



4GKW-AXplus-DW EMC 1.8/3KV Dual Wall Screened Single Core

Applications

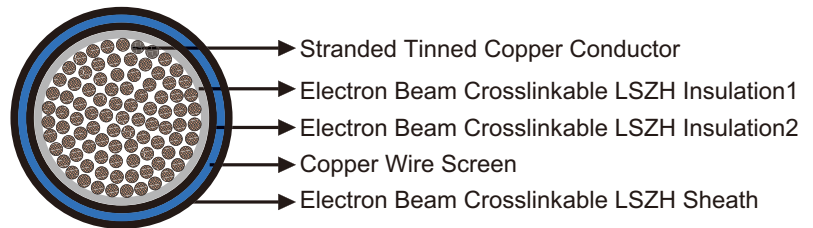
Single core power and control cable designed for protected, fixed installation inside and outside railway vehicles for connecting fixed and moving parts in direct current and alternating voltage technology, especially converter technology.



Standard

- BS 6853 -Ia
- DIN 5510-2 1-4
- NFF 16-101 F0

Construction



- **Conductors:** Circular Class 5 stranded tinned copper to IEC60228/VDE 0295.
- **Insulation1:** Electron beam crosslinkable LSZH compound.
- **Insulation2:** Electron beam crosslinkable LSZH compound.
- **Screen:** Copper wire screen.
- **Sheath:** Electron beam crosