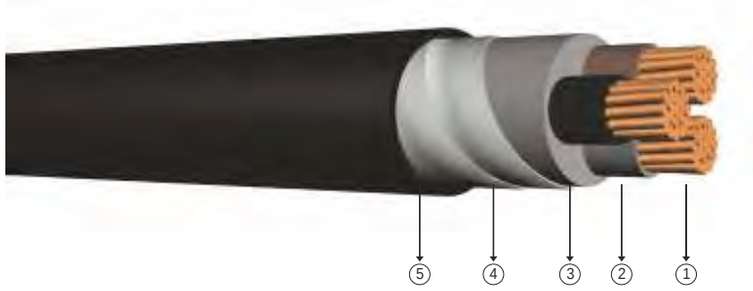
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 12,5 | 290 | 1000 | 12,1 | 32 | 20 |
| 2x2,5 | 13,5 | 340 | 1000 | 7,41 | 42 | 27 |
| 2x4 | 15,5 | 440 | 1000 | 4,61 | 54 | 37 |
| 2x6 | 16,0 | 500 | 1000 | 3,08 | 68 | 48 |
| 2x10 | 18,5 | 700 | 1000 | 1,83 | 90 | 66 |
| 2x16 | 20,5 | 900 | 1000 | 1,15 | 116 | 89 |
| 2x25 | 24,3 | 1200 | 1000 | 0,727 | 150 | 118 |
| 2x35 | 25,5 | 1500 | 1000 | 0,524 | 181 | 145 |
| 2X50 | 29,0 | 1950 | 1000 | 0,387 | 215 | 176 |
| 2x70 | 32,0 | 2550 | 1000 | 0,268 | 264 | 224 |
| 2x95 | 37,0 | 3400 | 500 | 0,193 | 317 | 271 |
| 2x120 | 41,5 | 4400 | 500 | 0,153 | 360 | 314 |
| 2x150 | 45,0 | 5300 | 500 | 0,124 | 406 | 361 |
| 2x185 | 50,0 | 6450 | 500 | 0,0991 | 458 | 412 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, double steel tape armoured, multi-core cables with copper conductor



Code: YVZ4V-R, YVZ4V-U, NYBY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

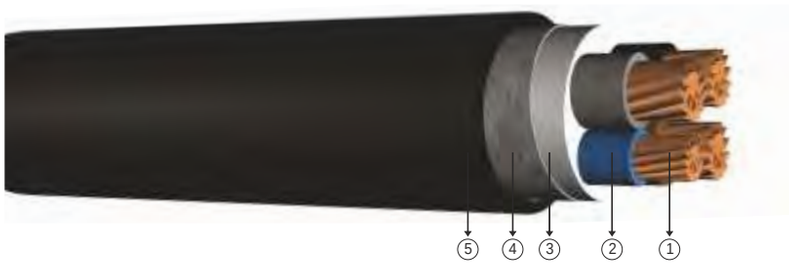
Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 13,0 | 320 | 1000 | 12,1 | 26 | 18.5 |
| 3x2,5 | 14,0 | 380 | 1000 | 7,41 | 34 | 25 |
| 3x4 | 16,0 | 500 | 1000 | 4,61 | 44 | 34 |
| 3x6 | 17,0 | 600 | 1000 | 3,08 | 56 | 43 |
| 3x10 | 19,5 | 800 | 1000 | 1,83 | 75 | 60 |
| 3x16 | 21,5 | 1050 | 1000 | 1,15 | 98 | 80 |
| 3x25 | 25,0 | 1500 | 1000 | 0,727 | 128 | 106 |
| 3x35 | 27,0 | 1850 | 1000 | 0,524 | 157 | 131 |
| 3x50 | 31,0 | 2450 | 1000 | 0,387 | 185 | 159 |
| 3x70 | 35,0 | 3300 | 1000 | 0,268 | 228 | 202 |
| 3x95 | 40,5 | 4650 | 1000 | 0,193 | 275 | 244 |
| 3x120 | 44,0 | 5600 | 500 | 0,153 | 313 | 282 |
| 3x150 | 48,5 | 6800 | 500 | 0,124 | 353 | 324 |
| 3x185 | 53,5 | 8300 | 500 | 0,0991 | 399 | 371 |
| 3x240 | 60,5 | 10600 | 250 | 0,0754 | 464 | 436 |
| 3x300 | 68,0 | 13000 | 250 | 0,0601 | 524 | 481 |
| 3x400 | 77,0 | 17000 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, double steel tape armoured, multi-core cables with copper conductor



Code: YVZ4V-R, NYBY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

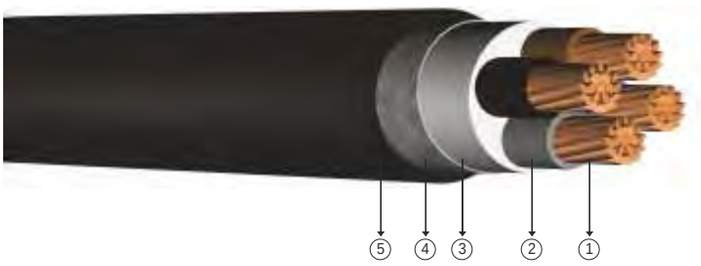
Construction

1. Stranded copper conductors
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 23,0 | 1200 | 1000 | 1,15 | 98 | 80 |
| 3x25+16 | 26,5 | 1700 | 1000 | 0,727 | 128 | 106 |
| 3x35+16 | 28,0 | 2050 | 1000 | 0,524 | 157 | 131 |
| 3x50+25 | 32,0 | 2750 | 1000 | 0,387 | 185 | 159 |
| 3x70+35 | 36,5 | 3700 | 1000 | 0,268 | 228 | 202 |
| 3x95+50 | 42,0 | 5200 | 500 | 0,193 | 275 | 244 |
| 3x120+70 | 46,5 | 6400 | 500 | 0,153 | 313 | 282 |
| 3x150+70 | 50,0 | 7500 | 500 | 0,124 | 353 | 324 |
| 3x185+95 | 55,5 | 9250 | 500 | 0,0991 | 399 | 371 |
| 3x240+120 | 62,5 | 11800 | 250 | 0,0754 | 464 | 436 |
| 3x300+150 | 70,0 | 14500 | 250 | 0,0601 | 524 | 481 |
| 3x400+185 | 79,0 | 18700 | 250 | 0,0470 | 600 | 560 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, double steel tape armoured, multi-core cables with copper conductor



Code: YVZ4V-U, YVZ4V-R, NYBY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 14,0 | 360 | 1000 | 12,1 | 26 | 18.5 |
| 4x2,5 | 15,0 | 440 | 1000 | 7,41 | 34 | 25 |
| 4x4 | 17,0 | 580 | 1000 | 4,61 | 44 | 34 |
| 4x6 | 18,0 | 700 | 1000 | 3,08 | 56 | 43 |
| 4x10 | 21,0 | 980 | 1000 | 1,83 | 75 | 60 |
| 4x16 | 23,5 | 1300 | 1000 | 1,15 | 98 | 80 |
| 4x25 | 27,0 | 1850 | 1000 | 0,727 | 128 | 106 |
| 4x35 | 29,5 | 2350 | 1000 | 0,524 | 157 | 131 |
| 4x50 | 34,0 | 3100 | 1000 | 0,387 | 185 | 159 |
| 4x70 | 39,0 | 4450 | 1000 | 0,268 | 228 | 202 |
| 4x95 | 44,5 | 5800 | 500 | 0,193 | 275 | 244 |
| 4x120 | 49,0 | 7100 | 500 | 0,153 | 313 | 282 |
| 4x150 | 53,5 | 8600 | 500 | 0,124 | 353 | 324 |
| 4x185 | 59,0 | 10500 | 250 | 0,0991 | 399 | 371 |
| 4x240 | 67,0 | 13400 | 250 | 0,0754 | 464 | 436 |
| 4x300 | 75,5 | 16600 | 250 | 0,0601 | 524 | 481 |
| 4x400 | 85,5 | 21650 | 250 | 0,0470 | 600 | 560 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated single core, aluminium conductor cables

Code: YAVV-U, YAVV-R, AL/PVC/PVC, NAYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

*** : RM or RE*

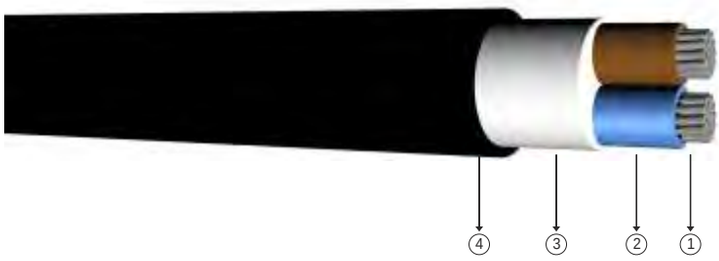
Construction

1 Stranded aluminium conductor
2 PVC insulation
3 PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x10** | 8,5 | 100 | 1000 | 3,08 | - | - | - | - |
| 1x16** | 9,5 | 130 | 1000 | 1,91 | 75 | 84 | 80 | 66 |
| 1x25 | 11,0 | 160 | 1000 | 1,20 | 125 | 105 | 87 | 75 |
| 1x35 | 11,9 | 200 | 1000 | 0,868 | 151 | 127 | 131 | 113 |
| 1x50 | 13,6 | 280 | 1000 | 0,641 | 179 | 151 | 160 | 138 |
| 1x70 | 15,2 | 350 | 1000 | 0,443 | 218 | 186 | 202 | 174 |
| 1x95 | 17,5 | 450 | 1000 | 0,320 | 261 | 223 | 249 | 210 |
| 1x120 | 19,0 | 550 | 1000 | 0,253 | 297 | 254 | 291 | 244 |
| 1x150 | 20,9 | 700 | 1000 | 0,206 | 332 | 285 | 333 | 281 |
| 1x185 | 23,3 | 800 | 1000 | 0,164 | 376 | 323 | 384 | 320 |
| 1x240 | 26,3 | 1050 | 1000 | 0,125 | 437 | 378 | 460 | 378 |
| 1x300 | 29,1 | 1300 | 1000 | 0,100 | 494 | 427 | 530 | 433 |
| 1x400 | 32,6 | 1700 | 1000 | 0,0778 | 572 | 496 | 642 | 523 |
| 1x500 | 36,1 | 2050 | 1000 | 0,0605 | 649 | 562 | 744 | 603 |
| 1x630 | 40,4 | 2600 | 500 | 0,0469 | 736 | 642 | 980 | 844 |
| 1x800 | 44,5 | 3200 | 500 | 0,0367 | - | - | - | - |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated multi-core, aluminium conductor cables



Code: YAVV-U, YAVV-R, AL/PVC/PVC, NAYY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

*** : RM or RE*

Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x10** | 22,0 | 350 | 1000 | 3,08 | 62 | 66 |
| 2x16** | 24,0 | 450 | 1000 | 1,91 | 84 | 90 |
| 2x25 | 21,0 | 650 | 1000 | 1,20 | 110 | 115 |
| 2x35 | 23,1 | 800 | 1000 | 0,868 | 130 | 140 |
| 2x50 | 26,2 | 1000 | 1000 | 0,641 | 155 | 175 |
| 2x70 | 29,6 | 1300 | 1000 | 0,443 | 195 | 220 |
| 2x95 | 34,1 | 1700 | 1000 | 0,320 | 235 | 270 |
| 2x120 | 37,3 | 2100 | 1000 | 0,253 | 266 | 270 |
| 2x150 | 40,9 | 2500 | 1000 | 0,206 | 299 | 308 |
| 2x185 | 46,0 | 3100 | 1000 | 0,164 | 340 | 357 |
| 2x240 | 52,0 | 4000 | 1000 | 0,125 | 401 | 435 |
| 2x300 | 57,5 | 4900 | 1000 | 0,100 | 455 | 501 |
| 2x400 | 64,8 | 6300 | 1000 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated multi-core, aluminium conductor cables

Code: YAVV-R, AL/PVC/PVC, NAYY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16 | 20,0 | 500 | 1000 | 1,91 | 70 | 65 |
| 3x25 | 24,0 | 800 | 1000 | 1,20 | 99 | 83 |
| 3x35 | 26,0 | 950 | 1000 | 0,868 | 118 | 102 |
| 3x50 | 29,5 | 1220 | 1000 | 0,641 | 142 | 124 |
| 3x70 | 33,5 | 1640 | 1000 | 0,443 | 176 | 158 |
| 3x95 | 38,0 | 2140 | 1000 | 0,320 | 211 | 190 |
| 3x120 | 47,0 | 2500 | 1000 | 0,253 | 242 | 221 |
| 3x150 | 46,0 | 3100 | 1000 | 0,206 | 270 | 252 |
| 3x185 | 51,0 | 3800 | 500 | 0,164 | 308 | 289 |
| 3x240 | 58,0 | 4900 | 500 | 0,125 | 363 | 339 |
| 3x300 | 64,0 | 5900 | 500 | 0,100 | 412 | 377 |
| 3x400 | 71,0 | 7600 | 500 | 0,0778 | 475 | 444 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated multi-core, aluminium, sector shaped conductor cables

Code: YAVV-R, AL/PVC/PVC, NAYY

SM: Sector Shaped Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

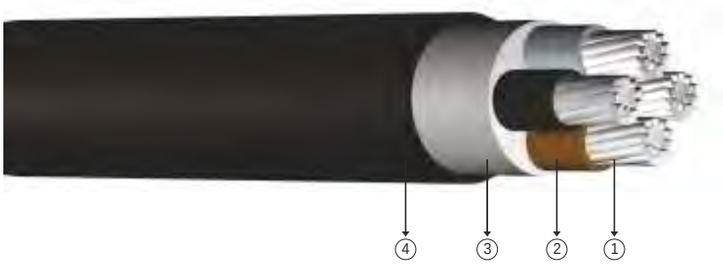
Construction

1. Stranded, sector shaped aluminium conductor
2. PVC insulation
3. PP Tape or Extruded filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x35 | 21,3 | 607 | 1000 | 0,868 | 118 | 102 |
| 3x50 | 24,2 | 787 | 1000 | 0,641 | 142 | 124 |
| 3x70 | 27,7 | 1043 | 1000 | 0,443 | 176 | 158 |
| 3x95 | 31,5 | 1387 | 1000 | 0,320 | 211 | 190 |
| 3x120 | 34,2 | 1668 | 1000 | 0,253 | 242 | 221 |
| 3x150 | 38 | 2033 | 1000 | 0,206 | 270 | 252 |
| 3x185 | 42,1 | 2519 | 500 | 0,164 | 308 | 289 |
| 3x240 | 47,4 | 3241 | 500 | 0,125 | 363 | 339 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated multi-core, aluminium conductor cables



Code: YAVV-R, AL/PVC/PVC, NAYY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

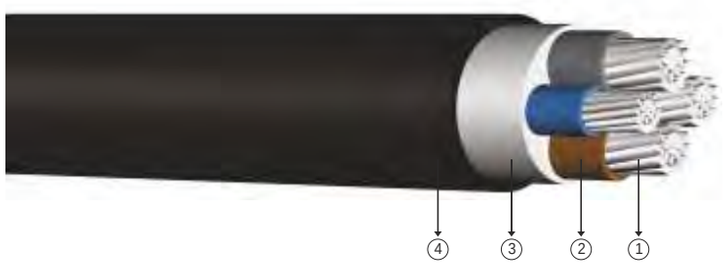
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x16 | 22,0 | 600 | 1000 | 1,91 | 70 | 65 |
| 4x25 | 26,0 | 950 | 1000 | 1,20 | 99 | 83 |
| 4x35 | 29,0 | 1150 | 1000 | 0,868 | 118 | 102 |
| 4x50 | 34,0 | 1600 | 1000 | 0,641 | 142 | 124 |
| 4x70 | 38,5 | 2050 | 1000 | 0,443 | 176 | 158 |
| 4x95 | 43,5 | 2650 | 1000 | 0,320 | 211 | 190 |
| 4x120 | 48,0 | 3200 | 1000 | 0,253 | 242 | 221 |
| 4x150 | 53,0 | 3950 | 1000 | 0,206 | 270 | 252 |
| 4x185 | 59,0 | 4900 | 500 | 0,164 | 308 | 289 |
| 4x240 | 66,0 | 6150 | 500 | 0,125 | 363 | 339 |
| 4x300 | 72,5 | 7500 | 500 | 0,100 | 412 | 377 |
| 4x400 | 82,5 | 9750 | 500 | 0,0778 | 475 | 444 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated multi-core, aluminium conductor cables



Code: YAVV-R, AL/PVC/PVC, NAYY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

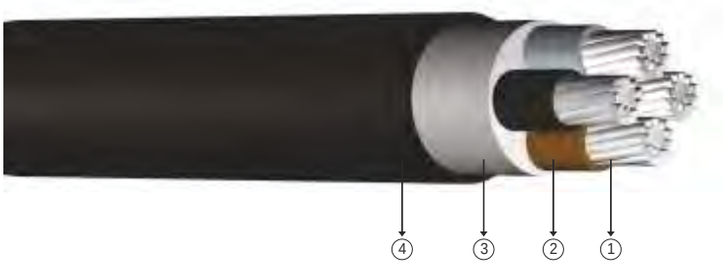
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 21,0 | 550 | 1000 | 1,91 | 70 | 65 |
| 3x25+16 | 25,0 | 900 | 1000 | 1,20 | 99 | 83 |
| 3x35+16 | 27,0 | 1000 | 1000 | 0,868 | 118 | 102 |
| 3x50+25 | 32,0 | 1400 | 1000 | 0,641 | 142 | 124 |
| 3x70+35 | 36,0 | 1800 | 1000 | 0,443 | 176 | 158 |
| 3x95+50 | 41,0 | 2400 | 1000 | 0,320 | 211 | 190 |
| 3x120+70 | 45,5 | 2900 | 1000 | 0,253 | 242 | 221 |
| 3x150+70 | 49,5 | 3450 | 1000 | 0,206 | 270 | 252 |
| 3x185+95 | 55,0 | 4250 | 500 | 0,164 | 308 | 289 |
| 3x240+120 | 61,5 | 5500 | 500 | 0,125 | 363 | 339 |
| 3x300+150 | 68,0 | 6550 | 500 | 0,100 | 412 | 377 |
| 3x400+185 | 76,5 | 8500 | 500 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated multi-core, aluminium, sector shaped conductor cables



Code: YAVV-R, AL/PVC/PVC, NAYY

SM: Sector Shaped Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

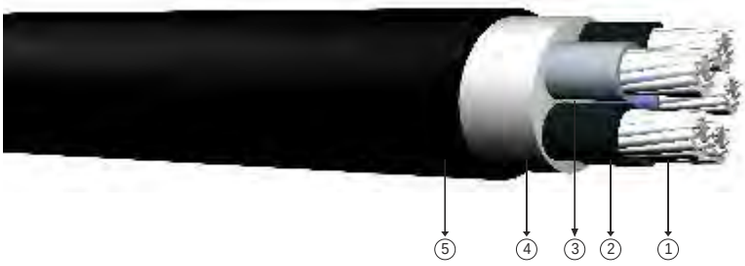
Construction

1. Stranded, sector shaped aluminium conductor
2. PVC insulation
3. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x35 | 25,4 | 786 | 1000 | 0,868 | 118 | 102 |
| 4x50 | 28,7 | 1035 | 1000 | 0,641 | 142 | 124 |
| 4x70 | 32,7 | 1370 | 1000 | 0,443 | 176 | 158 |
| 4x95 | 37,4 | 1823 | 1000 | 0,320 | 211 | 190 |
| 4x120 | 40,8 | 2197 | 1000 | 0,253 | 242 | 221 |
| 4x150 | 45,0 | 2692 | 1000 | 0,206 | 270 | 252 |
| 4x185 | 49,6 | 3330 | 500 | 0,164 | 308 | 289 |
| 4x240 | 56,0 | 4285 | 500 | 0,125 | 363 | 339 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated multi-core, aluminium conductor cables



Code: YAVV-R, AL/PVC/PVC, NAYY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

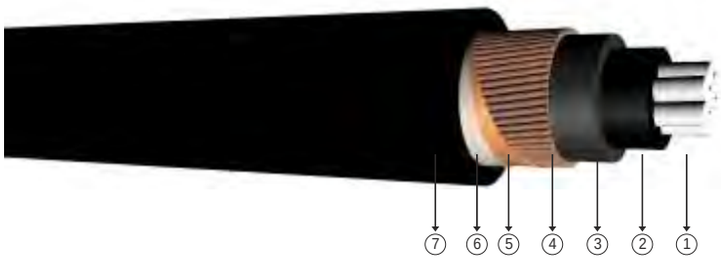
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Central Filler
4. Thermoplastic filler
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x10 | 21,0 | 550 | 1000 | 3,08 | - | - |
| 5x16 | 24,0 | 700 | 1000 | 1,91 | 70 | 65 |
| 5x25 | 29,0 | 1100 | 1000 | 1,20 | 99 | 83 |
| 5x35 | 31,0 | 1350 | 1000 | 0,868 | 118 | 102 |
| 5x50 | 36,0 | 1800 | 1000 | 0,641 | 142 | 124 |
| 5x70 | 41,0 | 2400 | 1000 | 0,443 | 176 | 158 |
| 5x95 | 48,0 | 3250 | 1000 | 0,320 | 211 | 190 |
| 5x120 | 52,0 | 3850 | 1000 | 0,253 | 242 | 221 |
| 5x150 | 57,0 | 4750 | 1000 | 0,206 | 270 | 252 |
| 5x185 | 63,0 | 5850 | 500 | 0,164 | 308 | 289 |
| 5x240 | 71,0 | 7400 | 500 | 0,125 | 363 | 339 |
| 5x300 | 78,0 | 9100 | 500 | 0,100 | 412 | 377 |
| 5x400 | 89,0 | 11550 | 500 | 0,0778 | 475 | 444 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, concentric wire screen, single core cables with aluminium conductor



Code: YAVCV-R, AL/PVC/SC/PVC, NAYCY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

In door installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

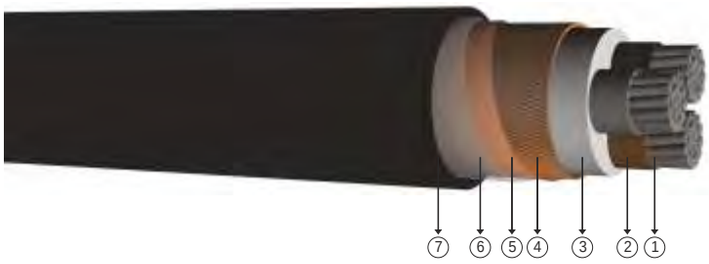
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. PVC inner sheath
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | **** | *** | **** |
| 1x25/16 | 16,0 | 400 | 1000 | 1,20 | 125 | 105 | 87 | 75 |
| 1x35/16 | 17,0 | 450 | 1000 | 0,868 | 151 | 127 | 131 | 113 |
| 1x50/25 | 19,5 | 630 | 1000 | 0,641 | 179 | 151 | 160 | 138 |
| 1x70/35 | 20,5 | 800 | 1000 | 0,443 | 218 | 186 | 202 | 174 |
| 1x95/50 | 24,0 | 1050 | 1000 | 0,320 | 261 | 223 | 249 | 210 |
| 1x120/70 | 26,0 | 1350 | 1000 | 0,253 | 297 | 254 | 291 | 244 |
| 1x150/70 | 27,5 | 1500 | 1000 | 0,206 | 332 | 285 | 333 | 281 |
| 1x185/95 | 30,0 | 1850 | 1000 | 0,164 | 376 | 323 | 384 | 320 |
| 1x240/120 | 33,5 | 2350 | 1000 | 0,125 | 437 | 378 | 460 | 378 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, concentric wire screen, multi-core cables with aluminium conductor



Code: YAVCV-R, AL/PVC/SC/PVC, NAYCY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

In door installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25/16 | 25,0 | 950 | 1000 | 1,20 | 99 | 83 |
| 3x35/16 | 27,5 | 1100 | 1000 | 0,868 | 118 | 102 |
| 3x50/25 | 32,0 | 1500 | 1000 | 0,641 | 142 | 124 |
| 3x70/35 | 36,0 | 2000 | 1000 | 0,443 | 176 | 158 |
| 3x95/50 | 41,5 | 2650 | 1000 | 0,320 | 211 | 190 |
| 3x120/70 | 45,0 | 3250 | 1000 | 0,253 | 242 | 221 |
| 3x150/70 | 50,0 | 3850 | 1000 | 0,206 | 270 | 252 |
| 3x185/95 | 55,0 | 4900 | 1000 | 0,164 | 308 | 289 |
| 3x240/120 | 61,5 | 6100 | 500 | 0,125 | 363 | 339 |
| 3x300/150 | 68,0 | 7450 | 500 | 0,100 | 412 | 377 |
| 3x400/185 | 77,5 | 9600 | 500 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, round aluminium wire armoured, single-core cables with aluminium conductor

Code: YAVY2V-R, AL/PVC/AWA/PVC, NAYR(A)Y

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

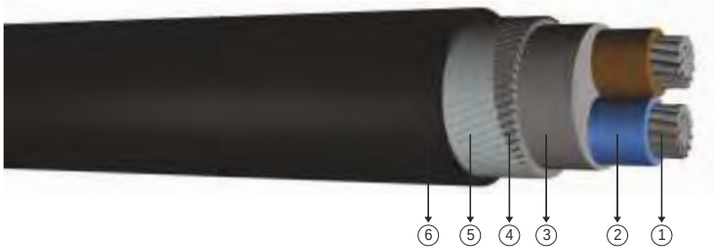
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. PVC inner sheath
4. Round aluminium wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x25 | 17,0 | 400 | 1000 | 1,20 | 125 | 105 | 87 | 75 |
| 1x35 | 18,0 | 450 | 1000 | 0,868 | 151 | 127 | 131 | 113 |
| 1x50 | 20,0 | 500 | 1000 | 0,641 | 179 | 151 | 160 | 138 |
| 1x70 | 21,5 | 650 | 1000 | 0,443 | 218 | 186 | 202 | 174 |
| 1x95 | 24,5 | 850 | 1000 | 0,320 | 261 | 223 | 249 | 210 |
| 1x120 | 26,0 | 950 | 1000 | 0,253 | 297 | 254 | 291 | 244 |
| 1x150 | 28,0 | 1100 | 1000 | 0,206 | 332 | 285 | 333 | 281 |
| 1x185 | 30,0 | 1300 | 1000 | 0,164 | 376 | 323 | 384 | 320 |
| 1x240 | 33,0 | 1550 | 1000 | 0,125 | 437 | 378 | 460 | 378 |
| 1x300 | 36,5 | 1950 | 1000 | 0,100 | 494 | 427 | 530 | 433 |
| 1x400 | 40,5 | 2350 | 1000 | 0,0778 | 572 | 496 | 642 | 523 |
| 1x500 | 44,0 | 2850 | 1000 | 0,0605 | 649 | 562 | 744 | 603 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, round steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ2V-R, AL/PVC/SWA/PVC, NAYRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

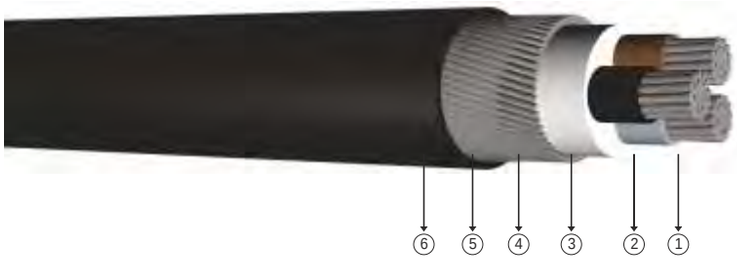
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) |
| mm² | mm | kg/km | m | Ω/km | In ground at 20 ºC |
| 2x25 | 25,5 | 1350 | 1000 | 1,20 | 91 |
| 2x35 | 28,0 | 1550 | 1000 | 0,868 | 113 |
| 2x50 | 32,0 | 1950 | 1000 | 0,641 | 138 |
| 2x70 | 36,0 | 2600 | 1000 | 0,443 | 174 |
| 2x95 | 41,0 | 3250 | 1000 | 0,320 | 210 |
| 2x120 | 44,5 | 3700 | 1000 | 0,253 | 244 |
| 2x150 | 49,5 | 4800 | 1000 | 0,206 | 281 |
| 2x185 | 54,5 | 5650 | 500 | 0,164 | 320 |
| 2x240 | 60,5 | 6800 | 500 | 0,125 | 378 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, round steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ2V-R, AL/PVC/SWA/PVC, NAYRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

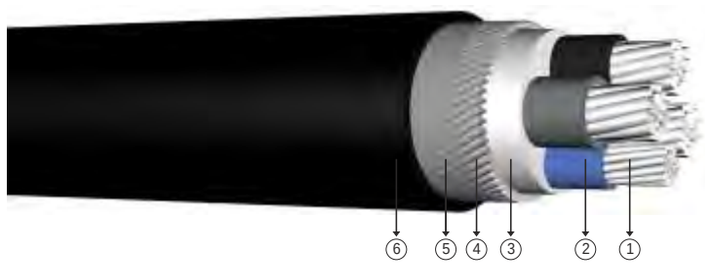
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 27,0 | 1450 | 1000 | 1,20 | 99 | 83 |
| 3x35 | 29,5 | 1700 | 1000 | 0,868 | 118 | 102 |
| 3x50 | 34,0 | 2200 | 1000 | 0,641 | 142 | 124 |
| 3x70 | 39,0 | 2950 | 1000 | 0,443 | 176 | 158 |
| 3x95 | 44,0 | 3650 | 1000 | 0,320 | 211 | 190 |
| 3x120 | 47,5 | 4200 | 1000 | 0,253 | 242 | 221 |
| 3x150 | 53,0 | 5500 | 500 | 0,206 | 270 | 252 |
| 3x185 | 58,0 | 6350 | 500 | 0,164 | 308 | 289 |
| 3x240 | 64,5 | 7750 | 500 | 0,125 | 363 | 339 |
| 3x300 | 71,0 | 9150 | 500 | 0,100 | 412 | 377 |
| 3x400 | 81,5 | 12300 | 250 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, round steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ2V-R, AL/PVC/SWA/PVC, NAYRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

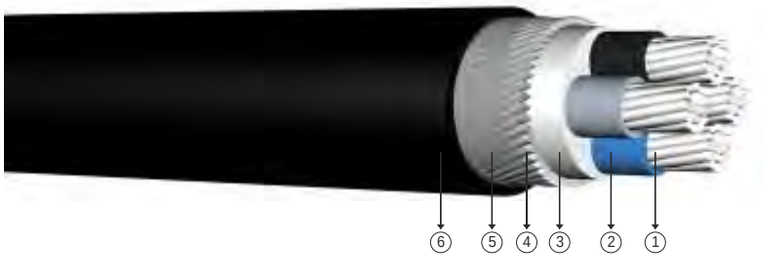
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 28,5 | 1600 | 1000 | 1,20 | 99 | 83 |
| 3x35+16 | 31,0 | 1800 | 1000 | 0,868 | 118 | 102 |
| 3x50+25 | 36,5 | 2600 | 1000 | 0,641 | 142 | 124 |
| 3x70+35 | 40,5 | 3150 | 1000 | 0,443 | 176 | 158 |
| 3x95+50 | 46,0 | 3950 | 1000 | 0,320 | 211 | 190 |
| 3x120+70 | 51,5 | 5100 | 1000 | 0,253 | 242 | 221 |
| 3x150+70 | 55,0 | 5800 | 500 | 0,206 | 270 | 252 |
| 3x185+95 | 60,5 | 6850 | 500 | 0,164 | 308 | 289 |
| 3x240+120 | 67,0 | 8250 | 500 | 0,125 | 363 | 339 |
| 3x300+150 | 73,5 | 9750 | 500 | 0,100 | 412 | 377 |
| 3x400+185 | 84,0 | 13050 | 250 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, round steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ2V-R, AL/PVC/SWA/PVC, NAYRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

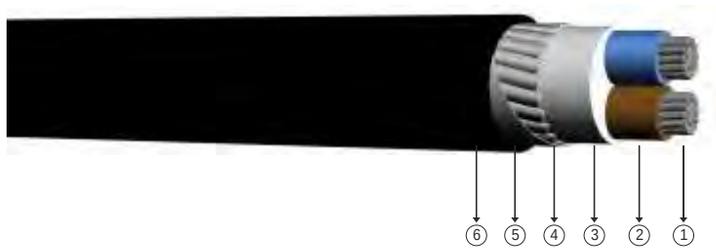
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 29,5 | 1650 | 1000 | 1,20 | 99 | 83 |
| 4x35 | 32,0 | 2000 | 1000 | 0,868 | 118 | 102 |
| 4x50 | 38,5 | 2900 | 1000 | 0,641 | 142 | 124 |
| 4x70 | 42,5 | 3450 | 1000 | 0,443 | 176 | 158 |
| 4x95 | 49,0 | 4700 | 1000 | 0,320 | 211 | 190 |
| 4x120 | 53,0 | 5500 | 1000 | 0,253 | 242 | 221 |
| 4x150 | 58,5 | 6500 | 500 | 0,206 | 270 | 252 |
| 4x185 | 64,0 | 7650 | 500 | 0,164 | 308 | 289 |
| 4x240 | 71,0 | 9250 | 500 | 0,125 | 363 | 339 |
| 4x300 | 78,0 | 10950 | 250 | 0,100 | 412 | 377 |
| 4x400 | 89,5 | 14700 | 250 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ3V-R, NAYFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

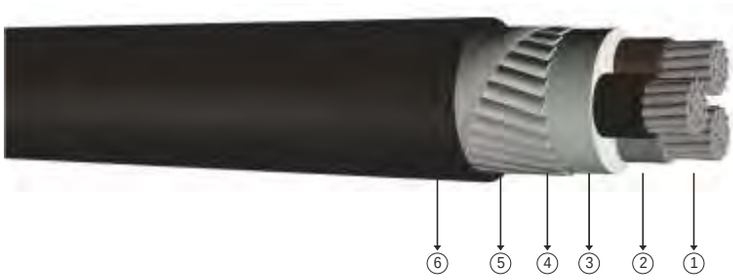
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) |
| mm² | mm | kg/km | m | Ω/km | In air at 30ºC |
| 2x25 | 24,5 | 1100 | 1000 | 1,20 | 91 |
| 2x35 | 27,0 | 1300 | 1000 | 0,868 | 113 |
| 2x50 | 31,0 | 1700 | 1000 | 0,641 | 138 |
| 2x70 | 34,5 | 2050 | 1000 | 0,443 | 174 |
| 2x95 | 39,0 | 2600 | 1000 | 0,320 | 210 |
| 2x120 | 42,5 | 3050 | 1000 | 0,253 | 244 |
| 2x150 | 46,5 | 3600 | 1000 | 0,206 | 281 |
| 2x185 | 51,5 | 4350 | 1000 | 0,164 | 320 |
| 2x240 | 57,5 | 5350 | 500 | 0,125 | 378 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ3V-R, NAYFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

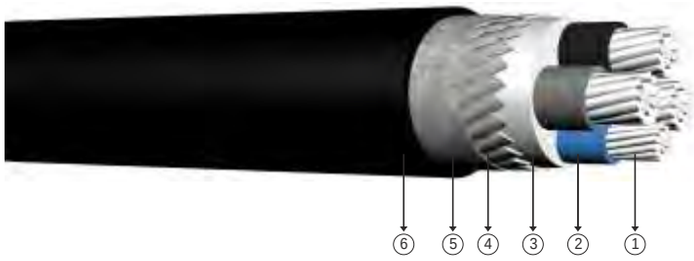
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 26,0 | 1250 | 1000 | 1,20 | 99 | 83 |
| 3x35 | 28,5 | 1500 | 1000 | 0,868 | 118 | 102 |
| 3x50 | 33,0 | 1900 | 1000 | 0,641 | 142 | 124 |
| 3x70 | 37,0 | 2350 | 1000 | 0,443 | 176 | 158 |
| 3x95 | 42,0 | 2950 | 1000 | 0,320 | 211 | 190 |
| 3x120 | 45,5 | 3500 | 1000 | 0,253 | 242 | 221 |
| 3x150 | 50,0 | 4200 | 1000 | 0,206 | 270 | 252 |
| 3x185 | 55,0 | 5000 | 500 | 0,164 | 308 | 289 |
| 3x240 | 61,5 | 6200 | 500 | 0,125 | 363 | 339 |
| 3x300 | 68,0 | 7450 | 500 | 0,100 | 412 | 377 |
| 3x400 | 76,5 | 9500 | 500 | 0,0778 | 475 | 444 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ3V-R, NAYFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

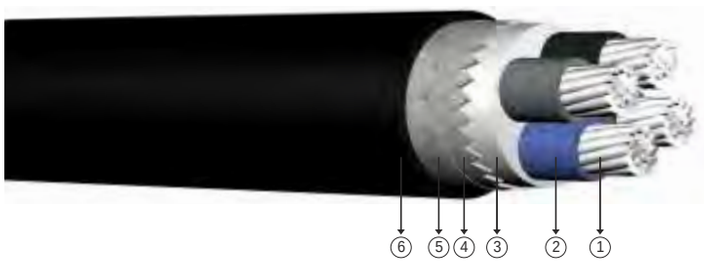
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 27,5 | 1500 | 1000 | 1,20 | 99 | 83 |
| 3x35+16 | 29,5 | 1550 | 1000 | 0,868 | 118 | 102 |
| 3x50+25 | 34,0 | 2050 | 1000 | 0,641 | 142 | 124 |
| 3x70+35 | 38,5 | 2550 | 1000 | 0,443 | 176 | 158 |
| 3x95+50 | 43,5 | 3250 | 1000 | 0,320 | 211 | 190 |
| 3x120+70 | 48,0 | 3900 | 1000 | 0,253 | 242 | 221 |
| 3x150+70 | 52,0 | 4500 | 1000 | 0,206 | 270 | 252 |
| 3x185+95 | 57,0 | 5400 | 500 | 0,164 | 308 | 289 |
| 3x240+120 | 63,5 | 6650 | 500 | 0,125 | 363 | 339 |
| 3x300+150 | 70,0 | 8000 | 500 | 0,100 | 412 | 377 |
| 3x400+185 | 79,0 | 10100 | 250 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAVZ3V-R, NAYFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

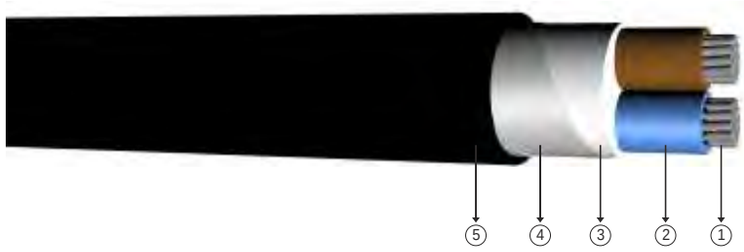
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 28,5 | 1500 | 1000 | 1,20 | 99 | 83 |
| 4x35 | 31,0 | 1750 | 1000 | 0,868 | 118 | 102 |
| 4x50 | 36,5 | 2300 | 1000 | 0,641 | 142 | 124 |
| 4x70 | 40,5 | 2850 | 1000 | 0,443 | 176 | 158 |
| 4x95 | 46,0 | 3550 | 1000 | 0,320 | 211 | 190 |
| 4x120 | 50,0 | 4250 | 1000 | 0,253 | 242 | 221 |
| 4x150 | 55,5 | 5100 | 500 | 0,206 | 270 | 252 |
| 4x185 | 61,0 | 6100 | 500 | 0,164 | 308 | 289 |
| 4x240 | 68,0 | 7550 | 500 | 0,125 | 363 | 339 |
| 4x300 | 75,0 | 9100 | 500 | 0,100 | 412 | 377 |
| 4x400 | 85,0 | 11500 | 250 | 0,0778 | 475 | 444 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAVZ4V-R, AL/PVC/DSTA/PVC, NAYBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

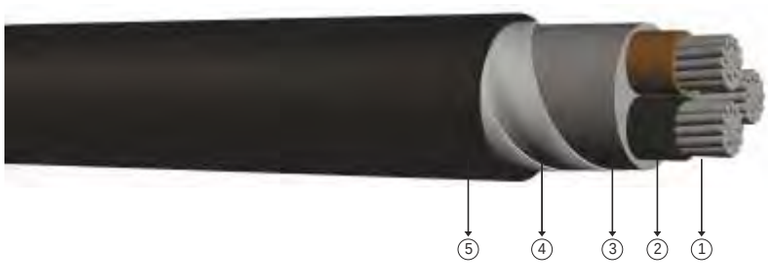
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) |
| mm² | mm | kg/km | m | Ω/km | In air at 30ºC |
| 2x25 | 24,0 | 900 | 1000 | 1,20 | 91 |
| 2x35 | 26,0 | 1100 | 1000 | 0,868 | 113 |
| 2x50 | 30,0 | 1400 | 1000 | 0,641 | 138 |
| 2x70 | 33,5 | 1750 | 1000 | 0,443 | 174 |
| 2x95 | 38,0 | 2250 | 1000 | 0,320 | 210 |
| 2x120 | 42,5 | 2950 | 1000 | 0,253 | 244 |
| 2x150 | 46,5 | 3550 | 1000 | 0,206 | 281 |
| 2x185 | 51,0 | 4250 | 1000 | 0,164 | 320 |
| 2x240 | 57,0 | 5200 | 500 | 0,125 | 378 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAVZ4V-R, AL/PVC/DSTA/PVC, NAYBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

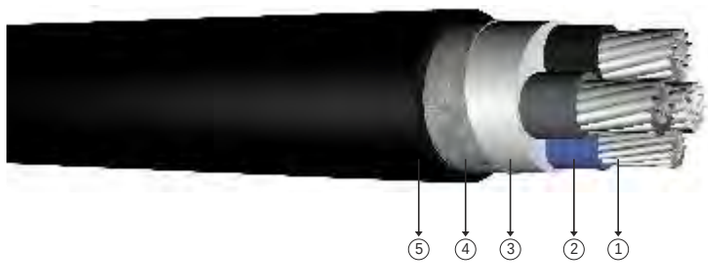
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 25,0 | 1050 | 1000 | 1,20 | 99 | 83 |
| 3x35 | 27,5 | 1250 | 1000 | 0,868 | 118 | 102 |
| 3x50 | 32,0 | 1600 | 1000 | 0,641 | 142 | 124 |
| 3x70 | 36,0 | 2050 | 1000 | 0,443 | 176 | 158 |
| 3x95 | 42,0 | 2900 | 1000 | 0,320 | 211 | 190 |
| 3x120 | 45,0 | 3400 | 1000 | 0,253 | 242 | 221 |
| 3x150 | 50,0 | 4150 | 1000 | 0,206 | 270 | 252 |
| 3x185 | 55,0 | 4900 | 500 | 0,164 | 308 | 289 |
| 3x240 | 61,5 | 6100 | 500 | 0,125 | 363 | 339 |
| 3x300 | 67,5 | 7300 | 500 | 0,100 | 412 | 377 |
| 3x400 | 76,5 | 9300 | 500 | 0,0778 | 475 | 444 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV PVC insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAVZ4V-R, AL/PVC/DSTA/PVC, NAYBY

R: Stranded Conductor

Standards:IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

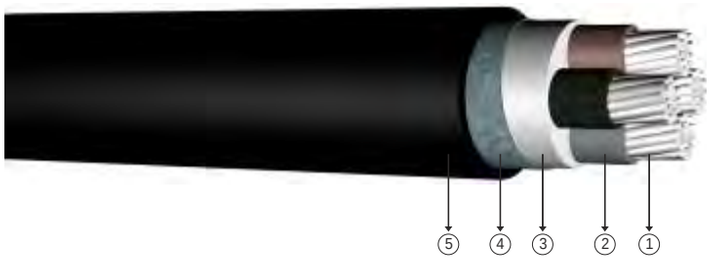
Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 26,5 | 1150 | 1000 | 1,20 | 99 | 83 |
| 3x35+16 | 28,5 | 1300 | 1000 | 0,868 | 118 | 102 |
| 3x50+25 | 33,0 | 1750 | 1000 | 0,641 | 142 | 124 |
| 3x70+35 | 37,5 | 2200 | 1000 | 0,443 | 176 | 158 |
| 3x95+50 | 43,5 | 3150 | 1000 | 0,320 | 211 | 190 |
| 3x120+70 | 47,5 | 3800 | 1000 | 0,253 | 242 | 221 |
| 3x150+70 | 51,5 | 4400 | 500 | 0,206 | 270 | 252 |
| 3x185+95 | 57,0 | 5300 | 500 | 0,164 | 308 | 289 |
| 3x240+120 | 63,5 | 6550 | 500 | 0,125 | 363 | 339 |
| 3x300+150 | 70,0 | 7900 | 500 | 0,100 | 412 | 377 |
| 3x400+185 | 79,0 | 9900 | 500 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV PVC insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAVZ4V-R, AL/PVC/DSTA/PVC, NAYBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : (max. 5 sec.) |
| Cross section ≤300 mm² | : 160°C |
| Cross section > 300 mm² | : 140°C |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded aluminium conductor
2. PVC insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 27,5 | 1200 | 1000 | 1,20 | 99 | 83 |
| 4x35 | 30,0 | 1450 | 1000 | 0,868 | 118 | 102 |
| 4x50 | 35,5 | 2000 | 1000 | 0,641 | 142 | 124 |
| 4x70 | 40,5 | 2750 | 1000 | 0,443 | 176 | 158 |
| 4x95 | 46,0 | 3500 | 1000 | 0,320 | 211 | 190 |
| 4x120 | 50,0 | 4150 | 1000 | 0,253 | 242 | 221 |
| 4x150 | 55,5 | 5000 | 500 | 0,206 | 270 | 252 |
| 4x185 | 61,0 | 6000 | 500 | 0,164 | 308 | 289 |
| 4x240 | 68,0 | 7450 | 500 | 0,125 | 363 | 339 |
| 4x300 | 75,0 | 8950 | 500 | 0,100 | 412 | 377 |
| 4x400 | 85,0 | 11400 | 250 | 0,0778 | 475 | 444 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, single-core cables with copper conductor

Code: YXV-U, YXV-R, CU/XLPE/PVC, N2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

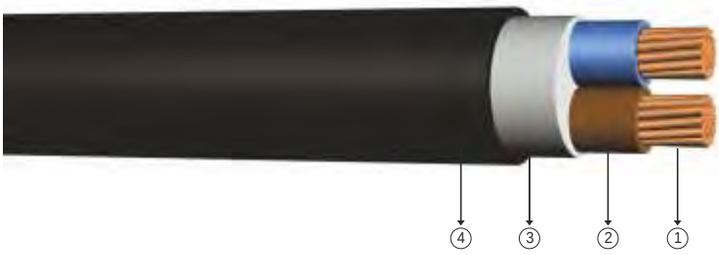
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x1,5 | 5,5 | 45 | 1000 | 12,1 | 39 | 32 | 32 | 25 |
| 1x2,5 | 6,0 | 55 | 1000 | 7,41 | 51 | 43 | 42 | 34 |
| 1x4 | 6,5 | 75 | 1000 | 4,61 | 66 | 55 | 56 | 44 |
| 1x6 | 7,0 | 90 | 1000 | 3,08 | 82 | 68 | 71 | 57 |
| 1x10 | 8,0 | 140 | 1000 | 1,83 | 109 | 90 | 96 | 77 |
| 1x16 | 9,0 | 200 | 1000 | 1,15 | 139 | 115 | 128 | 102 |
| 1x25 | 10,5 | 300 | 1000 | 0,727 | 179 | 149 | 173 | 139 |
| 1x35 | 11,5 | 400 | 1000 | 0,524 | 213 | 178 | 212 | 170 |
| 1x50 | 13,0 | 530 | 1000 | 0,387 | 251 | 211 | 258 | 208 |
| 1x70 | 15,0 | 750 | 1000 | 0,268 | 307 | 259 | 328 | 265 |
| 1x95 | 17,0 | 1000 | 1000 | 0,193 | 366 | 310 | 404 | 326 |
| 1x120 | 18,5 | 1250 | 1000 | 0,153 | 416 | 352 | 471 | 381 |
| 1x150 | 20,5 | 1550 | 1000 | 0,124 | 465 | 396 | 541 | 438 |
| 1x185 | 22,5 | 1900 | 1000 | 0,0991 | 526 | 449 | 626 | 507 |
| 1x240 | 25,5 | 2450 | 1000 | 0,0754 | 610 | 521 | 749 | 606 |
| 1x300 | 29,0 | 3000 | 1000 | 0,0601 | 689 | 587 | 864 | 697 |
| 1x400 | 32,0 | 4000 | 1000 | 0,0470 | 788 | 669 | 1018 | 816 |
| 1x500 | 35,5 | 5000 | 1000 | 0,0366 | 889 | 748 | 1173 | 933 |
| 1x630 | 39,0 | 6100 | 1000 | 0,0283 | 980 | 843 | 1315 | 1083 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 0,6/1 kV XLPE insulated, multi-core cables with copper conductor



Code: YXV-U, YXV-R, CU/XLPE/PVC, N2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 10,5 | 155 | 1000 | 12,1 | 39 | 32 |
| 2x2,5 | 11,3 | 200 | 1000 | 7,41 | 51 | 42 |
| 2x4 | 12,3 | 260 | 1000 | 4,61 | 66 | 56 |
| 2x6 | 13,5 | 320 | 1000 | 3,08 | 82 | 71 |
| 2x10 | 15,2 | 460 | 1000 | 1,83 | 109 | 96 |
| 2x16 | 17,3 | 630 | 1000 | 1,15 | 115 | 125 |
| 2x25 | 21,5 | 920 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 23,3 | 1150 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 25,8 | 1490 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 29,7 | 2050 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 33,9 | 2760 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 37,4 | 3400 | 1000 | 0,153 | 355 | 430 |
| 2x150 | 41,1 | 4150 | 1000 | 0,124 | 400 | 490 |
| 2x185 | 45,9 | 5200 | 1000 | 0,0991 | 455 | 570 |
| 2x240 | 51,5 | 6700 | 500 | 0,0754 | 530 | 680 |
| 2x300 | 56,6 | 8200 | 500 | 0,0601 | 605 | 785 |
| 2x400 | 64,0 | 10600 | 500 | 0,0470 | 690 | 860 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE insulated, multi-core cables with copper conductor

Code: YXV-U, YXV-R, CU/XLPE/PVC, N2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

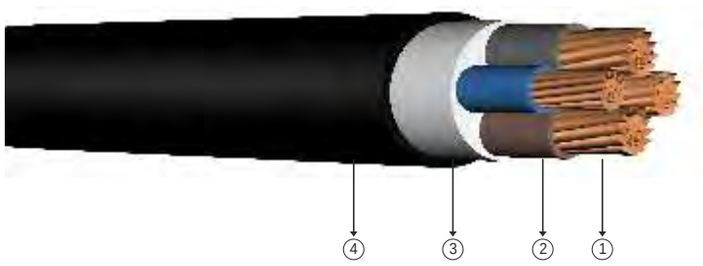
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 11,0 | 180 | 1000 | 12,1 | 30 | 24 |
| 3x2,5 | 12,0 | 230 | 1000 | 7,41 | 40 | 32 |
| 3x4 | 13,0 | 300 | 1000 | 4,61 | 52 | 42 |
| 3x6 | 14,5 | 370 | 1000 | 3,08 | 64 | 53 |
| 3x10 | 16,0 | 550 | 1000 | 1,83 | 86 | 73 |
| 3x16 | 19,0 | 700 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 22,5 | 1150 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 24,5 | 1500 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 27,5 | 1950 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 32,0 | 2750 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 36,0 | 3600 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 40,0 | 4500 | 1000 | 0,153 | 346 | 355 |
| 3x150 | 44,5 | 5600 | 500 | 0,124 | 390 | 407 |
| 3x185 | 49,0 | 6950 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 56,0 | 9000 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 63,0 | 11200 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 72,0 | 14750 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, multi-core cables with copper conductor



Code: YXV-R, CU/XLPE/PVC, N2XY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

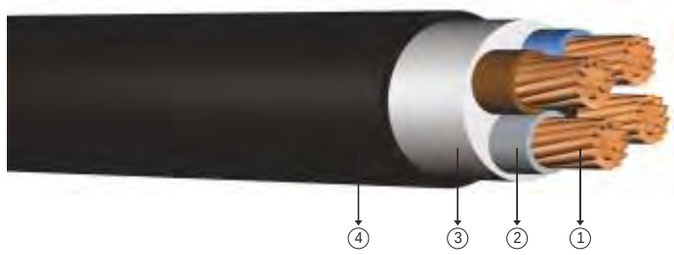
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 20,0 | 850 | 1000 | 1,15 | 111 | 96 |
| 3x25+16 | 23,5 | 1300 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 25,5 | 1650 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 29,0 | 2200 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 33,5 | 3100 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 37,5 | 4100 | 1000 | 0,193 | 303 | 305 |
| 3x120+70 | 42,0 | 5200 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 45,5 | 6250 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 51,0 | 7800 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 58,0 | 10100 | 500 | 0,0754 | 511 | 551 |
| 3x300+150 | 65,0 | 12500 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 73,5 | 16300 | 250 | 0,0470 | 663 | 746 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE insulated, multi-core cables with copper conductor



Code: YXV-U, YXV-R, CU/XLPE/PVC, N2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

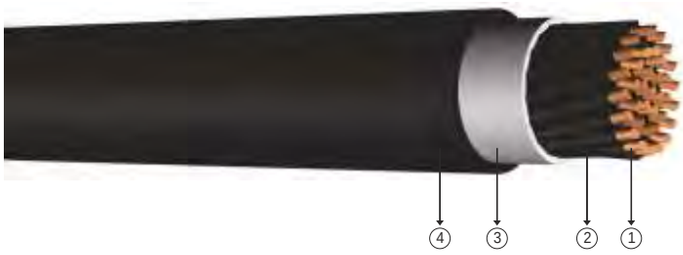
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1.5 | 12,0 | 200 | 1000 | 12,1 | 30 | 24 |
| 4x2.5 | 13,0 | 250 | 1000 | 7,41 | 40 | 32 |
| 4x4 | 14,0 | 350 | 1000 | 4,61 | 52 | 42 |
| 4x6 | 15,5 | 450 | 1000 | 3,08 | 64 | 53 |
| 4x10 | 17,5 | 630 | 1000 | 1,83 | 86 | 73 |
| 4x16 | 20,5 | 905 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 24,5 | 1400 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 27,0 | 1850 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 30,5 | 2500 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 35,5 | 3500 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 39,5 | 4650 | 1000 | 0,193 | 303 | 305 |
| 4x120 | 44,5 | 5900 | 500 | 0,153 | 346 | 355 |
| 4x150 | 49,0 | 7200 | 500 | 0,124 | 390 | 407 |
| 4x185 | 54,5 | 8950 | 500 | 0,0991 | 441 | 469 |
| 4x240 | 62,0 | 11600 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 70,0 | 14400 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 80,0 | 19000 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, control cables with copper conductor



Code: YXV-U, YXV-R, CU/XLPE/PVC, N2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used as control cables, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

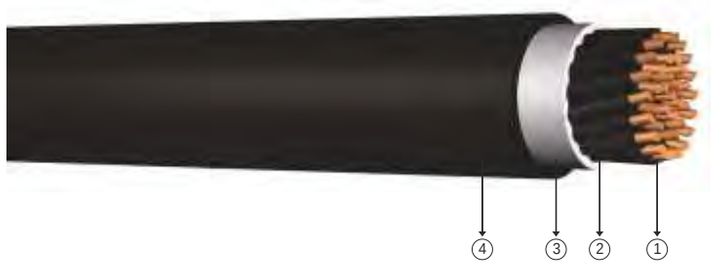
Construction

1. Solid copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x1,5 | 12,0 | 240 | 1000 | 12,1 | 21,0 | 18,0 |
| 6x1,5 | 13,0 | 250 | 1000 | 12,1 | 19,5 | 16,8 |
| 7x1,5 | 13,0 | 270 | 1000 | 12,1 | 18,0 | 15,6 |
| 8x1,5 | 15,0 | 340 | 1000 | 12,1 | 16,5 | 14,4 |
| 10x1,5 | 15,7 | 420 | 1000 | 12,1 | 15,0 | 13,2 |
| 12x1,5 | 15,7 | 450 | 1000 | 12,1 | 14,3 | 12,6 |
| 14x1,5 | 17,0 | 500 | 1000 | 12,1 | 13,5 | 12,0 |
| 16x1,5 | 17,5 | 550 | 1000 | 12,1 | 12,8 | 11,4 |
| 19x1,5 | 18,5 | 620 | 1000 | 12,1 | 12,0 | 10,8 |
| 21x1,5 | 20,5 | 680 | 1000 | 12,1 | 11,3 | 10,2 |
| 24x1,5 | 22,0 | 800 | 1000 | 12,1 | 10,5 | 9,6 |
| 27x1,5 | 22,5 | 850 | 1000 | 12,1 | 10,2 | 9,4 |
| 30x1,5 | 22,5 | 900 | 1000 | 12,1 | 9,9 | 9,1 |
| 37x1,5 | 25,0 | 1050 | 1000 | 12,1 | 9,3 | 8,6 |
| 40x1,5 | 26,0 | 1150 | 1000 | 12,1 | 9,0 | 8,4 |
| 48x1,5 | 28,0 | 1400 | 1000 | 12,1 | 8,4 | 7,9 |
| 52x1,5 | 29,0 | 1450 | 1000 | 12,1 | 7,8 | 7,4 |
| 61x1,5 | 31,0 | 1700 | 1000 | 12,1 | 7,5 | 7,2 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, control cables with copper conductor



Code: YXV-U, YXV-R, CU/XLPE/PVC, N2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used as control cables, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

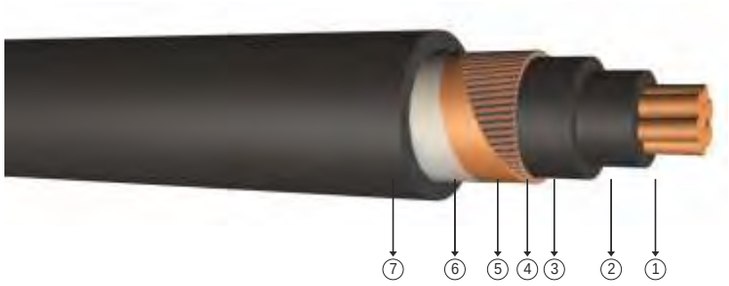
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x2,5 | 13,0 | 280 | 1000 | 7,41 | 28 | 24,0 |
| 6x2,5 | 14,0 | 330 | 1000 | 7,41 | 26 | 22,0 |
| 7x2,5 | 14,0 | 350 | 1000 | 7,41 | 24 | 21,0 |
| 8x2,5 | 15,0 | 450 | 1000 | 7,41 | 22 | 19,0 |
| 10x2,5 | 17,0 | 510 | 1000 | 7,41 | 20 | 17,5 |
| 12x2,5 | 17,5 | 570 | 1000 | 7,41 | 19 | 16,5 |
| 14x2,5 | 18,0 | 640 | 1000 | 7,41 | 18 | 16,0 |
| 16x2,5 | 19,0 | 720 | 1000 | 7,41 | 16,5 | 15,0 |
| 19x2,5 | 20,0 | 800 | 1000 | 7,41 | 16 | 14,5 |
| 21x2,5 | 20,5 | 870 | 1000 | 7,41 | 15 | 13,5 |
| 24x2,5 | 23,0 | 1040 | 1000 | 7,41 | 14 | 13,0 |
| 27x2,5 | 24,0 | 1100 | 1000 | 7,41 | 13,5 | 12,5 |
| 30x2,5 | 25,0 | 1200 | 1000 | 7,41 | 13,0 | 12,0 |
| 37x2,5 | 27,0 | 1450 | 1000 | 7,41 | 12,5 | 11,5 |
| 40x2,5 | 28,0 | 1550 | 1000 | 7,41 | 12,0 | 11,0 |
| 48x2,5 | 30,0 | 1900 | 1000 | 7,41 | 11,0 | 10,5 |
| 52x2,5 | 32,0 | 2050 | 1000 | 7,41 | 10,5 | 10,0 |
| 61x2,5 | 34,0 | 2300 | 1000 | 7,41 | 10,0 | 9,5 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, concentric wire screen, single core cables with copper conductor



Code: YXCV-U, YXCV-R, CU/XLPE/SC/PVC, N2XCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application These cables have a low dielectric loss, Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

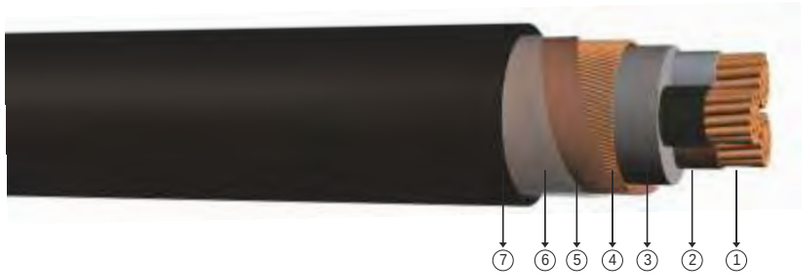
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Inner sheath
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x1,5/1,5 | 10,5 | 140 | 1000 | 12,1 | 39 | 32 | 32 | 25 |
| 1x2,5/2,5 | 11,0 | 160 | 1000 | 7,41 | 51 | 43 | 42 | 34 |
| 1x4/4 | 11,3 | 200 | 1000 | 4,61 | 66 | 55 | 56 | 44 |
| 1x6/6 | 11,5 | 220 | 1000 | 3,08 | 82 | 68 | 71 | 57 |
| 1x10/10 | 12,5 | 390 | 1000 | 1,83 | 109 | 90 | 96 | 77 |
| 1x16/16 | 14,0 | 430 | 1000 | 1,15 | 139 | 115 | 128 | 102 |
| 1x25/16 | 15,5 | 550 | 1000 | 0,727 | 179 | 149 | 173 | 139 |
| 1x35/16 | 16,5 | 650 | 1000 | 0,524 | 213 | 178 | 212 | 170 |
| 1x50/25 | 18,0 | 850 | 1000 | 0,387 | 251 | 211 | 258 | 208 |
| 1x70/35 | 20,0 | 1200 | 1000 | 0,268 | 307 | 259 | 328 | 265 |
| 1x95/50 | 22,5 | 1600 | 1000 | 0,193 | 366 | 310 | 404 | 326 |
| 1x120/70 | 25,0 | 2000 | 1000 | 0,153 | 416 | 352 | 471 | 381 |
| 1x150/70 | 26,5 | 2300 | 1000 | 0,124 | 465 | 396 | 541 | 438 |
| 1x185/95 | 29,0 | 2900 | 1000 | 0,0991 | 526 | 449 | 626 | 507 |
| 1x240/120 | 32,0 | 3700 | 1000 | 0,0754 | 610 | 521 | 749 | 606 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV XLPE insulated, concentric wire screen, multi-core cables with copper conductor



Code: YXCV-R, CU/XLPE/SC/PVC, N2XCY

R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-603

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application These cables have a low dielectric loss, Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

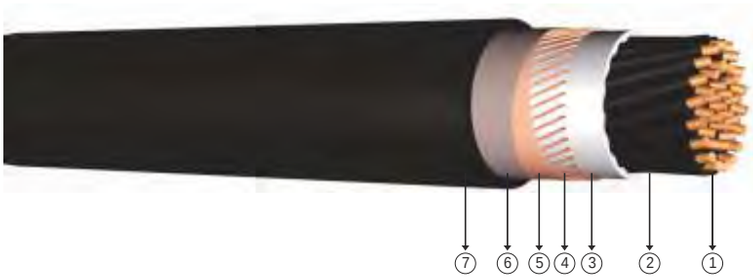
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25/16 | 24,5 | 1300 | 1000 | 0,727 | 143 | 130 |
| 3x35/16 | 26,5 | 1600 | 1000 | 0,524 | 173 | 160 |
| 3x50/25 | 29,0 | 2100 | 1000 | 0,387 | 205 | 195 |
| 3x70/35 | 34,0 | 3000 | 1000 | 0,268 | 252 | 247 |
| 3x95/50 | 39,0 | 4100 | 1000 | 0,193 | 303 | 305 |
| 3x120/70 | 43,0 | 5100 | 500 | 0,153 | 346 | 355 |
| 3x150/70 | 47,5 | 6200 | 500 | 0,124 | 390 | 407 |
| 3x185/95 | 53,0 | 7700 | 500 | 0,0991 | 441 | 469 |
| 3x240/120 | 59,5 | 10000 | 250 | 0,0754 | 511 | 551 |
| 3x300/150 | 65,0 | 12300 | 250 | 0,0601 | 580 | 638 |
| 3x400/185 | 73,0 | 15800 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, concentric wire screen, control cables with copper conductor



Code: YXCV-U, YXCV-R, CU/XLPE/SC/PVC, N2XCY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application These cables have a low dielectric loss, used as control cables, indoor installations, in cable ducts, outdoor and underground for power stations, industrial plantsand switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any demage due to power leak to the surrounding area.

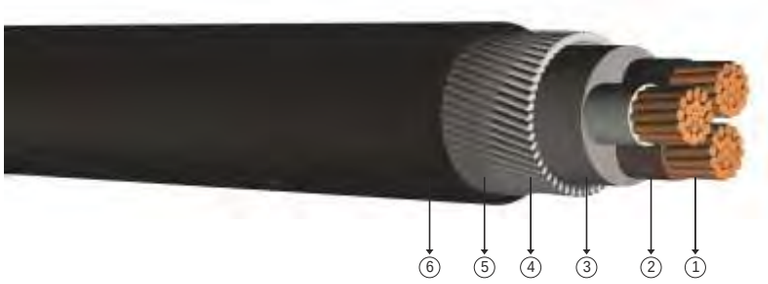
Construction

1. Solid or Stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 7x1,5/2,5 | 16,2 | 360 | 1000 | 12,1 | 18,0 | 15,6 |
| 8x1,5/2,5 | 18,0 | 430 | 1000 | 12,1 | 16,5 | 14,4 |
| 10x1,5/2,5 | 19,0 | 500 | 1000 | 12,1 | 15,0 | 13,2 |
| 12x1,5/2,5 | 18,5 | 510 | 1000 | 12,1 | 14,3 | 12,6 |
| 14x1,5/2,5 | 20,3 | 550 | 1000 | 12,1 | 13,5 | 12,0 |
| 19x1,5/4 | 21,0 | 740 | 1000 | 12,1 | 12,0 | 10,8 |
| 24x1,5/6 | 25,0 | 950 | 1000 | 12,1 | 10,5 | 9,6 |
| 30x1,5/6 | 26,2 | 1000 | 1000 | 12,1 | 9,9 | 9,1 |
| 37x1,5/10 | 26,5 | 1200 | 1000 | 12,1 | 9,3 | 8,6 |
| 7x2,5/2,5 | 16,5 | 460 | 1000 | 7,41 | 24,0 | 20,8 |
| 8x2,5/2,5 | 19,7 | 500 | 1000 | 7,41 | 22,0 | 19,2 |
| 10x2,5/4 | 20,8 | 600 | 1000 | 7,41 | 20,0 | 17,6 |
| 12x2,5/4 | 21,3 | 730 | 1000 | 7,41 | 19,0 | 16,8 |
| 14x2,5/6 | 21,0 | 820 | 1000 | 7,41 | 18,0 | 16,0 |
| 19x2,5/6 | 24,2 | 900 | 1000 | 7,41 | 16,0 | 14,4 |
| 24x2,5/10 | 27,5 | 1200 | 1000 | 7,41 | 14,0 | 12,8 |
| 30x2,5/10 | 28,8 | 1400 | 1000 | 7,41 | 13,2 | 12,2 |
| 37x2,5/10 | 30,8 | 1600 | 1000 | 7,41 | 12,4 | 11,5 |
| 7x4/4 | 18,0 | 550 | 1000 | 4,61 | 31,2 | 27,3 |
| 8x4/6 | 21,5 | 760 | 1000 | 4,61 | 28,6 | 25,2 |
| 10x4/6 | 23,0 | 800 | 1000 | 4,61 | 26,0 | 23,1 |
| 12x4/6 | 23,5 | 900 | 1000 | 4,61 | 24,7 | 22,1 |
| 14x4/6 | 24,5 | 1000 | 1000 | 4,61 | 23,4 | 21,0 |
| 19x4/10 | 27,0 | 1300 | 1000 | 4,61 | 20,8 | 18,9 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: YXZ2V-U, YXZ2V-R, CU/XLPE/SWA/PVC, N2XRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

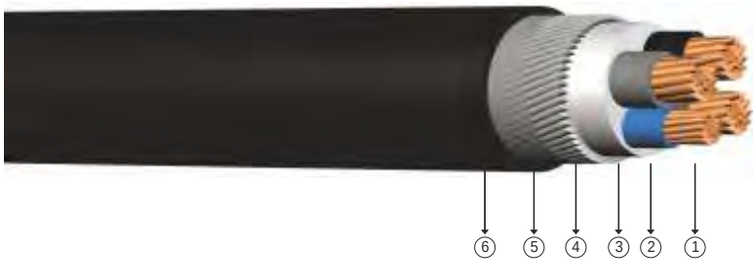
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 14,5 | 395 | 1000 | 12,1 | 30 | 24 |
| 3x2,5 | 15,5 | 460 | 1000 | 7,41 | 40 | 32 |
| 3x4 | 16,5 | 540 | 1000 | 4,61 | 52 | 42 |
| 3x6 | 17,8 | 640 | 1000 | 3,08 | 64 | 53 |
| 3x10 | 20,0 | 950 | 1000 | 1,83 | 86 | 73 |
| 3x16 | 22,0 | 1200 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 26,0 | 1800 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 28,0 | 2200 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 31,0 | 2800 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 36,5 | 4000 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 40,5 | 5000 | 500 | 0,193 | 303 | 305 |
| 3x120 | 44,5 | 6050 | 500 | 0,153 | 346 | 355 |
| 3x150 | 50,0 | 7750 | 500 | 0,124 | 390 | 407 |
| 3x185 | 55,0 | 9300 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 61,5 | 11650 | 250 | 0,0754 | 511 | 551 |
| 3x300 | 69,0 | 14000 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 77,0 | 18000 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: YXZ2V-R, CU/XLPE/SWA/PVC, N2XRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 23,0 | 1300 | 1000 | 1,15 | 111 | 96 |
| 3x25+16 | 27,0 | 2000 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 29,0 | 2350 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 32,5 | 3100 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 38,0 | 4400 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 42,0 | 5500 | 500 | 0,193 | 303 | 305 |
| 3x120+70 | 46,5 | 6850 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 51,5 | 8450 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 56,5 | 10300 | 250 | 0,0991 | 441 | 469 |
| 3x240+120 | 63,5 | 12850 | 250 | 0,0754 | 511 | 551 |
| 3x300+150 | 70,5 | 15600 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 80,0 | 20750 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor

Code: YXZ2V-U, YXZ2V-R, CU/XLPE/SWA/PVC, N2XRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

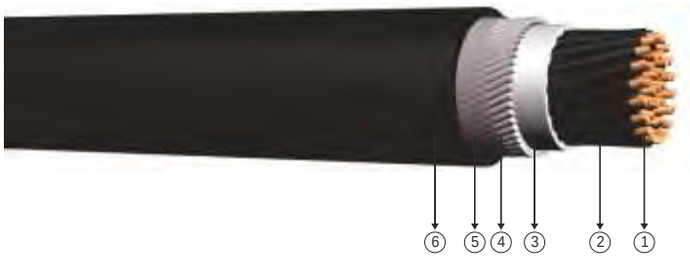
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 15,3 | 430 | 1000 | 12,1 | 30 | 24 |
| 4x2,5 | 16,4 | 510 | 1000 | 7,41 | 40 | 32 |
| 4x4 | 17,6 | 615 | 1000 | 4,61 | 52 | 42 |
| 4x6 | 20,0 | 800 | 1000 | 3,08 | 64 | 53 |
| 4x10 | 21,0 | 1100 | 1000 | 1,83 | 86 | 73 |
| 4x16 | 24,0 | 1550 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 28,0 | 2150 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 30,5 | 2700 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 34,0 | 3400 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 40,0 | 4850 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 44,0 | 6150 | 1000 | 0,193 | 303 | 305 |
| 4x120 | 50,5 | 8000 | 500 | 0,153 | 346 | 355 |
| 4x150 | 55,0 | 9600 | 500 | 0,124 | 390 | 407 |
| 4x185 | 60,5 | 11570 | 250 | 0,0991 | 441 | 469 |
| 4x240 | 68,0 | 14550 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 76,0 | 17750 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 87,0 | 23800 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, control cables with copper conductor



Code: YXZ2V-U, YXZ2V-R, CU/XLPE/SWA/PVC, N2XRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x1,5 | 15,0 | 420 | 1000 | 12,1 | 21,0 | 18,0 |
| 6x1,5 | 16,5 | 470 | 1000 | 12,1 | 19,5 | 16,8 |
| 7x1,5 | 16,5 | 480 | 1000 | 12,1 | 18,0 | 15,6 |
| 8x1,5 | 18,0 | 670 | 1000 | 12,1 | 16,5 | 14,4 |
| 10x1,5 | 19,5 | 800 | 1000 | 12,1 | 15,0 | 13,2 |
| 12x1,5 | 20,0 | 850 | 1000 | 12,1 | 14,3 | 12,6 |
| 14x1,5 | 20,5 | 900 | 1000 | 12,1 | 13,5 | 12,0 |
| 16x1,5 | 21,5 | 950 | 1000 | 12,1 | 12,8 | 11,4 |
| 19x1,5 | 22,0 | 1050 | 1000 | 12,1 | 12,0 | 10,8 |
| 21x1,5 | 24,0 | 1300 | 1000 | 12,1 | 11,3 | 10,2 |
| 24x1,5 | 25,5 | 1450 | 1000 | 12,1 | 10,5 | 9,6 |
| 27x1,5 | 26,0 | 1500 | 1000 | 12,1 | 10,2 | 9,4 |
| 30x1,5 | 27,0 | 1600 | 1000 | 12,1 | 9,9 | 9,1 |
| 37x1,5 | 28,5 | 1800 | 1000 | 12,1 | 9,3 | 8,6 |
| 40x1,5 | 29,5 | 1950 | 1000 | 12,1 | 9,0 | 8,4 |
| 48x1,5 | 32,0 | 2250 | 1000 | 12,1 | 8,4 | 7,9 |
| 52x1,5 | 32,5 | 2350 | 1000 | 12,1 | 7,8 | 7,4 |
| 61x1,5 | 35,5 | 2900 | 1000 | 12,1 | 7,5 | 7,2 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, control cables with copper conductor

Code: YXZ2V-U, YXZ2V-R, CU/XLPE/SWA/PVC, N2XRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x2,5 | 16,0 | 500 | 1000 | 7,41 | 28,0 | 24,0 |
| 6x2,5 | 17,5 | 700 | 1000 | 7,41 | 26,0 | 22,4 |
| 7x2,5 | 18,0 | 700 | 1000 | 7,41 | 24,0 | 20,8 |
| 8x2,5 | 19,0 | 800 | 1000 | 7,41 | 22,0 | 19,2 |
| 10x2,5 | 21,0 | 950 | 1000 | 7,41 | 20,0 | 17,6 |
| 12x2,5 | 21,5 | 1050 | 1000 | 7,41 | 19,0 | 16,8 |
| 14x2,5 | 22,0 | 1100 | 1000 | 7,41 | 18,0 | 16,0 |
| 16x2,5 | 24,0 | 1350 | 1000 | 7,41 | 16,5 | 15,2 |
| 19x2,5 | 25,0 | 1450 | 1000 | 7,41 | 16,0 | 14,4 |
| 21x2,5 | 26,0 | 1600 | 1000 | 7,41 | 15,0 | 13,6 |
| 24x2,5 | 28,0 | 1850 | 1000 | 7,41 | 14,0 | 12,8 |
| 27x2,5 | 28,5 | 1900 | 1000 | 7,41 | 13,6 | 12,5 |
| 30x2,5 | 29,5 | 2050 | 1000 | 7,41 | 13,2 | 12,2 |
| 37x2,5 | 31,5 | 2300 | 1000 | 7,41 | 12,5 | 11,5 |
| 40x2,5 | 32,5 | 2500 | 1000 | 7,41 | 12,0 | 11,2 |
| 48x2,5 | 36,5 | 3200 | 1000 | 7,41 | 11,0 | 10,6 |
| 52x2,5 | 37,5 | 3400 | 1000 | 7,41 | 10,5 | 9,9 |
| 61x2,5 | 39,5 | 3750 | 1000 | 7,41 | 10,0 | 9,6 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round aluminium wire armoured, single core cables with copper conductor

Code: 6941X, YXVY2V-R, CU/XLPE/PVC/AWA/PVC, N2XYR(A)Y

R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

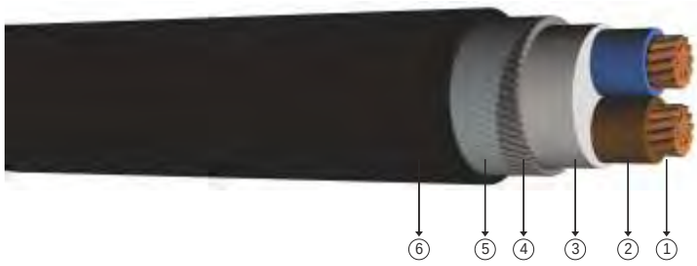
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Round alumininum wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 1x50 | 16,1 | 632 | 100 | 0,387 | 251 | 258 |
| 1x70 | 18,5 | 881 | 1000 | 0,268 | 307 | 328 |
| 1x95 | 20,3 | 1151 | 1000 | 0,193 | 366 | 404 |
| 1x120 | 22,1 | 1408 | 1000 | 0,153 | 416 | 471 |
| 1x150 | 25,0 | 1774 | 1000 | 0,124 | 465 | 541 |
| 1x185 | 27,2 | 2165 | 1000 | 0,0991 | 526 | 626 |
| 1x240 | 30,0 | 2744 | 1000 | 0,0754 | 610 | 749 |
| 1x300 | 32,4 | 3367 | 1000 | 0,0601 | 689 | 864 |
| 1x400 | 37,0 | 4357 | 1000 | 0,0470 | 788 | 1018 |
| 1x500 | 40,6 | 5430 | 500 | 0,0366 | 889 | 1173 |
| 1x630 | 44,9 | 6818 | 500 | 0,0283 | 980 | 1315 |
| 1x800 | 51,9 | 8762 | 500 | 0,0221 | 1160 | 1520 |
| 1x1000 | 55,8 | 10615 | 250 | 0,0176 | 1160 | 1520 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6942X, YXVZ2V-R, CU/XLPE/PVC/SWA/PVC, N2XYRY

R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

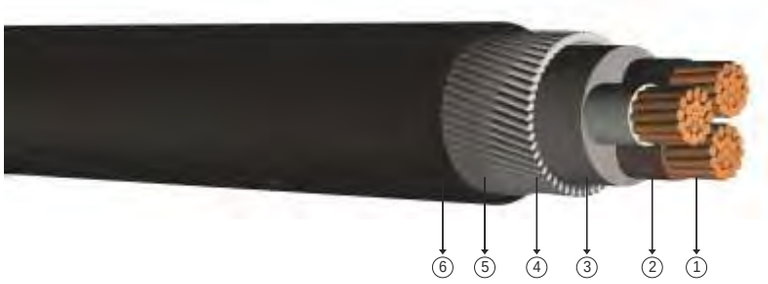
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x16 | 19,1 | 883 | 1000 | 1,15 | 115 | 125 |
| 2x25 | 22,5 | 1233 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 25,8 | 1689 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 28,8 | 2114 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 33,6 | 3003 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 37,1 | 3762 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 40,7 | 4541 | 1000 | 0,153 | 355 | 430 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6943X, YXVZ2V-R, CU/XLPE/PVC/SWA/PVC, N2XYRY

R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

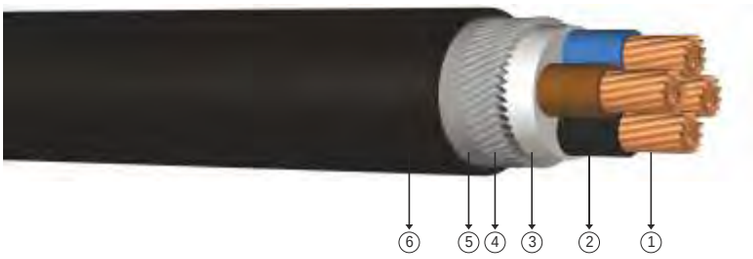
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16 | 20,3 | 1044 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 25,0 | 1639 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 27,4 | 2018 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 30,4 | 2550 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 35,5 | 3612 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 39,8 | 4664 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 44,9 | 6002 | 500 | 0,153 | 346 | 355 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6944X, YXVZ2V-R, CU/XLPE/PVC/SWA/PVC, N2XYRY

R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

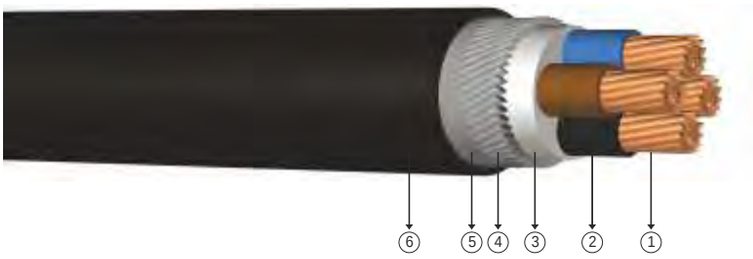
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x16 | 21,9 | 1260 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 27,1 | 1964 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 29,7 | 2453 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 34,4 | 3383 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 38,9 | 4456 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 44,5 | 6117 | 500 | 0,193 | 303 | 305 |
| 4x120 | 49,0 | 7398 | 500 | 0,153 | 346 | 355 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6945X, YXVZ2V-R, CU/XLPE/PVC/SWA/PVC, N2XYRY

R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x16 | 24,9 | 1654 | 1000 | 1,15 | 111 | 96 |
| 5x25 | 29,5 | 2333 | 1000 | 0,727 | 143 | 130 |
| 5x35 | 32,4 | 2920 | 1000 | 0,524 | 173 | 160 |
| 5x50 | 37,3 | 4011 | 1000 | 0,387 | 205 | 195 |
| 5x70 | 42,3 | 5327 | 500 | 0,268 | 252 | 247 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, control cables with copper conductor

Code: 6947X, 6940/12X, 6940/19X, 6940/27X, 6940/37X, YXVZ2V-R, CU/XLPE/PVC/SWA/PVC AUX, N2XYRY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 7x1,5 | 14,0 | 408 | 1000 | 12,1 | 18 | 15,6 |
| 12x1,5 | 18,0 | 702 | 1000 | 12,1 | 13,5 | 12 |
| 19x1,5 | 20,5 | 911 | 1000 | 12,1 | 12 | 10,8 |
| 27x1,5 | 24,9 | 1340 | 1000 | 12,1 | 9 | 8,4 |
| 37x1,5 | 27,2 | 1631 | 1000 | 12,1 | 9 | 8,4 |
| 7x2,5 | 15,8 | 535 | 1000 | 7,41 | 24 | 20,8 |
| 12x2,5 | 20,7 | 936 | 1000 | 7,41 | 18 | 16 |
| 19x2,5 | 24,8 | 1391 | 1000 | 7,41 | 16 | 14,4 |
| 27x2,5 | 28,8 | 1836 | 1000 | 7,41 | 12 | 11,2 |
| 37x2,5 | 31,7 | 2251 | 1000 | 7,41 | 12 | 11,2 |
| 7x4 | 18,2 | 784 | 1000 | 4,61 | 31,2 | 27,3 |
| 12x4 | 24,0 | 1354 | 1000 | 4,61 | 23,4 | 21 |
| 19x4 | 27,4 | 1808 | 1000 | 4,61 | 20,8 | 18,9 |
| 27x4 | 32,2 | 2410 | 1000 | 4,61 | 15,6 | 14,7 |
| 37x4 | 36,9 | 3289 | 1000 | 4,61 | 15,6 | 14,7 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, sector shaped, multi-core cables with copper conductor

Code: 6942X, 6943X, 6944X, CU/XLPE/PVC/SWA/PVC

SM: Sector Shaped Conductor

Standards: BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x25 | 18,8 | 953 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 21,5 | 1320 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 23,6 | 1641 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 26,3 | 2133 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 30,1 | 2939 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 32,9 | 3544 | 1000 | 0,153 | 355 | 430 |
| 2x150 | 35,4 | 4192 | 1000 | 0,124 | 400 | 490 |
| 2x185 | 40,2 | 5391 | 500 | 0,0991 | 455 | 570 |
| 2x240 | 44,4 | 6719 | 500 | 0,0754 | 530 | 680 |
| 2x300 | 48,1 | 8145 | 500 | 0,0601 | 605 | 785 |
| 2x400 | 53,1 | 10119 | 250 | 0,0470 | 690 | 860 |
| 3x25 | 23,4 | 1459 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 24,8 | 1772 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 27,2 | 2222 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 30,8 | 2954 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 35,2 | 4069 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 38,3 | 4893 | 1000 | 0,153 | 346 | 355 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, round steel wire armoured, sector shaped, multi-core cables with copper conductor

Code: 6942X, 6943X, 6944X, CU/XLPE/PVC/SWA/PVC

SM: Sector Shaped Conductor

Standards: BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

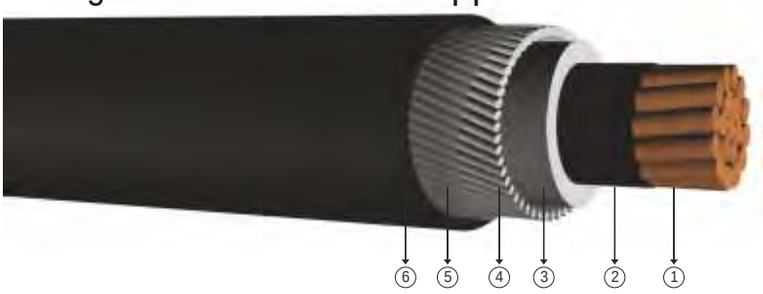
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x150 | 43,5 | 6264 | 500 | 0,124 | 390 | 407 |
| 3x185 | 47,3 | 7539 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 52,2 | 9423 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 56,8 | 11485 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 63,5 | 14322 | 250 | 0,0470 | 663 | 746 |
| 4x25 | 27,0 | 1842 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 28,7 | 2246 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 31,7 | 2848 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 37,2 | 4070 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 41,0 | 5225 | 500 | 0,193 | 303 | 305 |
| 4x120 | 46,2 | 6716 | 500 | 0,153 | 346 | 356 |
| 4x150 | 50,1 | 7998 | 500 | 0,124 | 390 | 407 |
| 4x185 | 54,7 | 9696 | 500 | 0,0991 | 441 | 469 |
| 4x240 | 60,8 | 12258 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 65,8 | 14884 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 76,1 | 19554 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 1,8/3 or 1,9/3,3 kV XLPE Insulated, round aluminium wire armoured, single core cables with copper conductor



Code: 61941X, YXVY2V-R, CU/XLPE/PVC/AWA/PVC, N2XYR(A)Y

R: Stranded Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 1,8/3 kV |
| | : 1,9/3,3 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Round alumininum wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 1x50 | 19,0 | 739 | 1000 | 0,387 | 251 | 258 |
| 1x70 | 20,5 | 955 | 1000 | 0,268 | 307 | 328 |
| 1x95 | 22,2 | 1221 | 1000 | 0,193 | 366 | 404 |
| 1x120 | 25,0 | 1557 | 1000 | 0,153 | 416 | 471 |
| 1x150 | 26,2 | 1830 | 1000 | 0,124 | 465 | 541 |
| 1x185 | 28,1 | 2203 | 1000 | 0,0991 | 526 | 626 |
| 1x240 | 30,6 | 2777 | 1000 | 0,0754 | 610 | 749 |
| 1x300 | 32,9 | 3392 | 1000 | 0,0601 | 689 | 864 |
| 1x400 | 37,0 | 4358 | 1000 | 0,0470 | 788 | 1018 |
| 1x500 | 40,7 | 5431 | 500 | 0,0366 | 889 | 1173 |
| 1x630 | 44,9 | 6818 | 500 | 0,0283 | 980 | 1315 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 1,8/3 kV or 1,9/3,3 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor

Code: 61943X, YXVZ2V-R, CU/XLPE/PVC/SWA/PVC, N2XYRY

R: Stranded Conductor
SM: Sector Shaped Conductor

Standards: IEC 60502-1, BS 5467

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 1,9/3,3 kV |
| | : 1,8/3 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

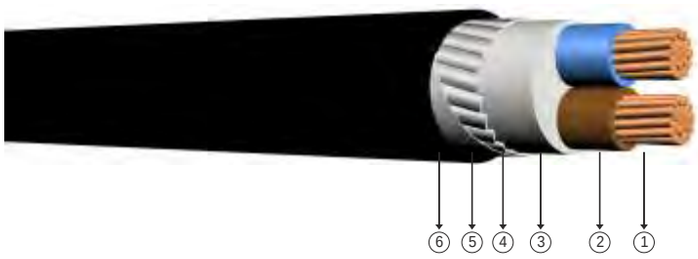
Construction

1. Stranded or sectorshaped copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 28,0 | 1733 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 24,9 | 1882 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 28,7 | 2565 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 32,4 | 3312 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 35,4 | 4203 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 39,8 | 5383 | 500 | 0,153 | 346 | 355 |
| 3x150 | 43,7 | 6379 | 500 | 0,124 | 390 | 407 |
| 3x185 | 47,5 | 7630 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 52,6 | 9574 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 56,8 | 11529 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 63,5 | 14322 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YXZ3V-R, N2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

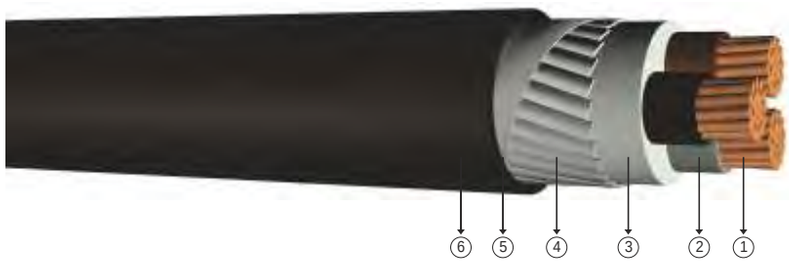
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x25 | 24,5 | 1410 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 26,3 | 1700 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 28,8 | 2100 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 32,9 | 2750 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 36,9 | 3500 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 40,4 | 4300 | 500 | 0,153 | 355 | 430 |
| 2x150 | 44,3 | 5150 | 500 | 0124 | 400 | 490 |
| 2x185 | 49,1 | 6300 | 500 | 0,0991 | 455 | 570 |
| 2x240 | 54,7 | 7950 | 250 | 0,0754 | 530 | 680 |
| 2x300 | 59,6 | 9550 | 250 | 0,0601 | 605 | 785 |
| 2x400 | 67,2 | 12150 | 250 | 0,0470 | 690 | 860 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YXZ3V-R, N2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

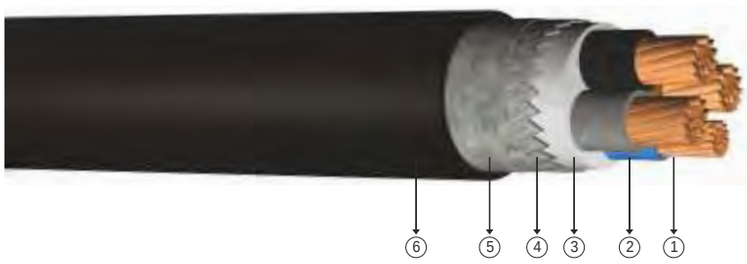
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 25,0 | 1600 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 27,0 | 1950 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 30,0 | 2550 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 34,5 | 3450 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 38,5 | 4400 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 42,5 | 5400 | 500 | 0,153 | 346 | 355 |
| 3x150 | 47,0 | 6600 | 500 | 0124 | 390 | 407 |
| 3x185 | 51,5 | 8000 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 58,5 | 10200 | 250 | 0,0754 | 511 | 551 |
| 3x300 | 65,5 | 12500 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 74,0 | 16300 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YXZ3V-R, N2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

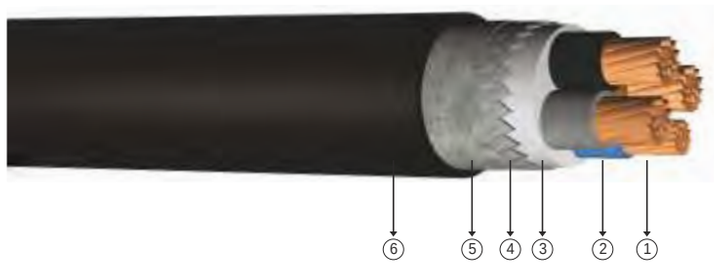
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 26,0 | 1800 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 27,5 | 2150 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 31,5 | 2800 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 35,5 | 3800 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 40,0 | 4900 | 500 | 0,193 | 303 | 305 |
| 3x120+70 | 44,5 | 6100 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 48,5 | 7250 | 500 | 0124 | 390 | 407 |
| 3x185+95 | 53,5 | 8900 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 60,5 | 11350 | 250 | 0,0754 | 511 | 551 |
| 3x300+150 | 67,5 | 13900 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 75,5 | 18000 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with copper conductor



Code: YXZ3V-R, N2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x16 | 23,0 | 1350 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 27,0 | 1900 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 29,0 | 2400 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 33,0 | 3150 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 38,0 | 4300 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 42,0 | 5500 | 500 | 0,193 | 303 | 305 |
| 4x120 | 47,0 | 6850 | 500 | 0,153 | 346 | 355 |
| 4x150 | 51,5 | 8250 | 500 | 0,124 | 390 | 407 |
| 4x185 | 57,0 | 10100 | 250 | 0,0991 | 441 | 469 |
| 4x240 | 64,5 | 12900 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 72,5 | 15900 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 82,5 | 20800 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, double steel tape armoured, multi-core cables with copper conductor

Code: YXZ4V-U, YXZ4V-R, CU/XLPE/DSTA/PVC, N2XBY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

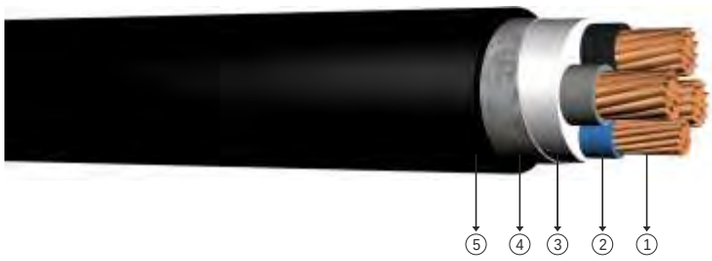
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 14,0 | 300 | 1000 | 12,1 | 30 | 24 |
| 3x2,5 | 13,5 | 350 | 1000 | 7,41 | 40 | 32 |
| 3x4 | 14,5 | 430 | 1000 | 4,61 | 52 | 42 |
| 3x6 | 15,5 | 520 | 1000 | 3,08 | 64 | 53 |
| 3x10 | 18,5 | 730 | 1000 | 1,83 | 86 | 73 |
| 3x16 | 20,5 | 950 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 24,0 | 1400 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 26,0 | 1750 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 29,0 | 2250 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 33,5 | 3100 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 37,5 | 4050 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 42,0 | 5300 | 500 | 0,153 | 346 | 355 |
| 3x150 | 47,0 | 6500 | 500 | 1,124 | 390 | 407 |
| 3x185 | 51,5 | 7900 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 58,0 | 10100 | 250 | 0,0754 | 511 | 551 |
| 3x300 | 65,5 | 12450 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 73,5 | 16100 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, double steel tape armoured, multi-core cables with copper conductor



Code: YXZ4V-R, CU/XLPE/DSTA/PVC, N2XBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

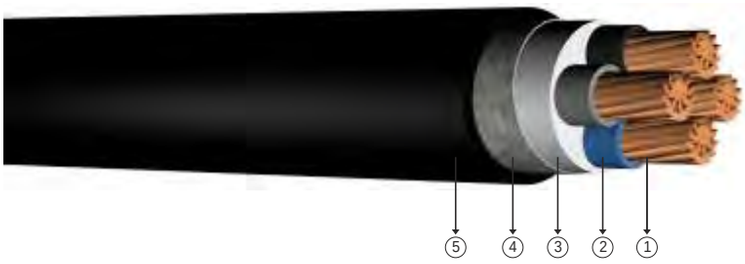
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 21,5 | 1100 | 1000 | 1,15 | 111 | 96 |
| 3x25+16 | 25,0 | 1550 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 26,5 | 1900 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 30,5 | 2550 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 34,5 | 3500 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 39,5 | 4800 | 1000 | 0,193 | 303 | 305 |
| 3x120+70 | 44,5 | 6050 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 48,0 | 7150 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 53,5 | 8850 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 60,0 | 11250 | 250 | 0,0754 | 511 | 551 |
| 3x300+150 | 67,0 | 13800 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 75,0 | 17700 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, double steel tape armoured, multi-core cables with copper conductor



Code: YXZ4V-U, YXZ4V-R, CU/XLPE/DSTA/PVC, N2XBY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 13,5 | 330 | 1000 | 12,1 | 30 | 24 |
| 4x2,5 | 14,5 | 400 | 1000 | 7,41 | 40 | 32 |
| 4x4 | 15,5 | 500 | 1000 | 4,61 | 52 | 42 |
| 4x6 | 17,0 | 600 | 1000 | 3,08 | 64 | 53 |
| 4x10 | 19,5 | 900 | 1000 | 1,83 | 86 | 73 |
| 4x16 | 22,0 | 1150 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 26,0 | 1700 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 28,0 | 2150 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 31,5 | 2850 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 37,0 | 3950 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 42,0 | 5400 | 500 | 0,193 | 303 | 305 |
| 4x120 | 47,0 | 6750 | 500 | 0,153 | 346 | 355 |
| 4x150 | 51,5 | 8200 | 500 | 1,124 | 390 | 407 |
| 4x185 | 57,0 | 10000 | 250 | 0,0991 | 441 | 469 |
| 4x240 | 64,5 | 12800 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 72,5 | 15800 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 82,0 | 20600 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, single core cables, with aluminium conductor

Code: YAXV-U, YAXV-R, AL/XLPE/PVC, NA2XY

U: Solid Conductor
R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application
These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

**RM or RE

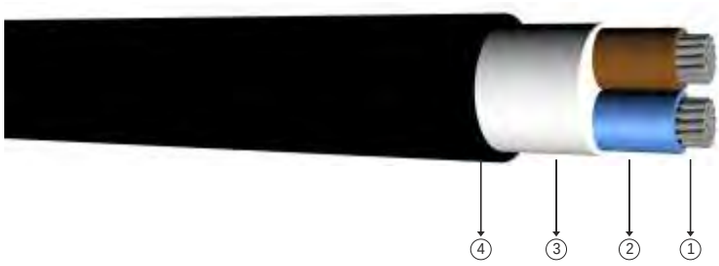
Construction

1 Stranded aluminium conductor
2 XLPE insulation
3 PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x10** | 8,5 | 95 | 1000 | 3,08 | - | - | - | - |
| 1x16** | 9,5 | 125 | 1000 | 1,91 | - | 86 | - | 68 |
| 1x25 | 10,5 | 150 | 1000 | 1,20 | - | 114 | - | 106 |
| 1x35 | 11,5 | 180 | 1000 | 0,868 | 164 | 137 | 163 | 131 |
| 1x50 | 13,0 | 250 | 1000 | 0,641 | 195 | 163 | 200 | 161 |
| 1x70 | 14,6 | 300 | 1000 | 0,443 | 238 | 201 | 254 | 205 |
| 1x95 | 16,5 | 400 | 1000 | 0,320 | 284 | 240 | 313 | 253 |
| 1x120 | 18,2 | 500 | 1000 | 0,253 | 323 | 274 | 366 | 296 |
| 1x150 | 20,1 | 600 | 1000 | 0,206 | 361 | 308 | 420 | 341 |
| 1x185 | 22,3 | 750 | 1000 | 0,164 | 408 | 348 | 486 | 395 |
| 1x240 | 25,1 | 950 | 1000 | 0,125 | 476 | 408 | 585 | 475 |
| 1x300 | 27,7 | 1150 | 1000 | 0,100 | 537 | 462 | 675 | 548 |
| 1x400 | 31,2 | 1450 | 1000 | 0,0778 | 616 | 531 | 798 | 647 |
| 1x500 | 34,7 | 1800 | 1000 | 0,0605 | 699 | 601 | 926 | 749 |
| 1x630 | 39,6 | 2400 | 500 | 0,0469 | 736 | 642 | 980 | 844 |
| 1x800 | 42,0 | 2950 | 500 | 0,0367 | - | - | - | - |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV XLPE insulated, multi-core cables with aluminium conductor



Code: YAXV-R, AL/XLPE/PVC, NA2XY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x25 | 21,5 | 600 | 1000 | 1,20 | 110 | 115 |
| 2x35 | 23,3 | 700 | 1000 | 0,868 | 130 | 140 |
| 2x50 | 25,8 | 900 | 1000 | 0,641 | 155 | 175 |
| 2x70 | 29,7 | 1200 | 1000 | 0,443 | 195 | 220 |
| 2x95 | 33,9 | 1550 | 1000 | 0,320 | 235 | 270 |
| 2x120 | 36,9 | 1950 | 1000 | 0,253 | 266 | 270 |
| 2x150 | 40,5 | 2350 | 1000 | 0,206 | 299 | 308 |
| 2x185 | 45,6 | 3000 | 1000 | 0,164 | 340 | 357 |
| 2x240 | 51,2 | 3800 | 1000 | 0,125 | 401 | 435 |
| 2x300 | 56,7 | 4700 | 1000 | 0,100 | 455 | 501 |
| 2x400 | 63,8 | 5950 | 1000 | 0,0778 | 526 | 592 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE insulated, multi-core cables, with aluminium conductor

Code: YAXV-R, AL/XLPE/PVC, NA2XY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

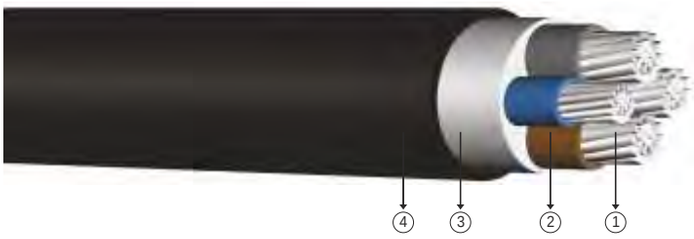
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 22,5 | 650 | 1000 | 1,20 | 111 | 100 |
| 3x35 | 25,0 | 800 | 1000 | 0,868 | 132 | 122 |
| 3x50 | 28,5 | 1100 | 1000 | 0,641 | 157 | 147 |
| 3x70 | 33,0 | 1500 | 1000 | 0,443 | 195 | 189 |
| 3x95 | 37,0 | 1850 | 1000 | 0,320 | 233 | 232 |
| 3x120 | 41,0 | 2300 | 1000 | 0,253 | 266 | 270 |
| 3x150 | 46,0 | 2900 | 1000 | 0,206 | 299 | 308 |
| 3x185 | 50,5 | 3500 | 1000 | 0,164 | 340 | 357 |
| 3x240 | 57,0 | 4450 | 1000 | 0,125 | 401 | 435 |
| 3x300 | 62,5 | 5450 | 500 | 0,100 | 455 | 501 |
| 3x400 | 71,0 | 7100 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, multi-core cables, with aluminium conductor



Code: YAXV-R, AL/XLPE/PVC, NA2XY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 23,5 | 750 | 1000 | 1,20 | 111 | 100 |
| 3x35+16 | 25,5 | 850 | 1000 | 0,868 | 132 | 122 |
| 3x50+25 | 30,0 | 1200 | 1000 | 0,641 | 157 | 147 |
| 3x70+35 | 34,5 | 1600 | 1000 | 0,443 | 195 | 189 |
| 3x95+50 | 39,0 | 2050 | 1000 | 0,320 | 233 | 232 |
| 3x120+70 | 43,0 | 2550 | 1000 | 0,253 | 266 | 270 |
| 3x150+70 | 47,5 | 3100 | 1000 | 0,206 | 299 | 308 |
| 3x185+95 | 52,5 | 3800 | 1000 | 0,164 | 340 | 357 |
| 3x240+120 | 59,0 | 4800 | 500 | 0,125 | 401 | 435 |
| 3x300+150 | 65,0 | 5900 | 500 | 0,100 | 455 | 501 |
| 3x400+185 | 73,5 | 7550 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, multi-core cables, with aluminium conductor

Code: YAXV-R, AL/XLPE/PVC, NA2XY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

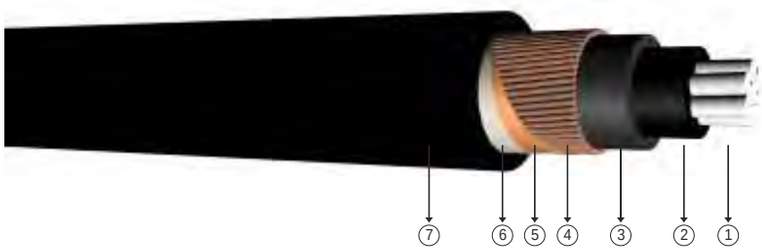
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 24,5 | 800 | 1000 | 1,20 | 111 | 100 |
| 4x35 | 27,5 | 1000 | 1000 | 0,868 | 132 | 122 |
| 4x50 | 31,5 | 1350 | 1000 | 0,641 | 157 | 147 |
| 4x70 | 36,5 | 1800 | 1000 | 0,443 | 195 | 189 |
| 4x95 | 41,0 | 2300 | 1000 | 0,320 | 233 | 232 |
| 4x120 | 46,0 | 2900 | 1000 | 0,253 | 266 | 270 |
| 4x150 | 51,0 | 3550 | 1000 | 0,206 | 299 | 308 |
| 4x185 | 56,5 | 4350 | 1000 | 0,164 | 340 | 357 |
| 4x240 | 63,0 | 5550 | 500 | 0,125 | 401 | 435 |
| 4x300 | 69,5 | 6750 | 500 | 0,100 | 455 | 501 |
| 4x400 | 79,5 | 8900 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, concentric wire screen, single core cables with aluminium conductor



Code: YAXCV-R, AL/XLPE/SC/PVC, NA2XCY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application These cables have a low dielectric loss, Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

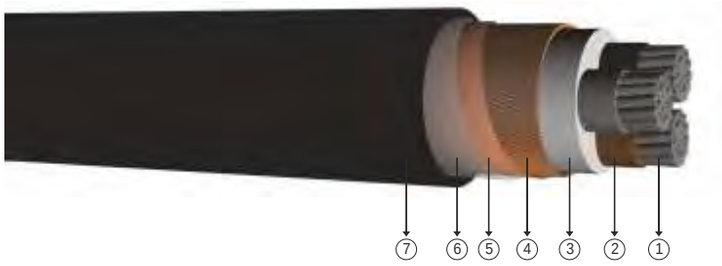
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. PVC inner sheath
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x25/16 | 15,5 | 400 | 1000 | 1,20 | - | 114 | - | 106 |
| 1x35/16 | 16,5 | 450 | 1000 | 0,868 | 164 | 137 | 163 | 131 |
| 1x50/25 | 18,5 | 600 | 1000 | 0,641 | 195 | 163 | 200 | 161 |
| 1x70/35 | 20,0 | 750 | 1000 | 0,443 | 238 | 201 | 254 | 205 |
| 1x95/50 | 23,0 | 1000 | 1000 | 0,320 | 284 | 240 | 313 | 253 |
| 1x120/70 | 25,0 | 1300 | 1000 | 0,253 | 323 | 274 | 366 | 296 |
| 1x150/70 | 27,0 | 1400 | 1000 | 0,206 | 361 | 308 | 420 | 341 |
| 1x185/95 | 29,5 | 1800 | 1000 | 0,164 | 408 | 350 | 486 | 395 |
| 1x240/120 | 33,0 | 2200 | 1000 | 0,125 | 476 | 408 | 585 | 475 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, concentric wire screen, multi-core cables with aluminium conductor



Code: YAXCV-R, AL/XLPE/SC/PVC, NA2XCY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application These cables have a low dielectric loss, Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any damage due to power leak to the surrounding area.

Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25/16 | 24,0 | 800 | 1000 | 1,20 | 111 | 100 |
| 3x35/16 | 26,5 | 1000 | 1000 | 0,868 | 132 | 122 |
| 3x50/25 | 30,5 | 1350 | 1000 | 0,641 | 157 | 147 |
| 3x70/35 | 35,0 | 1850 | 1000 | 0,443 | 195 | 189 |
| 3x95/50 | 39,5 | 2350 | 1000 | 0,320 | 233 | 232 |
| 3x120/70 | 43,0 | 2950 | 1000 | 0,253 | 266 | 270 |
| 3x150/70 | 48,5 | 3600 | 1000 | 0,206 | 299 | 308 |
| 3x185/95 | 53,0 | 4450 | 1000 | 0,164 | 340 | 357 |
| 3x240/120 | 59,5 | 5600 | 500 | 0,125 | 401 | 435 |
| 3x300/150 | 65,5 | 6850 | 500 | 0,100 | 455 | 501 |
| 3x400/185 | 74,5 | 8850 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round aluminium wire armoured, single-core cables with aluminium conductor

Code: YAXY2V-R, AL/XLPE/PVC/AWA/PVC, NA2XR(A)Y

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. PVC inner sheath
4. Round aluminium wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x25 | 15,5 | 300 | 1000 | 1,20 | - | 114 | - | 106 |
| 1x35 | 17,5 | 400 | 1000 | 0,868 | 164 | 137 | 163 | 131 |
| 1x50 | 19,5 | 450 | 1000 | 0,641 | 195 | 163 | 200 | 161 |
| 1x70 | 21,0 | 600 | 1000 | 0,443 | 238 | 201 | 254 | 205 |
| 1x95 | 23,5 | 750 | 1000 | 0,320 | 284 | 240 | 313 | 253 |
| 1x120 | 25,0 | 850 | 1000 | 0,253 | 323 | 274 | 366 | 296 |
| 1x150 | 27,0 | 1000 | 1000 | 0,206 | 361 | 308 | 420 | 341 |
| 1x185 | 29,5 | 1150 | 1000 | 0,164 | 408 | 350 | 486 | 395 |
| 1x240 | 32,0 | 1400 | 1000 | 0,125 | 476 | 408 | 585 | 475 |
| 1x300 | 35,5 | 1750 | 1000 | 0,100 | 537 | 462 | 675 | 548 |
| 1x400 | 39,5 | 2150 | 1000 | 0,0778 | 616 | 531 | 798 | 647 |
| 1x500 | 43,0 | 2600 | 1000 | 0,0605 | 699 | 601 | 926 | 749 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with aluminium conductor

Code: YAXZ2V-R, AL/XLPE/SWA/PVC, NA2XRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

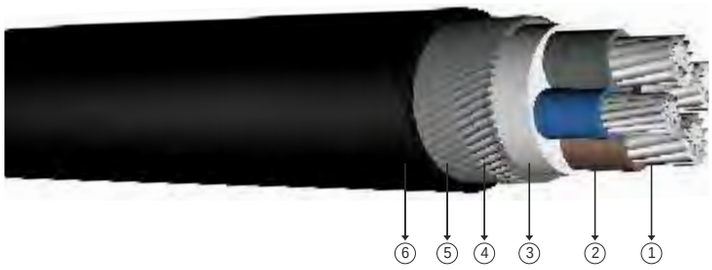
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 26,0 | 1300 | 1000 | 1,20 | 111 | 100 |
| 3x35 | 28,5 | 1550 | 1000 | 0,868 | 132 | 122 |
| 3x50 | 31,0 | 1800 | 1000 | 0,641 | 157 | 147 |
| 3x70 | 36,0 | 2600 | 1000 | 0,443 | 195 | 189 |
| 3x95 | 40,0 | 3300 | 1000 | 0,320 | 233 | 232 |
| 3x120 | 44,0 | 3850 | 1000 | 0,253 | 266 | 270 |
| 3x150 | 50,0 | 4900 | 500 | 0,206 | 299 | 308 |
| 3x185 | 55,0 | 5750 | 500 | 0,164 | 340 | 357 |
| 3x240 | 61,0 | 7150 | 500 | 0,125 | 401 | 435 |
| 3x300 | 66,0 | 8000 | 500 | 0,100 | 455 | 501 |
| 3x400 | 75,0 | 10000 | 250 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with aluminium conductor



Code: YAXZ2V-R, AL/XLPE/SWA/PVC, NA2XRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

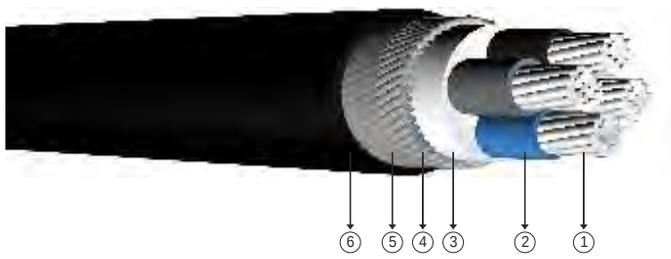
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 27,0 | 1400 | 1000 | 1,20 | 111 | 100 |
| 3x35+16 | 29,0 | 1600 | 1000 | 0,868 | 132 | 122 |
| 3x50+25 | 32,0 | 1950 | 1000 | 0,641 | 157 | 147 |
| 3x70+35 | 37,5 | 2900 | 1000 | 0,443 | 195 | 189 |
| 3x95+50 | 41,5 | 3500 | 1000 | 0,320 | 233 | 232 |
| 3x120+70 | 45,5 | 4200 | 1000 | 0,253 | 266 | 270 |
| 3x150+70 | 51,5 | 5300 | 500 | 0,206 | 299 | 308 |
| 3x185+95 | 57,0 | 6200 | 500 | 0,164 | 340 | 357 |
| 3x240+120 | 64,0 | 7600 | 500 | 0,125 | 401 | 435 |
| 3x300+150 | 68,0 | 8450 | 500 | 0,100 | 455 | 501 |
| 3x400+185 | 76,5 | 10400 | 250 | 0,0778 | 526 | 592 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with aluminium conductor



Code: YAXZ2V-R, AL/XLPE/SWA/PVC, NA2XRY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

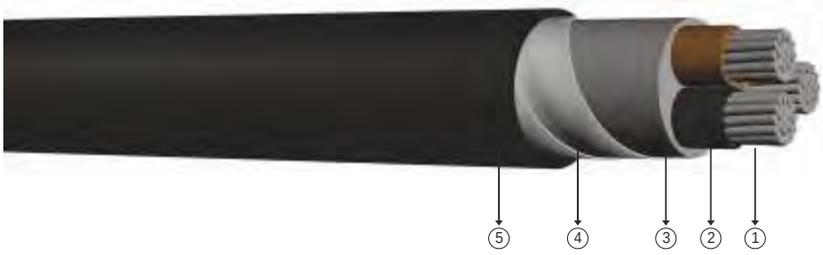
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 28,0 | 1500 | 1000 | 1,20 | 111 | 100 |
| 4x35 | 31,0 | 1800 | 1000 | 0,868 | 132 | 122 |
| 4x50 | 35,0 | 2300 | 1000 | 0,641 | 157 | 147 |
| 4x70 | 41,0 | 3200 | 1000 | 0,443 | 195 | 189 |
| 4x95 | 45,5 | 3850 | 1000 | 0,320 | 233 | 232 |
| 4x120 | 51,5 | 5100 | 500 | 0,253 | 266 | 270 |
| 4x150 | 56,5 | 6000 | 500 | 0,206 | 299 | 308 |
| 4x185 | 62,0 | 7000 | 500 | 0,164 | 340 | 357 |
| 4x240 | 68,5 | 8500 | 500 | 0,125 | 401 | 435 |
| 4x300 | 75,0 | 10000 | 500 | 0,100 | 455 | 501 |
| 4x400 | 86,5 | 13650 | 250 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAXZ4V-R, AL/XLPE/DSTA/PVC, NA2XBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

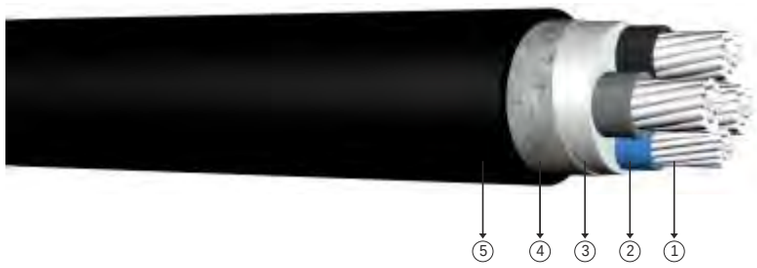
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 23,5 | 900 | 1000 | 1,20 | 111 | 100 |
| 3x35 | 26,0 | 1100 | 1000 | 0,868 | 132 | 122 |
| 3x50 | 30,0 | 1400 | 1000 | 0,641 | 157 | 147 |
| 3x70 | 34,5 | 1850 | 1000 | 0,443 | 195 | 189 |
| 3x95 | 38,5 | 2300 | 1000 | 0,320 | 233 | 232 |
| 3x120 | 43,0 | 3100 | 1000 | 0,253 | 266 | 270 |
| 3x150 | 48,5 | 3800 | 1000 | 0,206 | 299 | 308 |
| 3x185 | 53,0 | 4500 | 1000 | 0,164 | 340 | 357 |
| 3x240 | 59,0 | 5600 | 500 | 0,125 | 401 | 435 |
| 3x300 | 65,0 | 6700 | 500 | 0,100 | 455 | 501 |
| 3x400 | 73,5 | 8450 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAXZ4V-R, AL/XLPE/DSTA/PVC, NA2XBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

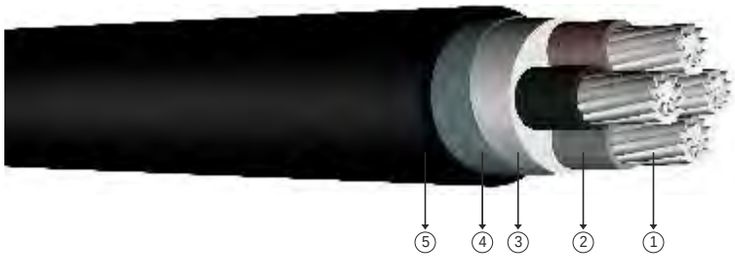
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 25,0 | 1000 | 1000 | 1,20 | 111 | 100 |
| 3x35+16 | 27,0 | 1150 | 1000 | 0,868 | 132 | 122 |
| 3x50+25 | 31,0 | 1550 | 1000 | 0,641 | 157 | 147 |
| 3x70+35 | 35,5 | 2000 | 1000 | 0,443 | 195 | 189 |
| 3x95+50 | 41,0 | 2800 | 1000 | 0,320 | 233 | 232 |
| 3x120+70 | 45,5 | 3400 | 1000 | 0,253 | 266 | 270 |
| 3x150+70 | 49,5 | 4000 | 1000 | 0,206 | 299 | 308 |
| 3x185+95 | 55,0 | 4850 | 1000 | 0,164 | 340 | 357 |
| 3x240+120 | 61,0 | 6000 | 500 | 0,125 | 401 | 435 |
| 3x300+150 | 67,0 | 7150 | 500 | 0,100 | 455 | 501 |
| 3x400+185 | 76,0 | 9000 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE insulated, double steel tape armoured, multi-core cables with aluminium conductor



Code: YAXZ4V-R, AL/XLPE/DSTA/PVC, NA2XBY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

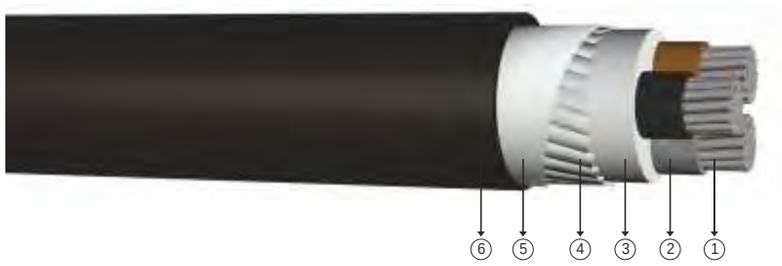
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized double steel tape
5. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 26,0 | 1050 | 1000 | 1,20 | 111 | 100 |
| 4x35 | 28,5 | 1300 | 1000 | 0,868 | 132 | 122 |
| 4x50 | 33,0 | 1550 | 1000 | 0,641 | 157 | 147 |
| 4x70 | 38,0 | 2250 | 1000 | 0,443 | 195 | 189 |
| 4x95 | 43,0 | 3100 | 1000 | 0,320 | 233 | 232 |
| 4x120 | 48,0 | 3800 | 1000 | 0,253 | 266 | 270 |
| 4x150 | 53,0 | 4550 | 1000 | 0,206 | 299 | 308 |
| 4x185 | 58,5 | 5450 | 500 | 0,164 | 340 | 357 |
| 4x240 | 65,5 | 6800 | 500 | 0,125 | 401 | 435 |
| 4x300 | 72,0 | 8100 | 500 | 0,100 | 455 | 501 |
| 4x400 | 82,0 | 10450 | 250 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAXZ3V-R, NA2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

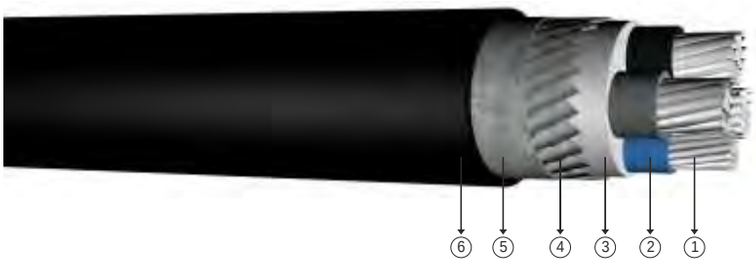
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 25,0 | 1150 | 1000 | 1,20 | 111 | 100 |
| 3x35 | 27,0 | 1350 | 1000 | 0,868 | 132 | 122 |
| 3x50 | 31,0 | 1700 | 1000 | 0,641 | 157 | 147 |
| 3x70 | 35,5 | 2200 | 1000 | 0,443 | 195 | 189 |
| 3x95 | 39,5 | 2700 | 1000 | 0,320 | 233 | 232 |
| 3x120 | 43,5 | 3200 | 1000 | 0,253 | 266 | 270 |
| 3x150 | 48,5 | 3900 | 1000 | 0,206 | 299 | 308 |
| 3x185 | 53,0 | 4650 | 1000 | 0,164 | 340 | 357 |
| 3x240 | 59,5 | 5700 | 500 | 0,125 | 401 | 435 |
| 3x300 | 65,0 | 6850 | 500 | 0,100 | 455 | 501 |
| 3x400 | 73,5 | 8650 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAXZ3V-R, NA2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

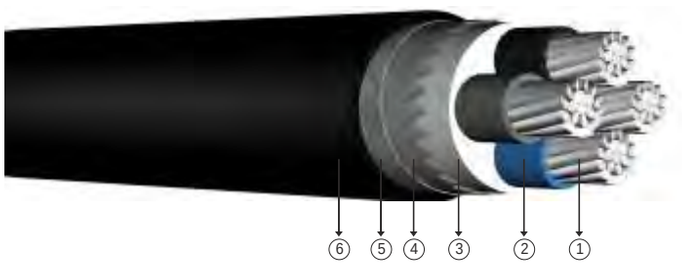
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 26,0 | 1250 | 1000 | 1,20 | 111 | 100 |
| 3x35+16 | 28,0 | 1400 | 1000 | 0,868 | 132 | 122 |
| 3x50+25 | 32,0 | 1850 | 1000 | 0,641 | 157 | 147 |
| 3x70+35 | 36,5 | 2350 | 1000 | 0,443 | 195 | 189 |
| 3x95+50 | 41,0 | 2900 | 1000 | 0,320 | 233 | 232 |
| 3x120+70 | 45,5 | 3500 | 1000 | 0,253 | 266 | 270 |
| 3x150+70 | 50,0 | 4150 | 1000 | 0,206 | 299 | 308 |
| 3x185+95 | 55,0 | 4950 | 1000 | 0,164 | 340 | 357 |
| 3x240+120 | 61,5 | 6100 | 500 | 0,125 | 401 | 435 |
| 3x300+150 | 67,5 | 7300 | 500 | 0,100 | 455 | 501 |
| 3x400+185 | 76,0 | 9200 | 500 | 0,0778 | 526 | 592 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV XLPE Insulated, flat steel wire armoured, multi-core cables with aluminium conductor



Code: YAXZ3V-R, NA2XFGY

R: Stranded Conductor

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 27,0 | 1300 | 1000 | 1,20 | 111 | 100 |
| 4x35 | 29,5 | 1550 | 1000 | 0,868 | 132 | 122 |
| 4x50 | 34,0 | 2000 | 1000 | 0,641 | 157 | 147 |
| 4x70 | 39,0 | 2650 | 1000 | 0,443 | 195 | 189 |
| 4x95 | 43,5 | 3200 | 1000 | 0,320 | 233 | 232 |
| 4x120 | 48,5 | 3900 | 1000 | 0,253 | 266 | 270 |
| 4x150 | 53,5 | 4700 | 1000 | 0,206 | 299 | 308 |
| 4x185 | 58,5 | 5600 | 500 | 0,164 | 340 | 357 |
| 4x240 | 65,5 | 6900 | 500 | 0,125 | 401 | 435 |
| 4x300 | 72,0 | 8300 | 500 | 0,100 | 455 | 501 |
| 4x400 | 82,0 | 10650 | 250 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

FLARET

Fire Resistance
Installation Cables

Fire Resistance
Low Voltage Cables

Did you take all your precautions against fire?

HES KABLO

Reliable technology

# 300/500 V and 450/750 V halogen free, flame retardant, single core cables with copper conductor

Code: H05Z1-U, H07Z1-U, H07Z1-R

U: Solid conductor
R: Stranded Conductor

Standards: EN 50525-3-31

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V<br>450/750 V |

Application Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

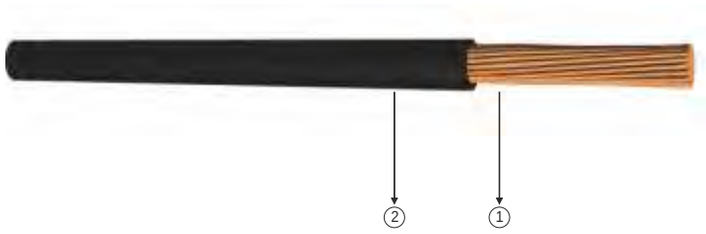
*RE : Solid conductor (H07Z1-U)*
*RM : Stranded conductor (H07Z1-R)*
* *: 300/500 V (H05Z1 - U)* ** : RM or RE

Construction

1 Solid or stranded copper conductor 2 HFFR insulation

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| * 0,5 RE | 2,0 | 8 | 100 | 36,0 | - | - |
| * 0,75 RE | 2,2 | 11 | 100 | 24,5 | - | 15 |
| * 1,0 RE | 2,4 | 14 | 100 | 18,1 | 11 | 19 |
| **1,5 RE | 2,6 | 20 | 100 | 12,1 | 16 | 24 |
| **2,5 RE | 3,2 | 32 | 100 | 7,41 | 20 | 32 |
| **4,0 RE | 3,9 | 46 | 100 | 4,61 | 27 | 42 |
| **6,0 RE | 4,4 | 65 | 100 | 3,08 | 35 | 54 |
| 10 RM | 6,1 | 115 | 100 | 1,83 | 48 | 73 |
| 16 RM | 6,8 | 170 | 1000 | 1,15 | 65 | 98 |
| 25 RM | 8,8 | 260 | 1000 | 0,727 | 88 | 129 |
| 35 RM | 9,8 | 355 | 1000 | 0,524 | 110 | 158 |
| 50 RM | 11,0 | 500 | 1000 | 0,387 | 140 | 198 |
| 70 RM | 13,2 | 680 | 1000 | 0,268 | 175 | 245 |
| 95 RM | 15,0 | 930 | 1000 | 0,193 | 210 | 292 |
| 120 RM | 17,0 | 1170 | 1000 | 0,153 | 250 | 344 |
| 150 RM | 18,0 | 1450 | 1000 | 0,124 | - | 391 |
| 185 RM | 21,0 | 1850 | 1000 | 0,0991 | - | 448 |
| 240 RM | 23,0 | 2350 | 1000 | 0,0754 | - | 528 |
| 300 RM | 25,5 | 2950 | 1000 | 0,0601 | - | 608 |
| 400 RM | 29,0 | 3900 | 1000 | 0,0470 | - | 726 |

# 300/500 V and 450/750 V halogen free, flame retardant, single core cables with flexible copper conductor



Code: H05Z1-K, H07Z1-K

K: Flexible Conductor

Standards: EN 50525-3-31

Technical Data

Max. operating temperature : 70°C
Max. short circuit temperature : 160°C (max. 5 sec.)
Rated voltage : 300/500 V
450/750 V

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

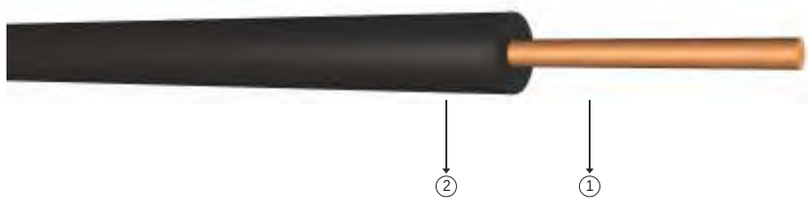
** : 300/500 V (H05Z1 - K)*

Construction

1 Flexible copper conductor
2 HFFR insulation

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| * 0,5 | 2,2 | 9 | 100 | 39,0 | - | - |
| * 0,75 | 2,4 | 12 | 100 | 26,0 | - | 16 |
| * 1,0 | 2,6 | 15 | 100 | 19,5 | 12 | 20 |
| 1,5 | 3,0 | 22 | 100 | 13,3 | 15 | 24 |
| 2,5 | 3,6 | 34 | 100 | 7,98 | 20 | 32 |
| 4,0 | 4,2 | 50 | 100 | 4,95 | 25 | 42 |
| 6,0 | 4,8 | 70 | 100 | 3,30 | 33 | 54 |
| 10 | 6,7 | 120 | 100 | 1,91 | 45 | 73 |
| 16 | 8,0 | 179 | 100 | 1,21 | 61 | 98 |
| 25 | 9,7 | 277 | 1000 | 0,78 | 83 | 129 |
| 35 | 11,0 | 376 | 1000 | 0,554 | 103 | 158 |
| 50 | 13,5 | 535 | 1000 | 0,386 | 132 | 198 |
| 70 | 15,0 | 730 | 1000 | 0,272 | 165 | 245 |
| 95 | 17,5 | 900 | 1000 | 0,206 | 197 | 292 |
| 120 | 19,5 | 1230 | 1000 | 0,161 | 235 | 344 |
| 150 | 22,0 | 1500 | 1000 | 0,129 | - | 391 |
| 185 | 24,5 | 1900 | 1000 | 0,106 | - | 448 |
| 240 | 27,5 | 2450 | 1000 | 0,0801 | - | 528 |

# 300/500 V and 450/750 V halogen free, cross linked, flame retardant, single core cables with copper conductor



Code: H05Z-U, H07Z-U (6491B), H07Z-R (6491B)

U: Solid conductor
R: Stranded Conductor

Standards: BS EN 50525-3-41, EN 50525-3-41

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 300/500 V<br>450/750 V |

Application Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

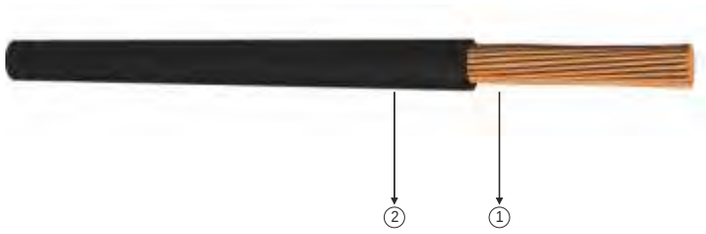
*RE : Solid conductor (H07Z-U)*
*RM : Stranded conductor (H07Z-R)*
** : 300/500 V (H05Z - U) ** RM or RE*

Construction

1 Solid or stranded copper conductor 2 Cross-linked halogen free insulation

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| * 0,5 RE | 2,0 | 8 | 100 | 36,0 | - | 9 |
| * 0,75 RE | 2,2 | 11 | 100 | 24,5 | - | 15 |
| * 1,0 RE | 2,4 | 14 | 100 | 18,1 | 11 | 19 |
| **1,5 RE | 2,6 | 20 | 100 | 12,1 | 15 | 24 |
| **2,5 RE | 3,2 | 32 | 100 | 7,41 | 20 | 32 |
| **4,0 RE | 3,9 | 46 | 100 | 4,61 | 25 | 42 |
| **6,0 RE | 4,4 | 65 | 100 | 3,08 | 33 | 54 |
| 10 RM | 6,1 | 115 | 100 | 1,83 | 45 | 73 |
| 16 RM | 6,8 | 170 | 1000 | 1,15 | 61 | 98 |
| 25 RM | 8,8 | 260 | 1000 | 0,727 | 83 | 129 |
| 35 RM | 9,8 | 355 | 1000 | 0,524 | 103 | 158 |
| 50 RM | 11,0 | 500 | 1000 | 0,387 | 132 | 198 |
| 70 RM | 13,2 | 680 | 1000 | 0,268 | 165 | 245 |
| 95 RM | 15,0 | 930 | 1000 | 0,193 | 197 | 292 |
| 120 RM | 17,0 | 1170 | 1000 | 0,153 | 235 | 344 |
| 150 RM | 18,0 | 1450 | 1000 | 0,124 | - | 391 |
| 185 RM | 21,0 | 1850 | 1000 | 0,0991 | - | 448 |
| 240 RM | 23,0 | 2350 | 1000 | 0,0754 | - | 528 |

# 300/500 V and 450/750 V halogen free, cross linked, flame retardant, single core cables with flexible copper conductor



Code: H05Z-K (2491B), H07Z-K (6701B)

K: Flexible Conductor

Standards: BS EN 50525-3-41

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 300/500 V
450/750 V

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

** : 300/500 V (H05Z - K)*

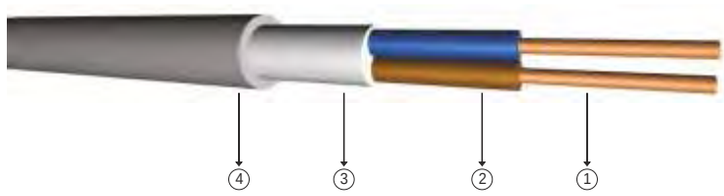
Construction

1 Flexible copper conductor

2 Cross-linked halogen free insulation

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| * 0,5 | 2,2 | 9 | 100 | 39,0 | - | 9 |
| * 0,75 | 2,4 | 12 | 100 | 26,0 | - | 15 |
| * 1,0 | 2,6 | 15 | 100 | 19,5 | 11 | 19 |
| 1,5 | 3,0 | 22 | 100 | 13,3 | 15 | 24 |
| 2,5 | 3,6 | 34 | 100 | 7,98 | 20 | 32 |
| 4,0 | 4,2 | 50 | 100 | 4,95 | 25 | 42 |
| 6,0 | 4,8 | 70 | 100 | 3,30 | 33 | 54 |
| 10 | 6,7 | 120 | 100 | 1,91 | 45 | 73 |
| 16 | 8,0 | 179 | 100 | 1,21 | 61 | 98 |
| 25 | 9,7 | 277 | 1000 | 0,78 | 83 | 129 |
| 35 | 11,0 | 376 | 1000 | 0,554 | 103 | 158 |
| 50 | 13,5 | 535 | 1000 | 0,386 | 132 | 198 |
| 70 | 15,0 | 730 | 1000 | 0,272 | 165 | 245 |
| 95 | 17,5 | 900 | 1000 | 0,206 | 197 | 292 |
| 120 | 19,5 | 1230 | 1000 | 0,161 | 235 | 344 |
| 150 | 22,0 | 1500 | 1000 | 0,129 | - | 391 |
| 185 | 24,5 | 1900 | 1000 | 0,106 | - | 448 |
| 240 | 27,5 | 2450 | 1000 | 0,0801 | - | 528 |

# 300/500 V halogen free, flame retardant, multi core cables with copper conductor



Code: NHXMH-O, NHXMH-J (052XZ1-U, 052XZ1-R)

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: VDE 0250 214, TSE K 328

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 300/500 V |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

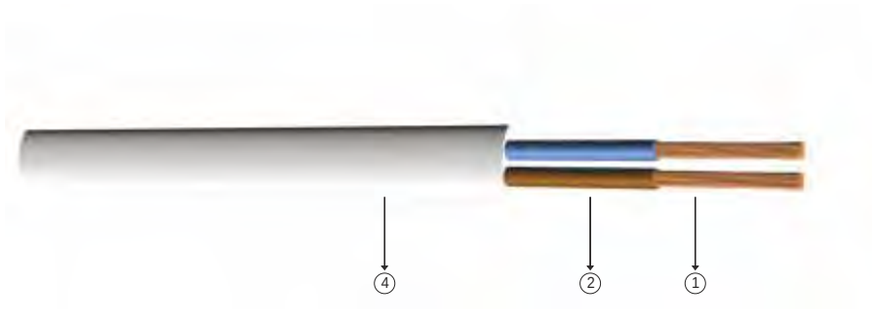
*RE : Solid conductor (052XZ1-U)*
*RM : Stranded conductor (052XZ1-R)*

Construction

1 Solid or stranded copper conductor
2 XLPE insulation
3 Thermoplastic filler
4 HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C Max | Current Carrying Capacity (A) |
| mm² | mm | kg/km | m | Ω/km | In air at 30°C |
| 2x1,5 RE | 8,5 | 110 | 100 | 12,1 | 28 |
| 2x2,5 RE | 9,5 | 140 | 100 | 7,41 | 38 |
| 2x4 RE | 10,5 | 200 | 100 | 4,61 | 52 |
| 2x6 RE | 11,5 | 250 | 100 | 3,08 | 65 |
| 2x10 RM | 15,0 | 430 | 1000 | 1,83 | 86 |
| 3x1,5 RE | 9,0 | 125 | 100 | 12,1 | 24 |
| 3x2,5 RE | 10,0 | 160 | 100 | 7,41 | 32 |
| 3x4 RE | 11,0 | 230 | 100 | 4,61 | 42 |
| 3x6 RE | 12,5 | 290 | 100 | 3,08 | 53 |
| 3x10 RM | 15,0 | 520 | 1000 | 1,83 | 73 |
| 4x1,5 RE | 9,5 | 150 | 100 | 12,1 | 24 |
| 4x2,5 RE | 10,5 | 200 | 100 | 7,41 | 32 |
| 4x4 RE | 12,5 | 270 | 100 | 4,61 | 42 |
| 4x6 RE | 14,0 | 410 | 100 | 3,08 | 53 |
| 4x10 RM | 18,0 | 640 | 1000 | 1,83 | 73 |
| 4x16 RM | 20,0 | 940 | 1000 | 1,15 | 96 |
| 4x25 RM | 25,0 | 1500 | 1000 | 0,727 | 130 |
| 4x35 RM | 26,0 | 1900 | 1000 | 0,524 | 160 |
| 5x1,5 RE | 10,5 | 165 | 100 | 12,1 | 18 |
| 5x2,5 RE | 11,5 | 220 | 100 | 7,41 | 24 |
| 5x4 RE | 14,0 | 370 | 100 | 4,61 | 31 |
| 5x6 RE | 15,5 | 450 | 100 | 3,08 | 40 |
| 5x10 RM | 18,0 | 770 | 1000 | 1,83 | 55 |
| 5x16 RM | 23,0 | 1080 | 1000 | 1,15 | 72 |
| 5x25 RM | 27,5 | 1680 | 1000 | 0,727 | 97 |

# 300/500 V halogen free, flame retardant, multi core cables with copper conductor



Code: H05Z1Z1-F, H03Z1Z1-F

F: Flexible Conductor

Standards: EN 50525-3-11

Technical Data

| | |
|---|---|
| Max. operating temperature | : 70°C |
| Max. short circuit temperature | : 160°C (max. 5 sec.) |
| Rated voltage | : 300/500 V |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

Construction

1 Flexible copper conductor
2 HFFR insulation
3 HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) |
| mm² | mm | kg/km | m | Ω/km | In air at 30ºC |
| 2x0,75 | 6,2 | 55 | 100 | 26,0 | 13 |
| 2x1,0 | 6,6 | 70 | 100 | 19,5 | 15 |
| 2x1,5 | 7,6 | 90 | 100 | 13,3 | 20 |
| 2x2,5 | 9,2 | 140 | 100 | 7,98 | 26 |
| 2x4 | 10,6 | 210 | 100 | 4,95 | 33 |
| 3x0,75 | 6,5 | 75 | 100 | 26,0 | 13 |
| 3x1,0 | 7,2 | 80 | 100 | 19,5 | 15 |
| 3x1,5 | 8,5 | 115 | 100 | 13,3 | 20 |
| 3x2,5 | 9,9 | 190 | 100 | 7,98 | 26 |
| 3x4 | 12,3 | 265 | 100 | 4,95 | 33 |
| 4x0,75 | 7,1 | 90 | 100 | 26,0 | 13 |
| 4x1,0 | 7,8 | 105 | 100 | 19,5 | 15 |
| 4x1,5 | 9,2 | 145 | 100 | 13,3 | 20 |
| 4x2,5 | 10,9 | 215 | 100 | 7,98 | 26 |
| 4x4 | 13,4 | 350 | 100 | 4,95 | 33 |
| 5x0,75 | 8,0 | 120 | 100 | 26,0 | 13 |
| 5x1,0 | 8,6 | 135 | 100 | 19,5 | 15 |
| 5x1,5 | 10,3 | 180 | 100 | 13,3 | 20 |
| 5x2,5 | 12,1 | 270 | 100 | 7,98 | 26 |
| 5x4 | 14,1 | 390 | 100 | 4,95 | 33 |

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, single core cables with copper conductor

Code: YXZ1-U, YXZ1-R, N2XH-O, N2XH-J, CU/XLPE/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

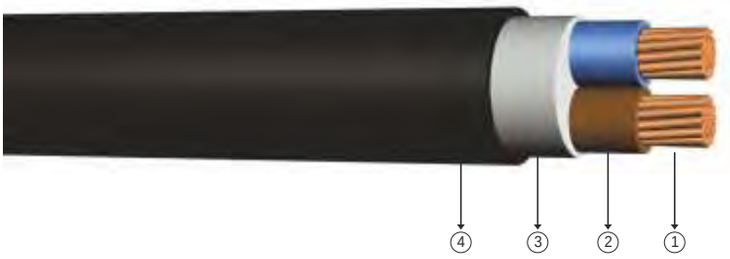
Construction

1 Solid or stranded copper conductor
2 XLPE insulation
3 HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x4 | 6,5 | 70 | 1000 | 4,61 | 66 | 55 | 56 | 44 |
| 1x6 | 7,0 | 95 | 1000 | 3,08 | 82 | 68 | 71 | 57 |
| 1x10 | 8,5 | 130 | 1000 | 1,83 | 109 | 90 | 96 | 77 |
| 1x16 | 9,5 | 200 | 1000 | 1,15 | 139 | 115 | 128 | 102 |
| 1x25 | 11,0 | 300 | 1000 | 0,727 | 179 | 149 | 173 | 139 |
| 1x35 | 12,0 | 400 | 1000 | 0,524 | 213 | 178 | 212 | 170 |
| 1x50 | 13,5 | 500 | 1000 | 0,387 | 251 | 211 | 258 | 208 |
| 1x70 | 15,5 | 750 | 1000 | 0,268 | 307 | 259 | 328 | 265 |
| 1x95 | 17,5 | 950 | 1000 | 0,193 | 366 | 310 | 404 | 326 |
| 1x120 | 19,5 | 1200 | 1000 | 0,153 | 416 | 352 | 471 | 381 |
| 1x150 | 20,5 | 1500 | 1000 | 0,124 | 465 | 396 | 541 | 438 |
| 1x185 | 23,5 | 1850 | 1000 | 0,0991 | 526 | 449 | 626 | 507 |
| 1x240 | 26,5 | 2350 | 1000 | 0,0754 | 610 | 521 | 749 | 606 |
| 1x300 | 28,5 | 3000 | 1000 | 0,0601 | 689 | 587 | 864 | 697 |
| 1x400 | 32,5 | 3900 | 1000 | 0,0470 | 788 | 669 | 1018 | 816 |
| 1x500 | 35,0 | 4900 | 1000 | 0,0366 | 889 | 748 | 1173 | 933 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with copper conductor



Code: YXZ1-U, YXZ1-R, N2XH-O, N2XH-J, CU/XLPE/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 10,0 | 150 | 1000 | 12,1 | 39 | 32 |
| 2x2,5 | 11,0 | 180 | 1000 | 7,41 | 51 | 42 |
| 2x4 | 12,0 | 230 | 1000 | 4,61 | 66 | 56 |
| 2x6 | 13,0 | 290 | 1000 | 3,08 | 82 | 71 |
| 2x10 | 15,0 | 430 | 1000 | 1,83 | 109 | 96 |
| 2x16 | 17,1 | 600 | 1000 | 1,15 | 115 | 125 |
| 2x25 | 21,5 | 950 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 23,3 | 1200 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 25,8 | 1500 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 29,7 | 2100 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 33,9 | 2800 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 37,4 | 3500 | 1000 | 0,153 | 355 | 430 |
| 2x150 | 41,1 | 4300 | 1000 | 0,124 | 400 | 490 |
| 2x185 | 45,9 | 5350 | 1000 | 0,0991 | 455 | 570 |
| 2x240 | 51,5 | 6900 | 500 | 0,0754 | 530 | 680 |
| 2x300 | 56,6 | 8500 | 500 | 0,0601 | 605 | 785 |
| 2x400 | 64,0 | 10900 | 500 | 0,0470 | 690 | 860 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with copper conductor

Code: YXZ1-U, YXZ1-R, N2XH-O, N2XH-J, CU/XLPE/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plants, data processing centers, business centers where there is a risk of fire.

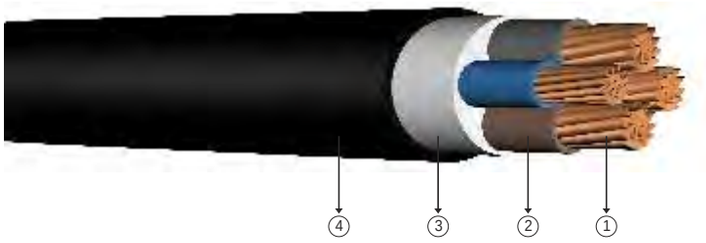
Construction

1 Solid or stranded copper conductor
2 XLPE insulation
3 Thermoplastic filler
4 HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 11,0 | 150 | 1000 | 12,1 | 30 | 24 |
| 3x2,5 | 12,0 | 200 | 1000 | 7,41 | 40 | 32 |
| 3x4 | 13,0 | 250 | 1000 | 4,61 | 52 | 42 |
| 3x6 | 14,0 | 340 | 1000 | 3,08 | 64 | 53 |
| 3x10 | 15,5 | 500 | 1000 | 1,83 | 86 | 73 |
| 3x16 | 18,0 | 700 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 22,0 | 1150 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 25,0 | 1500 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 27,0 | 1950 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 31,5 | 2700 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 35,5 | 3600 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 39,5 | 4500 | 1000 | 0,153 | 346 | 355 |
| 3x150 | 43,5 | 5500 | 500 | 0,124 | 390 | 407 |
| 3x185 | 48,5 | 6800 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 54,5 | 8900 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 60,5 | 11000 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 67,0 | 14100 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with copper conductor



Code: YXZ1-R, N2XH-O, N2XH-J, CU/XLPE/LSZH

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

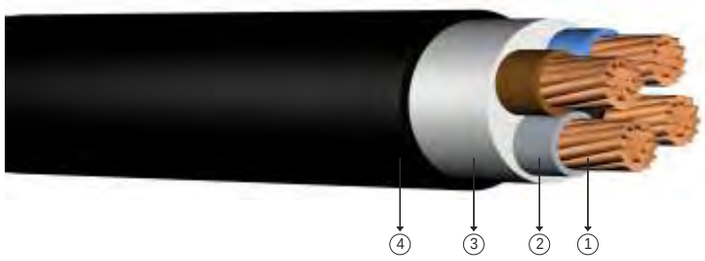
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 19,0 | 850 | 1000 | 1,15 | 111 | 96 |
| 3x25+16 | 24,0 | 1350 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 25,5 | 1650 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 28,8 | 2200 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 33,5 | 3100 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 37,5 | 4100 | 1000 | 0,193 | 303 | 305 |
| 3x120+70 | 42,0 | 5200 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 45,9 | 6250 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 51,0 | 7800 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 58,0 | 10100 | 500 | 0,0754 | 511 | 551 |
| 3x300+150 | 63,0 | 12500 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 71,0 | 16000 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with copper conductor



Code: YXZ1-U, YXZ1-R, N2XH, CU/XLPE/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

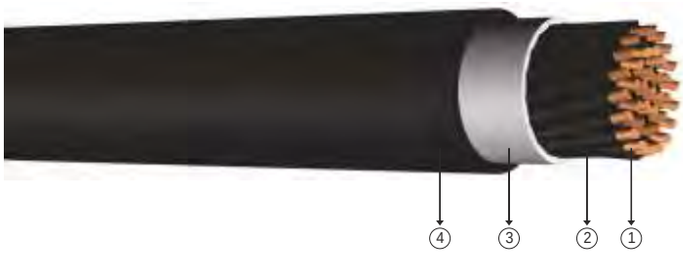
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 12,0 | 200 | 1000 | 12,1 | 30 | 24 |
| 4x2,5 | 13,0 | 250 | 1000 | 7,41 | 40 | 32 |
| 4x4 | 14,0 | 300 | 1000 | 4,61 | 52 | 42 |
| 4x6 | 15,5 | 400 | 1000 | 3,08 | 64 | 53 |
| 4x10 | 17,5 | 580 | 1000 | 1,83 | 86 | 73 |
| 4x16 | 20,0 | 850 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 24,5 | 1300 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 26,0 | 1700 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 30,0 | 2300 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 34,0 | 3200 | 1000 | 0268 | 252 | 247 |
| 4x95 | 38,0 | 4250 | 1000 | 0,193 | 303 | 305 |
| 4x120 | 43,0 | 5400 | 500 | 0,153 | 346 | 355 |
| 4x150 | 48,0 | 7000 | 500 | 0,124 | 390 | 407 |
| 4x185 | 53,0 | 8800 | 500 | 0,0991 | 441 | 469 |
| 4x240 | 61,0 | 11400 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 67,0 | 14000 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 76,0 | 18200 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, control cable with copper conductor



Code: YXZ1-U, YXZ1-R, N2XH-O, N2XH-J, CU/XLPE/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

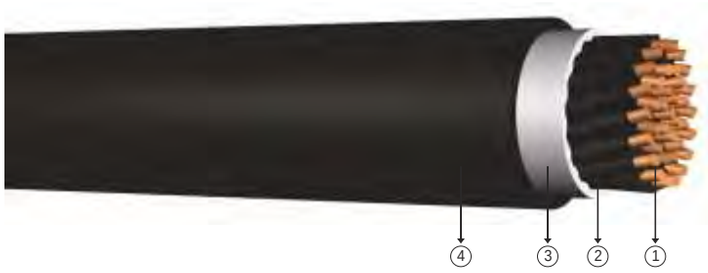
Construction

1 Solid or stranded copper conductor 2 XLPE insulation 3 Thermoplastic filler 4 HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x1,5 | 12,0 | 220 | 1000 | 12,1 | 21,0 | 18,0 |
| 6x1,5 | 13,0 | 270 | 1000 | 12,1 | 19,5 | 16,8 |
| 7x1,5 | 13,2 | 290 | 1000 | 12,1 | 18,0 | 15,6 |
| 8x1,5 | 15,0 | 370 | 1000 | 12,1 | 16,5 | 14,4 |
| 10x1,5 | 15,5 | 390 | 1000 | 12,1 | 15,0 | 13,2 |
| 12x1,5 | 16,0 | 430 | 1000 | 12,1 | 14,3 | 12,6 |
| 14x1,5 | 17,0 | 480 | 1000 | 12,1 | 13,5 | 12,0 |
| 16x1,5 | 17,4 | 520 | 1000 | 12,1 | 12,8 | 11,4 |
| 19x1,5 | 18,0 | 590 | 1000 | 12,1 | 12,0 | 10,8 |
| 21x1,5 | 19,0 | 650 | 1000 | 12,1 | 11,3 | 10,2 |
| 24x1,5 | 21,0 | 770 | 1000 | 12,1 | 10,5 | 9,6 |
| 27x1,5 | 21,4 | 800 | 1000 | 12,1 | 10,2 | 9,4 |
| 30x1,5 | 22,0 | 900 | 1000 | 12,1 | 9,9 | 9,1 |
| 37x1,5 | 24,0 | 1050 | 1000 | 12,1 | 9,3 | 8,6 |
| 40x1,5 | 25,0 | 1150 | 1000 | 12,1 | 9,0 | 8,4 |
| 48x1,5 | 27,0 | 1350 | 1000 | 12,1 | 8,4 | 7,9 |
| 52x1,5 | 28,0 | 1450 | 1000 | 12,1 | 7,8 | 7,4 |
| 61x1,5 | 30,0 | 1650 | 1000 | 12,1 | 7,5 | 7,2 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, control cable with copper conductor



Code: YXZ1-U, YXZ1-R, N2XH-O, N2XH-J, CU/XLPE/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: TS HD 604 S1, TS IEC 60502-1, VDE 0276-627

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

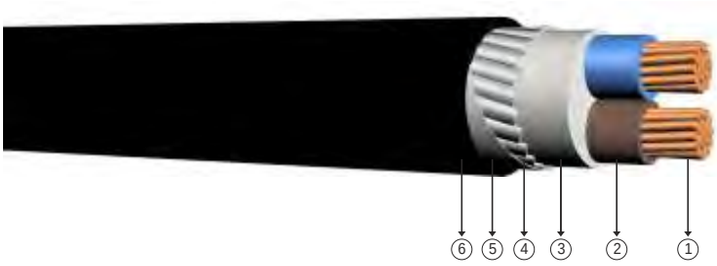
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x2,5 | 13,0 | 270 | 1000 | 7,41 | 28,0 | 24,0 |
| 6x2,5 | 13,5 | 325 | 1000 | 7,41 | 26,0 | 22,4 |
| 7x2,5 | 14,0 | 340 | 1000 | 7,41 | 24,0 | 21,0 |
| 8x2,5 | 15,0 | 440 | 1000 | 7,41 | 22,0 | 19,0 |
| 10x2,5 | 16,5 | 500 | 1000 | 7,41 | 20,0 | 17,5 |
| 12x2,5 | 17,0 | 550 | 1000 | 7,41 | 19,0 | 16,5 |
| 14x2,5 | 17,5 | 630 | 1000 | 7,41 | 18,0 | 16,0 |
| 16x2,5 | 18,5 | 700 | 1000 | 7,41 | 16,5 | 15,0 |
| 19x2,5 | 19,5 | 790 | 1000 | 7,41 | 16,0 | 14,5 |
| 21x2,5 | 20,0 | 850 | 1000 | 7,41 | 15,0 | 13,5 |
| 24x2,5 | 23,0 | 1020 | 1000 | 7,41 | 14,0 | 13,0 |
| 27x2,5 | 24,0 | 1090 | 1000 | 7,41 | 13,5 | 12,5 |
| 30x2,5 | 25,0 | 1190 | 1000 | 7,41 | 13,0 | 12,0 |
| 37x2,5 | 26,0 | 1440 | 1000 | 7,41 | 12,5 | 11,5 |
| 40x2,5 | 28,0 | 1530 | 1000 | 7,41 | 12,0 | 11,0 |
| 48x2,5 | 30,0 | 1890 | 1000 | 7,41 | 11,0 | 10,5 |
| 52x2,5 | 32,0 | 2030 | 1000 | 7,41 | 10,5 | 10,0 |
| 61x2,5 | 33,0 | 2270 | 1000 | 7,41 | 10,0 | 9,5 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, flat steel wire armoured multi core cables with copper conductor



Code: YXZ3Z1-R, N2XFGH-O, N2XFGH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x25 | 24,5 | 1410 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 26,3 | 1700 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 28,8 | 2100 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 32,9 | 2750 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 36,9 | 3500 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 40,4 | 4300 | 500 | 0,153 | 355 | 430 |
| 2x150 | 44,3 | 5150 | 500 | 0,124 | 400 | 490 |
| 2x185 | 49,1 | 6300 | 500 | 0,0991 | 455 | 570 |
| 2x240 | 54,7 | 7950 | 250 | 0,0754 | 530 | 680 |
| 2x300 | 59,6 | 9550 | 250 | 0,0601 | 605 | 785 |
| 2x400 | 67,2 | 12150 | 250 | 0,0470 | 690 | 860 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, flat steel wire armoured multi core cables with copper conductor

Code: YXZ3Z1-R, N2XFGH-O, N2XFGH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

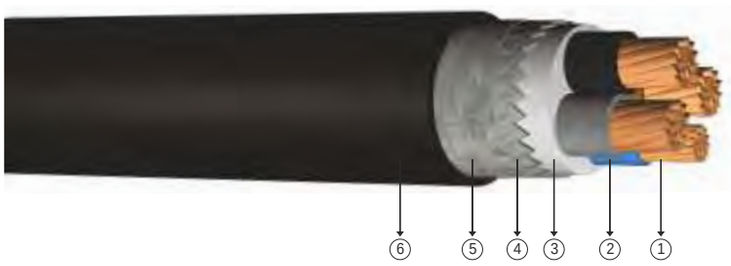
Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 25,0 | 1600 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 27,0 | 1950 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 30,0 | 2550 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 34,5 | 3450 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 38,5 | 4400 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 42,5 | 5400 | 500 | 0,153 | 346 | 355 |
| 3x150 | 47,0 | 6600 | 500 | 0,124 | 390 | 407 |
| 3x185 | 51,5 | 8000 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 58,5 | 10200 | 250 | 0,0754 | 511 | 551 |
| 3x300 | 65,5 | 12500 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 74,0 | 16300 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, flat steel wire armoured multi core cables with copper conductor



Code: YXZ3Z1-R, N2XFGH-O, N2XFGH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 26,0 | 1800 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 27,5 | 2150 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 31,5 | 2800 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 35,5 | 3800 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 40,0 | 4900 | 500 | 0,193 | 303 | 305 |
| 3x120+70 | 44,5 | 6100 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 48,5 | 7250 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 53,5 | 8900 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 60,5 | 11350 | 250 | 0,0754 | 511 | 551 |
| 3x300+150 | 67,5 | 13900 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 75,5 | 18000 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, flat steel wire armoured multi core cables with copper conductor

Code: YXZ3Z1-R, N2XFGH-O, N2XFGH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized flat steel wire
5. Galvanized steel binding tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x16 | 23,0 | 1350 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 27,0 | 1900 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 29,0 | 2400 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 33,0 | 3150 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 38,0 | 4300 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 42,0 | 5500 | 500 | 0,193 | 303 | 305 |
| 4x120 | 47,0 | 6850 | 500 | 0,153 | 346 | 355 |
| 4x150 | 51,5 | 8250 | 500 | 0,124 | 390 | 407 |
| 4x185 | 57,0 | 10100 | 250 | 0,0991 | 441 | 469 |
| 4x240 | 64,5 | 12900 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 72,5 | 15900 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 82,5 | 20800 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated round, aluminium wire armoured, single core cables with copper conductor

Code: YXY2Z1-R, N2XR(A)H-O, N2XR(A)H-J, CU/XLPE/LSZH/AWA/LSZH

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

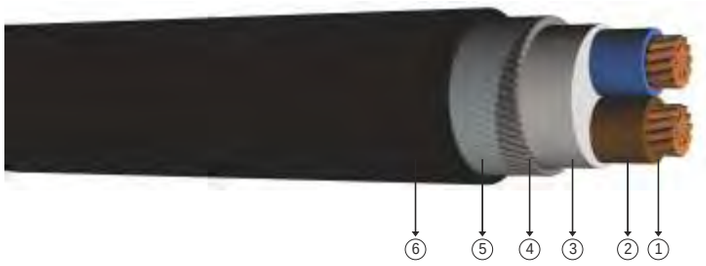
## Construction

1. Stranded copper conductors
2. XLPE insulation
3. HFFR inner sheath
4. Round aluminium wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x25 | 15,5 | 500 | 1000 | 0,727 | 179 | 149 | 173 | 139 |
| 1x35 | 17,5 | 700 | 1000 | 0,524 | 213 | 178 | 212 | 170 |
| 1x50 | 19,0 | 900 | 1000 | 0,387 | 251 | 211 | 258 | 208 |
| 1x70 | 20,5 | 1150 | 1000 | 0,268 | 307 | 259 | 328 | 265 |
| 1x95 | 23,0 | 1600 | 1000 | 0,193 | 366 | 310 | 404 | 326 |
| 1x120 | 25,0 | 1900 | 1000 | 0,153 | 416 | 352 | 471 | 381 |
| 1x150 | 26,5 | 2200 | 1000 | 0,124 | 465 | 396 | 541 | 438 |
| 1x185 | 28,5 | 2600 | 1000 | 0,0991 | 526 | 449 | 626 | 507 |
| 1x240 | 31,5 | 3200 | 1000 | 0,0754 | 610 | 521 | 749 | 606 |
| 1x300 | 36,0 | 4100 | 1000 | 0,0601 | 689 | 587 | 864 | 697 |
| 1x400 | 40,5 | 5100 | 500 | 0,0470 | 788 | 669 | 1018 | 816 |
| 1x500 | 45,5 | 6350 | 500 | 0,0366 | 889 | 748 | 1173 | 933 |
| 1x630 | 50,0 | 8800 | 500 | 0,0283 | 980 | 843 | 1315 | 1083 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, round steel wire armoured, single core cables with copper conductor



Code: YXY2Z1-U, YXZ2Z1-R, N2XRH-O, N2XRH-J, CU/XLPE/SWA/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 14,0 | 350 | 1000 | 12,1 | 39 | 32 |
| 2x2,5 | 15,0 | 390 | 1000 | 7,41 | 51 | 42 |
| 2x4 | 16,0 | 450 | 1000 | 4,61 | 66 | 56 |
| 2x6 | 17,0 | 540 | 1000 | 3,08 | 82 | 71 |
| 2x10 | 20,0 | 850 | 1000 | 1,83 | 109 | 96 |
| 2x16 | 22,0 | 1070 | 1000 | 1,15 | 115 | 125 |
| 2x25 | 26,0 | 1600 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 28,0 | 1900 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 30,0 | 2300 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 34,0 | 3000 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 39,0 | 4000 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 43,0 | 4750 | 500 | 0,153 | 355 | 430 |
| 2x150 | 46,0 | 5800 | 500 | 0,124 | 400 | 490 |
| 2x185 | 53,0 | 7500 | 500 | 0,0991 | 455 | 570 |
| 2x240 | 58,0 | 9000 | 500 | 0,0754 | 530 | 680 |
| 2x300 | 63,0 | 11000 | 250 | 0,0601 | 605 | 785 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, round steel wire armoured, single core cables with copper conductor

Code: YXY2Z1-U, YXZ2Z1-R, N2XRH-O, N2XRH-J, CU/XLPE/SWA/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 13,5 | 370 | 1000 | 12,1 | 30 | 24 |
| 3x2,5 | 14,0 | 430 | 1000 | 7,41 | 40 | 32 |
| 3x4 | 15,5 | 510 | 1000 | 4,61 | 52 | 42 |
| 3x6 | 16,5 | 600 | 1000 | 3,08 | 64 | 53 |
| 3x10 | 20,0 | 980 | 1000 | 1,83 | 86 | 73 |
| 3x16 | 22,0 | 1260 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 26,0 | 1700 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 28,0 | 2100 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 31,0 | 2700 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 36,5 | 3800 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 40,5 | 4700 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 44,5 | 5700 | 500 | 0,153 | 346 | 355 |
| 3x150 | 50,0 | 7300 | 500 | 0,124 | 390 | 407 |
| 3x185 | 55,0 | 8800 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 61,5 | 11000 | 250 | 0,0754 | 511 | 551 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, round steel wire armoured, single core cables with copper conductor

Code: YXY2Z1-R, N2XRH-O, N2XRH-J, CU/XLPE/SWA/LSZH

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

## Construction

1. Stranded copper conductors
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 23,0 | 1400 | 1000 | 1,15 | 111 | 96 |
| 3x25+16 | 27,0 | 2100 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 29,0 | 2400 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 32,5 | 3100 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 38,0 | 4400 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 42,0 | 5600 | 500 | 0,193 | 303 | 305 |
| 3x120+70 | 46,5 | 6900 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 51,5 | 8500 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 56,5 | 10300 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 63,5 | 13000 | 250 | 0,0754 | 511 | 551 |
| 3x300+150 | 70,5 | 15500 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 80,0 | 19500 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, round steel wire armoured, single core cables with copper conductor

Code: YXZ2Z1-U, YXZ2Z1-R, N2XRH-O, N2XRH-J, CU/XLPE/SWA/LSZH

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage and fire.

Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 14,0 | 400 | 1000 | 12,1 | 30 | 24 |
| 4x2,5 | 15,0 | 470 | 1000 | 7,41 | 40 | 32 |
| 4x4 | 16,0 | 580 | 1000 | 4,61 | 52 | 42 |
| 4x6 | 18,5 | 830 | 1000 | 3,08 | 64 | 53 |
| 4x10 | 21,0 | 1100 | 1000 | 1,83 | 86 | 73 |
| 4x16 | 24,0 | 1600 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 28,0 | 2200 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 30,5 | 2700 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 34,0 | 3350 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 40,0 | 4800 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 44,0 | 6100 | 1000 | 0,193 | 303 | 305 |
| 4x120 | 50,5 | 7800 | 500 | 0,153 | 346 | 355 |
| 4x150 | 55,0 | 9300 | 500 | 0,124 | 390 | 407 |
| 4x185 | 60,5 | 11000 | 250 | 0,0991 | 441 | 469 |
| 4x240 | 68,0 | 14000 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 76,0 | 17000 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 87,0 | 23000 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round aluminium wire armoured, single core cables with copper conductor

Code: 6941B, YXZ1Y2Z1-R, CU/XLPE/LSZH/AWA/LSZH, N2XHR(A)H-O, N2XHR(A)H-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

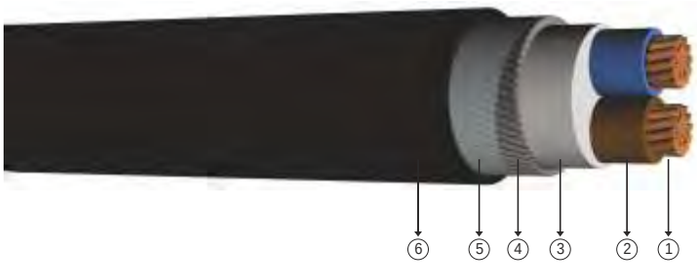
## Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Round alumininum wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 1x50 | 16,1 | 632 | 1000 | 0,387 | 251 | 258 |
| 1x70 | 18,5 | 881 | 1000 | 0,268 | 307 | 328 |
| 1x95 | 20,3 | 1151 | 1000 | 0,193 | 366 | 404 |
| 1x120 | 22,1 | 1408 | 1000 | 0,153 | 416 | 471 |
| 1x150 | 25,0 | 1774 | 1000 | 0,124 | 465 | 541 |
| 1x185 | 27,2 | 2165 | 1000 | 0,0991 | 526 | 626 |
| 1x240 | 30,0 | 2744 | 1000 | 0,0754 | 610 | 749 |
| 1x300 | 32,4 | 3367 | 1000 | 0,0601 | 689 | 864 |
| 1x400 | 37,0 | 4357 | 1000 | 0,0470 | 788 | 1018 |
| 1x500 | 40,6 | 5430 | 500 | 0,0366 | 889 | 1173 |
| 1x630 | 44,9 | 6818 | 500 | 0,0283 | 980 | 1315 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6942B, YXZ1Z2Z1-R, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

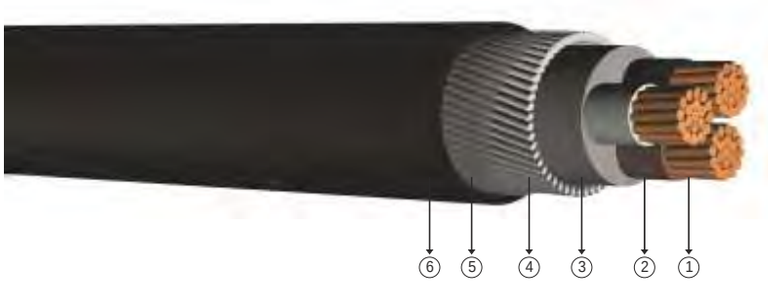
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x16 | 19,1 | 883 | 1000 | 1,15 | 115 | 125 |
| 2x25 | 22,5 | 1233 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 25,8 | 1689 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 28,8 | 2114 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 33,6 | 3003 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 37,1 | 3762 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 40,7 | 4541 | 1000 | 0,153 | 355 | 430 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6943B, YXZ1Z2Z1-R, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

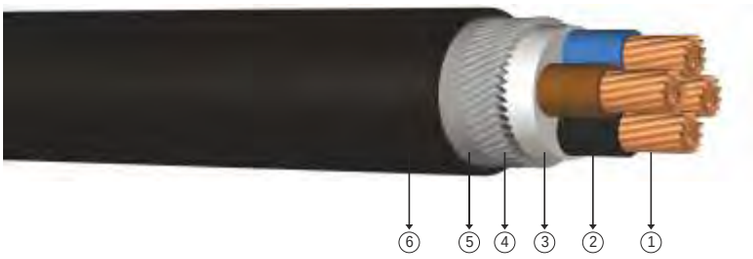
Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16 | 20,3 | 1044 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 25,0 | 1639 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 27,4 | 2018 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 30,4 | 2550 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 35,5 | 3612 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 39,8 | 4664 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 44,9 | 6002 | 500 | 0,153 | 346 | 355 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor



Code: 6944B, YXZ1Z2Z1-R, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x16 | 21,9 | 1260 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 27,1 | 1964 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 29,7 | 2453 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 34,4 | 3383 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 38,9 | 4456 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 44,5 | 6117 | 500 | 0,193 | 303 | 305 |
| 4x120 | 49,0 | 7398 | 500 | 0,153 | 346 | 355 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor

Code: 6945B, YXZ1Z2Z1-R, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 5x16 | 24,9 | 1654 | 1000 | 1,15 | 111 | 96 |
| 5x25 | 29,5 | 2333 | 1000 | 0,727 | 143 | 130 |
| 5x35 | 32,4 | 2920 | 1000 | 0,524 | 173 | 160 |
| 5x50 | 37,3 | 4011 | 1000 | 0,387 | 205 | 195 |
| 5x70 | 42,3 | 5327 | 500 | 0,268 | 252 | 247 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, control cables with copper conductor

Code: 6947B, 6940/12B, 6940/19B, 6940/27B, 6940/37B, YXZ1Z2Z1-R, CU/XLPE/LSZH/SWA/LSZH AUX, N2XHRH-O, N2XHRH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 7x1,5 | 14,0 | 408 | 1000 | 12,1 | 18 | 15,6 |
| 12x1,5 | 18,0 | 702 | 1000 | 12,1 | 13,5 | 12 |
| 19x1,5 | 20,5 | 911 | 1000 | 12,1 | 12 | 10,8 |
| 27x1,5 | 24,9 | 1340 | 1000 | 12,1 | 9 | 8,4 |
| 37x1,5 | 27,2 | 1631 | 1000 | 12,1 | 9 | 8,4 |
| 7x2,5 | 15,8 | 535 | 1000 | 7,41 | 24 | 20,8 |
| 12x2,5 | 20,7 | 936 | 1000 | 7,41 | 18 | 16 |
| 19x2,5 | 24,8 | 1391 | 1000 | 7,41 | 16 | 14,4 |
| 27x2,5 | 28,8 | 1836 | 1000 | 7,41 | 12 | 11,2 |
| 37x2,5 | 31,7 | 2251 | 1000 | 7,41 | 12 | 11,2 |
| 7x4 | 18,2 | 784 | 1000 | 4,61 | 31,2 | 27,3 |
| 12x4 | 24,0 | 1354 | 1000 | 4,61 | 23,4 | 21 |
| 19x4 | 27,4 | 1808 | 1000 | 4,61 | 20,8 | 18,9 |
| 27x4 | 32,2 | 2410 | 1000 | 4,61 | 15,6 | 14,7 |
| 37x4 | 36,9 | 3289 | 1000 | 4,61 | 15,6 | 14,7 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, sector shaped, multi-core cables with copper conductor

Code: 6942B, 6943B, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Sector shaped copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x25 | 18,8 | 953 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 21,5 | 1320 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 23,6 | 1641 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 26,3 | 2133 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 30,1 | 2939 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 32,9 | 3544 | 1000 | 0,153 | 355 | 430 |
| 2x150 | 35,4 | 4192 | 1000 | 0,124 | 400 | 490 |
| 2x185 | 40,2 | 5391 | 500 | 0,0991 | 455 | 570 |
| 2x240 | 44,4 | 6719 | 500 | 0,0754 | 530 | 680 |
| 2x300 | 48,1 | 8145 | 500 | 0,0601 | 605 | 785 |
| 2x400 | 53,1 | 10119 | 250 | 0,0470 | 690 | 860 |
| 3x25 | 23,4 | 1459 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 24,8 | 1772 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 27,2 | 2222 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 30,8 | 2954 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 35,2 | 4069 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 38,3 | 4893 | 1000 | 0,153 | 346 | 355 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV XLPE Insulated, round steel wire armoured, sector shaped, multi-core cables with copper conductor

Code: 6943B, 6944B, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

O : Without yellow/green wire
J : With yellow/green wire

Standards: EC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Sector Shaped copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x150 | 43,5 | 6264 | 500 | 0,124 | 390 | 407 |
| 3x185 | 47,3 | 7539 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 52,2 | 9423 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 56,8 | 11485 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 63,5 | 14322 | 250 | 0,0470 | 663 | 746 |
| 4x25 | 27,0 | 1842 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 28,7 | 2246 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 31,7 | 2848 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 37,2 | 4070 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 41,0 | 5225 | 500 | 0,193 | 303 | 305 |
| 4x120 | 46,2 | 6716 | 500 | 0,153 | 346 | 356 |
| 4x150 | 50,1 | 7998 | 500 | 0,124 | 390 | 407 |
| 4x185 | 54,7 | 9696 | 500 | 0,0991 | 441 | 469 |
| 4x240 | 60,8 | 12258 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 65,8 | 14884 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 76,1 | 19554 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 1,8/3 kV or 1,9/3,3 kV XLPE Insulated, round aluminium wire armoured, single core cables with copper conductor

Code: 61941B, YXZ1Y2Z1-R, CU/XLPE/LSZH/AWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 1,8/3 kV<br>: 1,9/3,3 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

Construction

1. Stranded copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Round alumininum wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 1x50 | 19,0 | 739 | 1000 | 0,387 | 251 | 258 |
| 1x70 | 20,5 | 955 | 1000 | 0,268 | 307 | 328 |
| 1x95 | 22,2 | 1221 | 1000 | 0,193 | 366 | 404 |
| 1x120 | 25,0 | 1557 | 1000 | 0,153 | 416 | 471 |
| 1x150 | 26,2 | 1830 | 1000 | 0,124 | 465 | 541 |
| 1x185 | 28,1 | 2203 | 1000 | 0,0991 | 526 | 626 |
| 1x240 | 30,6 | 2777 | 1000 | 0,0754 | 610 | 749 |
| 1x300 | 32,9 | 3392 | 1000 | 0,0601 | 689 | 864 |
| 1x400 | 37,0 | 4358 | 1000 | 0,0470 | 788 | 1018 |
| 1x500 | 40,7 | 5431 | 500 | 0,0366 | 889 | 1173 |
| 1x630 | 44,9 | 6818 | 500 | 0,0283 | 980 | 1315 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 1,8/3 kV or 1,9/3,3 kV XLPE Insulated, round steel wire armoured, multi-core cables with copper conductor

Code: 61943B, YXZ1Z2Z1-R, CU/XLPE/LSZH/SWA/LSZH, N2XHRH-O, N2XHRH-J

R: Stranded Conductor
SM: Sector Shaped Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: IEC 60502-1, BS 6724

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 1,8/3 kV |
| Rated voltage | : 1,9/3,3 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is risk of mechanical damage.

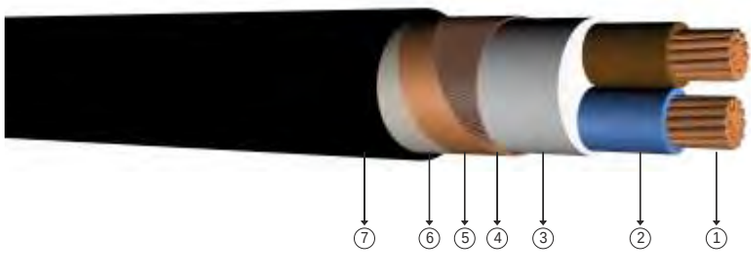
Construction

1. Stranded or sectorshaped copper conductor
2. XLPE insulation
3. Thermoplastic inner sheath
4. Galvanized round steel wire
5. PP tape
6. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 28,0 | 1733 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 24,9 | 1882 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 28,7 | 2565 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 32,4 | 3312 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 35,4 | 4203 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 39,8 | 5383 | 500 | 0,153 | 346 | 355 |
| 3x150 | 43,7 | 6379 | 500 | 0,124 | 390 | 407 |
| 3x185 | 47,5 | 7630 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 52,6 | 9574 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 56,8 | 11529 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 63,5 | 14322 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant,XLPE insulated, concentric wire screened, multi core cables, with copper conductor



Code: YXCZ1-U, YXCZ1-R, N2XCH-O, N2XCH-J

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, VDE 0276-604, IEC 60502-1

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any demage due to power leak to the surrounding area.

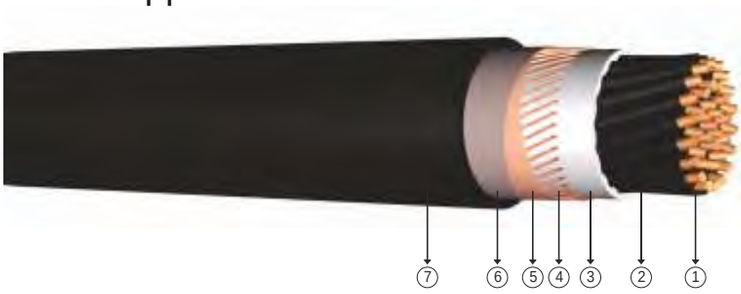
Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Concentric copper wire
5. Copper tape as binder
6. PP tape
7. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5/1,5 | 12,5 | 240 | 1000 | 12,1 | 39 | 32 |
| 2x2,5/2,5 | 13,0 | 270 | 1000 | 7,41 | 51 | 42 |
| 2x4/4 | 14,5 | 300 | 1000 | 4,61 | 66 | 56 |
| 2x6/6 | 15,5 | 400 | 1000 | 3,08 | 82 | 71 |
| 2x10/10 | 17,0 | 500 | 1000 | 1,83 | 109 | 96 |
| 2x16/16 | 19,0 | 750 | 1000 | 1,15 | 115 | 125 |
| 3x1,5/1,5 | 13,0 | 200 | 1000 | 12,1 | 30 | 24 |
| 3x2,5/2,5 | 13,5 | 300 | 1000 | 7,41 | 40 | 32 |
| 3x4/4 | 15,0 | 390 | 1000 | 4,61 | 52 | 42 |
| 3x6/6 | 16,0 | 500 | 1000 | 3,08 | 64 | 53 |
| 3x10/10 | 18,5 | 750 | 1000 | 1,83 | 86 | 73 |
| 3x16/16 | 20,5 | 1000 | 1000 | 1,15 | 111 | 96 |
| 3x25/16 | 24,0 | 1350 | 1000 | 0,727 | 143 | 130 |
| 3x35/16 | 26,0 | 1670 | 1000 | 0,524 | 173 | 160 |
| 3x50/25 | 29,0 | 2200 | 1000 | 0,387 | 205 | 195 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, concentric wire screened, control cables, with copper conductor



Code: YXCZ1-U, YXCZ1-R, N2XCH-O, N2XCH-J

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-627

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, Indoor installations, in cable ducts, outdoor and underground for power stations, industrial plants and switching stations as well as local supply systems if increased protection is necessary. In case of mechanical damage the screen prevents any demage due to power leak to the surrounding area.

## Construction

1. Solid or stranded copper conductor
2. XLPE insulation
3. Thermoplastic filler
4. Concentric copper screen
5. Copper tape as binder
6. PP tape
7. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 7x1,5/2,5 | 15,0 | 350 | 1000 | 12,1 | 18,0 | 15,5 |
| 10x1,5/2,5 | 17,0 | 470 | 1000 | 12,1 | 15,0 | 13,0 |
| 12x1,5/2,5 | 19,0 | 520 | 1000 | 12,1 | 14,0 | 12,5 |
| 16x1,5/4 | 21,0 | 670 | 1000 | 12,1 | 12,8 | 11,4 |
| 21x1,5/6 | 22,0 | 750 | 1000 | 12,1 | 11,3 | 10,2 |
| 24x1,5/6 | 24,0 | 850 | 1000 | 12,1 | 10,5 | 9,5 |
| 27x1,5/6 | 24,5 | 950 | 1000 | 12,1 | 10,0 | 9,0 |
| 30x1,5/6 | 25,0 | 1000 | 1000 | 12,1 | 10,0 | 9,0 |
| 7x2,5/2,5 | 17,0 | 450 | 1000 | 7,41 | 24,0 | 21,0 |
| 10x2,5/2,5 | 19,0 | 600 | 1000 | 7,41 | 20,0 | 17,5 |
| 12x2,5/2,5 | 21,0 | 700 | 1000 | 7,41 | 19,0 | 17,0 |
| 16x2,5/4 | 23,0 | 850 | 1000 | 7,41 | 16,5 | 15,0 |
| 21x2,5/6 | 25,0 | 1080 | 1000 | 7,41 | 15,0 | 13,5 |
| 24x2,5/6 | 26,0 | 1170 | 1000 | 7,41 | 14,0 | 13,0 |
| 27x2,5/6 | 27,0 | 1250 | 1000 | 7,41 | 13,5 | 12,5 |
| 30x2,5/6 | 28,0 | 1380 | 1000 | 7,41 | 13,0 | 12,0 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, single core cables with aluminium conductor

Code: YAXZ1-R, NA2XH-O, NA2XH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

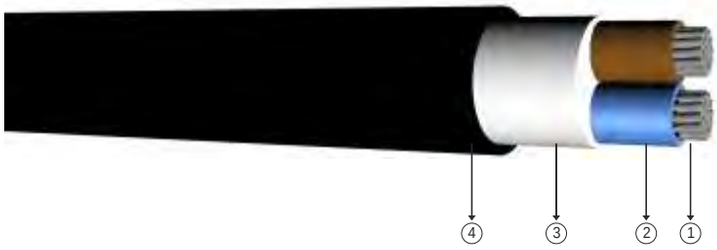
Construction

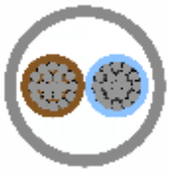
1. Stranded aluminum conductor
2. XLPE insulation
3. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x25 | 10,5 | 150 | 1000 | 1,20 | - | 114 | - | 106 |
| 1x35 | 12,0 | 180 | 1000 | 0,868 | 164 | 137 | 163 | 131 |
| 1x50 | 13,5 | 225 | 1000 | 0,641 | 195 | 163 | 200 | 161 |
| 1x70 | 15,5 | 305 | 1000 | 0,443 | 238 | 201 | 254 | 205 |
| 1x95 | 17,0 | 405 | 1000 | 0,320 | 284 | 240 | 313 | 253 |
| 1x120 | 19,0 | 510 | 1000 | 0,253 | 323 | 274 | 366 | 296 |
| 1x150 | 21,0 | 605 | 1000 | 0,206 | 361 | 308 | 420 | 341 |
| 1x185 | 23,0 | 765 | 1000 | 0,164 | 408 | 348 | 486 | 395 |
| 1x240 | 26,0 | 925 | 1000 | 0,125 | 476 | 408 | 585 | 475 |
| 1x300 | 28,0 | 1155 | 1000 | 0,100 | 537 | 462 | 675 | 548 |
| 1x400 | 31,0 | 1480 | 1000 | 0,0778 | 616 | 531 | 798 | 647 |
| 1x500 | 35,0 | 1850 | 1000 | 0,0605 | 699 | 601 | 926 | 749 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with aluminium conductor



Code: YAXZ1-R, NA2XH-O, NA2XH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x25 | 21,5 | 600 | 1000 | 1,20 | 110 | 115 |
| 2x35 | 23,3 | 750 | 1000 | 0,868 | 130 | 140 |
| 2x50 | 25,8 | 950 | 1000 | 0,641 | 155 | 175 |
| 2x70 | 29,7 | 1250 | 1000 | 0,443 | 195 | 220 |
| 2x95 | 33,9 | 1650 | 1000 | 0,320 | 235 | 270 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with aluminium conductor

Code: YAXZ1-R, NA2XH-O, NA2XH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

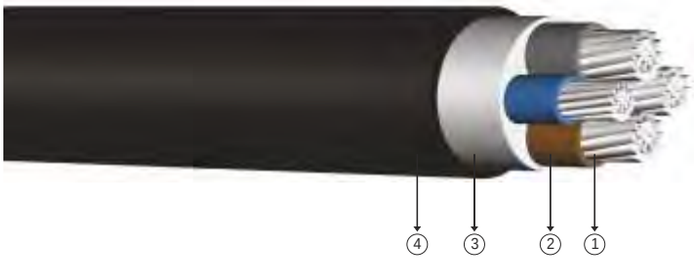
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25 | 22,5 | 650 | 1000 | 1,20 | 111 | 100 |
| 3x35 | 25,0 | 800 | 1000 | 0,868 | 132 | 122 |
| 3x50 | 27,0 | 1050 | 1000 | 0,641 | 157 | 147 |
| 3x70 | 32,0 | 1450 | 1000 | 0,443 | 195 | 189 |
| 3x95 | 36,0 | 1850 | 1000 | 0,320 | 233 | 232 |
| 3x120 | 40,0 | 2250 | 1000 | 0,253 | 266 | 270 |
| 3x150 | 45,0 | 2800 | 1000 | 0,206 | 299 | 308 |
| 3x185 | 49,0 | 3450 | 1000 | 0,164 | 340 | 357 |
| 3x240 | 56,0 | 4400 | 1000 | 0,125 | 401 | 435 |
| 3x300 | 61,0 | 5300 | 500 | 0,100 | 455 | 501 |
| 3x400 | 69,0 | 6800 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with aluminium conductor



Code: YAXZ1-R, NA2XH-O, NA2XH-J

R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

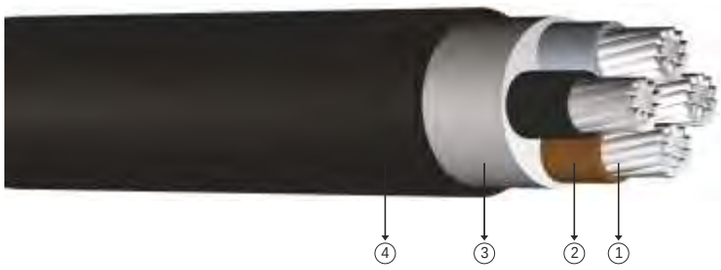
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x25+16 | 24,0 | 750 | 1000 | 1,20 | 111 | 100 |
| 3x35+16 | 26,0 | 900 | 1000 | 0,868 | 132 | 122 |
| 3x50+25 | 29,0 | 1200 | 1000 | 0,641 | 157 | 147 |
| 3x70+35 | 33,0 | 1600 | 1000 | 0,443 | 195 | 189 |
| 3x95+50 | 38,0 | 2100 | 1000 | 0,320 | 233 | 232 |
| 3x120+70 | 42,0 | 2600 | 1000 | 0,253 | 266 | 270 |
| 3x150+70 | 46,0 | 3100 | 1000 | 0,206 | 299 | 308 |
| 3x185+95 | 51,0 | 3850 | 1000 | 0,164 | 340 | 357 |
| 3x240+120 | 58,0 | 4900 | 500 | 0,125 | 401 | 435 |
| 3x300+150 | 63,0 | 5950 | 500 | 0,100 | 455 | 501 |
| 3x400+185 | 71,0 | 7500 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, flame retardant, XLPE insulated, multi core cables with aluminium conductor



Code: YAXZ1-R, NA2XH-O, NA2XH-J

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

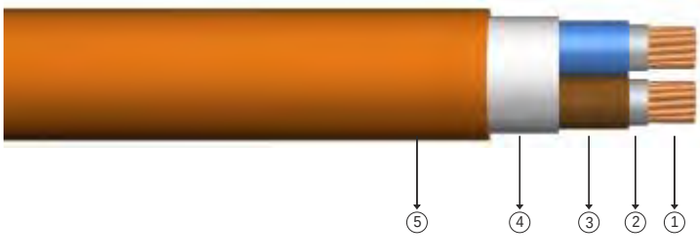
Construction

1. Stranded aluminium conductor
2. XLPE insulation
3. Thermoplastic filler
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x25 | 25,0 | 800 | 1000 | 1,20 | 111 | 100 |
| 4x35 | 27,0 | 1000 | 1000 | 0,868 | 132 | 122 |
| 4x50 | 30,0 | 1250 | 1000 | 0,641 | 157 | 147 |
| 4x70 | 36,0 | 1750 | 1000 | 0,443 | 195 | 189 |
| 4x95 | 40,0 | 2250 | 1000 | 0,320 | 233 | 232 |
| 4x120 | 45,0 | 2850 | 1000 | 0,253 | 266 | 270 |
| 4x150 | 49,0 | 3400 | 1000 | 0,206 | 299 | 308 |
| 4x185 | 55,0 | 4250 | 1000 | 0,164 | 340 | 357 |
| 4x240 | 62,0 | 5450 | 500 | 0,125 | 401 | 435 |
| 4x300 | 67,0 | 6600 | 500 | 0,100 | 455 | 501 |
| 4x400 | 77,0 | 8500 | 500 | 0,0778 | 526 | 592 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 300/500 V halogen free, fire resistant, XLPE insulated, multi core cables with copper conductor FE 180



Code: NHXMH-O FE 180, NHXMH-J FE 180 (052XZ1-U, 052XZ1-R)

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: VDE 0250 - 214, TSE K 328

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 300/500 V

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire. In case of fire, it is guaranteed circuit integrity at least 180 minutes.

Construction

1. Solid or stranded copper conductor
2. Mica tape
3. XLPE insulation
4. Thermoplastic filler
5. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | |
|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) |
| mm² | mm | kg/km | m | Ω/km | In air at 30ºC |
| 2x1,5 RE | 10 | 150 | 1000 | 12,1 | 28 |
| 2x2,5 RE | 11 | 180 | 1000 | 7,41 | 38 |
| 2x4 RE | 12 | 240 | 1000 | 4,61 | 52 |
| 2x6 RE | 13 | 300 | 1000 | 3,08 | 65 |
| 2x10 RM | 16 | 470 | 1000 | 1,83 | 86 |
| 3x1,5 RE | 11 | 170 | 1000 | 12,1 | 24 |
| 3x2,5 RE | 12 | 220 | 1000 | 7,41 | 32 |
| 3x4 RE | 13 | 270 | 1000 | 4,61 | 42 |
| 3x6 RE | 14 | 360 | 1000 | 3,08 | 53 |
| 3x10 RM | 17 | 550 | 1000 | 1,83 | 73 |
| 4x1,5 RE | 12 | 200 | 1000 | 12,1 | 24 |
| 4x2,5 RE | 13 | 250 | 1000 | 7,41 | 32 |
| 4x4 RE | 14 | 350 | 1000 | 4,61 | 42 |
| 4x6 RE | 16 | 460 | 1000 | 3,08 | 53 |
| 4x10 RM | 19 | 700 | 1000 | 1,83 | 73 |
| 4x16 RM | 21 | 1000 | 1000 | 1,15 | 96 |
| 4x25 RM | 26 | 1500 | 1000 | 0,727 | 130 |
| 4x35 RM | 28.5 | 1900 | 1000 | 0,524 | 160 |
| 5x1,5 RE | 13 | 240 | 1000 | 12,1 | 18 |
| 5x2,5 RE | 14 | 300 | 1000 | 7,41 | 24 |
| 5x4 RE | 15 | 440 | 1000 | 4,61 | 31 |
| 5x6 RE | 17 | 550 | 1000 | 3,08 | 40 |
| 5x10 RM | 20 | 850 | 1000 | 1,83 | 55 |
| 5x16 RM | 24 | 1250 | 1000 | 1,15 | 72 |
| 5x25 RM | 29 | 1800 | 1000 | 0,727 | 97 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, fire resistant, XLPE insulated, single core cables with copper conductor FE 180

Code: YXZ1-U FE 180, YXZ1-R FE 180, N2XH-O FE 180, N2XH-J FE 180

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire. In case of fire, it is guaranteed circuit integrity at least 180 minutes.

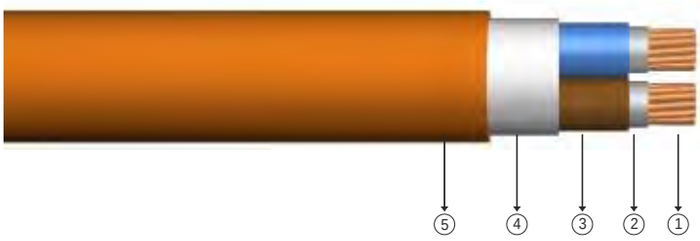
Construction

1. Solid or stranded copper conductor
2. Mica tape.
3. XLPE insulation
4. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | *** | *** | *** | *** |
| 1x1,5 | 6,0 | 50 | 1000 | 12,1 | 39 | 32 | 32 | 25 |
| 1x2,5 | 6,5 | 65 | 1000 | 7,41 | 51 | 43 | 42 | 34 |
| 1x4 | 6,9 | 80 | 1000 | 4,61 | 66 | 55 | 56 | 44 |
| 1x6 | 7,4 | 100 | 1000 | 3,08 | 82 | 68 | 71 | 57 |
| 1x10 | 8,6 | 150 | 1000 | 1,83 | 109 | 90 | 96 | 77 |
| 1x16 | 9,7 | 200 | 1000 | 1,15 | 139 | 115 | 128 | 102 |
| 1x25 | 11,0 | 300 | 1000 | 0,727 | 179 | 149 | 173 | 139 |
| 1x35 | 12,0 | 400 | 1000 | 0,524 | 213 | 178 | 212 | 170 |
| 1x50 | 13,0 | 530 | 1000 | 0,387 | 251 | 211 | 258 | 208 |
| 1x70 | 15,0 | 750 | 1000 | 0,268 | 307 | 259 | 328 | 265 |
| 1x95 | 17,0 | 1000 | 1000 | 0,193 | 366 | 310 | 404 | 326 |
| 1x120 | 18,5 | 1250 | 1000 | 0,153 | 416 | 352 | 471 | 381 |
| 1x150 | 20,5 | 1500 | 1000 | 0,124 | 465 | 396 | 541 | 438 |
| 1x185 | 22,5 | 1900 | 1000 | 0,0991 | 526 | 449 | 626 | 507 |
| 1x240 | 25,5 | 2450 | 1000 | 0,0754 | 610 | 521 | 749 | 606 |
| 1x300 | 29,0 | 3000 | 1000 | 0,0601 | 689 | 587 | 864 | 697 |
| 1x400 | 33,0 | 3900 | 1000 | 0,0470 | 788 | 669 | 1018 | 816 |
| 1x500 | 37,5 | 4900 | 1000 | 0,0366 | 889 | 748 | 1173 | 933 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 0,6/1 kV halogen free, fire resistant, XLPE insulated, multi core cables with copper conductor FE 180



Code: YXZ1-U FE 180, YXZ1-R FE 180, N2XH-O FE 180, N2XH-J FE 180

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire. In case of fire, it is guaranteed circuit integrity at least 180 minutes.

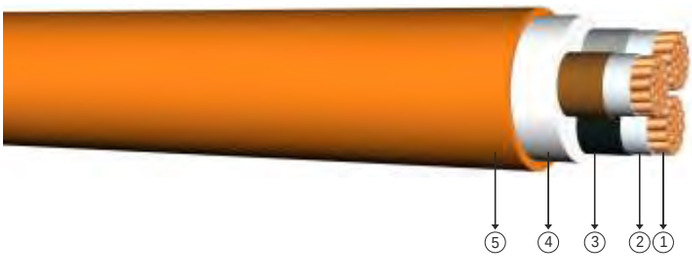
Construction

1. Solid or stranded copper conductor
2. Mica tape
3. XLPE insulation
4. Thermoplastic filler
5. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 2x1,5 | 11,0 | 170 | 1000 | 12,1 | 39 | 32 |
| 2x2,5 | 12,0 | 200 | 1000 | 7,41 | 51 | 42 |
| 2x4 | 13,0 | 260 | 1000 | 4,61 | 66 | 56 |
| 2x6 | 14,0 | 320 | 1000 | 3,08 | 82 | 71 |
| 2x10 | 16,2 | 460 | 1000 | 1,83 | 109 | 96 |
| 2x16 | 18,3 | 630 | 1000 | 1,15 | 115 | 125 |
| 2x25 | 23,0 | 1000 | 1000 | 0,727 | 145 | 155 |
| 2x35 | 24,0 | 1250 | 1000 | 0,524 | 175 | 195 |
| 2x50 | 27,0 | 1600 | 1000 | 0,387 | 210 | 235 |
| 2x70 | 31,0 | 2200 | 1000 | 0,268 | 255 | 300 |
| 2x95 | 35,0 | 2900 | 1000 | 0,193 | 310 | 370 |
| 2x120 | 39,0 | 3600 | 1000 | 0,153 | 355 | 430 |
| 2x150 | 42,0 | 4400 | 1000 | 0,124 | 400 | 490 |
| 2x185 | 47,0 | 5500 | 1000 | 0,0991 | 455 | 570 |
| 2x240 | 53,0 | 7050 | 500 | 0,0754 | 530 | 680 |
| 2x300 | 58,0 | 8650 | 500 | 0,0601 | 605 | 785 |
| 2x400 | 65,0 | 11100 | 500 | 0,0470 | 690 | 860 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, fire resistant, XLPE insulated, multi core cables with copper conductor FE 180



Code: YXZ1-U FE 180, YXZ1-R FE 180, N2XH-O FE 180, N2XH-J FE 180

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire. In case of fire, it is guaranteed circuit integrity at least 180 minutes.

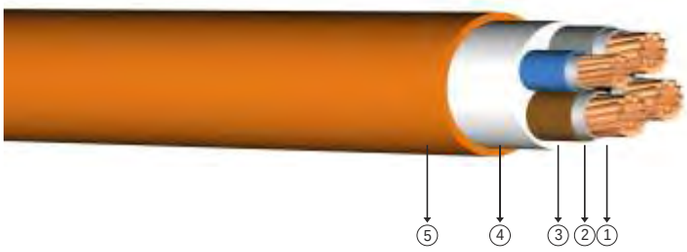
Construction

1. Solid or stranded copper conductor
2. Mica tape
3. XLPE insulation
4. Thermoplastic filler
5. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x1,5 | 11,5 | 190 | 1000 | 12,1 | 30 | 24 |
| 3x2,5 | 12,5 | 230 | 1000 | 7,41 | 40 | 32 |
| 3x4 | 13,5 | 300 | 1000 | 4,61 | 52 | 42 |
| 3x6 | 14,5 | 370 | 1000 | 3,08 | 64 | 53 |
| 3x10 | 17,0 | 550 | 1000 | 1,83 | 86 | 73 |
| 3x16 | 19,0 | 750 | 1000 | 1,15 | 111 | 96 |
| 3x25 | 24,0 | 1200 | 1000 | 0,727 | 143 | 130 |
| 3x35 | 26,0 | 1550 | 1000 | 0,524 | 173 | 160 |
| 3x50 | 29,0 | 2000 | 1000 | 0,387 | 205 | 195 |
| 3x70 | 33,0 | 2800 | 1000 | 0,268 | 252 | 247 |
| 3x95 | 37,0 | 3700 | 1000 | 0,193 | 303 | 305 |
| 3x120 | 41,0 | 4600 | 1000 | 0,153 | 346 | 355 |
| 3x150 | 46,0 | 5650 | 500 | 0,124 | 390 | 407 |
| 3x185 | 50,0 | 7000 | 500 | 0,0991 | 441 | 469 |
| 3x240 | 57,0 | 9100 | 500 | 0,0754 | 511 | 551 |
| 3x300 | 62,0 | 11100 | 250 | 0,0601 | 580 | 638 |
| 3x400 | 70,0 | 14300 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, fire resistant, XLPE insulated, multi core cables with copper conductor FE 180



Code: YXZ1-R FE 180, N2XH-O FE 180, N2XH-J FE 180

R: Stranded Conductor
O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire. In case of fire, it is guaranteed circuit integrity at least 180 minutes.

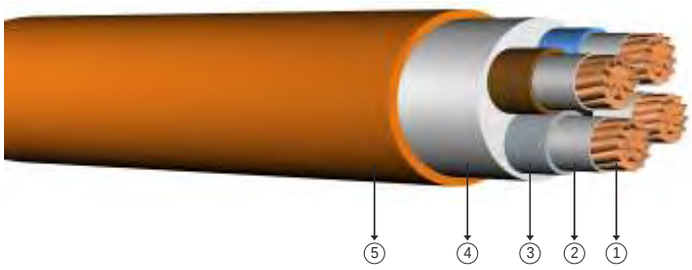
Construction

1. Stranded copper conductors
2. Mica tape
3. XLPE insulation
4. Thermoplastic filler
5. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 3x16+10 | 21,0 | 900 | 1000 | 1,15 | 111 | 96 |
| 3x25+16 | 26,0 | 1450 | 1000 | 0,727 | 143 | 130 |
| 3x35+16 | 27,0 | 1800 | 1000 | 0,524 | 173 | 160 |
| 3x50+25 | 30,0 | 2350 | 1000 | 0,387 | 205 | 195 |
| 3x70+35 | 35,0 | 3200 | 1000 | 0,268 | 252 | 247 |
| 3x95+50 | 39,0 | 4300 | 1000 | 0,193 | 303 | 305 |
| 3x120+70 | 44,0 | 5400 | 500 | 0,153 | 346 | 355 |
| 3x150+70 | 48,0 | 6450 | 500 | 0,124 | 390 | 407 |
| 3x185+95 | 53,0 | 8100 | 500 | 0,0991 | 441 | 469 |
| 3x240+120 | 59,0 | 10400 | 500 | 0,0754 | 511 | 551 |
| 3x300+150 | 65,0 | 12800 | 250 | 0,0601 | 580 | 638 |
| 3x400+185 | 73,0 | 16300 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 0,6/1 kV halogen free, fire resistant, XLPE insulated, multi core cables with copper conductor FE 180



Code: YXZ1-U FE 180, YXZ1-R FE 180, N2XH-O FE 180, N2XH-J FE 180

U: Solid Conductor
R: Stranded Conductor

O : Without yellow/green wire
J : With yellow/green wire

Standards: HD 604 S1, IEC 60502-1, VDE 0276-604

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 0,6/1 kV |
| Min. bending radius | : 12 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire. In case of fire, it is guaranteed circuit integrity at least 180 minutes.

Construction

1. Solid or stranded copper conductor
2. Mica tape
3. XLPE insulation
4. Thermoplastic filler
5. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | |
|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC Max | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | In ground at 20ºC | In air at 30ºC |
| 4x1,5 | 12,0 | 220 | 1000 | 12,1 | 30 | 24 |
| 4x2,5 | 13,0 | 250 | 1000 | 7,41 | 40 | 32 |
| 4x4 | 14,5 | 350 | 1000 | 4,61 | 52 | 42 |
| 4x6 | 15,5 | 450 | 1000 | 3,08 | 64 | 53 |
| 4x10 | 18,5 | 700 | 1000 | 1,83 | 86 | 73 |
| 4x16 | 20,5 | 950 | 1000 | 1,15 | 111 | 96 |
| 4x25 | 26,0 | 1500 | 1000 | 0,727 | 143 | 130 |
| 4x35 | 28,0 | 1900 | 1000 | 0,524 | 173 | 160 |
| 4x50 | 32,0 | 2500 | 1000 | 0,387 | 205 | 195 |
| 4x70 | 37,0 | 3500 | 1000 | 0,268 | 252 | 247 |
| 4x95 | 41,0 | 4700 | 1000 | 0,193 | 303 | 305 |
| 4x120 | 46,0 | 5900 | 500 | 0,153 | 346 | 355 |
| 4x150 | 51,0 | 7200 | 500 | 0,124 | 390 | 407 |
| 4x185 | 56,0 | 8950 | 500 | 0,0991 | 441 | 469 |
| 4x240 | 63,0 | 11600 | 250 | 0,0754 | 511 | 551 |
| 4x300 | 69,0 | 14200 | 250 | 0,0601 | 580 | 638 |
| 4x400 | 78,0 | 18400 | 250 | 0,0470 | 663 | 746 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

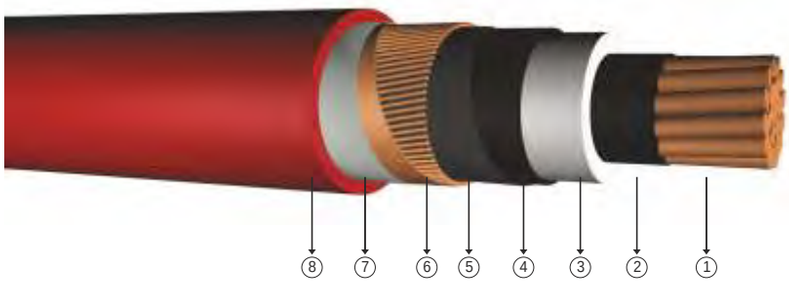
HES KABLO

Reliable technology

Medium Voltage Cables

High Voltage Cables

# 3,6/6 kV XLPE insulated, single core, cables with copper conductor



Code: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

(Max). operating temperature : 90°C
(Max). short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 3,6/6 kV
Min. bending radius : 15 x D
D : Cable outer diameter

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

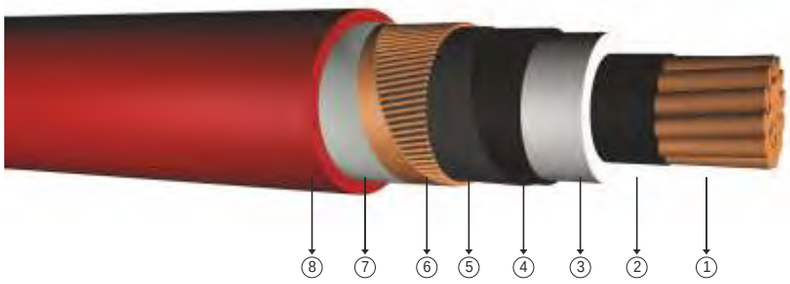
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 21,0 | 750 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,283 | 201 | 191 | 238 | 199 |
| 1x50/16 | 22,0 | 900 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,318 | 241 | 227 | 285 | 241 |
| 1x70/16 | 24,0 | 1100 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,368 | 301 | 277 | 356 | 301 |
| 1x95/16 | 25,5 | 1400 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,414 | 364 | 331 | 435 | 365 |
| 1x120/16 | 27,0 | 1650 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,455 | 424 | 379 | 496 | 419 |
| 1x150/25 | 28,5 | 2000 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,499 | 479 | 422 | 554 | 479 |
| 1x185/25 | 30,5 | 2400 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,544 | 549 | 476 | 637 | 543 |
| 1x240/25 | 33,5 | 2950 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,587 | 640 | 550 | 746 | 640 |
| 1x300/25 | 36,0 | 3550 | 1000 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,603 | 724 | 619 | 846 | 731 |
| 1x400/35 | 40,0 | 4650 | 1000 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,642 | 795 | 695 | 941 | 840 |
| 1x500/35 | 43,5 | 5700 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,667 | 883 | 773 | 1051 | 949 |
| 1x630/35 | 47,0 | 6950 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,739 | 981 | 856 | 1180 | 1076 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, single core, cables with copper conductor



Code: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

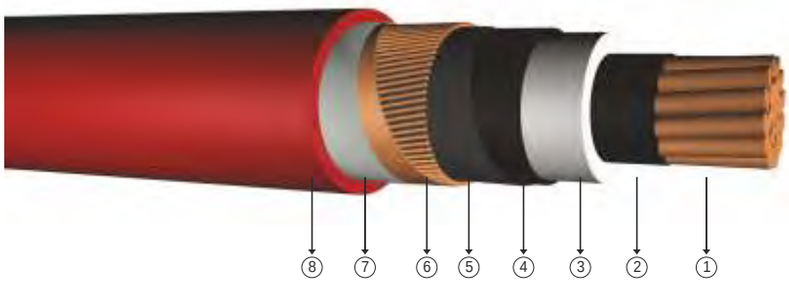
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | μF/km | *** | **** | *** | **** |
| 1x35/16 | 23,5 | 870 | 1000 | 0,524 | 0,6707 | 0,661 | 0,383 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 24,5 | 1000 | 1000 | 0,387 | 0,4954 | 0,636 | 0,366 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 26,0 | 1211 | 1000 | 0,268 | 0,3430 | 0,606 | 0,349 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 27,3 | 1468 | 1000 | 0,193 | 0,2470 | 0,582 | 0,334 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 29,0 | 1733 | 1000 | 0,153 | 0,1958 | 0,563 | 0,323 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 30,0 | 2075 | 1000 | 0,124 | 0,1587 | 0,546 | 0,313 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 32,0 | 2449 | 1000 | 0,0991 | 0,1268 | 0,529 | 0,304 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 34,3 | 3010 | 1000 | 0,0754 | 0,0965 | 0,509 | 0,294 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 37,0 | 3641 | 1000 | 0,0601 | 0,0769 | 0,493 | 0,288 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 39,5 | 4545 | 1000 | 0,0470 | 0,0602 | 0,473 | 0,278 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 42,8 | 5570 | 500 | 0,0366 | 0,0468 | 0,457 | 0,271 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 46,8 | 6952 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, single core, cables with copper conductor



Code: N2XSY

R: Stranded Conductor

Standards: VDE 276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

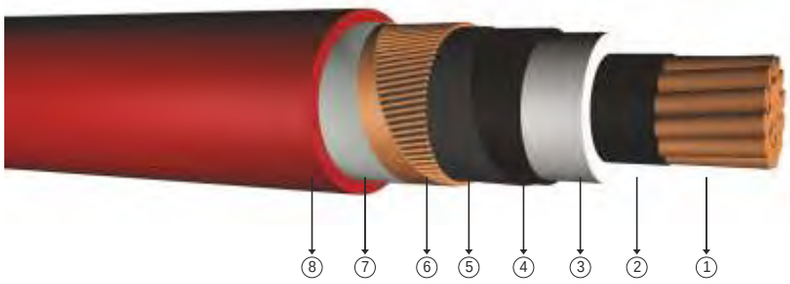
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 23,5 | 870 | 1000 | 0,524 | 0,6707 | 0,661 | 0,383 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 24,5 | 1000 | 1000 | 0,387 | 0,4954 | 0,636 | 0,366 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 26,0 | 1211 | 1000 | 0,268 | 0,3430 | 0,606 | 0,349 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 27,3 | 1468 | 1000 | 0,193 | 0,2470 | 0,582 | 0,334 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 29,0 | 1733 | 1000 | 0,153 | 0,1958 | 0,563 | 0,323 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 30,0 | 2075 | 1000 | 0,124 | 0,1587 | 0,546 | 0,313 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 32,0 | 2449 | 1000 | 0,0991 | 0,1268 | 0,529 | 0,304 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 34,3 | 3010 | 1000 | 0,0754 | 0,0965 | 0,509 | 0,294 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 37,0 | 3641 | 1000 | 0,0601 | 0,0769 | 0,493 | 0,288 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 39,5 | 4545 | 1000 | 0,0470 | 0,0602 | 0,473 | 0,278 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 42,8 | 5570 | 500 | 0,0366 | 0,0468 | 0,457 | 0,271 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 46,8 | 6952 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, single core, cables with copper conductor



Code: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

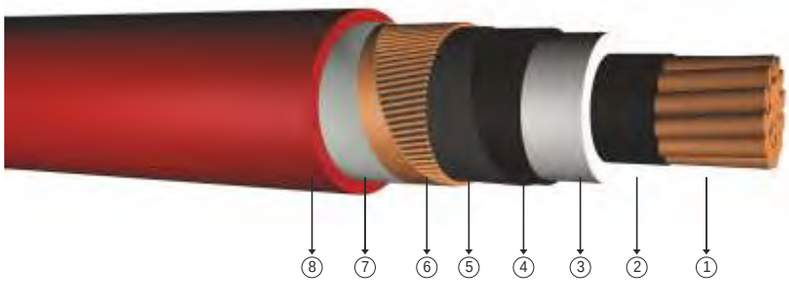
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 25,0 | 900 | 1000 | 0,524 | 0,6707 | 0,666 | 0,401 | 0,181 | 212 | 187 | 231 | 195 |
| 1x50/16 | 26,5 | 1050 | 1000 | 0,387 | 0,4954 | 0,640 | 0,383 | 0,201 | 249 | 220 | 277 | 234 |
| 1x70/16 | 28,0 | 1300 | 1000 | 0,268 | 0,3430 | 0,609 | 0,362 | 0,229 | 303 | 269 | 345 | 292 |
| 1x95/16 | 29,5 | 1550 | 1000 | 0,193 | 0,2470 | 0,585 | 0,346 | 0,255 | 358 | 321 | 418 | 354 |
| 1x120/16 | 31,5 | 1850 | 1000 | 0,153 | 0,1958 | 0,567 | 0,336 | 0,278 | 404 | 364 | 481 | 407 |
| 1x150/25 | 33,0 | 2200 | 1000 | 0,124 | 0,1587 | 0,549 | 0,325 | 0,302 | 441 | 405 | 537 | 460 |
| 1x185/25 | 35,0 | 2600 | 1000 | 0,0991 | 0,1268 | 0,534 | 0,317 | 0,328 | 493 | 457 | 612 | 527 |
| 1x240/25 | 37,5 | 3150 | 1000 | 0,0754 | 0,0965 | 0,514 | 0,307 | 0,363 | 563 | 528 | 716 | 621 |
| 1x300/25 | 40,0 | 3750 | 1000 | 0,0601 | 0,0769 | 0,497 | 0,298 | 0,398 | 626 | 593 | 811 | 709 |
| 1x400/35 | 43,5 | 4900 | 1000 | 0,0470 | 0,0602 | 0,477 | 0,289 | 0,447 | 676 | 665 | 901 | 815 |
| 1x500/35 | 46,5 | 5900 | 500 | 0,0366 | 0,0468 | 0,461 | 0,282 | 0,491 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 50,0 | 7150 | 500 | 0,0283 | 0,0362 | 0,445 | 0,275 | 0,543 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, single core, cables with copper conductor



Code: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

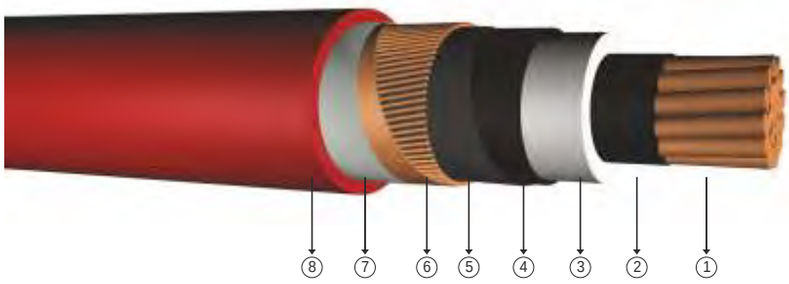
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 27,0 | 950 | 1000 | 0,524 | 0,6707 | 0,670 | 0,416 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 28,5 | 1150 | 1000 | 0,387 | 0,4954 | 0,644 | 0,397 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 30,0 | 1400 | 1000 | 0,268 | 0,3430 | 0,614 | 0,377 | 0,197 | 304 | 273 | 347 | 296 |
| 1x95/16 | 32,0 | 1650 | 1000 | 0,193 | 0,2470 | 0,590 | 0,360 | 0,218 | 361 | 325 | 420 | 358 |
| 1x120/16 | 34,0 | 1950 | 1000 | 0,153 | 0,1958 | 0,571 | 0,349 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 35,0 | 2350 | 1000 | 0,124 | 0,1587 | 0,554 | 0,338 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 37,0 | 2700 | 1000 | 0,0991 | 0,1268 | 0,538 | 0,329 | 0,278 | 498 | 463 | 614 | 534 |
| 1x240/25 | 39,5 | 3300 | 1000 | 0,0754 | 0,0965 | 0,518 | 0,317 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 42,0 | 3900 | 1000 | 0,0601 | 0,0769 | 0,501 | 0,308 | 0,336 | 633 | 601 | 813 | 715 |
| 1x400/35 | 45,5 | 5000 | 1000 | 0,0470 | 0,0602 | 0,480 | 0,298 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 48,5 | 6000 | 500 | 0,0366 | 0,0468 | 0,464 | 0,290 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 52,5 | 7300 | 500 | 0,0283 | 0,0362 | 0,448 | 0,282 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV XLPE insulated, single core, cables with copper conductor



Code: N2XSY

R: Stranded Conductor

Standards: VDE 276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

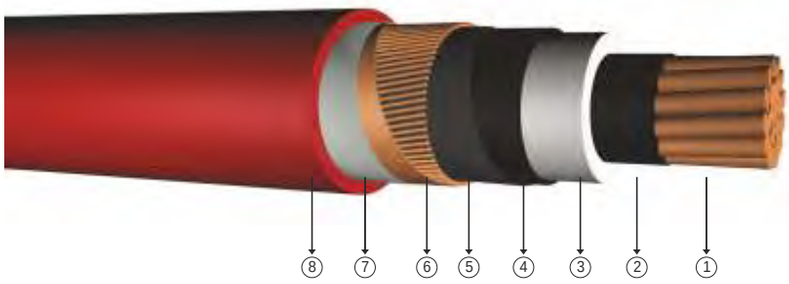
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 28,0 | 1059 | 1000 | 0,524 | 0,6707 | 0,670 | 0,416 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 29,0 | 1192 | 1000 | 0,387 | 0,4954 | 0,644 | 0,397 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 31,0 | 1450 | 1000 | 0,268 | 0,3430 | 0,614 | 0,377 | 0,197 | 304 | 273 | 347 | 296 |
| 1x95/16 | 32,0 | 1681 | 1000 | 0,193 | 0,2470 | 0,590 | 0,360 | 0,218 | 361 | 325 | 420 | 358 |
| 1x120/16 | 33,0 | 1915 | 1000 | 0,153 | 0,1958 | 0,571 | 0,349 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 34,2 | 2279 | 1000 | 0,124 | 0,1587 | 0,554 | 0,338 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 36,0 | 2649 | 1000 | 0,0991 | 0,1268 | 0,538 | 0,329 | 0,278 | 498 | 463 | 614 | 534 |
| 1x240/25 | 39,0 | 3288 | 1000 | 0,0754 | 0,0965 | 0,518 | 0,317 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 41,0 | 3874 | 1000 | 0,0601 | 0,0769 | 0,501 | 0,308 | 0,336 | 633 | 601 | 813 | 715 |
| 1x400/35 | 44,5 | 4901 | 1000 | 0,0470 | 0,0602 | 0,480 | 0,298 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 47,5 | 5910 | 500 | 0,0366 | 0,0468 | 0,464 | 0,290 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 51,0 | 7259 | 500 | 0,0283 | 0,0362 | 0,448 | 0,282 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, single core, cables with copper conductor



Code: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

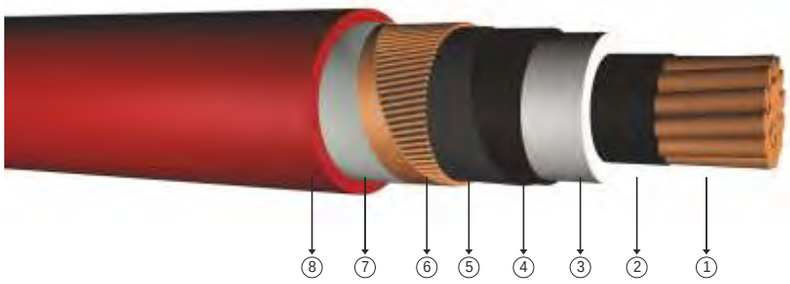
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ***** mH/km | μF/km | *** | ***** | *** | ***** |
| 1x35/16 | 32,0 | 1200 | 1000 | 0,524 | 0,6707 | 0,680 | 0,451 | 0,123 | 214 | 192 | 233 | 202 |
| 1x50/16 | 33,5 | 1400 | 1000 | 0,387 | 0,4954 | 0,655 | 0,432 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 35,0 | 1650 | 1000 | 0,268 | 0,3430 | 0,624 | 0,408 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 37,0 | 1950 | 1000 | 0,193 | 0,2470 | 0,600 | 0,391 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 39,0 | 2250 | 1000 | 0,153 | 0,1958 | 0,581 | 0,377 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 40,5 | 2700 | 1000 | 0,124 | 0,1587 | 0,564 | 0,366 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 42,5 | 3050 | 1000 | 0,0991 | 0,1268 | 0,547 | 0,355 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 45,0 | 3650 | 1000 | 0,0754 | 0,0965 | 0,527 | 0,342 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 47,5 | 4300 | 1000 | 0,0601 | 0,0769 | 0,510 | 0,332 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 50,5 | 5450 | 500 | 0,0470 | 0,0602 | 0,489 | 0,320 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 54,0 | 6500 | 500 | 0,0366 | 0,0468 | 0,473 | 0,310 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 57,5 | 7850 | 500 | 0,0283 | 0,0362 | 0,457 | 0,301 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ***** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, single core, cables with copper conductor



Code: N2XSY

R: Stranded Conductor

Standards: VDE 276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

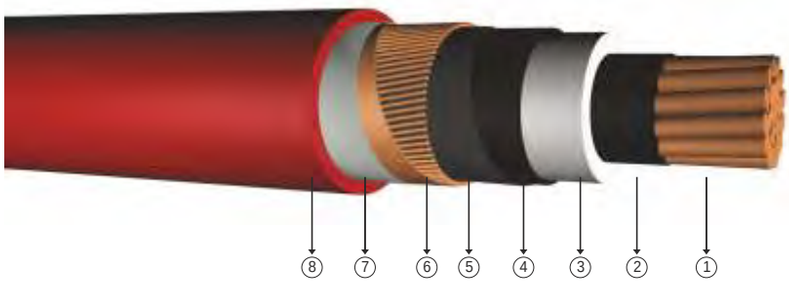
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x50/16 | 33,2 | 1374 | 1000 | 0,387 | 0,4954 | 0,655 | 0,432 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 35,0 | 1632 | 1000 | 0,268 | 0,3430 | 0,624 | 0,408 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 36,5 | 1908 | 1000 | 0,193 | 0,2470 | 0,600 | 0,391 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 38,0 | 2184 | 1000 | 0,153 | 0,1958 | 0,581 | 0,377 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 39,2 | 2556 | 1000 | 0,124 | 0,1587 | 0,564 | 0,366 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 41,0 | 2935 | 1000 | 0,0991 | 0,1268 | 0,547 | 0,355 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 43,5 | 3545 | 1000 | 0,0754 | 0,0965 | 0,527 | 0,342 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 46,5 | 4258 | 1000 | 0,0601 | 0,0769 | 0,510 | 0,332 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 49,5 | 5258 | 500 | 0,0470 | 0,0602 | 0,489 | 0,320 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 52,5 | 6287 | 500 | 0,0366 | 0,0468 | 0,473 | 0,310 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 56,0 | 7654 | 500 | 0,0283 | 0,0362 | 0,457 | 0,301 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, single core, cables with copper conductor



Code: YXC7V-R, N2XSY, CU/XLPE/CWS/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

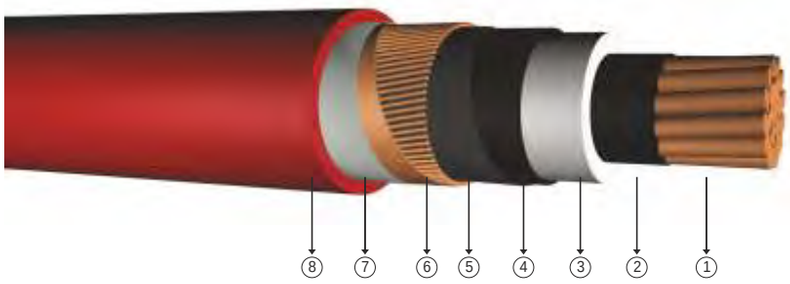
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 34,5 | 1300 | 1000 | 0,524 | 0,6707 | 0,685 | 0.464 | 0,115 | 214 | 192 | 233 | 202 |
| 1x50/16 | 36,0 | 1550 | 1000 | 0,387 | 0,4954 | 0,659 | 0.444 | 0,125 | 251 | 226 | 279 | 241 |
| 1x70/16 | 37,5 | 1800 | 1000 | 0,268 | 0,3430 | 0,628 | 0.420 | 0,140 | 306 | 276 | 348 | 299 |
| 1x95/16 | 39,5 | 2100 | 1000 | 0,193 | 0,2470 | 0,604 | 0.402 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 41,5 | 2400 | 1000 | 0,153 | 0,1958 | 0,585 | 0.388 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 43,0 | 2850 | 1000 | 0,124 | 0,1587 | 0,567 | 0.376 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 44,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,551 | 0.365 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 47,5 | 3800 | 1000 | 0,0754 | 0,0965 | 0,531 | 0.351 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 49,5 | 4500 | 1000 | 0,0601 | 0,0769 | 0,514 | 0.341 | 0,226 | 641 | 608 | 812 | 717 |
| 1x400/35 | 53,0 | 5650 | 500 | 0,0470 | 0,0602 | 0,493 | 0.328 | 0,252 | 697 | 684 | 904 | 823 |
| 1x500/35 | 56,0 | 6700 | 500 | 0,0366 | 0,0468 | 0,477 | 0.318 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 60,0 | 8000 | 500 | 0,0283 | 0,0362 | 0,460 | 0.308 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV halogen free, flame retardant, XLPE insulated, single core, cables with copper conductor



Code: YXC7Z1-R, N2XSH, CU/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

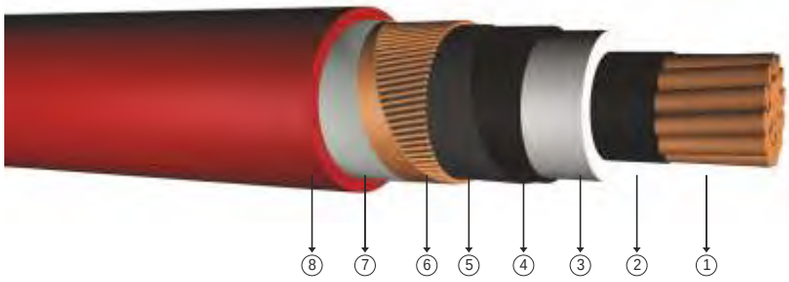
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 21,0 | 750 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,283 | 201 | 191 | 238 | 199 |
| 1x50/16 | 22,0 | 900 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,318 | 241 | 227 | 285 | 241 |
| 1x70/16 | 24,0 | 1100 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,368 | 301 | 277 | 356 | 301 |
| 1x95/16 | 25,5 | 1400 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,414 | 364 | 331 | 435 | 365 |
| 1x120/16 | 27,0 | 1650 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,455 | 424 | 379 | 496 | 419 |
| 1x150/25 | 28,5 | 2000 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,499 | 479 | 422 | 554 | 479 |
| 1x185/25 | 30,5 | 2400 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,544 | 549 | 476 | 637 | 543 |
| 1x240/25 | 33,5 | 2950 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,587 | 640 | 550 | 746 | 640 |
| 1x300/25 | 36,0 | 3550 | 1000 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,603 | 724 | 619 | 846 | 731 |
| 1x400/35 | 40,0 | 4650 | 1000 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,642 | 795 | 695 | 941 | 840 |
| 1x500/35 | 43,5 | 5700 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,667 | 883 | 773 | 1051 | 949 |
| 1x630/35 | 47,0 | 6950 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,739 | 981 | 856 | 1180 | 1076 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV halogen free, flame retardant, XLPE insulated, single core, cables with copper conductor



Code: YXC7Z1-R, N2XSH, CU/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

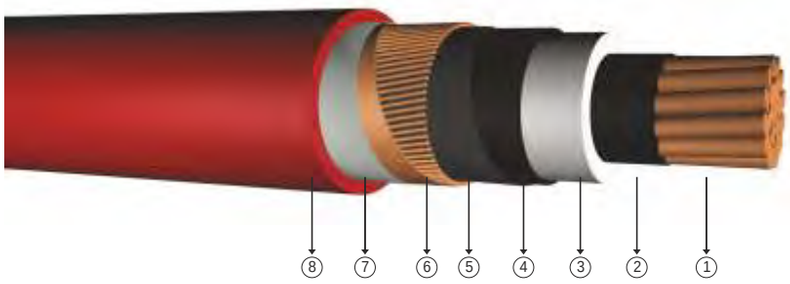
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 22,5 | 800 | 1000 | 0,524 | 0,6707 | 0,661 | 0,383 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 24,0 | 950 | 1000 | 0,387 | 0,4954 | 0,636 | 0,366 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 26,0 | 1200 | 1000 | 0,268 | 0,3430 | 0,606 | 0,349 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 27,5 | 1450 | 1000 | 0,193 | 0,2470 | 0,582 | 0,334 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 29,5 | 1700 | 1000 | 0,153 | 0,1958 | 0,563 | 0,323 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 30,5 | 2100 | 1000 | 0,124 | 0,1587 | 0,546 | 0,313 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 32,5 | 2450 | 1000 | 0,0991 | 0,1268 | 0,529 | 0,304 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 35,0 | 3050 | 1000 | 0,0754 | 0,0965 | 0,509 | 0,294 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 37,5 | 3650 | 1000 | 0,0601 | 0,0769 | 0,493 | 0,288 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 41,0 | 4700 | 1000 | 0,0470 | 0,0602 | 0,473 | 0,278 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 44,0 | 5700 | 500 | 0,0366 | 0,0468 | 0,457 | 0,271 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 47,5 | 7000 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV halogen free, flame retardant, XLPE insulated, single core, cables with copper conductor



Code: YXC7Z1-R, N2XSH, CU/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

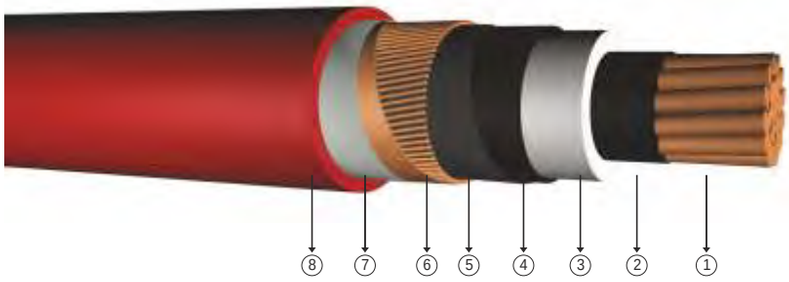
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 25,0 | 900 | 1000 | 0,524 | 0,6707 | 0,666 | 0,401 | 0,181 | 212 | 187 | 231 | 195 |
| 1x50/16 | 26,5 | 1050 | 1000 | 0,387 | 0,4954 | 0,640 | 0,383 | 0,201 | 249 | 220 | 277 | 234 |
| 1x70/16 | 28,0 | 1300 | 1000 | 0,268 | 0,3430 | 0,609 | 0,362 | 0,229 | 303 | 269 | 345 | 292 |
| 1x95/16 | 29,5 | 1550 | 1000 | 0,193 | 0,2470 | 0,585 | 0,346 | 0,255 | 358 | 321 | 418 | 354 |
| 1x120/16 | 31,5 | 1850 | 1000 | 0,153 | 0,1958 | 0,567 | 0,336 | 0,278 | 404 | 364 | 481 | 407 |
| 1x150/25 | 33,0 | 2200 | 1000 | 0,124 | 0,1587 | 0,549 | 0,325 | 0,302 | 441 | 405 | 537 | 460 |
| 1x185/25 | 35,0 | 2600 | 1000 | 0,0991 | 0,1268 | 0,534 | 0,317 | 0,328 | 493 | 457 | 612 | 527 |
| 1x240/25 | 37,5 | 3150 | 1000 | 0,0754 | 0,0965 | 0,514 | 0,307 | 0,363 | 563 | 528 | 716 | 621 |
| 1x300/25 | 40,0 | 3750 | 1000 | 0,0601 | 0,0769 | 0,497 | 0,298 | 0,398 | 626 | 593 | 811 | 709 |
| 1x400/35 | 43,5 | 4900 | 1000 | 0,0470 | 0,0602 | 0,477 | 0,289 | 0,447 | 676 | 665 | 901 | 815 |
| 1x500/35 | 46,5 | 5900 | 500 | 0,0366 | 0,0468 | 0,461 | 0,282 | 0,491 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 50,0 | 7150 | 500 | 0,0283 | 0,0362 | 0,445 | 0,275 | 0,543 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV halogen free, flame retardant, XLPE insulated, single core, cables with copper conductor



Code: YXC7Z1-R, N2XSH, CU/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

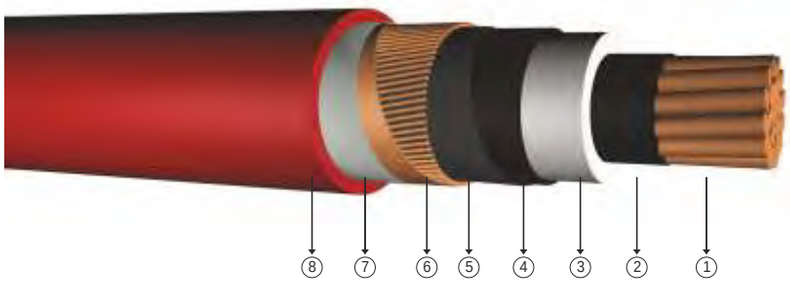
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 27,0 | 950 | 1000 | 0,524 | 0,6707 | 0,670 | 0,416 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 28,5 | 1150 | 1000 | 0,387 | 0,4954 | 0,644 | 0,397 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 30,0 | 1400 | 1000 | 0,268 | 0,3430 | 0,614 | 0,377 | 0,197 | 304 | 273 | 347 | 296 |
| 1x95/16 | 32,0 | 1650 | 1000 | 0,193 | 0,2470 | 0,590 | 0,360 | 0,218 | 361 | 325 | 420 | 358 |
| 1x120/16 | 34,0 | 1950 | 1000 | 0,153 | 0,1958 | 0,571 | 0,349 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 35,0 | 2350 | 1000 | 0,124 | 0,1587 | 0,554 | 0,338 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 37,0 | 2700 | 1000 | 0,0991 | 0,1268 | 0,538 | 0,329 | 0,278 | 498 | 463 | 614 | 534 |
| 1x240/25 | 39,5 | 3300 | 1000 | 0,0754 | 0,0965 | 0,518 | 0,317 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 42,0 | 3900 | 1000 | 0,0601 | 0,0769 | 0,501 | 0,308 | 0,336 | 633 | 601 | 813 | 715 |
| 1x400/35 | 45,5 | 5000 | 1000 | 0,0470 | 0,0602 | 0,480 | 0,298 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 48,5 | 6000 | 500 | 0,0366 | 0,0468 | 0,464 | 0,290 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 52,5 | 7300 | 500 | 0,0283 | 0,0362 | 0,448 | 0,282 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV halogen free, flame retardant, XLPE insulated, single core, cables with copper conductor



Code: YXC7Z1-R, N2XSH, CU/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

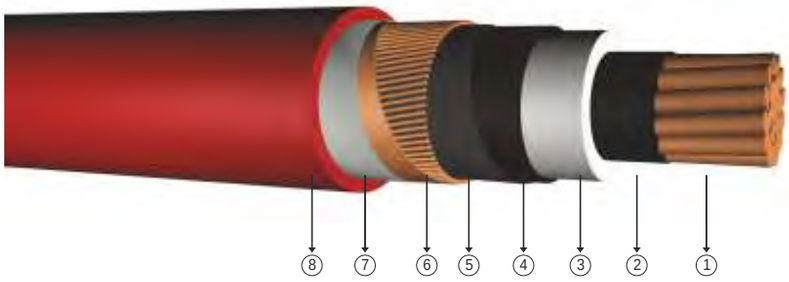
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 32,0 | 1200 | 1000 | 0,524 | 0,6707 | 0,680 | 0,451 | 0,123 | 214 | 192 | 233 | 202 |
| 1x50/16 | 33,5 | 1400 | 1000 | 0,387 | 0,4954 | 0,655 | 0,432 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 35,0 | 1650 | 1000 | 0,268 | 0,3430 | 0,624 | 0,408 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 37,0 | 1950 | 1000 | 0,193 | 0,2470 | 0,600 | 0,391 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 39,0 | 2250 | 1000 | 0,153 | 0,1958 | 0,581 | 0,377 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 40,5 | 2700 | 1000 | 0,124 | 0,1587 | 0,564 | 0,366 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 42,5 | 3050 | 1000 | 0,0991 | 0,1268 | 0,547 | 0,355 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 45,0 | 3650 | 1000 | 0,0754 | 0,0965 | 0,527 | 0,342 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 47,5 | 4300 | 1000 | 0,0601 | 0,0769 | 0,510 | 0,332 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 50,5 | 5450 | 500 | 0,0470 | 0,0602 | 0,489 | 0,320 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 54,0 | 6500 | 500 | 0,0366 | 0,0468 | 0,473 | 0,310 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 57,5 | 7850 | 500 | 0,0283 | 0,0362 | 0,457 | 0,301 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV halogen free, flame retardant, XLPE insulated, single core, cables with copper conductor



Code: YXC7Z1-R, N2XSH, CU/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

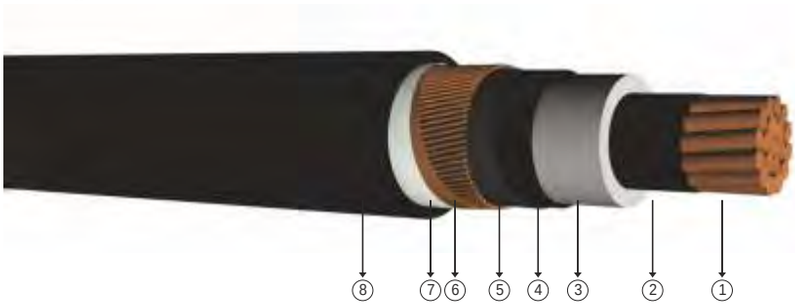
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 34,5 | 1300 | 1000 | 0,524 | 0,6707 | 0,685 | 0,464 | 0,115 | 214 | 192 | 233 | 202 |
| 1x50/16 | 36,0 | 1550 | 1000 | 0,387 | 0,4954 | 0,659 | 0,444 | 0,125 | 251 | 226 | 279 | 241 |
| 1x70/16 | 37,5 | 1800 | 1000 | 0,268 | 0,3430 | 0,628 | 0,420 | 0,140 | 306 | 276 | 348 | 299 |
| 1x95/16 | 39,5 | 2100 | 1000 | 0,193 | 0,2470 | 0,604 | 0,402 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 41,5 | 2400 | 1000 | 0,153 | 0,1958 | 0,585 | 0,388 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 43,0 | 2850 | 1000 | 0,124 | 0,1587 | 0,567 | 0,376 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 44,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,551 | 0,365 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 47,5 | 3800 | 1000 | 0,0754 | 0,0965 | 0,531 | 0,351 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 49,5 | 4500 | 1000 | 0,0601 | 0,0769 | 0,514 | 0,341 | 0,226 | 641 | 608 | 812 | 717 |
| 1x400/35 | 53,0 | 5650 | 500 | 0,0470 | 0,0602 | 0,493 | 0,328 | 0,252 | 697 | 684 | 904 | 823 |
| 1x500/35 | 56,0 | 6700 | 500 | 0,0366 | 0,0468 | 0,477 | 0,318 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 60,0 | 8000 | 500 | 0,0283 | 0,0362 | 0,460 | 0,308 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y, CU/XLPE/LW/CWS/LW/PE

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV<br>3,8/6,6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. If the cable gets water inside due to the mechanical , swellable tapes prevent ingress and migration of moisture or water inside the cable.

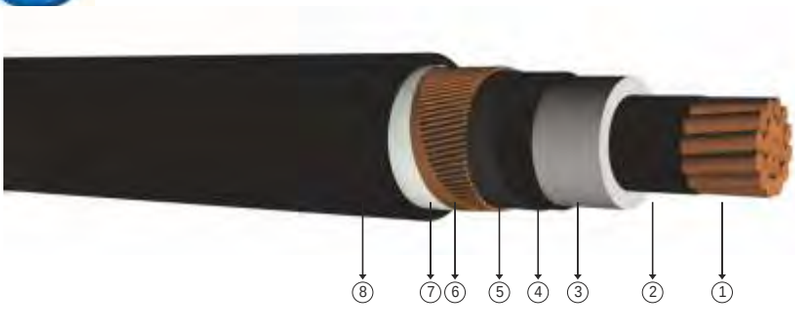
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 24,0 | 700 | 1000 | 0,524 | 0,6707 | 0,663 | 0,391 | 0,283 | 201 | 191 | 238 | 199 |
| 1x50/16 | 25,0 | 900 | 1000 | 0,387 | 0,4954 | 0,638 | 0,374 | 0,318 | 241 | 227 | 285 | 241 |
| 1x70/16 | 26,5 | 1100 | 1000 | 0,268 | 0,3430 | 0,607 | 0,353 | 0,368 | 301 | 277 | 356 | 301 |
| 1x95/16 | 28,5 | 1350 | 1000 | 0,193 | 0,2470 | 0,583 | 0,338 | 0,414 | 364 | 331 | 435 | 365 |
| 1x120/16 | 30,0 | 1600 | 1000 | 0,153 | 0,1958 | 0,564 | 0,327 | 0,455 | 424 | 379 | 496 | 419 |
| 1x150/25 | 31,5 | 1950 | 1000 | 0,124 | 0,1587 | 0,547 | 0,317 | 0,499 | 479 | 422 | 554 | 479 |
| 1x185/25 | 33,5 | 2350 | 1000 | 0,0991 | 0,1268 | 0,531 | 0,309 | 0,544 | 549 | 476 | 637 | 543 |
| 1x240/25 | 36,5 | 2850 | 1000 | 0,0754 | 0,0965 | 0,511 | 0,299 | 0,587 | 640 | 550 | 746 | 640 |
| 1x300/25 | 39,0 | 3500 | 1000 | 0,0601 | 0,0769 | 0,496 | 0,294 | 0,603 | 724 | 619 | 846 | 731 |
| 1x400/35 | 43,0 | 4600 | 1000 | 0,0470 | 0,0602 | 0,476 | 0,287 | 0,642 | 795 | 695 | 941 | 840 |
| 1x500/35 | 46,5 | 5550 | 500 | 0,0366 | 0,0468 | 0,461 | 0,282 | 0,667 | 883 | 773 | 1051 | 949 |
| 1x630/35 | 50,0 | 6800 | 500 | 0,0283 | 0,0362 | 0,445 | 0,275 | 0,739 | 981 | 856 | 1180 | 1076 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y, CU/XLPE/LW/CWS/LW/PE

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. If the cable gets water inside due to the mechanical , swellable tapes prevent ingress and migration of moisture or water inside the cable.

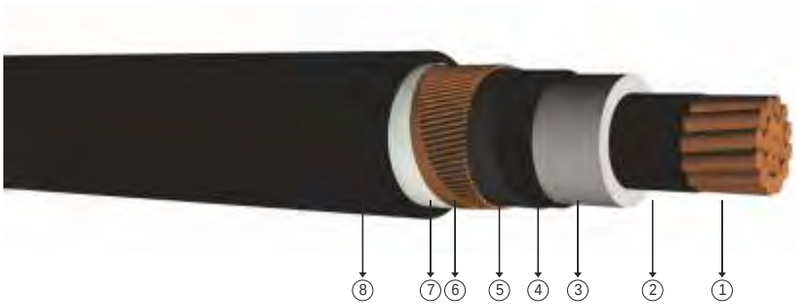
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 25,5 | 750 | 1000 | 0,524 | 0,6707 | 0,667 | 0,406 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 27,0 | 950 | 1000 | 0,387 | 0,4954 | 0,642 | 0,387 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 28,5 | 1150 | 1000 | 0,268 | 0,3430 | 0,611 | 0,366 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 30,0 | 1400 | 1000 | 0,193 | 0,2470 | 0,586 | 0,350 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 32,0 | 1650 | 1000 | 0,153 | 0,1958 | 0,568 | 0,338 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 33,5 | 2050 | 1000 | 0,124 | 0,1587 | 0,551 | 0,329 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 35,5 | 2400 | 1000 | 0,0991 | 0,1268 | 0,534 | 0,319 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 38,0 | 2950 | 1000 | 0,0754 | 0,0965 | 0,515 | 0,309 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 40,5 | 3550 | 1000 | 0,0601 | 0,0769 | 0,498 | 0,301 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 43,5 | 4650 | 1000 | 0,0470 | 0,0602 | 0,478 | 0,291 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 47,0 | 5600 | 500 | 0,0366 | 0,0468 | 0,462 | 0,284 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 50,5 | 6850 | 500 | 0,0283 | 0,0362 | 0,446 | 0,276 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y

Standards: VDE 276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

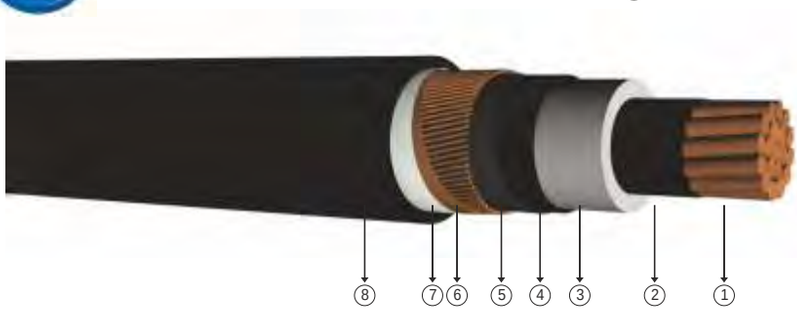
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operational Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 24,1 | 772 | 1000 | 0,524 | 0,6707 | 0,667 | 0,406 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 25,3 | 909 | 1000 | 0,387 | 0,4954 | 0,642 | 0,387 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 27,0 | 1125 | 1000 | 0,268 | 0,3430 | 0,611 | 0,366 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 28,3 | 1372 | 1000 | 0,193 | 0,2470 | 0,586 | 0,350 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 29,7 | 1615 | 1000 | 0,153 | 0,1958 | 0,568 | 0,338 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 31,0 | 1972 | 1000 | 0,124 | 0,1587 | 0,551 | 0,329 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 32,8 | 2324 | 1000 | 0,0991 | 0,1268 | 0,534 | 0,319 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 35,3 | 2892 | 1000 | 0,0754 | 0,0965 | 0,515 | 0,309 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 37,7 | 3486 | 1000 | 0,0601 | 0,0769 | 0,498 | 0,301 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 40,5 | 4406 | 1000 | 0,0470 | 0,0602 | 0,478 | 0,291 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 43,8 | 5418 | 500 | 0,0366 | 0,0468 | 0,462 | 0,284 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 47,8 | 6784 | 500 | 0,0283 | 0,0362 | 0,446 | 0,276 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y, CU/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

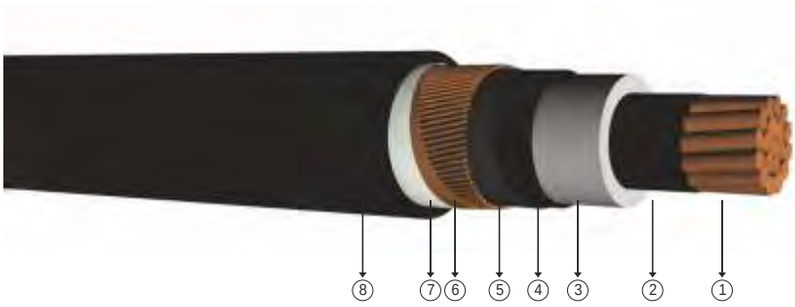
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,0 | 850 | 1000 | 0,524 | 0,6707 | 0,672 | 0,422 | 0,181 | 212 | 187 | 231 | 195 |
| 1x50/16 | 29,0 | 1000 | 1000 | 0,387 | 0,4954 | 0,646 | 0,403 | 0,201 | 249 | 220 | 277 | 234 |
| 1x70/16 | 30,5 | 1250 | 1000 | 0,268 | 0,3430 | 0,615 | 0,381 | 0,229 | 303 | 269 | 345 | 292 |
| 1x95/16 | 32,5 | 1500 | 1000 | 0,193 | 0,2470 | 0,591 | 0,364 | 0,255 | 358 | 321 | 418 | 354 |
| 1x120/16 | 34,5 | 1750 | 1000 | 0,153 | 0,1958 | 0,572 | 0,353 | 0,278 | 404 | 364 | 481 | 407 |
| 1x150/25 | 35,5 | 2150 | 1000 | 0,124 | 0,1587 | 0,555 | 0,341 | 0,302 | 441 | 405 | 537 | 460 |
| 1x185/25 | 37,5 | 2500 | 1000 | 0,0991 | 0,1268 | 0,539 | 0,332 | 0,328 | 493 | 457 | 612 | 527 |
| 1x240/25 | 40,5 | 3100 | 1000 | 0,0754 | 0,0965 | 0,519 | 0,321 | 0,363 | 563 | 528 | 716 | 621 |
| 1x300/25 | 42,5 | 3700 | 1000 | 0,0601 | 0,0769 | 0,502 | 0,311 | 0,398 | 626 | 593 | 811 | 709 |
| 1x400/35 | 46,0 | 4800 | 1000 | 0,0470 | 0,0602 | 0,482 | 0,301 | 0,447 | 676 | 665 | 901 | 815 |
| 1x500/35 | 49,5 | 5750 | 500 | 0,0366 | 0,0468 | 0,466 | 0,293 | 0,491 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 53,0 | 7000 | 500 | 0,0283 | 0,0362 | 0,450 | 0,285 | 0,543 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y, CU/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

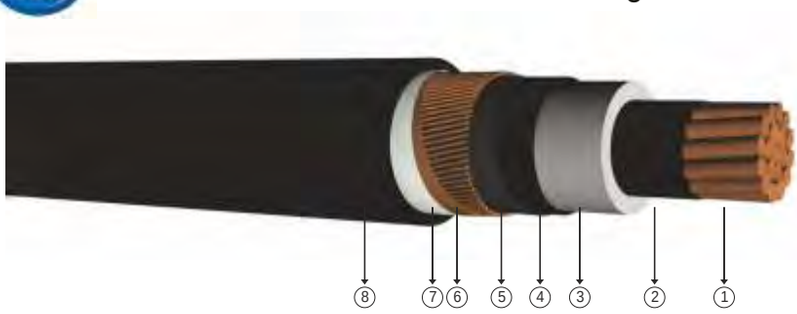
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 30,0 | 900 | 1000 | 0,524 | 0,6707 | 0,676 | 0,436 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 31,0 | 1100 | 1000 | 0,387 | 0,4954 | 0,650 | 0,416 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 33,0 | 1300 | 1000 | 0,268 | 0,3430 | 0,619 | 0,394 | 0,197 | 304 | 273 | 347 | 296 |
| 1x95/16 | 34,5 | 1600 | 1000 | 0,193 | 0,2470 | 0,595 | 0,377 | 0,218 | 361 | 325 | 420 | 358 |
| 1x120/16 | 36,5 | 1850 | 1000 | 0,153 | 0,1958 | 0,576 | 0,365 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 38,0 | 2250 | 1000 | 0,124 | 0,1587 | 0,559 | 0,353 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 40,0 | 2650 | 1000 | 0,0991 | 0,1268 | 0,543 | 0,343 | 0,278 | 498 | 463 | 614 | 534 |
| 1x240/25 | 42,5 | 3200 | 1000 | 0,0754 | 0,0965 | 0,523 | 0,330 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 44,5 | 3800 | 1000 | 0,0601 | 0,0769 | 0,506 | 0,321 | 0,336 | 633 | 601 | 813 | 715 |
| 1x400/35 | 48,0 | 4900 | 1000 | 0,0470 | 0,0602 | 0,485 | 0,309 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 51,0 | 5900 | 500 | 0,0366 | 0,0468 | 0,469 | 0,300 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 55,0 | 7150 | 500 | 0,0283 | 0,0362 | 0,452 | 0,292 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

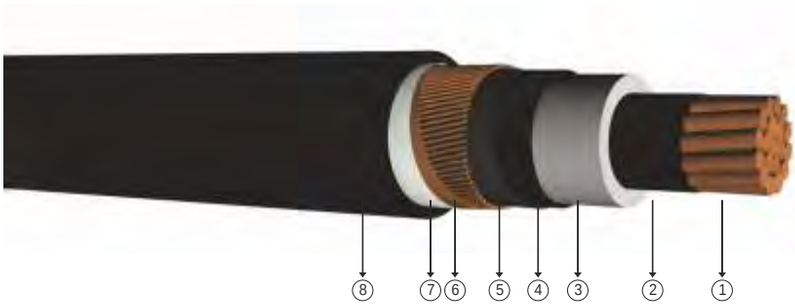
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,3 | 916 | 1000 | 0,524 | 0,6707 | 0,676 | 0,436 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 29,5 | 1061 | 1000 | 0,387 | 0,4954 | 0,650 | 0,416 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 31,2 | 1291 | 1000 | 0,268 | 0,3430 | 0,619 | 0,394 | 0,197 | 304 | 273 | 347 | 296 |
| 1x95/16 | 32,8 | 1556 | 1000 | 0,193 | 0,2470 | 0,595 | 0,377 | 0,218 | 361 | 325 | 420 | 358 |
| 1x120/16 | 33,9 | 1794 | 1000 | 0,153 | 0,1958 | 0,576 | 0,365 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 35,2 | 2161 | 1000 | 0,124 | 0,1587 | 0,559 | 0,353 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 37,0 | 2524 | 1000 | 0,0991 | 0,1268 | 0,543 | 0,343 | 0,278 | 498 | 463 | 614 | 534 |
| 1x240/25 | 39,5 | 3106 | 1000 | 0,0754 | 0,0965 | 0,523 | 0,330 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 41,6 | 3691 | 1000 | 0,0601 | 0,0769 | 0,506 | 0,321 | 0,336 | 633 | 601 | 813 | 715 |
| 1x400/35 | 44,5 | 4636 | 1000 | 0,0470 | 0,0602 | 0,485 | 0,309 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 48,0 | 5685 | 500 | 0,0366 | 0,0468 | 0,469 | 0,300 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 52,0 | 7075 | 500 | 0,0283 | 0,0362 | 0,452 | 0,292 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

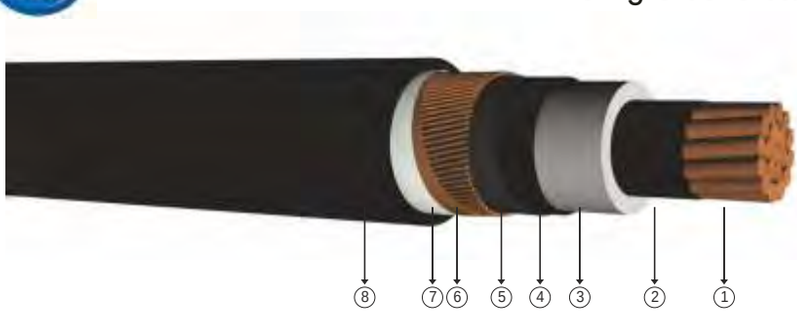
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer.
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 35,0 | 1150 | 1000 | 0,524 | 0,6707 | 0,686 | 0,467 | 0,123 | 214 | 192 | 233 | 202 |
| 1x50/16 | 36,5 | 1300 | 1000 | 0,387 | 0,4954 | 0,660 | 0,448 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 38,0 | 1550 | 1000 | 0,268 | 0,3430 | 0,629 | 0,423 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 40,0 | 1850 | 1000 | 0,193 | 0,2470 | 0,605 | 0,405 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 42,0 | 2150 | 1000 | 0,153 | 0,1958 | 0,586 | 0,391 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 43,5 | 2550 | 1000 | 0,124 | 0,1587 | 0,568 | 0,379 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 45,0 | 2950 | 1000 | 0,0991 | 0,1268 | 0,552 | 0,367 | 0,208 | 503 | 468 | 614 | 536 |
| 1x240/25 | 48,0 | 3550 | 1000 | 0,0754 | 0,0965 | 0,532 | 0,354 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 50,0 | 4150 | 1000 | 0,0601 | 0,0769 | 0,515 | 0,343 | 0,248 | 641 | 608 | 813 | 717 |
| 1x400/35 | 53,5 | 5300 | 500 | 0,0470 | 0,0602 | 0,494 | 0,330 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 56,5 | 6300 | 500 | 0,0366 | 0,0468 | 0,478 | 0,320 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 60,5 | 7600 | 500 | 0,0283 | 0,0362 | 0,461 | 0,310 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. If the cable gets water inside due to the mechanical demages, swellable tapes prevent ingress and migration of moisture or water inside the cable.

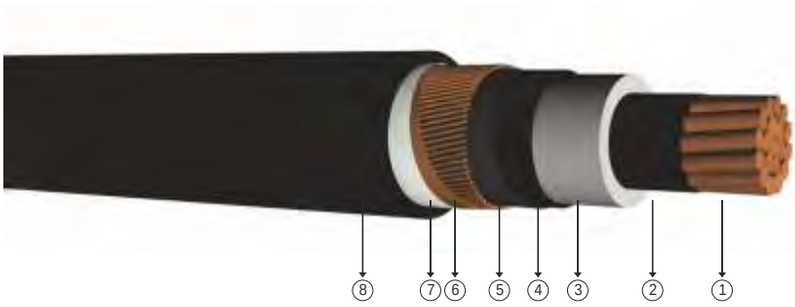
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x50/16 | 34,2 | 1260 | 1000 | 0,387 | 0,4954 | 0,660 | 0,448 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 35,8 | 1494 | 1000 | 0,268 | 0,3430 | 0,629 | 0,423 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 37,5 | 1781 | 1000 | 0,193 | 0,2470 | 0,605 | 0,405 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 38,9 | 2042 | 1000 | 0,153 | 0,1958 | 0,586 | 0,391 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 40,2 | 2418 | 1000 | 0,124 | 0,1587 | 0,568 | 0,379 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 42,0 | 2790 | 1000 | 0,0991 | 0,1268 | 0,552 | 0,367 | 0,208 | 503 | 468 | 614 | 536 |
| 1x240/25 | 44,5 | 3390 | 1000 | 0,0754 | 0,0965 | 0,532 | 0,354 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 46,6 | 3995 | 1000 | 0,0601 | 0,0769 | 0,515 | 0,343 | 0,248 | 641 | 608 | 813 | 717 |
| 1x400/35 | 49,5 | 4962 | 500 | 0,0470 | 0,0602 | 0,494 | 0,330 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 53,0 | 6032 | 500 | 0,0366 | 0,0468 | 0,478 | 0,320 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 57,0 | 7451 | 500 | 0,0283 | 0,0362 | 0,461 | 0,310 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, longitudinally sealed, single core cables with copper conductor



Code: N2XS(F)2Y

Standards: HD 620 S3

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 37,5 | 1250 | 1000 | 0,524 | 0,6707 | 0,690 | 0,480 | 0,115 | 214 | 192 | 233 | 202 |
| 1x50/16 | 38,5 | 1450 | 1000 | 0,387 | 0,4954 | 0,664 | 0,459 | 0,125 | 251 | 226 | 279 | 241 |
| 1x70/16 | 40,5 | 1700 | 1000 | 0,268 | 0,3430 | 0,633 | 0,434 | 0,140 | 306 | 276 | 348 | 299 |
| 1x95/16 | 42,0 | 2000 | 1000 | 0,193 | 0,2470 | 0,609 | 0,416 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 44,0 | 2250 | 1000 | 0,153 | 0,1958 | 0,590 | 0,401 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 45,5 | 2700 | 1000 | 0,124 | 0,1587 | 0,572 | 0,389 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 47,5 | 3050 | 1000 | 0,0991 | 0,1268 | 0,556 | 0,376 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 50,0 | 3650 | 1000 | 0,0754 | 0,0965 | 0,535 | 0,363 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 52,5 | 4300 | 1000 | 0,0601 | 0,0769 | 0,519 | 0,351 | 0,226 | 641 | 608 | 812 | 717 |
| 1x400/35 | 55,5 | 5450 | 500 | 0,0470 | 0,0602 | 0,497 | 0,338 | 0,252 | 697 | 684 | 904 | 823 |
| 1x500/35 | 59,0 | 6500 | 500 | 0,0366 | 0,0468 | 0,481 | 0,328 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 62,5 | 7800 | 500 | 0,0283 | 0,0362 | 0,464 | 0,317 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 25,0 | 800 | 1000 | 0,524 | 0,6707 | 0,665 | 0,395 | 0,283 | 201 | 191 | 238 | 199 |
| 1x50/16 | 26,0 | 950 | 1000 | 0,387 | 0,4954 | 0,640 | 0,381 | 0,318 | 241 | 227 | 285 | 241 |
| 1x70/16 | 27,5 | 1150 | 1000 | 0,268 | 0,3430 | 0,609 | 0,361 | 0,368 | 301 | 277 | 356 | 301 |
| 1x95/16 | 29,5 | 1400 | 1000 | 0,193 | 0,2470 | 0,585 | 0,345 | 0,414 | 364 | 331 | 435 | 365 |
| 1x120/16 | 31,0 | 1600 | 1000 | 0,153 | 0,1958 | 0,566 | 0,333 | 0,455 | 424 | 379 | 496 | 419 |
| 1x150/25 | 32,5 | 2050 | 1000 | 0,124 | 0,1587 | 0,549 | 0,323 | 0,499 | 479 | 422 | 554 | 479 |
| 1x185/25 | 34,5 | 2400 | 1000 | 0,0991 | 0,1268 | 0,533 | 0,315 | 0,544 | 549 | 476 | 637 | 543 |
| 1x240/25 | 37,5 | 2950 | 1000 | 0,0754 | 0,0965 | 0,513 | 0,306 | 0,587 | 640 | 550 | 746 | 640 |
| 1x300/25 | 40,0 | 3600 | 1000 | 0,0601 | 0,0769 | 0,498 | 0,300 | 0,603 | 724 | 619 | 846 | 731 |
| 1x400/35 | 44,0 | 4700 | 1000 | 0,0470 | 0,0602 | 0,478 | 0,292 | 0,642 | 795 | 695 | 941 | 840 |
| 1x500/35 | 47,5 | 5700 | 500 | 0,0366 | 0,0468 | 0,463 | 0,286 | 0,667 | 883 | 773 | 1051 | 949 |
| 1x630/35 | 51,5 | 6950 | 500 | 0,0283 | 0,0362 | 0,947 | 0,278 | 0,739 | 981 | 856 | 1180 | 1076 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 25,0 | 850 | 1000 | 0,524 | 0,6707 | 0,669 | 0,413 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 26,0 | 1000 | 1000 | 0,387 | 0,4954 | 0,644 | 0,395 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 28,0 | 1200 | 1000 | 0,268 | 0,3430 | 0,613 | 0,373 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 30,0 | 1500 | 1000 | 0,193 | 0,2470 | 0,588 | 0,357 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 31,0 | 1750 | 1000 | 0,153 | 0,1958 | 0,570 | 0,346 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 33,0 | 2150 | 1000 | 0,124 | 0,1587 | 0,552 | 0,335 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 34,0 | 2500 | 1000 | 0,0991 | 0,1268 | 0,537 | 0,326 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 37,0 | 3050 | 1000 | 0,0754 | 0,0965 | 0,516 | 0,314 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 40,0 | 3650 | 1000 | 0,0601 | 0,0769 | 0,500 | 0,305 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 43,0 | 4750 | 1000 | 0,0470 | 0,0602 | 0,479 | 0,295 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 46,0 | 5700 | 500 | 0,0366 | 0,0468 | 0,463 | 0,288 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 50,0 | 7000 | 500 | 0,0283 | 0,0362 | 0,447 | 0,280 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 24,7 | 819 | 1000 | 0,524 | 0,6707 | 0,669 | 0,413 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 25,9 | 958 | 1000 | 0,387 | 0,4954 | 0,644 | 0,395 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 27,6 | 1178 | 1000 | 0,268 | 0,3430 | 0,613 | 0,373 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 28,9 | 1428 | 1000 | 0,193 | 0,2470 | 0,588 | 0,357 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 30,3 | 1674 | 1000 | 0,153 | 0,1958 | 0,570 | 0,346 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 31,6 | 2034 | 1000 | 0,124 | 0,1587 | 0,552 | 0,335 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 33,4 | 2390 | 1000 | 0,0991 | 0,1268 | 0,537 | 0,326 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 35,8 | 2963 | 1000 | 0,0754 | 0,0965 | 0,516 | 0,314 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 38,3 | 3563 | 1000 | 0,0601 | 0,0769 | 0,500 | 0,305 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 41,1 | 4488 | 1000 | 0,0470 | 0,0602 | 0,479 | 0,295 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 44,4 | 5508 | 500 | 0,0366 | 0,0468 | 0,463 | 0,288 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 48,4 | 6883 | 500 | 0,0283 | 0,0362 | 0,447 | 0,280 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 28,0 | 900 | 1000 | 0,524 | 0,6707 | 0,674 | 0,429 | 0,181 | 212 | 187 | 231 | 195 |
| 1x50/16 | 29,0 | 1100 | 1000 | 0,387 | 0,4954 | 0,648 | 0,410 | 0,201 | 249 | 220 | 277 | 234 |
| 1x70/16 | 30,0 | 1300 | 1000 | 0,268 | 0,3430 | 0,617 | 0,387 | 0,229 | 303 | 269 | 345 | 292 |
| 1x95/16 | 32,0 | 1600 | 1000 | 0,193 | 0,2470 | 0,593 | 0,371 | 0,255 | 358 | 321 | 418 | 354 |
| 1x120/16 | 34,0 | 1850 | 1000 | 0,153 | 0,1958 | 0,574 | 0,358 | 0,278 | 404 | 364 | 481 | 407 |
| 1x150/25 | 36,0 | 2250 | 1000 | 0,124 | 0,1587 | 0,557 | 0,348 | 0,302 | 441 | 405 | 537 | 460 |
| 1x185/25 | 37,0 | 2600 | 1000 | 0,0991 | 0,1268 | 0,541 | 0,337 | 0,328 | 493 | 457 | 612 | 527 |
| 1x240/25 | 40,0 | 3200 | 1000 | 0,0754 | 0,0965 | 0,521 | 0,326 | 0,363 | 563 | 528 | 716 | 621 |
| 1x300/25 | 42,0 | 3800 | 1000 | 0,0601 | 0,0769 | 0,504 | 0,316 | 0,398 | 626 | 593 | 811 | 709 |
| 1x400/35 | 46,0 | 4900 | 1000 | 0,0470 | 0,0602 | 0,483 | 0,305 | 0,447 | 676 | 665 | 901 | 815 |
| 1x500/35 | 48,0 | 5900 | 500 | 0,0366 | 0,0468 | 0,467 | 0,297 | 0,491 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 54,0 | 7150 | 500 | 0,0283 | 0,0362 | 0,451 | 0,289 | 0,543 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 31,0 | 950 | 1000 | 0,524 | 0,6707 | 0,678 | 0,442 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 32,0 | 1000 | 1000 | 0,387 | 0,4954 | 0,652 | 0,422 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 34,0 | 1400 | 1000 | 0,268 | 0,3430 | 0,621 | 0,400 | 0,197 | 304 | 273 | 348 | 296 |
| 1x95/16 | 35,5 | 1700 | 1000 | 0,193 | 0,2470 | 0,597 | 0,382 | 0,218 | 361 | 325 | 421 | 358 |
| 1x120/16 | 37,5 | 1950 | 1000 | 0,153 | 0,1958 | 0,578 | 0,370 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 34,0 | 2350 | 1000 | 0,124 | 0,1587 | 0,561 | 0,358 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 41,0 | 2750 | 1000 | 0,0991 | 0,1268 | 0,545 | 0,348 | 0,278 | 498 | 463 | 615 | 534 |
| 1x240/25 | 43,5 | 3300 | 1000 | 0,0754 | 0,0965 | 0,524 | 0,335 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 45,5 | 3900 | 1000 | 0,0601 | 0,0769 | 0,508 | 0,325 | 0,336 | 633 | 601 | 812 | 715 |
| 1x400/35 | 49,0 | 5000 | 1000 | 0,0470 | 0,0602 | 0,486 | 0,313 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 52,5 | 6000 | 500 | 0,0366 | 0,0468 | 0,470 | 0,304 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 56,0 | 7300 | 500 | 0,0283 | 0,0362 | 0,454 | 0,295 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

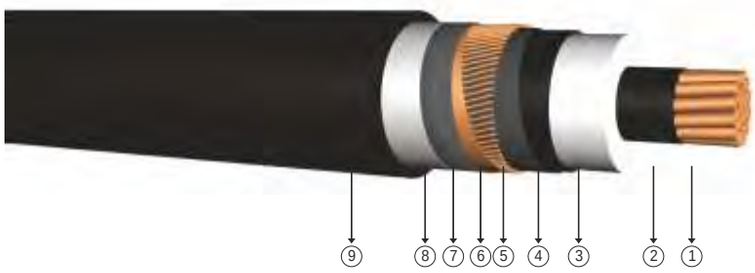
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,9 | 972 | 1000 | 0,524 | 0,6707 | 0,678 | 0,442 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 30,1 | 1120 | 1000 | 0,387 | 0,4954 | 0,652 | 0,422 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 31,8 | 1353 | 1000 | 0,268 | 0,3430 | 0,621 | 0,400 | 0,197 | 304 | 273 | 348 | 296 |
| 1x95/16 | 33,4 | 1622 | 1000 | 0,193 | 0,2470 | 0,597 | 0,382 | 0,218 | 361 | 325 | 421 | 358 |
| 1x120/16 | 34,5 | 1862 | 1000 | 0,153 | 0,1958 | 0,578 | 0,370 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 35,8 | 2232 | 1000 | 0,124 | 0,1587 | 0,561 | 0,358 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 37,6 | 2598 | 1000 | 0,0991 | 0,1268 | 0,545 | 0,348 | 0,278 | 498 | 463 | 615 | 534 |
| 1x240/25 | 40,0 | 3186 | 1000 | 0,0754 | 0,0965 | 0,524 | 0,335 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 42,2 | 3776 | 1000 | 0,0601 | 0,0769 | 0,508 | 0,325 | 0,336 | 633 | 601 | 812 | 715 |
| 1x400/35 | 45,1 | 4728 | 1000 | 0,0470 | 0,0602 | 0,486 | 0,313 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 48,6 | 5784 | 500 | 0,0366 | 0,0468 | 0,470 | 0,304 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 52,6 | 7183 | 500 | 0,0283 | 0,0362 | 0,454 | 0,295 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

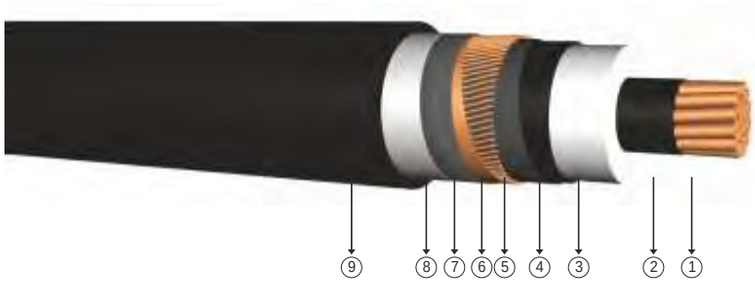
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 36,5 | 1250 | 1000 | 0,524 | 0,6707 | 0,688 | 0,474 | 0,123 | 214 | 192 | 233 | 202 |
| 1x50/16 | 37,5 | 1400 | 1000 | 0,387 | 0,4954 | 0,662 | 0,453 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 39,5 | 1650 | 1000 | 0,268 | 0,3430 | 0,631 | 0,429 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 41,0 | 1950 | 1000 | 0,193 | 0,2470 | 0,607 | 0,410 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 43,0 | 2250 | 1000 | 0,153 | 0,1958 | 0,588 | 0,397 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 44,5 | 2650 | 1000 | 0,124 | 0,1587 | 0,570 | 0,363 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 46,5 | 3050 | 1000 | 0,0991 | 0,1268 | 0,554 | 0,372 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 49,5 | 3650 | 1000 | 0,0754 | 0,0965 | 0,534 | 0,359 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 51,5 | 4300 | 1000 | 0,0601 | 0,0769 | 0,517 | 0,347 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 55,0 | 5400 | 500 | 0,0470 | 0,0602 | 0,495 | 0,334 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 58,0 | 6450 | 500 | 0,0366 | 0,0468 | 0,479 | 0,324 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 62,0 | 7750 | 500 | 0,0283 | 0,0362 | 0,463 | 0,314 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

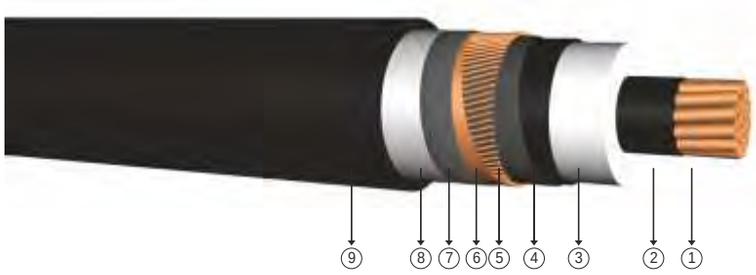
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x50/16 | 34,8 | 1329 | 1000 | 0,387 | 0,4954 | 0,662 | 0,453 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 36,4 | 1567 | 1000 | 0,268 | 0,3430 | 0,631 | 0,429 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 38,1 | 1857 | 1000 | 0,193 | 0,2470 | 0,607 | 0,410 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 39,5 | 2122 | 1000 | 0,153 | 0,1958 | 0,588 | 0,397 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 40,8 | 2500 | 1000 | 0,124 | 0,1587 | 0,570 | 0,363 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 42,6 | 2876 | 1000 | 0,0991 | 0,1268 | 0,554 | 0,372 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 45,0 | 3482 | 1000 | 0,0754 | 0,0965 | 0,534 | 0,359 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 47,2 | 4091 | 1000 | 0,0601 | 0,0769 | 0,517 | 0,347 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 50,1 | 5064 | 500 | 0,0470 | 0,0602 | 0,495 | 0,334 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 53,6 | 6142 | 500 | 0,0366 | 0,0468 | 0,479 | 0,324 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 57,6 | 7570 | 500 | 0,0283 | 0,0362 | 0,463 | 0,314 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: HD 620 S3, TSE K 204

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

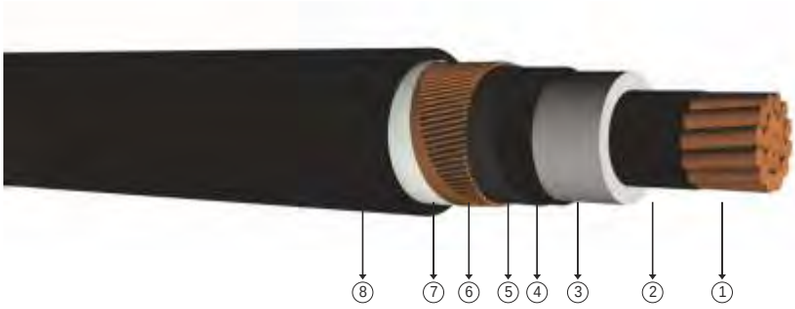
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 38,5 | 1350 | 1000 | 0,524 | 0,6707 | 0,692 | 0,485 | 0,115 | 214 | 192 | 233 | 202 |
| 1x50/16 | 39,5 | 1550 | 1000 | 0,387 | 0,4954 | 0,666 | 0,464 | 0,125 | 251 | 226 | 279 | 241 |
| 1x70/16 | 41,5 | 1800 | 1000 | 0,268 | 0,3430 | 0,635 | 0,439 | 0,140 | 306 | 276 | 348 | 299 |
| 1x95/16 | 43,0 | 2100 | 1000 | 0,193 | 0,2470 | 0,610 | 0,419 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 45,0 | 2400 | 1000 | 0,153 | 0,1958 | 0,591 | 0,405 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 46,5 | 2800 | 1000 | 0,124 | 0,1587 | 0,574 | 0,342 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 48,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,557 | 0,381 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 51,0 | 3800 | 1000 | 0,0754 | 0,0965 | 0,537 | 0,366 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 53,0 | 4450 | 1000 | 0,0601 | 0,0769 | 0,520 | 0,354 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 56,5 | 5550 | 500 | 0,0470 | 0,0602 | 0,499 | 0,341 | 0,226 | 697 | 684 | 904 | 823 |
| 1x500/35 | 60,0 | 6600 | 500 | 0,0366 | 0,0468 | 0,482 | 0,330 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 63,5 | 7950 | 500 | 0,0283 | 0,0362 | 0,466 | 0,320 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated single core cables with copper conductor



Code: N2XS2Y, CU/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

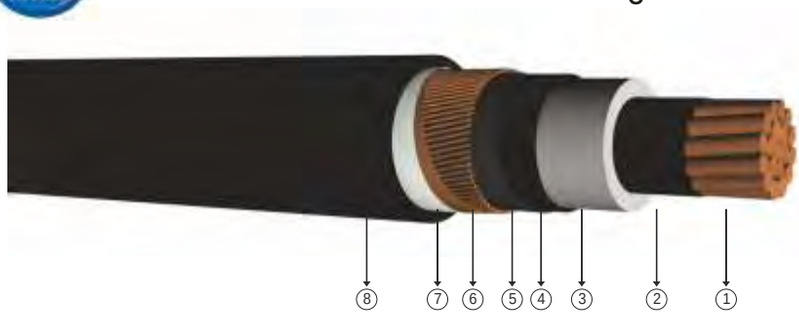
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 25,0 | 800 | 1000 | 0,524 | 0,6707 | 0,665 | 0,395 | 0,283 | 201 | 191 | 238 | 199 |
| 1x50/16 | 26,0 | 950 | 1000 | 0,387 | 0,4954 | 0,640 | 0,381 | 0,318 | 241 | 227 | 285 | 241 |
| 1x70/16 | 27,5 | 1150 | 1000 | 0,268 | 0,3430 | 0,609 | 0,361 | 0,368 | 301 | 277 | 356 | 301 |
| 1x95/16 | 29,5 | 1400 | 1000 | 0,193 | 0,2470 | 0,585 | 0,345 | 0,414 | 364 | 331 | 435 | 365 |
| 1x120/16 | 31,0 | 1600 | 1000 | 0,153 | 0,1958 | 0,566 | 0,333 | 0,455 | 424 | 379 | 496 | 419 |
| 1x150/25 | 32,5 | 2050 | 1000 | 0,124 | 0,1587 | 0,549 | 0,323 | 0,499 | 479 | 422 | 554 | 479 |
| 1x185/25 | 34,5 | 2400 | 1000 | 0,0991 | 0,1268 | 0,533 | 0,315 | 0,544 | 549 | 476 | 637 | 543 |
| 1x240/25 | 37,5 | 2950 | 1000 | 0,0754 | 0,0965 | 0,513 | 0,306 | 0,587 | 640 | 550 | 746 | 640 |
| 1x300/25 | 40,0 | 3600 | 1000 | 0,0601 | 0,0769 | 0,498 | 0,300 | 0,603 | 724 | 619 | 846 | 731 |
| 1x400/35 | 44,0 | 4700 | 1000 | 0,0470 | 0,0602 | 0,478 | 0,292 | 0,642 | 795 | 695 | 941 | 840 |
| 1x500/35 | 47,5 | 5700 | 500 | 0,0366 | 0,0468 | 0,463 | 0,286 | 0,667 | 883 | 773 | 1051 | 949 |
| 1x630/35 | 51,5 | 6950 | 500 | 0,0283 | 0,0362 | 0,947 | 0,278 | 0,739 | 981 | 856 | 1180 | 1076 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y, CU/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 6/10 kV
6,35/11 kV
Min. bending radius : 15 x D
D : Cable outer diameter

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

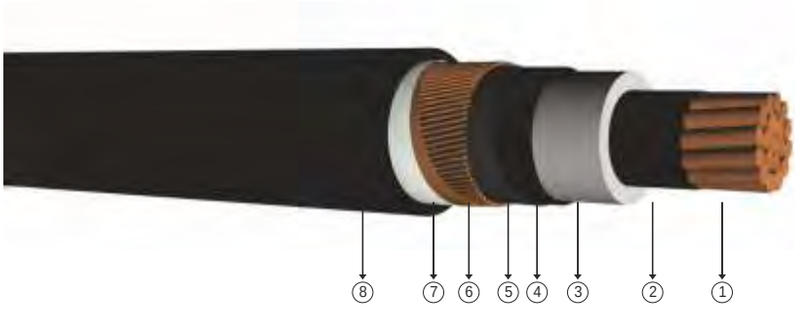
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 25,0 | 850 | 1000 | 0,524 | 0,6707 | 0,669 | 0,413 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 26,0 | 1000 | 1000 | 0,387 | 0,4954 | 0,644 | 0,395 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 28,0 | 1200 | 1000 | 0,268 | 0,3430 | 0,613 | 0,373 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 30,0 | 1500 | 1000 | 0,193 | 0,2470 | 0,588 | 0,357 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 31,0 | 1750 | 1000 | 0,153 | 0,1958 | 0,570 | 0,346 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 33,0 | 2150 | 1000 | 0,124 | 0,1587 | 0,552 | 0,335 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 34,0 | 2500 | 1000 | 0,0991 | 0,1268 | 0,537 | 0,326 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 37,0 | 3050 | 1000 | 0,0754 | 0,0965 | 0,516 | 0,314 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 40,0 | 3650 | 1000 | 0,0601 | 0,0769 | 0,500 | 0,305 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 43,0 | 4750 | 1000 | 0,0470 | 0,0602 | 0,479 | 0,295 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 46,0 | 5700 | 500 | 0,0366 | 0,0468 | 0,463 | 0,288 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 50,0 | 7000 | 500 | 0,0283 | 0,0362 | 0,447 | 0,280 | 0,699 | 820 | 818 | 1130 | 1045 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
**** : Trefoil formation
Number of system : 1

# 6/10 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

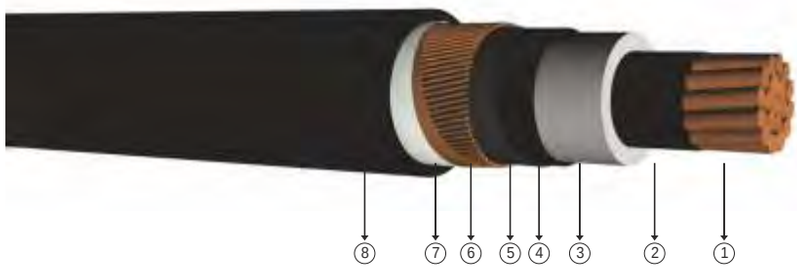
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 23,5 | 768 | 1000 | 0,524 | 0,6707 | 0,669 | 0,413 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 24,5 | 897 | 1000 | 0,387 | 0,4954 | 0,644 | 0,395 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 26,0 | 1105 | 1000 | 0,268 | 0,3430 | 0,613 | 0,373 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 27,3 | 1356 | 1000 | 0,193 | 0,2470 | 0,588 | 0,357 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 29,0 | 1607 | 1000 | 0,153 | 0,1958 | 0,570 | 0,346 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 30,0 | 1952 | 1000 | 0,124 | 0,1587 | 0,552 | 0,335 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 32,0 | 2311 | 1000 | 0,0991 | 0,1268 | 0,537 | 0,326 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 34,3 | 2867 | 1000 | 0,0754 | 0,0965 | 0,516 | 0,314 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 37,0 | 3477 | 1000 | 0,0601 | 0,0769 | 0,500 | 0,305 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 39,5 | 4378 | 1000 | 0,0470 | 0,0602 | 0,479 | 0,295 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 42,8 | 5389 | 500 | 0,0366 | 0,0468 | 0,463 | 0,288 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 46,8 | 6753 | 500 | 0,0283 | 0,0362 | 0,447 | 0,280 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y, CU/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

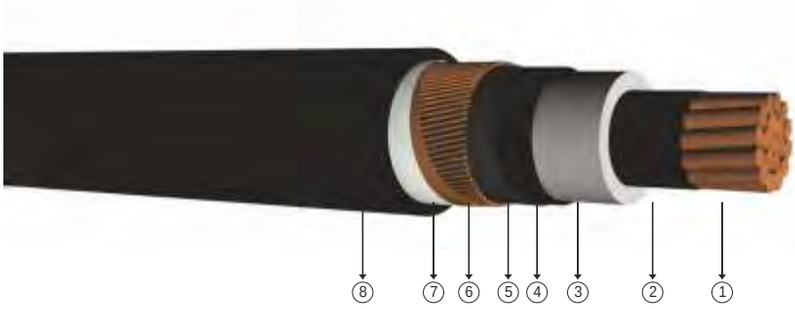
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,0 | 900 | 1000 | 0,524 | 0,6707 | 0,674 | 0,429 | 0,181 | 212 | 187 | 231 | 195 |
| 1x50/16 | 29,0 | 1100 | 1000 | 0,387 | 0,4954 | 0,648 | 0,410 | 0,201 | 249 | 220 | 277 | 234 |
| 1x70/16 | 30,0 | 1300 | 1000 | 0,268 | 0,3430 | 0,617 | 0,387 | 0,229 | 303 | 269 | 345 | 292 |
| 1x95/16 | 32,0 | 1600 | 1000 | 0,193 | 0,2470 | 0,593 | 0,371 | 0,255 | 358 | 321 | 418 | 354 |
| 1x120/16 | 34,0 | 1850 | 1000 | 0,153 | 0,1958 | 0,574 | 0,358 | 0,278 | 404 | 364 | 481 | 407 |
| 1x150/25 | 36,0 | 2250 | 1000 | 0,124 | 0,1587 | 0,557 | 0,348 | 0,302 | 441 | 405 | 537 | 460 |
| 1x185/25 | 37,0 | 2600 | 1000 | 0,0991 | 0,1268 | 0,541 | 0,337 | 0,328 | 493 | 457 | 612 | 527 |
| 1x240/25 | 40,0 | 3200 | 1000 | 0,0754 | 0,0965 | 0,521 | 0,326 | 0,363 | 563 | 528 | 716 | 621 |
| 1x300/25 | 42,0 | 3800 | 1000 | 0,0601 | 0,0769 | 0,504 | 0,316 | 0,398 | 626 | 593 | 811 | 709 |
| 1x400/35 | 46,0 | 4900 | 1000 | 0,0470 | 0,0602 | 0,483 | 0,305 | 0,447 | 676 | 665 | 901 | 815 |
| 1x500/35 | 48,0 | 5900 | 500 | 0,0366 | 0,0468 | 0,467 | 0,297 | 0,491 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 54,0 | 7150 | 500 | 0,0283 | 0,0362 | 0,451 | 0,289 | 0,543 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y, CU/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

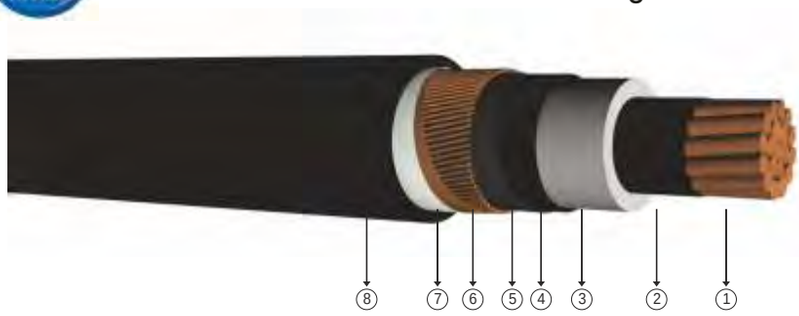
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 31,0 | 950 | 1000 | 0,524 | 0,6707 | 0,678 | 0,442 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 32,0 | 1000 | 1000 | 0,387 | 0,4954 | 0,652 | 0,422 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 34,0 | 1400 | 1000 | 0,268 | 0,3430 | 0,621 | 0,400 | 0,197 | 304 | 273 | 348 | 296 |
| 1x95/16 | 35,5 | 1700 | 1000 | 0,193 | 0,2470 | 0,597 | 0,382 | 0,218 | 361 | 325 | 421 | 358 |
| 1x120/16 | 37,5 | 1950 | 1000 | 0,153 | 0,1958 | 0,578 | 0,370 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 34,0 | 2350 | 1000 | 0,124 | 0,1587 | 0,561 | 0,358 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 41,0 | 2750 | 1000 | 0,0991 | 0,1268 | 0,545 | 0,348 | 0,278 | 498 | 463 | 615 | 534 |
| 1x240/25 | 43,5 | 3300 | 1000 | 0,0754 | 0,0965 | 0,524 | 0,335 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 45,5 | 3900 | 1000 | 0,0601 | 0,0769 | 0,508 | 0,325 | 0,336 | 633 | 601 | 812 | 715 |
| 1x400/35 | 49,0 | 5000 | 1000 | 0,0470 | 0,0602 | 0,486 | 0,313 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 52,5 | 6000 | 500 | 0,0366 | 0,0468 | 0,470 | 0,304 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 56,0 | 7300 | 500 | 0,0283 | 0,0362 | 0,454 | 0,295 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

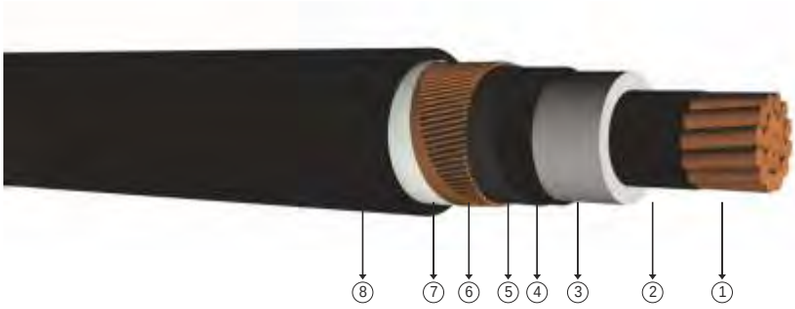
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,0 | 929 | 1000 | 0,524 | 0,6707 | 0,678 | 0,442 | 0,157 | 213 | 189 | 233 | 199 |
| 1x50/16 | 29,0 | 1062 | 1000 | 0,387 | 0,4954 | 0,652 | 0,422 | 0,174 | 250 | 223 | 279 | 238 |
| 1x70/16 | 31,0 | 1302 | 1000 | 0,268 | 0,3430 | 0,621 | 0,400 | 0,197 | 304 | 273 | 348 | 296 |
| 1x95/16 | 32,0 | 1543 | 1000 | 0,193 | 0,2470 | 0,597 | 0,382 | 0,218 | 361 | 325 | 421 | 358 |
| 1x120/16 | 33,0 | 1775 | 1000 | 0,153 | 0,1958 | 0,578 | 0,370 | 0,238 | 407 | 368 | 483 | 412 |
| 1x150/25 | 34,2 | 2136 | 1000 | 0,124 | 0,1587 | 0,561 | 0,358 | 0,258 | 445 | 410 | 540 | 466 |
| 1x185/25 | 36,0 | 2498 | 1000 | 0,0991 | 0,1268 | 0,545 | 0,348 | 0,278 | 498 | 463 | 615 | 534 |
| 1x240/25 | 39,0 | 3108 | 1000 | 0,0754 | 0,0965 | 0,524 | 0,335 | 0,308 | 569 | 534 | 718 | 627 |
| 1x300/25 | 41,0 | 3687 | 1000 | 0,0601 | 0,0769 | 0,508 | 0,325 | 0,336 | 633 | 601 | 812 | 715 |
| 1x400/35 | 44,5 | 4672 | 1000 | 0,0470 | 0,0602 | 0,486 | 0,313 | 0,377 | 686 | 674 | 904 | 819 |
| 1x500/35 | 47,5 | 5688 | 500 | 0,0366 | 0,0468 | 0,470 | 0,304 | 0,413 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 51,0 | 7041 | 500 | 0,0283 | 0,0362 | 0,454 | 0,295 | 0,455 | 842 | 836 | 1128 | 1041 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y, CU/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

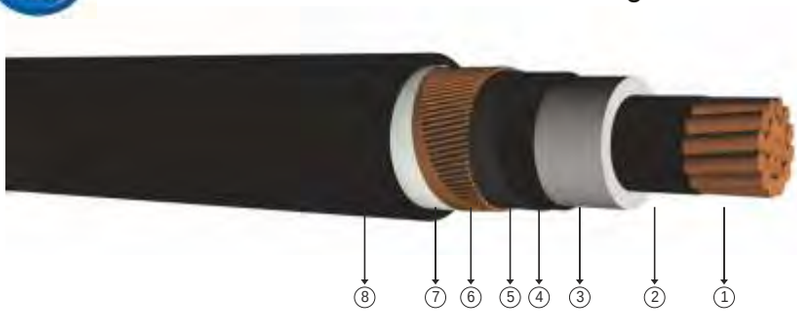
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 36,5 | 1250 | 1000 | 0,524 | 0,6707 | 0,688 | 0,474 | 0,123 | 214 | 192 | 233 | 202 |
| 1x50/16 | 37,5 | 1400 | 1000 | 0,387 | 0,4954 | 0,662 | 0,453 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 39,5 | 1650 | 1000 | 0,268 | 0,3430 | 0,631 | 0,429 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 41,0 | 1950 | 1000 | 0,193 | 0,2470 | 0,607 | 0,410 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 43,0 | 2250 | 1000 | 0,153 | 0,1958 | 0,588 | 0,397 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 44,5 | 2650 | 1000 | 0,124 | 0,1587 | 0,570 | 0,363 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 46,5 | 3050 | 1000 | 0,0991 | 0,1268 | 0,554 | 0,372 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 49,5 | 3650 | 1000 | 0,0754 | 0,0965 | 0,534 | 0,359 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 51,5 | 4300 | 1000 | 0,0601 | 0,0769 | 0,517 | 0,347 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 55,0 | 5400 | 500 | 0,0470 | 0,0602 | 0,495 | 0,334 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 58,0 | 6450 | 500 | 0,0366 | 0,0468 | 0,479 | 0,324 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 62,0 | 7750 | 500 | 0,0283 | 0,0362 | 0,463 | 0,314 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

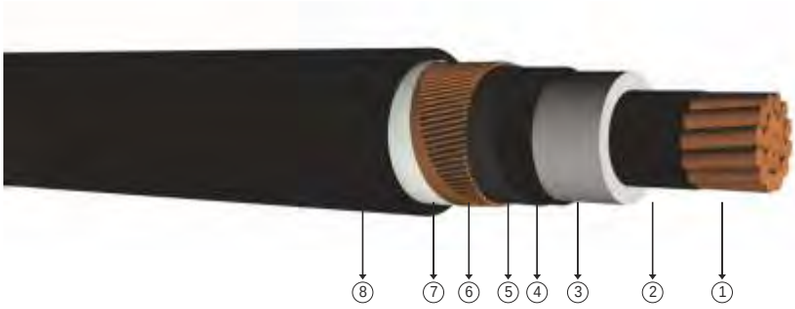
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x50/16 | 33,2 | 1236 | 1000 | 0,387 | 0,4954 | 0,662 | 0,453 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 35,0 | 1480 | 1000 | 0,268 | 0,3430 | 0,631 | 0,429 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 36,5 | 1755 | 1000 | 0,193 | 0,2470 | 0,607 | 0,410 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 38,0 | 2022 | 1000 | 0,153 | 0,1958 | 0,588 | 0,397 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 39,2 | 2391 | 1000 | 0,124 | 0,1587 | 0,570 | 0,363 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 41,0 | 2762 | 1000 | 0,0991 | 0,1268 | 0,554 | 0,372 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 43,5 | 3360 | 1000 | 0,0754 | 0,0965 | 0,534 | 0,359 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 46,5 | 4025 | 1000 | 0,0601 | 0,0769 | 0,517 | 0,347 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 49,5 | 5001 | 500 | 0,0470 | 0,0602 | 0,495 | 0,334 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 52,5 | 6040 | 500 | 0,0366 | 0,0468 | 0,479 | 0,324 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 56,0 | 7414 | 500 | 0,0283 | 0,0362 | 0,463 | 0,314 | 0,330 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, single core cables with copper conductor



Code: N2XS2Y, CU/XLPE/CWS/PE

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

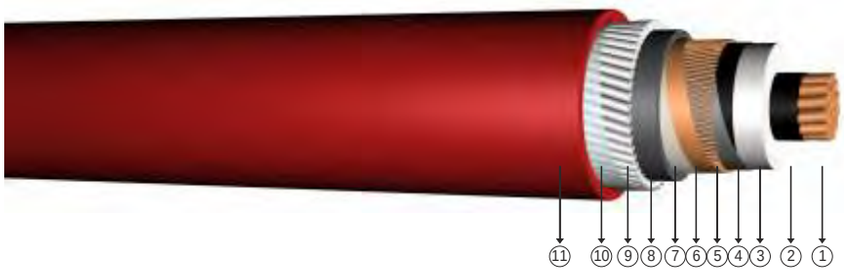
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 38,5 | 1350 | 1000 | 0,524 | 0,6707 | 0,692 | 0,485 | 0,115 | 214 | 192 | 233 | 202 |
| 1x50/16 | 39,5 | 1550 | 1000 | 0,387 | 0,4954 | 0,666 | 0,464 | 0,125 | 251 | 226 | 279 | 241 |
| 1x70/16 | 41,5 | 1800 | 1000 | 0,268 | 0,3430 | 0,635 | 0,439 | 0,140 | 306 | 276 | 348 | 299 |
| 1x95/16 | 43,0 | 2100 | 1000 | 0,193 | 0,2470 | 0,610 | 0,419 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 45,0 | 2400 | 1000 | 0,153 | 0,1958 | 0,591 | 0,405 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 46,5 | 2800 | 1000 | 0,124 | 0,1587 | 0,574 | 0,342 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 48,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,557 | 0,381 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 51,0 | 3800 | 1000 | 0,0754 | 0,0965 | 0,537 | 0,366 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 53,0 | 4450 | 1000 | 0,0601 | 0,0769 | 0,520 | 0,354 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 56,5 | 5550 | 500 | 0,0470 | 0,0602 | 0,499 | 0,341 | 0,226 | 697 | 684 | 904 | 823 |
| 1x500/35 | 60,0 | 6600 | 500 | 0,0366 | 0,0468 | 0,482 | 0,330 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 63,5 | 7950 | 500 | 0,0283 | 0,0362 | 0,466 | 0,320 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, round aluminium wire armoured, single core cables with copper conductor



Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

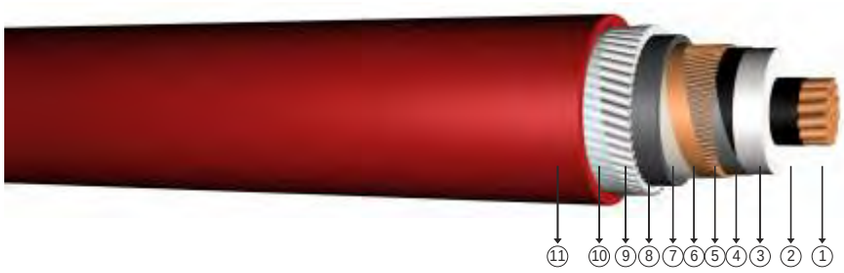
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 26,2 | 1135 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,283 | 201 | 191 | 238 | 199 |
| 1x50/16 | 27,3 | 1280 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,318 | 241 | 227 | 285 | 241 |
| 1x70/16 | 29,0 | 1530 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,368 | 301 | 277 | 356 | 301 |
| 1x95/16 | 31,0 | 1840 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,414 | 364 | 331 | 435 | 365 |
| 1x120/16 | 32,3 | 2110 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,455 | 424 | 379 | 496 | 419 |
| 1x150/25 | 34,7 | 2600 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,499 | 479 | 422 | 554 | 479 |
| 1x185/25 | 36,6 | 3000 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,544 | 549 | 476 | 637 | 543 |
| 1x240/25 | 39,4 | 3640 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,587 | 640 | 550 | 746 | 640 |
| 1x300/25 | 41,8 | 4270 | 1000 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,603 | 724 | 619 | 846 | 731 |
| 1x400/35 | 46,9 | 5535 | 500 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,642 | 795 | 695 | 941 | 840 |
| 1x500/35 | 50,6 | 6670 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,667 | 883 | 773 | 1051 | 949 |
| 1x630/35 | 54,5 | 8130 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,739 | 981 | 856 | 1180 | 1076 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, round aluminium wire armoured, single core cables with copper conductor



Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2, BS 6622

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 10 kV (6/10 kV) |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

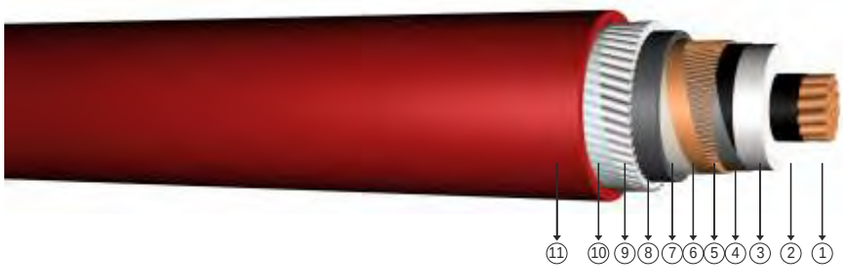
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,0 | 1220 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,223 | 212 | 187 | 231 | 195 |
| 1x50/16 | 29,3 | 1390 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,248 | 249 | 220 | 277 | 234 |
| 1x70/16 | 31,0 | 1640 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,285 | 303 | 269 | 345 | 292 |
| 1x95/16 | 32,9 | 1962 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,320 | 358 | 321 | 418 | 354 |
| 1x120/16 | 35,1 | 2320 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,350 | 404 | 364 | 481 | 407 |
| 1x150/25 | 36,7 | 2725 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,382 | 441 | 405 | 537 | 460 |
| 1x185/25 | 38,4 | 3125 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,415 | 493 | 457 | 612 | 527 |
| 1x240/25 | 41,0 | 3750 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,462 | 563 | 528 | 716 | 621 |
| 1x300/25 | 43,2 | 4380 | 1000 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,507 | 626 | 593 | 811 | 709 |
| 1x400/35 | 47,7 | 5600 | 500 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,573 | 676 | 665 | 901 | 815 |
| 1x500/35 | 51,0 | 6620 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,631 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 55,0 | 8190 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,699 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, round aluminium wire armoured, single core cables with copper conductor



Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

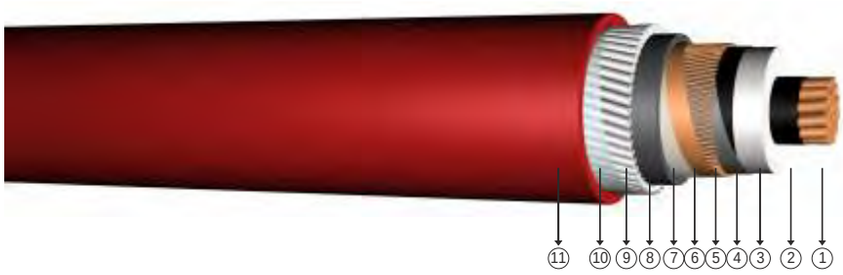
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 30,4 | 1355 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,181 | 212 | 187 | 231 | 195 |
| 1x50/16 | 31,5 | 1509 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,201 | 249 | 220 | 277 | 234 |
| 1x70/16 | 33,4 | 1784 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,229 | 303 | 269 | 345 | 292 |
| 1x95/16 | 36,1 | 2198 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,255 | 358 | 321 | 418 | 354 |
| 1x120/16 | 37,6 | 2490 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,278 | 404 | 364 | 481 | 407 |
| 1x150/25 | 39,1 | 2900 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,302 | 441 | 405 | 537 | 460 |
| 1x185/25 | 40,8 | 3295 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,328 | 493 | 457 | 612 | 527 |
| 1x240/25 | 43,8 | 3945 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,363 | 563 | 528 | 716 | 621 |
| 1x300/25 | 46,8 | 4746 | 1000 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,398 | 626 | 593 | 811 | 709 |
| 1x400/35 | 50,0 | 5820 | 500 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,447 | 676 | 665 | 901 | 815 |
| 1x500/35 | 53,6 | 6971 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,491 | 743 | 739 | 1006 | 921 |
| 1x630/35 | 57,3 | 8410 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,543 | 820 | 818 | 1130 | 1045 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, round aluminium wire armoured, single core cables with copper conductor



Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2, BS 6622

## Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 12/20 kV
12,7/22 kV
Min. bending radius : 20 x D
D : Cable outer diameter

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

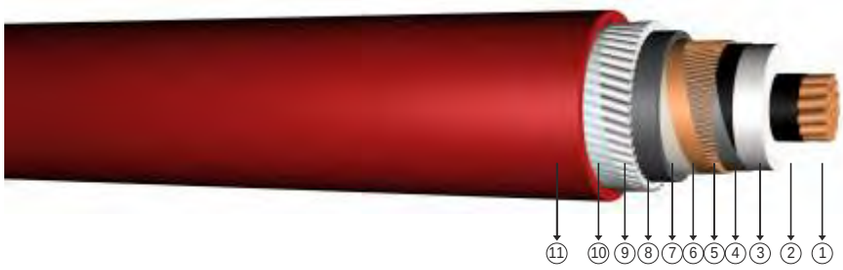
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 32,6 | 1482 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,123 | 213 | 189 | 233 | 199 |
| 1x50/16 | 34,5 | 1730 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,135 | 250 | 223 | 279 | 238 |
| 1x70/16 | 36,4 | 2020 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,151 | 304 | 273 | 348 | 296 |
| 1x95/16 | 38,1 | 2330 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,166 | 361 | 325 | 421 | 358 |
| 1x120/16 | 39,8 | 2640 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,180 | 407 | 368 | 483 | 412 |
| 1x150/25 | 41,1 | 3040 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,194 | 445 | 410 | 540 | 466 |
| 1x185/25 | 43,0 | 3465 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,208 | 498 | 463 | 615 | 534 |
| 1x240/25 | 46,8 | 4290 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,229 | 569 | 534 | 718 | 627 |
| 1x300/25 | 48,9 | 4935 | 500 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,248 | 633 | 601 | 812 | 715 |
| 1x400/35 | 52,4 | 6045 | 500 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,276 | 686 | 674 | 904 | 819 |
| 1x500/35 | 55,8 | 7185 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,301 | 756 | 750 | 1011 | 927 |
| 1x630/35 | 56,0 | 8660 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,330 | 842 | 836 | 1128 | 1041 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
**** : Trefoil formation
Number of system : 1

# 18/30 kV or 19/33 XLPE insulated, round aluminium wire armoured, single core cables with copper conductor



Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2, BS 6622

## Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 18/30 kV
19/33 kV
Min. bending radius : 20 x D
D : Cable outer diameter

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

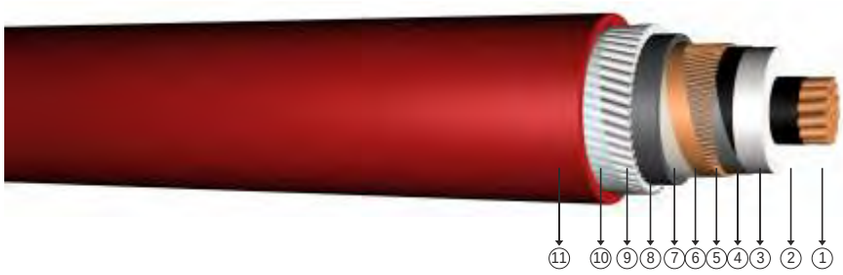
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 39,0 | 1927 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,123 | 214 | 192 | 233 | 202 |
| 1x50/16 | 40,0 | 2100 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,135 | 251 | 226 | 279 | 241 |
| 1x70/16 | 41,8 | 2400 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,151 | 306 | 276 | 348 | 299 |
| 1x95/16 | 43,5 | 2735 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,166 | 363 | 329 | 421 | 362 |
| 1x120/16 | 46,4 | 3220 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,180 | 410 | 373 | 483 | 416 |
| 1x150/25 | 48,0 | 3660 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,194 | 449 | 415 | 540 | 469 |
| 1x185/25 | 49,6 | 4090 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,208 | 503 | 468 | 615 | 536 |
| 1x240/25 | 52,4 | 4800 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,229 | 576 | 541 | 718 | 630 |
| 1x300/25 | 54,6 | 5465 | 500 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 58,0 | 6610 | 500 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,276 | 697 | 684 | 904 | 823 |
| 1x500/35 | 61,2 | 7686 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,301 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 66,0 | 9308 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,330 | 858 | 847 | 1128 | 1043 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
** : Trefoil formation
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, round aluminium wire armoured, single core cables with copper conductor



Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: HD 620 S3, TSE K 204

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 42,0 | 2070 | 1000 | 0,524 | 0,6707 | 0,657 | 0,367 | 0,115 | 214 | 192 | 233 | 202 |
| 1x50/16 | 44,1 | 2265 | 1000 | 0,387 | 0,4954 | 0,632 | 0,351 | 0,125 | 251 | 226 | 279 | 241 |
| 1x70/16 | 45,8 | 2550 | 1000 | 0,268 | 0,3430 | 0,601 | 0,332 | 0,140 | 306 | 276 | 348 | 299 |
| 1x95/16 | 48,2 | 3080 | 1000 | 0,193 | 0,2470 | 0,577 | 0,318 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 50,5 | 3420 | 1000 | 0,153 | 0,1958 | 0,558 | 0,308 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 52,1 | 3830 | 1000 | 0,124 | 0,1587 | 0,541 | 0,299 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 54,2 | 4325 | 1000 | 0,0991 | 0,1268 | 0,525 | 0,292 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 56,6 | 5025 | 1000 | 0,0754 | 0,0965 | 0,506 | 0,284 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 58,5 | 5670 | 500 | 0,0601 | 0,0769 | 0,490 | 0,279 | 0,226 | 641 | 608 | 812 | 717 |
| 1x400/35 | 62,3 | 6850 | 500 | 0,0470 | 0,0602 | 0,471 | 0,275 | 0,252 | 697 | 684 | 904 | 823 |
| 1x500/35 | 65,8 | 8065 | 500 | 0,0366 | 0,0468 | 0,456 | 0,270 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 68,0 | 9565 | 500 | 0,0283 | 0,0362 | 0,440 | 0,264 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, three core cables with copper conductor

Code: YXC8V-R, N2XSEY, CU/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

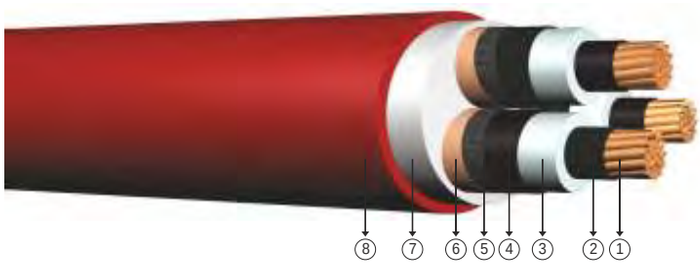
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 42,0 | 2700 | 1000 | 0,524 | 0,352 | 0,229 | 176 | 171 |
| 3x50/16 | 45,0 | 3350 | 1000 | 0,387 | 0,336 | 0,255 | 208 | 196 |
| 3x70/16 | 48,5 | 4150 | 1000 | 0,268 | 0,318 | 0,288 | 255 | 249 |
| 3x95/16 | 53,0 | 5200 | 500 | 0,193 | 0,303 | 0,324 | 307 | 307 |
| 3x120/16 | 57,0 | 6250 | 500 | 0,153 | 0,292 | 0,359 | 353 | 353 |
| 3x150/25 | 60,5 | 7350 | 500 | 0,124 | 0,284 | 0,388 | 396 | 406 |
| 3x185/25 | 64,5 | 8650 | 500 | 0,0991 | 0,276 | 0,424 | 447 | 464 |
| 3x240/25 | 71,0 | 10850 | 250 | 0,0754 | 0,267 | 0,469 | 523 | 548 |
| 3x300/25 | 77,5 | 13200 | 250 | 0,0601 | 0,263 | 0,486 | 581 | 632 |
| 3x400/35 | 86,0 | 16900 | 250 | 0,0470 | 0,257 | 0,521 | 653 | 726 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, three core cables with copper conductor



Code: YXC8V-R, N2XSEY, CU/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 46,5 | 3100 | 1000 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 49,5 | 3750 | 1000 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 53,0 | 4600 | 1000 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 57,5 | 5700 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 61,5 | 6700 | 500 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 64,5 | 7850 | 500 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 68,5 | 9200 | 500 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 75,0 | 11450 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 80,5 | 13650 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 88,0 | 17250 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, three core cables with copper conductor

Code: YXC8V-R, N2XSEY, CU/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

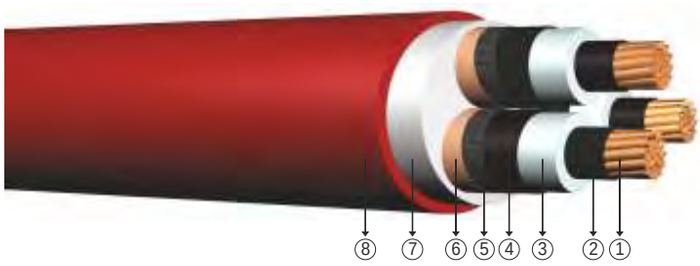
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 51,5 | 3600 | 1000 | 0,524 | 0,397 | 0,160 | 178 | 173 |
| 3x50/16 | 54,5 | 4300 | 1000 | 0,387 | 0,377 | 0,175 | 210 | 206 |
| 3x70/16 | 58,5 | 5200 | 500 | 0,268 | 0,356 | 0,196 | 256 | 257 |
| 3x95/16 | 62,5 | 6300 | 500 | 0,193 | 0,339 | 0,218 | 307 | 313 |
| 3x120/16 | 66,5 | 7350 | 500 | 0,153 | 0,325 | 0,240 | 349 | 360 |
| 3x150/25 | 69,5 | 8550 | 500 | 0,124 | 0,315 | 0,258 | 392 | 410 |
| 3x185/25 | 74,0 | 10000 | 500 | 0,0991 | 0,305 | 0,280 | 443 | 469 |
| 3x240/25 | 80,5 | 12200 | 250 | 0,0754 | 0,292 | 0,315 | 513 | 553 |
| 3x300/25 | 85,5 | 14450 | 250 | 0,0601 | 0,284 | 0,343 | 576 | 635 |
| 3x400/35 | 93,0 | 18150 | 250 | 0,0470 | 0,273 | 0,385 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, three core cables with copper conductor



Code: YXC8V-R, N2XSEY, CU/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 56,5 | 4150 | 1000 | 0,5240 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 59,5 | 4850 | 1000 | 0,3870 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 63,0 | 5800 | 500 | 0,2680 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 67,0 | 6900 | 500 | 0,1930 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 71,0 | 8000 | 500 | 0,1530 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 74,5 | 9250 | 500 | 0,1240 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 78,5 | 10650 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 85,0 | 13000 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 90,0 | 15250 | 250 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 98,0 | 19100 | 250 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, three core cables with copper conductor

Code: YXC8V-R, N2XSEY, CU/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 18/30 kV
19/33 kV
Min. bending radius : 15 x D
D : Cable outer diameter

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

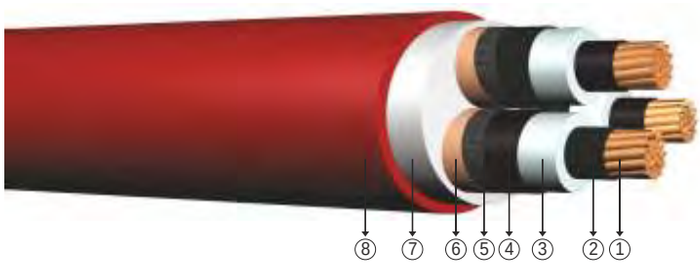
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 68,0 | 5650 | 500 | 0,5240 | 0,457 | 0,114 | - | - |
| 3x50/16 | 71,5 | 6500 | 500 | 0,3870 | 0,434 | 0,124 | 214 | 217 |
| 3x70/16 | 75,0 | 7500 | 500 | 0,2680 | 0,410 | 0,137 | 261 | 269 |
| 3x95/16 | 79,0 | 8700 | 500 | 0,1930 | 0,389 | 0,150 | 313 | 326 |
| 3x120/16 | 83,0 | 9900 | 500 | 0,1530 | 0,372 | 0,163 | 356 | 377 |
| 3x150/25 | 86,0 | 11150 | 250 | 0,1240 | 0,360 | 0,174 | 400 | 426 |
| 3x185/25 | 90,0 | 12650 | 250 | 0,0991 | 0,348 | 0,188 | 441 | 488 |
| 3x240/25 | 97,0 | 15200 | 250 | 0,0754 | 0,331 | 0,209 | 510 | 576 |
| 3x300/25 | 102,0 | 17650 | 250 | 0,0601 | 0,321 | 0,226 | 604 | 651 |
| 3x400/35 | 110,0 | 21550 | 200 | 0,0470 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, three core cables with copper conductor



Code: YXC8V-R, N2XSEY, CU/XLPE/CTS/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

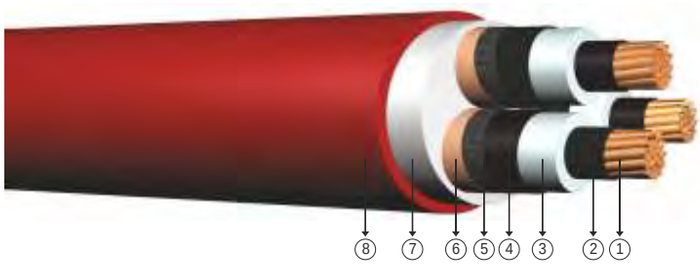
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 73,0 | 6400 | 500 | 0,524 | 0,471 | 0,107 | - | - |
| 3x50/16 | 76,5 | 7150 | 500 | 0,387 | 0,448 | 0,116 | 214 | 210 |
| 3x70/16 | 79,5 | 8200 | 500 | 0,268 | 0,423 | 0,127 | 261 | 262 |
| 3x95/16 | 83,5 | 9400 | 500 | 0,193 | 0,401 | 0,140 | 313 | 319 |
| 3x120/16 | 87,5 | 10700 | 250 | 0,153 | 0,384 | 0,152 | 356 | 364 |
| 3x150/25 | 91,0 | 12000 | 250 | 0,124 | 0,372 | 0,161 | 400 | 418 |
| 3x185/25 | 95,0 | 13600 | 250 | 0,0991 | 0,359 | 0,173 | 441 | 478 |
| 3x240/25 | 101,5 | 16100 | 250 | 0,0754 | 0,341 | 0,193 | 510 | 562 |
| 3x300/25 | 106,5 | 18550 | 250 | 0,0601 | 0,330 | 0,208 | - | - |
| 3x400/35 | 114,0 | 22550 | 200 | 0,0470 | 0,316 | 0,231 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV halogen free, flame retardant, XLPE insulated, three core cables with copper conductor



Code: YXC8Z1-R, N2XSEH, CU/XLPE/CTS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

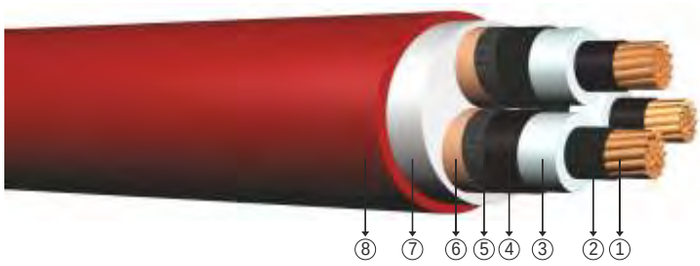
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 46,5 | 3100 | 1000 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 49,5 | 3750 | 1000 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 53,0 | 4600 | 1000 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 57,5 | 5700 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 61,5 | 6700 | 500 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 64,5 | 7850 | 500 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 68,5 | 9200 | 500 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 75,0 | 11450 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 80,5 | 13650 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 88,0 | 17250 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV halogen free, flame retardant, XLPE insulated, three core cables with copper conductor



Code: YXC8Z1-R, N2XSEH, CU/XLPE/CTS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 56,5 | 4150 | 1000 | 0,5240 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 59,5 | 4850 | 1000 | 0,3870 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 63,0 | 5800 | 500 | 0,2680 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 67,0 | 6900 | 500 | 0,1930 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 71,0 | 8000 | 500 | 0,1530 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 74,5 | 9250 | 500 | 0,1240 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 78,5 | 10650 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 85,0 | 13000 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 90,0 | 15250 | 250 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 98,0 | 19100 | 250 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV halogen free, flame retardant, XLPE insulated, three core cables with copper conductor

Code: YXC8Z1-R, N2XSEH, CU/XLPE/CTS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

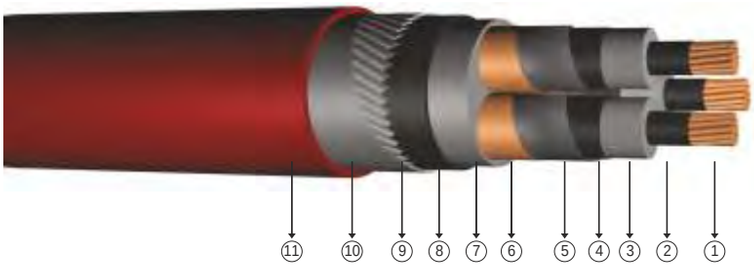
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 68,0 | 5650 | 500 | 0,5240 | 0,457 | 0,114 | - | - |
| 3x50/16 | 71,5 | 6500 | 500 | 0,3870 | 0,434 | 0,124 | 214 | 217 |
| 3x70/16 | 75,0 | 7500 | 500 | 0,2680 | 0,410 | 0,137 | 261 | 269 |
| 3x95/16 | 79,0 | 8700 | 500 | 0,1930 | 0,389 | 0,150 | 313 | 326 |
| 3x120/16 | 83,0 | 9900 | 500 | 0,1530 | 0,372 | 0,163 | 356 | 377 |
| 3x150/25 | 86,0 | 11150 | 250 | 0,1240 | 0,360 | 0,174 | 400 | 426 |
| 3x185/25 | 90,0 | 12650 | 250 | 0,0991 | 0,348 | 0,188 | 441 | 488 |
| 3x240/25 | 97,0 | 15200 | 250 | 0,0754 | 0,331 | 0,209 | 510 | 576 |
| 3x300/25 | 102,0 | 17650 | 250 | 0,0601 | 0,321 | 0,226 | 604 | 651 |
| 3x400/35 | 110,0 | 21550 | 200 | 0,0470 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 3,6/6 kV XLPE insulated, flat steel wire armoured, three core cables with copper conductor



Code: YXC8VZ3V-R, N2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

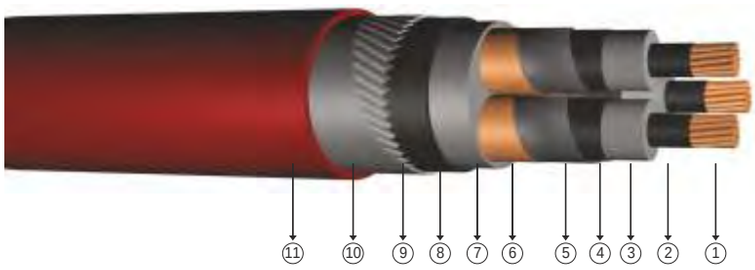
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 47,0 | 3950 | 1000 | 0,524 | 0,352 | 0,229 | 176 | 171 |
| 3x50/16 | 50,5 | 4700 | 1000 | 0,387 | 0,336 | 0,255 | 208 | 196 |
| 3x70/16 | 54,5 | 5650 | 500 | 0,268 | 0,318 | 0,288 | 255 | 249 |
| 3x95/16 | 58,5 | 6750 | 500 | 0,193 | 0,303 | 0,324 | 307 | 307 |
| 3x120/16 | 63,0 | 8000 | 500 | 0,153 | 0,292 | 0,359 | 353 | 353 |
| 3x150/25 | 66,0 | 9200 | 500 | 0,124 | 0,284 | 0,388 | 396 | 406 |
| 3x185/25 | 70,0 | 10650 | 250 | 0,0991 | 0,276 | 0,424 | 447 | 464 |
| 3x240/25 | 77,5 | 13100 | 250 | 0,0754 | 0,267 | 0,469 | 523 | 548 |
| 3x300/25 | 84,0 | 15700 | 250 | 0,0601 | 0,263 | 0,486 | 581 | 632 |
| 3x400/35 | 93,0 | 19750 | 250 | 0,0470 | 0,257 | 0,521 | 653 | 726 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, flat steel wire armoured, three core cables with copper conductor



Code: YXC8VZ3V-R, N2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

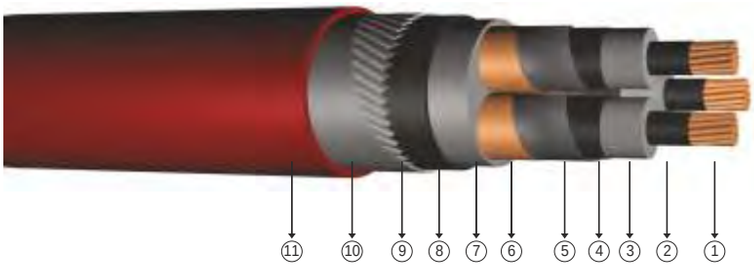
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 52,0 | 4450 | 1000 | 0,524 | 0,374 | 0,189 | 178 | 217 |
| 3x50/16 | 54,5 | 5200 | 500 | 0,387 | 0,355 | 0,209 | 210 | 269 |
| 3x70/16 | 58,5 | 6200 | 500 | 0,268 | 0,336 | 0,236 | 256 | 326 |
| 3x95/16 | 63,0 | 7400 | 500 | 0,193 | 0,320 | 0,263 | 307 | 377 |
| 3x120/16 | 67,0 | 8600 | 500 | 0,153 | 0,308 | 0,291 | 349 | 426 |
| 3x150/25 | 70,5 | 9850 | 500 | 0,124 | 0,299 | 0,314 | 392 | 488 |
| 3x185/25 | 74,5 | 11350 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 576 |
| 3x240/25 | 81,5 | 13850 | 250 | 0,0754 | 0,278 | 0,387 | 513 | - |
| 3x300/25 | 87,0 | 16250 | 250 | 0,0601 | 0,270 | 0,422 | 576 | - |
| 3x400/35 | 94,5 | 20150 | 250 | 0,0470 | 0,261 | 0,475 | 650 | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 8,7/15 kV XLPE insulated, flat steel wire armoured, three core cables with copper conductor



Code: YXC8VZ3V-R, N2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

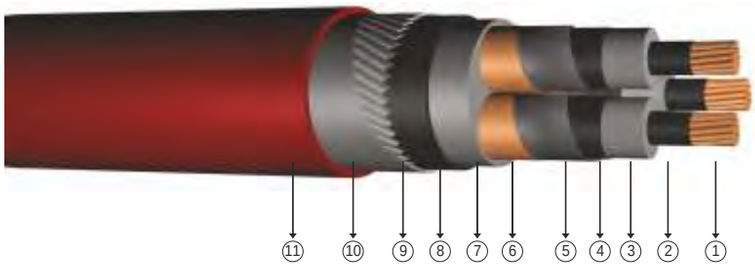
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 57,0 | 5150 | 500 | 0,524 | 0,397 | 0,160 | 178 | 173 |
| 3x50/16 | 60,5 | 6000 | 500 | 0,387 | 0,377 | 0,175 | 210 | 206 |
| 3x70/16 | 64,5 | 7000 | 500 | 0,268 | 0,356 | 0,196 | 256 | 257 |
| 3x95/16 | 68,5 | 8250 | 500 | 0,193 | 0,339 | 0,218 | 307 | 313 |
| 3x120/16 | 72,5 | 9450 | 500 | 0,153 | 0,325 | 0,240 | 349 | 360 |
| 3x150/25 | 76,0 | 10750 | 250 | 0,124 | 0,315 | 0,258 | 392 | 410 |
| 3x185/25 | 80,0 | 12350 | 250 | 0,0991 | 0,305 | 0,280 | 443 | 469 |
| 3x240/25 | 87,0 | 14800 | 250 | 0,0754 | 0,292 | 0,315 | 513 | 553 |
| 3x300/25 | 92,0 | 17250 | 250 | 0,0601 | 0,284 | 0,343 | 576 | 635 |
| 3x400/35 | 100,0 | 21300 | 250 | 0,0470 | 0,273 | 0,385 | 650 | 731 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, flat steel wire armoured, three core cables with copper conductor



Code: YXC8VZ3V-R, N2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

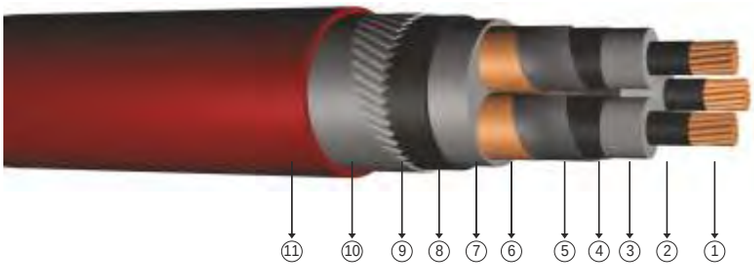
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 62,5 | 5900 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 65,5 | 6700 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 69,0 | 7750 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 73,0 | 9000 | 500 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 77,0 | 10250 | 250 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 81,0 | 11650 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 85,0 | 13250 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 91,5 | 15750 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 97,0 | 18250 | 250 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 105,0 | 22500 | 250 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 19/33 kV XLPE insulated, flat steel wire armoured, three core cables with copper conductor



Code: YXC8VZ3V-R, N2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

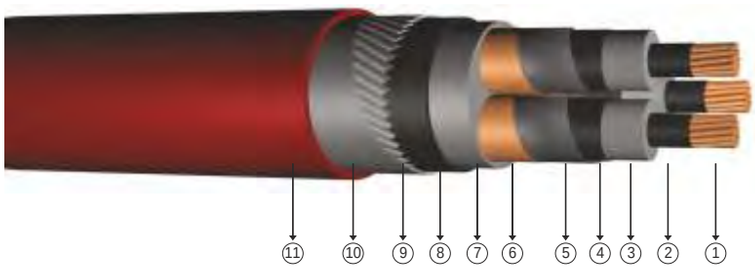
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 74,5 | 7850 | 500 | 0,5240 | 0,457 | 0,114 | - | - |
| 3x50/16 | 78,0 | 8750 | 500 | 0,3870 | 0,434 | 0,124 | 214 | 217 |
| 3x70/16 | 81,5 | 9950 | 500 | 0,2680 | 0,410 | 0,137 | 261 | 269 |
| 3x95/16 | 85,5 | 11250 | 250 | 0,1930 | 0,389 | 0,150 | 313 | 326 |
| 3x120/16 | 89,5 | 12600 | 250 | 0,1530 | 0,372 | 0,163 | 356 | 377 |
| 3x150/25 | 93,0 | 14000 | 250 | 0,1240 | 0,360 | 0,174 | 400 | 426 |
| 3x185/25 | 97,0 | 15700 | 250 | 0,0991 | 0,348 | 0,188 | 441 | 488 |
| 3x240/25 | 104,0 | 18500 | 250 | 0,0754 | 0,331 | 0,209 | 510 | 576 |
| 3x300/25 | 109,5 | 21150 | 200 | 0,0601 | 0,321 | 0,226 | - | - |
| 3x400/35 | 117,5 | 25350 | 200 | 0,0470 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, flat steel wire armoured, three core cables with copper conductor



Code: YXC8VZ3V-R, N2XSEYFGY

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

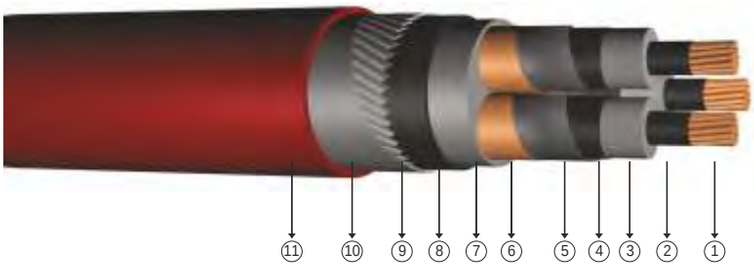
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 80,0 | 8750 | 500 | 0,524 | 0,471 | 0,107 | - | - |
| 3x50/16 | 82,5 | 9600 | 500 | 0,387 | 0,448 | 0,116 | 214 | 210 |
| 3x70/16 | 86,5 | 10800 | 250 | 0,268 | 0,423 | 0,127 | 261 | 262 |
| 3x95/16 | 90,5 | 12200 | 250 | 0,193 | 0,401 | 0,140 | 313 | 319 |
| 3x120/16 | 94,5 | 13600 | 250 | 0,153 | 0,384 | 0,152 | 356 | 366 |
| 3x150/25 | 98,0 | 15000 | 250 | 0,124 | 0,372 | 0,161 | 400 | 418 |
| 3x185/25 | 102,5 | 16800 | 250 | 0,0991 | 0,359 | 0,173 | 441 | 478 |
| 3x240/25 | 109,5 | 19600 | 250 | 0,0754 | 0,341 | 0,193 | 510 | 562 |
| 3x300/25 | 114,5 | 22250 | 200 | 0,0601 | 0,330 | 0,208 | - | - |
| 3x400/35 | 122,0 | 26600 | 200 | 0,0470 | 0,316 | 0,231 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 3,6/6 kV XLPE insulated, round steel wire armoured, three core cables with copper conductor



Code: YXC8VZ2V-R, N2XSEYRY, CU/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

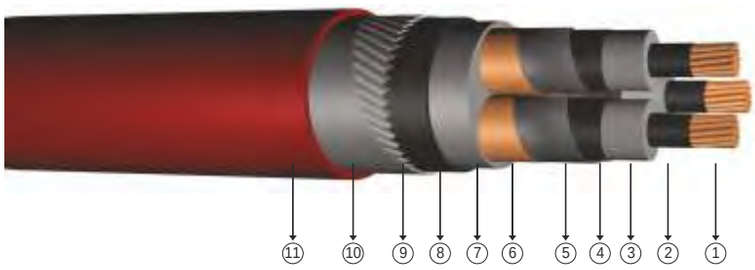
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 50,5 | 4400 | 1000 | 0,524 | 0,352 | 0,229 | 176 | 171 |
| 3x50/16 | 54,0 | 5900 | 500 | 0,387 | 0,336 | 0,255 | 208 | 196 |
| 3x70/16 | 58,0 | 7000 | 500 | 0,268 | 0,318 | 0,288 | 255 | 249 |
| 3x95/16 | 62,0 | 8300 | 500 | 0,193 | 0,303 | 0,324 | 307 | 307 |
| 3x120/16 | 66,5 | 9600 | 500 | 0,153 | 0,292 | 0,359 | 353 | 353 |
| 3x150/25 | 70,0 | 9900 | 500 | 0,124 | 0,284 | 0,388 | 396 | 406 |
| 3x185/25 | 74,0 | 11400 | 250 | 0,0991 | 0,276 | 0,424 | 447 | 464 |
| 3x240/25 | 82,0 | 15100 | 250 | 0,0754 | 0,267 | 0,469 | 523 | 548 |
| 3x300/25 | 89,0 | 17950 | 250 | 0,0601 | 0,263 | 0,486 | 581 | 632 |
| 3x400/35 | 98,0 | 22200 | 250 | 0,0470 | 0,257 | 0,521 | 653 | 726 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, round steel wire armoured, three core cables with copper conductor



Code: YXC8VZ2V-R, N2XSEYRY, CU/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

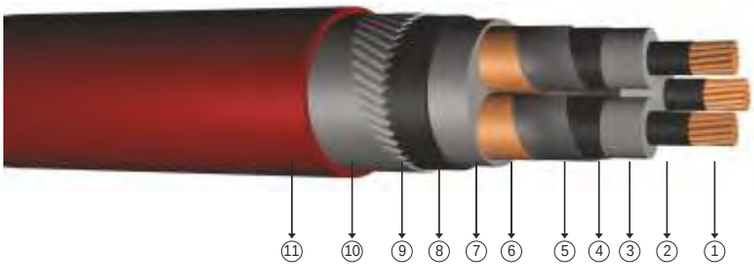
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 55,5 | 5850 | 500 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 58,5 | 6650 | 500 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 62,5 | 7750 | 500 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 67,0 | 9100 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 71,0 | 10400 | 250 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 74,0 | 11700 | 250 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 79,0 | 14200 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 86,0 | 16950 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 92,0 | 19500 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 100,0 | 23850 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 8,7/15 kV XLPE insulated, round steel wire armoured, three core cables with copper conductor



Code: YXC8VZ2V-R, N2XSEYRY, CU/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

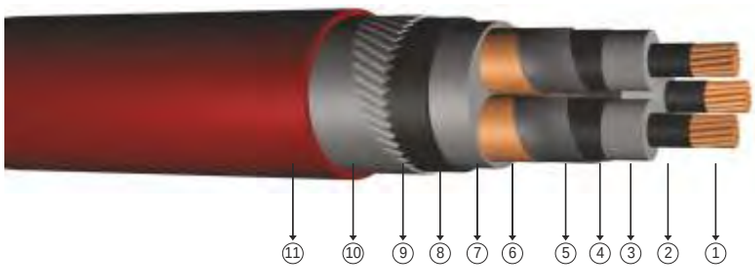
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 60,5 | 5750 | 500 | 0,524 | 0,397 | 0,160 | 178 | 173 |
| 3x50/16 | 64,0 | 7500 | 500 | 0,387 | 0,377 | 0,175 | 210 | 206 |
| 3x70/16 | 68,0 | 8800 | 500 | 0,268 | 0,356 | 0,196 | 256 | 257 |
| 3x95/16 | 72,0 | 10200 | 500 | 0,193 | 0,339 | 0,218 | 307 | 313 |
| 3x120/16 | 76,0 | 10200 | 500 | 0,153 | 0,325 | 0,240 | 349 | 360 |
| 3x150/25 | 81,0 | 12750 | 250 | 0,124 | 0,315 | 0,258 | 392 | 410 |
| 3x185/25 | 85,0 | 14500 | 250 | 0,0991 | 0,305 | 0,280 | 443 | 469 |
| 3x240/25 | 92,0 | 17150 | 250 | 0,0754 | 0,292 | 0,315 | 513 | 553 |
| 3x300/25 | 97,0 | 19750 | 250 | 0,0601 | 0,284 | 0,343 | 576 | 635 |
| 3x400/35 | 105,0 | 24000 | 200 | 0,0470 | 0,273 | 0,385 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, round steel wire armoured, three core cables with copper conductor



Code: YXC8VZ2V-R, N2XSEYRY, CU/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

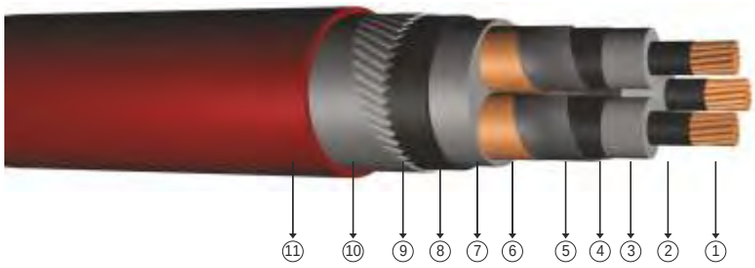
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 66,0 | 6550 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 69,0 | 7400 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 72,0 | 8500 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 78,0 | 10950 | 250 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 82,0 | 12300 | 250 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 86,0 | 13850 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 90,0 | 15500 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 96,0 | 18250 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 102,0 | 20850 | 200 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 110,0 | 25300 | 200 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, round steel wire armoured, three core cables with copper conductor



Code: YXC8VZ2V-R, N2XSEYRY, CU/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

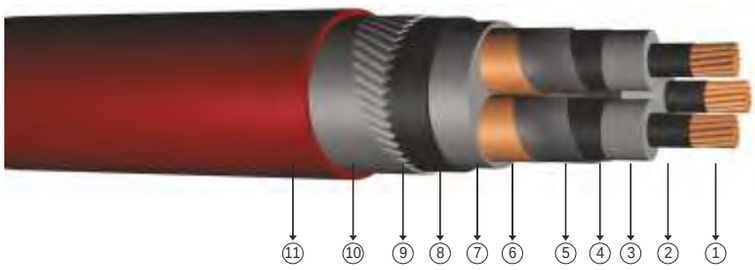
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 79,0 | 9750 | 500 | 0,5240 | 0,457 | 0,114 | 183 | 182 |
| 3x50/16 | 82,5 | 10750 | 250 | 0,3870 | 0,434 | 0,124 | 216 | 217 |
| 3x70/16 | 86,5 | 12000 | 250 | 0,2680 | 0,410 | 0,137 | 264 | 269 |
| 3x95/16 | 90,5 | 13500 | 250 | 0,1930 | 0,389 | 0,150 | 316 | 326 |
| 3x120/16 | 95,0 | 14950 | 250 | 0,1530 | 0,372 | 0,163 | 360 | 377 |
| 3x150/25 | 98,0 | 16400 | 250 | 0,1240 | 0,360 | 0,174 | 404 | 426 |
| 3x185/25 | 102,0 | 18200 | 250 | 0,0991 | 0,348 | 0,188 | 457 | 488 |
| 3x240/25 | 109,5 | 21250 | 200 | 0,0754 | 0,331 | 0,209 | 532 | 576 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, round steel wire armoured, three core cables with copper conductor



Code: YXC8VZ2V-R, N2XSEYRY, CU/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

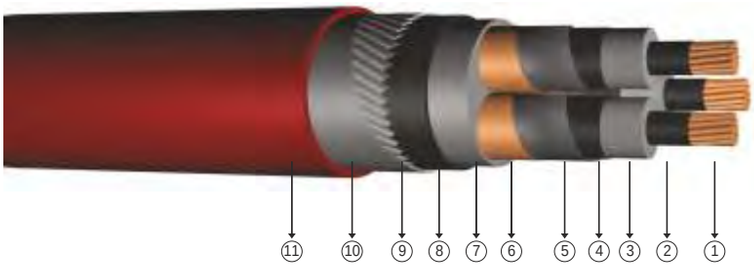
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 83,5 | 13000 | 500 | 0,524 | 0,457 | 0,114 | 183 | 176 |
| 3x50/16 | 86,0 | 12900 | 250 | 0,387 | 0,434 | 0,124 | 216 | 210 |
| 3x70/16 | 90,0 | 14000 | 250 | 0,268 | 0,410 | 0,137 | 264 | 262 |
| 3x95/16 | 94,0 | 16000 | 250 | 0,193 | 0,389 | 0,150 | 316 | 319 |
| 3x120/16 | 97,5 | 17800 | 250 | 0,153 | 0,372 | 0,163 | 360 | 364 |
| 3x150/25 | 101,0 | 19400 | 250 | 0,124 | 0,360 | 0,174 | 404 | 418 |
| 3x185/25 | 105,0 | 21400 | 250 | 0,0991 | 0,348 | 0,188 | 457 | 478 |
| 3x240/25 | 111,0 | 24400 | 200 | 0,0754 | 0,331 | 0,209 | 532 | 562 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 3,6/6 kV XLPE insulated, round aluminium wire armoured, three core cables with copper conductor



Code: N2XSEYR(A)Y, CU/XLPE/CTS/PVC/AWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

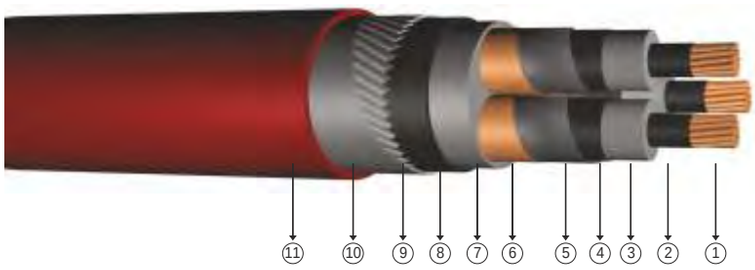
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium round wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 50,5 | 4400 | 1000 | 0,524 | 0,352 | 0,229 | 176 | 171 |
| 3x50/16 | 54,0 | 5900 | 500 | 0,387 | 0,336 | 0,255 | 208 | 196 |
| 3x70/16 | 58,0 | 7000 | 500 | 0,268 | 0,318 | 0,288 | 255 | 249 |
| 3x95/16 | 62,0 | 8300 | 500 | 0,193 | 0,303 | 0,324 | 307 | 307 |
| 3x120/16 | 66,5 | 9600 | 500 | 0,153 | 0,292 | 0,359 | 353 | 353 |
| 3x150/25 | 70,0 | 9900 | 500 | 0,124 | 0,284 | 0,388 | 396 | 406 |
| 3x185/25 | 74,0 | 11400 | 250 | 0,0991 | 0,276 | 0,424 | 447 | 464 |
| 3x240/25 | 82,0 | 15100 | 250 | 0,0754 | 0,267 | 0,469 | 523 | 548 |
| 3x300/25 | 89,0 | 17950 | 250 | 0,0601 | 0,263 | 0,486 | 581 | 632 |
| 3x400/35 | 98,0 | 22200 | 250 | 0,0470 | 0,257 | 0,521 | 653 | 726 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, round aluminium wire armoured, three core cables with copper conductor



Code: N2XSEYR(A)Y, CU/XLPE/CTS/PVC/AWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

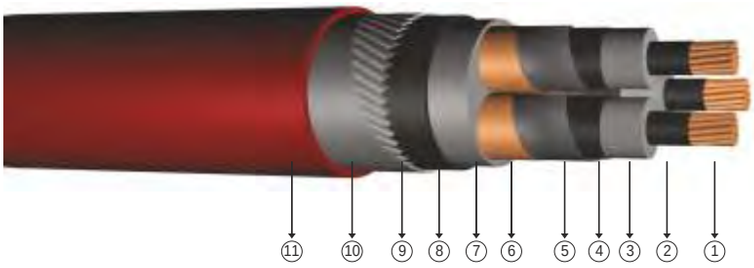
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium round wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 55,5 | 5850 | 500 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 58,5 | 6650 | 500 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 62,5 | 7750 | 500 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 67,0 | 9100 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 71,0 | 10400 | 250 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 74,0 | 11700 | 250 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 79,0 | 14200 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 86,0 | 16950 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 92,0 | 19500 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 100,0 | 23850 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 8,7/15 kV XLPE insulated, round aluminium wire armoured, three core cables with copper conductor



Code: N2XSEYR(A)Y, CU/XLPE/CTS/PVC/AWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

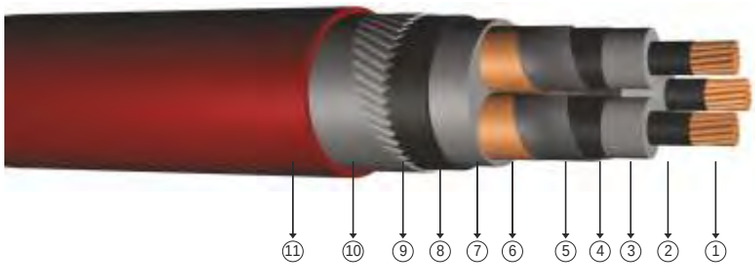
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium round wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 60,5 | 5750 | 500 | 0,524 | 0,397 | 0,160 | 178 | 173 |
| 3x50/16 | 64,0 | 7500 | 500 | 0,387 | 0,377 | 0,175 | 210 | 206 |
| 3x70/16 | 68,0 | 8800 | 500 | 0,268 | 0,356 | 0,196 | 256 | 257 |
| 3x95/16 | 72,0 | 10200 | 500 | 0,193 | 0,339 | 0,218 | 307 | 313 |
| 3x120/16 | 76,0 | 10200 | 500 | 0,153 | 0,325 | 0,240 | 349 | 360 |
| 3x150/25 | 81,0 | 12750 | 250 | 0,124 | 0,315 | 0,258 | 392 | 410 |
| 3x185/25 | 85,0 | 14500 | 250 | 0,0991 | 0,305 | 0,280 | 443 | 469 |
| 3x240/25 | 92,0 | 17150 | 250 | 0,0754 | 0,292 | 0,315 | 513 | 553 |
| 3x300/25 | 97,0 | 19750 | 250 | 0,0601 | 0,284 | 0,343 | 576 | 635 |
| 3x400/35 | 105,0 | 24000 | 200 | 0,0470 | 0,273 | 0,385 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, round aluminium wire armoured, three core cables with copper conductor



Code: N2XSEYR(A)Y, CU/XLPE/CTS/PVC/AWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

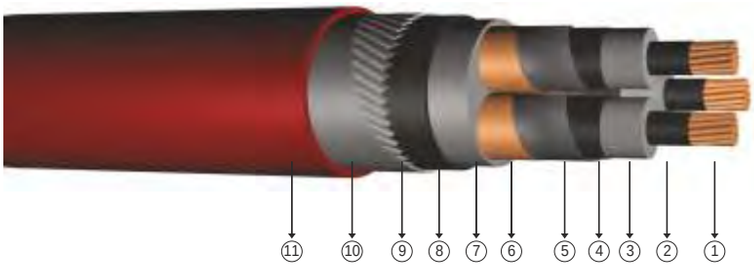
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium round wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 66,0 | 6550 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 69,0 | 7400 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 72,0 | 8500 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 78,0 | 10950 | 250 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 82,0 | 12300 | 250 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 86,0 | 13850 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 90,0 | 15500 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 96,0 | 18250 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 102,0 | 20850 | 200 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 110,0 | 25300 | 200 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, round aluminium wire armoured, three core cables with copper conductor



Code: N2XSEYR(A)Y, CU/XLPE/CTS/PVC/AWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

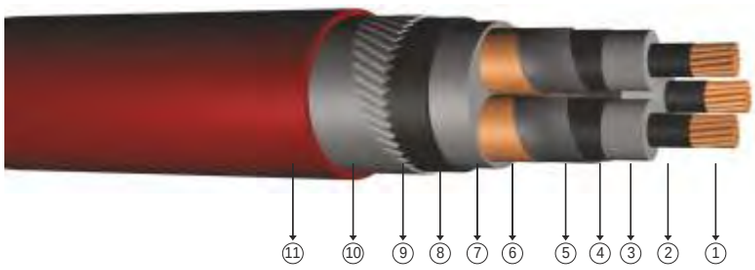
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium round wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 79,0 | 9750 | 500 | 0,5240 | 0,457 | 0,114 | 183 | 182 |
| 3x50/16 | 82,5 | 10750 | 250 | 0,3870 | 0,434 | 0,124 | 216 | 217 |
| 3x70/16 | 86,5 | 12000 | 250 | 0,2680 | 0,410 | 0,137 | 264 | 269 |
| 3x95/16 | 90,5 | 13500 | 250 | 0,1930 | 0,389 | 0,150 | 316 | 326 |
| 3x120/16 | 95,0 | 14950 | 250 | 0,1530 | 0,372 | 0,163 | 360 | 377 |
| 3x150/25 | 98,0 | 16400 | 250 | 0,1240 | 0,360 | 0,174 | 404 | 426 |
| 3x185/25 | 102,0 | 18200 | 250 | 0,0991 | 0,348 | 0,188 | 457 | 488 |
| 3x240/25 | 109,5 | 21250 | 200 | 0,0754 | 0,331 | 0,209 | 532 | 576 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, round aluminium wire armoured, three core cables with copper conductor



Code: N2XSEYR(A)Y, CU/XLPE/CTS/PVC/AWA/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

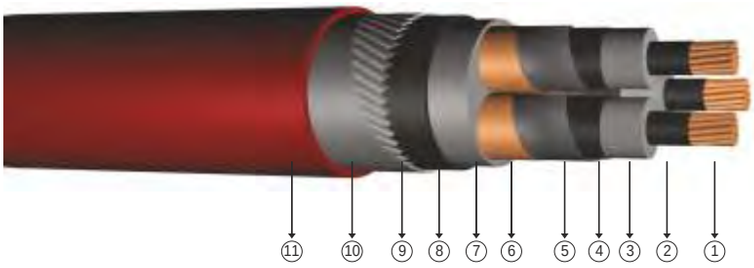
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium round wire
10. PP Tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 83,5 | 13000 | 500 | 0,524 | 0,457 | 0,114 | 183 | 176 |
| 3x50/16 | 86,0 | 12900 | 250 | 0,387 | 0,434 | 0,124 | 216 | 210 |
| 3x70/16 | 90,0 | 14000 | 250 | 0,268 | 0,410 | 0,137 | 264 | 262 |
| 3x95/16 | 94,0 | 16000 | 250 | 0,193 | 0,389 | 0,150 | 316 | 319 |
| 3x120/16 | 97,5 | 17800 | 250 | 0,153 | 0,372 | 0,163 | 360 | 364 |
| 3x150/25 | 101,0 | 19400 | 250 | 0,124 | 0,360 | 0,174 | 404 | 418 |
| 3x185/25 | 105,0 | 21400 | 250 | 0,0991 | 0,348 | 0,188 | 457 | 478 |
| 3x240/25 | 111,0 | 24400 | 200 | 0,0754 | 0,331 | 0,209 | 532 | 562 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV halogen free, flame retardant, XLPE insulated round steel wire armoured, three core cables with copper conductor



Code: YXC8Z1Z2Z1-R, N2XSEHRH, CU/XLPE/CTS/LSZH/SWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

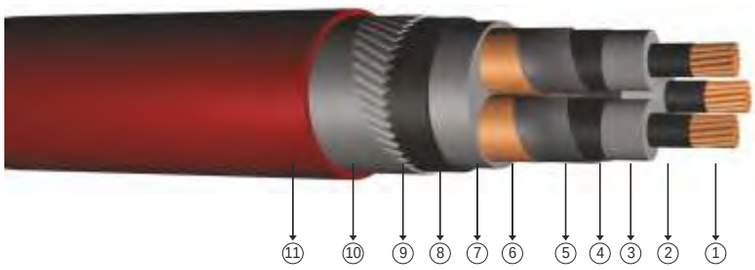
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH inner sheath
9. Galvanized round steel wire
10. PP Tape
11. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 55,5 | 5850 | 500 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 58,5 | 6650 | 500 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 62,5 | 7750 | 500 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 67,0 | 9100 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 71,0 | 10400 | 250 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 74,0 | 11700 | 250 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 79,0 | 14200 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 86,0 | 16950 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 92,0 | 19500 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 100,0 | 23850 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV halogen free, flame retardant, XLPE insulated round steel wire armoured, three core cables with copper conductor



Code: YXC8Z1Z2Z1-R, N2XSEHRH, CU/XLPE/CTS/LSZH/SWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

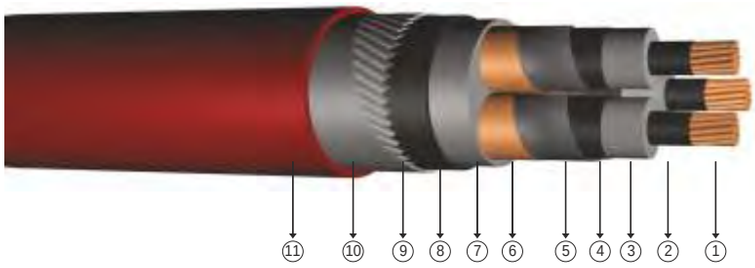
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH inner sheath
9. Galvanized round steel wire
10. PP Tape
11. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 66,0 | 6550 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 69,0 | 7400 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 72,0 | 8500 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 78,0 | 10950 | 250 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 82,0 | 12300 | 250 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 86,0 | 13850 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 90,0 | 15500 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 96,0 | 18250 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 102,0 | 20850 | 200 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 110,0 | 25300 | 200 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV halogen free, flame retardant, XLPE insulated round steel wire armoured, three core cables with copper conductor



Code: YXC8Z1Z2Z1-R, N2XSEHRH, CU/XLPE/CTS/LSZH/SWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

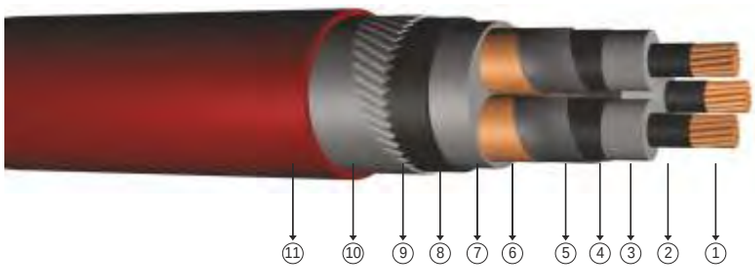
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH inner sheath
9. Galvanized round steel wire
10. PP Tape
11. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 79,0 | 9750 | 500 | 0,5240 | 0,457 | 0,114 | 183 | 182 |
| 3x50/16 | 82,5 | 10750 | 250 | 0,3870 | 0,434 | 0,124 | 216 | 217 |
| 3x70/16 | 86,5 | 12000 | 250 | 0,2680 | 0,410 | 0,137 | 264 | 269 |
| 3x95/16 | 90,5 | 13500 | 250 | 0,1930 | 0,389 | 0,150 | 316 | 326 |
| 3x120/16 | 95,0 | 14950 | 250 | 0,1530 | 0,372 | 0,163 | 360 | 377 |
| 3x150/25 | 98,0 | 16400 | 250 | 0,1240 | 0,360 | 0,174 | 404 | 426 |
| 3x185/25 | 102,0 | 18200 | 250 | 0,0991 | 0,348 | 0,188 | 457 | 488 |
| 3x240/25 | 109,5 | 21250 | 200 | 0,0754 | 0,331 | 0,209 | 532 | 576 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV halogen free, flame retardant, XLPE insulated round aluminium armoured, three core cables with copper conductor



Code: N2XSEHR(A)H, CU/XLPE/CTS/LSZH/AWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

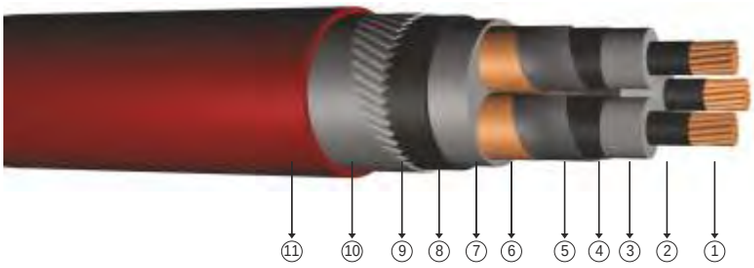
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH inner sheath
9. Aluminium round wire
10. PP Tape
11. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 55,5 | 5850 | 500 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 58,5 | 6650 | 500 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 62,5 | 7750 | 500 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 67,0 | 9100 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 71,0 | 10400 | 250 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 74,0 | 11700 | 250 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 79,0 | 14200 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 86,0 | 16950 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 92,0 | 19500 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 100,0 | 23850 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV halogen free, flame retardant, XLPE insulated round aluminium armoured, three core cables with copper conductor



Code: N2XSEHR(A)H, CU/XLPE/CTS/LSZH/AWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

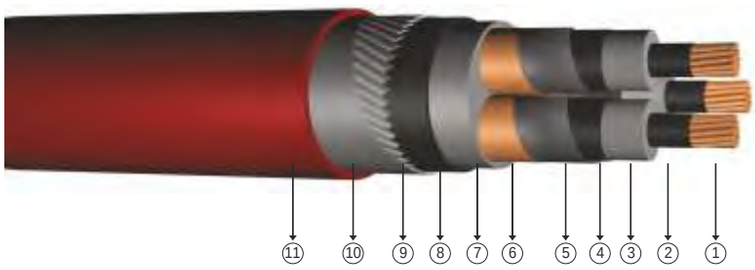
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH inner sheath
9. Aluminium round wire
10. PP Tape
11. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 66,0 | 6550 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 69,0 | 7400 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 72,0 | 8500 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 78,0 | 10950 | 250 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 82,0 | 12300 | 250 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 86,0 | 13850 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 90,0 | 15500 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 96,0 | 18250 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 102,0 | 20850 | 200 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 110,0 | 25300 | 200 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV halogen free, flame retardant, XLPE insulated round aluminium armoured, three core cables with copper conductor



Code: N2XSEHR(A)H, CU/XLPE/CTS/LSZH/AWA/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

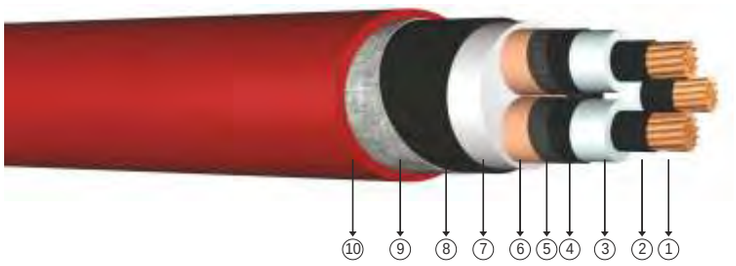
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. LSZH inner sheath
9. Aluminium round wire
10. PP Tape
11. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 79,0 | 9750 | 500 | 0,5240 | 0,457 | 0,114 | 183 | 182 |
| 3x50/16 | 82,5 | 10750 | 250 | 0,3870 | 0,434 | 0,124 | 216 | 217 |
| 3x70/16 | 86,5 | 12000 | 250 | 0,2680 | 0,410 | 0,137 | 264 | 269 |
| 3x95/16 | 90,5 | 13500 | 250 | 0,1930 | 0,389 | 0,150 | 316 | 326 |
| 3x120/16 | 95,0 | 14950 | 250 | 0,1530 | 0,372 | 0,163 | 360 | 377 |
| 3x150/25 | 98,0 | 16400 | 250 | 0,1240 | 0,360 | 0,174 | 404 | 426 |
| 3x185/25 | 102,0 | 18200 | 250 | 0,0991 | 0,348 | 0,188 | 457 | 488 |
| 3x240/25 | 109,5 | 21250 | 200 | 0,0754 | 0,331 | 0,209 | 532 | 576 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 3,6/6 kV XLPE insulated, double steel tape armoured, three core cables with copper conductor



Code: YXC8VZ4V-R, N2XSEYBY, CU/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

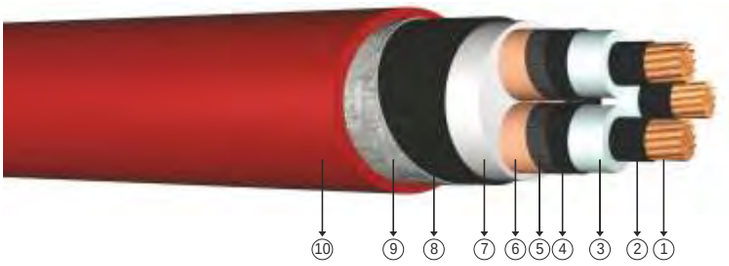
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized double steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 47,0 | 3900 | 1000 | 0,524 | 0,352 | 0,229 | 176 | 171 |
| 3x50/16 | 50,0 | 4600 | 1000 | 0,387 | 0,336 | 0,255 | 208 | 196 |
| 3x70/16 | 54,0 | 5600 | 500 | 0,268 | 0,318 | 0,288 | 255 | 249 |
| 3x95/16 | 58,0 | 6500 | 500 | 0,193 | 0,303 | 0,324 | 307 | 307 |
| 3x120/16 | 62,5 | 7500 | 500 | 0,153 | 0,292 | 0,359 | 353 | 353 |
| 3x150/25 | 66,0 | 8600 | 500 | 0,124 | 0,284 | 0,388 | 396 | 406 |
| 3x185/25 | 70,0 | 10000 | 250 | 0,0991 | 0,276 | 0,424 | 447 | 464 |
| 3x240/25 | 77,0 | 12350 | 250 | 0,0754 | 0,267 | 0,469 | 523 | 548 |
| 3x300/25 | 83,5 | 14900 | 250 | 0,0601 | 0,263 | 0,486 | 581 | 632 |
| 3x400/35 | 94,0 | 19550 | 250 | 0,0470 | 0,257 | 0,521 | 653 | 726 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, double steel tape armoured, three core cables with copper conductor



Code: YXC8VZ4V-R, N2XSEYBY, CU/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

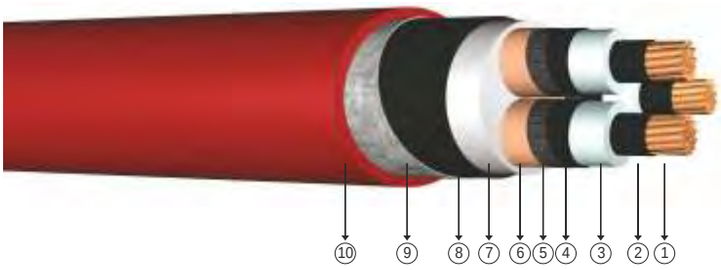
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized double steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 51,5 | 3950 | 1000 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 54,5 | 4650 | 1000 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 58,5 | 5600 | 500 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 63,0 | 6800 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 67,0 | 7900 | 500 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 70,0 | 9100 | 500 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 74,5 | 10550 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 81,5 | 13000 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 88,0 | 15900 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 96,0 | 19800 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, double steel tape armoured, three core cables with copper conductor



Code: YXC8VZ4V-R, N2XSEYBY, CU/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

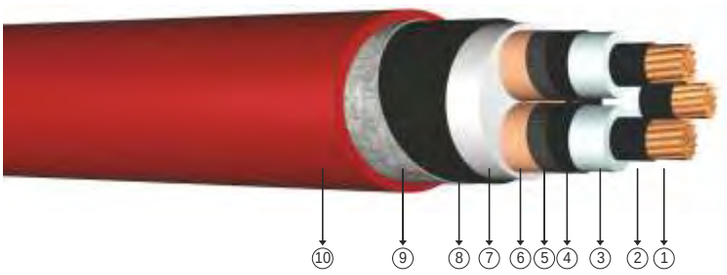
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized double steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 57,0 | 5200 | 1000 | 0,524 | 0,397 | 0,160 | 178 | 173 |
| 3x50/16 | 60,5 | 5500 | 500 | 0,387 | 0,377 | 0,175 | 210 | 206 |
| 3x70/16 | 64,0 | 6400 | 500 | 0,268 | 0,356 | 0,196 | 256 | 257 |
| 3x95/16 | 68,5 | 7600 | 500 | 0,193 | 0,339 | 0,218 | 307 | 313 |
| 3x120/16 | 72,5 | 8750 | 500 | 0,153 | 0,325 | 0,240 | 349 | 360 |
| 3x150/25 | 75,5 | 10000 | 250 | 0,124 | 0,315 | 0,258 | 392 | 410 |
| 3x185/25 | 80,0 | 11600 | 250 | 0,0991 | 0,305 | 0,280 | 443 | 469 |
| 3x240/25 | 88,0 | 14600 | 250 | 0,0754 | 0,292 | 0,315 | 513 | 553 |
| 3x300/25 | 93,0 | 17050 | 250 | 0,0601 | 0,284 | 0,343 | 576 | 635 |
| 3x400/35 | 101,0 | 21000 | 200 | 0,0470 | 0,273 | 0,385 | 650 | 731 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, double steel tape armoured, three core cables with copper conductor



Code: YXC8VZ4V-R, N2XSEYBY, CU/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

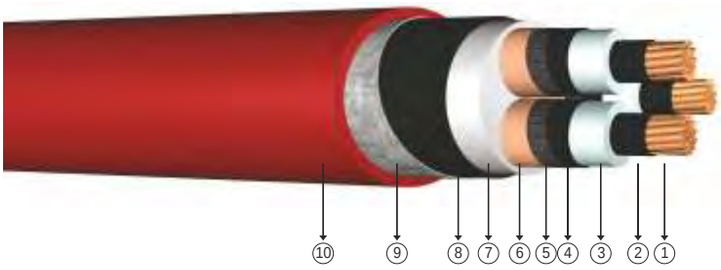
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized double steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 62,0 | 5350 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 62,0 | 6100 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 69,0 | 7100 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 73,0 | 8300 | 500 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 77,0 | 9500 | 500 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 81,0 | 10900 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 86,0 | 13000 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 92,5 | 15550 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 98,0 | 18000 | 250 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 106,5 | 22200 | 200 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, double steel tape armoured, three core cables with copper conductor



Code: YXC8VZ4V-R, N2XSEYBY, CU/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

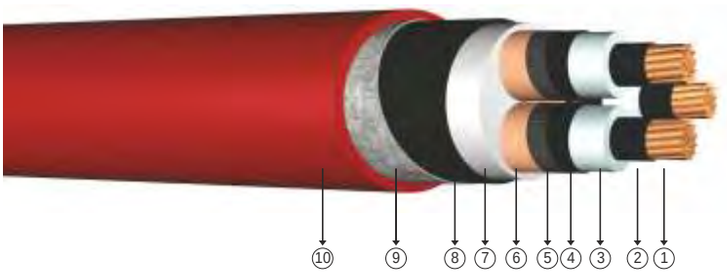
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized double steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 74,5 | 7150 | 500 | 0,5240 | 0,457 | 0,114 | - | - |
| 3x50/16 | 77,5 | 8050 | 500 | 0,3870 | 0,434 | 0,124 | 214 | 217 |
| 3x70/16 | 81,5 | 9150 | 500 | 0,2680 | 0,410 | 0,137 | 261 | 269 |
| 3x95/16 | 86,5 | 11050 | 250 | 0,1930 | 0,389 | 0,150 | 313 | 326 |
| 3x120/16 | 91,0 | 12400 | 250 | 0,1530 | 0,372 | 0,163 | 356 | 377 |
| 3x150/25 | 94,0 | 13800 | 250 | 0,1240 | 0,360 | 0,174 | 400 | 426 |
| 3x185/25 | 98,0 | 15450 | 250 | 0,0991 | 0,348 | 0,188 | 441 | 488 |
| 3x240/25 | 105,5 | 18250 | 250 | 0,0754 | 0,331 | 0,209 | 510 | 576 |
| 3x300/25 | 110,5 | 20850 | 200 | 0,0601 | 0,321 | 0,226 | - | - |
| 3x400/35 | 118,5 | 25100 | 200 | 0,0470 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, double steel tape armoured, three core cables with copper conductor



Code: YXC8VZ4V-R, N2XSEYBY, CU/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

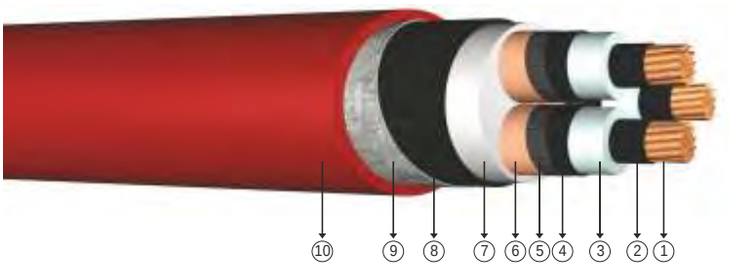
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized double steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 78,0 | 8900 | 500 | 0,524 | 0,457 | 0,114 | - | - |
| 3x50/16 | 82,0 | 10500 | 500 | 0,387 | 0,434 | 0,124 | 214 | 210 |
| 3x70/16 | 87,0 | 12000 | 500 | 0,268 | 0,410 | 0,137 | 261 | 262 |
| 3x95/16 | 90,0 | 13500 | 250 | 0,193 | 0,389 | 0,150 | 313 | 319 |
| 3x120/16 | 93,0 | 15000 | 250 | 0,153 | 0,372 | 0,163 | 356 | 364 |
| 3x150/25 | 97,0 | 16500 | 250 | 0,124 | 0,360 | 0,174 | 400 | 418 |
| 3x185/25 | 101,0 | 18500 | 250 | 0,0991 | 0,348 | 0,188 | 441 | 478 |
| 3x240/25 | 105,5 | 21000 | 250 | 0,0754 | 0,331 | 0,209 | 510 | 562 |
| 3x300/25 | 110,5 | 24000 | 200 | 0,0601 | 0,321 | 0,226 | - | - |
| 3x400/35 | 118,5 | 28000 | 200 | 0,0470 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, aluminium tape armoured, three core cables with copper conductor



Code: N2XSEYB(A)Y, CU/XLPE/CTS/PVC/ATA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

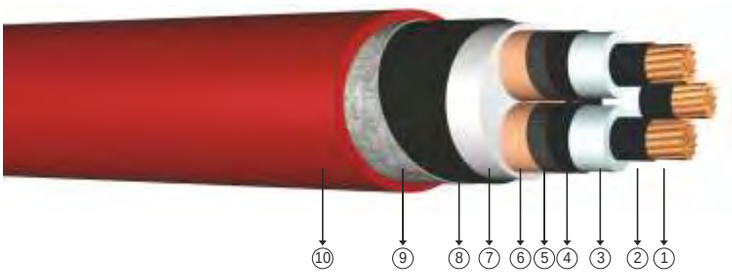
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 51,5 | 3950 | 1000 | 0,524 | 0,374 | 0,189 | 178 | 173 |
| 3x50/16 | 54,5 | 4650 | 1000 | 0,387 | 0,355 | 0,209 | 210 | 206 |
| 3x70/16 | 58,5 | 5600 | 500 | 0,268 | 0,336 | 0,236 | 256 | 257 |
| 3x95/16 | 63,0 | 6800 | 500 | 0,193 | 0,320 | 0,263 | 307 | 313 |
| 3x120/16 | 67,0 | 7900 | 500 | 0,153 | 0,308 | 0,291 | 349 | 360 |
| 3x150/25 | 70,0 | 9100 | 500 | 0,124 | 0,299 | 0,314 | 392 | 410 |
| 3x185/25 | 74,5 | 10550 | 250 | 0,0991 | 0,290 | 0,341 | 443 | 469 |
| 3x240/25 | 81,5 | 13000 | 250 | 0,0754 | 0,278 | 0,387 | 513 | 553 |
| 3x300/25 | 88,0 | 15900 | 250 | 0,0601 | 0,270 | 0,422 | 576 | 635 |
| 3x400/35 | 96,0 | 19800 | 250 | 0,0470 | 0,261 | 0,475 | 650 | 731 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, aluminium tape armoured, three core cables with copper conductor



Code: N2XSEYB(A)Y, CU/XLPE/CTS/PVC/ATA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

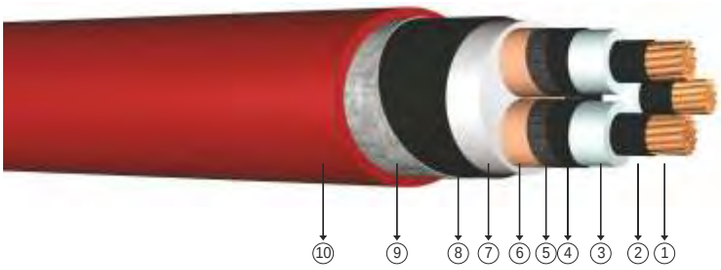
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 62,0 | 5350 | 500 | 0,524 | 0,416 | 0,141 | 183 | 182 |
| 3x50/16 | 62,0 | 6100 | 500 | 0,387 | 0,395 | 0,155 | 216 | 217 |
| 3x70/16 | 69,0 | 7100 | 500 | 0,268 | 0,373 | 0,172 | 264 | 269 |
| 3x95/16 | 73,0 | 8300 | 500 | 0,193 | 0,355 | 0,191 | 316 | 326 |
| 3x120/16 | 77,0 | 9500 | 500 | 0,153 | 0,340 | 0,209 | 360 | 377 |
| 3x150/25 | 81,0 | 10900 | 250 | 0,124 | 0,329 | 0,225 | 404 | 426 |
| 3x185/25 | 86,0 | 13000 | 250 | 0,0991 | 0,319 | 0,243 | 457 | 488 |
| 3x240/25 | 92,5 | 15550 | 250 | 0,0754 | 0,304 | 0,273 | 532 | 576 |
| 3x300/25 | 98,0 | 18000 | 250 | 0,0601 | 0,295 | 0,296 | 599 | 654 |
| 3x400/35 | 106,5 | 22200 | 200 | 0,0470 | 0,284 | 0,331 | 685 | 750 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, aluminium tape armoured, three core cables with copper conductor



Code: N2XSEYB(A)Y, CU/XLPE/CTS/PVC/ATA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

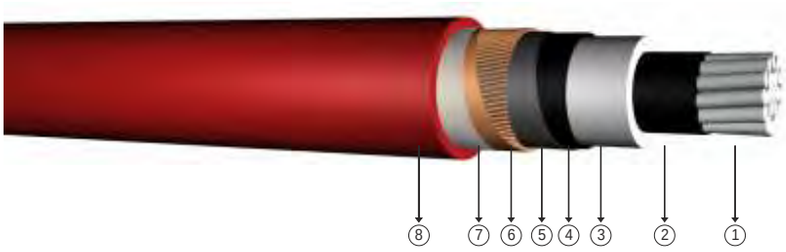
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 74,5 | 7150 | 500 | 0,5240 | 0,457 | 0,114 | - | - |
| 3x50/16 | 77,5 | 8050 | 500 | 0,3870 | 0,434 | 0,124 | 214 | 217 |
| 3x70/16 | 81,5 | 9150 | 500 | 0,2680 | 0,410 | 0,137 | 261 | 269 |
| 3x95/16 | 86,5 | 11050 | 250 | 0,1930 | 0,389 | 0,150 | 313 | 326 |
| 3x120/16 | 91,0 | 12400 | 250 | 0,1530 | 0,372 | 0,163 | 356 | 377 |
| 3x150/25 | 94,0 | 13800 | 250 | 0,1240 | 0,360 | 0,174 | 400 | 426 |
| 3x185/25 | 98,0 | 15450 | 250 | 0,0991 | 0,348 | 0,188 | 441 | 488 |
| 3x240/25 | 105,5 | 18250 | 250 | 0,0754 | 0,331 | 0,209 | 510 | 576 |
| 3x300/25 | 110,5 | 20850 | 200 | 0,0601 | 0,321 | 0,226 | - | - |
| 3x400/35 | 118,5 | 25100 | 200 | 0,0470 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 3,6/6 kV XLPE insulated, single core cables with aluminium conductor



Code: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

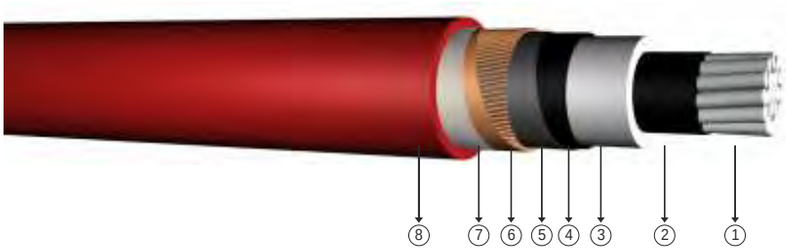
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 21,0 | 550 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,283 | - | - | - | - |
| 1x50/16 | 22,0 | 600 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,318 | 186 | 178 | 233 | 188 |
| 1x70/16 | 24,0 | 700 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,368 | 234 | 217 | 280 | 235 |
| 1x95/16 | 25,5 | 800 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,414 | 287 | 259 | 344 | 286 |
| 1x120/16 | 27,0 | 900 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,455 | 338 | 298 | 392 | 329 |
| 1x150/25 | 28,5 | 1100 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,499 | 388 | 333 | 441 | 376 |
| 1x185/25 | 30,5 | 1250 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,544 | 449 | 377 | 510 | 428 |
| 1x240/25 | 33,5 | 1450 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,587 | 530 | 438 | 587 | 508 |
| 1x300/25 | 36,0 | 1700 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,603 | 605 | 495 | 682 | 586 |
| 1x400/35 | 40,0 | 2200 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,642 | 678 | 562 | 781 | 676 |
| 1x500/35 | 43,5 | 2600 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,667 | 762 | 633 | 883 | 772 |
| 1x630/35 | 47,0 | 3050 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,739 | 858 | 712 | 1007 | 882 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, single core cables with aluminium conductor



Code: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

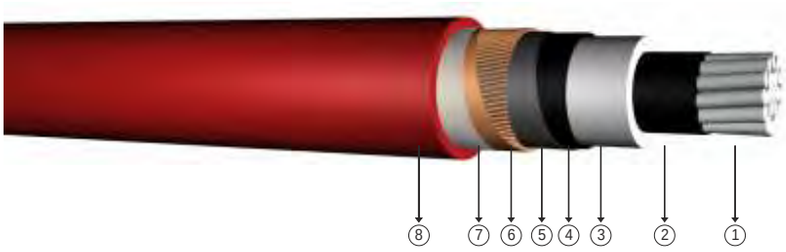
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 22,5 | 600 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,223 | - | - | - | - |
| 1x50/16 | 24,0 | 650 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 26,0 | 750 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 27,5 | 870 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 29,5 | 970 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 30,5 | 1200 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 32,5 | 1300 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 35,0 | 1550 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 37,5 | 1800 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 41,0 | 2250 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 44,0 | 2600 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 47,5 | 3050 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XSY

R: Stranded Conductor

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

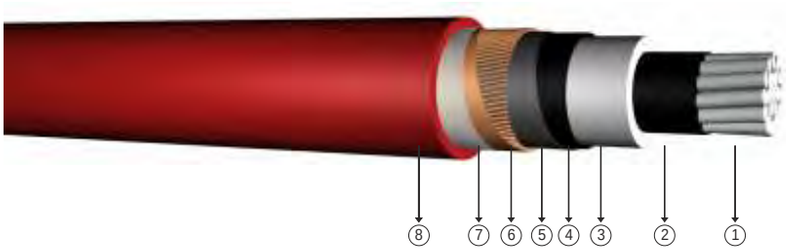
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 23,5 | 663 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,223 | - | - | - | - |
| 1x50/16 | 24,5 | 715 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 26,0 | 806 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 27,2 | 898 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 29,0 | 1021 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 30,0 | 1188 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 32,0 | 1351 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 34,3 | 1552 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 37,0 | 1816 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 39,5 | 2180 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 42,8 | 2553 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 46,8 | 3067 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0.7 |
| In air | : 30ºC, load factor 1.0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, single core cables with aluminium conductor



Code: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

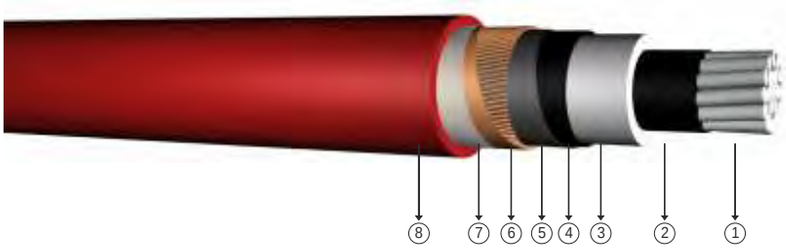
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 25,0 | 650 | 1000 | 0,868 | 1,1110 | 0,666 | 0,401 | 0,181 | - | - | - | - |
| 1x50/16 | 26,5 | 750 | 1000 | 0,641 | 0,8205 | 0,640 | 0,383 | 0,201 | 194 | 171 | 215 | 181 |
| 1x70/16 | 28,0 | 850 | 1000 | 0,443 | 0,5670 | 0,609 | 0,362 | 0,229 | 236 | 209 | 269 | 226 |
| 1x95/16 | 29,5 | 950 | 1000 | 0,320 | 0,4096 | 0,585 | 0,346 | 0,255 | 281 | 249 | 327 | 275 |
| 1x120/16 | 31,5 | 1.100 | 1000 | 0,253 | 0,3238 | 0,567 | 0,336 | 0,278 | 318 | 283 | 377 | 317 |
| 1x150/25 | 33,0 | 1300 | 1000 | 0,206 | 0,2637 | 0,549 | 0,325 | 0,302 | 350 | 316 | 424 | 359 |
| 1x185/25 | 35,0 | 1450 | 1000 | 0,164 | 0,2099 | 0,534 | 0,317 | 0,328 | 393 | 358 | 485 | 412 |
| 1x240/25 | 37,5 | 1700 | 1000 | 0,125 | 0,1600 | 0,514 | 0,307 | 0,363 | 453 | 416 | 573 | 489 |
| 1x300/25 | 40,0 | 1900 | 1000 | 0,100 | 0,1280 | 0,497 | 0,298 | 0,398 | 507 | 469 | 652 | 559 |
| 1x400/35 | 43,5 | 2400 | 1000 | 0,0778 | 0,1009 | 0,477 | 0,289 | 0,447 | 559 | 532 | 741 | 651 |
| 1x500/35 | 46,5 | 2800 | 1000 | 0,0605 | 0,0774 | 0,461 | 0,282 | 0,491 | 622 | 599 | 838 | 744 |
| 1x630/35 | 50,0 | 3250 | 1000 | 0,0469 | 0,0600 | 0,455 | 0,275 | 0,543 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, single core cables with aluminium conductor



Code: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2,BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

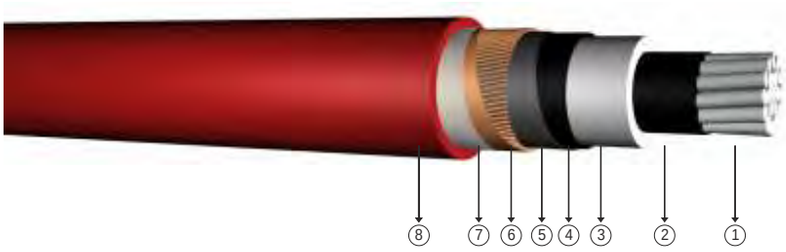
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 27,0 | 750 | 1000 | 0,868 | 1,1110 | 0,670 | 0,416 | 0,157 | - | - | - | - |
| 1x50/16 | 28,5 | 800 | 1000 | 0,641 | 0,8205 | 0,644 | 0,397 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 30,0 | 950 | 1000 | 0,443 | 0,5670 | 0,614 | 0,377 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 32,0 | 1050 | 1000 | 0,320 | 0,4096 | 0,590 | 0,360 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 34,0 | 1200 | 1000 | 0,253 | 0,3238 | 0,571 | 0,349 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 35,0 | 1400 | 1000 | 0,206 | 0,2637 | 0,554 | 0,338 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 37,0 | 1550 | 1000 | 0,164 | 0,2099 | 0,538 | 0,329 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 39,5 | 1800 | 1000 | 0,125 | 0,1600 | 0,518 | 0,317 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 42,0 | 2050 | 1000 | 0,100 | 0,1280 | 0,501 | 0,308 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 45,5 | 2550 | 1000 | 0,0778 | 0,1009 | 0,480 | 0,298 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 48,5 | 2900 | 1000 | 0,0605 | 0,0774 | 0,464 | 0,290 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 52,5 | 3400 | 1000 | 0,0469 | 0,0600 | 0,448 | 0,282 | 0,455 | 719 | 686 | 953 | 850 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 12/20 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XSY

R: Stranded Conductor

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

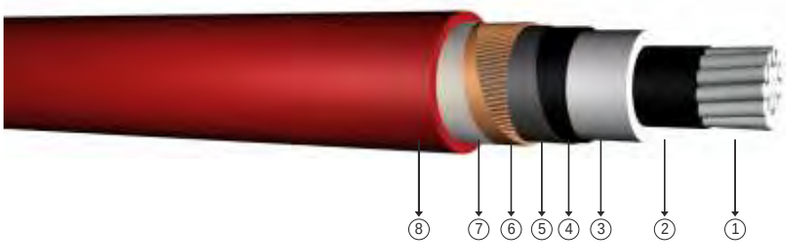
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 28,0 | 851 | 1000 | 0,868 | 1,1110 | 0,670 | 0,416 | 0,157 | - | - | - | - |
| 1x50/16 | 29,0 | 906 | 1000 | 0,641 | 0,8205 | 0,644 | 0,397 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 31,0 | 1044 | 1000 | 0,443 | 0,5670 | 0,614 | 0,377 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 32,0 | 1115 | 1000 | 0,320 | 0,4096 | 0,590 | 0,360 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 33,0 | 1204 | 1000 | 0,253 | 0,3238 | 0,571 | 0,349 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 34,2 | 1391 | 1000 | 0,206 | 0,2637 | 0,554 | 0,338 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 36,0 | 1551 | 1000 | 0,164 | 0,2099 | 0,538 | 0,329 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 39,0 | 1830 | 1000 | 0,125 | 0,1600 | 0,518 | 0,317 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 41,0 | 2049 | 1000 | 0,100 | 0,1280 | 0,501 | 0,308 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 44,5 | 2532 | 1000 | 0,0778 | 0,1009 | 0,480 | 0,298 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 47,5 | 2894 | 1000 | 0,0605 | 0,0774 | 0,464 | 0,290 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 51,0 | 3375 | 1000 | 0,0469 | 0,0600 | 0,448 | 0,282 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, single core cables with aluminium conductor



Code: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 18/30 kV
19/33 kV
Min. bending radius : 15 x D
D : Cable outer diameter

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

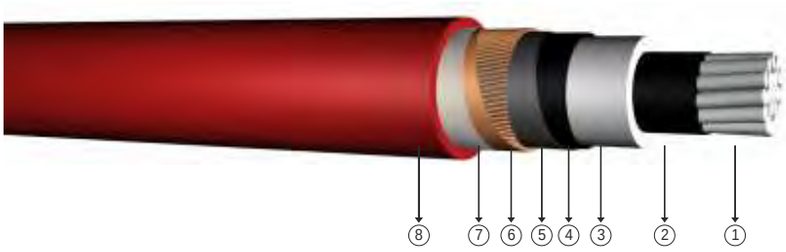
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 32,0 | 1000 | 1000 | 0,868 | 1,1110 | 0,680 | 0,451 | 0,123 | - | - | - | - |
| 1x50/16 | 33,5 | 1100 | 1000 | 0,641 | 0,8205 | 0,655 | 0,432 | 0,135 | 196 | 175 | 217 | 187 |
| 1x70/16 | 35,0 | 1200 | 1000 | 0,443 | 0,5670 | 0,624 | 0,408 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 37,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,600 | 0,391 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 39,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,581 | 0,377 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 40,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,564 | 0,366 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 42,5 | 1900 | 1000 | 0,164 | 0,2099 | 0,547 | 0,355 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 45,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,527 | 0,342 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 47,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,510 | 0,332 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 50,5 | 3000 | 1000 | 0,0778 | 0,1009 | 0,489 | 0,320 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 54,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,473 | 0,310 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 57,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,457 | 0,301 | 0,330 | 728 | 690 | 950 | 851 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
** : Trefoil formation
Number of system : 1

# 18/30 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XSY

R: Stranded Conductor

Standards: VDE 0276-620

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

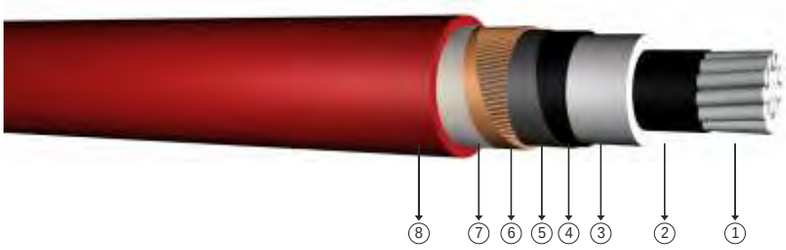
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x50/16 | 33,2 | 1088 | 1000 | 0,641 | 0,8205 | 0,655 | 0,432 | 0,135 | 196 | 175 | 217 | 187 |
| 1x70/16 | 35,0 | 1225 | 1000 | 0,443 | 0,5670 | 0,624 | 0,408 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 36,4 | 1337 | 1000 | 0,320 | 0,4096 | 0,600 | 0,391 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 38,0 | 1473 | 1000 | 0,253 | 0,3238 | 0,581 | 0,377 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 39,2 | 1668 | 1000 | 0,206 | 0,2637 | 0,564 | 0,366 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 41,0 | 1838 | 1000 | 0,164 | 0,2099 | 0,547 | 0,355 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 43,5 | 2087 | 1000 | 0,125 | 0,1600 | 0,527 | 0,342 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 46,5 | 2433 | 1000 | 0,100 | 0,1280 | 0,510 | 0,332 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 49,5 | 2889 | 1000 | 0,0778 | 0,1009 | 0,489 | 0,320 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 52,5 | 3270 | 1000 | 0,0605 | 0,0774 | 0,473 | 0,310 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 56,0 | 3770 | 1000 | 0,0469 | 0,0600 | 0,457 | 0,301 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, single core cables with aluminium conductor



Code: YAXC7V-R, NA2XSY, AL/XLPE/CWS/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These cables have a low dielectric loss, used in indoor and outdoor applications, in cable ducts, underground, in power or switching stations, local energy distributions, industrial plants, where there is no risk of mechanical damage.

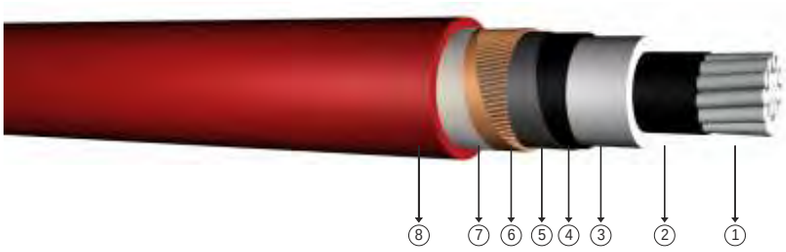
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 34,5 | 1100 | 1000 | 0,868 | 1,1110 | 0,657 | 0,464 | 0,115 | - | - | - | - |
| 1x50/16 | 36,0 | 1200 | 1000 | 0,641 | 0,8205 | 0,632 | 0,444 | 0,125 | 196 | 175 | 217 | 187 |
| 1x70/16 | 37,5 | 1350 | 1000 | 0,443 | 0,5670 | 0,601 | 0,420 | 0,140 | 238 | 214 | 270 | 232 |
| 1x95/16 | 39,5 | 1500 | 1000 | 0,320 | 0,4096 | 0,577 | 0,402 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 41,5 | 1650 | 1000 | 0,253 | 0,3238 | 0,558 | 0,388 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 43,0 | 1900 | 1000 | 0,206 | 0,2637 | 0,541 | 0,376 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 44,5 | 2050 | 1000 | 0,164 | 0,2099 | 0,525 | 0,365 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 47,5 | 2350 | 1000 | 0,125 | 0,1600 | 0,506 | 0,351 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 49,5 | 2600 | 1000 | 0,100 | 0,1280 | 0,490 | 0,341 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 53,0 | 3150 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,328 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 56,0 | 3600 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,318 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 60,0 | 4150 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,308 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV halogen free, flame retardant, XLPE insulated, single core cables with aluminium conductor



Code: YAXC7Z1-R, NA2XSH, AL/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

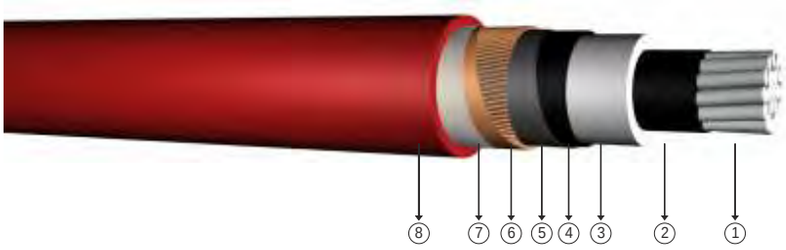
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 21,0 | 550 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,283 | - | - | - | - |
| 1x50/16 | 22,0 | 600 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,318 | 186 | 178 | 233 | 188 |
| 1x70/16 | 24,0 | 700 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,368 | 234 | 217 | 280 | 235 |
| 1x95/16 | 25,5 | 800 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,414 | 287 | 259 | 344 | 286 |
| 1x120/16 | 27,0 | 900 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,455 | 338 | 298 | 392 | 329 |
| 1x150/25 | 28,5 | 1100 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,499 | 388 | 333 | 441 | 376 |
| 1x185/25 | 30,5 | 1250 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,544 | 449 | 377 | 510 | 428 |
| 1x240/25 | 33,5 | 1450 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,587 | 530 | 438 | 587 | 508 |
| 1x300/25 | 36,0 | 1700 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,603 | 605 | 495 | 682 | 586 |
| 1x400/35 | 40,0 | 2200 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,642 | 678 | 562 | 781 | 676 |
| 1x500/35 | 43,5 | 2600 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,667 | 762 | 633 | 883 | 772 |
| 1x630/35 | 47,0 | 3050 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,739 | 858 | 712 | 1007 | 882 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV halogen free, flame retardant, XLPE insulated single core cables with aluminium conductor



Code: YAXC7Z1-R, NA2XSH, AL/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

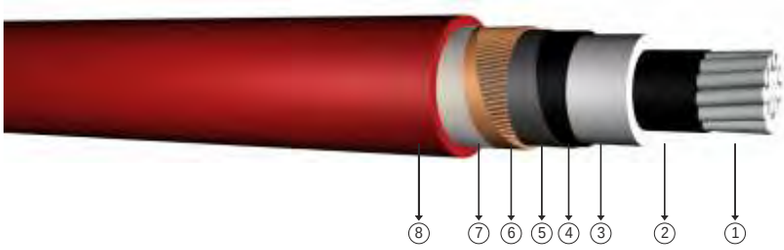
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 22,5 | 600 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,223 | - | - | - | - |
| 1x50/16 | 24,0 | 650 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 26,0 | 750 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 27,5 | 870 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 29,5 | 970 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 30,5 | 1200 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 32,5 | 1300 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 35,0 | 1550 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 37,5 | 1800 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 41,0 | 2250 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 44,0 | 2600 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 47,5 | 3050 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV halogen free, flame retardant, XLPE insulated single core cables with aluminium conductor



Code: YAXC7Z1-R, NA2XSH, AL/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

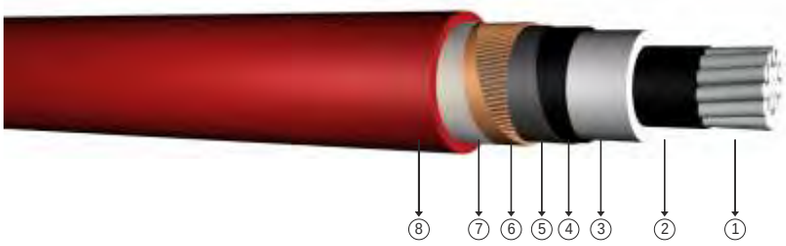
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 25,0 | 650 | 1000 | 0,868 | 1,1110 | 0,666 | 0,401 | 0,181 | - | - | - | - |
| 1x50/16 | 26,5 | 750 | 1000 | 0,641 | 0,8205 | 0,640 | 0,383 | 0,201 | 194 | 171 | 215 | 181 |
| 1x70/16 | 28,0 | 850 | 1000 | 0,443 | 0,5670 | 0,609 | 0,362 | 0,229 | 236 | 209 | 269 | 226 |
| 1x95/16 | 29,5 | 950 | 1000 | 0,320 | 0,4096 | 0,585 | 0,346 | 0,255 | 281 | 249 | 327 | 275 |
| 1x120/16 | 31,5 | 1.100 | 1000 | 0,253 | 0,3238 | 0,567 | 0,336 | 0,278 | 318 | 283 | 377 | 317 |
| 1x150/25 | 33,0 | 1300 | 1000 | 0,206 | 0,2637 | 0,549 | 0,325 | 0,302 | 350 | 316 | 424 | 359 |
| 1x185/25 | 35,0 | 1450 | 1000 | 0,164 | 0,2099 | 0,534 | 0,317 | 0,328 | 393 | 358 | 485 | 412 |
| 1x240/25 | 37,5 | 1700 | 1000 | 0,125 | 0,1600 | 0,514 | 0,307 | 0,363 | 453 | 416 | 573 | 489 |
| 1x300/25 | 40,0 | 1900 | 1000 | 0,100 | 0,1280 | 0,497 | 0,298 | 0,398 | 507 | 469 | 652 | 559 |
| 1x400/35 | 43,5 | 2400 | 1000 | 0,0778 | 0,1009 | 0,477 | 0,289 | 0,447 | 559 | 532 | 741 | 651 |
| 1x500/35 | 46,5 | 2800 | 1000 | 0,0605 | 0,0774 | 0,461 | 0,282 | 0,491 | 622 | 599 | 838 | 744 |
| 1x630/35 | 50,0 | 3250 | 1000 | 0,0469 | 0,0600 | 0,455 | 0,275 | 0,543 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV halogen free, flame retardant, XLPE insulated single core cables with aluminium conductor



Code: YAXC7Z1-R, NA2XSH, AL/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

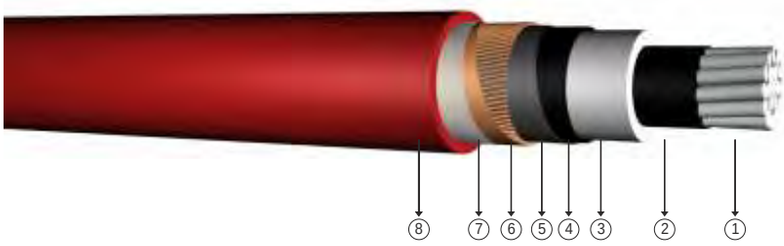
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 27,0 | 750 | 1000 | 0,868 | 1,1110 | 0,670 | 0,416 | 0,157 | - | - | - | - |
| 1x50/16 | 28,5 | 800 | 1000 | 0,641 | 0,8205 | 0,644 | 0,397 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 30,0 | 950 | 1000 | 0,443 | 0,5670 | 0,614 | 0,377 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 32,0 | 1050 | 1000 | 0,320 | 0,4096 | 0,590 | 0,360 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 34,0 | 1200 | 1000 | 0,253 | 0,3238 | 0,571 | 0,349 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 35,0 | 1400 | 1000 | 0,206 | 0,2637 | 0,554 | 0,338 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 37,0 | 1550 | 1000 | 0,164 | 0,2099 | 0,538 | 0,329 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 39,5 | 1800 | 1000 | 0,125 | 0,1600 | 0,518 | 0,317 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 42,0 | 2050 | 1000 | 0,100 | 0,1280 | 0,501 | 0,308 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 45,5 | 2550 | 1000 | 0,0778 | 0,1009 | 0,480 | 0,298 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 48,5 | 2900 | 1000 | 0,0605 | 0,0774 | 0,464 | 0,290 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 52,5 | 3400 | 1000 | 0,0469 | 0,0600 | 0,448 | 0,282 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV halogen free, flame retardant, XLPE insulated single core cables with aluminium conductor



Code: YAXC7Z1-R, NA2XSH, AL/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

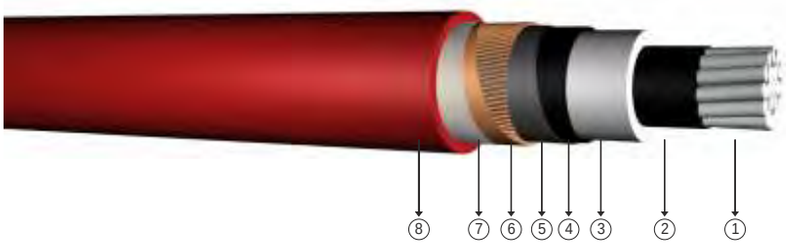
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 32,0 | 1000 | 1000 | 0,868 | 1,1110 | 0,680 | 0,451 | 0,123 | - | - | - | - |
| 1x50/16 | 33,5 | 1100 | 1000 | 0,641 | 0,8205 | 0,655 | 0,432 | 0,135 | 196 | 175 | 217 | 187 |
| 1x70/16 | 35,0 | 1200 | 1000 | 0,443 | 0,5670 | 0,624 | 0,408 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 37,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,600 | 0,391 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 39,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,581 | 0,377 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 40,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,564 | 0,366 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 42,5 | 1900 | 1000 | 0,164 | 0,2099 | 0,547 | 0,355 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 45,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,527 | 0,342 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 47,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,510 | 0,332 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 50,5 | 3000 | 1000 | 0,0778 | 0,1009 | 0,489 | 0,320 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 54,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,473 | 0,310 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 57,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,457 | 0,301 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV halogen free, flame retardant, XLPE insulated single core cables with aluminium conductor



Code: YAXC7Z1-R, NA2XSH, AL/XLPE/CWS/LSZH

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire.

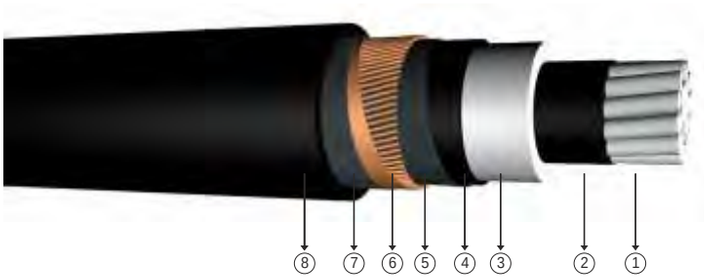
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. LSZH outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 34,5 | 1100 | 1000 | 0,868 | 1,1110 | 0,657 | 0,464 | 0,115 | - | - | - | - |
| 1x50/16 | 36,0 | 1200 | 1000 | 0,641 | 0,8205 | 0,632 | 0,444 | 0,125 | 196 | 175 | 217 | 187 |
| 1x70/16 | 37,5 | 1350 | 1000 | 0,443 | 0,5670 | 0,601 | 0,420 | 0,140 | 238 | 214 | 270 | 232 |
| 1x95/16 | 39,5 | 1500 | 1000 | 0,320 | 0,4096 | 0,577 | 0,402 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 41,5 | 1650 | 1000 | 0,253 | 0,3238 | 0,558 | 0,388 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 43,0 | 1900 | 1000 | 0,206 | 0,2637 | 0,541 | 0,376 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 44,5 | 2050 | 1000 | 0,164 | 0,2099 | 0,525 | 0,365 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 47,5 | 2350 | 1000 | 0,125 | 0,1600 | 0,506 | 0,351 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 49,5 | 2600 | 1000 | 0,100 | 0,1280 | 0,490 | 0,341 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 53,0 | 3150 | 1000 | 0,0778 | 0,1009 | 0,471 | 0,328 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 56,0 | 3600 | 1000 | 0,0605 | 0,0774 | 0,456 | 0,318 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 60,0 | 4150 | 1000 | 0,0469 | 0,0600 | 0,440 | 0,308 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y, AL/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

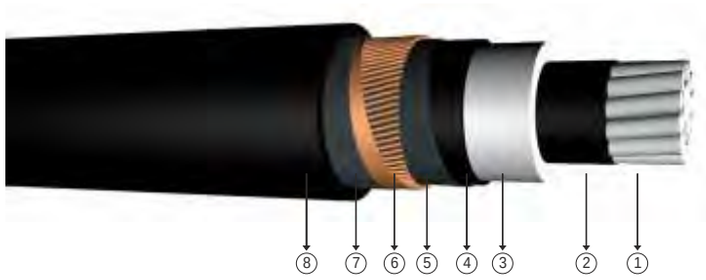
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 24,0 | 500 | 1000 | 0,868 | 1,1110 | 0,663 | 0,391 | 0,283 | - | - | - | - |
| 1x50/16 | 25,0 | 550 | 1000 | 0,641 | 0,8205 | 0,638 | 0,374 | 0,318 | 186 | 178 | 233 | 188 |
| 1x70/16 | 26,5 | 650 | 1000 | 0,443 | 0,5670 | 0,607 | 0,353 | 0,368 | 234 | 217 | 280 | 235 |
| 1x95/16 | 28,5 | 750 | 1000 | 0,320 | 0,4096 | 0,583 | 0,338 | 0,414 | 287 | 259 | 344 | 286 |
| 1x120/16 | 30,0 | 850 | 1000 | 0,253 | 0,3238 | 0,564 | 0,327 | 0,455 | 338 | 298 | 392 | 329 |
| 1x150/25 | 31,5 | 1050 | 1000 | 0,206 | 0,2637 | 0,547 | 0,317 | 0,499 | 388 | 333 | 441 | 376 |
| 1x185/25 | 33,5 | 1200 | 1000 | 0,164 | 0,2099 | 0,531 | 0,309 | 0,544 | 449 | 377 | 510 | 428 |
| 1x240/25 | 36,5 | 1400 | 1000 | 0,125 | 0,1600 | 0,511 | 0,299 | 0,587 | 530 | 438 | 587 | 508 |
| 1x300/25 | 39,0 | 1600 | 1000 | 0,100 | 0,1280 | 0,446 | 0,294 | 0,603 | 605 | 495 | 682 | 586 |
| 1x400/35 | 43,0 | 2100 | 1000 | 0,0778 | 0,1009 | 0,476 | 0,287 | 0,642 | 678 | 562 | 781 | 676 |
| 1x500/35 | 46,5 | 2450 | 500 | 0,0605 | 0,0774 | 0,461 | 0,282 | 0,667 | 762 | 633 | 883 | 772 |
| 1x630/35 | 50,0 | 2900 | 500 | 0,0469 | 0,0600 | 0,445 | 0,275 | 0,739 | 858 | 712 | 1007 | 882 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y, AL/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

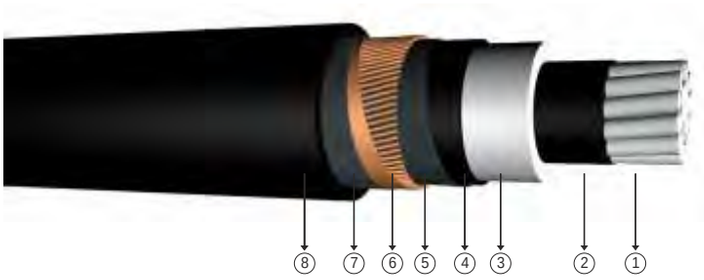
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 25,5 | 550 | 1000 | 0,868 | 1,1110 | 0,667 | 0,406 | 0,223 | - | - | - | - |
| 1x50/16 | 27,0 | 600 | 1000 | 0,641 | 0,8205 | 0,642 | 0,387 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 28,5 | 700 | 1000 | 0,443 | 0,5670 | 0,611 | 0,366 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 30,0 | 800 | 1000 | 0,320 | 0,4096 | 0,586 | 0,350 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 32,0 | 900 | 1000 | 0,253 | 0,3238 | 0,568 | 0,338 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 33,5 | 1150 | 1000 | 0,206 | 0,2637 | 0,551 | 0,329 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 35,5 | 1250 | 1000 | 0,164 | 0,2099 | 0,534 | 0,319 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 38,0 | 1450 | 1000 | 0,125 | 0,1600 | 0,515 | 0,309 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 40,5 | 1700 | 1000 | 0,100 | 0,1280 | 0,498 | 0,301 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 43,5 | 2150 | 1000 | 0,0778 | 0,1009 | 0,478 | 0,291 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 47,0 | 2500 | 1000 | 0,0605 | 0,0774 | 0,462 | 0,284 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 50,5 | 2950 | 1000 | 0,0469 | 0,0600 | 0,446 | 0,276 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

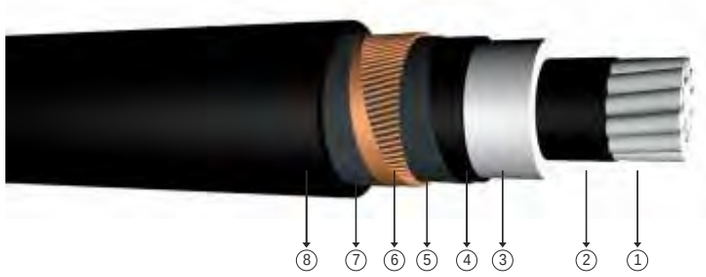
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 24,1 | 565 | 1000 | 0,868 | 1,1110 | 0,667 | 0,406 | 0,223 | - | - | - | - |
| 1x50/16 | 25,3 | 623 | 1000 | 0,641 | 0,8205 | 0,642 | 0,387 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 27,0 | 719 | 1000 | 0,443 | 0,5670 | 0,611 | 0,366 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 28,2 | 803 | 1000 | 0,320 | 0,4096 | 0,586 | 0,350 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 29,7 | 903 | 1000 | 0,253 | 0,3238 | 0,568 | 0,338 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 31,0 | 1084 | 1000 | 0,206 | 0,2637 | 0,551 | 0,329 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 32,8 | 1227 | 1000 | 0,164 | 0,2099 | 0,534 | 0,319 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 35,3 | 1434 | 1000 | 0,125 | 0,1600 | 0,515 | 0,309 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 37,7 | 1661 | 1000 | 0,100 | 0,1280 | 0,498 | 0,301 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 40,5 | 2041 | 1000 | 0,0778 | 0,1009 | 0,478 | 0,291 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 43,8 | 2402 | 1000 | 0,0605 | 0,0774 | 0,462 | 0,284 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 47,8 | 2900 | 1000 | 0,0469 | 0,0600 | 0,446 | 0,276 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y, AL/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

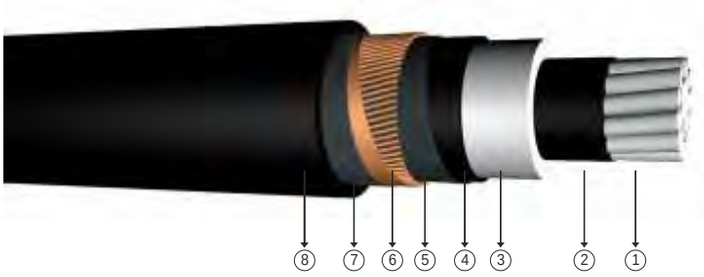
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,0 | 650 | 1000 | 0,868 | 1,1110 | 0,672 | 0,422 | 0,181 | - | - | - | - |
| 1x50/16 | 29,0 | 700 | 1000 | 0,641 | 0,8205 | 0,646 | 0,403 | 0,201 | 194 | 171 | 215 | 181 |
| 1x70/16 | 30,5 | 800 | 1000 | 0,443 | 0,5670 | 0,615 | 0,381 | 0,229 | 236 | 209 | 269 | 226 |
| 1x95/16 | 32,5 | 900 | 1000 | 0,320 | 0,4096 | 0,591 | 0,364 | 0,255 | 281 | 249 | 327 | 275 |
| 1x120/16 | 34,5 | 1050 | 1000 | 0,253 | 0,3238 | 0,572 | 0,353 | 0,278 | 318 | 283 | 377 | 317 |
| 1x150/25 | 35,5 | 1250 | 1000 | 0,206 | 0,2637 | 0,555 | 0,341 | 0,302 | 350 | 316 | 424 | 359 |
| 1x185/25 | 37,5 | 1400 | 1000 | 0,164 | 0,2099 | 0,539 | 0,332 | 0,328 | 393 | 358 | 485 | 412 |
| 1x240/25 | 40,5 | 1600 | 1000 | 0,125 | 0,1600 | 0,519 | 0,321 | 0,363 | 453 | 416 | 573 | 489 |
| 1x300/25 | 42,5 | 1800 | 1000 | 0,100 | 0,1280 | 0,502 | 0,311 | 0,398 | 507 | 469 | 652 | 559 |
| 1x400/35 | 46,0 | 2300 | 1000 | 0,0778 | 0,1009 | 0,482 | 0,301 | 0,447 | 559 | 532 | 741 | 651 |
| 1x500/35 | 49,5 | 2650 | 1000 | 0,0605 | 0,0774 | 0,466 | 0,293 | 0,491 | 622 | 599 | 838 | 744 |
| 1x630/35 | 53,0 | 3100 | 1000 | 0,0469 | 0,0600 | 0,450 | 0,285 | 0,543 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y, AL/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

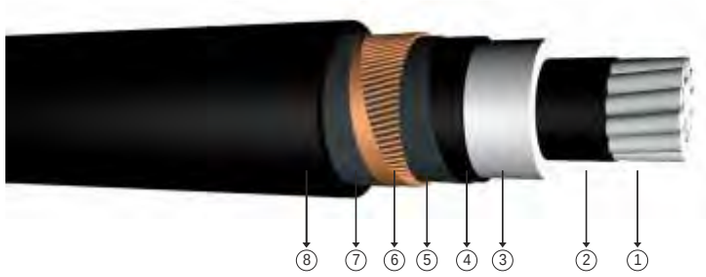
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 30,0 | 700 | 1000 | 0,868 | 1,1110 | 0,676 | 0,436 | 0,157 | - | - | - | - |
| 1x50/16 | 31,0 | 800 | 1000 | 0,641 | 0,8205 | 0,650 | 0,416 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 33,0 | 900 | 1000 | 0,443 | 0,5670 | 0,619 | 0,394 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 34,5 | 1000 | 1000 | 0,320 | 0,4096 | 0,595 | 0,377 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 36,5 | 1150 | 1000 | 0,253 | 0,3238 | 0,576 | 0,365 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 38,0 | 1350 | 1000 | 0,206 | 0,2637 | 0,559 | 0,353 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 40,0 | 1500 | 1000 | 0,164 | 0,2099 | 0,543 | 0,343 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 42,5 | 1700 | 1000 | 0,125 | 0,1600 | 0,523 | 0,330 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 44,5 | 1950 | 1000 | 0,100 | 0,1280 | 0,506 | 0,321 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 48,0 | 2400 | 1000 | 0,0778 | 0,1009 | 0,485 | 0,309 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 51,0 | 2800 | 1000 | 0,0605 | 0,0774 | 0,469 | 0,300 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 55,0 | 3250 | 1000 | 0,0469 | 0,0600 | 0,452 | 0,292 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

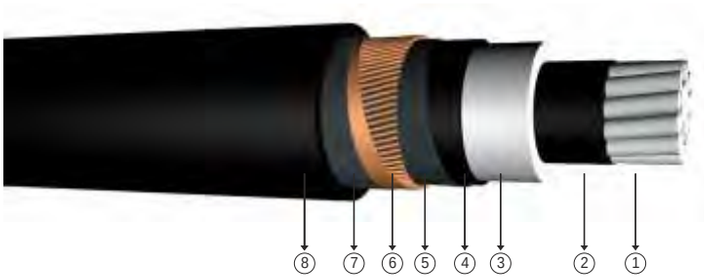
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 28,3 | 709 | 1000 | 0,868 | 1,1110 | 0,676 | 0,436 | 0,157 | - | - | - | - |
| 1x50/16 | 29,5 | 775 | 1000 | 0,641 | 0,8205 | 0,650 | 0,416 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 31,2 | 885 | 1000 | 0,443 | 0,5670 | 0,619 | 0,394 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 32,8 | 991 | 1000 | 0,320 | 0,4096 | 0,595 | 0,377 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 33,9 | 1082 | 1000 | 0,253 | 0,3238 | 0,576 | 0,365 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 35,2 | 1273 | 1000 | 0,206 | 0,2637 | 0,559 | 0,353 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 37,0 | 1426 | 1000 | 0,164 | 0,2099 | 0,543 | 0,343 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 39,5 | 1648 | 1000 | 0,125 | 0,1600 | 0,523 | 0,330 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 41,6 | 1867 | 1000 | 0,100 | 0,1280 | 0,506 | 0,321 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 44,5 | 2271 | 1000 | 0,0778 | 0,1009 | 0,485 | 0,309 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 48,0 | 2668 | 1000 | 0,0605 | 0,0774 | 0,469 | 0,300 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 52,0 | 3191 | 1000 | 0,0469 | 0,0600 | 0,452 | 0,292 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y, AL/XLPE/WBT/CWS/WBT/PE

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

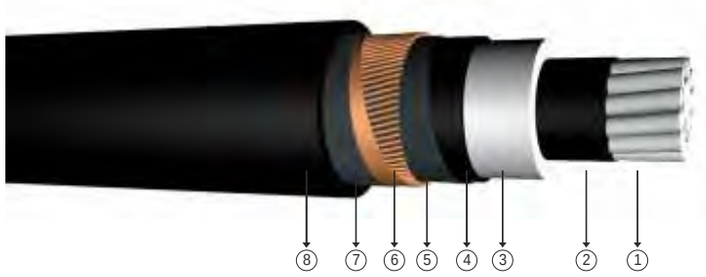
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 35,0 | 900 | 1000 | 0,868 | 1,1110 | 0,686 | 0,467 | 0,123 | - | - | - | - |
| 1x50/16 | 36,5 | 1000 | 1000 | 0,641 | 0,8205 | 0,660 | 0,448 | 0,135 | 146 | 175 | 217 | 187 |
| 1x70/16 | 38,0 | 1150 | 1000 | 0,443 | 0,5670 | 0,629 | 0,423 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 40,0 | 1250 | 1000 | 0,320 | 0,4096 | 0,605 | 0,405 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 42,0 | 1400 | 1000 | 0,253 | 0,3238 | 0,586 | 0,391 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 43,5 | 1650 | 1000 | 0,206 | 0,2637 | 0,568 | 0,379 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 45,0 | 1800 | 1000 | 0,164 | 0,2099 | 0,552 | 0,367 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 48,0 | 2050 | 1000 | 0,125 | 0,1600 | 0,532 | 0,354 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 50,0 | 2300 | 1000 | 0,100 | 0,1280 | 0,515 | 0,343 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 53,5 | 2800 | 1000 | 0,0778 | 0,1009 | 0,494 | 0,330 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 56,5 | 3200 | 1000 | 0,0605 | 0,0774 | 0,478 | 0,320 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 60,5 | 3700 | 1000 | 0,0469 | 0,0600 | 0,461 | 0,310 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

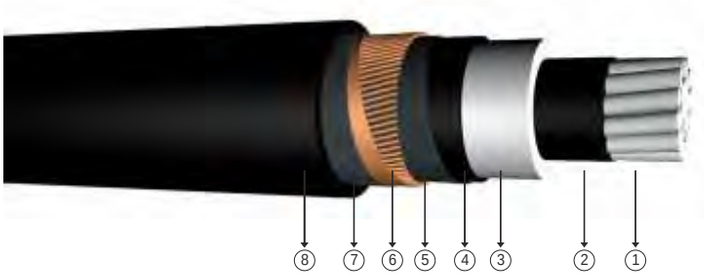
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x50/16 | 34,2 | 974 | 1000 | 0,641 | 0,8205 | 0,660 | 0,448 | 0,135 | 146 | 175 | 217 | 187 |
| 1x70/16 | 35,8 | 1088 | 1000 | 0,443 | 0,5670 | 0,629 | 0,423 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 37,4 | 1210 | 1000 | 0,320 | 0,4096 | 0,605 | 0,405 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 38,9 | 1331 | 1000 | 0,253 | 0,3238 | 0,586 | 0,391 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 40,2 | 1530 | 1000 | 0,206 | 0,2637 | 0,568 | 0,379 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 42,0 | 1693 | 1000 | 0,164 | 0,2099 | 0,552 | 0,367 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 44,5 | 1932 | 1000 | 0,125 | 0,1600 | 0,532 | 0,354 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 46,6 | 2170 | 1000 | 0,100 | 0,1280 | 0,515 | 0,343 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 49,5 | 2597 | 1000 | 0,0778 | 0,1009 | 0,494 | 0,330 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 53,0 | 3015 | 1000 | 0,0605 | 0,0774 | 0,478 | 0,320 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 57,0 | 3567 | 1000 | 0,0469 | 0,0600 | 0,461 | 0,310 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(F)2Y, AL/XLPE/WBT/CWS/WBT/PE

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

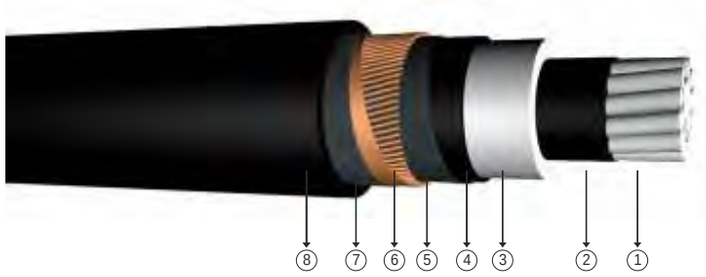
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 37,5 | 1000 | 1000 | 0,868 | 1,1110 | 0,690 | 0,480 | 0,115 | - | - | - | - |
| 1x50/16 | 38,5 | 1100 | 1000 | 0,641 | 0,8205 | 0,664 | 0,459 | 0,125 | 196 | 175 | 217 | 187 |
| 1x70/16 | 40,5 | 1250 | 1000 | 0,443 | 0,5670 | 0,633 | 0,434 | 0,140 | 238 | 214 | 270 | 232 |
| 1x95/16 | 42,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,609 | 0,416 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 44,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,590 | 0,401 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 45,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,572 | 0,389 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 47,5 | 1950 | 1000 | 0,164 | 0,2099 | 0,556 | 0,376 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 50,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,535 | 0,363 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 52,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,519 | 0,351 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 55,5 | 2950 | 1000 | 0,0778 | 0,1009 | 0,497 | 0,338 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 59,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,481 | 0,328 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 62,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,464 | 0,317 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, single core cables with, aluminium conductor



Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

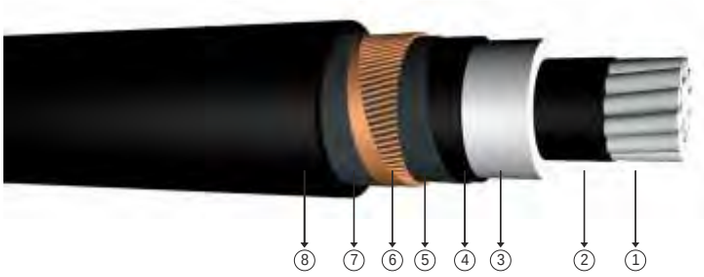
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 24,0 | 500 | 1000 | 0,868 | 1,1110 | 0,663 | 0,391 | 0,283 | - | - | - | - |
| 1x50/16 | 25,0 | 550 | 1000 | 0,641 | 0,8205 | 0,638 | 0,374 | 0,318 | 186 | 178 | 233 | 188 |
| 1x70/16 | 26,5 | 650 | 1000 | 0,443 | 0,5670 | 0,607 | 0,353 | 0,368 | 234 | 217 | 280 | 235 |
| 1x95/16 | 28,5 | 750 | 1000 | 0,320 | 0,4096 | 0,583 | 0,338 | 0,414 | 287 | 259 | 344 | 286 |
| 1x120/16 | 30,0 | 850 | 1000 | 0,253 | 0,3238 | 0,564 | 0,327 | 0,455 | 338 | 298 | 392 | 329 |
| 1x150/25 | 31,5 | 1050 | 1000 | 0,206 | 0,2637 | 0,547 | 0,317 | 0,499 | 388 | 333 | 441 | 376 |
| 1x185/25 | 33,5 | 1200 | 1000 | 0,164 | 0,2099 | 0,531 | 0,309 | 0,544 | 449 | 377 | 510 | 428 |
| 1x240/25 | 36,5 | 1400 | 1000 | 0,125 | 0,1600 | 0,511 | 0,299 | 0,587 | 530 | 438 | 587 | 508 |
| 1x300/25 | 39,0 | 1600 | 1000 | 0,100 | 0,1280 | 0,446 | 0,294 | 0,603 | 605 | 495 | 682 | 586 |
| 1x400/35 | 43,0 | 2100 | 1000 | 0,0778 | 0,1009 | 0,476 | 0,287 | 0,642 | 678 | 562 | 781 | 676 |
| 1x500/35 | 46,5 | 2450 | 500 | 0,0605 | 0,0774 | 0,461 | 0,282 | 0,667 | 762 | 633 | 883 | 772 |
| 1x630/35 | 50,0 | 2900 | 500 | 0,0469 | 0,0600 | 0,445 | 0,275 | 0,739 | 858 | 712 | 1007 | 882 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 6/10 kV
6,35/11 kV
Min. bending radius : 15 x D
D : Cable outer diameter

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

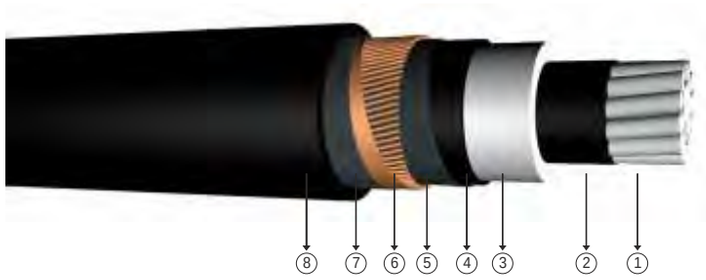
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 25,5 | 550 | 1000 | 0,868 | 1,1110 | 0,667 | 0,406 | 0,223 | - | - | - | - |
| 1x50/16 | 27,0 | 600 | 1000 | 0,641 | 0,8205 | 0,642 | 0,387 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 28,5 | 700 | 1000 | 0,443 | 0,5670 | 0,611 | 0,366 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 30,0 | 800 | 1000 | 0,320 | 0,4096 | 0,586 | 0,350 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 32,0 | 900 | 1000 | 0,253 | 0,3238 | 0,568 | 0,338 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 33,5 | 1150 | 1000 | 0,206 | 0,2637 | 0,551 | 0,329 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 35,5 | 1250 | 1000 | 0,164 | 0,2099 | 0,534 | 0,319 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 38,0 | 1450 | 1000 | 0,125 | 0,1600 | 0,515 | 0,309 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 40,5 | 1700 | 1000 | 0,100 | 0,1280 | 0,498 | 0,301 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 43,5 | 2150 | 1000 | 0,0778 | 0,1009 | 0,478 | 0,291 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 47,0 | 2500 | 1000 | 0,0605 | 0,0774 | 0,462 | 0,284 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 50,5 | 2950 | 1000 | 0,0469 | 0,0600 | 0,446 | 0,276 | 0,699 | 697 | 679 | 957 | 851 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 6/10 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

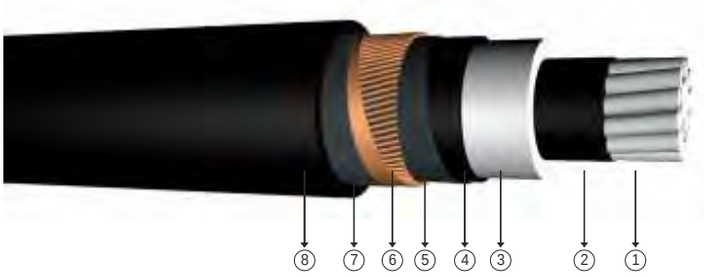
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 23,5 | 561 | 1000 | 0,868 | 1,1110 | 0,667 | 0,406 | 0,223 | - | - | - | - |
| 1x50/16 | 24,5 | 612 | 1000 | 0,641 | 0,8205 | 0,642 | 0,387 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 26,0 | 700 | 1000 | 0,443 | 0,5670 | 0,611 | 0,366 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 27,2 | 787 | 1000 | 0,320 | 0,4096 | 0,586 | 0,350 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 29,0 | 895 | 1000 | 0,253 | 0,3238 | 0,568 | 0,338 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 30,0 | 1064 | 1000 | 0,206 | 0,2637 | 0,551 | 0,329 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 32,0 | 1213 | 1000 | 0,164 | 0,2099 | 0,534 | 0,319 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 34,3 | 1409 | 1000 | 0,125 | 0,1600 | 0,515 | 0,309 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 37,0 | 1652 | 1000 | 0,100 | 0,1280 | 0,498 | 0,301 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 39,5 | 2014 | 1000 | 0,0778 | 0,1009 | 0,478 | 0,291 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 42,8 | 2372 | 1000 | 0,0605 | 0,0774 | 0,462 | 0,284 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 46,8 | 2868 | 1000 | 0,0469 | 0,0600 | 0,446 | 0,276 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

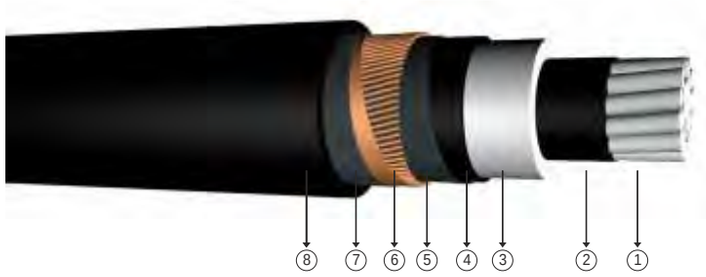
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 28,0 | 650 | 1000 | 0,868 | 1,1110 | 0,672 | 0,422 | 0,181 | - | - | - | - |
| 1x50/16 | 29,0 | 700 | 1000 | 0,641 | 0,8205 | 0,646 | 0,403 | 0,201 | 194 | 171 | 215 | 181 |
| 1x70/16 | 30,5 | 800 | 1000 | 0,443 | 0,5670 | 0,615 | 0,381 | 0,229 | 236 | 209 | 269 | 226 |
| 1x95/16 | 32,5 | 900 | 1000 | 0,320 | 0,4096 | 0,591 | 0,364 | 0,255 | 281 | 249 | 327 | 275 |
| 1x120/16 | 34,5 | 1050 | 1000 | 0,253 | 0,3238 | 0,572 | 0,353 | 0,278 | 318 | 283 | 377 | 317 |
| 1x150/25 | 35,5 | 1250 | 1000 | 0,206 | 0,2637 | 0,555 | 0,341 | 0,302 | 350 | 316 | 424 | 359 |
| 1x185/25 | 37,5 | 1400 | 1000 | 0,164 | 0,2099 | 0,539 | 0,332 | 0,328 | 393 | 358 | 485 | 412 |
| 1x240/25 | 40,5 | 1600 | 1000 | 0,125 | 0,1600 | 0,519 | 0,321 | 0,363 | 453 | 416 | 573 | 489 |
| 1x300/25 | 42,5 | 1800 | 1000 | 0,100 | 0,1280 | 0,502 | 0,311 | 0,398 | 507 | 469 | 652 | 559 |
| 1x400/35 | 46,0 | 2300 | 1000 | 0,0778 | 0,1009 | 0,482 | 0,301 | 0,447 | 559 | 532 | 741 | 651 |
| 1x500/35 | 49,5 | 2650 | 1000 | 0,0605 | 0,0774 | 0,466 | 0,293 | 0,491 | 622 | 599 | 838 | 744 |
| 1x630/35 | 53,0 | 3100 | 1000 | 0,0469 | 0,0600 | 0,450 | 0,285 | 0,543 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870 - 4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

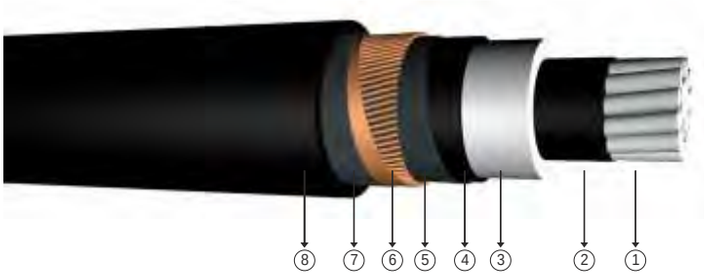
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 30,0 | 700 | 1000 | 0,868 | 1,1110 | 0,676 | 0,436 | 0,157 | - | - | - | - |
| 1x50/16 | 31,0 | 800 | 1000 | 0,641 | 0,8205 | 0,650 | 0,416 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 33,0 | 900 | 1000 | 0,443 | 0,5670 | 0,619 | 0,394 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 34,5 | 1000 | 1000 | 0,320 | 0,4096 | 0,595 | 0,377 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 36,5 | 1150 | 1000 | 0,253 | 0,3238 | 0,576 | 0,365 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 38,0 | 1350 | 1000 | 0,206 | 0,2637 | 0,559 | 0,353 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 40,0 | 1500 | 1000 | 0,164 | 0,2099 | 0,543 | 0,343 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 42,5 | 1700 | 1000 | 0,125 | 0,1600 | 0,523 | 0,330 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 44,5 | 1950 | 1000 | 0,100 | 0,1280 | 0,506 | 0,321 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 48,0 | 2400 | 1000 | 0,0778 | 0,1009 | 0,485 | 0,309 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 51,0 | 2800 | 1000 | 0,0605 | 0,0774 | 0,469 | 0,300 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 55,0 | 3250 | 1000 | 0,0469 | 0,0600 | 0,452 | 0,292 | 0,455 | 719 | 686 | 953 | 850 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 12/20 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

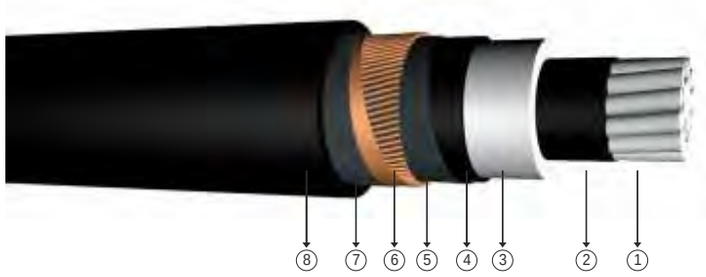
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | In ground at 20ºC | | In air at 30ºC | |
| | | | | | | | | | *** | *** | *** | *** |
| 1x35/16 | 28,0 | 721 | 1000 | 0,868 | 1,1110 | 0,676 | 0,436 | 0,157 | - | - | - | - |
| 1x50/16 | 29,0 | 776 | 1000 | 0,641 | 0,8205 | 0,650 | 0,416 | 0,174 | 195 | 173 | 217 | 184 |
| 1x70/16 | 31,0 | 897 | 1000 | 0,443 | 0,5670 | 0,619 | 0,394 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 32,0 | 977 | 1000 | 0,320 | 0,4096 | 0,595 | 0,377 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 33,0 | 1064 | 1000 | 0,253 | 0,3238 | 0,576 | 0,365 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 34,2 | 1248 | 1000 | 0,206 | 0,2637 | 0,559 | 0,353 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 36,0 | 1401 | 1000 | 0,164 | 0,2099 | 0,543 | 0,343 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 39,0 | 1650 | 1000 | 0,125 | 0,1600 | 0,523 | 0,330 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 41,0 | 1863 | 1000 | 0,100 | 0,1280 | 0,506 | 0,321 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 44,5 | 2307 | 1000 | 0,0778 | 0,1009 | 0,485 | 0,309 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 47,5 | 2671 | 1000 | 0,0605 | 0,0774 | 0,469 | 0,300 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 51,0 | 3157 | 1000 | 0,0469 | 0,0600 | 0,452 | 0,292 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: IEC 60502-2, BS 7870 - 4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

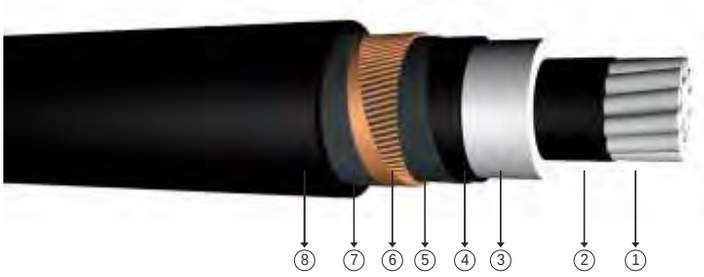
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 35,0 | 900 | 1000 | 0,868 | 1,1110 | 0,686 | 0,467 | 0,123 | - | - | - | - |
| 1x50/16 | 36,5 | 1000 | 1000 | 0,641 | 0,8205 | 0,660 | 0,448 | 0,135 | 146 | 175 | 217 | 187 |
| 1x70/16 | 38,0 | 1150 | 1000 | 0,443 | 0,5670 | 0,629 | 0,423 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 40,0 | 1250 | 1000 | 0,320 | 0,4096 | 0,605 | 0,405 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 42,0 | 1400 | 1000 | 0,253 | 0,3238 | 0,586 | 0,391 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 43,5 | 1650 | 1000 | 0,206 | 0,2637 | 0,568 | 0,379 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 45,0 | 1800 | 1000 | 0,164 | 0,2099 | 0,552 | 0,367 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 48,0 | 2050 | 1000 | 0,125 | 0,1600 | 0,532 | 0,354 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 50,0 | 2300 | 1000 | 0,100 | 0,1280 | 0,515 | 0,343 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 53,5 | 2800 | 1000 | 0,0778 | 0,1009 | 0,494 | 0,330 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 56,5 | 3200 | 1000 | 0,0605 | 0,0774 | 0,478 | 0,320 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 60,5 | 3700 | 1000 | 0,0469 | 0,0600 | 0,461 | 0,310 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

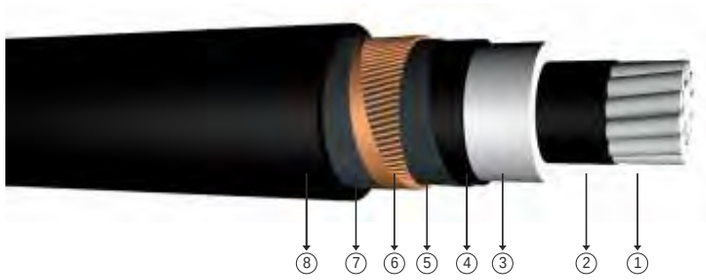
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x50/16 | 33,2 | 950 | 1000 | 0,641 | 0,8205 | 0,660 | 0,448 | 0,135 | 146 | 175 | 217 | 187 |
| 1x70/16 | 35,0 | 1073 | 1000 | 0,443 | 0,5670 | 0,629 | 0,423 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 36,4 | 1185 | 1000 | 0,320 | 0,4096 | 0,605 | 0,405 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 38,0 | 1310 | 1000 | 0,253 | 0,3238 | 0,586 | 0,391 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 39,2 | 1503 | 1000 | 0,206 | 0,2637 | 0,568 | 0,379 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 41,0 | 1664 | 1000 | 0,164 | 0,2099 | 0,552 | 0,367 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 43,5 | 1902 | 1000 | 0,125 | 0,1600 | 0,532 | 0,354 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 46,5 | 2201 | 1000 | 0,100 | 0,1280 | 0,515 | 0,343 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 49,5 | 2636 | 1000 | 0,0778 | 0,1009 | 0,494 | 0,330 | 0,276 | 572 | 545 | 737 | 654 |
| 1x500/35 | 52,5 | 3023 | 1000 | 0,0605 | 0,0774 | 0,478 | 0,320 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 56,0 | 3529 | 1000 | 0,0469 | 0,0600 | 0,461 | 0,310 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, single core cables with aluminium conductor



Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

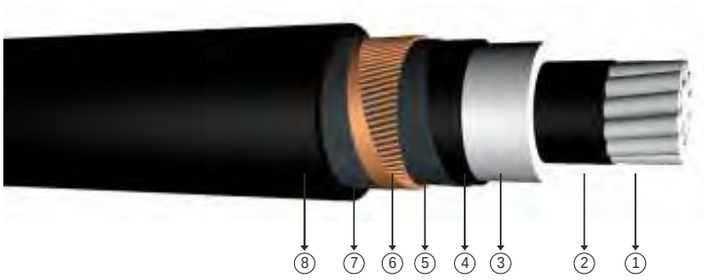
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 37,5 | 1000 | 1000 | 0,868 | 1,1110 | 0,690 | 0,480 | 0,115 | - | - | - | - |
| 1x50/16 | 38,5 | 1100 | 1000 | 0,641 | 0,8205 | 0,664 | 0,459 | 0,125 | 196 | 175 | 217 | 187 |
| 1x70/16 | 40,5 | 1250 | 1000 | 0,443 | 0,5670 | 0,633 | 0,434 | 0,140 | 238 | 214 | 270 | 232 |
| 1x95/16 | 42,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,609 | 0,416 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 44,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,590 | 0,401 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 45,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,572 | 0,389 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 47,5 | 1950 | 1000 | 0,164 | 0,2099 | 0,556 | 0,376 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 50,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,535 | 0,363 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 52,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,519 | 0,351 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 55,5 | 2950 | 1000 | 0,0778 | 0,1009 | 0,497 | 0,338 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 59,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,481 | 0,328 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 62,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,464 | 0,317 | 0,300 | 728 | 690 | 950 | 851 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 3,6/6 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

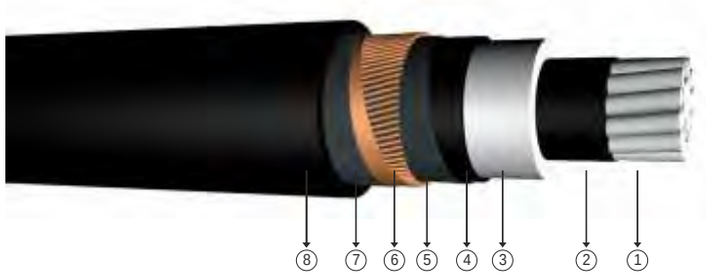
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 25,0 | 550 | 1000 | 0,868 | 1,1110 | 0,665 | 0,399 | 0,283 | - | - | - | - |
| 1x50/16 | 26,0 | 650 | 1000 | 0,641 | 0,8205 | 0,640 | 0,381 | 0,318 | 186 | 178 | 233 | 188 |
| 1x70/16 | 27,5 | 700 | 1000 | 0,443 | 0,5670 | 0,609 | 0,361 | 0,368 | 234 | 217 | 280 | 235 |
| 1x95/16 | 29,5 | 850 | 1000 | 0,320 | 0,4096 | 0,585 | 0,345 | 0,414 | 287 | 259 | 344 | 286 |
| 1x120/16 | 31,0 | 950 | 1000 | 0,253 | 0,3238 | 0,566 | 0,333 | 0,455 | 338 | 298 | 392 | 329 |
| 1x150/25 | 32,5 | 1100 | 1000 | 0,206 | 0,2637 | 0,549 | 0,323 | 0,499 | 388 | 333 | 441 | 376 |
| 1x185/25 | 34,5 | 1250 | 1000 | 0,164 | 0,2099 | 0,533 | 0,315 | 0,544 | 449 | 377 | 510 | 428 |
| 1x240/25 | 37,5 | 1500 | 1000 | 0,125 | 0,1600 | 0,513 | 0,306 | 0,587 | 530 | 438 | 587 | 508 |
| 1x300/25 | 40,0 | 1750 | 1000 | 0,100 | 0,1280 | 0,498 | 0,300 | 0,603 | 605 | 495 | 682 | 586 |
| 1x400/35 | 44,0 | 2200 | 1000 | 0,0778 | 0,1009 | 0,478 | 0,292 | 0,642 | 678 | 562 | 781 | 676 |
| 1x500/35 | 47,5 | 2600 | 1000 | 0,0605 | 0,0774 | 0,463 | 0,286 | 0,667 | 762 | 633 | 883 | 772 |
| 1x630/35 | 51,5 | 3050 | 1000 | 0,0469 | 0,0600 | 0,447 | 0,278 | 0,739 | 858 | 712 | 1007 | 882 |
| | | | | | | | | | | | | |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

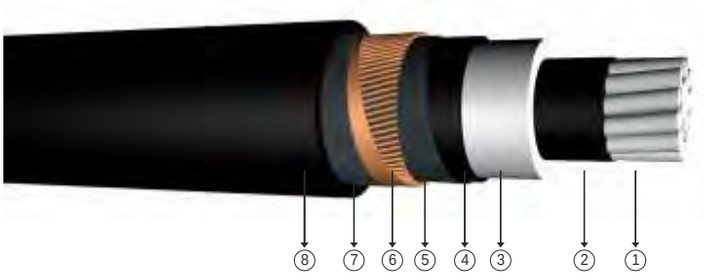
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 26,5 | 600 | 1000 | 0,868 | 1,1110 | 0,669 | 0,413 | 0,223 | - | - | - | - |
| 1x50/16 | 28,0 | 700 | 1000 | 0,641 | 0,8205 | 0,644 | 0,395 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 29,5 | 800 | 1000 | 0,443 | 0,5670 | 0,613 | 0,373 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 31,0 | 900 | 1000 | 0,320 | 0,4096 | 0,588 | 0,357 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 33,0 | 1000 | 1000 | 0,253 | 0,3238 | 0,570 | 0,346 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 34,5 | 1200 | 1000 | 0,206 | 0,2637 | 0,552 | 0,335 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 36,5 | 1350 | 1000 | 0,164 | 0,2099 | 0,537 | 0,326 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 39,0 | 1550 | 1000 | 0,125 | 0,1600 | 0,516 | 0,314 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 41,5 | 1800 | 1000 | 0,100 | 0,1280 | 0,500 | 0,305 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 44,5 | 2250 | 1000 | 0,0778 | 0,1009 | 0,479 | 0,295 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 48,0 | 2650 | 1000 | 0,0605 | 0,0774 | 0,463 | 0,288 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 52,0 | 3100 | 1000 | 0,0469 | 0,0600 | 0,447 | 0,280 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

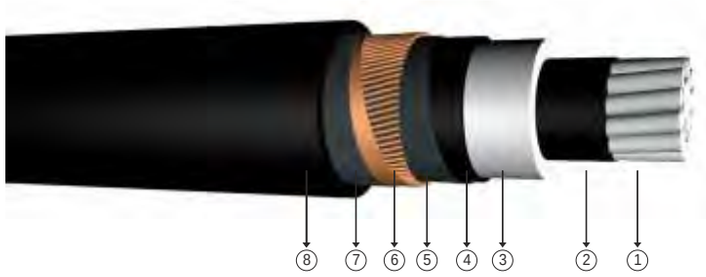
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | μF/km | *** | *** | *** | *** |
| 1x35/16 | 24,7 | 612 | 1000 | 0,868 | 1,1110 | 0,669 | 0,413 | 0,223 | - | - | - | - |
| 1x50/16 | 25,9 | 672 | 1000 | 0,641 | 0,8205 | 0,644 | 0,395 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 27,6 | 772 | 1000 | 0,443 | 0,5670 | 0,613 | 0,373 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 28,8 | 858 | 1000 | 0,320 | 0,4096 | 0,588 | 0,357 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 30,3 | 962 | 1000 | 0,253 | 0,3238 | 0,570 | 0,346 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 31,6 | 1146 | 1000 | 0,206 | 0,2637 | 0,552 | 0,335 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 33,4 | 1292 | 1000 | 0,164 | 0,2099 | 0,537 | 0,326 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 35,8 | 1505 | 1000 | 0,125 | 0,1600 | 0,516 | 0,314 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 38,3 | 1738 | 1000 | 0,100 | 0,1280 | 0,500 | 0,305 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 41,1 | 2124 | 1000 | 0,0778 | 0,1009 | 0,479 | 0,295 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 44,4 | 2491 | 1000 | 0,0605 | 0,0774 | 0,463 | 0,288 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 48,4 | 2999 | 1000 | 0,0469 | 0,0600 | 0,447 | 0,280 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

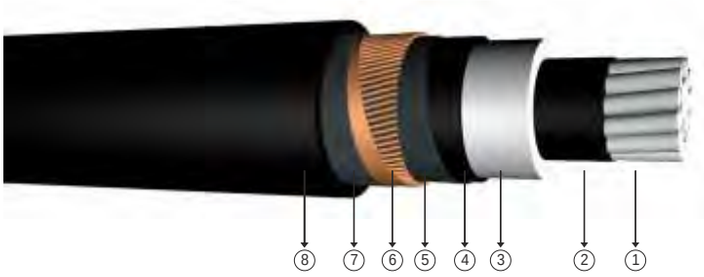
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 29,0 | 700 | 1000 | 0,868 | 1,1110 | 0,674 | 0,429 | 0,181 | - | - | - | - |
| 1x50/16 | 30,0 | 750 | 1000 | 0,641 | 0,8205 | 0,648 | 0,410 | 0,201 | 194 | 171 | 215 | 181 |
| 1x70/16 | 31,5 | 900 | 1000 | 0,443 | 0,5670 | 0,617 | 0,387 | 0,229 | 236 | 209 | 269 | 226 |
| 1x95/16 | 33,5 | 1000 | 1000 | 0,320 | 0,4096 | 0,593 | 0,371 | 0,255 | 281 | 249 | 327 | 275 |
| 1x120/16 | 35,5 | 1100 | 1000 | 0,253 | 0,3238 | 0,574 | 0,358 | 0,278 | 318 | 283 | 377 | 317 |
| 1x150/25 | 37,0 | 1350 | 1000 | 0,206 | 0,2637 | 0,557 | 0,348 | 0,302 | 350 | 316 | 424 | 359 |
| 1x185/25 | 39,0 | 1450 | 1000 | 0,164 | 0,2099 | 0,541 | 0,337 | 0,328 | 393 | 358 | 485 | 412 |
| 1x240/25 | 41,5 | 1700 | 1000 | 0,125 | 0,1600 | 0,521 | 0,326 | 0,363 | 453 | 416 | 573 | 489 |
| 1x300/25 | 44,0 | 1950 | 1000 | 0,100 | 0,1280 | 0,504 | 0,316 | 0,398 | 507 | 469 | 652 | 559 |
| 1x400/35 | 47,0 | 2400 | 1000 | 0,0778 | 0,1009 | 0,483 | 0,305 | 0,447 | 559 | 532 | 741 | 651 |
| 1x500/35 | 50,5 | 2800 | 1000 | 0,0605 | 0,0774 | 0,467 | 0,297 | 0,491 | 622 | 599 | 838 | 744 |
| 1x630/35 | 54,0 | 3250 | 1000 | 0,0469 | 0,0600 | 0,451 | 0,289 | 0,543 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

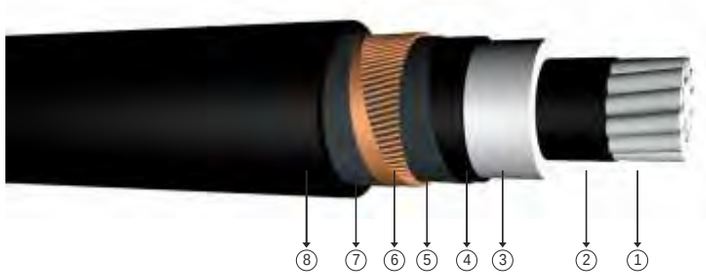
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 31,0 | 750 | 1000 | 0,868 | 1,1110 | 0,678 | 0,442 | 0,157 | - | - | - | - |
| 1x50/16 | 32,0 | 850 | 1000 | 0,641 | 0,8205 | 0,652 | 0,424 | 0,174 | 194 | 173 | 217 | 184 |
| 1x70/16 | 34,0 | 950 | 1000 | 0,443 | 0,5670 | 0,621 | 0,400 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 35,5 | 1100 | 1000 | 0,320 | 0,4096 | 0,597 | 0,384 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 37,5 | 1200 | 1000 | 0,253 | 0,3238 | 0,578 | 0,370 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 39,0 | 1450 | 1000 | 0,206 | 0,2637 | 0,561 | 0,359 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 41,0 | 1600 | 1000 | 0,164 | 0,2099 | 0,545 | 0,348 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 43,5 | 1850 | 1000 | 0,125 | 0,1600 | 0,525 | 0,336 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 45,5 | 2100 | 1000 | 0,100 | 0,1280 | 0,508 | 0,326 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 49,0 | 2550 | 1000 | 0,0778 | 0,1009 | 0,487 | 0,313 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 52,5 | 2950 | 1000 | 0,0605 | 0,0774 | 0,471 | 0,305 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 56,0 | 3400 | 1000 | 0,0469 | 0,0600 | 0,454 | 0,296 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

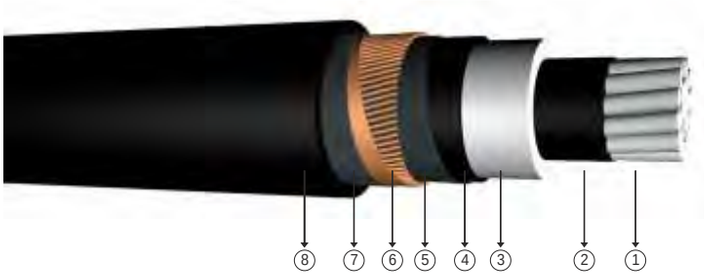
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 28,9 | 765 | 1000 | 0,868 | 1,1110 | 0,678 | 0,442 | 0,157 | - | - | - | - |
| 1x50/16 | 30,1 | 834 | 1000 | 0,641 | 0,8205 | 0,652 | 0,424 | 0,174 | 194 | 173 | 217 | 184 |
| 1x70/16 | 31,8 | 947 | 1000 | 0,443 | 0,5670 | 0,621 | 0,400 | 0,197 | 237 | 211 | 270 | 229 |
| 1x95/16 | 33,4 | 1056 | 1000 | 0,320 | 0,4096 | 0,597 | 0,384 | 0,218 | 282 | 252 | 328 | 278 |
| 1x120/16 | 34,5 | 1151 | 1000 | 0,253 | 0,3238 | 0,578 | 0,370 | 0,238 | 320 | 287 | 378 | 320 |
| 1x150/25 | 35,8 | 1344 | 1000 | 0,206 | 0,2637 | 0,561 | 0,359 | 0,258 | 353 | 320 | 425 | 363 |
| 1x185/25 | 37,6 | 1501 | 1000 | 0,164 | 0,2099 | 0,545 | 0,348 | 0,278 | 396 | 362 | 485 | 415 |
| 1x240/25 | 40,0 | 1728 | 1000 | 0,125 | 0,1600 | 0,525 | 0,336 | 0,308 | 457 | 421 | 573 | 493 |
| 1x300/25 | 42,2 | 1951 | 1000 | 0,100 | 0,1280 | 0,508 | 0,326 | 0,336 | 511 | 474 | 652 | 563 |
| 1x400/35 | 45,1 | 2363 | 1000 | 0,0778 | 0,1009 | 0,487 | 0,313 | 0,377 | 566 | 538 | 740 | 652 |
| 1x500/35 | 48,6 | 2767 | 1000 | 0,0605 | 0,0774 | 0,471 | 0,305 | 0,413 | 630 | 606 | 838 | 746 |
| 1x630/35 | 52,6 | 3299 | 1000 | 0,0469 | 0,0600 | 0,454 | 0,296 | 0,455 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: IEC 60502-2, BS 7870 - 4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

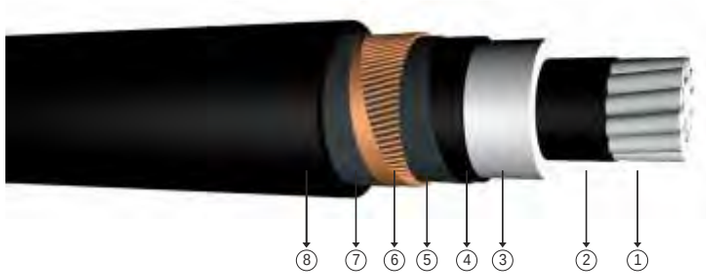
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x35/16 | 36,5 | 950 | 1000 | 0,868 | 1,1110 | 0,688 | 0,474 | 0,123 | - | - | - | - |
| 1x50/16 | 37,5 | 1100 | 1000 | 0,641 | 0,8205 | 0,662 | 0,453 | 0,135 | 196 | 175 | 217 | 187 |
| 1x70/16 | 39,5 | 1250 | 1000 | 0,443 | 0,5670 | 0,631 | 0,429 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 41,0 | 1350 | 1000 | 0,320 | 0,4096 | 0,607 | 0,410 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 43,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,588 | 0,397 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 44,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,570 | 0,383 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 46,5 | 1900 | 1000 | 0,164 | 0,2099 | 0,554 | 0,372 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 49,5 | 2150 | 1000 | 0,125 | 0,1600 | 0,534 | 0,359 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 51,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,517 | 0,347 | 0,248 | 516 | 478 | 649 | 564 |
| 1x400/35 | 55,0 | 2950 | 1000 | 0,0778 | 0,1009 | 0,495 | 0,334 | 0,276 | 592 | 545 | 737 | 654 |
| 1x500/35 | 58,0 | 3350 | 1000 | 0,0605 | 0,0774 | 0,479 | 0,324 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 62,0 | 3850 | 1000 | 0,0469 | 0,0600 | 0,463 | 0,314 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-620

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

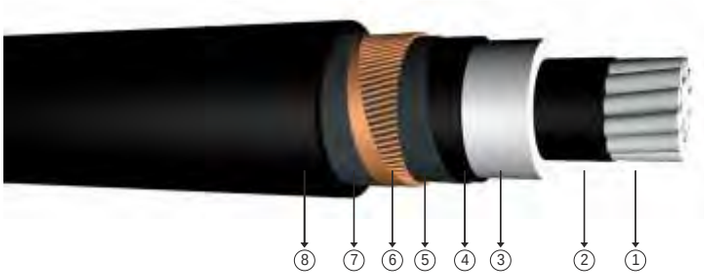
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x50/16 | 34,7 | 1042 | 1000 | 0,641 | 0,8205 | 0,662 | 0,453 | 0,135 | 196 | 175 | 217 | 187 |
| 1x70/16 | 36,4 | 1160 | 1000 | 0,443 | 0,5670 | 0,631 | 0,429 | 0,151 | 238 | 214 | 270 | 232 |
| 1x95/16 | 38,0 | 1286 | 1000 | 0,320 | 0,4096 | 0,607 | 0,410 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 39,5 | 1410 | 1000 | 0,253 | 0,3238 | 0,588 | 0,397 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 40,8 | 1612 | 1000 | 0,206 | 0,2637 | 0,570 | 0,383 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 42,6 | 1779 | 1000 | 0,164 | 0,2099 | 0,554 | 0,372 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 45,0 | 2024 | 1000 | 0,125 | 0,1600 | 0,534 | 0,359 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 47,2 | 2266 | 1000 | 0,100 | 0,1280 | 0,517 | 0,347 | 0,248 | 516 | 478 | 649 | 564 |
| 1x400/35 | 50,1 | 2699 | 1000 | 0,0778 | 0,1009 | 0,495 | 0,334 | 0,276 | 592 | 545 | 737 | 654 |
| 1x500/35 | 53,6 | 3125 | 1000 | 0,0605 | 0,0774 | 0,479 | 0,324 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 57,6 | 3686 | 1000 | 0,0469 | 0,0600 | 0,463 | 0,314 | 0,330 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| **** | : Trefoil formation |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Swellable tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 38,5 | 1100 | 1000 | 0,868 | 1,1110 | 0.692 | 0,486 | 0,115 | - | - | - | - |
| 1x50/16 | 39,5 | 1200 | 1000 | 0,641 | 0,8205 | 0.666 | 0,464 | 0,125 | 196 | 175 | 217 | 187 |
| 1x70/16 | 41,5 | 1350 | 1000 | 0,443 | 0,5670 | 0.635 | 0,439 | 0,140 | 238 | 214 | 270 | 232 |
| 1x95/16 | 43,0 | 1500 | 1000 | 0,320 | 0,4096 | 0.611 | 0,420 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 45,0 | 1650 | 1000 | 0,253 | 0,3238 | 0.591 | 0,405 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 46,5 | 1900 | 1000 | 0,206 | 0,2637 | 0.574 | 0,393 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 48,5 | 2050 | 1000 | 0,164 | 0,2099 | 0.558 | 0,381 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 51,0 | 2300 | 1000 | 0,125 | 0,1600 | 0.537 | 0,366 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 53,0 | 2600 | 1000 | 0,100 | 0,1280 | 0.520 | 0,355 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 56,5 | 3100 | 1000 | 0,0778 | 0,1009 | 0.499 | 0,341 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 60,0 | 3550 | 1000 | 0,0605 | 0,0774 | 0.483 | 0,331 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 63,5 | 4050 | 1000 | 0,0469 | 0,0600 | 0.466 | 0,320 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, round aluminium wire armoured, single core cables with aluminium conductor

Code: NA2XSYR(A)Y, AL/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 26,2 | 926 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,283 | - | - | - | - |
| 1x50/16 | 27,3 | 1000 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,318 | 186 | 178 | 233 | 188 |
| 1x70/16 | 29,0 | 1123 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,368 | 234 | 217 | 280 | 235 |
| 1x95/16 | 31,0 | 1270 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,414 | 287 | 259 | 344 | 286 |
| 1x120/16 | 32,3 | 1390 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,455 | 338 | 298 | 392 | 329 |
| 1x150/25 | 34,7 | 1705 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,499 | 388 | 333 | 441 | 376 |
| 1x185/25 | 36,6 | 1890 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,544 | 449 | 377 | 510 | 428 |
| 1x240/25 | 39,4 | 2177 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,587 | 530 | 438 | 587 | 508 |
| 1x300/25 | 41,8 | 2443 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,603 | 605 | 495 | 682 | 586 |
| 1x400/35 | 46,9 | 3159 | 500 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,642 | 678 | 562 | 781 | 676 |
| 1x500/35 | 50,6 | 3645 | 500 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,667 | 762 | 633 | 883 | 772 |
| 1x630/35 | 54,5 | 4291 | 500 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,739 | 858 | 712 | 1007 | 882 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 6/10 kV XLPE insulated, round aluminium wire armoured, single core cables with aluminium conductor

Code: NA2XSYR(A)Y, AL/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2, BS 6622

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 28,0 | 1015 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,223 | - | - | - | - |
| 1x50/16 | 29,3 | 1106 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,248 | 194 | 171 | 215 | 181 |
| 1x70/16 | 31,0 | 1230 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,285 | 236 | 209 | 269 | 226 |
| 1x95/16 | 32,9 | 1392 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,320 | 281 | 249 | 327 | 275 |
| 1x120/16 | 35,1 | 1600 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,350 | 318 | 283 | 377 | 317 |
| 1x150/25 | 36,7 | 1835 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,382 | 350 | 316 | 424 | 359 |
| 1x185/25 | 38,4 | 2013 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,415 | 393 | 358 | 485 | 412 |
| 1x240/25 | 41,0 | 2286 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,462 | 453 | 416 | 573 | 489 |
| 1x300/25 | 43,2 | 2556 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,507 | 507 | 469 | 652 | 559 |
| 1x400/35 | 47,7 | 3227 | 500 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,573 | 559 | 532 | 741 | 651 |
| 1x500/35 | 51,0 | 3674 | 500 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,631 | 622 | 599 | 838 | 744 |
| 1x630/35 | 55,0 | 4365 | 500 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,699 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, round aluminium wire armoured, single core cables with aluminium conductor

Code: NA2XSYR(A)Y, AL/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x35/16 | 30,4 | 1145 | 1000 | 0,868 | 1,1110 | 0,657 | 0,367 | 0,181 | - | - | - | - |
| 1x50/16 | 31,5 | 1224 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,201 | 194 | 171 | 215 | 181 |
| 1x70/16 | 33,4 | 1374 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,229 | 236 | 209 | 269 | 226 |
| 1x95/16 | 36,1 | 1628 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,255 | 281 | 249 | 327 | 275 |
| 1x120/16 | 37,6 | 1766 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,278 | 318 | 283 | 377 | 317 |
| 1x150/25 | 39,1 | 2008 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,302 | 350 | 316 | 424 | 359 |
| 1x185/25 | 40,8 | 2183 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,328 | 393 | 358 | 485 | 412 |
| 1x240/25 | 43,8 | 2477 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,363 | 453 | 416 | 573 | 489 |
| 1x300/25 | 46,8 | 2922 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,398 | 507 | 469 | 652 | 559 |
| 1x400/35 | 50,0 | 3446 | 500 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,447 | 559 | 532 | 741 | 651 |
| 1x500/35 | 53,6 | 3931 | 500 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,491 | 622 | 599 | 838 | 744 |
| 1x630/35 | 57,3 | 4588 | 500 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,543 | 697 | 679 | 957 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, round aluminium wire armoured, single core cables with aluminium conductor

Code: NA2XSYR(A)Y, AL/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2, BS 6622

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 32,6 | 1275 | 1000 | 0,868 | 1,111 | 0,657 | 0,367 | 0,123 | - | - | - | - |
| 1x50/16 | 34,5 | 1440 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,135 | 195 | 173 | 217 | 184 |
| 1x70/16 | 36,4 | 1610 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,151 | 237 | 211 | 270 | 229 |
| 1x95/16 | 38,1 | 1760 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,166 | 282 | 252 | 328 | 278 |
| 1x120/16 | 39,8 | 1915 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,180 | 320 | 287 | 378 | 320 |
| 1x150/25 | 41,1 | 2150 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,194 | 353 | 320 | 425 | 363 |
| 1x185/25 | 43,0 | 2355 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,208 | 396 | 362 | 485 | 415 |
| 1x240/25 | 46,8 | 2820 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,229 | 457 | 421 | 573 | 493 |
| 1x300/25 | 48,9 | 3110 | 1000 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,248 | 511 | 474 | 652 | 563 |
| 1x400/35 | 52,4 | 3670 | 500 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,276 | 566 | 538 | 740 | 652 |
| 1x500/35 | 55,8 | 4155 | 500 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,301 | 630 | 606 | 838 | 746 |
| 1x630/35 | 56,0 | 4845 | 500 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,330 | 719 | 686 | 953 | 850 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, round aluminium wire armoured, single core cables with aluminium conductor

Code: NA2XSYR(A)Y, AL/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502-2, BS 6622

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | **** mH/km | µF/km | *** | **** | *** | **** |
| 1x50/16 | 39,9 | 1815 | 1000 | 0,6410 | 0,8205 | 0,632 | 0,351 | 0,135 | 196 | 175 | 217 | 187 |
| 1x70/16 | 41,8 | 1990 | 1000 | 0,4430 | 0,5670 | 0,601 | 0,332 | 0,151 | 238 | 214 | 270 | 202 |
| 1x95/16 | 43,5 | 2165 | 1000 | 0,3200 | 0,4096 | 0,577 | 0,318 | 0,166 | 284 | 256 | 328 | 281 |
| 1x120/16 | 46,4 | 2499 | 1000 | 0,2530 | 0,3238 | 0,558 | 0,308 | 0,180 | 322 | 290 | 378 | 323 |
| 1x150/25 | 48,0 | 2769 | 1000 | 0,2060 | 0,2637 | 0,541 | 0,299 | 0,194 | 355 | 324 | 425 | 365 |
| 1x185/25 | 49,6 | 2977 | 1000 | 0,1640 | 0,2099 | 0,525 | 0,292 | 0,208 | 400 | 366 | 485 | 418 |
| 1x240/25 | 52,4 | 3332 | 1000 | 0,1250 | 0,1600 | 0,506 | 0,284 | 0,229 | 461 | 426 | 572 | 494 |
| 1x300/25 | 54,6 | 3640 | 500 | 0,1000 | 0,1280 | 0,490 | 0,279 | 0,248 | 516 | 479 | 649 | 564 |
| 1x400/35 | 58,0 | 4235 | 500 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,276 | 572 | 545 | 737 | 454 |
| 1x500/35 | 61,2 | 4748 | 500 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,301 | 638 | 614 | 835 | 747 |
| 1x630/35 | 66,0 | 5480 | 500 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,330 | 728 | 690 | 950 | 851 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
**** : Trefoil formation
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, round aluminium wire armoured, single core cables with aluminium conductor

Code: NA2XSYR(A)Y, AL/XLPE/CWS/PVC/AWA/PVC

Standards: HD 620 S3, TSE K 204

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

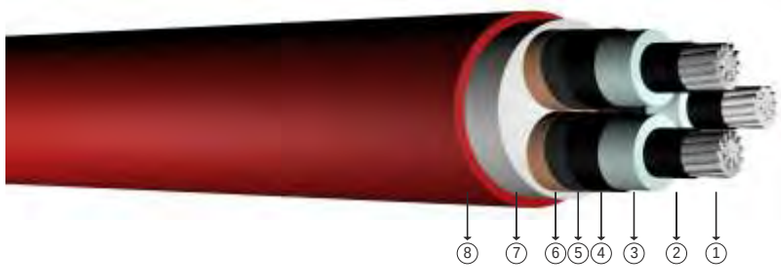
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. PP tape
8. PVC inner sheath
9. Round aluminium wire
10. PP tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | *** mH/km | µF/km | *** | *** | *** | *** |
| 1x35/16 | 42,0 | 1860 | 1000 | 0,868 | 1,111 | 0,657 | 0,367 | 0,115 | - | - | - | - |
| 1x50/16 | 44,1 | 1980 | 1000 | 0,641 | 0,8205 | 0,632 | 0,351 | 0,125 | 196 | 175 | 217 | 187 |
| 1x70/16 | 45,8 | 2140 | 1000 | 0,443 | 0,5670 | 0,601 | 0,332 | 0,140 | 238 | 214 | 270 | 202 |
| 1x95/16 | 48,2 | 2510 | 1000 | 0,320 | 0,4096 | 0,577 | 0,318 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 50,5 | 2698 | 1000 | 0,253 | 0,3238 | 0,558 | 0,308 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 52,1 | 2940 | 1000 | 0,206 | 0,2637 | 0,541 | 0,299 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 54,2 | 3210 | 1000 | 0,164 | 0,2099 | 0,525 | 0,292 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 56,6 | 3555 | 1000 | 0,125 | 0,1600 | 0,506 | 0,284 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 58,5 | 3845 | 500 | 0,100 | 0,1280 | 0,490 | 0,279 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 62,3 | 4475 | 500 | 0,0778 | 0,1009 | 0,471 | 0,275 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 65,8 | 5035 | 500 | 0,0605 | 0,0774 | 0,456 | 0,270 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 68,0 | 5755 | 500 | 0,0469 | 0,0600 | 0,440 | 0,264 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, three core cables with aluminium conductor



Code: YAXC8V-R, NA2XSEY, AL/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

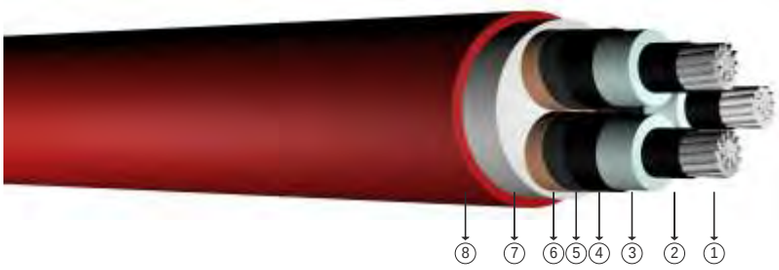
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 42,0 | 2050 | 1000 | 0,868 | 0,352 | 0,229 | - | - |
| 3x50/16 | 45,0 | 2400 | 1000 | 0,641 | 0,336 | 0,255 | 160 | 150 |
| 3x70/16 | 48,5 | 2850 | 1000 | 0,443 | 0,318 | 0,288 | 199 | 191 |
| 3x95/16 | 53,0 | 3400 | 1000 | 0,320 | 0,303 | 0,324 | 238 | 236 |
| 3x120/16 | 57,0 | 4000 | 1000 | 0,253 | 0,292 | 0,359 | 275 | 273 |
| 3x150/25 | 60,5 | 4500 | 1000 | 0,206 | 0,284 | 0,388 | 307 | 313 |
| 3x185/25 | 64,5 | 5150 | 500 | 0,164 | 0,276 | 0,424 | 349 | 360 |
| 3x240/25 | 71,0 | 6300 | 500 | 0,125 | 0,267 | 0,469 | 410 | 426 |
| 3x300/25 | 77,5 | 7600 | 500 | 0,100 | 0,263 | 0,486 | 460 | 528 |
| 3x400/35 | 86,0 | 9400 | 500 | 0,0778 | 0,257 | 0,521 | 520 | 564 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, three core cables with aluminium conductor



Code: YAXC8V-R, NA2XSEY, AL/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

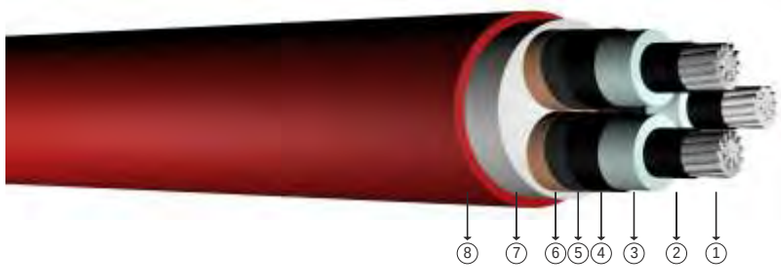
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 46,5 | 2450 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 49,5 | 2800 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 53,0 | 3300 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 57,5 | 3900 | 1000 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 61,5 | 4450 | 1000 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 64,5 | 5050 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 68,5 | 5700 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 75,0 | 6900 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 80,0 | 8000 | 500 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 88,0 | 9750 | 500 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, three core cables with aluminium conductor



Code: YAXC8V-R, NA2XSEY, AL/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

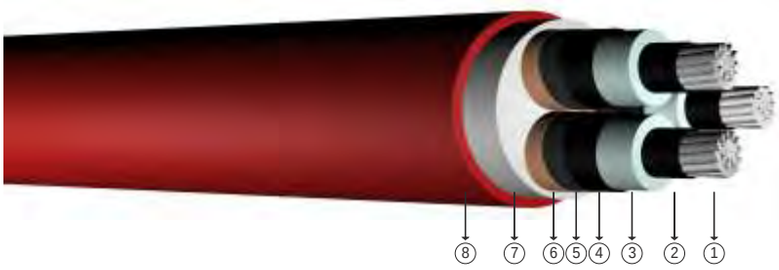
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 51,5 | 2950 | 1000 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 54,5 | 3400 | 1000 | 0,641 | 0,377 | 0,175 | 162 | 160 |
| 3x70/16 | 58,5 | 3900 | 1000 | 0,443 | 0,356 | 0,196 | 199 | 199 |
| 3x95/16 | 62,5 | 4500 | 1000 | 0,320 | 0,339 | 0,218 | 238 | 242 |
| 3x120/16 | 66,5 | 5100 | 500 | 0,253 | 0,325 | 0,240 | 271 | 280 |
| 3x150/25 | 69,5 | 5700 | 500 | 0,206 | 0,315 | 0,258 | 304 | 318 |
| 3x185/25 | 74,0 | 6500 | 500 | 0,164 | 0,305 | 0,280 | 345 | 365 |
| 3x240/25 | 80,0 | 7700 | 500 | 0,125 | 0,292 | 0,315 | 401 | 431 |
| 3x300/25 | 85,0 | 8800 | 500 | 0,100 | 0,284 | 0,343 | 453 | 494 |
| 3x400/35 | 93,0 | 10650 | 250 | 0,0778 | 0,273 | 0,385 | 517 | 569 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, three core cables with aluminium conductor



Code: YAXC8V-R, NA2XSEY, AL/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

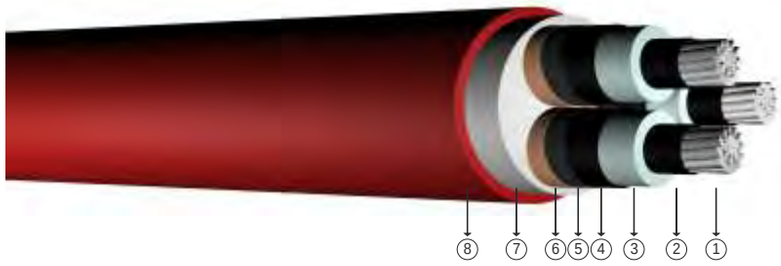
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 56,5 | 3500 | 1000 | 0,868 | 0,416 | 0,141 | - | - |
| 3x50/16 | 59,5 | 3900 | 1000 | 0,641 | 0,395 | 0,155 | 168 | 171 |
| 3x70/16 | 63,0 | 4450 | 1000 | 0,443 | 0,373 | 0,172 | 207 | 211 |
| 3x95/16 | 67,0 | 5100 | 500 | 0,320 | 0,355 | 0,191 | 247 | 255 |
| 3x120/16 | 71,0 | 5750 | 500 | 0,253 | 0,340 | 0,209 | 282 | 297 |
| 3x150/25 | 74,0 | 6450 | 500 | 0,206 | 0,329 | 0,225 | 316 | 334 |
| 3x185/25 | 78,0 | 7200 | 500 | 0,164 | 0,319 | 0,243 | 359 | 384 |
| 3x240/25 | 85,0 | 8450 | 500 | 0,125 | 0,304 | 0,273 | 420 | 454 |
| 3x300/25 | 90,0 | 9650 | 500 | 0,100 | 0,295 | 0,296 | 476 | 513 |
| 3x400/35 | 98,0 | 11600 | 250 | 0,0778 | 0,284 | 0,331 | 552 | 593 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, three core cables with aluminium conductor



Code: YAXC8V-R, NA2XSEY, AL/XLPE/CTS/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

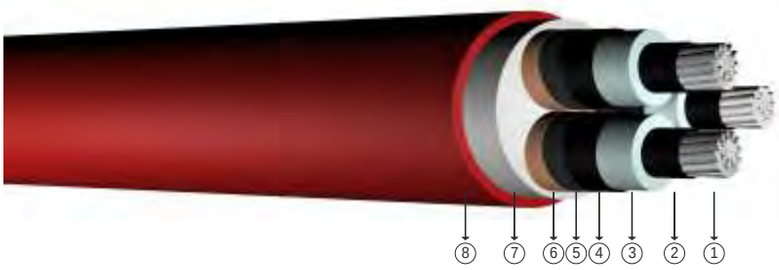
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 68,0 | 5000 | 1000 | 0,868 | 0,457 | 0,114 | - | - |
| 3x50/16 | 71,5 | 5550 | 500 | 0,641 | 0,434 | 0,124 | 166 | 171 |
| 3x70/16 | 75,0 | 6200 | 500 | 0,443 | 0,410 | 0,137 | 204 | 211 |
| 3x95/16 | 79,0 | 6900 | 500 | 0,320 | 0,389 | 0,150 | 244 | 255 |
| 3x120/16 | 83,0 | 7650 | 500 | 0,253 | 0,372 | 0,163 | 278 | 297 |
| 3x150/25 | 86,0 | 8350 | 500 | 0,206 | 0,360 | 0,174 | 312 | 334 |
| 3x185/25 | 90,0 | 9200 | 500 | 0,164 | 0,348 | 0,188 | 343 | 384 |
| 3x240/25 | 97,0 | 10700 | 250 | 0,125 | 0,331 | 0,209 | 398 | 454 |
| 3x300/25 | 102,0 | 12000 | 250 | 0,100 | 0,321 | 0,226 | - | - |
| 3x400/35 | 110,0 | 14060 | 250 | 0,0778 | 0,307 | 0,251 | - | - |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 20,3/35 kV or 20,8/36 kV XLPE insulated, three core cables with aluminium conductor



Code: YAXC8V-R, NA2XSEY, AL/XLPE/CTS/PVC

R: Stranded Conductor

Standards: HD 620 S3, TSE K 204

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

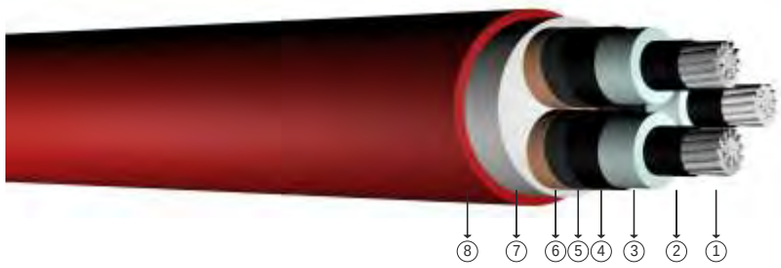
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 73,0 | 5700 | 500 | 0,868 | 0,471 | 0,107 | - | - |
| 3x50/16 | 76,0 | 6200 | 500 | 0,641 | 0,448 | 0,116 | 166 | 164 |
| 3x70/16 | 79,5 | 6900 | 500 | 0,443 | 0,423 | 0,127 | 204 | 204 |
| 3x95/16 | 83,5 | 7650 | 500 | 0,320 | 0,401 | 0,140 | 244 | 248 |
| 3x120/16 | 87,5 | 8450 | 500 | 0,253 | 0,384 | 0,152 | 278 | 284 |
| 3x150/25 | 91,0 | 9150 | 500 | 0,206 | 0,372 | 0,161 | 312 | 326 |
| 3x185/25 | 95,0 | 10150 | 250 | 0,164 | 0,359 | 0,173 | 343 | 374 |
| 3x240/25 | 101,5 | 11600 | 250 | 0,125 | 0,341 | 0,193 | 398 | 440 |
| 3x300/25 | 106,5 | 12900 | 250 | 0,100 | 0,330 | 0,207 | - | - |
| 3x400/35 | 114,0 | 15000 | 250 | 0,0778 | 0,316 | 0,231 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV halogen free, flame retardant XLPE insulated, three core cables with aluminium conductor



Code: YAXC8Z1-R, NA2XSEH, AL/XLPE/CTS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire

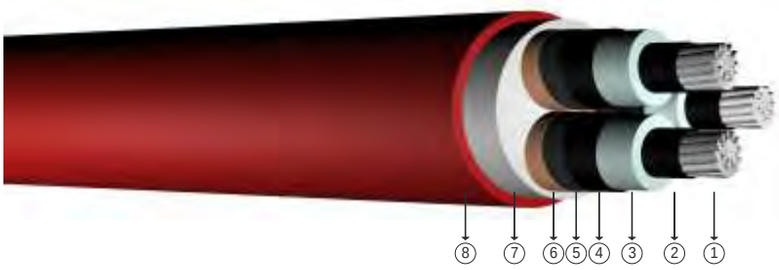
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 46,5 | 2450 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 49,5 | 2800 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 53,0 | 3300 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 57,5 | 3900 | 1000 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 61,5 | 4450 | 1000 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 64,5 | 5050 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 68,5 | 5700 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 75,0 | 6900 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 80,0 | 8000 | 500 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 88,0 | 9750 | 500 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV halogen free, flame retardant XLPE insulated, three core cables with aluminium conductor



Code: YAXC8Z1-R, NA2XSEH, AL/XLPE/CTS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire

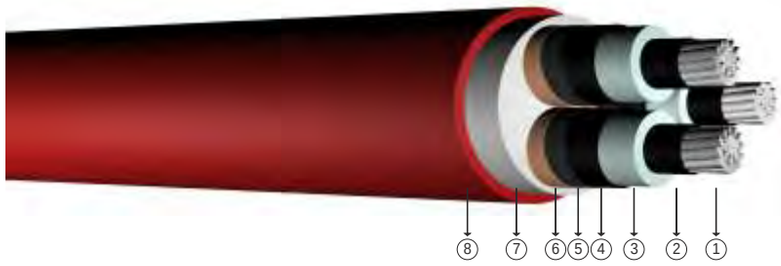
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 56,5 | 3500 | 1000 | 0,868 | 0,416 | 0,141 | - | - |
| 3x50/16 | 59,5 | 3900 | 1000 | 0,641 | 0,395 | 0,155 | 168 | 171 |
| 3x70/16 | 63,0 | 4450 | 1000 | 0,443 | 0,373 | 0,172 | 207 | 211 |
| 3x95/16 | 67,0 | 5100 | 500 | 0,320 | 0,355 | 0,191 | 247 | 255 |
| 3x120/16 | 71,0 | 5750 | 500 | 0,253 | 0,340 | 0,209 | 282 | 297 |
| 3x150/25 | 74,0 | 6450 | 500 | 0,206 | 0,329 | 0,225 | 316 | 334 |
| 3x185/25 | 78,0 | 7200 | 500 | 0,164 | 0,319 | 0,243 | 359 | 384 |
| 3x240/25 | 85,0 | 8450 | 500 | 0,125 | 0,304 | 0,273 | 420 | 454 |
| 3x300/25 | 90,0 | 9650 | 500 | 0,100 | 0,295 | 0,296 | 476 | 513 |
| 3x400/35 | 98,0 | 11600 | 250 | 0,0778 | 0,284 | 0,331 | 552 | 593 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV halogen free, flame retardant XLPE insulated, three core cables with aluminium conductor



Code: YAXC8Z1-R, NA2XSEH, AL/XLPE/CTS/LSZH

R: Stranded Conductor

Standards: IEC 60502-2, BS 7835

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

Used in energy networks in refineries, mines, hotels, schools, tunnels, high constructions, hospitals, power plant, data processing centers, business centers where there is a risk of fire

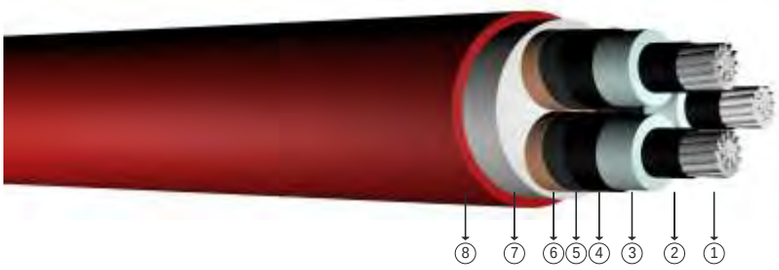
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. HFFR outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 68,0 | 5000 | 1000 | 0,868 | 0,457 | 0,114 | - | - |
| 3x50/16 | 71,5 | 5550 | 500 | 0,641 | 0,434 | 0,124 | 166 | 171 |
| 3x70/16 | 75,0 | 6200 | 500 | 0,443 | 0,410 | 0,137 | 204 | 211 |
| 3x95/16 | 79,0 | 6900 | 500 | 0,320 | 0,389 | 0,150 | 244 | 255 |
| 3x120/16 | 83,0 | 7650 | 500 | 0,253 | 0,372 | 0,163 | 278 | 297 |
| 3x150/25 | 86,0 | 8350 | 500 | 0,206 | 0,360 | 0,174 | 312 | 334 |
| 3x185/25 | 90,0 | 9200 | 500 | 0,164 | 0,348 | 0,188 | 343 | 384 |
| 3x240/25 | 97,0 | 10700 | 250 | 0,125 | 0,331 | 0,209 | 398 | 454 |
| 3x300/25 | 102,0 | 12000 | 250 | 0,100 | 0,321 | 0,226 | - | - |
| 3x400/35 | 110,0 | 14060 | 250 | 0,0778 | 0,307 | 0,251 | - | - |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, three core cables with aluminium conductor



Code: NA2XSE2Y, AL/XLPE/CTS/PE

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

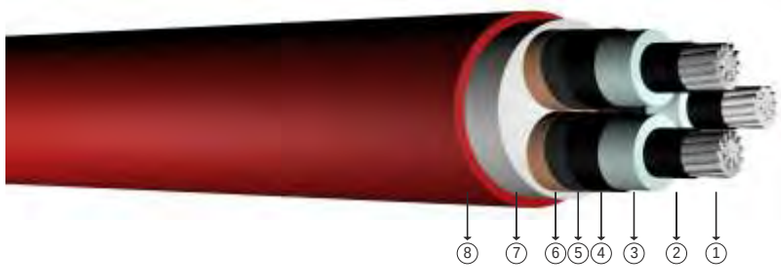
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 46,5 | 2450 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 49,5 | 2800 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 53,0 | 3300 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 57,5 | 3900 | 1000 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 61,5 | 4450 | 1000 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 64,5 | 5050 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 68,5 | 5700 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 75,0 | 6900 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 80,0 | 8000 | 500 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 88,0 | 9750 | 500 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, three core cables with aluminium conductor



Code: NA2XSE2Y, AL/XLPE/CTS/PE

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

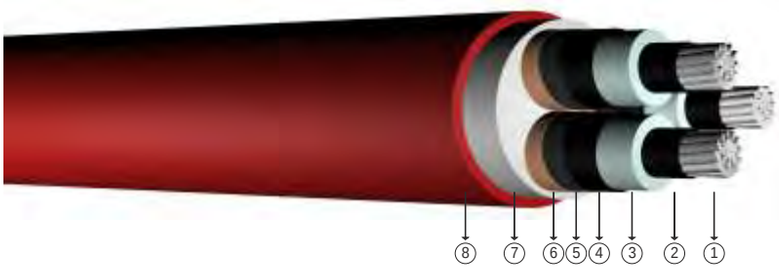
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 56,5 | 3500 | 1000 | 0,868 | 0,416 | 0,141 | - | - |
| 3x50/16 | 59,5 | 3900 | 1000 | 0,641 | 0,395 | 0,155 | 168 | 171 |
| 3x70/16 | 63,0 | 4450 | 1000 | 0,443 | 0,373 | 0,172 | 207 | 211 |
| 3x95/16 | 67,0 | 5100 | 500 | 0,320 | 0,355 | 0,191 | 247 | 255 |
| 3x120/16 | 71,0 | 5750 | 500 | 0,253 | 0,340 | 0,209 | 282 | 297 |
| 3x150/25 | 74,0 | 6450 | 500 | 0,206 | 0,329 | 0,225 | 316 | 334 |
| 3x185/25 | 78,0 | 7200 | 500 | 0,164 | 0,319 | 0,243 | 359 | 384 |
| 3x240/25 | 85,0 | 8450 | 500 | 0,125 | 0,304 | 0,273 | 420 | 454 |
| 3x300/25 | 90,0 | 9650 | 500 | 0,100 | 0,295 | 0,296 | 476 | 513 |
| 3x400/35 | 98,0 | 11600 | 250 | 0,0778 | 0,284 | 0,331 | 552 | 593 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, three core cables with aluminium conductor



Code: NA2XSE2Y, AL/XLPE/CTS/PE

R: Stranded Conductor

Standards: IEC 60502-2, BS 7870-4.10

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 15 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

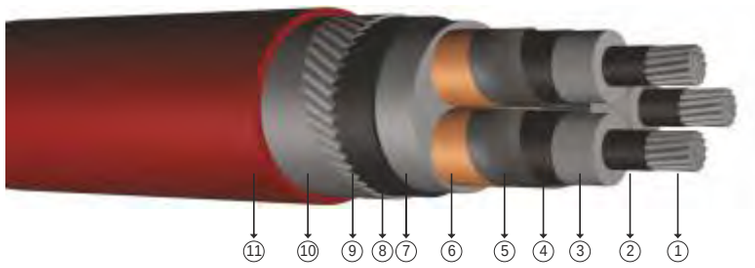
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 68,0 | 5000 | 1000 | 0,868 | 0,457 | 0,114 | - | - |
| 3x50/16 | 71,5 | 5550 | 500 | 0,641 | 0,434 | 0,124 | 166 | 171 |
| 3x70/16 | 75,0 | 6200 | 500 | 0,443 | 0,410 | 0,137 | 204 | 211 |
| 3x95/16 | 79,0 | 6900 | 500 | 0,320 | 0,389 | 0,150 | 244 | 255 |
| 3x120/16 | 83,0 | 7650 | 500 | 0,253 | 0,372 | 0,163 | 278 | 297 |
| 3x150/25 | 86,0 | 8350 | 500 | 0,206 | 0,360 | 0,174 | 312 | 334 |
| 3x185/25 | 90,0 | 9200 | 500 | 0,164 | 0,348 | 0,188 | 343 | 384 |
| 3x240/25 | 97,0 | 10700 | 250 | 0,125 | 0,331 | 0,209 | 398 | 454 |
| 3x300/25 | 102,0 | 12000 | 250 | 0,100 | 0,321 | 0,226 | - | - |
| 3x400/35 | 110,0 | 14060 | 250 | 0,0778 | 0,307 | 0,251 | - | - |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, flat steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ3V-R, NA2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

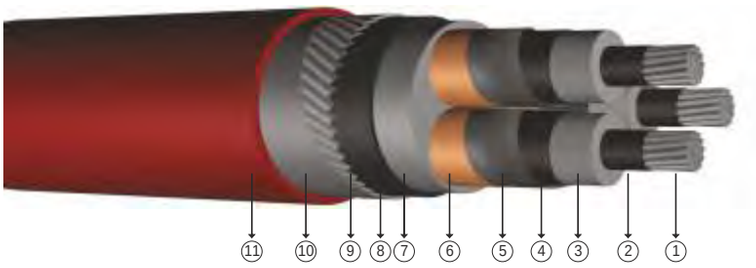
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 47,0 | 3250 | 1000 | 0,868 | 0,352 | 0,229 | - | - |
| 3x50/16 | 50,5 | 3750 | 1000 | 0,641 | 0,336 | 0,255 | 160 | 150 |
| 3x70/16 | 54,5 | 4300 | 1000 | 0,443 | 0,318 | 0,288 | 199 | 191 |
| 3x95/16 | 58,5 | 4950 | 1000 | 0,320 | 0,303 | 0,324 | 238 | 236 |
| 3x120/16 | 63,0 | 5700 | 500 | 0,253 | 0,292 | 0,359 | 275 | 273 |
| 3x150/25 | 66,0 | 6400 | 500 | 0,206 | 0,284 | 0,388 | 307 | 313 |
| 3x185/25 | 70,0 | 7200 | 500 | 0,164 | 0,276 | 0,424 | 349 | 360 |
| 3x240/25 | 74,5 | 8600 | 500 | 0,125 | 0,267 | 0,469 | 410 | 426 |
| 3x300/25 | 80,6 | 10000 | 500 | 0,100 | 0,263 | 0,486 | 460 | 528 |
| 3x400/35 | 93,0 | 12250 | 250 | 0,0778 | 0,257 | 0,521 | 520 | 564 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV XLPE insulated, flat steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ3V-R, NA2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

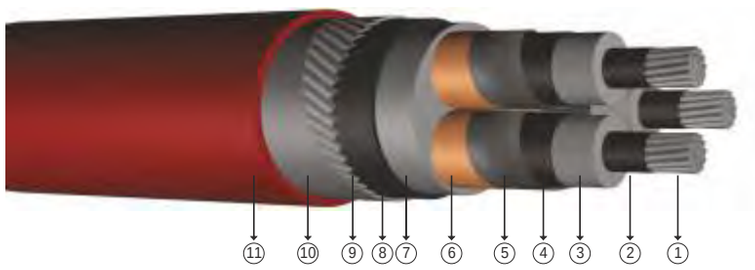
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x25/16 | 49,5 | 3450 | 1000 | 1,20 | 0,392 | 0,173 | - | - |
| 3x35/16 | 52,0 | 3800 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 54,5 | 4250 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 58,5 | 4900 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 63,0 | 5916 | 500 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 67,0 | 6552 | 500 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 70,0 | 7238 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 74,0 | 8134 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 81,0 | 9350 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 81,4 | 10600 | 250 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 90,08 | 12650 | 250 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, flat steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ3V-R, NA2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

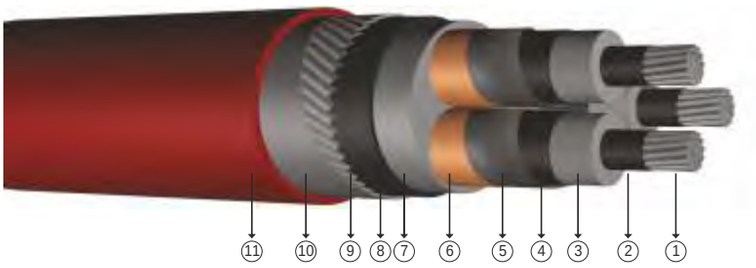
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 56,0 | 4700 | 500 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 59,0 | 5200 | 500 | 0,641 | 0,377 | 0,175 | 162 | 160 |
| 3x70/16 | 63,0 | 5900 | 500 | 0,443 | 0,356 | 0,196 | 199 | 199 |
| 3x95/16 | 67,0 | 6750 | 500 | 0,320 | 0,339 | 0,218 | 238 | 242 |
| 3x120/16 | 71,0 | 7400 | 500 | 0,253 | 0,325 | 0,240 | 271 | 280 |
| 3x150/25 | 74,0 | 8150 | 500 | 0,206 | 0,315 | 0,258 | 304 | 318 |
| 3x185/25 | 78,0 | 9150 | 250 | 0,164 | 0,305 | 0,280 | 345 | 365 |
| 3x240/25 | 84,0 | 10500 | 250 | 0,125 | 0,292 | 0,315 | 401 | 431 |
| 3x300/25 | 89,0 | 11500 | 250 | 0,100 | 0,284 | 0,343 | 453 | 494 |
| 3x400/35 | 96,0 | 13900 | 250 | 0,0778 | 0,273 | 0,385 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, flat steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ3V-R, NA2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

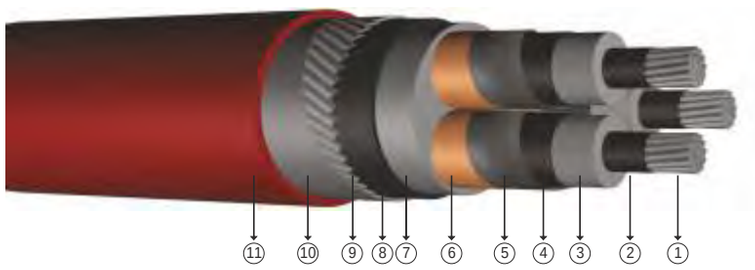
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 61,0 | 5500 | 1000 | 0,868 | 0,471 | 0,107 | - | - |
| 3x50/16 | 64,0 | 6000 | 500 | 0,641 | 0,448 | 0,116 | 168 | 171 |
| 3x70/16 | 68,0 | 6750 | 500 | 0,443 | 0,423 | 0,127 | 207 | 211 |
| 3x95/16 | 72,0 | 7600 | 500 | 0,320 | 0,401 | 0,140 | 247 | 255 |
| 3x120/16 | 75,0 | 8300 | 500 | 0,253 | 0,384 | 0,152 | 282 | 297 |
| 3x150/25 | 79,0 | 9200 | 500 | 0,206 | 0,372 | 0,161 | 316 | 334 |
| 3x185/25 | 81,0 | 10200 | 500 | 0,164 | 0,359 | 0,173 | 359 | 384 |
| 3x240/25 | 89,0 | 11500 | 250 | 0,125 | 0,341 | 0,193 | 420 | 454 |
| 3x300/25 | 93,0 | 13000 | 250 | 0,100 | 0,330 | 0,207 | 476 | 513 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, flat steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ3V-R, NA2XSEYFGY

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

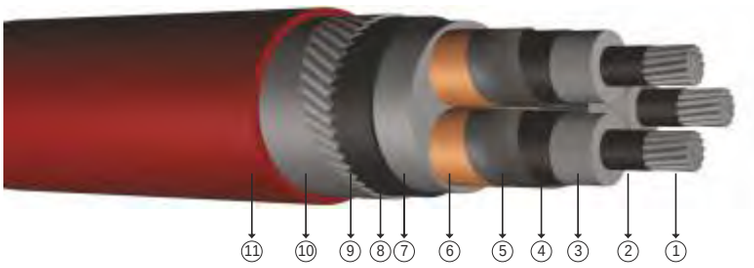
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 73,0 | 7500 | 500 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 76,0 | 8200 | 500 | 0,641 | 0,377 | 0,175 | 166 | 164 |
| 3x70/16 | 80,0 | 9000 | 500 | 0,443 | 0,356 | 0,196 | 204 | 204 |
| 3x95/16 | 84,0 | 10000 | 500 | 0,320 | 0,339 | 0,218 | 244 | 248 |
| 3x120/16 | 88,0 | 10800 | 500 | 0,253 | 0,325 | 0,240 | 278 | 284 |
| 3x150/25 | 91,0 | 11600 | 500 | 0,206 | 0,315 | 0,258 | 312 | 326 |
| 3x185/25 | 95,0 | 12800 | 250 | 0,164 | 0,305 | 0,280 | 343 | 374 |
| 3x240/25 | 101,0 | 14500 | 250 | 0,125 | 0,292 | 0,315 | 398 | 440 |
| 3x300/25 | 106,0 | 15900 | 250 | 0,100 | 0,284 | 0,343 | 476 | 513 |
| 3x400/35 | 113,0 | 18200 | 250 | 0,0778 | 0,273 | 0,385 | 542 | 583 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, flat steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ3V-R, NA2XSEYFGY

R: Stranded Conductor

Standards: HD 620 S3

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

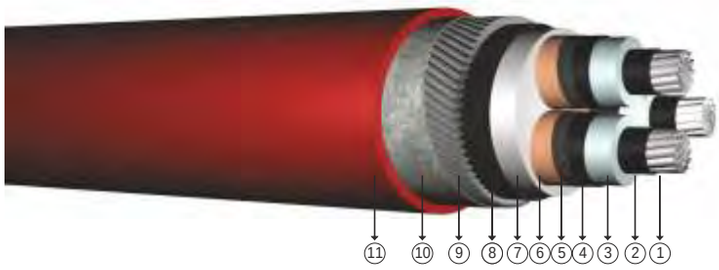
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized flat steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 78,0 | 8450 | 1000 | 0,868 | 0,471 | 0,107 | - | - |
| 3x50/16 | 81,0 | 9000 | 500 | 0,641 | 0,448 | 0,116 | 166 | 164 |
| 3x70/16 | 85,0 | 9900 | 500 | 0,443 | 0,423 | 0,127 | 204 | 204 |
| 3x95/16 | 89,0 | 10900 | 500 | 0,320 | 0,401 | 0,140 | 244 | 248 |
| 3x120/16 | 93,0 | 11800 | 500 | 0,253 | 0,384 | 0,152 | 278 | 284 |
| 3x150/25 | 96,0 | 12600 | 500 | 0,206 | 0,372 | 0,161 | 312 | 326 |
| 3x185/25 | 100,0 | 13800 | 500 | 0,164 | 0,359 | 0,173 | 343 | 374 |
| 3x240/25 | 106,0 | 15500 | 250 | 0,125 | 0,341 | 0,193 | 398 | 440 |
| 3x300/25 | 111,0 | 17000 | 250 | 0,100 | 0,330 | 0,207 | 476 | 513 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 3,6/6 kV XLPE insulated, round steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ2V-R, NA2XSEYRY, AL/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

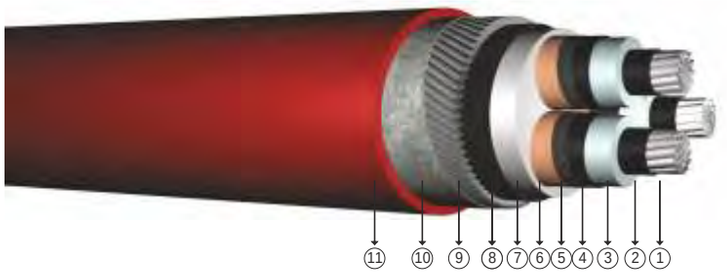
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capacitance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 505 | 4500 | 1000 | 0,868 | 0,352 | 0,229 | - | - |
| 3x50/16 | 540 | 5000 | 1000 | 0,641 | 0,336 | 0,255 | 160 | 150 |
| 3x70/16 | 580 | 5700 | 1000 | 0,443 | 0,318 | 0,288 | 199 | 191 |
| 3x95/16 | 620 | 6600 | 500 | 0,320 | 0,303 | 0,324 | 238 | 236 |
| 3x120/16 | 665 | 7400 | 500 | 0,253 | 0,292 | 0,359 | 275 | 273 |
| 3x150/25 | 700 | 8100 | 500 | 0,206 | 0,284 | 0,388 | 307 | 313 |
| 3x185/25 | 740 | 9000 | 500 | 0,164 | 0,276 | 0,424 | 349 | 360 |
| 3x240/25 | 820 | 11500 | 250 | 0,125 | 0,267 | 0,469 | 410 | 426 |
| 3x300/25 | 890 | 13200 | 250 | 0,100 | 0,263 | 0,486 | 460 | 528 |
| 3x400/35 | 980 | 15600 | 250 | 0,0778 | 0,257 | 0,521 | 520 | 564 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, round steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ2V-R, NA2XSEYRY, AL/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

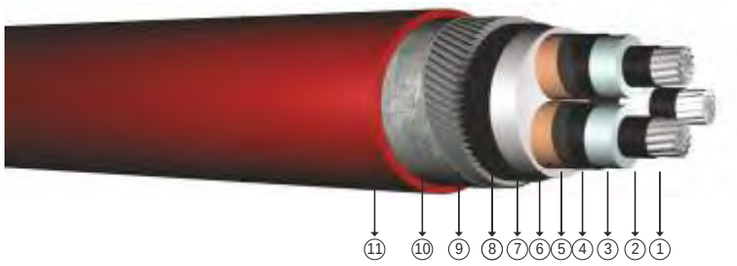
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 55,5 | 5200 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 58,5 | 5700 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 62,5 | 6450 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 67,0 | 7300 | 500 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 71,0 | 8150 | 500 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 74,0 | 8900 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 79,0 | 10700 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 86,0 | 12450 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 92,0 | 13900 | 250 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 100,0 | 16300 | 250 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 8,7/15 kV XLPE insulated, round steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ2V-R, NA2XSEYRY, AL/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

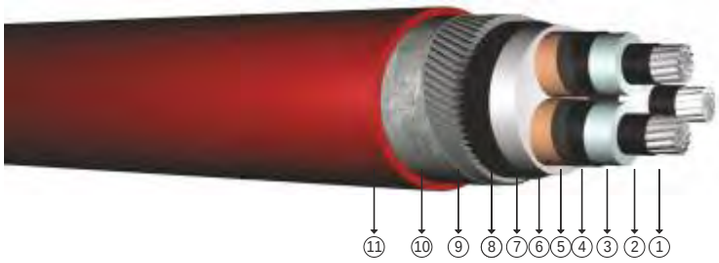
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20ºC | In air at 30ºC |
| 3x35/16 | 60,5 | 6100 | 500 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 64,0 | 6600 | 500 | 0,641 | 0,377 | 0,175 | 162 | 160 |
| 3x70/16 | 68,0 | 7500 | 500 | 0,443 | 0,356 | 0,196 | 199 | 199 |
| 3x95/16 | 72,0 | 8400 | 500 | 0,320 | 0,339 | 0,218 | 238 | 242 |
| 3x120/16 | 76,0 | 9100 | 500 | 0,253 | 0,325 | 0,240 | 271 | 280 |
| 3x150/25 | 81,0 | 10900 | 500 | 0,206 | 0,315 | 0,258 | 304 | 318 |
| 3x185/25 | 85,0 | 12100 | 250 | 0,164 | 0,305 | 0,280 | 345 | 365 |
| 3x240/25 | 92,0 | 13700 | 250 | 0,125 | 0,292 | 0,315 | 401 | 431 |
| 3x300/25 | 97,0 | 15100 | 250 | 0,100 | 0,284 | 0,343 | 453 | 494 |
| 3x400/35 | 105,0 | 17500 | 250 | 0,0778 | 0,273 | 0,385 | 517 | 569 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 12/20 kV or 12,7/22 kV XLPE insulated, round steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ2V-R, NA2XSEYRY, AL/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

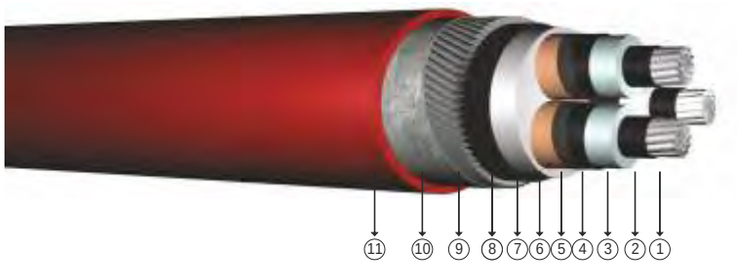
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 64,6 | 7040 | 500 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 67,1 | 7565 | 500 | 0,641 | 0,377 | 0,175 | 162 | 160 |
| 3x70/16 | 71,2 | 8420 | 500 | 0,443 | 0,356 | 0,196 | 199 | 199 |
| 3x95/16 | 76,8 | 10265 | 500 | 0,320 | 0,339 | 0,218 | 238 | 242 |
| 3x120/16 | 80,2 | 11101 | 500 | 0,253 | 0,325 | 0,240 | 271 | 280 |
| 3x150/25 | 84,0 | 12141 | 500 | 0,206 | 0,315 | 0,258 | 304 | 318 |
| 3x185/25 | 87,7 | 13190 | 250 | 0,164 | 0,305 | 0,280 | 345 | 365 |
| 3x240/25 | 93,5 | 14865 | 250 | 0,125 | 0,292 | 0,315 | 401 | 431 |
| 3x300/25 | 98,3 | 16452 | 250 | 0,100 | 0,284 | 0,343 | 453 | 494 |
| 3x400/35 | 106,2 | 19000 | 250 | 0,0778 | 0,273 | 0,385 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 18/30 kV or 19/33 kV XLPE insulated, round steel wire armoured, three core cables with aluminium conductor



Code: YAXC8VZ2V-R, NA2XSEYRY, AL/XLPE/CTS/PVC/SWA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

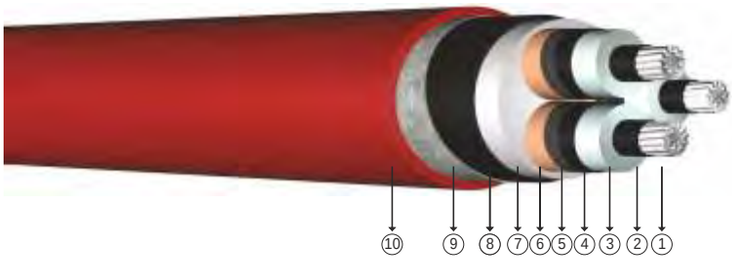
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized round steel wire
10. Galvanized steel tape
11. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 77,9 | 6100 | 500 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 80,8 | 6600 | 500 | 0,641 | 0,377 | 0,175 | 162 | 160 |
| 3x70/16 | 84,9 | 7500 | 500 | 0,443 | 0,356 | 0,196 | 199 | 199 |
| 3x95/16 | 89,2 | 8400 | 500 | 0,320 | 0,339 | 0,218 | 238 | 242 |
| 3x120/16 | 92,5 | 9100 | 500 | 0,253 | 0,325 | 0,240 | 271 | 280 |
| 3x150/25 | 95,9 | 10900 | 500 | 0,206 | 0,315 | 0,258 | 304 | 318 |
| 3x185/25 | 100,0 | 12100 | 250 | 0,164 | 0,305 | 0,280 | 345 | 365 |
| 3x240/25 | 106,0 | 13700 | 250 | 0,125 | 0,292 | 0,315 | 401 | 431 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 3,6/6 kV XLPE insulated, double steel tape armoured, three core cables with aluminium conductor



Code: YAXC8VZ4V-R, NA2XSEYBY, AL/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 3,6/6 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

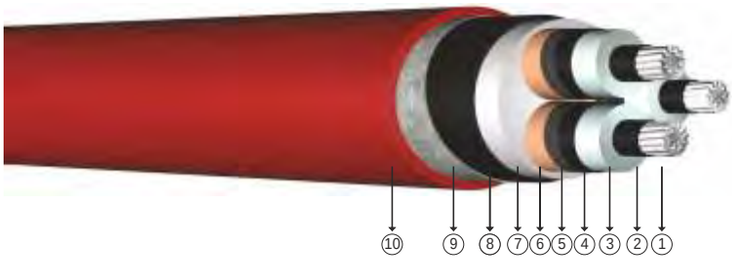
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 47,0 | 3200 | 1000 | 0,868 | 0,352 | 0,229 | - | - |
| 3x50/16 | 50,0 | 3700 | 1000 | 0,641 | 0,336 | 0,255 | 160 | 150 |
| 3x70/16 | 54,0 | 4300 | 1000 | 0,443 | 0,318 | 0,288 | 199 | 191 |
| 3x95/16 | 58,0 | 5000 | 1000 | 0,320 | 0,303 | 0,324 | 238 | 236 |
| 3x120/16 | 62,5 | 5700 | 500 | 0,253 | 0,292 | 0,359 | 275 | 273 |
| 3x150/25 | 66,0 | 6300 | 500 | 0,206 | 0,284 | 0,388 | 307 | 313 |
| 3x185/25 | 70,0 | 7200 | 500 | 0,164 | 0,276 | 0,424 | 349 | 360 |
| 3x240/25 | 77,0 | 8500 | 500 | 0,125 | 0,267 | 0,469 | 410 | 426 |
| 3x300/25 | 83,5 | 10000 | 500 | 0,100 | 0,263 | 0,486 | 460 | 528 |
| 3x400/35 | 94,0 | 13000 | 250 | 0,0778 | 0,257 | 0,521 | 520 | 564 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 6/10 kV or 6,35/11 kV XLPE insulated, double steel tape armoured, three core cables with aluminium conductor



Code: YAXC8VZ4V-R, NA2XSEYBY, AL/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

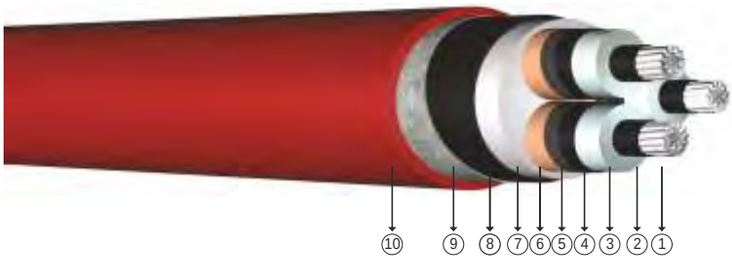
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductanse (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 51,5 | 3800 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 54,5 | 4200 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 58,5 | 4900 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 63,0 | 5700 | 1000 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 67,0 | 6400 | 500 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 70,0 | 7000 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 74,0 | 7900 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 81,0 | 9300 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 88,0 | 11500 | 250 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 96,0 | 13500 | 250 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 8,7/15 kV XLPE insulated, double steel tape armoured, three core cables with aluminium conductor



Code: YAXC8VZ4V-R, NA2XSEYBY, AL/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 8,7/15 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

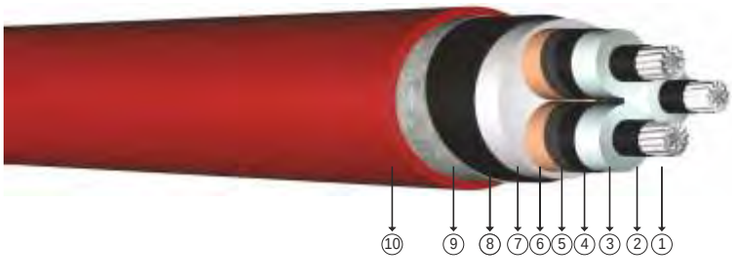
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 57,0 | 4500 | 1000 | 0,868 | 0,397 | 0,160 | - | - |
| 3x50/16 | 60,5 | 5000 | 1000 | 0,641 | 0,377 | 0,175 | 162 | 160 |
| 3x70/16 | 64,0 | 5700 | 500 | 0,443 | 0,356 | 0,196 | 199 | 199 |
| 3x95/16 | 68,5 | 6600 | 500 | 0,320 | 0,339 | 0,218 | 238 | 242 |
| 3x120/16 | 72,5 | 7200 | 500 | 0,253 | 0,325 | 0,240 | 271 | 280 |
| 3x150/25 | 75,5 | 8000 | 500 | 0,206 | 0,315 | 0,258 | 304 | 318 |
| 3x185/25 | 80,0 | 9000 | 500 | 0,164 | 0,305 | 0,280 | 345 | 365 |
| 3x240/25 | 88,0 | 11300 | 500 | 0,125 | 0,292 | 0,315 | 401 | 431 |
| 3x300/25 | 93,0 | 12700 | 250 | 0,100 | 0,284 | 0,343 | 453 | 494 |
| 3x400/35 | 101,0 | 14800 | 250 | 0,0778 | 0,273 | 0,385 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, double steel tape armoured, three core cables with aluminium conductor



Code: YAXC8VZ4V-R, NA2XSEYBY, AL/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

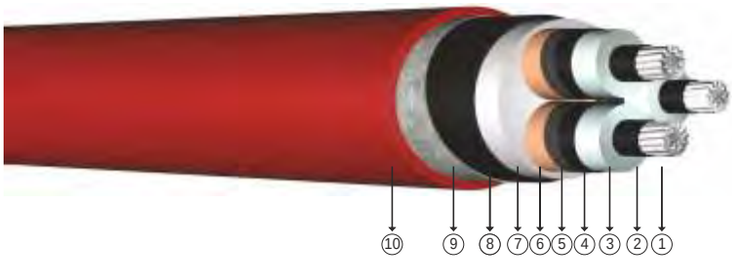
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 61,0 | 5366 | 1000 | 0,868 | 0,416 | 0,141 | - | - |
| 3x50/16 | 63,5 | 5816 | 500 | 0,641 | 0,395 | 0,155 | 168 | 171 |
| 3x70/16 | 67,6 | 6585 | 500 | 0,443 | 0,373 | 0,172 | 207 | 211 |
| 3x95/16 | 71,7 | 7409 | 500 | 0,320 | 0,355 | 0,191 | 247 | 255 |
| 3x120/16 | 75,0 | 8115 | 500 | 0,253 | 0,340 | 0,209 | 282 | 297 |
| 3x150/25 | 78,8 | 8966 | 500 | 0,206 | 0,329 | 0,225 | 316 | 334 |
| 3x185/25 | 84,0 | 10882 | 500 | 0,164 | 0,319 | 0,243 | 359 | 384 |
| 3x240/25 | 89,8 | 12409 | 250 | 0,125 | 0,304 | 0,273 | 420 | 454 |
| 3x300/25 | 94,4 | 13771 | 250 | 0,100 | 0,295 | 0,296 | 476 | 513 |
| 3x400/35 | 102,5 | 16162 | 250 | 0,0778 | 0,284 | 0,331 | 552 | 593 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, double steel tape armoured, three core cables with aluminium conductor



Code: YAXC8VZ4V-R, NA2XSEYBY, AL/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

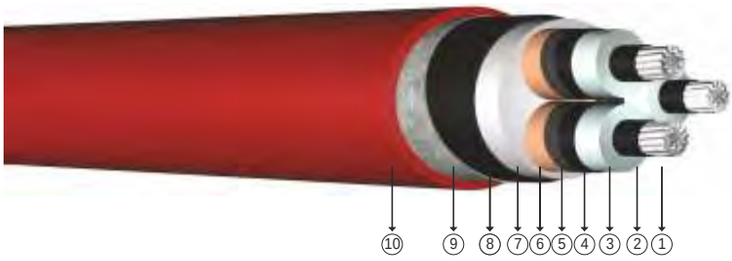
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 73,0 | 7334 | 500 | 0,8680 | 0,457 | 0,114 | - | - |
| 3x50/16 | 75,9 | 7941 | 500 | 0,6410 | 0,434 | 0,124 | 166 | 164 |
| 3x70/16 | 80,1 | 8819 | 500 | 0,4430 | 0,410 | 0,137 | 204 | 204 |
| 3x95/16 | 85,3 | 10719 | 500 | 0,3200 | 0,389 | 0,150 | 244 | 248 |
| 3x120/16 | 88,8 | 11597 | 250 | 0,2530 | 0,372 | 0,163 | 278 | 284 |
| 3x150/25 | 92,2 | 12481 | 250 | 0,2060 | 0,360 | 0,174 | 312 | 326 |
| 3x185/25 | 96,2 | 13600 | 250 | 0,1640 | 0,348 | 0,188 | 343 | 374 |
| 3x240/25 | 102,4 | 15406 | 250 | 0,1250 | 0,331 | 0,209 | 398 | 440 |
| 3x300/25 | 106,8 | 16833 | 250 | 0,1000 | 0,321 | 0,226 | - | - |
| 3x400/35 | 114,5 | 19304 | 250 | 0,0778 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 20,3/35 kV or 20,8/36 kV XLPE insulated, double steel tape armoured, three core cables with aluminium conductor



Code: YAXC8VZ4V-R, NA2XSEYBY, AL/XLPE/CTS/PVC/STA/PVC

R: Stranded Conductor

Standards: TS HD 620 S3, TSE K

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 20,3/35 kV<br>20,8/36 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

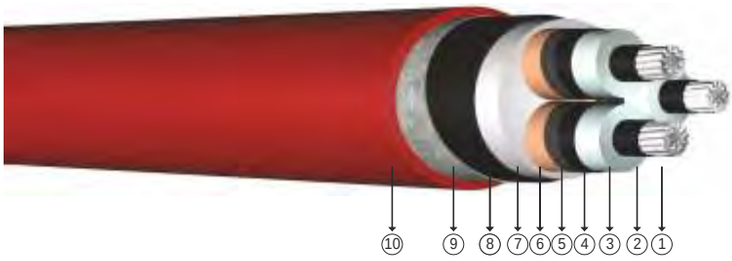
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Galvanized steel tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 78,0 | 4650 | 1000 | 0,868 | 0,471 | 0,107 | - | - |
| 3x50/16 | 82,0 | 5150 | 500 | 0,641 | 0,448 | 0,116 | 166 | 164 |
| 3x70/16 | 86,0 | 5800 | 500 | 0,443 | 0,423 | 0,127 | 204 | 204 |
| 3x95/16 | 90,0 | 6500 | 500 | 0,320 | 0,401 | 0,140 | 244 | 248 |
| 3x120/16 | 93,0 | 7250 | 500 | 0,253 | 0,384 | 0,152 | 278 | 284 |
| 3x150/25 | 97,0 | 8000 | 500 | 0,206 | 0,372 | 0,161 | 312 | 326 |
| 3x185/25 | 101,0 | 9500 | 500 | 0,164 | 0,359 | 0,173 | 343 | 374 |
| 3x240/25 | 107,0 | 11000 | 250 | 0,125 | 0,341 | 0,193 | 398 | 440 |
| 3x300/25 | 112,0 | 12350 | 250 | 0,100 | 0,330 | 0,207 | 476 | 513 |
| 3x400/35 | 119,0 | 20620 | 250 | 0,0778 | 0,316 | 0,231 | 552 | 593 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 6/10 kV or 6,35/11 kV XLPE insulated, aluminium tape armoured, three core cables with aluminium conductor



Code: NA2XSEYB(A)Y, AL/XLPE/CTS/PVC/ATA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 6/10 kV<br>6,35/11 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

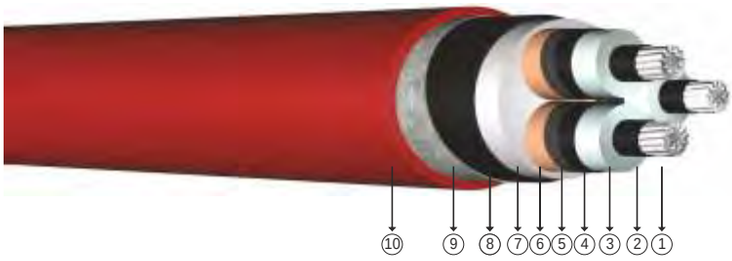
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 51,5 | 3800 | 1000 | 0,868 | 0,374 | 0,189 | - | - |
| 3x50/16 | 54,5 | 4200 | 1000 | 0,641 | 0,355 | 0,209 | 162 | 160 |
| 3x70/16 | 58,5 | 4900 | 1000 | 0,443 | 0,336 | 0,236 | 199 | 199 |
| 3x95/16 | 63,0 | 5700 | 1000 | 0,320 | 0,320 | 0,263 | 238 | 242 |
| 3x120/16 | 67,0 | 6400 | 500 | 0,253 | 0,308 | 0,291 | 271 | 280 |
| 3x150/25 | 70,0 | 7000 | 500 | 0,206 | 0,299 | 0,314 | 304 | 318 |
| 3x185/25 | 74,0 | 7900 | 500 | 0,164 | 0,290 | 0,341 | 345 | 365 |
| 3x240/25 | 81,0 | 9300 | 500 | 0,125 | 0,278 | 0,387 | 401 | 431 |
| 3x300/25 | 88,0 | 11500 | 250 | 0,100 | 0,270 | 0,422 | 453 | 494 |
| 3x400/35 | 96,0 | 13500 | 250 | 0,0778 | 0,261 | 0,475 | 517 | 569 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| Number of system | : 1 |

# 12/20 kV or 12,7/22 kV XLPE insulated, aluminium tape armoured, three core cables with aluminium conductor



Code: NA2XSEYB(A)Y, AL/XLPE/CTS/PVC/ATA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 12/20 kV<br>12,7/22 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

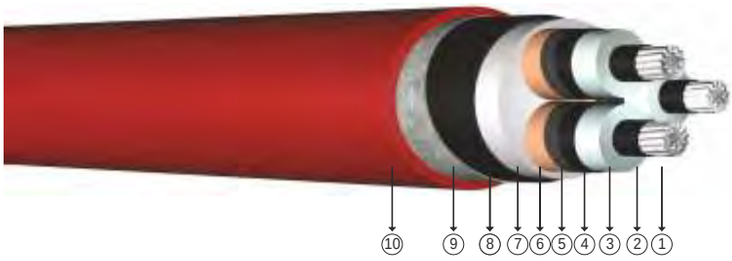
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 61,0 | 5366 | 1000 | 0,868 | 0,416 | 0,141 | - | - |
| 3x50/16 | 63,5 | 5816 | 500 | 0,641 | 0,395 | 0,155 | 168 | 171 |
| 3x70/16 | 67,6 | 6585 | 500 | 0,443 | 0,373 | 0,172 | 207 | 211 |
| 3x95/16 | 71,7 | 7409 | 500 | 0,320 | 0,355 | 0,191 | 247 | 255 |
| 3x120/16 | 75,0 | 8115 | 500 | 0,253 | 0,340 | 0,209 | 282 | 297 |
| 3x150/25 | 78,8 | 8966 | 500 | 0,206 | 0,329 | 0,225 | 316 | 334 |
| 3x185/25 | 84,0 | 10882 | 500 | 0,164 | 0,319 | 0,243 | 359 | 384 |
| 3x240/25 | 89,8 | 12409 | 250 | 0,125 | 0,304 | 0,273 | 420 | 454 |
| 3x300/25 | 94,4 | 13771 | 250 | 0,100 | 0,295 | 0,296 | 476 | 513 |
| 3x400/35 | 102,5 | 16162 | 250 | 0,0778 | 0,284 | 0,331 | 552 | 593 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 18/30 kV or 19/33 kV XLPE insulated, aluminium tape armoured, three core cables with aluminium conductor



Code: NA2XSEYB(A)Y, AL/XLPE/CTS/PVC/ATA/PVC

R: Stranded Conductor

Standards: IEC 60502-2, BS 6622

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 18/30 kV<br>19/33 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

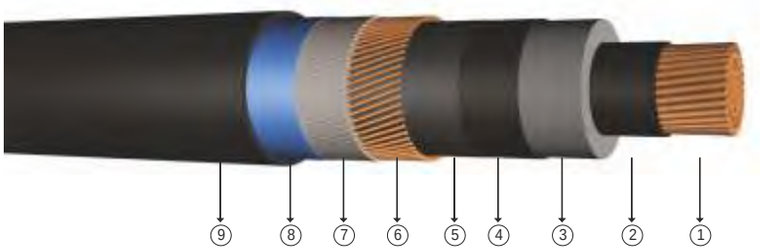
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Thermoplastic filler
8. PVC inner sheath
9. Aluminium tape
10. PVC outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20°C (Max) | Operation Inductance (approx) | Operation Capaticance (approx) | Current Carrying Capacity (A) | |
| mm² | mm | kg/km | m | Ω/km | mH/km | µF/km | In ground at 20°C | In air at 30°C |
| 3x35/16 | 73,0 | 7334 | 500 | 0,8680 | 0,457 | 0,114 | - | - |
| 3x50/16 | 75,9 | 7941 | 500 | 0,6410 | 0,434 | 0,124 | 166 | 164 |
| 3x70/16 | 80,1 | 8819 | 500 | 0,4430 | 0,410 | 0,137 | 204 | 204 |
| 3x95/16 | 85,3 | 10719 | 500 | 0,3200 | 0,389 | 0,150 | 244 | 248 |
| 3x120/16 | 88,8 | 11597 | 250 | 0,2530 | 0,372 | 0,163 | 278 | 284 |
| 3x150/25 | 92,2 | 12481 | 250 | 0,2060 | 0,360 | 0,174 | 312 | 326 |
| 3x185/25 | 96,2 | 13600 | 250 | 0,1640 | 0,348 | 0,188 | 343 | 374 |
| 3x240/25 | 102,4 | 15406 | 250 | 0,1250 | 0,331 | 0,209 | 398 | 440 |
| 3x300/25 | 106,8 | 16833 | 250 | 0,1000 | 0,321 | 0,226 | - | - |
| 3x400/35 | 114,5 | 19304 | 250 | 0,0778 | 0,307 | 0,251 | - | - |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
Number of system : 1

# 26/45 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 26/45 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

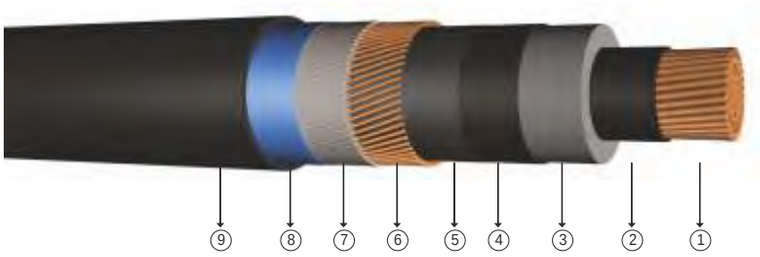
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductor swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x95/16 | 43,0 | 2100 | 1000 | 0,193 | 0,2470 | 0,610 | 0,419 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 45,0 | 2400 | 1000 | 0,153 | 0,1958 | 0,591 | 0,405 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 46,5 | 2800 | 1000 | 0,124 | 0,1587 | 0,574 | 0,342 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 48,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,557 | 0,381 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 51,0 | 3800 | 1000 | 0,0754 | 0,0965 | 0,537 | 0,366 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 53,0 | 4450 | 1000 | 0,0601 | 0,0769 | 0,520 | 0,354 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 56,5 | 5550 | 1000 | 0,0470 | 0,0602 | 0,499 | 0,341 | 0,226 | 697 | 684 | 904 | 823 |
| 1x500/35 | 60,0 | 6600 | 1000 | 0,0366 | 0,0468 | 0,482 | 0,330 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 63,5 | 7950 | 1000 | 0,0283 | 0,0362 | 0,466 | 0,320 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 40/69 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 40/69 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductor swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x240/25 | 61,0 | 4700 | 0,18 | 0,0754 | 530 | 483 | 692 | 606 |
| 1x300/25 | 63,0 | 5400 | 0,19 | 0,0601 | 599 | 544 | 795 | 693 |
| 1x400/35 | 66,0 | 6300 | 0,21 | 0,0470 | 683 | 616 | 925 | 802 |
| 1x500/35 | 70,0 | 7600 | 0,23 | 0,0366 | 780 | 729 | 1075 | 929 |
| 1x630/35 | 75,0 | 9000 | 0,26 | 0,0283 | 886 | 828 | 1247 | 1066 |
| 1x800/35 | 79,0 | 10700 | 0,28 | 0,0221 | 997 | 929 | 1432 | 1210 |
| 1x1000/50 | 84,0 | 12900 | 0,31 | 0,0176 | 1173 | 1087 | 1728 | 1473 |
| 1x1200/50 | 90,0 | 15000 | 0,33 | 0,0151 | 1270 | 1173 | 1894 | 1611 |
| 1x1600/70 | 95,0 | 18800 | 0,37 | 0,0113 | 1465 | 1375 | 2245 | 1883 |
| 1x2000/95 | 102,0 | 22800 | 0,41 | 0,0090 | 1627 | 1530 | 2556 | 2111 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 64/110 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor

Code: N2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 64/110kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

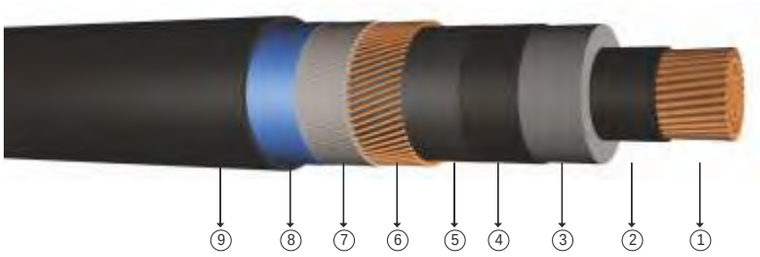
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductor swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x240/25 | 68,0 | 5400 | 0,18 | 0,0754 | 528 | 495 | 682 | 605 |
| 1x300/25 | 71,0 | 6100 | 0,19 | 0,0601 | 597 | 559 | 783 | 692 |
| 1x400/35 | 74,0 | 7100 | 0,21 | 0,0470 | 681 | 650 | 909 | 800 |
| 1x500/35 | 78,0 | 8400 | 0,22 | 0,0366 | 775 | 739 | 1053 | 922 |
| 1x630/35 | 82,0 | 9900 | 0,24 | 0,0283 | 884 | 841 | 1226 | 1065 |
| 1x800/35 | 86,0 | 11600 | 0,26 | 0,0221 | 994 | 945 | 1406 | 1208 |
| 1x1000/50 | 92,0 | 14000 | 0,29 | 0,0176 | 1169 | 1106 | 1695 | 1465 |
| 1x1200/50 | 97,0 | 16000 | 0,31 | 0,0151 | 1264 | 1231 | 1849 | 1595 |
| 1x1600/70 | 104,0 | 20000 | 0,34 | 0,0113 | 1456 | 1415 | 2185 | 1860 |
| 1x2000/95 | 115,0 | 24000 | 0,37 | 0,0090 | 1618 | 1570 | 2487 | 2089 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 76/132kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 76/132kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

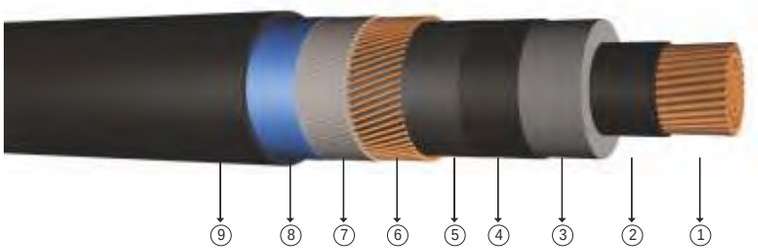
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductor swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x400/35 | 82,0 | 8900 | 0,17 | 0,0470 | 675 | 632 | 896 | 792 |
| 1x500/35 | 85,0 | 10000 | 0,19 | 0,0366 | 767 | 716 | 1033 | 908 |
| 1x630/35 | 89,0 | 11500 | 0,21 | 0,0283 | 872 | 811 | 1200 | 1045 |
| 1x800/35 | 93,0 | 13500 | 0,24 | 0,0221 | 979 | 932 | 1374 | 1182 |
| 1x1000/50 | 100,0 | 15500 | 0,23 | 0,0176 | 1145 | 1087 | 1649 | 1420 |
| 1x1200/50 | 105,0 | 17500 | 0,23 | 0,0151 | 1233 | 1212 | 1801 | 1539 |
| 1x1600/70 | 112,0 | 21500 | 0,25 | 0,0113 | 1414 | 1388 | 2125 | 1784 |
| 1x2000/95 | 120,0 | 25800 | 0,31 | 0,0090 | 1569 | 1532 | 2418 | 2003 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 89/154 kV XLPE insulated, radial and longitudinally sealed, single core cables with copper conductor



Code: N2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 89/154 kV |
| Min. bending radius | : 20x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

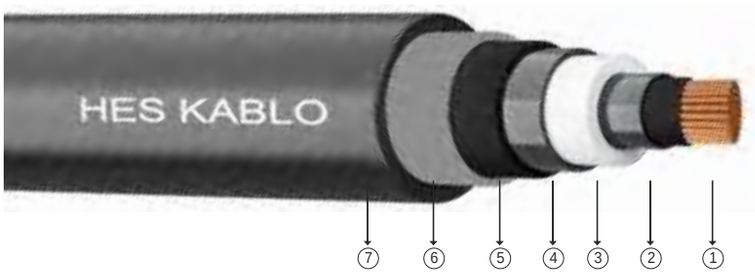
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductor swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x630/35 | 96,0 | 11400 | 0,19 | 0,0283 | 871 | 829 | 1193 | 1043 |
| 1x800/35 | 102,0 | 13600 | 0,20 | 0,0221 | 977 | 928 | 1367 | 1181 |
| 1x1000/50 | 106,0 | 16000 | 0,21 | 0,0176 | 1143 | 1081 | 1639 | 1415 |
| 1x1200/50 | 110,0 | 18500 | 0,22 | 0,0151 | 1232 | 1208 | 1790 | 1535 |
| 1x1600/70 | 120,0 | 22500 | 0,23 | 0,0113 | 1404 | 1382 | 2100 | 1765 |
| 1x2000/95 | 126,0 | 26500 | 0,27 | 0,0090 | 1554 | 1523 | 2384 | 1973 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 26/45 kV with smooth welded aluminium sheath



Code: CU/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 26/45 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

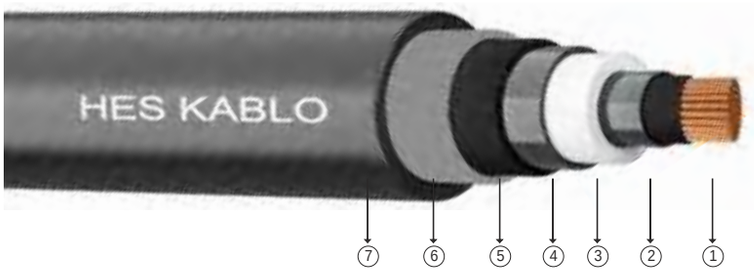
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x95/16 | 43,0 | 2100 | 1000 | 0,193 | 0,2470 | 0,610 | 0,419 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 45,0 | 2400 | 1000 | 0,153 | 0,1958 | 0,591 | 0,405 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 46,5 | 2800 | 1000 | 0,124 | 0,1587 | 0,574 | 0,342 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 48,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,557 | 0,381 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 51,0 | 3800 | 1000 | 0,0754 | 0,0965 | 0,537 | 0,366 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 53,0 | 4450 | 1000 | 0,0601 | 0,0769 | 0,520 | 0,354 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 56,5 | 5550 | 1000 | 0,0470 | 0,0602 | 0,499 | 0,341 | 0,226 | 697 | 684 | 904 | 823 |
| 1x500/35 | 60,0 | 6600 | 1000 | 0,0366 | 0,0468 | 0,482 | 0,330 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 63,5 | 7950 | 1000 | 0,0283 | 0,0362 | 0,466 | 0,320 | 0,300 | 858 | 847 | 1128 | 1043 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 40/69 kV with smooth welded aluminium sheath



Code: CU/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 40/69 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

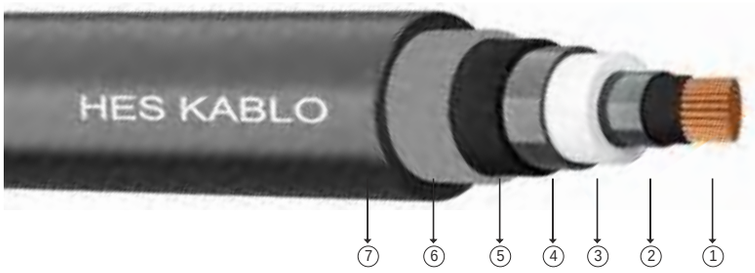
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x240/25 | 61,0 | 4700 | 0,18 | 0,0754 | 530 | 483 | 692 | 606 |
| 1x300/25 | 63,0 | 5400 | 0,19 | 0,0601 | 599 | 544 | 795 | 693 |
| 1x400/35 | 66,0 | 6300 | 0,21 | 0,0470 | 683 | 616 | 925 | 802 |
| 1x500/35 | 70,0 | 7600 | 0,23 | 0,0366 | 780 | 729 | 1075 | 929 |
| 1x630/35 | 75,0 | 9000 | 0,26 | 0,0283 | 886 | 828 | 1247 | 1066 |
| 1x800/35 | 79,0 | 10700 | 0,28 | 0,0221 | 997 | 929 | 1432 | 1210 |
| 1x1000/50 | 84,0 | 12900 | 0,31 | 0,0176 | 1173 | 1087 | 1728 | 1473 |
| 1x1200/50 | 90,0 | 15000 | 0,33 | 0,0151 | 1270 | 1173 | 1894 | 1611 |
| 1x1600/70 | 95,0 | 18800 | 0,37 | 0,0113 | 1465 | 1375 | 2245 | 1883 |
| 1x2000/95 | 102,0 | 22800 | 0,41 | 0,0090 | 1627 | 1530 | 2556 | 2111 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 64/110 kV with smooth welded aluminium sheath



Code: CU/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 64/110kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

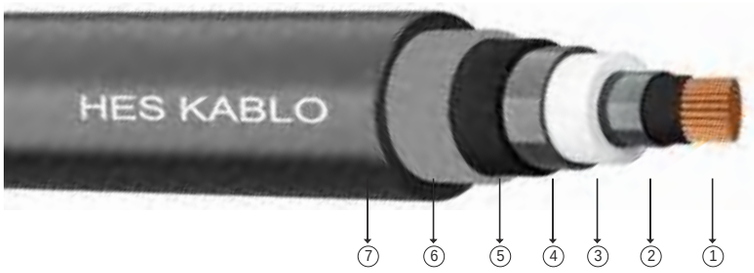
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x240/25 | 68,0 | 5400 | 0,18 | 0,0754 | 528 | 495 | 682 | 605 |
| 1x300/25 | 71,0 | 6100 | 0,19 | 0,0601 | 597 | 559 | 783 | 692 |
| 1x400/35 | 74,0 | 7100 | 0,21 | 0,0470 | 681 | 650 | 909 | 800 |
| 1x500/35 | 78,0 | 8400 | 0,22 | 0,0366 | 775 | 739 | 1053 | 922 |
| 1x630/35 | 82,0 | 9900 | 0,24 | 0,0283 | 884 | 841 | 1226 | 1065 |
| 1x800/35 | 86,0 | 11600 | 0,26 | 0,0221 | 994 | 945 | 1406 | 1208 |
| 1x1000/50 | 92,0 | 14000 | 0,29 | 0,0176 | 1169 | 1106 | 1695 | 1465 |
| 1x1200/50 | 97,0 | 16000 | 0,31 | 0,0151 | 1264 | 1231 | 1849 | 1595 |
| 1x1600/70 | 104,0 | 20000 | 0,34 | 0,0113 | 1456 | 1415 | 2185 | 1860 |
| 1x2000/95 | 115,0 | 24000 | 0,37 | 0,0090 | 1618 | 1570 | 2487 | 2089 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 76/132kV with smooth welded aluminium sheath



Code: CU/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 76/132kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

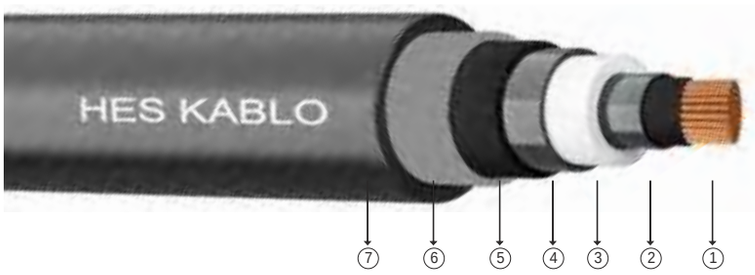
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x400/35 | 82,0 | 8900 | 0,17 | 0,0470 | 675 | 632 | 896 | 792 |
| 1x500/35 | 85,0 | 10000 | 0,19 | 0,0366 | 767 | 716 | 1033 | 908 |
| 1x630/35 | 89,0 | 11500 | 0,21 | 0,0283 | 872 | 811 | 1200 | 1045 |
| 1x800/35 | 93,0 | 13500 | 0,24 | 0,0221 | 979 | 932 | 1374 | 1182 |
| 1x1000/50 | 100,0 | 15500 | 0,23 | 0,0176 | 1145 | 1087 | 1649 | 1420 |
| 1x1200/50 | 105,0 | 17500 | 0,23 | 0,0151 | 1233 | 1212 | 1801 | 1539 |
| 1x1600/70 | 112,0 | 21500 | 0,25 | 0,0113 | 1414 | 1388 | 2125 | 1784 |
| 1x2000/95 | 120,0 | 25800 | 0,31 | 0,0090 | 1569 | 1532 | 2418 | 2003 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 89/154 kV with smooth welded aluminium sheath



Code: CU/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 89/154 kV |
| Min. bending radius | : 20x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

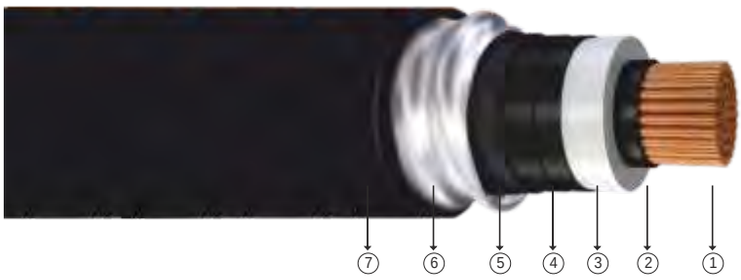
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x630/35 | 96,0 | 11400 | 0,19 | 0,0283 | 871 | 829 | 1193 | 1043 |
| 1x800/35 | 102,0 | 13600 | 0,20 | 0,0221 | 977 | 928 | 1367 | 1181 |
| 1x1000/50 | 106,0 | 16000 | 0,21 | 0,0176 | 1143 | 1081 | 1639 | 1415 |
| 1x1200/50 | 110,0 | 18500 | 0,22 | 0,0151 | 1232 | 1208 | 1790 | 1535 |
| 1x1600/70 | 120,0 | 22500 | 0,23 | 0,0113 | 1404 | 1382 | 2100 | 1765 |
| 1x2000/95 | 126,0 | 26500 | 0,27 | 0,0090 | 1554 | 1523 | 2384 | 1973 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 26/45 kV with corrugated aluminium sheath



Code: CU/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 26/45 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

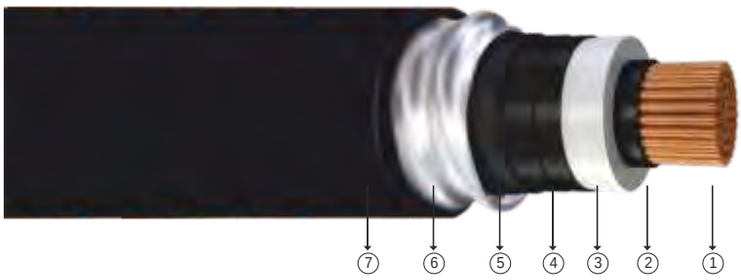
## Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x95/16 | 43,0 | 2100 | 1000 | 0,193 | 0,2470 | 0,610 | 0,419 | 0,153 | 363 | 329 | 421 | 362 |
| 1x120/16 | 45,0 | 2400 | 1000 | 0,153 | 0,1958 | 0,591 | 0,405 | 0,165 | 410 | 373 | 483 | 416 |
| 1x150/25 | 46,5 | 2800 | 1000 | 0,124 | 0,1587 | 0,574 | 0,342 | 0,178 | 449 | 415 | 540 | 469 |
| 1x185/25 | 48,5 | 3200 | 1000 | 0,0991 | 0,1268 | 0,557 | 0,381 | 0,191 | 503 | 468 | 615 | 536 |
| 1x240/25 | 51,0 | 3800 | 1000 | 0,0754 | 0,0965 | 0,537 | 0,366 | 0,209 | 576 | 541 | 718 | 630 |
| 1x300/25 | 53,0 | 4450 | 1000 | 0,0601 | 0,0769 | 0,520 | 0,354 | 0,248 | 641 | 608 | 812 | 717 |
| 1x400/35 | 56,5 | 5550 | 1000 | 0,0470 | 0,0602 | 0,499 | 0,341 | 0,226 | 697 | 684 | 904 | 823 |
| 1x500/35 | 60,0 | 6600 | 1000 | 0,0366 | 0,0468 | 0,482 | 0,330 | 0,274 | 768 | 762 | 1011 | 929 |
| 1x630/35 | 63,5 | 7950 | 1000 | 0,0283 | 0,0362 | 0,466 | 0,320 | 0,300 | 858 | 847 | 1128 | 1043 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
** : Trefoil formation
Number of system : 1

# 40/69 kV with corrugated aluminium sheath



Code: CU/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 40/69 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

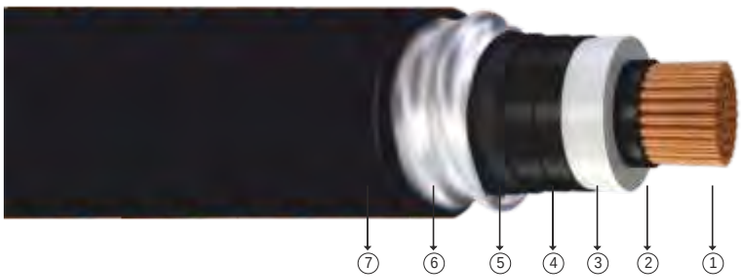
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x240/25 | 61,0 | 4700 | 0,18 | 0,0754 | 530 | 483 | 692 | 606 |
| 1x300/25 | 63,0 | 5400 | 0,19 | 0,0601 | 599 | 544 | 795 | 693 |
| 1x400/35 | 66,0 | 6300 | 0,21 | 0,0470 | 683 | 616 | 925 | 802 |
| 1x500/35 | 70,0 | 7600 | 0,23 | 0,0366 | 780 | 729 | 1075 | 929 |
| 1x630/35 | 75,0 | 9000 | 0,26 | 0,0283 | 886 | 828 | 1247 | 1066 |
| 1x800/35 | 79,0 | 10700 | 0,28 | 0,0221 | 997 | 929 | 1432 | 1210 |
| 1x1000/50 | 84,0 | 12900 | 0,31 | 0,0176 | 1173 | 1087 | 1728 | 1473 |
| 1x1200/50 | 90,0 | 15000 | 0,33 | 0,0151 | 1270 | 1173 | 1894 | 1611 |
| 1x1600/70 | 95,0 | 18800 | 0,37 | 0,0113 | 1465 | 1375 | 2245 | 1883 |
| 1x2000/95 | 102,0 | 22800 | 0,41 | 0,0090 | 1627 | 1530 | 2556 | 2111 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 64/110 kV with corrugated aluminium sheath



Code: CU/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 64/110kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

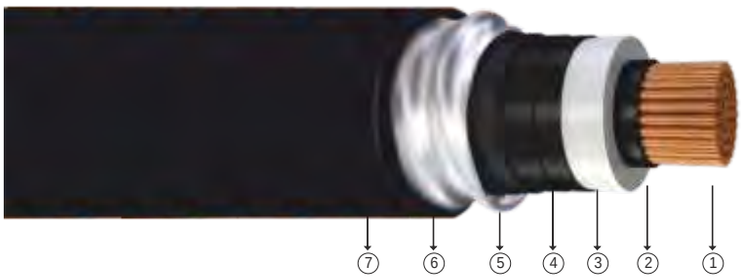
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x240/25 | 68,0 | 5400 | 0,18 | 0,0754 | 528 | 495 | 682 | 605 |
| 1x300/25 | 71,0 | 6100 | 0,19 | 0,0601 | 597 | 559 | 783 | 692 |
| 1x400/35 | 74,0 | 7100 | 0,21 | 0,0470 | 681 | 650 | 909 | 800 |
| 1x500/35 | 78,0 | 8400 | 0,22 | 0,0366 | 775 | 739 | 1053 | 922 |
| 1x630/35 | 82,0 | 9900 | 0,24 | 0,0283 | 884 | 841 | 1226 | 1065 |
| 1x800/35 | 86,0 | 11600 | 0,26 | 0,0221 | 994 | 945 | 1406 | 1208 |
| 1x1000/50 | 92,0 | 14000 | 0,29 | 0,0176 | 1169 | 1106 | 1695 | 1465 |
| 1x1200/50 | 97,0 | 16000 | 0,31 | 0,0151 | 1264 | 1231 | 1849 | 1595 |
| 1x1600/70 | 104,0 | 20000 | 0,34 | 0,0113 | 1456 | 1415 | 2185 | 1860 |
| 1x2000/95 | 115,0 | 24000 | 0,37 | 0,0090 | 1618 | 1570 | 2487 | 2089 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 76/132kV with corrugated aluminium sheath



Code: CU/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 76/132kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

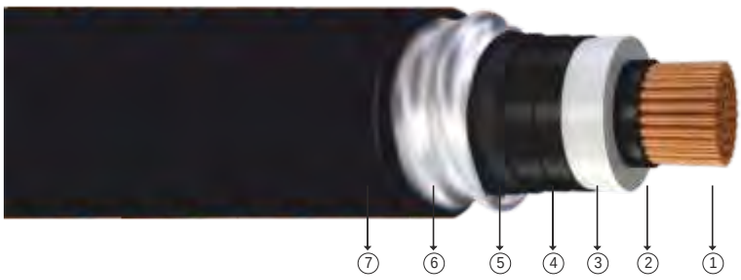
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x400/35 | 82,0 | 8900 | 0,17 | 0,0470 | 675 | 632 | 896 | 792 |
| 1x500/35 | 85,0 | 10000 | 0,19 | 0,0366 | 767 | 716 | 1033 | 908 |
| 1x630/35 | 89,0 | 11500 | 0,21 | 0,0283 | 872 | 811 | 1200 | 1045 |
| 1x800/35 | 93,0 | 13500 | 0,24 | 0,0221 | 979 | 932 | 1374 | 1182 |
| 1x1000/50 | 100,0 | 15500 | 0,23 | 0,0176 | 1145 | 1087 | 1649 | 1420 |
| 1x1200/50 | 105,0 | 17500 | 0,23 | 0,0151 | 1233 | 1212 | 1801 | 1539 |
| 1x1600/70 | 112,0 | 21500 | 0,25 | 0,0113 | 1414 | 1388 | 2125 | 1784 |
| 1x2000/95 | 120,0 | 25800 | 0,31 | 0,0090 | 1569 | 1532 | 2418 | 2003 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 89/154 kV with corrugated aluminium sheath



Code: CU/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 89/154 kV |
| Min. bending radius | : 20x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

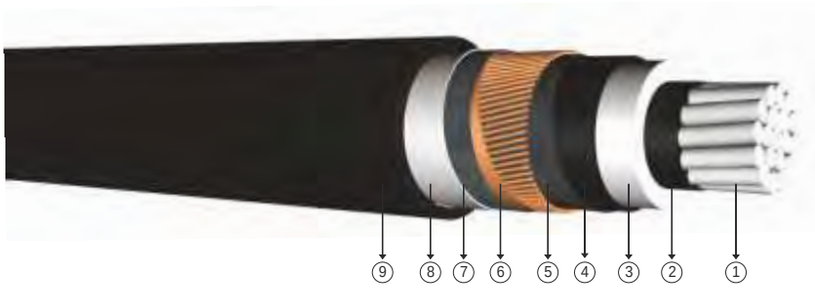
Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x630/35 | 96,0 | 11400 | 0,19 | 0,0283 | 871 | 829 | 1193 | 1043 |
| 1x800/35 | 102,0 | 13600 | 0,20 | 0,0221 | 977 | 928 | 1367 | 1181 |
| 1x1000/50 | 106,0 | 16000 | 0,21 | 0,0176 | 1143 | 1081 | 1639 | 1415 |
| 1x1200/50 | 110,0 | 18500 | 0,22 | 0,0151 | 1232 | 1208 | 1790 | 1535 |
| 1x1600/70 | 120,0 | 22500 | 0,23 | 0,0113 | 1404 | 1382 | 2100 | 1765 |
| 1x2000/95 | 126,0 | 26500 | 0,27 | 0,0090 | 1554 | 1523 | 2384 | 1973 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 26/45 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 26/45kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

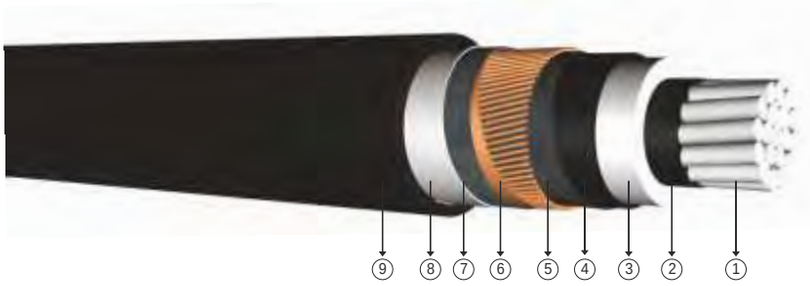
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductive swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x95/16 | 42,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,609 | 0,416 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 44,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,590 | 0,401 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 45,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,572 | 0,389 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 47,5 | 1950 | 1000 | 0,164 | 0,2099 | 0,556 | 0,376 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 50,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,535 | 0,363 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 52,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,519 | 0,351 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 55,5 | 2950 | 1000 | 0,0788 | 0,1009 | 0,497 | 0,338 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 59,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,481 | 0,328 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 62,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,464 | 0,317 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 40/69 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 40/69 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

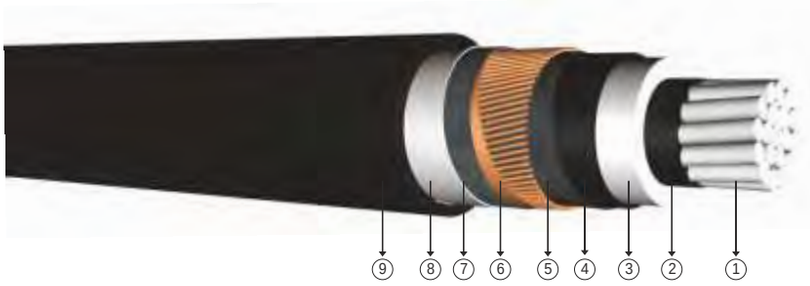
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductive swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x300/25 | 61,0 | 2900 | 0,19 | 0,100 | 480 | 450 | 640 | 510 |
| 1x400/35 | 65,0 | 3300 | 0,21 | 0,0778 | 550 | 525 | 752 | 614 |
| 1x500/35 | 67,0 | 4000 | 0,23 | 0,0605 | 630 | 605 | 875 | 669 |
| 1x630/35 | 73,0 | 4500 | 0,26 | 0,0469 | 720 | 700 | 1020 | 805 |
| 1x800/35 | 77,0 | 5200 | 0,28 | 0,0367 | 820 | 800 | 1180 | 930 |
| 1x1000/50 | 80,0 | 6200 | 0,31 | 0,0291 | 930 | 910 | 1360 | 1056 |
| 1x1200/50 | 84,0 | 6900 | 0,33 | 0,0247 | 1040 | 1025 | 1555 | 1169 |
| 1x1600/70 | 90,0 | 8500 | 0,37 | 0,0212 | 1210 | 1179 | 1834 | 1432 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 64/110 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 64/110kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

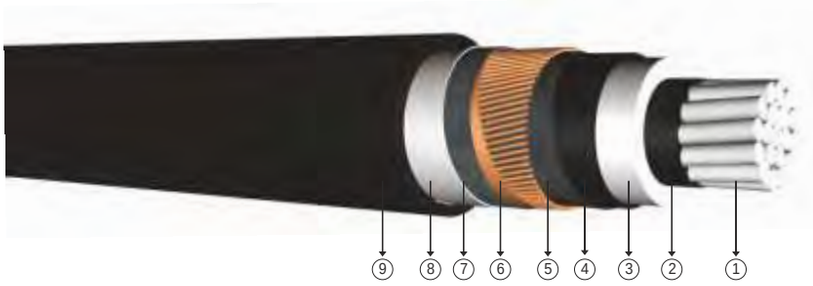
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductive swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x300/25 | 70,0 | 4677 | 0,19 | 0,100 | 407 | 377 | 593 | 527 |
| 1x400/35 | 74,0 | 5076 | 0,19 | 0,0778 | 485 | 444 | 690 | 627 |
| 1x500/35 | 78,0 | 5610 | 0,21 | 0,0605 | 523 | 479 | 745 | 677 |
| 1x630/35 | 81,0 | 6278 | 0,23 | 0,0469 | 591 | 542 | 910 | 844 |
| 1x800/35 | 85,0 | 6348 | 0,24 | 0,0367 | 665 | 590 | 1052 | 982 |
| 1x1000/50 | 89,0 | 7853 | 0,27 | 0,0291 | 727 | 643 | 1180 | 1110 |
| 1x1200/50 | 94,0 | 8792 | 0,29 | 0,0247 | 767 | 648 | 1226 | 1163 |
| 1x1600/70 | 100,0 | 10337 | 0,31 | 0,0212 | 912 | 784 | 1390 | 1310 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 76/132 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 76/132kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

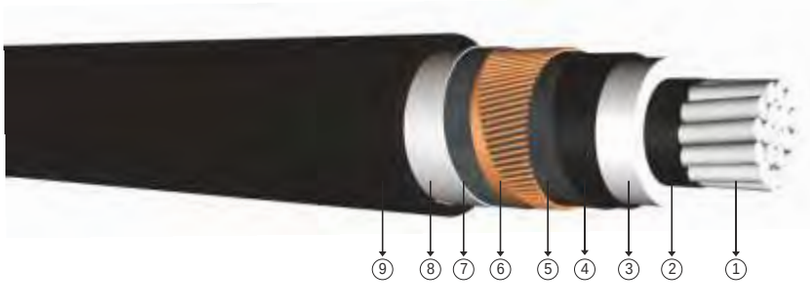
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductive swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x400/35 | 77,0 | 5533 | 0,17 | 0,0778 | 453 | 411 | 690 | 626 |
| 1x500/35 | 80,0 | 6034 | 0,19 | 0,0605 | 510 | 450 | 770 | 615 |
| 1x630/35 | 84,0 | 6740 | 0,21 | 0,0469 | 566 | 512 | 907 | 842 |
| 1x800/35 | 90,0 | 7756 | 0,23 | 0,0367 | 638 | 586 | 1017 | 982 |
| 1x1000/50 | 94,0 | 8596 | 0,23 | 0,0291 | 718 | 647 | 1186 | 1098 |
| 1x1200/50 | 97,0 | 9319 | 0,25 | 0,0247 | 760 | 674 | 1260 | 1162 |
| 1x1600/70 | 104,0 | 10910 | 0,27 | 0,0212 | 923 | 841 | 1362 | 1221 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 89/154 kV XLPE insulated, radial and longitudinally sealed, single core cables with aluminium conductor



Code: NA2XS(FL)2Y

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 89/154 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Copper screen
7. Semi conductive swelling tape
8. PE coated aluminium foil
9. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x630/35 | 98,0 | 6700 | 0,19 | 0,0469 | 715 | 701 | 1009 | 815 |
| 1x800/35 | 101,0 | 7500 | 0,20 | 0,0367 | 813 | 803 | 1169 | 935 |
| 1x1000/50 | 105,0 | 8600 | 0,21 | 0,0291 | 920 | 910 | 1340 | 1060 |
| 1x1200/50 | 108,0 | 9300 | 0,22 | 0,0247 | 1030 | 1020 | 1530 | 1086 |
| 1x1600/70 | 120,0 | 11200 | 0,23 | 0,0212 | 1195 | 1179 | 1803 | 1421 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 26/45 kV with smooth welded aluminium sheath

Code: AL/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 26/45kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x95/16 | 42,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,609 | 0,416 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 44,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,590 | 0,401 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 45,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,572 | 0,389 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 47,5 | 1950 | 1000 | 0,164 | 0,2099 | 0,556 | 0,376 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 50,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,535 | 0,363 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 52,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,519 | 0,351 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 55,5 | 2950 | 1000 | 0,0788 | 0,1009 | 0,497 | 0,338 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 59,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,481 | 0,328 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 62,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,464 | 0,317 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 40/69 kV with smooth welded aluminium sheath

Code: AL/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 40/69 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x300/25 | 61,0 | 2900 | 0,19 | 0,100 | 480 | 450 | 640 | 510 |
| 1x400/35 | 65,0 | 3300 | 0,21 | 0,0778 | 550 | 525 | 752 | 614 |
| 1x500/35 | 67,0 | 4000 | 0,23 | 0,0605 | 630 | 605 | 875 | 669 |
| 1x630/35 | 73,0 | 4500 | 0,26 | 0,0469 | 720 | 700 | 1020 | 805 |
| 1x800/35 | 77,0 | 5200 | 0,28 | 0,0367 | 820 | 800 | 1180 | 930 |
| 1x1000/50 | 80,0 | 6200 | 0,31 | 0,0291 | 930 | 910 | 1360 | 1056 |
| 1x1200/50 | 84,0 | 6900 | 0,33 | 0,0247 | 1040 | 1025 | 1555 | 1169 |
| 1x1600/70 | 90,0 | 8500 | 0,37 | 0,0212 | 1210 | 1179 | 1834 | 1432 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 64/110 kV with smooth welded aluminium sheath

Code: AL/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 64/110kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x300/25 | 70,0 | 4677 | 0,19 | 0,100 | 407 | 377 | 593 | 527 |
| 1x400/35 | 74,0 | 5076 | 0,19 | 0,0778 | 485 | 444 | 690 | 627 |
| 1x500/35 | 78,0 | 5610 | 0,21 | 0,0605 | 523 | 479 | 745 | 677 |
| 1x630/35 | 81,0 | 6278 | 0,23 | 0,0469 | 591 | 542 | 910 | 844 |
| 1x800/35 | 85,0 | 6348 | 0,24 | 0,0367 | 665 | 590 | 1052 | 982 |
| 1x1000/50 | 89,0 | 7853 | 0,27 | 0,0291 | 727 | 643 | 1180 | 1110 |
| 1x1200/50 | 94,0 | 8792 | 0,29 | 0,0247 | 767 | 648 | 1226 | 1163 |
| 1x1600/70 | 100,0 | 10337 | 0,31 | 0,0212 | 912 | 784 | 1390 | 1310 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 76/132 kV with smooth welded aluminium sheath

Code: AL/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 76/132kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x400/35 | 77,0 | 5533 | 0,17 | 0,0778 | 453 | 411 | 690 | 626 |
| 1x500/35 | 80,0 | 6034 | 0,19 | 0,0605 | 510 | 450 | 770 | 615 |
| 1x630/35 | 84,0 | 6740 | 0,21 | 0,0469 | 566 | 512 | 907 | 842 |
| 1x800/35 | 90,0 | 7756 | 0,23 | 0,0367 | 638 | 586 | 1017 | 982 |
| 1x1000/50 | 94,0 | 8596 | 0,23 | 0,0291 | 718 | 647 | 1186 | 1098 |
| 1x1200/50 | 97,0 | 9319 | 0,25 | 0,0247 | 760 | 674 | 1260 | 1162 |
| 1x1600/70 | 104,0 | 10910 | 0,27 | 0,0212 | 923 | 841 | 1362 | 1221 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 89/154 kV with smooth welded aluminium sheath

Code: AL/XLPE/ATS/HDPE

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 89/154 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

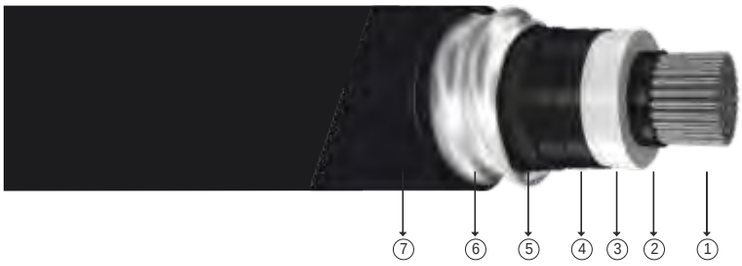
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Smooth welded aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x630/35 | 98,0 | 6700 | 0,19 | 0,0469 | 715 | 701 | 1009 | 815 |
| 1x800/35 | 101,0 | 7500 | 0,20 | 0,0367 | 813 | 803 | 1169 | 935 |
| 1x1000/50 | 105,0 | 8600 | 0,21 | 0,0291 | 920 | 910 | 1340 | 1060 |
| 1x1200/50 | 108,0 | 9300 | 0,22 | 0,0247 | 1030 | 1020 | 1530 | 1086 |
| 1x1600/70 | 120,0 | 11200 | 0,23 | 0,0212 | 1195 | 1179 | 1803 | 1421 |

Note : Current carrying capacities are valid under the following conditions;
In ground : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7
In air : 30ºC, load factor 1,0
*** : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1

# 26/45 kV with corrugated aluminium sheath



Code: AL/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

## Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 26/45kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

## Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

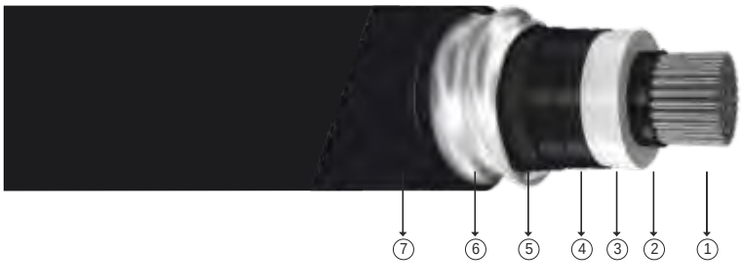
## Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | | ELECTRICAL PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Delivery Length | DC Conductor Resistance at 20ºC (Max) | DC Conductor Resistance at 90ºC (Max) | Operation Inductance (approx) | | Operation Capacitance (approx) | Current Carrying Capacity (A) | | | |
| | | | | | | | | | In ground at 20ºC | | In air at 30ºC | |
| mm² | mm | kg/km | m | Ω/km | Ω/km | *** mH/km | ** mH/km | µF/km | *** | ** | *** | ** |
| 1x95/16 | 42,0 | 1400 | 1000 | 0,320 | 0,4096 | 0,609 | 0,416 | 0,153 | 284 | 256 | 328 | 281 |
| 1x120/16 | 44,0 | 1500 | 1000 | 0,253 | 0,3238 | 0,590 | 0,401 | 0,165 | 322 | 290 | 378 | 323 |
| 1x150/25 | 45,5 | 1750 | 1000 | 0,206 | 0,2637 | 0,572 | 0,389 | 0,178 | 355 | 324 | 425 | 365 |
| 1x185/25 | 47,5 | 1950 | 1000 | 0,164 | 0,2099 | 0,556 | 0,376 | 0,191 | 400 | 366 | 485 | 418 |
| 1x240/25 | 50,0 | 2200 | 1000 | 0,125 | 0,1600 | 0,535 | 0,363 | 0,209 | 461 | 426 | 572 | 494 |
| 1x300/25 | 52,5 | 2450 | 1000 | 0,100 | 0,1280 | 0,519 | 0,351 | 0,226 | 516 | 479 | 649 | 564 |
| 1x400/35 | 55,5 | 2950 | 1000 | 0,0788 | 0,1009 | 0,497 | 0,338 | 0,252 | 572 | 545 | 737 | 654 |
| 1x500/35 | 59,0 | 3400 | 1000 | 0,0605 | 0,0774 | 0,481 | 0,328 | 0,274 | 638 | 614 | 835 | 747 |
| 1x630/35 | 62,5 | 3900 | 1000 | 0,0469 | 0,0600 | 0,464 | 0,317 | 0,300 | 728 | 690 | 950 | 851 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| ** | : Trefoil formation |
| Number of system | : 1 |

# 40/69 kV with corrugated aluminium sheath



Code: AL/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 40/69 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

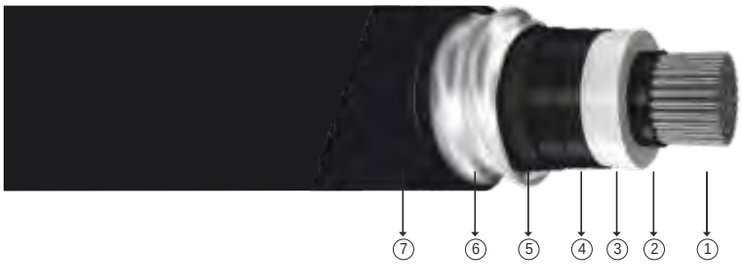
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x300/25 | 61,0 | 2900 | 0,19 | 0,100 | 480 | 450 | 640 | 510 |
| 1x400/35 | 65,0 | 3300 | 0,21 | 0,0778 | 550 | 525 | 752 | 614 |
| 1x500/35 | 67,0 | 4000 | 0,23 | 0,0605 | 630 | 605 | 875 | 669 |
| 1x630/35 | 73,0 | 4500 | 0,26 | 0,0469 | 720 | 700 | 1020 | 805 |
| 1x800/35 | 77,0 | 5200 | 0,28 | 0,0367 | 820 | 800 | 1180 | 930 |
| 1x1000/50 | 80,0 | 6200 | 0,31 | 0,0291 | 930 | 910 | 1360 | 1056 |
| 1x1200/50 | 84,0 | 6900 | 0,33 | 0,0247 | 1040 | 1025 | 1555 | 1169 |
| 1x1600/70 | 90,0 | 8500 | 0,37 | 0,0212 | 1210 | 1179 | 1834 | 1432 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 64/110 kV with corrugated aluminium sheath



Code: AL/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 64/110kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

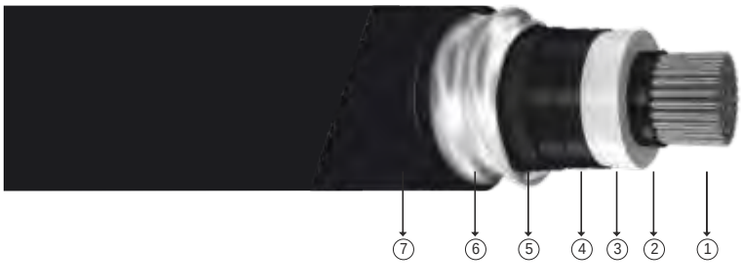
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x300/25 | 70,0 | 4677 | 0,19 | 0,100 | 407 | 377 | 593 | 527 |
| 1x400/35 | 74,0 | 5076 | 0,19 | 0,0778 | 485 | 444 | 690 | 627 |
| 1x500/35 | 78,0 | 5610 | 0,21 | 0,0605 | 523 | 479 | 745 | 677 |
| 1x630/35 | 81,0 | 6278 | 0,23 | 0,0469 | 591 | 542 | 910 | 844 |
| 1x800/35 | 85,0 | 6348 | 0,24 | 0,0367 | 665 | 590 | 1052 | 982 |
| 1x1000/50 | 89,0 | 7853 | 0,27 | 0,0291 | 727 | 643 | 1180 | 1110 |
| 1x1200/50 | 94,0 | 8792 | 0,29 | 0,0247 | 767 | 648 | 1226 | 1163 |
| 1x1600/70 | 100,0 | 10337 | 0,31 | 0,0212 | 912 | 784 | 1390 | 1310 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 76/132 kV with corrugated aluminium sheath



Code: AL/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 76/132kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

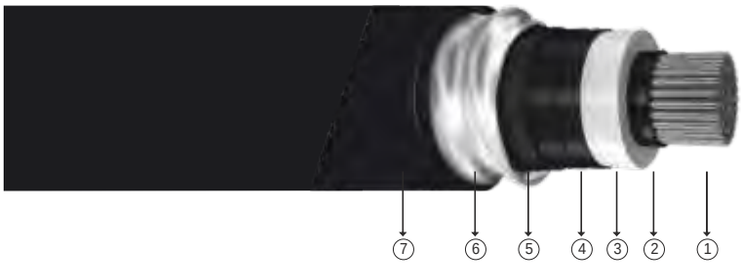
Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x400/35 | 77,0 | 5533 | 0,17 | 0,0778 | 453 | 411 | 690 | 626 |
| 1x500/35 | 80,0 | 6034 | 0,19 | 0,0605 | 510 | 450 | 770 | 615 |
| 1x630/35 | 84,0 | 6740 | 0,21 | 0,0469 | 566 | 512 | 907 | 842 |
| 1x800/35 | 90,0 | 7756 | 0,23 | 0,0367 | 638 | 586 | 1017 | 982 |
| 1x1000/50 | 94,0 | 8596 | 0,23 | 0,0291 | 718 | 647 | 1186 | 1098 |
| 1x1200/50 | 97,0 | 9319 | 0,25 | 0,0247 | 760 | 674 | 1260 | 1162 |
| 1x1600/70 | 104,0 | 10910 | 0,27 | 0,0212 | 923 | 841 | 1362 | 1221 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

# 89/154 kV with corrugated aluminium sheath



Code: AL/XLPE/Corrugated AL/HDPE

Standards: VDE 0276-632, IEC 60840

Technical Data

| | |
|---|---|
| Max. operating temperature | : 90°C |
| Max. short circuit temperature | : 250°C (max. 5 sec.) |
| Rated voltage | : 89/154 kV |
| Min. bending radius | : 20 x D |
| D | : Cable outer diameter |

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts. Swellable tape prevents cable damage by stopping water or moisture if water ingress to the cable.

Construction

1. Stranded aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive swelling tape
6. Corrugated aluminium sheath
7. PE outer sheath

| DIMENSION AND WEIGHTS | | | ELECTRICAL PROPERTIES | | | | | |
|---|---|---|---|---|---|---|---|---|
| Nominal Cross Section | Overall Diameter (approx) | Net Weight (approx) | Operation Capaticance (approx) | DC Conductor Resistance at 20°C (Max) | Current Carrying Capacity (A) | | | |
| | | | | | In ground at 20°C | In duct 20°C | In air at 30°C | |
| mm² | mm | kg/km | µF/km | Ω/km | | | *** | *** |
| 1x630/35 | 98,0 | 6700 | 0,19 | 0,0469 | 715 | 701 | 1009 | 815 |
| 1x800/35 | 101,0 | 7500 | 0,20 | 0,0367 | 813 | 803 | 1169 | 935 |
| 1x1000/50 | 105,0 | 8600 | 0,21 | 0,0291 | 920 | 910 | 1340 | 1060 |
| 1x1200/50 | 108,0 | 9300 | 0,22 | 0,0247 | 1030 | 1020 | 1530 | 1086 |
| 1x1600/70 | 120,0 | 11200 | 0,23 | 0,0212 | 1195 | 1179 | 1803 | 1421 |

| | |
|---|---|
| Note | : Current carrying capacities are valid under the following conditions; |
| In ground | : 20ºC, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7 |
| In air | : 30ºC, load factor 1,0 |
| *** | : Flat formation, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm |
| *** | : Trefoil formation |
| Number of system | : 1 |

Conductors

Aerial Line
Power Cables

High quality
aluminum conductors!

HES KABLO

Reliable technology

## Aluminium Rod

Aluminum, which is one of the most basic raw materials used in the production of the cables and conductors with copper, is produced in the new facilities established by HES Kablo in the Kayseri Industrial Park.

Producing the Aluminium rods in the HES facilities ensures that keeping the quality of Aluminium completely under control as it is in copper and minimizing the dependence to the external factors to the lowest possible levels. Production is carried out by converting the Aluminium ingots in to wire rods through the continuous casting technique. The Aluminium rods thus produced offer the highest quality in cables and overhead conductors with their excellent mechanical and electrical properties.

Product: Aluminium rod

Diameter: 9,5 ± 0,5 and 12 ± 0, 5mm

Packaging: The Aluminium rods are wound in large coils, tied with plastic tapes and presented to our customers on wooden pallets

Weight: 2000 kg ±%10

### Guaranteed Chemical Analysis: EN AW 1370 (EAl 99,7)

| Al (%) | Fe (%) | Si (%) | Cu (%) | Zn(%) | Ti (%) | Mn (%) | Mg (%) | Cr (%) | B (%) |
|---|---|---|---|---|---|---|---|---|---|
| (Min) | (Max) | (Max) | (Max) | (Max) | (Max) | (Max) | (Max) | (Max) | (Max) |
| 99,7 | 0,20 | 0,10 | 0,020 | 0,040 | 0,010 | 0,010 | 0,020 | 0,010 | 0,020 |

### Mechanical and Electrical Specifications:

| Definition | Strength | Resistance (Mpa) | Resistivity (ohm.mm²/m) | Conductivity (%IACS) |
|---|---|---|---|---|
| EN AW 1370 (AA 1370) | H11 | 80-95 | 0,02785 | 61,90 |
| | H12 | 95-110 | 0,02801 | 61,55 |
| | H13 | 105-120 | 0,02801 | 61,55 |
| | H14 | 115-130 | 0,02801 | 61,55 |

For any other special requests, please contact HES KABLO

Properties

Properties Aluminium conductors can be divided into two groups : “All Aluminium Conductors” and “Steel Reinforced Aluminium Conductors”. Aluminium wires, used to produce aluminium conductors are obtained by cold-drawing (hard or annealed) method from high quality rods.

All Aluminium Conductors - AAC
TS EN 50182, ASTM B-230, ASTM B-231, IEC 61089, CSAC 48 DIN 48201

Aluminium Conductors Steel Reinforced - ACSR

TS EN 50182, ASTM B-230, ASTM B-232, IEC 61089
ASTM B-498, DIN 48204, BS 215

All Aluminium Alloy Conductors - AAAC
TS EN 50182, ASTM B-299, IEC 61089, CSA C49.1
B 231, BS 215, DIN 48201

Aluminium Alloy Conductors Steel Reinforced - AACSR

TS EN 50182, ASTM B-711, IEC 61089

manufactured in accordance with customer specifications or standards.

# AAC - All Aluminium Conductors, American Sizes ASTM B231 / B231M

| Code Words | Wire Diameter | Overall Diameter | Cross Section | Approximate Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm² | kg/km | kN | Ω/km | A |
| Rose | 7/1,96 | 5,88 | 21,10 | 58,2 | 3,91 | 1,3620 | 138 |
| Iris | 7/2,47 | 7,41 | 33,60 | 92,6 | 5,99 | 0,8574 | 185 |
| Pansy | 7/2,78 | 8,34 | 42,40 | 116,6 | 7,30 | 0,6801 | 214 |
| Poppy | 7/3,12 | 9,36 | 53,50 | 147,2 | 8,84 | 0,5390 | 247 |
| Aster | 7/3,50 | 10,50 | 67,40 | 185,7 | 11,10 | 0,4276 | 286 |
| Phlox | 7/3,93 | 11,79 | 85,00 | 233,9 | 13,50 | 0,3390 | 331 |
| Oxlip | 7/4,42 | 13,26 | 107,20 | 295,2 | 17,00 | 0,2688 | 383 |
| Valerian | 19/2,91 | 14,55 | 126,70 | 348,6 | 20,70 | 0,2275 | 425 |
| Sneezewort | 7/4,80 | 14,40 | 126,70 | 348,8 | 20,10 | 0,2275 | 425 |
| Laurel | 19/3,10 | 15,05 | 135,20 | 372,2 | 22,10 | 0,2133 | 443 |
| Daisy | 7/4,96 | 14,88 | 135,20 | 372,3 | 21,40 | 0,2133 | 443 |
| Peony | 19/3,19 | 15,95 | 152,00 | 418,3 | 24,30 | 0,1896 | 478 |
| Tulip | 19/3,38 | 16,90 | 170,50 | 469,5 | 27,30 | 0,1695 | 513 |
| Daffodil | 19/3,45 | 17,25 | 177,30 | 487,9 | 28,40 | 0,1625 | 526 |
| Canna | 19/3,67 | 18,35 | 201,40 | 554,9 | 31,60 | 0,1432 | 570 |
| Goldentuft | 19/3,91 | 19,55 | 228,00 | 627,6 | 35,00 | 0,1264 | 616 |
| Syringa | 37/2,88 | 20,16 | 242,00 | 664,8 | 38,60 | 0,1193 | 639 |
| Cosmos | 19/4,02 | 20,10 | 242,00 | 664,8 | 37,00 | 0,1193 | 639 |
| Hyacinth | 37/2,95 | 20,65 | 253,30 | 696,8 | 40,50 | 0,1137 | 658 |
| Zinnia | 19/4,12 | 20,60 | 253,30 | 697,1 | 38,90 | 0,1137 | 658 |
| Dahlia | 19/4,35 | 21,75 | 282,00 | 775,8 | 43,30 | 0,1023 | 703 |
| Mistletoe | 37/3,12 | 21,84 | 282,00 | 775,7 | 44,30 | 0,1023 | 704 |
| Meadowsweet | 37/3,23 | 22,61 | 304,00 | 836,3 | 47,50 | 0,0948 | 738 |
| Orchid | 37/3,33 | 23,31 | 323,30 | 886,9 | 50,40 | 0,0893 | 765 |
| Heuchera | 37/3,37 | 23,59 | 329,40 | 907,4 | 51,70 | 0,0875 | 775 |
| Flag | 61/2,72 | 24,48 | 354,70 | 975,8 | 57,10 | 0,0813 | 812 |
| Varbena | 37/3,49 | 24,43 | 354,70 | 975,7 | 55,40 | 0,0813 | 812 |
| Nasturtium | 61/2,75 | 24,75 | 362,60 | 998,5 | 58,40 | 0,0795 | 823 |
| Violet | 37/3,53 | 24,71 | 362,60 | 998,5 | 56,70 | 0,0795 | 823 |
| Cattail | 61/2,82 | 25,38 | 380,00 | 1046,0 | 60,30 | 0,0759 | 847 |
| Petunia | 37/3,62 | 25,34 | 380,00 | 1046,0 | 58,60 | 0,0759 | 847 |
| Lilac | 61/2,90 | 26,10 | 402,80 | 1110,0 | 63,80 | 0,0715 | 878 |
| Arbustus | 37/3,72 | 26,04 | 402,80 | 1109,0 | 61,80 | 0,0715 | 878 |
| Snapdragon | 61/3,09 | 27,81 | 456,00 | 1256,0 | 70,80 | 0,0632 | 948 |
| Cockscomb | 37/3,96 | 27,72 | 456,00 | 1256,0 | 68,40 | 0,0632 | 948 |
| Goldenrod | 61/3,18 | 28,62 | 483,40 | 1331,0 | 75,00 | 0,0596 | 982 |
| Magnolia | 37/4,08 | 28,56 | 483,40 | 1331,0 | 72,60 | 0,0596 | 982 |
| Camellia | 61/3,25 | 29,25 | 506,70 | 1394,0 | 78,30 | 0,0596 | 1010 |
| Hawkweed | 37/4,18 | 29,26 | 506,70 | 1395,0 | 76,20 | 0,0596 | 1010 |
| Larkspur | 61/3,31 | 29,79 | 523,70 | 1442,0 | 81,30 | 0,0550 | 1031 |
| Bluebell | 37/4,25 | 29,75 | 523,70 | 1441,0 | 78,80 | 0,0550 | 1031 |
| Marigold | 61/3,43 | 30,87 | 564,00 | 1553,0 | 87,30 | 0,0511 | 1079 |
| Hawthorn | 61/3,55 | 31,95 | 604,20 | 1662,0 | 93,50 | 0,0447 | 1124 |
| Narcissus | 61/3,67 | 33,03 | 644,50 | 1774,0 | 98,10 | 0,0447 | 1169 |
| Columbine | 61/3,78 | 34,02 | 694,80 | 1884,0 | 104,00 | 0,0421 | 1212 |
| Carnation | 61/3,89 | 35,01 | 725,10 | 1997,0 | 108,00 | 0, 0398 | 1253 |
| Gladiolus | 61/4,00 | 36,00 | 765,41 | 2108,0 | 114,00 | 0,0376 | 1294 |
| Coreopsis | 61/4,10 | 36,90 | 805,70 | 2216,0 | 120,00 | 0,0358 | 1333 |
| Jessamine | 61/4,30 | 38,70 | 886,70 | 2442,0 | 132,00 | 0,0325 | 1408 |
| Cowslip | 91/3,77 | 41,47 | 1013,00 | 2787,0 | 153,00 | 0,0284 | 1518 |
| Sagebrush | 91/3,99 | 43,89 | 1140,00 | 3166,0 | 167,00 | 0,0255 | 1612 |
| Lupine | 91/4,21 | 46,31 | 1267,00 | 3519,0 | 186,00 | 0,0230 | 1706 |
| Bitterroot | 91/4,42 | 48,62 | 1393,00 | 3872,0 | 205,00 | 0,0209 | 1793 |
| Trillium | 127/3,90 | 50,70 | 1520,00 | 4226,0 | 223,00 | 0,0191 | 1874 |
| Bluebonnet | 127/4,22 | 54,86 | 1773,00 | 4977,0 | 261,00 | 0,0166 | 2024 |

# AAC - All Aluminium Conductors, Canadian Sizes CSA C 49

| Code Words | Wire Diameter | Overall Diameter | Cross Section | Approximate Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm² | kg/km | kN | Ω/km | A |
| Rose | 7/1,96 | 5,89 | 21,16 | 58 | 4,1 | 1,3510 | 104 |
| Lily | 7/2,20 | 6,61 | 26,65 | 73 | 5,0 | 1,0720 | 124 |
| Iris | 7/2,47 | 7,42 | 33,61 | 92 | 6,2 | 0,8497 | 136 |
| Pansy | 7/2,77 | 8,33 | 42,39 | 116 | 7,6 | 0,6739 | 157 |
| Poppy | 7/3,12 | 9,36 | 53,48 | 146 | 9,2 | 0,5341 | 180 |
| Aster | 7/3,50 | 10,51 | 67,42 | 184 | 11,6 | 0,4236 | 207 |
| Phlox | 7/3,93 | 11,80 | 85,03 | 232 | 14,1 | 0,3360 | 237 |
| Oxlip | 7/4,41 | 13,25 | 107,23 | 293 | 17,7 | 0,2664 | 273 |
| Daisy | 7/4,96 | 14,90 | 135,16 | 369 | 22,4 | 0,2113 | 313 |
| Valerian | 19/2,91 | 14,57 | 126,71 | 348 | 22,3 | 0,2274 | 305 |
| Laurel | 19/3,01 | 15,05 | 135,16 | 372 | 23,8 | 0,2129 | 317 |
| Peony | 19/3,19 | 15,97 | 152,00 | 417 | 26,2 | 0,1880 | 340 |
| Tulip | 19/3,38 | 16,91 | 170,45 | 467 | 29,4 | 0,1638 | 364 |
| Daffodil | 19/3,44 | 17,24 | 177,35 | 488 | 30,6 | 0,1624 | 373 |
| Canna | 19/3,67 | 18,36 | 201,42 | 554 | 34,0 | 0,1427 | 401 |
| - | 19/3,68 | 18,43 | 202,71 | 558 | 34,2 | 0,1421 | 402 |
| Goldentuft | 19/3,90 | 19,55 | 228,00 | 626 | 37,7 | 0,1263 | 432 |
| Cosmos | 19/4,02 | 20,12 | 241,68 | 664 | 40,0 | 0,1188 | 447 |
| Zinnia | 19/4,12 | 20,60 | 253,35 | 695 | 41,9 | 0,1132 | 459 |
| Dahlia | 19/4,34 | 21,73 | 282,00 | 774 | 46,7 | 0,1018 | 489 |
| - | 37/3,09 | 21,67 | 278,71 | 768 | 48,0 | 0,1033 | 485 |
| Meadowsweet | 37/3,23 | 22,63 | 304,00 | 838 | 52,4 | 0,0948 | 513 |
| Orchid | 37/3,33 | 23,31 | 322,26 | 888 | 55,6 | 0,0896 | 531 |
| Heuchera | 37/3,36 | 23,56 | 329,35 | 908 | 56,8 | 0,0876 | 538 |
| Varbena | 37/3,49 | 24,45 | 354,71 | 978 | 61,1 | 0,0814 | 562 |
| Violet | 37/3,53 | 24,74 | 362,58 | 1000 | 62,5 | 0,0797 | 570 |
| Patunia | 37/3,61 | 25,32 | 380,00 | 1048 | 64,2 | 0,0758 | 585 |
| Arbutus | 37/3,72 | 26,06 | 402,84 | 1112 | 68,1 | 0,0715 | 605 |
| - | 37/3,73 | 26,14 | 405,35 | 1118 | 68,5 | 0,0712 | 608 |
| Anemone | 37/3,90 | 27,33 | 443,10 | 1222 | 73,3 | 0,0653 | 641 |
| Cockscomb | 37/3,96 | 27,73 | 456,06 | 1257 | 75,4 | 0,0633 | 657 |
| Magnolia | 37/4,07 | 28,55 | 483,42 | 1333 | 80,0 | 0,0597 | 675 |
| Hawkweed | 37/4,17 | 29,23 | 506,71 | 1396 | 83,8 | 0,0568 | 693 |
| Bluebell | 37/4,24 | 29,72 | 523,68 | 1445 | 86,6 | 0,0551 | 706 |
| - | 61/3,41 | 30,70 | 557,35 | 1539 | 96,1 | 0,0518 | 733 |
| Marigold | 61/3,43 | 30,89 | 563,93 | 1559 | 97,2 | 0,0512 | 738 |
| Hawthorn | 61/3,55 | 31,95 | 604,26 | 1670 | 104,1 | 0,0479 | 767 |
| - | 61/3,56 | 32,08 | 608,06 | 1679 | 102,7 | 0,0476 | 771 |
| Narcissus | 61/3,66 | 33,02 | 644,51 | 1781 | 108,8 | 0,0450 | 797 |
| - | 61/3,70 | 33,37 | 658,71 | 1818 | 111,2 | 0,0440 | 807 |
| Columbine | 61/3,78 | 34,01 | 684,84 | 1893 | 115,6 | 0,0423 | 825 |
| - | 61/3,84 | 34,63 | 709,42 | 1958 | 117,4 | 0,0407 | 842 |
| Carnation | 61/3,89 | 35,03 | 725,10 | 2004 | 119,9 | 0,0400 | 854 |
| - | 61/3,98 | 35,85 | 760,06 | 2098 | 125,7 | 0,0381 | 877 |
| Gladiolus | 61/3,99 | 35,99 | 765,35 | 2116 | 126,5 | 0,0377 | 881 |
| Corepsis | 61/4,09 | 36,91 | 805,68 | 2226 | 133,2 | 0,0358 | 907 |
| - | 61/4,11 | 37,04 | 810,71 | 2238 | 134,1 | 0,0358 | 910 |
| - | 61/4,23 | 38,15 | 861,42 | 2378 | 142,6 | 0,0335 | 942 |
| - | 61/3,57 | 39,28 | 912,06 | 2521 | 153,9 | 0,0316 | 975 |

# AAC - All Aluminium Conductors, German Sizes DIN EN 50182

| Code | Wire Diameter | Overall Diameter | Cross Section | Approximate Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm² | kg/km | kN | Ω/km | A |
| 16-AL1 | 7/1,70 | 5,1 | 15,9 | 43,4 | 3,02 | 1,7986 | 110 |
| 24-AL1 | 7/2,10 | 6,3 | 24,2 | 66,3 | 4,36 | 1,1787 | 144 |
| 34-AL1 | 7/2,50 | 7,5 | 34,4 | 93,9 | 6,01 | 0,8317 | 180 |
| 49-AL1 | 7/3,00 | 9,0 | 49,5 | 135,2 | 8,41 | 0,5776 | 225 |
| 48-AL1 | 19/1,80 | 9,0 | 48,3 | 132,9 | 8,94 | 0,5944 | 225 |
| 66-AL1 | 19/2,10 | 10,5 | 65,8 | 180,9 | 11,85 | 0,4367 | 270 |
| 93-AL1 | 19/2,50 | 12,5 | 93,3 | 256,3 | 16,32 | 0,3081 | 340 |
| 117-AL1 | 19/2,80 | 14,0 | 117,0 | 321,5 | 19,89 | 0,2456 | 390 |
| 147-AL1 | 37/2,25 | 15,8 | 147,1 | 405,7 | 26,48 | 0,1960 | 455 |
| 182-AL1 | 37/2,50 | 17,5 | 181,6 | 500,9 | 31,78 | 0,1588 | 520 |
| 243-AL1 | 61/2,25 | 20,3 | 242,5 | 671,1 | 43,66 | 0,1193 | 625 |
| 299-AL1 | 61/2,50 | 22,5 | 299,4 | 828,5 | 52,40 | 0,0966 | 710 |
| 400-AL1 | 61/2,89 | 26,0 | 400,1 | 1107,1 | 68,02 | 0,0723 | 855 |
| 500-AL1 | 61/3,23 | 29,1 | 499,8 | 1382,9 | 82,47 | 0,0579 | 990 |
| 626-AL1 | 91/2,69 | 32,6 | 626,2 | 1739,7 | 109,45 | 0,0464 | 1140 |
| 802-AL1 | 91/3,35 | 36,9 | 802,1 | 2218,3 | 132,34 | 0,0362 | 1340 |
| 1000-AL1 | 91/3,74 | 41,1 | 999,7 | 2777,3 | 159,95 | 0,0291 | 1540 |

# AAC - All Aluminium Conductors, Austria Sizes DIN EN 50182

| Code Word | Stranding Wire Diameter | Overall Diameter | Sectional Area | Approximate Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm² | kg/km | kN | Ω/km | A |
| 24-AL1 | 7/2,10 | 6,3 | 24,2 | 66,3 | 4,36 | 1,1787 | 144 |
| 34-AL1 | 7/2,50 | 7,5 | 34,4 | 93,9 | 6,01 | 0,8317 | 180 |
| 49-AL1 | 7/3,00 | 9,0 | 49,5 | 135,2 | 8,41 | 0,5776 | 225 |
| 66-AL1 | 19/2,10 | 10,5 | 65,8 | 180,9 | 11,85 | 0,4367 | 270 |
| 93-AL1 | 19/2,50 | 12,5 | 93,3 | 256,3 | 16,32 | 0,3081 | 340 |
| 117-AL1 | 19/2,80 | 14,0 | 117,0 | 321,5 | 19,89 | 0,2456 | 390 |
| 147-AL1 | 37/2,25 | 15,8 | 147,1 | 405,7 | 26,48 | 0,1960 | 455 |
| 182-AL1 | 37/2,50 | 17,5 | 181,6 | 500,9 | 31,78 | 0,1588 | 520 |
| 243-AL1 | 61/2,25 | 20,3 | 242,5 | 671,1 | 43,66 | 0,1193 | 625 |
| 299-AL1 | 61/2,50 | 22,5 | 299,4 | 828,5 | 52,40 | 0,0966 | 710 |
| 400-AL1 | 61/2,89 | 26,0 | 400,1 | 1107,1 | 68,02 | 0,0723 | 855 |
| 452-AL1 | 61/3,07 | 27,6 | 451,5 | 1249,3 | 74,50 | 0,0641 | 925 |
| 500-AL1 | 61/3,23 | 29,1 | 499,8 | 1382,9 | 82,47 | 0,0579 | 990 |
| 626-AL1 | 91/2,96 | 32,6 | 626,2 | 1739,7 | 106,45 | 0,0464 | 1140 |
| 802-AL1 | 91/3,35 | 36,9 | 802,1 | 2228,3 | 132,34 | 0,0362 | 1340 |
| 1000-AL1 | 91/3,74 | 41,1 | 997,7 | 2777,3 | 159,95 | 0,0291 | 1540 |

# ACSR - Aluminium Conductors Steel Reinforced, American Sizes ASTM B 232/B 232M

| Code Words | Wire Diameter | | Overall Diameter | Cross Section | | | Approx. Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aluminium | Steel | | Aluminium | Steel | Total | | | | |
| | mm | mm | mm | mm² | mm² | mm² | kg/km | kN | Ω/km | A |
| Turkey | 6/1,68 | 1/1,68 | 5,04 | 13,30 | 2,22 | 15,52 | 53,7 | 5,3 | 2,1030 | 105 |
| Swan | 6/2,12 | 1/2,12 | 6,36 | 21,18 | 3,53 | 24,71 | 85,3 | 8,3 | 1,3222 | 140 |
| Swanate | 7/1,96 | 1/2,61 | 6,53 | 21,12 | 5,39 | 26,51 | 99,6 | 10,5 | 1,3090 | 140 |
| Sparrow | 6/2,67 | 1/2,67 | 8,01 | 33,59 | 5,60 | 39,19 | 136 | 12,7 | 0,8333 | 184 |
| Sparate | 7/2,47 | 1/3,3 | 8,24 | 33,54 | 8,55 | 42,09 | 159 | 15,4 | 0,8235 | 184 |
| Robin | 6/3,00 | 1/3,0 | 9,00 | 42,41 | 7,07 | 49,48 | 171 | 15,8 | 0,6594 | 212 |
| Raven | 6/3,37 | 1/3,37 | 10,11 | 53,52 | 8,92 | 62,44 | 216 | 19,5 | 0,5216 | 242 |
| Quail | 6/3,78 | 1/3,78 | 11,34 | 67,33 | 11,22 | 78,55 | 272 | 23,6 | 0,4134 | 276 |
| Pigeon | 6/4,25 | 1/4,25 | 12,75 | 85,12 | 14,19 | 99,30 | 343 | 29,5 | 0,3281 | 315 |
| Penguin | 6/4,77 | 1/4,77 | 14,31 | 107,22 | 17,87 | 125,09 | 433 | 37,2 | 0,2608 | 357 |
| Waxwing | 18/3,09 | 1/3,09 | 15,45 | 133,98 | 7,50 | 142,48 | 430 | 30,6 | 0,2110 | 449 |
| Partridge | 26/2,57 | 7/2,00 | 16,28 | 134,87 | 21,99 | 156,87 | 546 | 50,3 | 0,2090 | 475 |
| Ostrich | 26/2,73 | 7/2,12 | 17,28 | 152,19 | 24,71 | 176,90 | 613 | 56,5 | 0,1860 | 492 |
| Merlin | 18/3,47 | 1/3,47 | 17,35 | 170,22 | 9,46 | 179,68 | 543 | 38,6 | 0,1673 | 519 |
| Linnet | 26/2,89 | 7/2,25 | 18,31 | 170,55 | 27,83 | 198,39 | 687 | 62,7 | 0,1657 | 529 |
| Oriole | 30/2,69 | 7/2,69 | 18,83 | 170,50 | 39,78 | 210,28 | 783 | 77,0 | 0,1647 | 535 |
| Chickadee | 18/3,77 | 1/3,77 | 18,85 | 200,93 | 11,16 | 212,09 | 641 | 44,2 | 0,1417 | 576 |
| Brant | 24/3,27 | 7/2,18 | 19,62 | 201,56 | 26,13 | 227,68 | 761 | 65,0 | 0,1411 | 584 |
| Ibis | 26/3,14 | 7/2,44 | 19,88 | 201,34 | 32,73 | 234,07 | 812 | 72,5 | 0,1404 | 587 |
| Lark | 30/2,92 | 7/2,92 | 20,44 | 200,90 | 46,88 | 247,77 | 925 | 90,3 | 0,1394 | 594 |
| Pelican | 18/4,14 | 1/4,14 | 20,70 | 242,31 | 13,46 | 255,77 | 770 | 52,5 | 0,1181 | 646 |
| Flicker | 24/3,58 | 7/2,39 | 21,49 | 241,58 | 31,40 | 272,99 | 913 | 76,5 | 0,1175 | 655 |
| Hawk | 26/3,44 | 7/2,67 | 21,77 | 241,65 | 39,19 | 280,84 | 975 | 86,8 | 0,1168 | 659 |
| Hen | 30/3,20 | 7/3,20 | 22,40 | 241,27 | 56,30 | 297,57 | 1111 | 105,9 | 0,1161 | 666 |
| Osprey | 18/4,47 | 1/4,47 | 22,35 | 282,47 | 15,69 | 298,17 | 898 | 61,0 | 0,1010 | 711 |
| Parakeet | 24/3,87 | 7/2,58 | 23,22 | 282,31 | 36,60 | 318,90 | 1066 | 88,0 | 0,1007 | 721 |
| Dove | 26/3,72 | 7/2,89 | 23,55 | 282,59 | 45,92 | 328,50 | 1139 | 100,5 | 0,1004 | 726 |
| Eagle | 30/3,46 | 7/3,46 | 24,27 | 282,07 | 65,82 | 347,89 | 1296 | 123,6 | 0,0994 | 734 |
| Peacock | 24/4,03 | 7/2,69 | 24,19 | 306,13 | 39,78 | 345,92 | 1159 | 96,0 | 0,0925 | 760 |
| Squab | 26/3,87 | 7/3,01 | 24,51 | 305,83 | 49,81 | 355,64 | 1237 | 108,0 | 0,0922 | 765 |
| Wood Duck | 30/3,61 | 7/3,61 | 25,27 | 307,06 | 71,65 | 378,71 | 1408 | 128,5 | 0,0915 | 774 |
| Teal | 30/3,61 | 19/2,16 | 25,24 | 307,06 | 69,62 | 376,68 | 1397 | 133,4 | 0,0915 | 773 |
| Kingbird | 18/4,78 | 1/4,78 | 23,90 | 323,01 | 17,95 | 340,96 | 1027 | 69,8 | 0,0886 | 773 |
| Swift | 36/3,38 | 1/3,38 | 23,66 | 323,02 | 8,97 | 331,99 | 956 | 60,9 | 0,0889 | 769 |
| Rook | 24/4,14 | 7/2,76 | 24,84 | 323,07 | 41,88 | 364,95 | 1217 | 97,8 | 0,0879 | 784 |
| Grosbeak | 26/3,97 | 7/3,09 | 25,15 | 321,84 | 52,49 | 374,34 | 1301 | 112,0 | 0,0876 | 789 |
| Scoter | 30/3,70 | 7/3,70 | 25,90 | 322,56 | 75,26 | 397,83 | 1481 | 135,1 | 0,0840 | 798 |
| Egret | 30/3,70 | 19/2,22 | 25,90 | 322,56 | 73,54 | 396,11 | 1469 | 140,0 | 0,0873 | 798 |
| Flamingo | 24/4,23 | 7/2,82 | 25,38 | 337,27 | 43,72 | 380,99 | 1277 | 105,3 | 0,0840 | 807 |
| Gannet | 26/4,07 | 7/3,16 | 25,76 | 338,26 | 54,90 | 393,16 | 1363 | 117,3 | 0,0837 | 812 |
| Stilt | 24/4,39 | 7/2,92 | 26,32 | 363,27 | 46,88 | 410,15 | 1370 | 113,3 | 0,0784 | 844 |
| Starling | 26/4,21 | 7/3,28 | 26,68 | 361,93 | 59,15 | 421,08 | 1464 | 126,2 | 0,0781 | 849 |
| Redwing | 30/3,92 | 19/2,35 | 27,43 | 362,06 | 82,41 | 444,47 | 1651 | 153,8 | 0,0774 | 859 |

# ACSR - Aluminium Conductors Steel Reinforced, American Sizes ASTM B 232/B 232M

| Code Words | Wire Diameter | | Overall Diameter | Cross Section | | | Approx. Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aluminium | Steel | | Aluminium | Steel | Total | | | | |
| | mm | mm | mm | mm² | mm² | mm² | kg/km | kN | Ω/km | A |
| Coot | 36/3,77 | 1/3,77 | 26,39 | 401,86 | 11,16 | 413,02 | 1198 | 74,7 | 0,0740 | 884 |
| Tern | 45/3,38 | 7/2,25 | 27,03 | 403,77 | 27,83 | 431,60 | 1332 | 98,3 | 0,0719 | 887 |
| Condor | 54/3,08 | 7/3,08 | 27,72 | 402,33 | 52,15 | 454,49 | 1521 | 125,4 | 0,0719 | 889 |
| Cuckoo | 24/4,62 | 7/3,08 | 27,72 | 402,33 | 52,15 | 454,49 | 1522 | 124,1 | 0,0719 | 887 |
| Drake | 26/4,44 | 7/3,45 | 28,11 | 402,56 | 65,44 | 468,00 | 1626 | 140,1 | 0,0719 | 907 |
| Mallard | 30/4,14 | 19/2,48 | 28,96 | 403,84 | 91,78 | 495,62 | 1836 | 170,8 | 0,0721 | 918 |
| Ruddy | 45/3,59 | 7/2,40 | 28,74 | 455,50 | 31,67 | 487,17 | 1507 | 108,3 | 0,0636 | 958 |
| Canary | 54/3,28 | 7/3,28 | 29,52 | 456,28 | 59,15 | 515,43 | 1723 | 141,9 | 0,0635 | 961 |
| Rail | 45/3,70 | 7/2,47 | 29,61 | 483,84 | 33,54 | 517,39 | 1598 | 115,2 | 0,0599 | 993 |
| Cardinal | 54/3,38 | 7/3,38 | 30,42 | 484,53 | 62,81 | 547,33 | 1826 | 150,3 | 0,0599 | 996 |
| Ortolan | 45/3,85 | 7/2,57 | 30,81 | 523,87 | 36,31 | 560,18 | 1731 | 123,2 | 0,0553 | 1043 |
| Curlew | 54/3,52 | 7/3,52 | 31,68 | 522,51 | 67,73 | 593,62 | 1978 | 162,8 | 0,0553 | 1047 |
| Bluejay | 45/4,00 | 7/2,66 | 31,98 | 565,49 | 38,90 | 604,39 | 1866 | 132,6 | 0,0516 | 1092 |
| Finch | 54/3,65 | 19/2,19 | 32,85 | 565,03 | 71,57 | 636,60 | 2128 | 173,9 | 0,0516 | 1093 |
| Bunting | 45/4,14 | 7/2,76 | 33,12 | 605,76 | 41,88 | 647,64 | 1997 | 141,9 | 0,0482 | 1139 |
| Grackle | 54/3,77 | 19/2,27 | 33,97 | 602,79 | 76,89 | 679,68 | 2278 | 185,9 | 0,0482 | 1140 |
| Bittern | 45/4,27 | 7/2,85 | 34,17 | 644,40 | 44,66 | 689,06 | 2131 | 151,7 | 0,0452 | 1184 |
| Pheasant | 54/3,90 | 19/2,34 | 35,10 | 645,08 | 81,71 | 726,79 | 2431 | 193,9 | 0,0452 | 1187 |
| Dipper | 45/4,40 | 7/2,93 | 35,19 | 684,24 | 47,20 | 731,44 | 2263 | 161,0 | 0,0426 | 1229 |
| Martin | 54/4,02 | 19/2,41 | 36,17 | 685,39 | 86,67 | 772,06 | 2582 | 205,9 | 0,0426 | 1232 |
| Bobolink | 45/4,53 | 7/3,02 | 36,24 | 725,27 | 50,14 | 775,41 | 2397 | 170,8 | 0,0402 | 1272 |
| Plover | 54/4,14 | 19/2,48 | 37,24 | 726,92 | 91,78 | 818,70 | 2735 | 218,0 | 0,0402 | 1275 |
| Nuthatch | 45/4,65 | 7/3,10 | 37,20 | 764,20 | 52,83 | 817,04 | 2530 | 178,4 | 0,0380 | 1313 |
| Parrot | 54/4,25 | 19/2,55 | 38,25 | 766,06 | 97,03 | 863,09 | 2884 | 230,4 | 0,0380 | 1318 |
| Lapwing | 45/4,78 | 7/3,18 | 38,22 | 807,53 | 55,60 | 863,12 | 2664 | 187,3 | 0,0361 | 1354 |
| Falcon | 54/4,36 | 19/2,62 | 39,26 | 806,23 | 102,43 | 908,66 | 3039 | 242,9 | 0,0361 | 1359 |
| Chukar | 84/3,70 | 19/2,22 | 40,70 | 903,18 | 73,54 | 976,72 | 3083 | 228,2 | 0,0323 | 1453 |
| Bluebird | 84/4,07 | 19/2,44 | 44,76 | 1092,84 | 88,84 | 1181,69 | 3736 | 268,7 | 0,0267 | 1623 |
| Kiwi | 72/4,41 | 7/2,94 | 44,10 | 1099,76 | 47,52 | 1147,28 | 3426 | 222,0 | 0,0267 | 1607 |

# ACSR - Aluminium Conductors Steel Reinforced, Canadian Sizes CSA C 49

| Code Words | Wire Diameter | | Overall Diameter | Cross Section | | | Approx. Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aluminium | Steel | | Aluminium | Steel | Total | | | | |
| | mm | mm | mm | mm² | mm² | mm² | kg/km | kN | Ω/km | A |
| Wren | 6/1,33 | 1/1,33 | 3,99 | 8,39 | 1,42 | 9,81 | 34 | 3,3 | 3,4226 | 63 |
| Warbler | 6/1,50 | 1/1,50 | 4,50 | 10,59 | 1,34 | 11,93 | 43 | 4,2 | 2,7139 | 67 |
| Turkey | 6/1,68 | 1/1,68 | 5,04 | 13,29 | 2,19 | 15,48 | 54 | 5,2 | 2,1535 | 86 |
| Thrush | 6/1,89 | 1/1,89 | 5,67 | 16,77 | 2,77 | 19,54 | 68 | 6,5 | 1,7077 | 93 |
| Swan | 6/2,12 | 1/2,12 | 6,36 | 21,16 | 3,55 | 24,71 | 85 | 8,2 | 1,3537 | 109 |
| Swallow | 6/2,38 | 1/2,38 | 7,14 | 26,65 | 4,45 | 31,09 | 108 | 10,0 | 1,0738 | 126 |
| Sparrow | 6/2,67 | 1/2,67 | 8,01 | 33,61 | 5,61 | 39,22 | 136 | 12,4 | 0,8504 | 140 |
| Robin | 6/3,00 | 1/3,00 | 9,00 | 42,39 | 7,10 | 49,49 | 171 | 15,5 | 0,6752 | 162 |
| Raven | 6/3,37 | 1/3,37 | 10,11 | 53,48 | 8,90 | 62,38 | 215 | 19,0 | 0,5351 | 186 |
| Quail | 6/3,78 | 1/3,78 | 11,34 | 67,42 | 11,23 | 78,65 | 273 | 10,8 | 0,4245 | 211 |
| Pigeon | 6/4,25 | 1/4,25 | 12,75 | 85,03 | 14,19 | 99,22 | 343 | 29,7 | 0,3366 | 241 |
| Penguin | 6/4,77 | 1/4,77 | 14,31 | 107,23 | 17,87 | 125,10 | 433 | 37,5 | 0,2671 | 276 |
| Owl | 6/5,36 | 7/1,74 | 16,09 | 135,16 | 17,55 | 152,71 | 508 | 42,5 | 0,2119 | 322 |
| Waxwing | 18/3,09 | 1/3,09 | 15,15 | 135,16 | 7,48 | 142,64 | 430 | 31,5 | 0,2126 | 319 |
| Partridge | 26/2,57 | 7/2,00 | 16,28 | 135,16 | 22,00 | 157,16 | 545 | 50,0 | 0,2136 | 321 |
| Phoebe | 18/3,28 | 1/3,28 | 16,40 | 152,00 | 8,45 | 160,45 | 483 | 35,5 | 0,1893 | 341 |
| Ostrich | 26/2,73 | 7/2,12 | 17,28 | 152,00 | 24,71 | 176,71 | 613 | 56,2 | 0,1898 | 343 |
| Piper | 30/2,54 | 7/2,54 | 17,78 | 152,00 | 35,48 | 187,48 | 697 | 68,6 | 0,1903 | 348 |
| Merlin | 18/3,47 | 1/3,47 | 17,35 | 170,45 | 9,48 | 179,93 | 543 | 39,8 | 0,1686 | 364 |
| Linnet | 26/2,89 | 7/2,25 | 18,31 | 170,45 | 27,81 | 198,36 | 687 | 62,5 | 0,1696 | 368 |
| Oriole | 30/2,69 | 7/2,69 | 18,83 | 170,45 | 39,81 | 210,36 | 783 | 75,8 | 0,1696 | 370 |
| Chickadee | 18/3,77 | 1/3,77 | 18,85 | 201,42 | 11,16 | 212,58 | 641 | 46,3 | 0,1430 | 402 |
| Ibis | 26/3,14 | 7/2,44 | 19,88 | 201,42 | 32,77 | 234,19 | 813 | 72,0 | 0,1434 | 404 |
| Lark | 30/2,92 | 7/2,92 | 20,44 | 201,42 | 46,97 | 248,39 | 923 | 88,8 | 0,1437 | 410 |
| Pelican | 18/4,14 | 1/4,14 | 20,70 | 241,68 | 13,42 | 255,10 | 769 | 54,8 | 0,1191 | 449 |
| - | 22/3,74 | 7/2,08 | 21,20 | 241,68 | 23,74 | 265,42 | 853 | 68,6 | 0,1194 | 452 |
| Hawk | 26/3,44 | 7/2,67 | 21,77 | 241,68 | 39,42 | 281,10 | 975 | 86,5 | 0,1194 | 450 |
| Hen | 30/3,20 | 7/3,20 | 22,40 | 241,68 | 56,39 | 298,17 | 1108 | 103,9 | 0,1198 | 453 |
| Heron | 30/3,28 | 7/3,28 | 22,96 | 253,35 | 59,10 | 312,45 | 1162 | 108,8 | 0,1142 | 469 |
| - | 22/4,04 | 7/2,24 | 22,88 | 282,00 | 27,68 | 309,68 | 993 | 79,1 | 0,1024 | 496 |
| Dove | 26/3,72 | 7/2,89 | 23,55 | 282,00 | 45,94 | 327,94 | 1137 | 99,9 | 0,1024 | 495 |
| Eagle | 30/3,46 | 7/3,46 | 24,22 | 282,00 | 65,81 | 347,81 | 1293 | 121,2 | 0,1027 | 497 |
| - | 22/4,21 | 7/2,34 | 23,86 | 306,58 | 30,07 | 336,65 | 1080 | 84,9 | 0,0942 | 519 |
| Duck | 54/2,69 | 7/2,69 | 24,21 | 306,58 | 39,81 | 346,39 | 1159 | 100,1 | 0,0945 | 520 |
| - | 22/4,32 | 7/2,40 | 24,48 | 322,26 | 31,61 | 353,87 | 1135 | 84,8 | 0,0896 | 532 |
| Grosbeak | 26/3,97 | 7/3,09 | 25,15 | 322,26 | 52,45 | 374,71 | 1299 | 111,2 | 0,0896 | 530 |
| Egret | 30/3,70 | 19/2,22 | 25,90 | 322,26 | 73,55 | 395,81 | 1467 | 140,6 | 0,0896 | 542 |
| Goose | 54/2,76 | 7/2,76 | 24,84 | 322,26 | 41,74 | 364,00 | 1217 | 105,2 | 0,0899 | 534 |
| - | 42/3,20 | 7/1,78 | 24,54 | 337,74 | 17,35 | 355,09 | 1068 | 78,6 | 0,0856 | 546 |
| Gull | 54/2,82 | 7/2,82 | 25,38 | 337,74 | 43,81 | 381,55 | 1277 | 109,2 | 0,0856 | 553 |
| Starling | 26/4,21 | 7/3,28 | 26,68 | 362,58 | 59,03 | 421,61 | 1462 | 125,0 | 0,0797 | 575 |
| Redwing | 30/3,92 | 19/2,35 | 27,43 | 362,58 | 82,58 | 445,16 | 1648 | 153,9 | 0,0797 | 581 |
| - | 42/3,31 | 7/1,84 | 25,38 | 362,58 | 18,65 | 381,23 | 1148 | 84,3 | 0,0797 | 573 |
| Crow | 54/2,92 | 7/2,92 | 26,28 | 362,58 | 46,97 | 409,56 | 1369 | 117,2 | 0,0797 | 577 |
| Drake | 26/4,44 | 7/3,45 | 28,11 | 402,84 | 65,61 | 468,45 | 1624 | 139,0 | 0,0715 | 611 |
| Mallard | 30/4,14 | 19/2,48 | 28,96 | 402,80 | 91,84 | 494,64 | 1832 | 171,0 | 0,0719 | 618 |
| - | 42/3,50 | 7/1,94 | 26,82 | 402,80 | 20,71 | 423,51 | 1274 | 93,6 | 0,0719 | 610 |
| Condore | 54/3,08 | 7/3,08 | 27,72 | 402,80 | 52,19 | 455,99 | 1521 | 127,0 | 0,0719 | 615 |
| - | 42/3,67 | 7/2,04 | 28,14 | 443,10 | 22,84 | 465,94 | 1402 | 102,0 | 0,0653 | 645 |
| Crane | 54/3,23 | 7/3,23 | 29,07 | 443,10 | 57,48 | 500,58 | 1674 | 133,0 | 0,0653 | 649 |
| - | 42/3,72 | 7/2,07 | 28,53 | 456,10 | 23,42 | 479,52 | 1442 | 105,0 | 0,0633 | 655 |

# ACSR - Aluminium Conductors Steel Reinforced, Canadian Sizes CSA C 49

| Code Words | Wire Diameter | | Overall Diameter | Cross Section | | | Approx. Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aluminium | Steel | | Aluminium | Steel | Total | | | | |
| | mm | mm | mm | mm² | mm² | mm² | kg/km | kN | Ω/km | A |
| Canary | 54/3,28 | 7/3,28 | 29,52 | 456,10 | 59,10 | 515,20 | 1724 | 144 | 0,0633 | 660 |
| - | 42/3,38 | 7/2,13 | 29,87 | 483,40 | 24,84 | 508,24 | 1528 | 109 | 0,0597 | 678 |
| Cardinal | 54/3,38 | 7/3,38 | 30,42 | 483,40 | 62,65 | 546,05 | 1826 | 152 | 0,0597 | 682 |
| - | 42/3,99 | 7/2,21 | 30,57 | 523,70 | 26,97 | 550,67 | 1657 | 118 | 0,0551 | 710 |
| Curlew | 54/3,51 | 7/3,51 | 31,59 | 523,70 | 67,87 | 591,57 | 1978 | 165 | 0,0551 | 715 |
| - | 42/4,41 | 7/2,30 | 31,74 | 563,90 | 28,97 | 592,87 | 1783 | 126 | 0,0512 | 741 |
| Finch | 54/3,65 | 19/2,19 | 32,85 | 563,90 | 71,55 | 635,45 | 2121 | 179 | 0,0512 | 746 |
| - | 42/4,28 | 7/2,38 | 32,82 | 604,30 | 31,10 | 635,40 | 1911 | 135 | 0,0479 | 772 |
| Grackle | 54/3,77 | 19/2,27 | 33,97 | 604,26 | 76,58 | 680,84 | 2271 | 192 | 0,0479 | 776 |
| - | 42/4,42 | 7/2,46 | 33,90 | 644,51 | 33,16 | 677,67 | 2039 | 144 | 0,0449 | 800 |
| Pheasant | 54/3,90 | 19/2,34 | 35,10 | 644,51 | 81,68 | 726,19 | 2421 | 199 | 0,0449 | 805 |
| - | 42/4,56 | 7/2,53 | 34,95 | 684,84 | 35,23 | 720,07 | 2166 | 153 | 0,0423 | 829 |
| Martin | 54/4,02 | 19/2,41 | 36,17 | 684,84 | 86,71 | 771,55 | 2573 | 212 | 0,0423 | 835 |
| - | 42/4,69 | 7/2,61 | 35,97 | 725,10 | 37,35 | 762,45 | 2294 | 162 | 0,0397 | 858 |
| Plover | 54/4,14 | 19/2,48 | 37,24 | 725,10 | 91,87 | 816,97 | 2725 | 224 | 0,0400 | 862 |
| - | 42/4,82 | 7/2,67 | 36,93 | 765,35 | 39,35 | 804,70 | 2420 | 171 | 0,0377 | 885 |
| Parrot | 54/4,25 | 19/2,55 | 38,25 | 765,40 | 96,84 | 862,24 | 2877 | 237 | 0,0377 | 890 |
| - | 48/4,36 | 7/3,60 | 38,58 | 805,70 | 71,10 | 876,80 | 2779 | 212 | 0,0358 | 929 |
| Falcon | 54/4,36 | 19/2,62 | 39,26 | 805,70 | 102,1 | 907,80 | 3028 | 250 | 0,0358 | 917 |
| - | 72/3,77 | 7/2,52 | 37,72 | 805,70 | 34,84 | 840,54 | 2498 | 176 | 0,0358 | 910 |
| Bantam | 3/1,68 | 4/1,68 | 5,04 | 6,65 | 8,84 | 15,49 | 88 | 11,7 | 4,3218 | 61 |
| Magpie | 3/2,12 | 4/2,12 | 6,36 | 10,58 | 14,13 | 24,71 | 140 | 18,6 | 2,7077 | 77 |
| Shrike | 3/2,67 | 4/2,67 | 8,01 | 16,84 | 22,45 | 39,29 | 223 | 28,6 | 1,7054 | 99 |
| Snipe | 3/3,37 | 4/3,37 | 10,11 | 26,17 | 35,68 | 61,85 | 354 | 43,9 | 1,0718 | 132 |
| Loon | 3/3,78 | 4/3,78 | 11,34 | 33,68 | 44,97 | 78,65 | 446 | 55,3 | 0,8514 | 149 |
| Grouse | 8/2,54 | 1/4,24 | 9,32 | 40,52 | 14,13 | 54,65 | 221 | 23,1 | 0,7077 | 157 |
| Petrel | 12/2,34 | 7/2,34 | 11,70 | 51,61 | 30,01 | 81,62 | 377 | 43,8 | 0,5591 | 193 |
| Minorca | 12/2,44 | 7/2,44 | 12,20 | 56,13 | 32,77 | 88,90 | 311 | 47,7 | 0,5134 | 198 |
| Leghorn | 12/2,69 | 7/2,69 | 13,45 | 68,19 | 39,81 | 108,00 | 499 | 57,5 | 0,4226 | 221 |
| Guinea | 12/2,92 | 7/2,92 | 14,60 | 80,68 | 46,97 | 127,65 | 588 | 67,6 | 0,3579 | 244 |
| Dotterell | 12/3,08 | 7/3,08 | 15,40 | 89,48 | 52,19 | 141,67 | 655 | 73,0 | 0,3215 | 260 |
| Dorking | 12/3,20 | 7/3,20 | 16,00 | 96,71 | 56,39 | 153,10 | 707 | 78,9 | 0,2982 | 271 |
| Brahma | 16/2,86 | 19/2,48 | 18,12 | 102,97 | 91,87 | 194,84 | 1005 | 122,5 | 0,2815 | 287 |
| Auk | 8/4,05 | 7/2,25 | 14,83 | 102,84 | 92,32 | 195,16 | 500 | 49,6 | 0,2789 | 276 |
| Cochin | 12/3,37 | 7/3,37 | 16,85 | 107,10 | 62,45 | 169,55 | 783 | 87,4 | 0,2694 | 288 |

# ACSR - Aluminium Conductors Steel Reinforced, German Sizes DIN EN 50182

| Code | Old Code | Wire Diameter | | Overall Diameter | Cross Section | | | Approx. Weight | Breaking Load | DC Resistance | Current Carrying Capacity |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Al | St | | Al | St | Total | | | | |
| | | mm | mm | mm | mm² | mm² | mm² | kg/km | kN | Ω/km | A |
| 15-AL1/3-ST1A | 16/2,5 | 6/1,80 | 1/1,80 | 5,40 | 15,3 | 2,54 | 17,8 | 62 | 5,80 | 1,8769 | 105 |
| 24-AL1/4-ST1A | 25/4 | 6/2,25 | 1/2,25 | 6,75 | 23,9 | 3,98 | 27,8 | 96 | 8,95 | 1,2012 | 140 |
| 34-AL1/6-ST1A | 35/6 | 6/2,70 | 1/2,70 | 8,10 | 34,4 | 5,73 | 40,1 | 139 | 12,37 | 0,8342 | 170 |
| 44-AL1/32-ST1A | 44/32 | 14/2,00 | 7/2,40 | 11,2 | 44,0 | 31,7 | 75,6 | 369 | 44,24 | 0,6574 | - |
| 48-AL1/8-SAT1A | 50/8 | 6/3,20 | 1/3,20 | 9,60 | 48,3 | 8,04 | 56,3 | 195 | 16,81 | 0,5939 | 210 |
| 51-AL1/30-SAT1A | 50/30 | 12/2,33 | 7/2,33 | 11,7 | 51,2 | 29,8 | 81,0 | 375 | 42,98 | 0,5644 | - |
| 70-AL1/11-ST1A | 70/12 | 26/1,85 | 7/1,44 | 11,7 | 69,9 | 11,4 | 81,3 | 282 | 26,27 | 0,4132 | 290 |
| 94-AL1/15-ST1A | 95/15 | 26/2,15 | 7/1,67 | 13,6 | 94,4 | 15,3 | 109,7 | 381 | 34,93 | 0,3060 | 350 |
| 97-AL1/56-ST1A | 95/55 | 12/3,20 | 7/3,20 | 16,0 | 96,5 | 56,3 | 152,8 | 707 | 77,85 | 0,2992 | - |
| 106-AL1/76-ST1A | 105/75 | 14/3,10 | 19/2,25 | 17,5 | 105,7 | 75,5 | 181,2 | 885 | 105,82 | 0,2742 | - |
| 122-AL1/20-ST1A | 120/20 | 26/2,44 | 7/1,90 | 15,5 | 121,6 | 19,8 | 141,4 | 491 | 44,50 | 0,2376 | 410 |
| 122-AL1/71-ST1A | 120/70 | 12/3,60 | 7/3,60 | 18,0 | 122,1 | 71,3 | 193,4 | 895 | 97,92 | 0,2364 | - |
| 128-AL1/30-ST1A | 125/30 | 30/2,33 | 7/2,33 | 16,3 | 127,9 | 29,8 | 157,8 | 587 | 56,41 | 0,2260 | 425 |
| 149-AL1/24-ST1A | 150/25 | 26/2,70 | 7/2,10 | 17,1 | 148,9 | 24,2 | 173,1 | 601 | 53,67 | 0,1940 | 470 |
| 172-AL1/40-ST1A | 170/40 | 30/2,70 | 7/2,70 | 18,9 | 171,8 | 40,1 | 211,8 | 788 | 74,89 | 0,1683 | 520 |
| 184-AL1/30-ST1A | 185/30 | 26/3,00 | 7/2,33 | 19,0 | 183,8 | 29,8 | 213,6 | 741 | 65,27 | 0,1571 | 535 |
| 209-AL1/34-ST1A | 210/35 | 26/3,20 | 7/3,20 | 20,3 | 209,1 | 34,1 | 243,2 | 844 | 73,36 | 0,1381 | 590 |
| 212-AL1/49-ST1A | 210/50 | 30/3,00 | 7/3,00 | 21,0 | 212,1 | 49,5 | 261,5 | 973 | 92,46 | 0,1363 | 610 |
| 231-AL1/30-ST1A | 230/30 | 24/3,50 | 7/2,33 | 21,0 | 230,9 | 29,8 | 260,8 | 871 | 72,13 | 0,1250 | 630 |
| 243-AL1/39-ST1A | 240/40 | 26/3,45 | 7/2,68 | 21,8 | 243,1 | 39,5 | 282,5 | 980 | 85,12 | 0,1188 | 645 |
| 264-AL1/34-ST1A | 265/35 | 24/3,74 | 7/2,49 | 22,4 | 263,7 | 34,1 | 297,7 | 994 | 81,04 | 0,1095 | 680 |
| 304-AL1/49-ST1A | 300/50 | 26/3,86 | 7/3,00 | 24,4 | 304,3 | 49,5 | 353,7 | 1227 | 105,09 | 0,0949 | 740 |
| 305-AL1/39-ST1A | 305/40 | 54/2,68 | 7/2,68 | 24,1 | 304,6 | 39,5 | 344,1 | 1151 | 96,80 | 0,0949 | 740 |
| 339-AL1/30-ST1A | 340/30 | 48/3,00 | 7/2,33 | 25,0 | 339,3 | 29,8 | 369,1 | 1171 | 91,71 | 0,0852 | 790 |
| 382-AL1/49-ST1A | 380/50 | 54/3,00 | 7/3,00 | 27,0 | 381,7 | 49,5 | 431,2 | 1443 | 121,3 | 0,0758 | 840 |
| 386-AL1/34-ST1A | 385/35 | 48/3,20 | 7/2,49 | 26,7 | 386,0 | 34,1 | 420,1 | 1334 | 102,56 | 0,0749 | 850 |
| 434-AL1/56-ST1A | 435/55 | 54/3,20 | 7/3,20 | 28,8 | 434,3 | 56,3 | 490,6 | 1641 | 133,59 | 0,0666 | 900 |
| 449-AL1/39-ST1A | 450/40 | 48/3,45 | 7/2,68 | 28,7 | 448,7 | 39,5 | 488,2 | 1549 | 119,05 | 0,0644 | 920 |
| 490-AL1/64-ST1A | 490/65 | 54/3,40 | 7/3,40 | 30,6 | 490,3 | 63,6 | 553,8 | 1853 | 185,81 | 0,0590 | 960 |
| 494-AL1/34-ST1A | 495/35 | 45/3,74 | 7/2,49 | 29,9 | 494,4 | 34,1 | 528,4 | 1633 | 117,96 | 0,0584 | 985 |
| 511-AL1/45-ST1A | 510/45 | 48/3,68 | 7/2,87 | 30,7 | 510,5 | 45,3 | 555,8 | 1765 | 133,31 | 0,0566 | 995 |
| 550-AL1/71-ST1A | 550/70 | 54/3,60 | 7/3,60 | 32,4 | 549,7 | 71,3 | 620,9 | 2077 | 166,32 | 0,0526 | 1020 |
| 562-AL1/49-ST1A | 560/50 | 48/3,86 | 7/3,00 | 32,2 | 561,7 | 49,5 | 611,2 | 1940 | 146,28 | 0,0515 | 1040 |
| 571-AL1/39-ST1A | 570/40 | 45/4,02 | 7/2,68 | 32,2 | 571,2 | 39,5 | 610,6 | 1887 | 136,40 | 0,0506 | 1050 |
| 653-AL1/45-ST1A | 650/45 | 45/4,30 | 7/2,87 | 34,4 | 653,5 | 45,3 | 698,8 | 2160 | 156,18 | 0,0442 | 1120 |
| 679-AL1/86-ST1A | 680/85 | 54/4,00 | 19/2,40 | 36,0 | 678,6 | 86,0 | 764,5 | 2550 | 206,56 | 0,0446 | 1150 |
| 1046-AL1/45-ST1A | 1045/45 | 72/4,30 | 7/2,87 | 43,0 | 1045,6 | 45,3 | 1090,9 | 3248 | 218,92 | 0,0277 | 1580 |

# 0,6/1kV PE insulated, aerial power cables with aluminium conductor

Code: AER

Standards: TS 11654, SFS 2200, TS HD 626 S1

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 0,6/1 kV

Application

It is prefered to use of AER cables instead of uninsulated conductors at low voltage networks. AER cables are especially used at areas where the cost of underground networks is expensive and also for electrification of rural areas like villages.

Construction

1 Solid or stranded aluminium conductor
2 PE insulation
3 Messenger wire

| Number of Cores and Nominal Cross Section | INSULATED WIRES | | | | | | | MESSENGER WIRE | | | FINISHED CABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Phase Cross Section | Number of Wires | Phase Diameter | Resistance at 20°C | Current Carrying Capacity | Street Light Cross Section | Current Carrying Capacity | Neutral Diameter | Minimum Tensile Strenght | Resistance at 20°C | App. Bundle Diameter | App. Net Weight |
| mm² | mm² | | mm | Ω/km | A | mm² | A | mm | kN | Ω/km | mm | kg/km |
| 1x16+1x16+25 | 1x16 | 1 | 4,4 | 1,91 | 70 | 1x16 | 60 | 5,9 | 7,4 | 1,38 | 15 | 225 |
| 3x16+1x16+25 | 3x16 | 1 | 4,4 | 1,91 | 60 | 1x16 | 60 | 5,9 | 7,1 | 1,38 | 22 | 350 |
| 3x25+1x16+35 | 3x25 | 7 | 5,9 | 1,2 | 80 | 1x16 | 60 | 6,9 | 10,3 | 0,986 | 26 | 475 |
| 3x35+1x16+50 | 3x35 | 7 | 6,9 | 0,868 | 95 | 1x16 | 60 | 8,1 | 14,2 | 0,72 | 30 | 625 |
| 3x50+1x16+70 | 3x50 | 7 | 8,1 | 0,641 | 120 | 1x16 | 60 | 9,7 | 20,6 | 0,493 | 35 | 800 |
| 3x70+1x16+95 | 3x70 | 7 | 9,7 | 0,443 | 150 | 1x16 | 60 | 11,4 | 27,9 | 0,363 | 41 | 1100 |
| 4x16+1x16+25 | 4x16 | 1 | 4,4 | 1,91 | 60 | 1x16 | 60 | 5,9 | 7,4 | 1,38 | 25 | 410 |
| 4x25+1x16+35 | 4x25 | 7 | 5,9 | 1,2 | 80 | 1x16 | 60 | 6,9 | 10,3 | 0,986 | 30 | 610 |
| 4x35+1x16+50 | 4x35 | 7 | 6,9 | 0,868 | 95 | 1x16 | 60 | 8,1 | 14,2 | 0,72 | 34 | 810 |
| 4x50+1x16+70 | 4x50 | 7 | 8,1 | 0,641 | 120 | 1x16 | 60 | 9,7 | 20,6 | 0,493 | 40 | 1060 |
| 4x70+1x16+95 | 4x70 | 7 | 9,7 | 0,443 | 150 | 1x16 | 60 | 11,4 | 27,9 | 0,363 | 47 | 1420 |

# 0,6/1kV PE insulated, aerial power cables with aluminium conductor

Code: AER

Standards: TS 11654, SFS 2200, TS HD 626 S1

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 0,6/1 kV

Application

It is prefered to use of AER cables instead of uninsulated conductors at low voltage networks. AER cables are especially used at areas where the cost of underground networks is expensive and also for electrification of rural areas like villages.

Construction

1 Solid or stranded aluminium conductor
2 PE insulation
3 Messenger wire

| Number of Cores and Nominal Cross Section | INSULATED WIRES | | | | | | | MESSENGER WIRE | | | FINISHED CABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Phase Cross Section | Number of Wires | Phase Diameter | Resistance at 20°C | Current Carrying Capacity | Street Light Cross Section | Current Carrying Capacity | Neutral Diameter | Minimum Tensile Strenght | Resistance at 20°C | App. Bundle Diameter | App. Net Weight |
| mm² | mm² | | mm | Ω/km | A | mm² | A | mm | kN | Ω/km | mm | kg/km |
| 1x16+25 | 1x16 | 1 | 4,4 | 1,91 | 75 | - | - | 5,9 | 7,4 | 1,38 | 15 | 140 |
| 1x25+35 | 1x25 | 7 | 5,9 | 1,2 | 10 | - | - | 6,9 | 10,3 | 0,986 | 17 | 200 |
| 1x35+50 | 1x35 | 7 | 6,9 | 0,868 | 125 | - | - | 8,1 | 14,2 | 0,72 | 20 | 275 |
| 3x16+25 | 3x16 | 1 | 4,4 | 1,91 | 70 | - | - | 5,9 | 7,4 | 1,38 | 22 | 275 |
| 3x25+35 | 3x25 | 7 | 5,9 | 1,2 | 90 | - | - | 6,9 | 10 ,3 | 0,986 | 26 | 400 |
| 3x35+50 | 3x35 | 7 | 6,9 | 0,868 | 115 | - | - | 8,1 | 14,2 | 0,72 | 30 | 575 |
| 3x50+70 | 3x50 | 7 | 8,1 | 0,641 | 140 | - | - | 9,7 | 20,6 | 0,493 | 35 | 750 |
| 3x70+95 | 3x70 | 7 | 9,7 | 0,443 | 180 | - | - | 11,4 | 27,9 | 0,363 | 41 | 1050 |
| 3x120+95 | 3x120 | 19 | 12,8 | 0,253 | 250 | - | - | 11,4 | 27,9 | 0,363 | 47 | 1550 |
| 4x16+25 | 4x16 | 1 | 4,4 | 1,91 | 70 | - | - | 5,9 | 7,4 | 1,38 | 24 | 375 |
| 4x25+35 | 4x25 | 7 | 5,9 | 1,2 | 90 | - | - | 6,9 | 10,3 | 0,986 | 28 | 500 |
| 4x35+50 | 4x35 | 7 | 6,9 | 0,868 | 115 | - | - | 8,1 | 14,2 | 0,72 | 32 | 680 |
| 4x50+70 | 4x50 | 7 | 8,1 | 0,641 | 140 | - | - | 9,7 | 20,6 | 0,493 | 38 | 900 |
| 4x70+95 | 4x70 | 7 | 9,7 | 0,443 | 180 | - | - | 11,4 | 27,9 | 0,363 | 45 | 1350 |

# 0,6/1kV XLPE insulated or PE insulated, aerial power cables with aluminium conductor

Code: ABC, NFA2X

Standards: TS HD 626 S1, NFC 33 209

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 0,6/1 kV

It is prefered to use of ABC cables instead of uninsulated conductors at low voltage networks. ABC cables are especially used at areas where the cost of underground networks is expensive and also for electrification of rural areas like villages.

Construction

1 Solid or stranded aluminium conductor
2 PE or XLPE insulation
3 Messenger wire

| Number of Cores and Nominal Cross Section | INSULATED WIRES | | | | | | | MESSENGER WIRE | | | FINISHED CABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Phase Cross Section | Number of Wires | Phase Diameter | Resistance at 20°C | Current Carrying Capacity | Street Light Cross Section | Current Carrying Capacity | Neutral Diameter | Minimum Tensile Strenght | Resistance at 20°C | App. Bundle Diameter | App. Net Weight |
| mm² | mm² | | mm | Ω/km | A | mm² | A | mm | kN | Ω/km | mm | kg/km |
| 2x16 | 2x16 | 7 | 4,6 | 1,91 | 93 | - | - | - | - | - | 15 | 132 |
| 2x25 | 2x25 | 7 | 5,9 | 1,20 | 122 | - | - | - | - | - | 18,5 | 200 |
| 2x35 | 2x35 | 7 | 6,9 | 0,868 | 129 | - | - | - | - | - | 22 | 280 |
| 2x50 | 2x50 | 7 | 8,1 | 0,641 | 158 | - | - | - | - | - | 24 | 370 |
| 4x16 | 4x16 | 7 | 4,6 | 1,91 | 83 | - | - | - | - | - | 18 | 265 |
| 4x25 | 4x25 | 7 | 5,9 | 1x20 | 111 | - | - | - | - | - | 22 | 400 |
| 4x35 | 4x35 | 7 | 6,9 | 0,868 | 131 | - | - | - | - | - | 26 | 550 |
| 3x25+54,6 | 3x25 | 7 | 5,9 | 1,20 | 112 | - | - | 9,6 | 16,0 | 0,63 | 30 | 470 |
| 3x25+1x16+54,6 | 3x25 | 7 | 5,9 | 1,20 | 112 | 1x16 | 60 | 9,6 | 16,0 | 0,63 | 30 | 570 |
| 3x25+2x16+54,6 | 3x25 | 7 | 5,9 | 1,20 | 112 | 2x16 | - | 9,6 | 16,0 | 0,63 | 30 | 640 |
| 3x35+54,6 | 3x35 | 7 | 6,9 | 0,86 | 138 | - | - | 9,6 | 16,0 | 0,63 | 33 | 580 |
| 3x35+1x16+54,6 | 3x35 | 7 | 6,9 | 0,868 | 138 | 1x16 | 60 | 9,6 | 16,0 | 063 | 33 | 690 |
| 3x35+2x16+54,6 | 3x35 | 7 | 6,9 | 0,868 | 138 | 2x16 | - | 9,6 | 16,0 | 0,63 | 33 | 750 |
| 3x50+54,6 | 3x50 | 7 | 8,1 | 0,641 | 168 | - | - | 9,6 | 16,0 | 0,63 | 36 | 720 |
| 3x50+1x16+54,6 | 3x50 | 7 | 8,1 | 0,641 | 168 | 1x16 | 60 | 9,6 | 16,0 | 0,63 | 36 | 820 |
| 3x50+2x16+54,6 | 3x50 | 7 | 8,1 | 0,641 | 168 | 2x16 | - | 9,6 | 16,0 | 0,63 | 36 | 890 |
| 3x70+54,6 | 3x70 | 12 | 9,7 | 0,443 | 213 | - | - | 9,6 | 16,0 | 0,63 | 38 | 930 |
| 3x70+1x16+54,6 | 3x70 | 12 | 9,7 | 0,443 | 213 | 1x16 | 60 | 9,6 | 16,0 | 0,63 | 38 | 1030 |
| 3x70+2x16+54,6 | 3x70 | 12 | 9,7 | 0,443 | 213 | 2x16 | - | 9,6 | 16,0 | 0,63 | 38 | 1100 |
| 3x70+1x25+54,6 | 3x70 | 12 | 9,7 | 0,443 | 213 | 1x25 | - | 9,6 | 16,0 | 0,63 | 40 | 1070 |
| 3x70+2x25+54,6 | 3x70 | 12 | 9,7 | 0,443 | 213 | 2x25 | - | 9,6 | 16,0 | 0,63 | 40 | 1170 |
| 3x70+70 | 3x70 | 12 | 9,7 | 0,443 | 213 | - | - | 10,0 | 20,6 | 0,50 | 41 | 970 |
| 3x70+1x16+70 | 3x70 | 12 | 9,7 | 0,443 | 213 | 1x16 | 60 | 10,0 | 20,6 | 0,50 | 41 | 1080 |
| 3x70+2x16+70 | 3x70 | 12 | 9,7 | 0,443 | 213 | 2x16 | - | 10,0 | 20,6 | 0,50 | 41 | 1150 |
| 3x95+70 | 3x95 | 19 | 11,5 | 0,320 | 258 | - | - | 10,0 | 20,6 | 0,50 | 44 | 1200 |
| 3x95+1x16+70 | 3x95 | 19 | 11,5 | 0,320 | 258 | 1x16 | 60 | 10,0 | 20,6 | 0,50 | 44 | 1300 |
| 3x95+2x16+70 | 3x95 | 19 | 11,5 | 0,320 | 258 | 2x16 | - | 10,0 | 20,6 | 0,50 | 44 | 1380 |
| 3x120+70 | 3x120 | 19 | 12,8 | 0,253 | 300 | - | - | 10,0 | 20,6 | 0,50 | 46 | 1430 |
| 3x120+1x16+70 | 3x120 | 19 | 12,8 | 0,253 | 300 | 1x16 | 60 | 10,0 | 20,6 | 0,50 | 46 | 1540 |

# 0,6/1kV XLPE insulated or PE insulated, aerial power cables with aluminium conductor

Code: ABC, NFA2X

Standards: TS HD 604 S1, NFC 33 209

Technical Data

Max. operating temperature : 90°C
Max. short circuit temperature : 250°C (max. 5 sec.)
Rated voltage : 0,6/1 kV

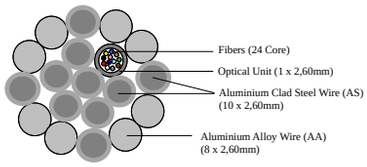
It is prefered to use of ABC cables instead of uninsulated conductors at low voltage networks. ABC cables are especially used at areas where the cost of underground networks is expensive and also for electrification of rural areas like villages.

Construction

1 Solid or stranded aluminium conductor 2 PE or XLPE insulation 3 Messenger wire

| Number of Cores and Nominal Cross Section | INSULATED WIRES | | | | | | | MESSENGER WIRE | | | FINISHED CABLE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Phase Cross Section | Number of Wires | Phase Diameter | Resistance at 20°C | Current Carrying Capacity | Street Light Cross Section | Current Carrying Capacity | Neutral Diameter | Minimum Tensile Strenght | Resistance at 20°C | App. Bundle Diameter | App. Net Weight |
| mm² | mm² | | mm | Ω/km | A | mm² | A | mm | kN | Ω/km | mm | kg/km |
| 3x120+2x16+70 | 3x120 | 19 | 12,8 | 0,253 | 300 | 2x16 | - | 10,0 | 20,6 | 0,50 | 46 | 1600 |
| 3x150+70 | 3x150 | 19 | 14,5 | 0,206 | 344 | - | - | 10,0 | 20,6 | 0,50 | 48 | 1680 |
| 3x150+1x16+70 | 3x150 | 19 | 14,5 | 0,206 | 344 | 1x16 | 60 | 10,0 | 20,6 | 0,50 | 48 | 1780 |
| 3x150+2x16+70 | 3x150 | 19 | 14,5 | 0,206 | 344 | 2x16 | - | 10,0 | 20,6 | 0,50 | 48 | 1850 |
| 3x120+95 | 3x120 | 19 | 12,8 | 0,253 | 300 | - | - | 12,9 | 27,9 | 0,343 | 47 | 1500 |
| 3x120+1x16+95 | 3z120 | 19 | 12,8 | 0,253 | 300 | 1x16 | 60 | 12,9 | 27,9 | 0,343 | 47 | 1620 |
| 3x120+2x16+95 | 3x120 | 19 | 12,8 | 0,253 | 300 | 2x16 | - | 12,9 | 27,9 | 0,343 | 47 | 1680 |
| 3x150+95 | 3x150 | 19 | 14,5 | 0,206 | 344 | - | - | 12,9 | 27,9 | 0,343 | 49 | 1740 |
| 3x150+1x16+95 | 3x150 | 19 | 14,5 | 0,206 | 344 | 1x16 | 60 | 12,9 | 27,9 | 0,343 | 49 | 1880 |
| 3x150+2x16+95 | 3x150 | 19 | 14,5 | 0,206 | 344 | 2x16 | - | 12,9 | 27,9 | 0,343 | 49 | 1940 |

# Optical Ground Wire (OPGW-95)




Definition of OPGW

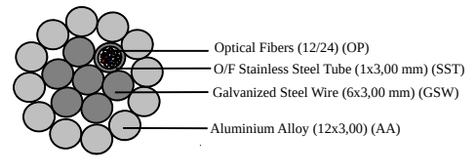
OPGW (optical ground wire) is a type of conductor that is used in the construction of electric power transmission lines. Here the conductor combines both the functions of grounding and communications. OPGW contains a tubuler structure with one or more optical fibers in it, surrounded by layers of galvanized steel and aluminium alloy wire. In the OPGW system, the conductor serves as a normal ground wire, protecting the phase conductors against the lightning strikes. The optical fibers are integrated in a stainless steel tube filled with a thixotropic jelly and hermetically sealed to provide best protection of enclosed fibers at any stage of the installation or operation.

Optical Fibers

The optical fiber of the OPGW is manufactured and designed to provide optimum transmission services. These fibers are used primarily in telecomunications networks characterised by long distance links and high capacity.

| TECHNICAL SPECIFICATIONS | | |
|---|---|---|
| Aluminium Alloy Wire Diameter | mm | 2,60 ± 0,03 |
| Aluminium Clad Steel Wire Diameter | mm | 2,60 ± 0,05 |
| O/F Stainless Steel Tube Diameter | mm | 2,60 ± 0,05 |
| OPGW Conductor Diameter | mm | 13,00 ± 0,5 |
| Number of Aluminium Clad Steel Wire | center | 1 |
| Number of Aluminium Clad Steel Wire | 1 st Layer | 5 |
| Number of Stainless Steel Tube | 1 st Layer | 1 |
| Number of Aluminium Alloy (AA) Wire | 2 nd Layer | 8 |
| Number of Aluminium Clad Steel Wire | 2 nd Layer | 4 |
| Lay Direction | 1 st Layer | Left-Hand (S-twist) |
| Lay Direction | 2 nd Layer | Right-Hand (Z-twist) |
| Total OPGW Cross-Section | mm² | 95,6 |
| Aluminium Alloy Unit Weight | kg/km | 115 |
| Aluminium Clad Steel Wire Unit Weight | kg/km | 350 |
| O/F Tube and Jelly Unit Weight | kg/km | 16 |
| Total OPGW Unit Weight | kg/km | 485 |
| OPGW Rated Tensile Strength (RTS) | daN | 8200 |
| Final Modulus Elasticity of OPGW | daN/mm² | 11844 |
| Thermal Expansion Coefficient of OPGW | 10-6/°C | 15,1 |
| Permissible Max. Working Stress | daN | 3280 |
| Medium High Tension | daN | 1312 - 2050 |
| Endurance Tensile Strength (ETS) | daN | 5740 |
| Short Time Overcurrent (0,5 second) (40-180°C) | A | 14000 |
| Temperature After Short Time Overcurrent | °C | 180 |
| Working Temperature (Max.) | °C | 80 |
| Resistance at 20°C (Max.) | Ω/km | 0,540 |
| O/F Stainless Steel Tube Diameter (Inner/Outer) | mm | 2,2/2,6 |
| Fiber Count | - | 12-24 |
| Working Temperature | °C | -40 to 80 |

# Optical Ground Wire (OPGW- 127-1)




Definition of OPGW

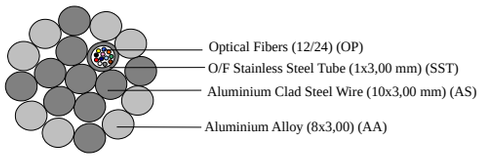
OPGW (optical ground wire) is a type of conductor that is used in the construction of electric power transmission lines. Here the conductor combines both the functions of grounding and communications. OPGW contains a tubuler structure with one or more optical fibers in it, surrounded by layers of galvanized steel and aluminium alloy wire. In the OPGW system, the conductor serves as a normal ground wire, protecting the phase conductors against the lightning strikes. The optical fibers are integrated in a stainless steel tube filled with a thixotropic jelly and hermetically sealed to provide best protection of enclosed fibers at any stage of the installation or operation.

Optical Fibers

The optical fiber of the OPGW is manufactured and designed to provide optimum transmission services. These fibers are used primarily in telecomunications networks characterised by long distance links and high capacity.

| TECHNICAL SPECIFICATIONS | | |
|---|---|---|
| Aluminium Alloy Wire Diameter | mm | 3,00±0,03 |
| Galvanized Steel Wire Diameter | mm | 3,00±0,05 |
| O/F Stainless Steel Tube Diameter | mm | 3,00±0,05 |
| OPGW Conductor Diameter | mm | 15,0±0,3 mm |
| Number of Galvanized Steel Wire | Center | 1 |
| Number of Galvanized Steel Wire | 1 st Layer | 5 |
| Number of Stainless Steel Tube | 1 st Layer | 1 |
| Number of Aluminium Alloy (AA) Wire | 2 nd Layer | 12 |
| Lay Direction | 1 st Layer | Left-Hand (S-twist) |
| Lay Direction | 2 nd Layer | Right-Hand (Z-twist) |
| Total OPGW Cross-Section | mm² | 134,3 |
| Aluminium Alloy Unit Weight | kg/km | 235 |
| Galvanized Steel Unit Weight | kg/km | 344 |
| O/F Tube and Jelly Unit Weight | kg/km | 16 |
| Total OPGW Unit Weight | kg/km | 595 |
| OPGW Rated Tensile Strength (RTS) | daN | 8950 |
| Final Modulus Elasticity of OPGW | daN/mm² | 9500 |
| Thermal Expansion Coefficient of OPGW | 10-6 / °C | 15,7 |
| Permissible Max. Tension | daN | 10580 |
| Medium High Tension | daN | 3650 |
| Endurance Tensile Strength (ETS) | daN | 6258 |
| Short Time Overcurrent (0,5 second) (40-180°C) | A | 14700 |
| Temperature After Short Time Overcurrent | °C | 180 |
| Working Temperature (Max.) | °C | 80 |
| Resistance at 20°C (Max.) | Ω/km | 0,4 |
| O/F Stainless Steel Tube Diameter (Inner/Outer) | mm | 2,6/3,0 |
| Fiber Count | - | 12-24 |
| Working Temperature | °C | -40 to 80 |

# Optical Ground Wire (OPGW-127-2)




Definition of OPGW

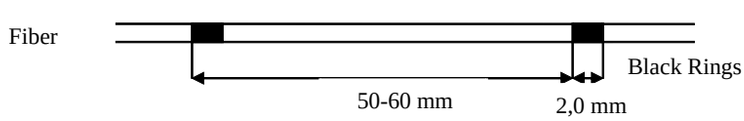
OPGW (optical ground wire) is a type of conductor that is used in the construction of electric power transmission lines. Here the conductor combines both the functions of grounding and communications. OPGW contains a tubuler structure with one or more optical fibers in it, surrounded by layers of galvanized steel and aluminium alloy wire. In the OPGW system, the conductor serves as a normal ground wire, protecting the phase conductors against the lightning strikes. The optical fibers are integrated in a stainless steel tube filled with a thixotropic jelly and hermetically sealed to provide best protection of enclosed fibers at any stage of the installation or operation.

Optical Fibers

The optical fiber of the OPGW is manufactured and designed to provide optimum transmission services. These fibers are used primarily in telecomunications networks characterised by long distance links and high capacity.

| TECHNICAL SPECIFICATIONS | | |
|---|---|---|
| Aluminium Alloy Wire Diameter | mm | 3,00 ± 0,03 |
| Aluminium Clad Steel Wire Diameter | mm | 3,00 ± 0,05 |
| O/F Stainless Steel Tube Diameter | mm | 3,00 ± 0,05 |
| OPGW Conductor Diameter | mm | 15,00 ± 0,5 |
| Number of Aluminium Clad Steel Wire | center | 1 |
| Number of Aluminium Clad Steel Wire | 1 st Layer | 5 |
| Number of Stainless Steel Tube | 1 st Layer | 1 |
| Number of Aluminium Alloy (AA) Wire | 2 nd Layer | 8 |
| Number of Aluminium Clad Steel Wire | 2 nd Layer | 4 |
| Lay Direction | 1 st Layer | Left-Hand (S-twist) |
| Lay Direction | 2 nd Layer | Right-Hand (Z-twist) |
| Total OPGW Cross-Section | mm² | 134,3 |
| Aluminium Alloy Unit Weight | kg/km | 152,8 |
| Aluminium Clad Steel Wire Unit Weight | kg/km | 465,6 |
| O/F Tube and Jelly Unit Weight | kg/km | 16,0 |
| Total OPGW Unit Weight | kg/km | 634,4 |
| OPGW Rated Tensile Strength (RTS) | daN | 10700 |
| Final Modulus Elasticity of OPGW | daN/mm² | 11200 |
| Thermal Expansion Coefficient of OPGW | 10-6/°C | 15,1 |
| Permissible Max. Working Stress | daN | 4280 |
| Medium High Tension | daN | 1712 - 2675 |
| Endurance Tensile Strength (ETS) | daN | 7490 |
| Short Time Overcurrent (0,5 second) (40-180 °C ) | A | 14600 |
| Temperature After Short Time Overcurrent | °C | 180 |
| Working Temperature (Max.) | °C | 80 |
| Resistance at 20°C (Max.) | Ω/km | 0,4 |
| O/F Stainless Steel Tube Diameter (Inner/Outer) | mm | 2,6/3,0 |
| Fiber Count | - | 12-24 |
| Working Temperature | °C | -40 to 80 |

| 12 FIBER TUBE COLORS | FIBER NO | 24 FIBER TUBE COLORS |
|---|---|---|
| RED | 1 | RED |
| YELLOW | 2 | YELLOW |
| GREEN | 3 | GREEN |
| BLUE | 4 | BLUE |
| VIOLET | 5 | VIOLET |
| BROWN | 6 | BROWN |
| BLACK or GRAY | 7 | BLACK or GRAY |
| ORANGE | 8 | ORANGE |
| PINK | 9 | PINK |
| GRAY or AQUA | 10 | GRAY or AQUA |
| LIGHT GREEN or WHITE | 11 | LIGHT GREEN or WHITE |
| NATURAL | 12 | NATURAL |
| | 13 | RED with BLACK RINGS |
| | 14 | YELLOW with BLACK RINGS |
| | 15 | GREEN with BLACK RINGS |
| | 16 | BLUE with BLACK RINGS |
| | 17 | VIOLET with BLACK RINGS |
| | 18 | BROWN with BLACK RINGS |
| | 19 | WHITE with BLACK RINGS |
| | 20 | ORANGE with BLACK RINGS |
| | 21 | PINK with BLACK RINGS |
| | 22 | GRAY with BLACK RINGS |
| | 23 | LIGHT GREEN with BLACK RINGS |
| | 24 | NATURAL with BLACK RINGS |




General Application of Single Mode Fibers

Both G.652 and G.655 are called as single mode fibers which are optimized for OPGW network. The most important advantageous are,

- They have lowest PMD (polarization mode dispersion) value
- Better joining performance
- They are characterized with high wavelength rates (up to 1625 nm)

NZDS (Non-Zero Dispersion Shifted)

Fiber designed for DWDM applications. It is characterised by very low dispersion from 1530 to 1625 nm and a high effective area, which prevents the non-linear effects of high speed in this type of transmission, offering improved service in comparison to theprevious fibers.

| FIBER TECHNICAL SPECIFICATIONS (ITU-T G.652D) | | | |
|---|---|---|---|
| | | 1310 nm | 1550 nm |
| Attenuation | dB/km | £ 0.36 | £ 0.22 |
| Macrobend Loss | dB | £ 0.05 | £ 0.05 |
| Fiber Cut-off Wavelength (- cf) | nm | £ 1260 | |
| Cable Cut-off Wavelength (- cc) | nm | £ 1260 | |
| Mode Field Diameter | µm | 9.2 – 0.4 | 10.4 – 0.5 |

| DISPERSION | | | |
|---|---|---|---|
| Zero Dispersion Wavelength (- o) | nm | 1300 £ - o | £ 1324 |
| Chromatic Dispersion [ ps/(nm x km)] | nm | £ 3.5 | £ 18 |

| STRUCTURAL SPECIFICATIONS | | |
|---|---|---|
| Cladding Diameter | µm | 125.0 – 0.7 |
| Core Concentricity Error | µm | £ 0.6 |
| Cladding Non-circularity | (%) | £ 1.0 |
| Coating Diameter | µm | 245 – 5 |

| FIBER TECHNICAL SPECIFICATIONS (ITU-T G.655 NZDS) | | | |
|---|---|---|---|
| | | 1550 nm | 1625 nm |
| Attenuation | dB/km | £ 0.25 | £ 0.27 |
| Macrobend Loss | dB | £ 0.05 | £ 0.05 |
| Fiber Cut-off Wavelength (- cf) | nm | £ 1450 | |
| Cable Cut-off Wavelength (- cc) | nm | £ 1450 | |
| Mode Field Diameter | µm | 9.6 – 0.4 | - |

| DISPERSION | | |
|---|---|---|
| Zero Dispersion Wavelength (- o) | nm | £ 1520 |
| Chromatic Dispersion [ ps/(nm x km)] at 1530-1565 | nm | £ 2.0-6.0 |
| at 1565-1625 | nm | £ 4.5-11.2 |

| STRUCTURAL SPECIFICATIONS | | |
|---|---|---|
| Cladding Diameter | µm | 125.0 – 0.7 |
| Core Concentricity Error | µm | £ 0.5 |
| Cladding Non-circularity | (%) | £ 0.7 |
| Coating Diameter | µm | 245 – 5 |

Copper Rod as the main material in cable production is produced in three sequantial stages; anode casting, electrolysing and rod drawing.

Quality of copper is continiously controlled in order to produce high quality of copper for high quality of cable thereafter.

The copper is supplied as pure copper rod or wire in requested diameters as well.

Standard
TS EN 1977

## ANODE CASTING UNIT

Anode is produced from blister copper or scrap copper which is melted in 2 rotary furnaces each having the capacity of 30 tons/day. Weight of each anode copper produced is about 300-350 kg. The impurities are checked during the melting process so that the quality of anode copper is obtained as required. The samples taken from the anodes are tested and the production is arranged in accordance.

## ELECTROLYSIS UNIT

Copper anodes are refined and the impurities are eliminated in electrolysing process and cathode copper with 99,99 % purity is produced. Weight of each cathode is approximate 100 – 125 kg and the production capacity is 24.000 tons/year.

Construction

Stranded Copper Conductors are produced by stranding of hard copper wires to obtain maximum tensile strength in accordance with TS-3 standart. Round steel wires are stranded around a central element in one or more layers.

Standards

TS-2, TS-3, TS EN 13602, DIN 48201

| Nominal Cross-Section | Number of Wire/Wire Diameter | Overall Diameter of Cables (approx) | Net Weight (approx) | DC Conductor Resistance at 20ºC de max | Max Break Strength |
|---|---|---|---|---|---|
| mm² | Number/mm | mm | kg/km | Ω/km | kN |
| 10 | 7/1,32 | 3,96 | 85,8 | 1,915 | 3,96 |
| 16 | 7/1,70 | 5,1 | 142,4 | 1,154 | 6,5 |
| 25 | 7/2,12 | 6,36 | 221,4 | 0,742 | 9,99 |
| 35 | 7/2,50 | 7,5 | 308 | 0,534 | 13,91 |
| 50 | 7/3,00 | 9 | 443,5 | 0,369 | 19,57 |
| 50 | 19/1,80 | 9 | 436,3 | 0,384 | 19,36 |
| 70 | 19/2,12 | 10,6 | 605,2 | 0,275 | 26,55 |
| 95 | 19/2,50 | 12,5 | 841,7 | 0,198 | 36,93 |
| 120 | 19/2,80 | 14 | 1056 | 0,158 | 45,27 |
| 150 | 37/2,24 | 15,68 | 1320 | 0,127 | 57,73 |
| 185 | 37/2,50 | 17,5 | 1644 | 0,102 | 71,91 |
| 240 | 61/2,24 | 20,2 | 2179 | 0,077 | 95,17 |
| 300 | 61/2,24 | 22,55 | 2715 | 0,062 | 118,56 |

# Annealed electrolytic copper conductor

Construction

Soft annealed copper conductors are manufactured according to TS EN 13602 and ASTM B3-1990

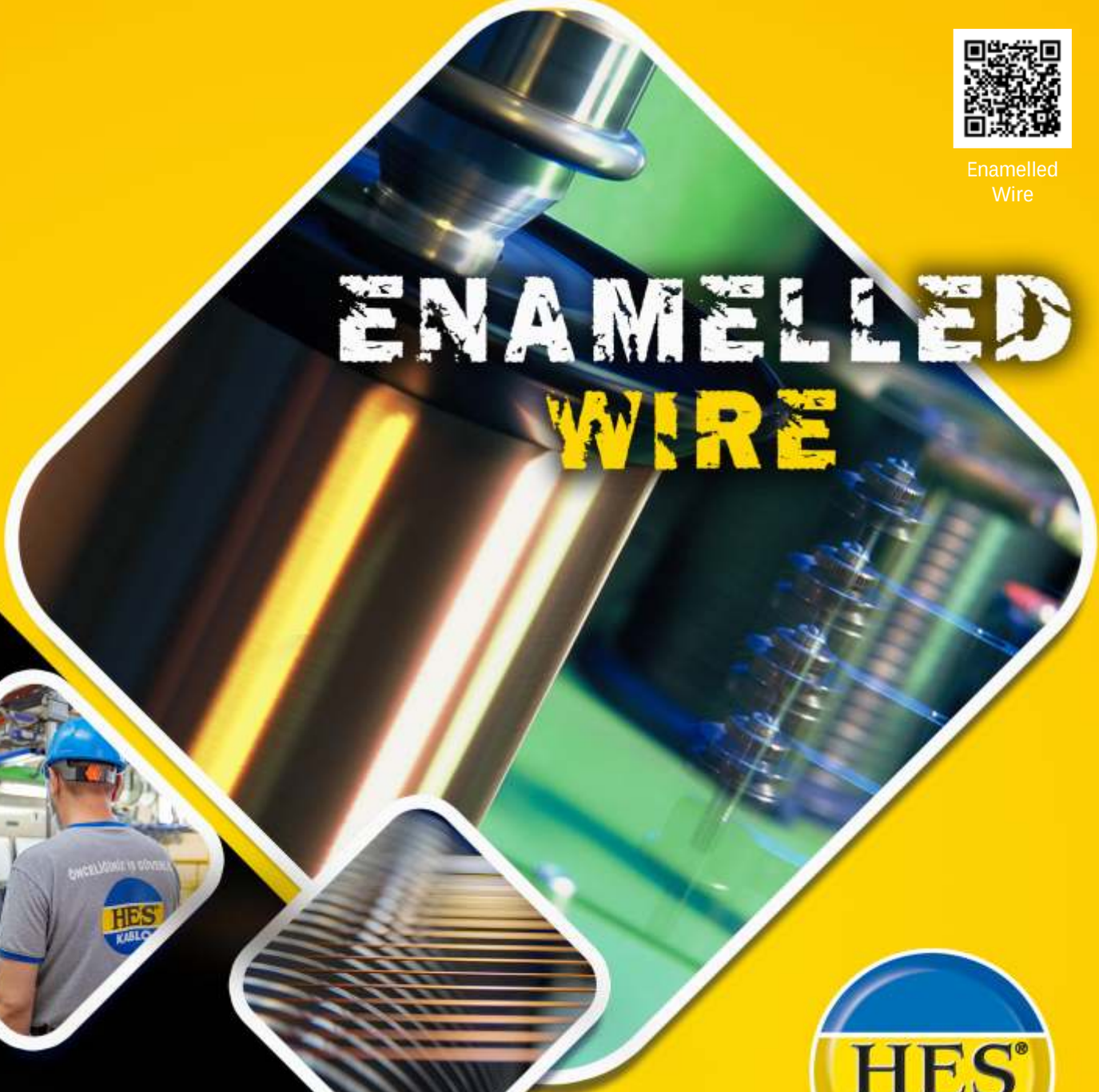
Standards

TS EN 13602, TS EN 60228

| Nominal Cross Section | Number of Wire | Overall Diameter of Cables (Approx) | Net Weight (Approx) | DC Conductor Resistance at 20ºC de max |
|---|---|---|---|---|
| mm² | Number | mm | kg/km | Ω/km |
| 10 | 7 | 3,9 | 85,2 | 1,83 |
| 16 | 7 | 4,90 | 135,4 | 1,15 |
| 25 | 7 | 6,10 | 214,4 | 0,727 |
| 35 | 7 | 7,0 | 296,8 | 0,524 |
| 50 | 10 | 8,05 | 406,2 | 0,387 |
| 70 | 14 | 9,75 | 586,9 | 0,268 |
| 95 | 19 | 11,45 | 810,6 | 0,193 |
| 120 | 24 | 12,9 | 1030,6 | 0,153 |
| 150 | 30 | 14,25 | 1255 | 0,124 |
| 185 | 37 | 15,90 | 1575,6 | 0,0991 |
| 240 | 49 | 18,13 | 2086 | 0,0754 |
| 300 | 60 | 20,45 | 2620 | 0,0601 |

Enamelled Wire

# ENAMELLED WIRE

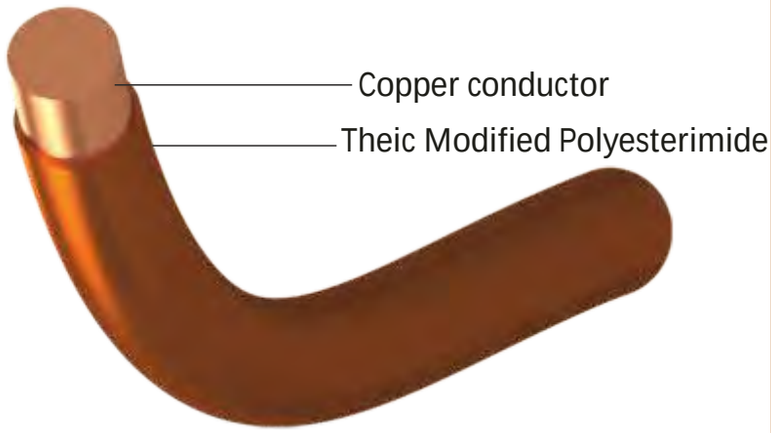


HES KABLO

www.hes.com.tr

# Enamelled THERM - H 180

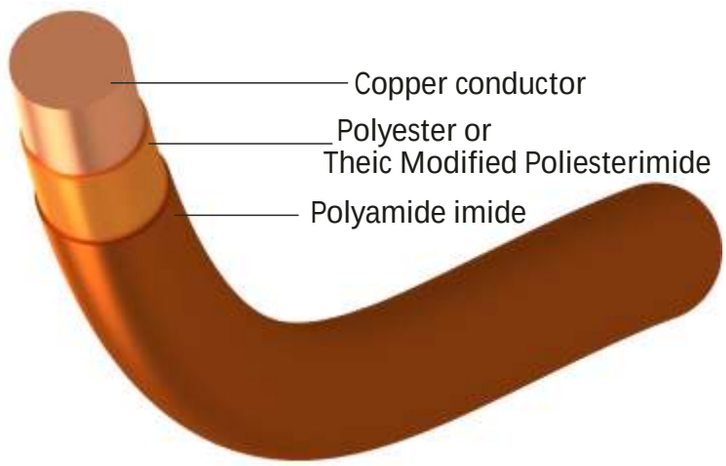
Technicial Data
Standard:
IEC 60317-8
Enamel Coating Type:
Double Coating
Producable Product Range:
0,15 - 4,00 mm
Temperature Index (20000 hrs):
180°C
Heat Shock:
200 ± 5 °C
Cut Inward Through Insulation:
320 ± 5 °C




Properties
* High thermal resistance
* High mechanical strength
* High heat shock
* Resistance to high voltage loads
* Thermal stability
* Resistance to Freon gas
* High resistance to friction
* Ease of winding
* Softness
* Resistance to solvents and transformer oil

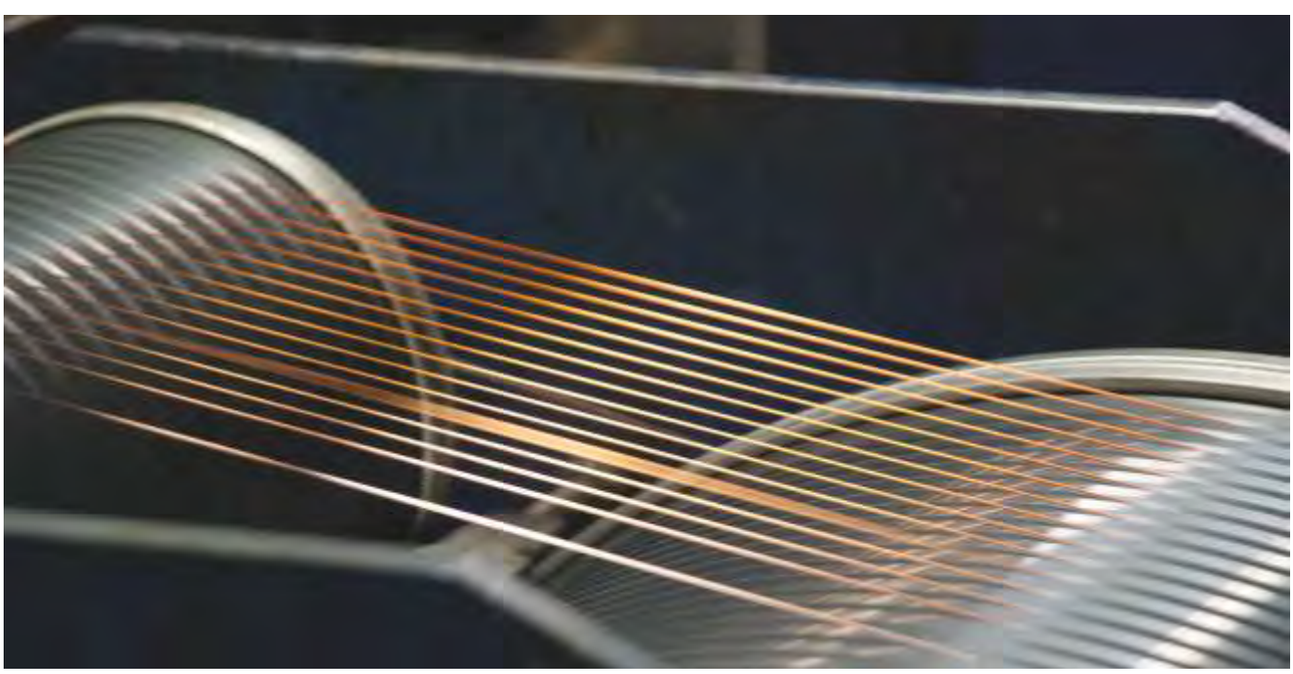
Application
* All types of engines
* Transformer
* Generator
* High heat transformers
* Hermetic motors
* Universal motors
* Shaded pole motors

Technicial Data
Standard:
IEC 60317-13
Enamel Coating Type:
Double Coating
Producable Product Range:
0,15 - 4,00 mm
Temperature Index (20000 hrs):
200°C
Heat Shock:
220 ± 5 °C
Cut Inward Through Insulation:
340 ± 5 °C



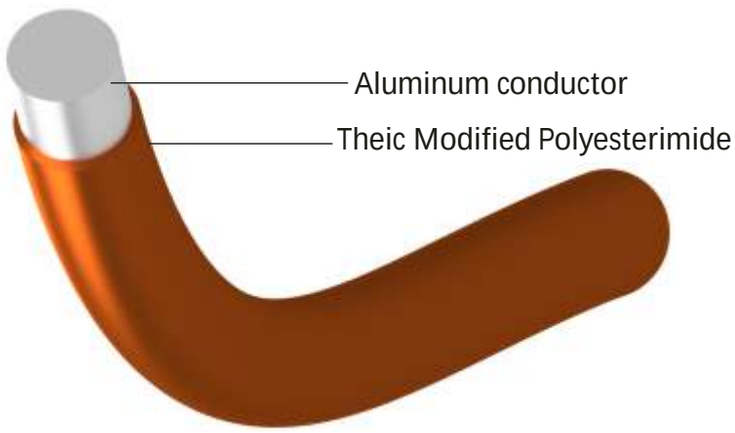

Properties
* High thermal resistance
* High mechanical strength
* High heat shock
* Resistance to high voltage loads
* Thermal stability
* Resistance to Freon gas
* High resistance to friction
* Ease of winding
* Softness
* Resistance to solvents and transformer oil

Application
* All types of engines
* Transformer
* Generator
* High heat transformers
* Hermetic motors
* Universal motors
* Shaded pole motors



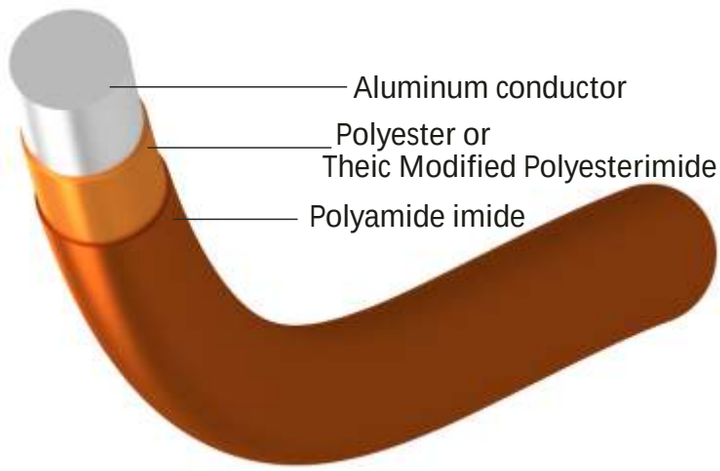
# Enamelled THERM - H 180

Technicial Data
Standard:
IEC 60317-15
Enamel Coating Type:
Double Coating
Producable Product Range:
1,00 – 4,00 mm
Temperature Index (20000 hrs):
180°C
Heat Shock:
200 ± 5 °C
Cut Inward Through Insulation:
320 ± 5 °C



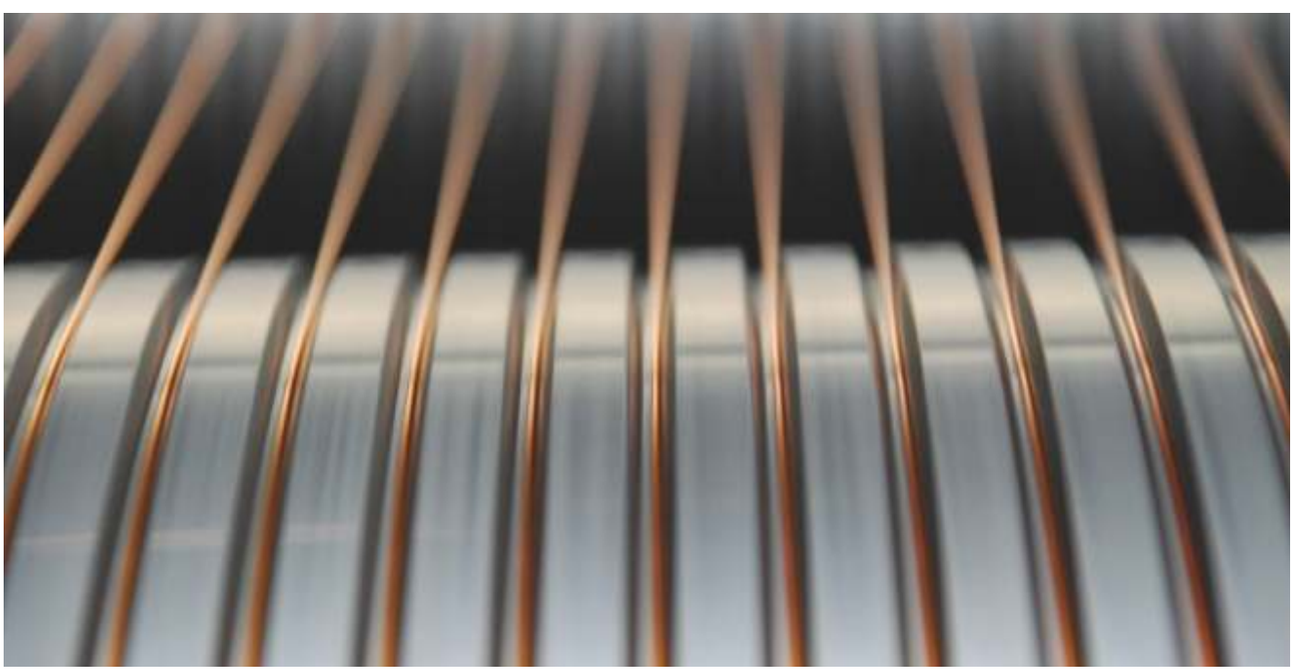

| Properties | Application |
|---|---|
| * High thermal resistance<br>* High mechanical strength<br>* High heat shock<br>* Resistance to high voltage loads<br>* Thermal stability<br>* Resistance to Freon gas<br>* High resistance to friction<br>* Ease of winding<br>* Softness<br>* Resistance to solvents and transformer oil | * Light engines<br>* Transformers |

Technicial Data
Standard:
IEC- 60317-25
Enamel Coating Type:
Double Coating
Producable Product Range:
1,00 – 4,00 mm
Temperature Index (20000 hrs):
200°C
Heat Shock:
220 ± 5 °C
Cut Inward Through Insulation:
320 ± 5 °C




Properties
* High thermal resistance
* High mechanical strength
* High heat shock
* Resistance to high voltage loads
* Thermal stability
* Resistance to Freon gas
* High resistance to friction
* Ease of winding
* Softness
* Resistance to solvents and transformer oil

Application
* Light engines
* Transformers

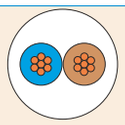
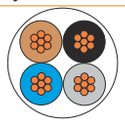
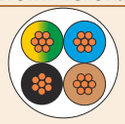
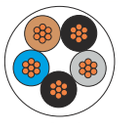
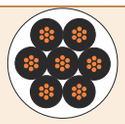
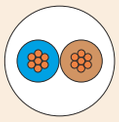
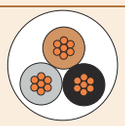
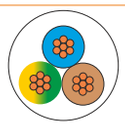
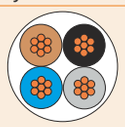
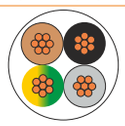
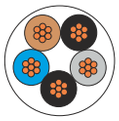
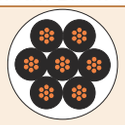


HES KABLO

hes.com.tr

Reliable Technology

Insulation colors used in low voltage cables are as follows.

| Cable Type | No. of cores | O Type (without yellow/green ground wire) | J Type (with yellow/green ground wire) |
|---|---|---|---|
| **BUILDING WIRES AND CABLES** | | | |
| NVV (NYM)<br>H03VV-F<br>H05VV-F<br>H07VVH6-F<br>NHXMH<br>052XZ1-F | 2 |  <br>Blue-Brown | |
| | 3 | <br>Grey-Brown-Black | <br>Blue-Brown-Yellow/Green |
| | 4 |  <br>Blue-Brown-Black-Grey |  <br>Blue-Brown-Black-Yellow/Green |
| | 5 |  <br>Blue-Brown-Black-Grey-Black | <br>Blue-Brown-Black-Gray-Yellow/Green |
| | >5 |  <br>All black numbered with white colours | <br>Yellow/Green and all remaining black numbered |
| **0,6/1 kV LOW VOLTAGE CABLES** | | | |
| YVV (NYY)<br>YVCV (NYCY)<br>YVZ2V (NYRY)<br>YVZ3V (NYFGY)<br>YXV (2XY)<br>N2XH<br>N2XH FE 180<br>YAVV (NAYY) | 2 |  <br>Blue-Brown | |
| | 3 |  <br>Grey-Brown-Black |  <br>Blue-Brown-Yellow/Green |
| | 4 |  <br>Blue-Brown-Black-Grey |  <br>Brown-Black-Grey-Yellow/Green |
| | 5 |  <br>Blue-Brown-Black-Grey-Black | <br>Blue-Brown-Black-Grey-Yellow/Green |
| | >5 |  <br>All black numbered with white colours | <br>Yellow/Green and all remaining black numbered |

## Cable to the current loading conditions:

Heat arising from a cable under load should be spread to the environment by every point on the surface of cable. Current load of the cable should be restricted according to this condition.
Current carrying capacities of cables given on the tables are prepared to meet the following installation conditions:

A) In air (It is assumed that the cables are protected from sun light):

| | |
|---|---|
| Environmental Temperature | : 30°C |
| Loading factor | : 1,0 |

It is also assumed that the heat arising from cable is not preveted to spread, environmental temperature is not heating source. If the cables are installed minimum 2 m distance from the nearest floor, ceiling or wall, these conditions are met. Distance between the cables installed side by side should be at least 2 times the diameter of the cable. Distance between the cables installed one on the top of the other should be at least 2 times the diameter of the cable. This distance is about 20 cm for cable installing systems. Because of the heat spreading effect, suitable distances should be arrnged between the cables and also ducts are properly ventilated.

B) In duct

| | |
|---|---|
| Environmental Temperature | : 30°C |
| Loading factor | : 1,0 |

C) In Ground

| | |
|---|---|
| Environmental Temperature | : 20°C |
| Loading factor | : 1,0 |
| Thermal resistivity of soil | : 0,7 K.m/W (very moist soil) |
| | : 1,0 K.m/W (moist soil) |
| | : 1,5 K.m/W (dry soil) |
| | : 2,5 K.m/W (very dry soil) |
| Installation depth | : 70 cm |
| No. Of cable system | : 1 |

For the given current values it is assument that cables are directly installed to the underground which is lay downed by sand and bonded by bricks. In this case cable canal consists of limited numbers of cable ducts each of them not longer than 6 m. Also it assume that the cable joints are protected from direct sun light.
Current loading capacities of the cables can also vary according to spesific heat resistance of the insulation material. This value

| | |
|---|---|
| For PVC insulated cables | : 6,0 K.m/W |
| For XLPE insulated cables | : 3,5 K.m/W |

If cable installation conditions are diffirent then above conditions,current carrying capacities can be calculated by multiplying the currents given on the related tables.
Current carring capacities of the cables for Standard installation conditions are given on Tables 1-4, and for other operating conditions on Table 5-14

TABLE 1

Current carrying capacities for 0,6/1 kV PVC and XLPE insulated cables with copper conductor (A)

A) In ground : 20°C, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7

B) In air : 30°C, load factor 1,0

Method of laying : Flat formation, gap between cables; in air= 1 x Cable outer diameter, in ground=7cm)

: Trefoil formation

1 (Number of system)

| Insulation material Permissible conductor temp. | PVC 70°C | | | | | | | | XLPE 90°C | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of cores | 1 | | | | 2 | | 3-4 | | 1 | | | | 3-4 | |
| Nominal cross-section area | | | | | | | | | | | | | | |
| mm² | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| 1,5 | - | 25 | - | 20 | 32 | 20 | 26 | 18.5 | 39 | 32 | 32 | 25 | 30 | 24 |
| 2,5 | - | 34 | - | 27 | 42 | 27 | 34 | 25 | 51 | 42 | 43 | 34 | 40 | 32 |
| 4 | - | 45 | - | 37 | 54 | 37 | 44 | 34 | 66 | 56 | 55 | 44 | 52 | 42 |
| 6 | - | 57 | - | 48 | 68 | 48 | 56 | 43 | 82 | 71 | 68 | 57 | 64 | 53 |
| 10 | - | 78 | - | 66 | 90 | 66 | 75 | 6 | 109 | 96 | 90 | 77 | 86 | 73 |
| 16 | 127 | 103 | 107 | 89 | 116 | 89 | 98 | 80 | 139 | 128 | 115 | 102 | 111 | 96 |
| 25 | 163 | 137 | 137 | 118 | 150 | 118 | 128 | 106 | 179 | 173 | 149 | 139 | 143 | 130 |
| 35 | 195 | 169 | 165 | 145 | 181 | 145 | 157 | 131 | 213 | 212 | 178 | 170 | 173 | 160 |
| 50 | 230 | 206 | 195 | 176 | 215 | 176 | 185 | 159 | 251 | 258 | 211 | 208 | 205 | 195 |
| 70 | 282 | 261 | 239 | 224 | 264 | 224 | 228 | 202 | 307 | 328 | 259 | 265 | 252 | 247 |
| 95 | 336 | 321 | 287 | 271 | 317 | 271 | 275 | 244 | 366 | 404 | 310 | 326 | 303 | 305 |
| 120 | 382 | 374 | 326 | 314 | 360 | 314 | 313 | 282 | 416 | 471 | 352 | 381 | 346 | 355 |
| 150 | 428 | 428 | 366 | 361 | 406 | 361 | 353 | 324 | 460 | 541 | 396 | 438 | 390 | 407 |
| 185 | 483 | 494 | 414 | 412 | 458 | 412 | 399 | 371 | 526 | 626 | 449 | 507 | 441 | 469 |
| 240 | 561 | 590 | 481 | 484 | 537 | 484 | 464 | 436 | 610 | 749 | 521 | 606 | 511 | 551 |
| 300 | 632 | 678 | 542 | 549 | - | - | 524 | 481 | 689 | 864 | 587 | 697 | 580 | 638 |
| 400 | 730 | 817 | 624 | 657 | - | - | 600 | 560 | 788 | 1018 | 669 | 816 | 663 | 746 |
| 500 | 823 | 940 | 698 | 749 | - | - | - | - | 889 | 1173 | 748 | 933 | - | - |

TABLE 2

Current carrying capacities for 0,6/1kV PVC and XLPE insulated cables with aluminium conductor (A)

A) In ground : 20°C, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7

B) In air : 30°C, load factor 1,0

Method of laying : Flat formation, gap between cables; in air= 1 x Cable outer diameter, in ground=7cm

: Trefoil formation

1 (Number of system)

| Insulation material Permissible conductor temp. | PVC 70°C | | | | | | | | XLPE 90°C | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of cores | 1 | | | | 2 | | 3-4 | | 1 | | | | 3-4 | |
| Nominal cross-section area | | | | | | | | | | | | | | |
| mm² | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| 25 | - | - | - | - | | 93 | 99 | 83 | - | - | - | - | 111 | 100 |
| 35 | 151 | 131 | 127 | 113 | - | 113 | 118 | 102 | 164 | 163 | 137 | 131 | 132 | 122 |
| 50 | 179 | 160 | 151 | 138 | - | 138 | 142 | 124 | 195 | 200 | 163 | 161 | 157 | 147 |
| 70 | 218 | 202 | 186 | 174 | - | 174 | 176 | 158 | 238 | 254 | 201 | 205 | 195 | 189 |
| 95 | 261 | 249 | 223 | 210 | - | 210 | 211 | 190 | 284 | 313 | 240 | 253 | 233 | 232 |
| 120 | 297 | 291 | 254 | 244 | - | 244 | 242 | 221 | 323 | 366 | 274 | 296 | 266 | 270 |
| 150 | 332 | 333 | 285 | 281 | - | 281 | 270 | 252 | 361 | 420 | 308 | 341 | 299 | 308 |
| 185 | 376 | 384 | 323 | 320 | - | 320 | 308 | 289 | 408 | 486 | 350 | 395 | 340 | 357 |
| 240 | 437 | 460 | 378 | 378 | - | 378 | 363 | 339 | 476 | 585 | 408 | 475 | 401 | 435 |
| 300 | 494 | 530 | 427 | 433 | - | - | 412 | 377 | 537 | 675 | 462 | 548 | 455 | 501 |
| 400 | 572 | 642 | 496 | 523 | - | - | 475 | 444 | 616 | 798 | 531 | 647 | 526 | 592 |
| 500 | 649 | 744 | 562 | 603 | - | - | - | - | 699 | 926 | 601 | 749 | - | - |

TABLE 3

Current carrying capacities for medium voltage, XLPE insulated cables with copper conductor (A)

A) In ground : 20°C, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7

B) In air : 30°C, load factor 1,0

Method of laying : Flat formation, gap between cables; in air= 1 x Cable outer diameter, in ground=7cm

: Trefoil laying 1 (Number of system)

| Insulation material Permissible conductor temp. | XLPE 90°C | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rated voltage | 3,5/6 kV | | | | | | 6/10 kV - 8,7/15 kV | | | | | | 12/20 kV | | | | | | 18/30 kV - 20,8/36 kV | | | | | |
| Number of cores | 1 | | | | 3 | | 1 | | | | 3 | | 1 | | | | 3 | | 1 | | | | 3 | |
| Nominal cross-section area mm² | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| 25 | 185 | 180 | 154 | 167 | 149 | 141 | 191 | 157 | 162 | 148 | 143 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 35 | 201 | 238 | 191 | 199 | 176 | 171 | 231 | 187 | 195 | 178 | 173 | 213 | 233 | 189 | 189 | 199 | 178 | 173 | 214 | 233 | 192 | 202 | 181 | 176 |
| 50 | 241 | 285 | 227 | 241 | 208 | 196 | 277 | 220 | 234 | 210 | 206 | 250 | 279 | 223 | 223 | 238 | 210 | 206 | 251 | 279 | 226 | 241 | 214 | 210 |
| 70 | 301 | 356 | 277 | 301 | 255 | 249 | 345 | 269 | 292 | 256 | 257 | 304 | 347 | 273 | 273 | 296 | 256 | 257 | 306 | 348 | 276 | 299 | 261 | 262 |
| 95 | 364 | 435 | 331 | 365 | 307 | 307 | 418 | 321 | 354 | 307 | 313 | 361 | 420 | 325 | 325 | 358 | 307 | 313 | 363 | 421 | 329 | 362 | 313 | 319 |
| 120 | 424 | 496 | 379 | 419 | 353 | 353 | 481 | 364 | 407 | 349 | 360 | 407 | 483 | 368 | 368 | 412 | 349 | 360 | 410 | 483 | 373 | 416 | 356 | 364 |
| 150 | 479 | 554 | 422 | 479 | 396 | 406 | 537 | 405 | 460 | 392 | 410 | 445 | 540 | 410 | 410 | 466 | 392 | 410 | 449 | 540 | 415 | 469 | 400 | 418 |
| 185 | 549 | 637 | 476 | 543 | 447 | 464 | 612 | 457 | 527 | 443 | 469 | 498 | 614 | 463 | 463 | 532 | 443 | 469 | 503 | 615 | 468 | 536 | 441 | 478 |
| 240 | 640 | 746 | 550 | 640 | 523 | 548 | 716 | 528 | 621 | 513 | 553 | 569 | 718 | 534 | 534 | 627 | 513 | 553 | 576 | 718 | 541 | 630 | 510 | 562 |
| 300 | 724 | 846 | 619 | 731 | 581 | 632 | 811 | 593 | 709 | 576 | 635 | 633 | 813 | 601 | 601 | 715 | 576 | 635 | 641 | 812 | 608 | 717 | - | - |
| 400 | 795 | 941 | 698 | 840 | 653 | 726 | 901 | 665 | 815 | 650 | 731 | 686 | 904 | 674 | 674 | 819 | 650 | 731 | 697 | 904 | 684 | 823 | - | - |
| 500 | 883 | 1051 | 773 | 949 | - | - | 1006 | 739 | 921 | - | - | 756 | 1011 | 750 | 750 | 927 | - | - | 768 | 1011 | 762 | 929 | - | - |

TABLE 4

Current carrying capacities for medium voltage XLPE insulated cables with aluminium conductor (A)

A) In ground : 20°C, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0,7

B) In air : 30°C, load factor 1,0

Method of laying : Flat formation, gap between cables; in air= 1 x Cable outer diameter, in ground=7cm

: Trefoil laying 1 (Number of system)

| Insulation material Permissible conductor temp. | XLPE 90°C | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rated voltage | 3,5/6 kV | | | | | | 6/10 kV - 8,7/15 kV | | | | | | 12/20 kV | | | | | | 18/30 kV - 20,8/36 kV | | | | | |
| Number of cores | 1 | | | | 3 | | 1 | | | | 3 | | 1 | | | | 3 | | 1 | | | | 3 | |
| Nominal cross-section area mm² | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| 35 | - | - | - | - | - | - | 164 | 178 | 144 | 151 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 50 | 186 | 233 | 178 | 188 | 160 | 150 | 194 | 215 | 171 | 181 | 162 | 160 | 195 | 217 | 173 | 184 | 168 | 171 | 196 | 217 | 175 | 187 | 166 | 164 |
| 70 | 234 | 280 | 217 | 235 | 199 | 191 | 236 | 269 | 209 | 226 | 199 | 199 | 237 | 270 | 211 | 229 | 207 | 211 | 238 | 270 | 214 | 232 | 204 | 204 |
| 95 | 287 | 344 | 259 | 286 | 238 | 236 | 281 | 327 | 249 | 275 | 238 | 242 | 282 | 328 | 252 | 278 | 247 | 255 | 284 | 328 | 256 | 281 | 244 | 248 |
| 120 | 338 | 392 | 298 | 329 | 275 | 273 | 318 | 283 | 317 | 271 | 280 | 320 | 378 | 287 | 320 | 378 | 282 | 297 | 322 | 378 | 290 | 323 | 278 | 284 |
| 150 | 388 | 441 | 333 | 376 | 307 | 313 | 350 | 424 | 316 | 359 | 304 | 318 | 353 | 425 | 320 | 363 | 316 | 334 | 355 | 425 | 324 | 365 | 312 | 326 |
| 185 | 449 | 510 | 377 | 428 | 349 | 360 | 393 | 485 | 358 | 412 | 345 | 365 | 396 | 485 | 362 | 415 | 359 | 384 | 400 | 485 | 366 | 418 | 343 | 374 |
| 240 | 530 | 587 | 438 | 508 | 410 | 426 | 453 | 573 | 416 | 489 | 401 | 431 | 457 | 573 | 421 | 493 | 420 | 454 | 461 | 572 | 426 | 494 | 398 | 440 |
| 300 | 605 | 682 | 495 | 586 | 460 | 528 | 507 | 652 | 469 | 559 | 453 | 494 | 511 | 652 | 474 | 563 | 476 | 513 | 516 | 649 | 479 | 564 | 476 | 513 |
| 400 | 678 | 781 | 562 | 676 | 520 | 564 | 559 | 741 | 532 | 651 | 517 | 569 | 566 | 740 | 538 | 652 | 552 | 593 | 572 | 737 | 545 | 654 | 542 | 583 |
| 500 | 762 | 883 | 633 | 772 | - | - | 622 | 838 | 599 | 744 | - | - | 630 | 838 | 606 | 746 | - | - | 638 | 835 | 614 | 747 | - | - |

TABLE 5
Rating factors for all cables laid underground

| Permissible Operation Temperature | Soil Temperature (°C) | Thermal Resistivity of Earth K.m/W | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0,7 K.m/W | | | | | 1,0 K.m/W | | | | | 1,5 K.m/W | | | | | 2,5 K.m/W |
| | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | | Load Factor |
| | | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 05-1,00 |
| XLPE Cables 90 °C | 5 | 1,24 | 1,21 | 1,18 | 1,13 | 1,07 | 1,11 | 1,09 | 1,07 | 1,03 | 1,00 | 0,99 | 0,98 | 0,97 | 0,96 | 0,94 | 0,89 |
| | 10 | 1,23 | 1,19 | 1,16 | 1,11 | 1,05 | 1,09 | 1,07 | 1,05 | 1,01 | 0,98 | 0,97 | 0,96 | 0,95 | 0,93 | 0,91 | 0,86 |
| | 15 | 1,21 | 1,17 | 1,14 | 1,08 | 1,03 | 1,07 | 1,05 | 1,02 | 0,99 | 0,95 | 0,95 | 0,93 | 0,92 | 0,91 | 0,89 | 0,84 |
| | 20 | 1,19 | 1,15 | 1,12 | 1,06 | 1,00 | 1,05 | 1,02 | 1,00 | 0,96 | 0,93 | 0,92 | 0,91 | 0,90 | 0,88 | 0,86 | 0,81 |
| | 25 | - | - | - | - | - | 1,02 | 1,00 | 0,98 | 0,94 | 0,90 | 0,90 | 0,88 | 0,87 | 0,85 | 0,84 | 0,78 |
| | 30 | - | - | - | - | - | - | - | 0,95 | 0,91 | 0,88 | 0,87 | 0,86 | 0,84 | 0,83 | 0,81 | 0,75 |
| | 35 | - | - | - | - | - | - | - | - | - | - | - | - | 0,82 | 0,80 | 0,78 | 0,72 |
| | 40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0,68 |
| PVC Cables 70 °C | 5 | 1,29 | 1,26 | 1,22 | 1,15 | 1,09 | 1,13 | 1,11 | 1,08 | 1,04 | 1,00 | 0,99 | 0,98 | 0,97 | 0,95 | 0,93 | 0,86 |
| | 10 | 1,27 | 1,23 | 1,19 | 1,13 | 1,06 | 1,11 | 1,08 | 1,06 | 1,01 | 0,97 | 0,96 | 0,95 | 0,94 | 0,92 | 0,89 | 0,83 |
| | 15 | 1,25 | 1,21 | 1,17 | 1,10 | 1,03 | 1,08 | 1,06 | 1,03 | 0,99 | 0,94 | 0,93 | 0,92 | 0,91 | 0,88 | 0,86 | 0,79 |
| | 20 | 1,23 | 1,18 | 1,14 | 1,08 | 1,01 | 1,06 | 1,03 | 1,00 | 0,96 | 0,91 | 0,90 | 0,89 | 0,87 | 0,85 | 0,83 | 0,76 |
| | 25 | - | - | - | - | - | 1,03 | 1,00 | 0,97 | 0,93 | 0,88 | 0,87 | 0,85 | 0,84 | 0,82 | 0,79 | 0,72 |
| | 30 | - | - | - | - | - | - | - | 0,94 | 0,89 | 0,85 | 0,84 | 0,82 | 0,80 | 0,78 | 0,76 | 0,68 |
| | 35 | - | - | - | - | - | - | - | - | - | - | - | - | 0,77 | 0,74 | 0,72 | 0,63 |
| | 40 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0,59 |

TABLE 6
Rating factors for three-phase, 7 cm spacing between the systems in trefoil formation, single core cables laid underground flat formation

| | Number of Systems | Thermal Resistivity of Moist Soil (K.m/W) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0,7 K.m/W | | | | | 1,0 K.m/W | | | | | 1,5 K.m/W | | | | | 2,5 K.m/W | | | | |
| | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | |
| | | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 |
| XLPE Insulated Cables 0,6/1kV-36 kV | 1 | 1,09 | 1,04 | 0,99 | 0,93 | 0,87 | 1,11 | 1,05 | 1,00 | 0,93 | 0,87 | 1,13 | 1,07 | 1,01 | 0,94 | 0,87 | 1,17 | 1,09 | 1,03 | 0,94 | 0,87 |
| | 2 | 0,97 | 0,90 | 0,84 | 0,77 | 0,71 | 0,98 | 0,91 | 0,85 | 0,77 | 0,71 | 1,00 | 0,92 | 0,86 | 0,77 | 0,71 | 1,02 | 0,94 | 0,87 | 0,78 | 0,71 |
| | 3 | 0,88 | 0,80 | 0,74 | 0,67 | 0,61 | 0,89 | 0,82 | 0,75 | 0,67 | 0,61 | 0,90 | 0,82 | 0,76 | 0,68 | 0,61 | 0,92 | 0,83 | 0,76 | 0,68 | 0,61 |
| | 4 | 0,83 | 0,75 | 0,69 | 0,62 | 0,56 | 0,84 | 0,76 | 0,70 | 0,62 | 0,56 | 0,85 | 0,77 | 0,70 | 0,62 | 0,56 | 0,82 | 0,78 | 0,71 | 0,63 | 0,56 |
| | 5 | 0,79 | 0,71 | 0,65 | 0,58 | 0,52 | 0,80 | 0,72 | 0,66 | 0,58 | 0,52 | 0,80 | 0,73 | 0,66 | 0,58 | 0,52 | 0,81 | 0,73 | 0,67 | 0,59 | 0,52 |
| | 6 | 0,76 | 0,68 | 0,62 | 0,55 | 0,50 | 0,77 | 0,69 | 0,63 | 0,55 | 0,50 | 0,77 | 0,70 | 0,63 | 0,56 | 0,50 | 0,78 | 0,70 | 0,64 | 0,56 | 0,50 |
| | 8 | 0,72 | 0,64 | 0,58 | 0,51 | 0,46 | 0,72 | 0,65 | 0,59 | 0,52 | 0,46 | 0,73 | 0,65 | 0,59 | 0,52 | 0,46 | 0,74 | 0,66 | 0,59 | 0,52 | 0,46 |
| | 10 | 0,69 | 0,61 | 0,56 | 0,49 | 0,44 | 0,69 | 0,62 | 0,56 | 0,49 | 0,44 | 0,70 | 0,62 | 0,56 | 0,49 | 0,44 | 0,70 | 0,63 | 0,57 | 0,49 | 0,44 |
| PVC Insulated Cables 0,6/1kV - 3,6/6 kV | 1 | 1,01 | 1,02 | 0,99 | 0,93 | 0,87 | 1,04 | 1,05 | 1,00 | 0,93 | 0,87 | 1,07 | 1,06 | 1,01 | 0,94 | 0,87 | 1,11 | 1,08 | 1,01 | 0,94 | 0,87 |
| | 2 | 0,94 | 0,89 | 0,84 | 0,77 | 0,71 | 0,97 | 0,91 | 0,85 | 0,77 | 0,71 | 0,99 | 0,92 | 0,86 | 0,77 | 0,71 | 1,01 | 0,93 | 0,87 | 0,78 | 0,71 |
| | 3 | 0,86 | 0,79 | 0,74 | 0,67 | 0,61 | 0,89 | 0,81 | 0,75 | 0,67 | 0,61 | 0,90 | 0,83 | 0,76 | 0,68 | 0,61 | 0,91 | 0,83 | 0,77 | 0,68 | 0,61 |
| | 4 | 0,82 | 0,75 | 0,69 | 0,62 | 0,56 | 0,84 | 0,76 | 0,70 | 0,62 | 0,56 | 0,85 | 0,77 | 0,71 | 0,62 | 0,56 | 0,86 | 0,78 | 0,71 | 0,63 | 0,56 |
| | 5 | 0,78 | 0,71 | 0,65 | 0,58 | 0,52 | 0,80 | 0,72 | 0,66 | 0,58 | 0,52 | 0,80 | 0,73 | 0,66 | 0,58 | 0,52 | 0,81 | 0,73 | 0,67 | 0,59 | 0,52 |
| | 6 | 0,75 | 0,68 | 0,62 | 0,55 | 0,50 | 0,77 | 0,69 | 0,63 | 0,55 | 0,50 | 0,77 | 0,70 | 0,64 | 0,56 | 0,50 | 0,78 | 0,70 | 0,64 | 0,56 | 0,50 |
| | 8 | 0,71 | 0,64 | 0,58 | 0,51 | 0,46 | 0,72 | 0,65 | 0,59 | 0,52 | 0,46 | 0,73 | 0,65 | 0,59 | 0,52 | 0,46 | 0,73 | 0,66 | 0,60 | 0,52 | 0,46 |
| | 10 | 0,68 | 0,61 | 0,55 | 0,49 | 0,44 | 0,69 | 0,62 | 0,56 | 0,49 | 0,44 | 0,69 | 0,62 | 0,56 | 0,49 | 0,44 | 0,70 | 0,63 | 0,57 | 0,49 | 0,44 |

PREPARED BY STANDARDS : TS HD 603 S1 - TS HD 604 S1

TABLE 7
Rating factors for three-phase, 25 cm spacing between the systems in trefoil formation, single core cables laid underground flat formation

| | Number of Systems | Thermal Resistivity of Moist Soil (K.m/W) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0,7 K.m/W | | | | | 1,0 K.m/W | | | | | 1,5 K.m/W | | | | | 2,5 K.m/W | | | | |
| | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | |
| | | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 |
| XLPE Insulated Cables 0,6/1kV-36 kV | 1 | 1,09 | 1,04 | 0,99 | 0,93 | 0,87 | 1,11 | 1,05 | 1,00 | 0,93 | 0,87 | 1,13 | 1,07 | 1,01 | 0,94 | 0,87 | 1,17 | 1,09 | 1,03 | 0,94 | 0,87 |
| | 2 | 1,01 | 0,94 | 0,89 | 0,82 | 0,75 | 1,02 | 0,95 | 0,89 | 0,82 | 0,75 | 1,04 | 0,97 | 0,90 | 0,82 | 0,75 | 1,06 | 0,98 | 0,91 | 0,83 | 0,75 |
| | 3 | 0,94 | 0,87 | 0,81 | 0,74 | 0,67 | 0,95 | 0,88 | 0,82 | 0,74 | 0,67 | 0,97 | 0,89 | 0,82 | 0,74 | 0,67 | 0,99 | 0,90 | 0,83 | 0,74 | 0,67 |
| | 4 | 0,91 | 0,84 | 0,78 | 0,70 | 0,64 | 0,92 | 0,84 | 0,78 | 0,70 | 0,64 | 0,93 | 0,85 | 0,79 | 0,70 | 0,64 | 0,95 | 0,86 | 0,79 | 0,71 | 0,64 |
| | 5 | 0,88 | 0,80 | 0,74 | 0,67 | 0,60 | 0,89 | 0,81 | 0,75 | 0,67 | 0,60 | 0,90 | 0,82 | 0,75 | 0,67 | 0,60 | 0,91 | 0,83 | 0,76 | 0,67 | 0,60 |
| | 6 | 0,86 | 0,79 | 0,72 | 0,65 | 0,59 | 0,87 | 0,79 | 0,73 | 0,65 | 0,59 | 0,88 | 0,80 | 0,73 | 0,65 | 0,59 | 0,89 | 0,81 | 0,74 | 0,65 | 0,59 |
| | 8 | 0,83 | 0,76 | 0,70 | 0,62 | 0,56 | 0,84 | 0,76 | 0,70 | 0,62 | 0,56 | 0,85 | 0,77 | 0,70 | 0,62 | 0,56 | 0,86 | 0,78 | 0,71 | 0,62 | 0,56 |
| | 10 | 0,81 | 0,74 | 0,68 | 0,60 | 0,54 | 0,82 | 0,74 | 0,68 | 0,60 | 0,54 | 0,83 | 0,75 | 0,68 | 0,61 | 0,54 | 0,84 | 0,76 | 0,69 | 0,61 | 0,54 |
| PVC Insulated Cables 0,6/1kV - 3,6/6 kV | 1 | 1,01 | 1,02 | 0,99 | 0,93 | 0,87 | 1,04 | 1,05 | 1,00 | 0,93 | 0,87 | 1,07 | 1,06 | 1,01 | 0,94 | 0,87 | 1,11 | 1,08 | 1,01 | 0,94 | 0,87 |
| | 2 | 0,97 | 0,95 | 0,89 | 0,82 | 0,75 | 1,00 | 0,96 | 0,90 | 0,82 | 0,75 | 1,03 | 0,97 | 0,91 | 0,82 | 0,75 | 1,06 | 0,98 | 0,92 | 0,83 | 0,75 |
| | 3 | 0,94 | 0,88 | 0,82 | 0,74 | 0,67 | 0,97 | 0,88 | 0,82 | 0,74 | 0,67 | 0,97 | 0,89 | 0,83 | 0,74 | 0,67 | 0,98 | 0,90 | 0,84 | 0,74 | 0,67 |
| | 4 | 0,91 | 0,84 | 0,78 | 0,70 | 0,64 | 0,92 | 0,85 | 0,79 | 0,70 | 0,64 | 0,93 | 0,86 | 0,79 | 0,70 | 0,64 | 0,95 | 0,87 | 0,80 | 0,71 | 0,64 |
| | 5 | 0,88 | 0,81 | 0,75 | 0,67 | 0,60 | 0,89 | 0,82 | 0,76 | 0,67 | 0,60 | 0,90 | 0,82 | 0,76 | 0,67 | 0,60 | 0,91 | 0,83 | 0,77 | 0,67 | 0,60 |
| | 6 | 0,86 | 0,79 | 0,73 | 0,65 | 0,59 | 0,87 | 0,80 | 0,74 | 0,65 | 0,59 | 0,88 | 0,81 | 0,74 | 0,65 | 0,59 | 0,89 | 0,81 | 0,75 | 0,65 | 0,59 |
| | 8 | 0,83 | 0,76 | 0,70 | 0,62 | 0,56 | 0,84 | 0,77 | 0,71 | 0,62 | 0,56 | 0,85 | 0,78 | 0,71 | 0,62 | 0,56 | 0,86 | 0,78 | 0,72 | 0,62 | 0,56 |
| | 10 | 0,82 | 0,75 | 0,69 | 0,60 | 0,54 | 0,82 | 0,75 | 0,69 | 0,60 | 0,54 | 0,83 | 0,76 | 0,69 | 0,61 | 0,84 | 0,84 | 0,76 | 0,70 | 0,61 | 0,54 |

TABLE 8
Rating factors for three-phase, 25 cm spacing between the systems in flat formation, single core cables laid underground flat formation

| | Number of Systems | Thermal Resistivity of Moist Soil (K.m/W) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0,7 K.m/W | | | | | 1,0 K.m/W | | | | | 1,5 K.m/W | | | | | 2,5 K.m/W | | | | |
| | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | |
| | | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 |
| XLPE Insulated Cables 0,6/1kV-36 kV | 1 | 1,08 | 1,05 | 0,99 | 0,91 | 0,85 | 1,13 | 1,07 | 1,00 | 0,92 | 0,85 | 1,18 | 1,09 | 1,01 | 0,92 | 0,85 | 1,19 | 1,11 | 1,03 | 0,93 | 0,85 |
| | 2 | 1,01 | 0,93 | 0,86 | 0,77 | 0,71 | 1,03 | 0,94 | 0,87 | 0,78 | 0,71 | 1,05 | 0,95 | 0,88 | 0,78 | 0,71 | 1,06 | 0,96 | 0,88 | 0,79 | 0,71 |
| | 3 | 0,92 | 0,84 | 0,77 | 0,69 | 0,62 | 0,93 | 0,85 | 0,77 | 0,69 | 0,62 | 0,95 | 0,86 | 0,78 | 0,69 | 0,62 | 0,96 | 0,86 | 0,79 | 0,69 | 0,62 |
| | 4 | 0,88 | 0,80 | 0,73 | 0,65 | 0,58 | 0,89 | 0,80 | 0,73 | 0,65 | 0,58 | 0,90 | 0,81 | 0,74 | 0,65 | 0,58 | 0,91 | 0,82 | 0,74 | 0,65 | 0,58 |
| | 5 | 0,84 | 0,76 | 0,69 | 0,61 | 0,55 | 0,85 | 0,77 | 0,70 | 0,61 | 0,55 | 0,87 | 0,78 | 0,70 | 0,62 | 0,55 | 0,87 | 0,78 | 0,71 | 0,62 | 0,55 |
| | 6 | 0,82 | 0,74 | 0,67 | 0,59 | 0,53 | 0,83 | 0,75 | 0,68 | 0,60 | 0,53 | 0,84 | 0,75 | 0,68 | 0,60 | 0,53 | 0,85 | 0,76 | 0,69 | 0,60 | 0,53 |
| | 8 | 0,79 | 0,71 | 0,64 | 0,57 | 0,51 | 0,80 | 0,71 | 0,65 | 0,57 | 0,51 | 0,81 | 0,72 | 0,65 | 0,57 | 0,51 | 0,81 | 0,72 | 0,65 | 0,57 | 0,51 |
| | 10 | 0,77 | 0,69 | 0,62 | 0,55 | 0,49 | 0,78 | 0,69 | 0,63 | 0,55 | 0,49 | 0,78 | 0,70 | 0,63 | 0,55 | 0,49 | 0,79 | 0,70 | 0,63 | 0,55 | 0,49 |
| PVC Insulated Cables 0,6/1kV - 3,6/6 kV | 1 | 0,96 | 0,97 | 0,98 | 0,91 | 0,85 | 1,01 | 1,01 | 1,00 | 0,92 | 0,85 | 1,07 | 1,05 | 1,01 | 0,92 | 0,85 | 1,16 | 1,10 | 1,02 | 0,93 | 0,85 |
| | 2 | 0,92 | 0,89 | 0,86 | 0,77 | 0,71 | 0,96 | 0,94 | 0,87 | 0,78 | 0,71 | 1,00 | 0,95 | 0,88 | 0,78 | 0,71 | 1,05 | 0,97 | 0,89 | 0,79 | 0,71 |
| | 3 | 0,88 | 0,84 | 0,77 | 0,69 | 0,62 | 0,91 | 0,85 | 0,78 | 0,69 | 0,62 | 0,95 | 0,86 | 0,79 | 0,69 | 0,62 | 0,96 | 0,87 | 0,79 | 0,69 | 0,62 |
| | 4 | 0,86 | 0,80 | 0,73 | 0,65 | 0,58 | 0,89 | 0,81 | 0,74 | 0,65 | 0,58 | 0,90 | 0,82 | 0,74 | 0,65 | 0,58 | 0,91 | 0,82 | 0,75 | 0,65 | 0,58 |
| | 5 | 0,84 | 0,76 | 0,70 | 0,61 | 0,55 | 0,85 | 0,77 | 0,70 | 0,61 | 0,55 | 0,87 | 0,78 | 0,71 | 0,62 | 0,55 | 0,87 | 0,79 | 0,71 | 0,62 | 0,55 |
| | 6 | 0,82 | 0,74 | 0,68 | 0,59 | 0,53 | 0,83 | 0,75 | 0,68 | 0,60 | 0,53 | 0,84 | 0,76 | 0,69 | 0,60 | 0,53 | 0,85 | 0,76 | 0,69 | 0,60 | 0,53 |
| | 8 | 0,79 | 0,71 | 0,65 | 0,57 | 0,51 | 0,80 | 0,72 | 0,65 | 0,57 | 0,51 | 0,81 | 0,72 | 0,65 | 0,57 | 0,51 | 0,81 | 0,73 | 0,66 | 0,57 | 0,51 |
| | 10 | 0,77 | 0,69 | 0,63 | 0,55 | 0,49 | 0,78 | 0,70 | 0,63 | 0,55 | 0,49 | 0,79 | 0,70 | 0,63 | 0,55 | 0,49 | 0,79 | 0,71 | 0,64 | 0,55 | 0,49 |

PREPARED BY STANDARDS : TS HD 603 S1 - TS HD 604 S1

TABLE 9

Rating factors for three-phase, 7 cm spacing between the systems in flat formation, single or multi core cables laid underground flat formation

| | Number of Systems | Thermal Resistivity of Moist Soil (K.m/W) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0,7 K.m/W | | | | | 1,0 K.m/W | | | | | 1,5 K.m/W | | | | | 2,5 K.m/W | | | | |
| | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | | Load Factor | | | | |
| | | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 | 0,5 | 0,6 | 0,7 | 0,85 | 1,00 |
| XLPE Insulated Cables 0,6/1kV-36 kV | 1 | 1,02 | 1,03 | 0,99 | 0,94 | 0,89 | 1,06 | 1,05 | 1,00 | 0,94 | 0,89 | 1,09 | 1,06 | 1,01 | 0,94 | 0,89 | 1,11 | 1,07 | 1,02 | 0,95 | 0,89 |
| | 2 | 0,95 | 0,89 | 0,84 | 0,77 | 0,72 | 0,98 | 0,91 | 0,85 | 0,78 | 0,72 | 0,99 | 0,92 | 0,86 | 0,78 | 0,72 | 1,01 | 0,94 | 0,87 | 0,79 | 0,72 |
| | 3 | 0,86 | 0,80 | 0,74 | 0,68 | 0,62 | 0,89 | 0,81 | 0,75 | 0,68 | 0,62 | 0,90 | 0,83 | 0,77 | 0,68 | 0,62 | 0,92 | 0,84 | 0,77 | 0,69 | 0,62 |
| | 4 | 0,82 | 0,75 | 0,69 | 0,63 | 0,57 | 0,84 | 0,76 | 0,70 | 0,63 | 0,57 | 0,85 | 0,78 | 0,71 | 0,63 | 0,57 | 0,86 | 0,78 | 0,72 | 0,64 | 0,57 |
| | 5 | 0,78 | 0,71 | 0,65 | 0,59 | 0,53 | 0,80 | 0,72 | 0,66 | 0,59 | 0,53 | 0,81 | 0,73 | 0,67 | 0,59 | 0,53 | 0,82 | 0,74 | 0,67 | 0,60 | 0,53 |
| | 6 | 0,75 | 0,68 | 0,63 | 0,56 | 0,51 | 0,77 | 0,69 | 0,63 | 0,56 | 0,51 | 0,78 | 0,70 | 0,64 | 0,57 | 0,51 | 0,79 | 0,71 | 0,65 | 0,57 | 0,51 |
| | 8 | 0,71 | 0,64 | 0,59 | 0,52 | 0,47 | 0,72 | 0,65 | 0,59 | 0,52 | 0,47 | 0,73 | 0,66 | 0,60 | 0,52 | 0,47 | 0,74 | 0,66 | 0,60 | 0,53 | 0,47 |
| | 10 | 0,68 | 0,61 | 0,56 | 0,49 | 0,44 | 0,69 | 0,62 | 0,56 | 0,50 | 0,44 | 0,70 | 0,63 | 0,57 | 0,50 | 0,44 | 0,71 | 0,63 | 0,57 | 0,50 | 0,44 |
| PVC Insulated Cables 0,6/1kV - 3,6/6 kV | 1 | 0,91 | 0,92 | 0,94 | 0,94 | 0,89 | 0,97 | 0,97 | 1,00 | 0,94 | 0,89 | 1,04 | 1,03 | 1,01 | 0,94 | 0,89 | 1,13 | 1,07 | 1,02 | 0,95 | 0,89 |
| | 2 | 0,86 | 0,87 | 0,85 | 0,77 | 0,72 | 0,91 | 0,90 | 0,86 | 0,78 | 0,72 | 0,97 | 0,93 | 0,87 | 0,78 | 0,72 | 1,01 | 0,94 | 0,88 | 0,79 | 0,72 |
| | 3 | 0,82 | 0,80 | 0,75 | 0,68 | 0,62 | 0,86 | 0,82 | 0,76 | 0,68 | 0,62 | 0,91 | 0,84 | 0,77 | 0,68 | 0,62 | 0,92 | 0,84 | 0,78 | 0,69 | 0,62 |
| | 4 | 0,80 | 0,76 | 0,70 | 0,63 | 0,57 | 0,84 | 0,77 | 0,71 | 0,63 | 0,57 | 0,86 | 0,78 | 0,72 | 0,63 | 0,57 | 0,87 | 0,79 | 0,73 | 0,64 | 0,57 |
| | 5 | 0,78 | 0,72 | 0,66 | 0,59 | 0,53 | 0,81 | 0,73 | 0,67 | 0,59 | 0,53 | 0,81 | 0,74 | 0,68 | 0,59 | 0,53 | 0,82 | 0,75 | 0,68 | 0,60 | 0,53 |
| | 6 | 0,76 | 0,69 | 0,64 | 0,56 | 0,51 | 0,77 | 0,70 | 0,64 | 0,56 | 0,51 | 0,78 | 0,71 | 0,65 | 0,57 | 0,51 | 0,79 | 0,72 | 0,65 | 0,57 | 0,51 |
| | 8 | 0,72 | 0,65 | 0,59 | 0,52 | 0,47 | 0,73 | 0,66 | 0,60 | 0,52 | 0,47 | 0,74 | 0,67 | 0,61 | 0,52 | 0,47 | 0,75 | 0,67 | 0,61 | 0,53 | 0,47 |
| | 10 | 0,69 | 0,62 | 0,57 | 0,49 | 0,44 | 0,70 | 0,63 | 0,57 | 0,50 | 0,44 | 0,71 | 0,64 | 0,58 | 0,50 | 0,44 | 0,71 | 0,64 | 0,58 | 0,50 | 0,44 |

TABLE 10

Rating factor for differing air temperatures

HD 603 (1kV) - Rating factors for differing AIR temperatures

HD 603 (1kV)

| Temperature (°C) | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|
| Factor | 1,22 | 1,17 | 1,12 | 1,03 | 1,0 | 0,93 | 0,87 | 0,79 | 0,71 |

HD 603 (1kV) - Rating factors for differing SOIL temperatures

HD 603 (1kV)

| Temperature (°C) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|---|---|---|---|---|---|---|---|---|---|
| Factor | 1,14 | 1,09 | 1,05 | 1,0 | 0,95 | 0,90 | 0,84 | 0,77 | 0,71 |

HD 620 (MV cables) - Rating factors for differing AIR temperatures

HD 620

| Temperature (°C) | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|
| Factor (Type 10B-A / 10B-B 8,7/15 kV - up to 20,8/36 kV) | 1,15 | 1,12 | 1,08 | 1,04 | 1,0 | 0,96 | 0,91 | 0,87 | 0,82 |
| Factor (Type 10B-C 20,8/36 kV) | 1,17 | 1,13 | 1,09 | 1,04 | 1,0 | 0,95 | 0,90 | 0,84 | 0,79 |

HD 620 (MV cables) - Rating factors for differing SOIL temperatures

HD 620

| Temperature (°C) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|---|---|---|---|---|---|---|---|---|---|
| Factor (up to 8,7/15 kV - 20,8/36 kV) | 1,10 | 1,07 | 1,04 | 1,0 | 0,96 | 0,92 | 0,89 | 0,85 | 0,79 |

IEC 60502-2 (MV cables) - Rating factors for differing AIR temperatures

IEC 60502-2

| Temperature (°C) | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
|---|---|---|---|---|---|---|---|---|---|
| Factor (max. conductor temp.: 90°C) | 1,08 | 1,04 | 1,0 | 0,96 | 0,91 | 0,87 | 0,82 | 0,76 | 0,71 |

IEC 60502-2 (MV cables) - Rating factors for differing SOIL temperatures

IEC 60502-2

| Temperature (°C) | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
|---|---|---|---|---|---|---|---|---|---|
| Factor (max. conductor temp.: 90°C) | 1,07 | 1,04 | 1,0 | 0,96 | 0,93 | 0,89 | 0,85 | 0,80 | 0,76 |

PREPARED BY STANDARDS : TS HD 603 S1 - TS HD 604 S1

TABLE 11
Effective Resistance

| Nominal Cross Sections of Conductor mm² | Resistance | |
|---|---|---|
| | Cu Ω/km | Al Ω/km |
| 1,5 | 12,10 | - |
| 2,5 | 7,41 | - |
| 4 | 4,61 | - |
| 6 | 3,08 | - |
| 10 | 1,83 | - |
| 16 | 1,15 | 1,91 |
| 25 | 0,727 | 1,20 |
| 35 | 0,524 | 0,868 |
| 50 | 0,387 | 0,641 |
| 70 | 0,268 | 0,443 |
| 95 | 0,193 | 0,320 |
| 120 | 0,153 | 0,253 |
| 150 | 0,124 | 0,206 |
| 185 | 0,0991 | 0,164 |
| 240 | 0,0754 | 0,125 |
| 300 | 0,0601 | 0,100 |
| 400 | 0,0470 | 0,0778 |

Conversion of conductor resistance values for deviating

$$R_{20} = R_d \frac{254,5}{234,5 + d} \text{ (Cu)}$$

$$R_{20} = R_d \frac{248}{228 + d} \text{ (Al)}$$

R20 : Conductor resistance at 20°C) (Ω/km)
Rd : Conductor resistance at d°C) (Ω/km)
d : Conductor temperature (°C)

TABLE 12
Correction laying depth factors

| Depth cm | U= 1000 V | |
|---|---|---|
| | S ≤50 mm² | 70-240 mm² |
| 50 | 1,02 | 1,04 |
| 60 | 1,01 | 1,02 |
| 70 | 1,00 | 1,00 |
| 80 | 0,99 | 0,98 |
| 100 | 0,97 | 0,96 |
| 120 | 0,95 | 0,94 |
| 150 | 0,93 | 0,92 |

TS HD 603 S1 - TS HD 604 S1 PREPARED BY STANDARDS

TABLE 13
Reduction factors for different ground termal resistivity

| Nominal area mm² | Termal resistivity K x cm / W | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 50 | 70 | 80 | 100 | 120 | 150 | 200 | 250 | 300 |
| 1,5 | 1,14 | 1,08 | 1,05 | 1 | 0,96 | 0,90 | 0,83 | 0,77 | 0,72 |
| 2,5 | 1,15 | 1,08 | 1,05 | 1 | 0,96 | 0,90 | 0,82 | 0,76 | 0,71 |
| 4 | 1,16 | 1,08 | 1,05 | 1 | 0,95 | 0,89 | 0,82 | 0,76 | 0,71 |
| 6 | 1,16 | 1,09 | 1,06 | 1 | 0,95 | 0,89 | 0,81 | 0,75 | 0,70 |
| 10 | 1,17 | 1,09 | 1,07 | 1 | 0,95 | 0,89 | 0,80 | 0,75 | 0,70 |
| 16 | 1,18 | 1,10 | 1,08 | 1 | 0,95 | 0,89 | 0,80 | 0,74 | 0,69 |
| 25 | 1,20 | 1,10 | 1,08 | 1 | 0,94 | 0,89 | 0,79 | 0,72 | 0,67 |
| 50 | 1,24 | 1,13 | 1,08 | 1 | 0,94 | 0,89 | 0,77 | 0,70 | 0,65 |
| 95 | 1,24 | 1,13 | 1,08 | 1 | 0,94 | 0,86 | 0,77 | 0,70 | 0,64 |
| 150 | 1,25 | 1,13 | 1,08 | 1 | 0,94 | 0,86 | 0,76 | 0,69 | 0,64 |
| 240 | 1,25 | 1,13 | 1,08 | 1 | 0,93 | 0,86 | 0,76 | 0,69 | 0,64 |

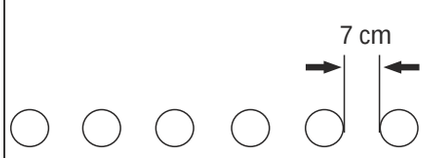
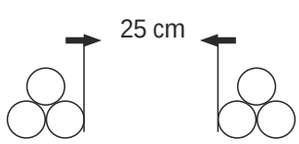
PREPARED BY STANDARDS : TS HD 603 S1 - TS HD 604 S1

TABLE 14
MV Cables correction factors
Reduction factors thermal resistivity on the ground for single core cables

| | | Cross sectional area mm² | Termal resistivity K.m/W | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0,50 | 0,70 | 0,80 | 1,00 | 1,20 | 1,50 | 2,00 | 2,50 | 3,00 |
| Type 10B-A<br>Type 10B-B | from 8,7/15kV to 20,8/36kV | 25 | 1,37 | 1,19 | 1,12 | 1,00 | 0,91 | 0,80 | 0,67 | 0,58 | 0,52 |
| | | 50 | 1,39 | 1,20 | 1,12 | 1,00 | 0,91 | 0,80 | 0,67 | 0,58 | 0,52 |
| | | 95 | 1,42 | 1,21 | 1,13 | 1,00 | 0,91 | 0,79 | 0,67 | 0,58 | 0,52 |
| | | 150 | 1,45 | 1,22 | 1,13 | 1,00 | 0,90 | 0,78 | 0,66 | 0,57 | 0,51 |
| | | 240 | 1,47 | 1,23 | 1,14 | 1,00 | 0,90 | 0,78 | 0,65 | 0,57 | 0,51 |
| | | 400 | 1,49 | 1,23 | 1,14 | 1,00 | 0,90 | 0,78 | 0,65 | 0,56 | 0,50 |
| | | 630 | 1,51 | 1,24 | 1,14 | 1,00 | 0,89 | 0,77 | 0,65 | 0,56 | 0,50 |
| | | 1000 | 1,53 | 1,25 | 1,15 | 1,00 | 0,89 | 0,77 | 0,64 | 0,55 | 0,49 |
| Type 10B-C<br>Type 10 B-D | 20,8/36kV | 240 | 1,29 | 1,15 | 1,09 | 1,00 | 0,93 | 0,85 | 0,75 | 0,68 | 0,62 |
| | | 400 | 1,30 | 1,15 | 1,09 | 1,00 | 0,93 | 0,84 | 0,74 | 0,67 | 0,62 |
| | | 630 | 1,30 | 1,15 | 1,09 | 1,00 | 0,92 | 0,84 | 0,74 | 0,66 | 0,61 |
| | | 1000 | 1,32 | 1,16 | 1,10 | 1,00 | 0,92 | 0,83 | 0,73 | 0,66 | 0,61 |

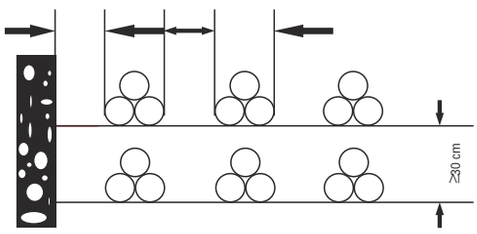
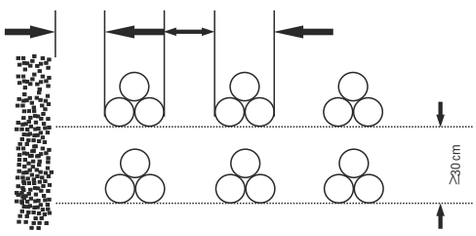
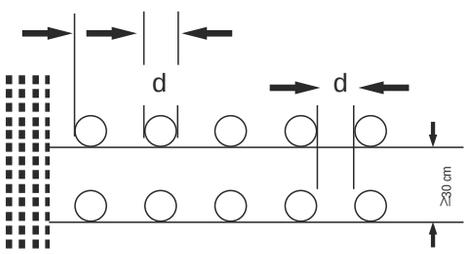
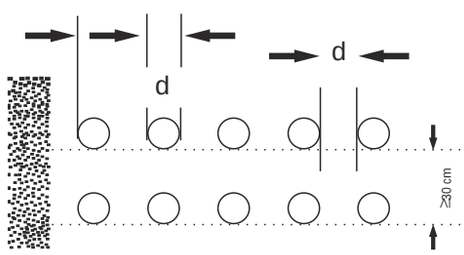
TABLE 15
Laying depth reducing factors

| Depth cm | U ≤15 kV S ≤300 mm² | U ≤15 kV S > 300 mm² | U > 15 kV S ≤300 mm² | U > 15 kV S > 300 mm² |
|---|---|---|---|---|
| 50 | 1,03 | 1,05 | - | - |
| 60 | 1,02 | 1,03 | - | - |
| 70 | 1,00 | 1,00 | - | - |
| 80 | 0,99 | 0,98 | 1,02 | 1,03 |
| 100 | 0,97 | 0,95 | 1,00 | 1,00 |
| 120 | 0,95 | 0,93 | 0,99 | 0,98 |
| 150 | 0,93 | 0,91 | 0,97 | 0,95 |
| 200 | - | - | 0,94 | 0,92 |
| 250 | - | - | 0,92 | 0,90 |
| S = Cross-sectional area of the conductor | | | | |

| Number of systems | Cross sectional area mm² | 2 | 3 | 4 | 5 | 6 | 8 | 10 |
|---|---|---|---|---|---|---|---|---|
|  | 25 | 0,86 | 0,78 | 0,73 | 0,70 | 0,67 | 0,64 | 0,62 |
| | 50 | 0,85 | 0,77 | 0,72 | 0,69 | 0,67 | 0,64 | 0,62 |
| | 95 | 0,85 | 0,77 | 0,72 | 0,69 | 0,67 | 0,63 | 0,62 |
| | 150 | 0,84 | 0,76 | 0,72 | 0,68 | 0,66 | 0,63 | 0,62 |
| | 240 | 0,84 | 0,76 | 0,71 | 0,68 | 0,66 | 0,63 | 0,61 |
| | 400 | 0,84 | 0,75 | 0,71 | 0,67 | 0,65 | 0,62 | 0,60 |
| | 630 | 0,83 | 0,75 | 0,70 | 0,65 | 0,65 | 0,62 | 0,60 |
| | 1000 | 0,82 | 0,74 | 0,69 | 0,64 | 0,64 | 0,61 | 0,59 |
|  | 25 | 0,89 | 0,81 | 0,77 | 0,73 | 0,72 | 0,69 | 0,67 |
| | 50 | 0,89 | 0,80 | 0,76 | 0,73 | 0,71 | 0,68 | 0,66 |
| | 95 | 0,89 | 0,80 | 0,76 | 0,73 | 0,71 | 0,68 | 0,66 |
| | 150 | 0,88 | 0,80 | 0,76 | 0,72 | 0,70 | 0,67 | 0,65 |
| | 240 | 0,88 | 0,79 | 0,75 | 0,72 | 0,70 | 0,67 | 0,65 |
| | 400 | 0,87 | 0,78 | 0,74 | 0,71 | 0,69 | 0,66 | 0,64 |
| | 630 | 0,87 | 0,77 | 0,73 | 0,70 | 0,68 | 0,65 | 0,63 |
| | 1000 | 0,86 | 0,76 | 0,72 | 0,69 | 0,67 | 0,64 | 0,62 |

PREPARED BY STANDARDS : TS HD 620 S3

TABLE 16
Reduction factors for the other cable systems in the air

| | Number of racks | Number of systems | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| A. On non-aerated cable racks<br>≥2 cm 2d 2d<br>  <br> | 1<br>2<br>3<br>6 | 0,95<br>0,90<br>0,88<br>0,86 | 0,90<br>0,85<br>0,83<br>0,81 | 0,88<br>0,83<br>0,81<br>0,79 |
| B. On aerated cable racks<br>≥2 cm 2d 2d<br>  <br> | 1<br>2<br>3<br>6 | 1,00<br>1,00<br>1,00<br>1,00 | 0,98<br>0,95<br>0,94<br>0,93 | 0,96<br>0,93<br>0,92<br>0,90 |
| A. On non-aerated cable racks<br>≥2 cm<br>  <br> | 1<br>2<br>3<br>6 | 0,92<br>0,87<br>0,84<br>0,82 | 0,89<br>0,84<br>0,82<br>0,80 | 0,88<br>0,83<br>0,81<br>0,79 |
| B. On aerated cable racks<br>≥2 cm<br>  <br> | 1<br>2<br>3<br>6 | 1,00<br>1,00<br>1,00<br>1,00 | 0,97<br>0,94<br>0,93<br>0,91 | 0,96<br>0,93<br>0,92<br>0,90 |

PREPARED BY STANDARDS : TS HD 620 S3

TABLE 17
Connection factors for multicore cables laid in ground or in air with crosssection from 1,5 mm² to 10 mm²

| Number of Cores under load | In ground | In the air |
|---|---|---|
| 5 | 0,70 | 0,75 |
| 7 | 0,60 | 0,65 |
| 10 | 0,50 | 0,55 |
| 14 | 0,45 | 0,50 |
| 19 | 0,40 | 0,45 |
| 24 | 0,35 | 0,40 |
| 40 | 0,30 | 0,35 |
| 61 | 0,25 | 0,30 |

TABLE 18
Permissible operating temperature short-circuit temperature and short circuit currents
for cables with copper and aluminium conductor

| Nominal short circuit current desinty for 1sec (A/mm²) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cable type | Max. operating temperature °C | Max. short circuit temperature °C | Initial temperature °C | | | | | | | | |
| | | | 90 | 80 | 70 | 65 | 60 | 50 | 40 | 30 | 20 |
| Copper conductor XLPE insulation | 90 | 250 | 143 | 149 | 154 | 157 | 159 | 165 | 170 | 176 | 181 |
| Al. conductor XLPE insulation | 90 | 250 | 94 | 98 | 102 | 104 | 105 | 109 | 113 | 116 | 120 |
| Copper conductor PVC insulation | | | | | | | | | | | |
| ≤ 300 mm² | 70 | 160 | --- | --- | 115 | 119 | 122 | 129 | 136 | 143 | 150 |
| > 300 mm² | 70 | 140 | --- | --- | 103 | 107 | 111 | 118 | 126 | 133 | 140 |
| Al. conductor PVC insulation | | | | | | | | | | | |
| ≤ 300 mm² | 70 | 160 | --- | --- | 76 | 78 | 81 | 85 | 90 | 95 | 99 |
| > 300 mm² | 70 | 140 | --- | --- | 68 | 71 | 73 | 78 | 83 | 88 | 93 |

Short circuit current for various exposure time , $I_{th}$

$$I_{th} \quad \frac{I_{thN}}{\sqrt{T_k}}$$

$I_{thN}$ = Short circuit current for 1sec

$T_k$ = Exposure time, sec

$I_{thN}$ = Conductive section (mm²) x short circuit current density (A/mm²) x $10^{-3}$ kA

TABLE 19
Inductive reactance of PVC insulated cables at 50 Hz.

| Nominal cross-section of Conductor mm² | Nominal voltage | | | | | |
|---|---|---|---|---|---|---|
| | 0,6/1 kV | | 3,6/6 kV | | 6/10 kV | |
| | Multi Core (1) ohm/km | 1 Core (2) ohm/km | 3 Core (1) ohm/km | 1 Core (2) ohm/km | 3 Core (1) ohm/km | 1 Core (2) ohm/km |
| 25 | 0,082 | 0,103 | 0,107 | 0,137 | 0,122 | 0,127 |
| 35 | 0,079 | 0,098 | 0,101 | 0,131 | 0,116 | 0,119 |
| 50 | 0,078 | 0,095 | 0,097 | 0,127 | 0,114 | 0,113 |
| 70 | 0,075 | 0,090 | 0,092 | 0,117 | 0,107 | 0,107 |
| 95 | 0,075 | 0,088 | 0,088 | 0,112 | 0,103 | 0,104 |
| 120 | 0,073 | 0,085 | 0,085 | 0,107 | 0,099 | 0,100 |
| 150 | 0,073 | 0,084 | 0,083 | 0,105 | 0,096 | 0,097 |
| 185 | 0,072 | 0,084 | 0,081 | 0,102 | 0,093 | 0,094 |
| 240 | 0,072 | 0,082 | 0,078 | 0,097 | 0,089 | 0,093 |
| 300 | - | 0,081 | 0,077 | 0,095 | 0,087 | 0,091 |
| 400 | - | 0,079 | - | 0,092 | - | 0,088 |
| 500 | - | 0,079 | - | 0,089 | - | 0,085 |

1- 10% more is taken for armored cables.
2- Trefoil formation.

TABLE 20
Inductive reactance of XLPE insulated cables at 50 Hz.

| Nominal cross-section of Conductor mm² | Nominal voltage | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0,6/1 kV | | 6/10 kV | | 8,7/15 kV | | 12/20 kV | | 20,3/35 kV | |
| | 1 Core (2) W/km | Multi Core (1) W/km | 1 Core (2) W/km | Multi Core (1) W/km | 1 Core (2) W/km | Multi Core (1) W/km | 1 Core (2) W/km | Multi Core (1) W/km | 1 Core (2) W/km | Multi Core (1) W/km |
| 35 | - | 0,075 | 0,133 | - | 0,139 | - | 0,144 | - | - | - |
| 50 | 0,088 | 0,072 | 0,127 | 0,110 | 0,132 | 0,117 | 0,137 | 0,123 | 0,146 | 0,135 |
| 70 | 0,085 | 0,072 | 0,119 | 0,103 | 0,124 | 0,110 | 0,129 | 0,115 | 0,135 | 0,127 |
| 95 | 0,082 | 0,069 | 0,114 | 0,099 | 0,118 | 0,105 | 0,123 | 0,110 | 0,131 | 0,121 |
| 120 | 0,082 | 0,069 | 0,109 | 0,095 | 0,114 | 0,101 | 0,118 | 0,106 | 0,125 | 0,116 |
| 150 | 0,082 | 0,069 | 0,106 | 0,092 | 0,11 | 0,098 | 0,114 | 0,102 | 0,121 | 0,113 |
| 186 | 0,082 | 0,069 | 0,102 | 0,090 | 0,106 | 0,095 | 0,110 | 0,099 | 0,117 | 0,109 |
| 210 | 0,079 | 0,069 | 0,098 | 0,087 | 0,102 | 0,091 | 0,105 | 0,095 | 0,112 | 0,104 |
| 300 | - | - | 0,095 | 0,084 | 0,099 | 0,089 | 0,102 | 0,092 | 0,108 | 0,101 |
| 400 | - | - | 0,091 | - | 0,095 | - | 0,098 | - | 0,103 | - |
| 500 | - | - | 0,099 | - | 0,092 | - | 0,094 | - | 0,100 | - |
| Longitudinally water-proof construction | | | | | | | | | | |
| 35 | - | - | 0,147 | - | - | - | 0,157 | - | - | - |
| 50 | - | - | 0,140 | - | - | - | 0,150 | - | 0,159 | - |
| 70 | - | - | 0,133 | - | - | - | 0,142 | - | 0,150 | - |
| 95 | - | - | 0,127 | - | - | - | 0,135 | - | 0,143 | - |
| 120 | - | - | 0,123 | - | - | - | 0,131 | - | 0,139 | - |
| 150 | - | - | 0,120 | - | - | - | 0,127 | - | 0,135 | - |
| 186 | - | - | 0,114 | - | - | - | 0,122 | - | 0,129 | - |
| 210 | - | - | 0,110 | - | - | - | 0,117 | - | 0,124 | - |
| 300 | - | - | 0,106 | - | - | - | 0,113 | - | 0,119 | - |
| 400 | - | - | 0,102 | - | - | - | 0,109 | - | 0,115 | - |
| 500 | - | - | 0,100 | - | - | - | 0,106 | - | 0,112 | - |

1- 10% more is taken for armored cables.
2- Trefoil formation.

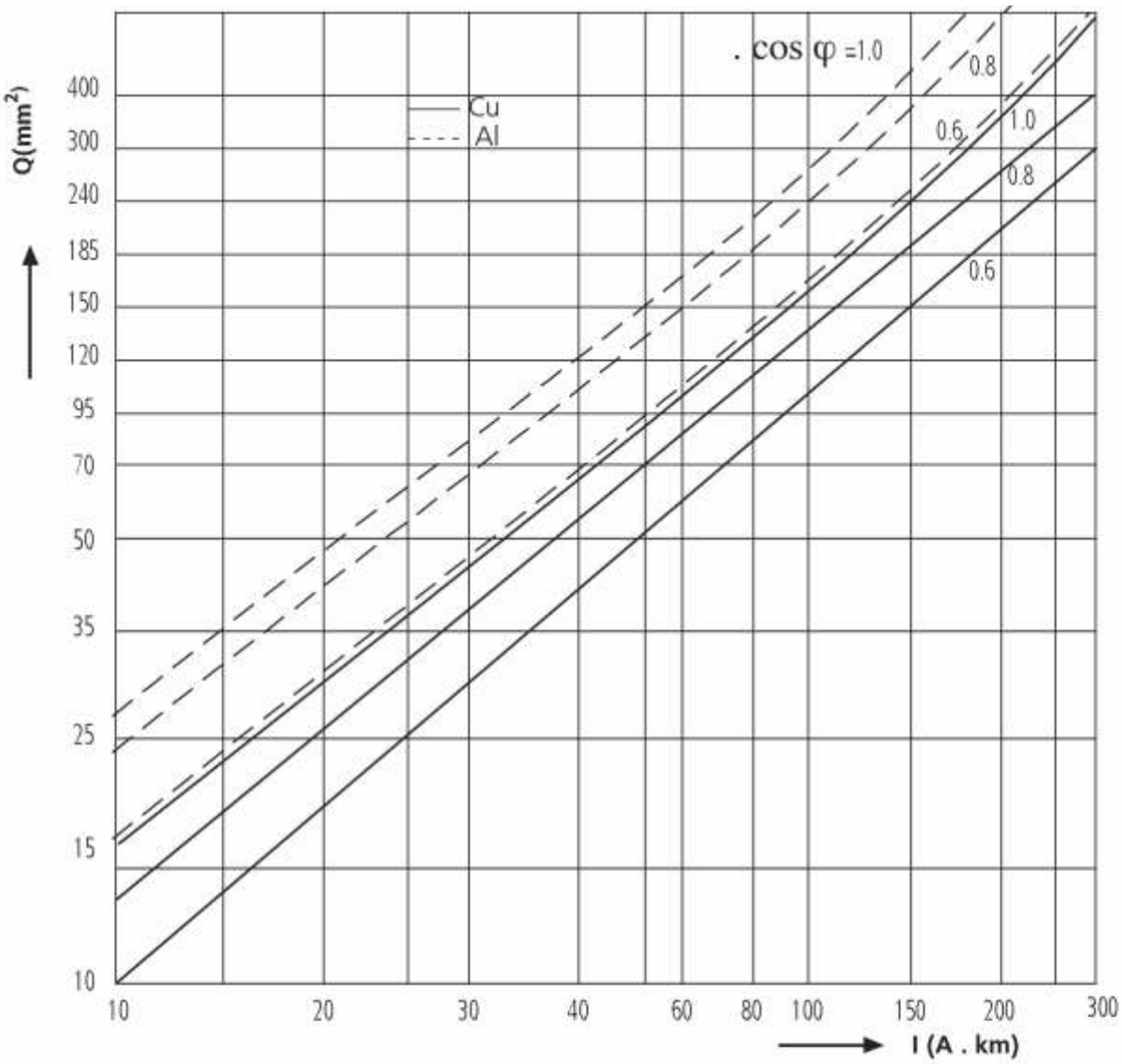
TABLE 21
Earth fault currents - PVC insulated cables

| Nominal cross-section | Nominal Voltage | Nominal Voltage |
|---|---|---|
| mm² | 3,6/6 kV (A/km) | 6/10 kV (A/km) |
| 25 | 0,60 | 1,9 |
| 35 | 0,60 | 2,1 |
| 50 | 0,70 | 2,3 |
| 70 | 0,70 | 2,6 |
| 95 | 0,80 | 2,9 |
| 120 | 0,90 | 3,2 |
| 150 | 0,90 | 3,4 |
| 185 | 1,00 | 3,8 |
| 210 | 1,00 | 4,5 |
| 300 | 1,20 | 5,0 |

TABLE 22
Earth fault currents - XLPE insulated cables

| Nominal cross-section | Nominal Voltage | Nominal Voltage | Nominal Voltage | Nominal Voltage |
|---|---|---|---|---|
| mm² | 6/10 kV (A/km) | 8.7/15 kV (A/km) | 12/20 kV (A/km) | 18/30 kV (A/km) |
| 35 | 1,2 | 1,4 | 1,8 | - |
| 50 | 1,3 | 1,6 | 1,9 | 2,2 |
| 70 | 1,5 | 1,8 | 2,1 | 2,4 |
| 95 | 1,7 | 1,9 | 2,3 | 2,7 |
| 120 | 1,8 | 2,1 | 2,5 | 2,9 |
| 150 | 2,0 | 2,3 | 2,7 | 3,1 |
| 185 | 2,1 | 2,5 | 2,9 | 3,3 |
| 240 | 2,4 | 2,8 | 3,2 | 3,6 |
| 300 | 2,6 | 3,0 | 3,5 | 3,9 |
| 400 | 3,0 | 3,4 | 4,0 | 4,4 |
| 500 | 3,0 | 3,7 | 4,4 | 4,8 |

TABLE 23
Voltage drop at low voltage cables



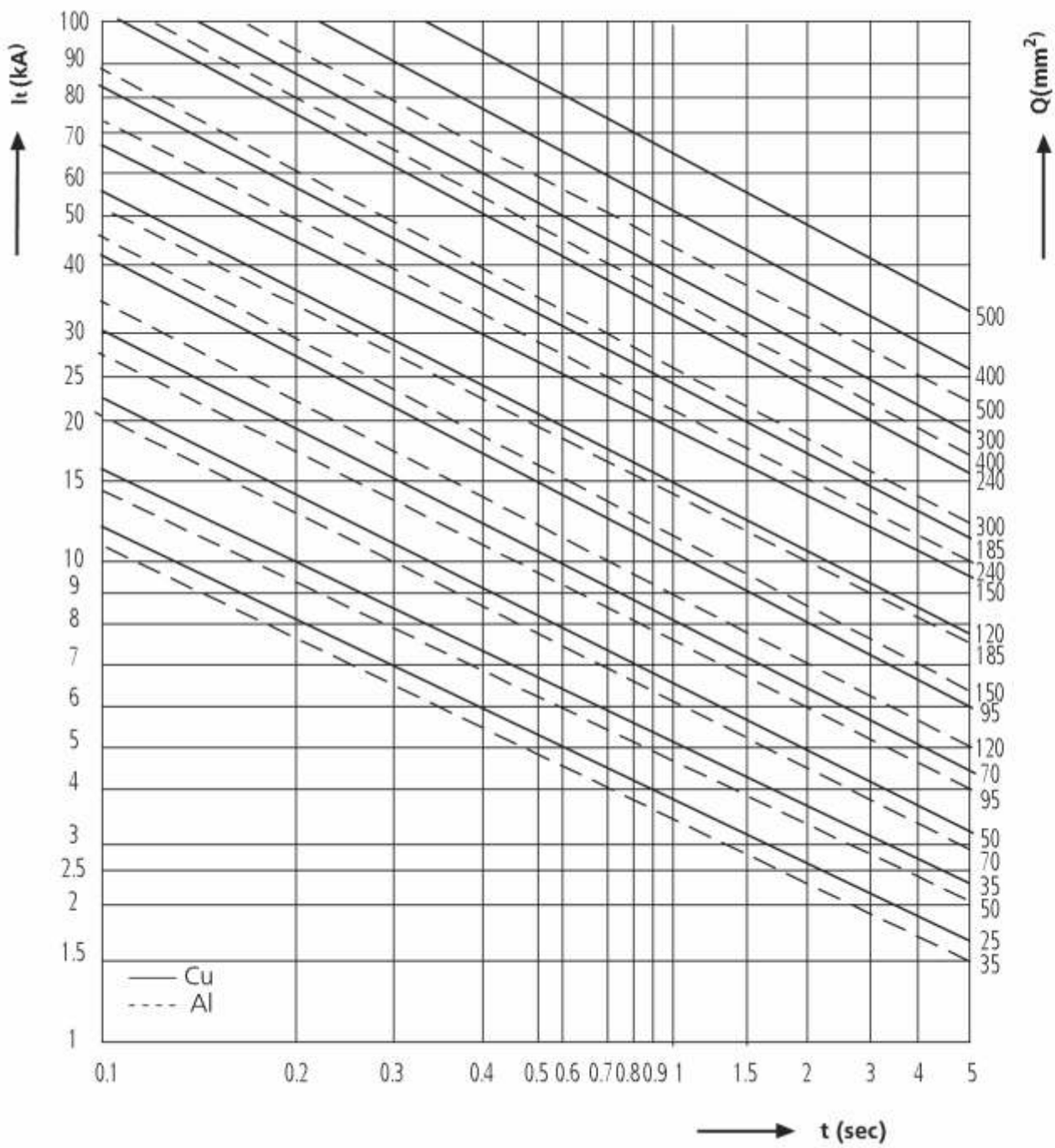

Voltage drop : %5
Service voltage : 220/380V
Conductor tempature : 70 °C

In many cases, especially for large cross section, the inductive voltage drop must be taken into consideration.
General formula for theree phase systems:

$$e = \frac{100 \,.\, \sqrt{3} \,.\, I \,.\, l}{U} (R \,.\, \cos\varphi + X \,.\, \sin\varphi)$$

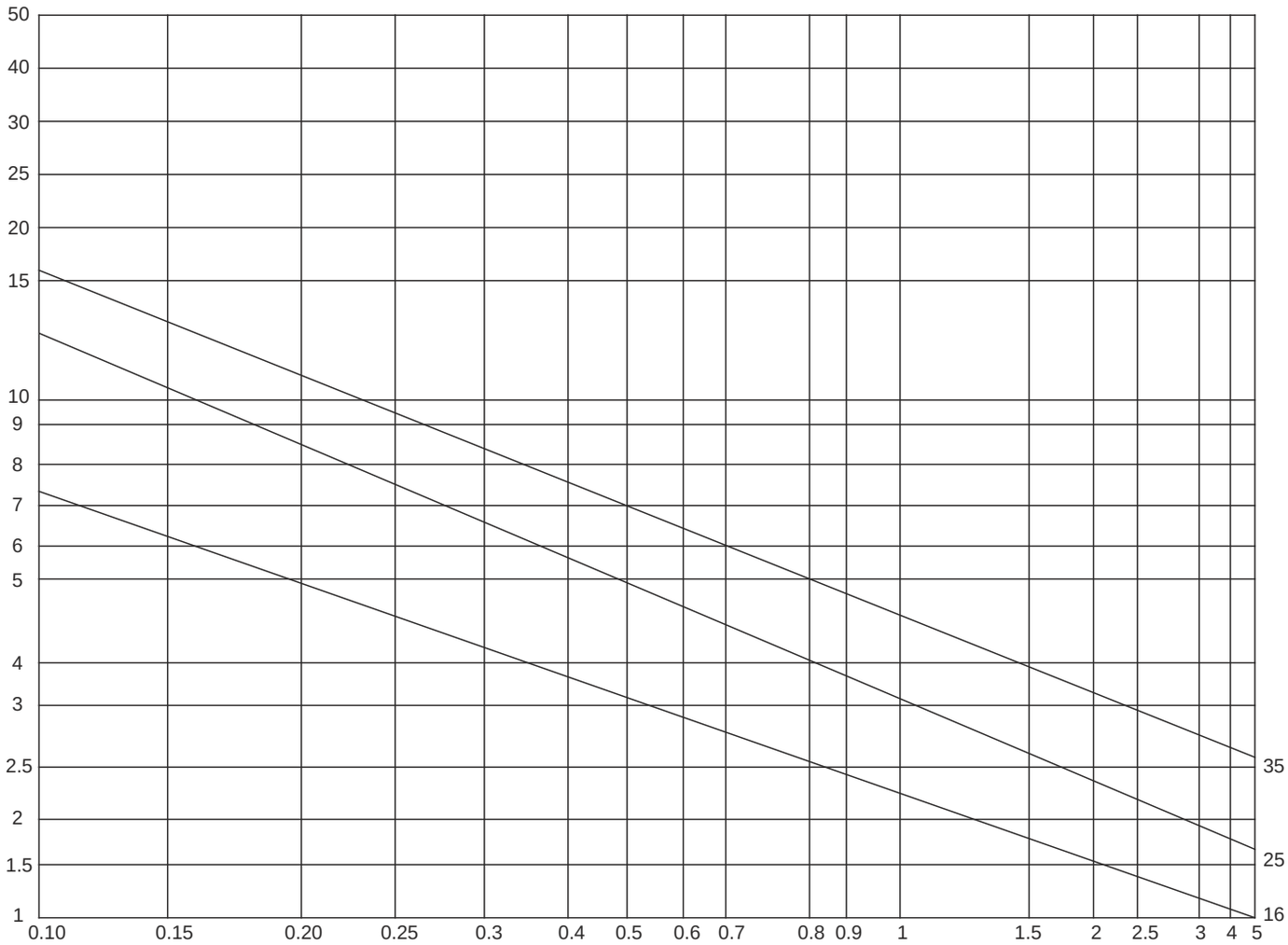
U= Phase to phase voltage (V) l = Length cable (km)
e= Voltage drop (%) R= Resistance (ohm/km)
I= Current loading (A) X= Inductance (ohm/km)

TABLE 24
Permissible short-circuit current for XLPE insulated cables for 1-30 kV




(Short circuit initial temperature 90 °C, final temperature 250 °C).

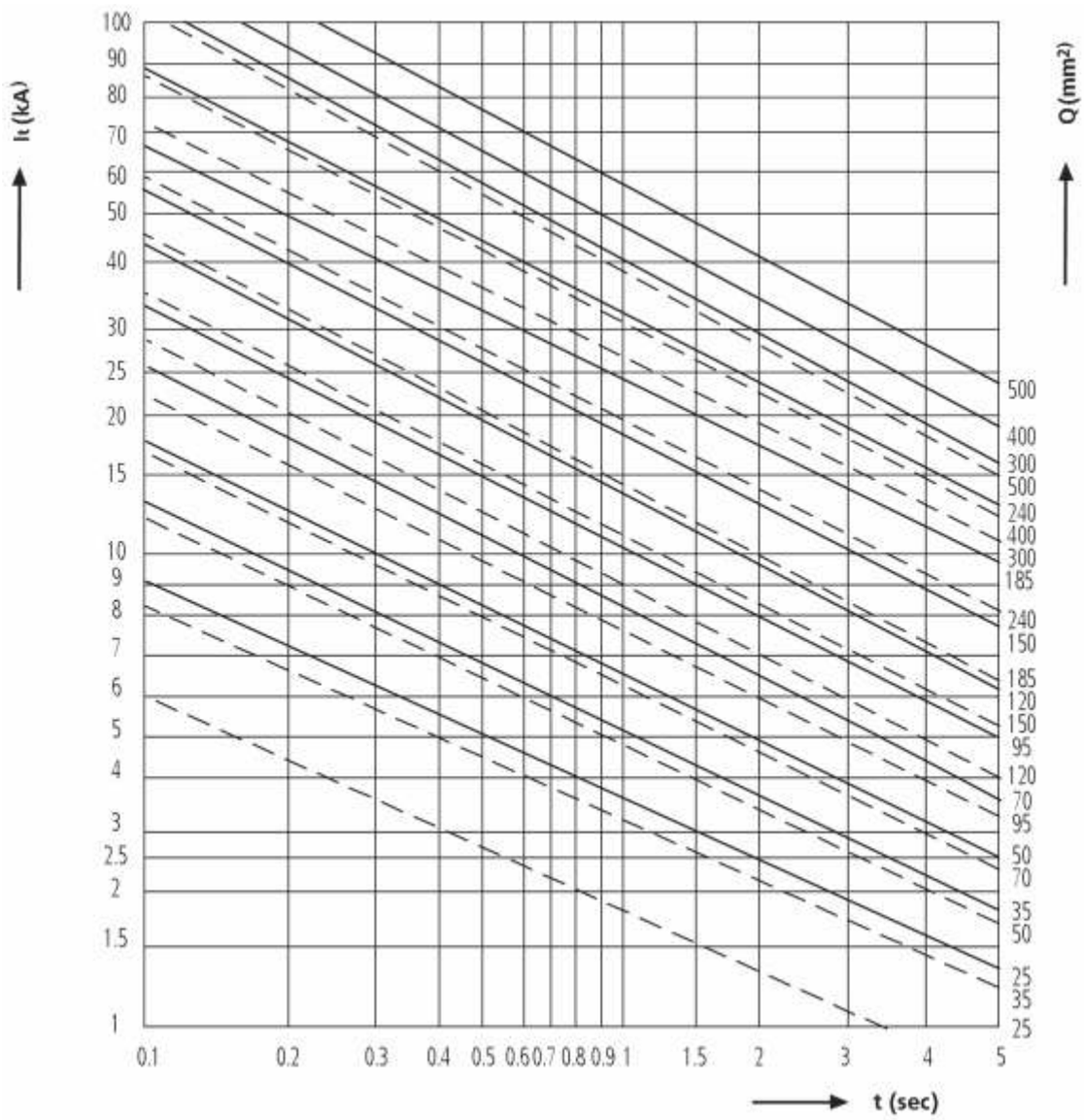
TABLE 25
Permissible short-circuit current for variouscross - sections of screens




**Standard cross-sections of screens**

| Cross-sections of conductor ($mm^2$) | Cross-sections of screen ($mm^2$) |
|---|---|
| 35 - 120 | 16 |
| 150 - 300 | 25 |
| 400 - 500 | 35 |

TABLE 26
Permissible short-circuit current for PVC insulated cables for 1-10kV



For single core systems laying arrangement, cores shall be in the form of;

L1 L2 L3  L3 L2 L1  L1 L2 L3  L3 L2 L1

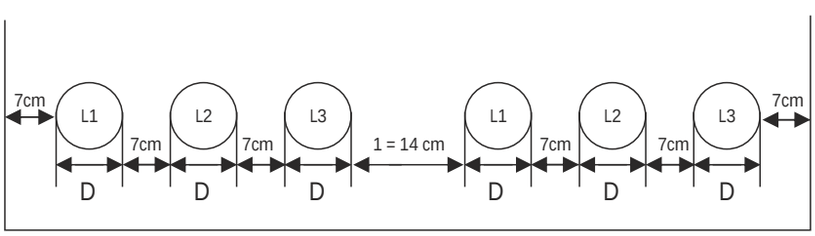
For the systems which have more than one layer, provided that, it shall be minimum 20 cm gap between systems.

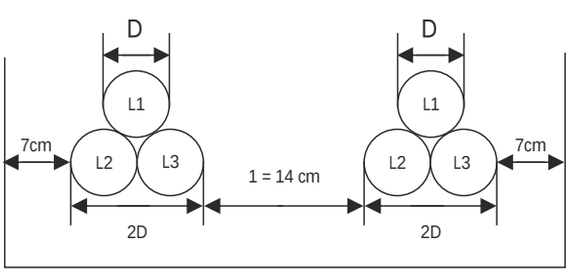
| 1 st. layer | 2nd. layer |
|---|---|
| L1 L2 L3 | L3 L2 L1 |
| L1 L2 L3 | L3 L2 L1 |
| L1 L2 L3 | L3 L2 L1 |

Same phases shall not install near side by side for all these systems. For example; L1 L1 L1,  L2 L2 L2,  L3 L3 L3 is a wrong formation for laying.
The minimum gap between two cables shall be as same diameter with cables and also length of cable shall be approximately equal for each of them.

| Number of Cores | Bending Radius | | |
|---|---|---|---|
| | Unarmoured LV Cables | Unarmoured MV Cables | Armoured Cables |
| Single Core | 12 x D | 14 x D | 15 x D |
| Multi Core | 10 x D | 12 x D | 12 x D |

Example for single core system



## FORMULAS - CONVERSION FACTORS

| | | |
|---|---|---|
| Ohms Law | $U = I \times R$ | |
| Energy | $W = I^2 \times R \times t$ | |
| Resistance of a Line (Feed and Return) | $R = \frac{2 \times l}{\gamma \times S}$ | |
| Power | $P = U \times I$ | |
| Single-Phase Power | $P = U \times I \times \cos f$ | |
| Three-Phase Power | $P = 1{,}73 \times U \times I \times \cos f$ | |
| Efficiency | $h = \frac{P_{output}}{P_{input}}$ | |

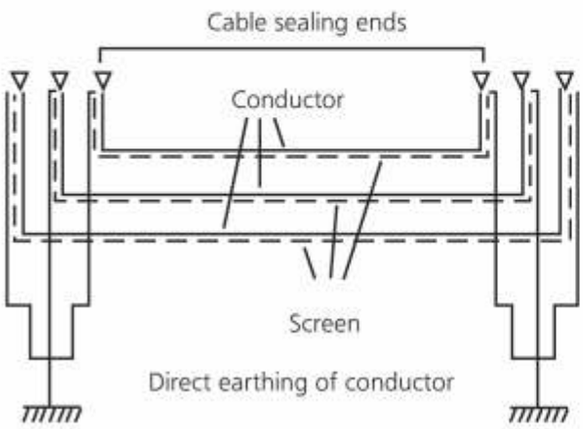
| | |
|---|---|
| U | Rated voltage (V) |
| I | Current (A) |
| R | Resistance (ohm) |
| W | Energy (Joule) |
| t | Time (seconds) |
| *l* | Length of cable (m) |
| u | Voltage drop (V) from sending to receiving end of line |
| $\gamma$ | Conductivity (for copper 58 MS/m at 20°C) |
| S | Rated cross-section (mm²) |
| cos f | Power factor |
| P | Power (W) |
| h | Efficiency |

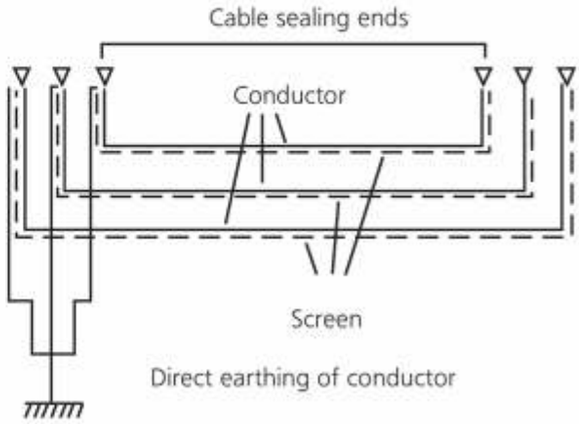
| | In single-phase AC and DC systems | In three-phase AC and DC systems |
|---|---|---|
| If current is known | $u = \frac{2 \times l \times I}{\gamma \times S}$ (V) | $u = \frac{1{,}73 \times l \times I \times \cos f}{\gamma \times S}$ (V) |
| If power is known | $u = \frac{2 \times l \times P}{\gamma \times S \times U}$ (V) | $u = \frac{l \times P}{\gamma \times S \times U}$ (V) |
| If current is known | $S = \frac{2 \times l \times I}{\gamma \times u}$ (mm²) | $S = \frac{1{,}73 \times l \times I \times \cos f}{\gamma \times u}$ (mm²) |
| If power is known | $S = \frac{2 \times I \times P}{\gamma \times u \times U^2}$ (mm²) | $S = \frac{l \times P}{\gamma \times u \times U^2}$ (mm²) |

| Lenght | meters (m) | inches (in) | feet (ft) | yard (yd) | miles (mil) |
|---|---|---|---|---|---|
| 1m | 1,0 | 39,37 | 3,28 | 1,0936 | $0{,}621371 \times 10^3$ |
| 1 in | 0,0254 | 1,0 | 0,0833 | 0,0277 | $0{,}0158 \times 10^3$ |
| 1 ft | 0,3048 | 12,00 | 1,0 | 0,333 | $0{,}189 \times 10^3$ |
| 1 yd | 0,9144 | 36,00 | 3,0 | 1,0 | $0{,}568 \times 10^3$ |
| 1 mile | 1609,344 | 63360,0 | 5280,0 | 1760,0 | $1{,}0 \times 10^3$ |

| Area | m² | in² | ft² |
|---|---|---|---|
| 1 m² | 1,0 | 1550,0 | 10,7639 |
| 1 in² | $0{,}64516 \times 10^3$ | 1,0 | $6{,}944 \times 10^3$ |
| 1 ft² | 0,0929 | 144,0 | 1,0 |

## EARTING METHODS FOR CABLE SCREENS



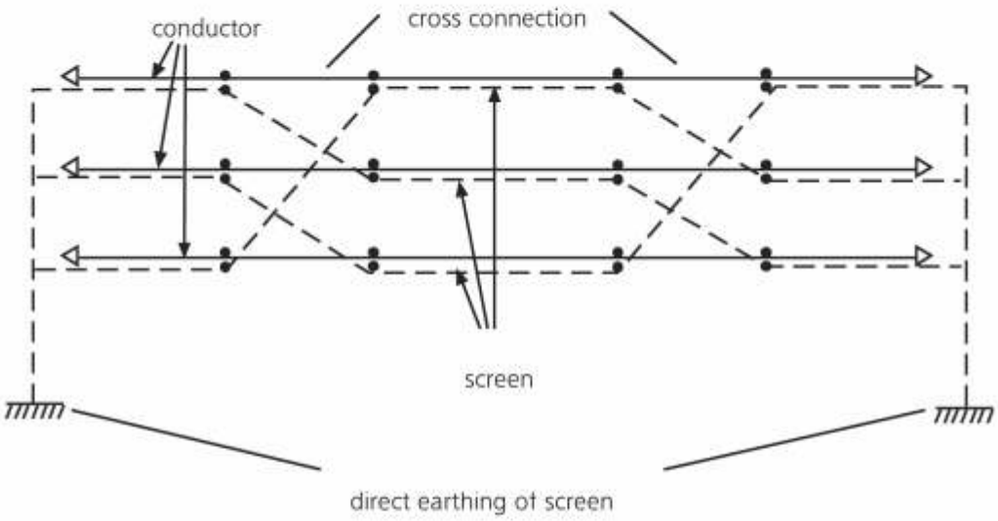




1) Earthing at two ends

Cable screens are connected together and earthed at both ends of cable route. On this method, current inducted at cable screen cause additional losses and reduce the current carrying capacity. Losses at cables: installed as triangle bunch are lower than cables installed side by side.

2) Earthing at one end

Cable screens are connected together and earthed at one end of cable route. Voltage between the cable screen and earth is proportional with the cable length and current rate in conductor. This method is only applied for short distances.




3) Cross connection

It is used at long distances (1km or over). The line is splitted in 3 equal electrical parts. Screens of adjacent cables are cross connected at joint boxer are earthed via voltage limiter. Additionally the screens are connected and directly earthed at two ends. In this method, current carrying capacity is as big as screening at one and.

Permitted minimum bending radius during the cabling

Multi-core cables
0,6/1 kV : 12 D
0,6/1 kV : 15 D

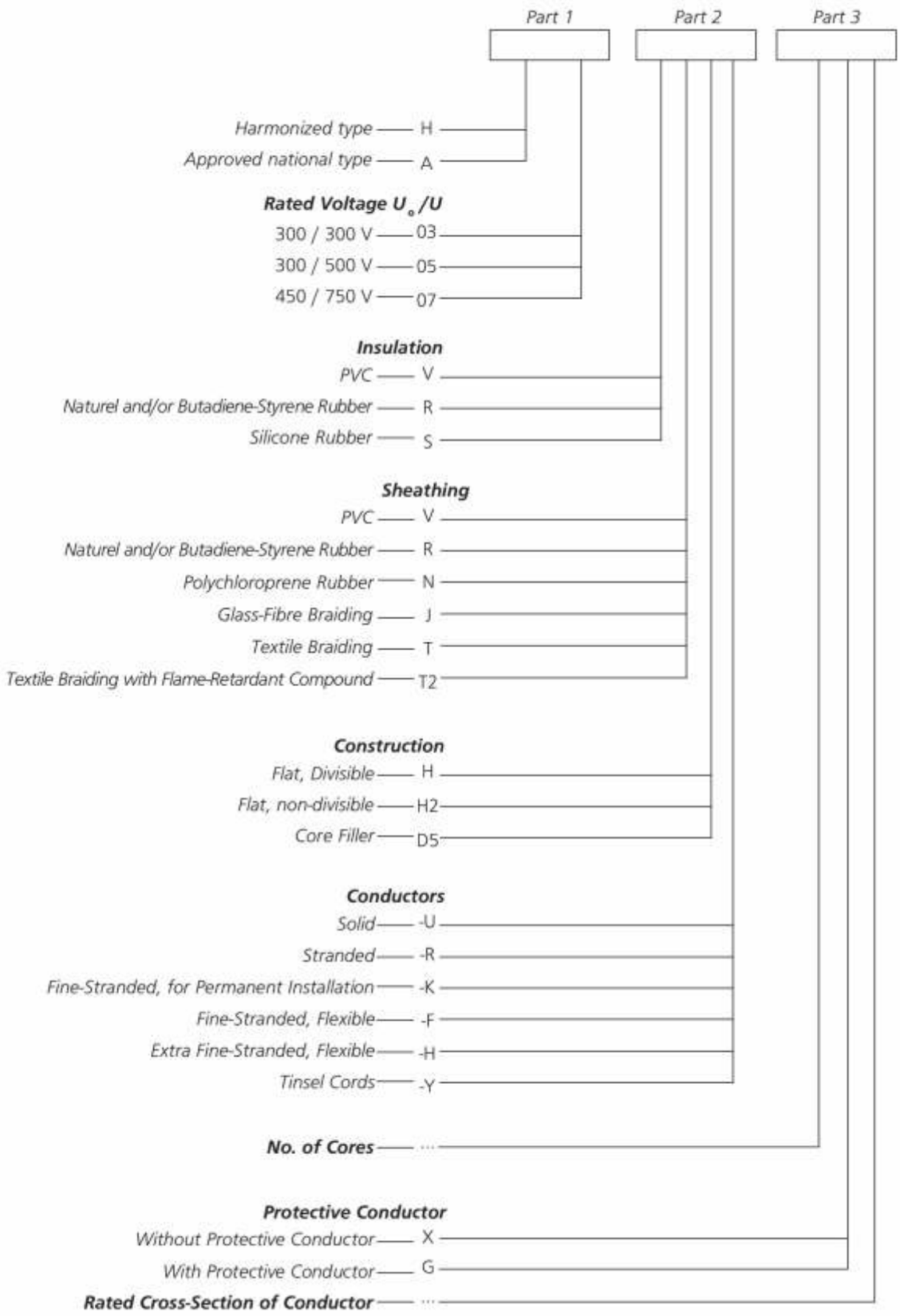
All single mode cables
D : Cable diameter

Minimum ambient temperature during the cabling
: +3°C PVC cables
: -5°C XLPE cables

Permitted maximum tensile strenght during the cabling

Unarmoured cables with copper conductor : a x 50 N/mm² (5 kg/mm²)
Unarmoured cables with aluminium conductor : a x 30 N/mm² (3 kg/mm²)
All cables with steel wire armoured : d² X 9 N/mm² (0,9 kg/mm²)
All cables with steel belt armoured : d² X 3 N/mm² (0,3 kg/mm²)

A : Total conductive section of all cores
D : Cable Diameter (mm)


Part 1
Part 2
Part 3
Harmonized type — H
Approved national type — A
Rated Voltage U0/U
300 / 300 V — 03
300 / 500 V — 05
450 / 750 V — 07
Insulation
PVC — V
Naturel and/or Butadiene-Styrene Rubber — R
Silicone Rubber — S
Sheathing
PVC — V
Naturel and/or Butadiene-Styrene Rubber — R
Polychloroprene Rubber — N
Glass-Fibre Braiding — J
Textile Braiding — T
Textile Braiding with Flame-Retardant Compound — T2
Construction
Flat, Divisible — H
Flat, non-divisible — H2
Core Filler — D5
Conductors
Solid — -U
Stranded — -R
Fine-Stranded, for Permanent Installation — -K
Fine-Stranded, Flexible — -F
Extra Fine-Stranded, Flexible — -H
Tinsel Cords — -Y
No. of Cores — ...
Protective Conductor
Without Protective Conductor — X
With Protective Conductor — G
Rated Cross-Section of Conductor — ...

(TS HD 361.S3)

| Symbols | Materials |
|---|---|
| | **Insulating and Unmetalic Sheath Materials** |
| E | Polyethylene |
| N | Polychloroprene |
| V | PVC |
| X | Cross-linked polyethylene |
| Z1 | Thermoplastic material has a suitable low level corrosive gas emission with polyethlene basis for low smoke emission |
| | **Metalic Covers** |
| AT | Aluminium screen |
| A8 | Aluminium screen over each core |
| C4 | Copper wire braiding over cores |
| C7 | Copper screen from the ribbon or tape or copper wire |
| C8 | over each core as C7 |
| | **Armouring** |
| Z2 | Galvanized or plain round steel wire armour |
| Z3 | Galvanized or plain flat steel wire armour |
| Z4 | Galvanized or plain steel tape armour |
| Y2 | Round aluminium wire armour |
| Y3 | Flat aluminium wire armour |
| | **Special Construction** |
| | Circular constructed cable |
| H | Sheathed or unsheathed separable flat constructed cable |
| H2 | Unseparable flat constructed cables and cordon |
| H4 | Multicore flat cable with non insulated one conductor |
| H5 | Stranded cable with two or more cores together |
| H6 | Flat cable with two or more |
| | **Conductor Material** |
| | Copper |
| -A | Aluminium |
| | **Conductor Shape** |
| -F | Twisted cable or twisted conductor of cordon |
| -H | Twisted cable or high level twisted conductor of cordon |
| -K | One cable conductor for fixed installation |
| -R | Rigid, round conductor, braided |
| -S | Rigid, with sector shaped conductor, braided |
| -U | Rigid, round conductor, solid |
| -W | Rigid, with sector shaped conductor, solid |
| -Y | Conductor with the shape of the bride wire |

Example : YVV-U

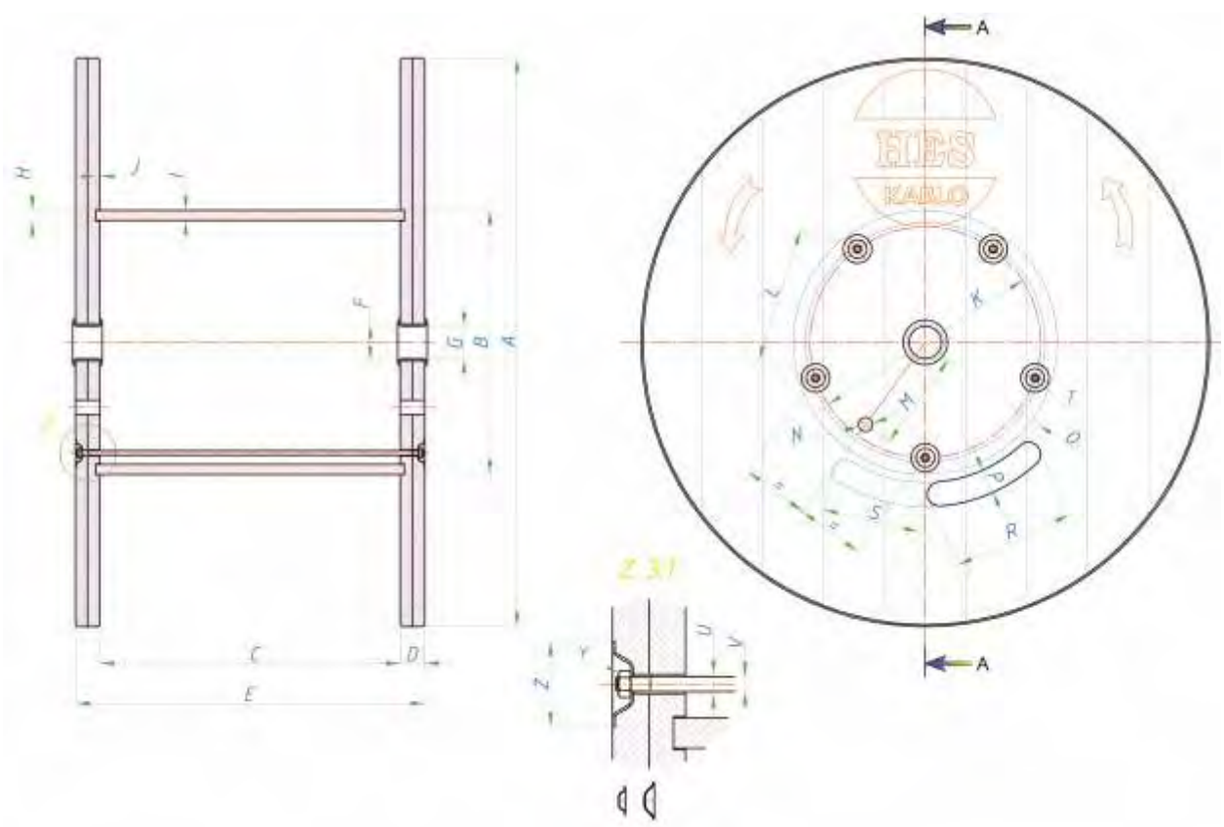
Example : YVZ2V-R

Example : YAXC8VZ3V-R

| VDE 0271 | Explanation |
|---|---|
| A | *Aluminium conductor* |
| Y | *Polyvinylichloride insulation or sheath* |
| 2Y | *Polyethylene* |
| 2X | *Cross-linked polythylene* |
| H | *Sheath or tape conductive layer* |
| S | *Copper shield* |
| SE | *Metallic screen (copper) over each core* |
| C | *Concentric copper conductor* |
| F | *Galvanized flat steel wire armour* |
| R | *Galvanized round steel wire armour* |
| G | *Steel tape (for F and R)* |
| s | *Sector-shaped conductor* |
| v | *Compacted conductor* |
| rm | *Stranded conductors* |
| k | *Resistant againts corrosion* |
| W | *Resistant againts heat and corrosion* |
| u | *Flame retardant* |

| VDE 0250 | Explanation |
|---|---|
| Y | *Thermoplastic insulation material (PVC)* |
| S | *Metallic screen* |
| G | *Rubber insulation* |
| 2G | *Thermo resistant* |
| W | *Resistant against air conditions* |
| u | *Flame retardant* |
| AF | *Stranded cable* |
| B | *Metal Sheath (lead)* |
| T | *Pilot core (textile, steel or similar)* |
| ö | *Oil resistant* |
| J | *Green / Yellow conductor for earth* |

| Flange Diameter | Hub | The Width Of The Reel | The Reel Outer Width | Belly Hole Diameter | Approximate Weight Reel |
|---|---|---|---|---|---|
| mm | mm | mm | mm | mm | Kg |
| 700 | 350 | 280 | 360 | 80 | 40 |
| 800 | 350 | 460 | 540 | 80 | 60 |
| 900 | 400 | 460 | 540 | 80 | 80 |
| 1000 | 500 | 620 | 720 | 80 | 115 |
| 1100 | 600 | 620 | 720 | 80 | 140 |
| 1200 | 600 | 620 | 720 | 80 | 160 |
| 1300 | 650 | 670 | 770 | 80 | 190 |
| 1400 | 650 | 670 | 770 | 80 | 245 |
| 1500 | 750 | 670 | 770 | 80 | 275 |
| 1500 | 750 | 920 | 1020 | 80 | 350 |
| 1600 | 800 | 960 | 1080 | 108 | 370 |
| 1700 | 800 | 960 | 1080 | 108 | 500 |
| 1800 | 1000 | 960 | 1100 | 108 | 520 |
| 1900 | 1000 | 960 | 1100 | 108 | 550 |
| 2000 | 1000 | 960 | 1100 | 108 | 580 |
| 2100 | 1100 | 1150 | 1290 | 108 | 770 |
| 2200 | 1200 | 1250 | 1410 | 108 | 840 |
| 2300 | 1300 | 1400 | 1560 | 108 | 870 |
| 2400 | 1400 | 1550 | 1730 | 135 | 930 |
| 2500 | 1500 | 1650 | 1830 | 135 | 1000 |



## Drums

| Cable Diameter (mm) | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 A:680 | 1500 A:900 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2400 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 3580 | | | | | | | | | | | | | | | | | |
| 5 | 2310 | 5204 | | | | | | | | | | | | | | | | |
| 6 | 1518 | 3583 | 5123 | | | | | | | | | | | | | | | |
| 7 | 1122 | 2574 | 3718 | 5808 | | | | | | | | | | | | | | |
| 8 | 866 | 1935 | 2911 | 4537 | 5142 | 6751 | | | | | | | | | | | | |
| 9 | 665 | 1539 | 2292 | 3526 | 3996 | 5193 | 7078 | | | | | | | | | | | |
| 10 | 554 | 1301 | 1879 | 2923 | 3312 | 4384 | 5791 | 7009 | | | | | | | | | | |
| 11 | 412 | 928 | 1424 | 2244 | 2543 | 3326 | 4633 | 5502 | 6039 | | | | | | | | | |
| 12 | 342 | 788 | 1164 | 2803 | 2043 | 2885 | 3910 | 4690 | 5148 | | | | | | | | | |
| 13 | 277 | 660 | 1001 | 1551 | 1758 | 2393 | 3248 | 4020 | 4412 | | | | | | | | | |
| 14 | 264 | 603 | 850 | 1348 | 1528 | 2116 | 2758 | 3402 | 3733 | 4978 | | | | | | | | |
| 15 | 208 | 509 | 735 | 1160 | 1314 | 1855 | 2396 | 3044 | 3341 | 4455 | | | | | | | | |
| 16 | 196 | 422 | 629 | 985 | 1117 | 1612 | 2108 | 2570 | 2821 | 3762 | 4752 | | | | | | | |
| 17 | 158 | 407 | 607 | 933 | 1058 | 1425 | 1804 | 2319 | 2546 | 3309 | 4224 | | | | | | | |
| 18 | 148 | 330 | 511 | 801 | 908 | 1250 | 1630 | 2026 | 2224 | 3005 | 3598 | 4372 | | | | | | |
| 19 | 139 | 317 | 490 | 754 | 855 | 1086 | 1434 | 1804 | 1980 | 2659 | 3205 | 3928 | 3665 | 4466 | | | | |
| 20 | 115 | 304 | 423 | 658 | 745 | 1052 | 1394 | 1643 | 1803 | 2386 | 3077 | 3583 | 3515 | 4069 | | | | |
| 21 | 86 | 198 | 343 | 547 | 620 | 820 | 1112 | 1443 | 1584 | 2079 | 2546 | 3005 | 2904 | 3408 | 4431 | | | |
| 22 | 79 | 189 | 286 | 462 | 524 | 792 | 1045 | 1256 | 1379 | 1838 | 2270 | 2703 | 2587 | 3062 | 4030 | | | |
| 23 | 79 | 189 | 286 | 429 | 486 | 662 | 919 | 1121 | 1230 | 1655 | 2010 | 2577 | 2288 | 2916 | 3649 | 4525 | | |
| 24 | | 179 | 272 | 412 | 467 | 636 | 889 | 1082 | 1188 | 1570 | 1961 | 2357 | 2231 | 2666 | 3286 | 4017 | 4723 | |
| 25 | | 136 | 221 | 339 | 385 | 543 | 772 | 957 | 1050 | 1400 | 1720 | 2090 | 1953 | 2360 | 3017 | 3701 | 7274 | |
| 26 | | 128 | 208 | 325 | 369 | 520 | 717 | 901 | 1011 | 1322 | 1629 | 1980 | 1901 | 2297 | 2866 | 3540 | 4103 | |
| 27 | | | | 311 | 353 | 498 | 689 | 805 | 884 | 1167 | 1452 | 1787 | 1645 | 2014 | 2616 | 3168 | 3686 | 4926 |
| 28 | | | | 311 | 353 | 436 | 613 | 773 | 849 | 1131 | 1410 | 1736 | 1597 | 1955 | 2475 | 3092 | 3526 | 4747 |
| 29 | | | | 247 | 280 | 416 | 588 | 741 | 813 | 1096 | 1369 | 1556 | 1549 | 1750 | 2244 | 2745 | 3216 | 4263 |
| 30 | | | | 236 | 267 | 396 | 564 | 638 | 700 | 955 | 1207 | 1508 | 1364 | 1695 | 2178 | 2675 | 3067 | 4180 |
| 31 | | | | 236 | 267 | 396 | 472 | 609 | 668 | 923 | 1131 | 1296 | 1320 | 1504 | 1961 | 2419 | 2778 | 3726 |
| 32 | | | | 224 | 254 | 322 | 450 | 609 | 668 | 891 | 1131 | 1296 | 1276 | 1454 | 1900 | 2288 | 2709 | 3571 |
| 33 | | | | 212 | 240 | 305 | 450 | 515 | 566 | 764 | 984 | 1253 | 1109 | 1403 | 1697 | 2051 | 2372 | 3224 |
| 34 | | | | | 240 | 305 | 429 | 515 | 566 | 735 | 950 | 1100 | 1069 | 1230 | 1640 | 1991 | 2308 | 3153 |
| 35 | | | | | 182 | 288 | 429 | 490 | 537 | 707 | 916 | 1061 | 1030 | 1185 | 1584 | 1931 | 2244 | 3009 |
| 36 | | | | | 182 | 288 | 349 | 464 | 509 | 707 | 784 | 1021 | 915 | 1185 | 1400 | 1715 | 1998 | 2693 |
| 37 | | | | | 171 | 226 | 331 | 406 | 445 | 594 | 754 | 982 | 880 | 1139 | 1400 | 1715 | 1939 | 2627 |
| 38 | | | | | 171 | 226 | 331 | 383 | 421 | 569 | 754 | 884 | 845 | 984 | 1348 | 1659 | 1881 | 2562 |
| 39 | | | | | 160 | 212 | 313 | 383 | 421 | 569 | 724 | 849 | 845 | 984 | 1178 | 1458 | 1710 | 2269 |
| 40 | | | | | | | 313 | 383 | 421 | 544 | 724 | 849 | 810 | 943 | 1178 | 1408 | 1656 | 2209 |
| 41 | | | | | | | 260 | 361 | 396 | 520 | 607 | 813 | 678 | 902 | 1131 | 1408 | 1603 | 2150 |
| 42 | | | | | | | 245 | 361 | 396 | 520 | 581 | 691 | 678 | 802 | 1084 | 1358 | 1549 | 2090 |
| 43 | | | | | | | 245 | 290 | 318 | 424 | 581 | 691 | 647 | 766 | 976 | 1177 | 1394 | 1827 |
| 44 | | | | | | | | | 318 | 424 | 554 | 660 | 647 | 766 | 933 | 1177 | 1346 | 1827 |
| 45 | | | | | | | | | 318 | 424 | 554 | 660 | 616 | 729 | 933 | 1131 | 1298 | 1773 |
| 46 | | | | | | | | | 297 | 403 | 453 | 629 | 528 | 729 | 891 | 1131 | 1298 | 1720 |
| 47 | | | | | | | | | 297 | 403 | 453 | 550 | 528 | 638 | 792 | 965 | 1111 | 1481 |
| 48 | | | | | | | | | 297 | 382 | 453 | 550 | 502 | 606 | 754 | 925 | 1111 | 1481 |
| 49 | | | | | | | | | 276 | 382 | 430 | 522 | 502 | 606 | 754 | 925 | 1068 | 1433 |
| 50 | | | | | | | | | | | 430 | 522 | 475 | 574 | 754 | 925 | 1068 | 1433 |
| 51 | | | | | | | | | | | 407 | 495 | 475 | 574 | 717 | 885 | 1026 | 1385 |
| 52 | | | | | | | | | | | 407 | 495 | 475 | 574 | 717 | 885 | 1026 | 1337 |
| 53 | | | | | | | | | | | 407 | 424 | 449 | 465 | 594 | 739 | 860 | 1170 |
| 54 | | | | | | | | | | | | | 374 | 465 | 594 | 739 | 860 | 1129 |
| 55 | | | | | | | | | | | | | 374 | 465 | 594 | 704 | 823 | 1129 |
| 56 | | | | | | | | | | | | | 352 | 437 | 561 | 704 | 823 | 1087 |
| 57 | | | | | | | | | | | | | 352 | 437 | 561 | 704 | 785 | 1087 |
| 58 | | | | | | | | | | | | | 352 | 437 | 561 | 669 | 785 | 1045 |
| 59 | | | | | | | | | | | | | 330 | 410 | 528 | 669 | 785 | 1045 |
| 60 | | | | | | | | | | | | | 330 | 410 | 528 | 669 | 748 | 1045 |
| 61 | | | | | | | | | | | | | 264 | 342 | 453 | 543 | 641 | 860 |
| 62 | | | | | | | | | | | | | 264 | 342 | 453 | 543 | 641 | 860 |
| 63 | | | | | | | | | | | | | 246 | 319 | 424 | 543 | 609 | 824 |
| 64 | | | | | | | | | | | | | 246 | 319 | 424 | 513 | 609 | 824 |
| 65 | | | | | | | | | | | | | 246 | 319 | 424 | 513 | 609 | 824 |
| 66 | | | | | | | | | | | | | 246 | 319 | 424 | 513 | 577 | 788 |
| 67 | | | | | | | | | | | | | | | | 427 | 481 | 657 |
| 68 | | | | | | | | | | | | | | | | 402 | 481 | 657 |
| 69 | | | | | | | | | | | | | | | | 402 | 481 | 627 |
| 70 | | | | | | | | | | | | | | | | 402 | 454 | 627 |
| 71 | | | | | | | | | | | | | | | | 402 | 454 | 627 |
| 72 | | | | | | | | | | | | | | | | 377 | 454 | 597 |
| 73 | | | | | | | | | | | | | | | | 377 | 454 | 597 |
| 74 | | | | | | | | | | | | | | | | | 427 | 597 |
| 75 | | | | | | | | | | | | | | | | | 427 | 597 |
| 76 | | | | | | | | | | | | | | | | | 427 | 567 |
| 77 | | | | | | | | | | | | | | | | | 427 | 567 |
| 78 | | | | | | | | | | | | | | | | | 427 | 567 |
| 79 | | | | | | | | | | | | | | | | | 401 | 537 |
| 80 | | | | | | | | | | | | | | | | | | 537 |

Cable Diameter * 15
Cable Diameter * 18
Cable Diameter * 22

5th Edition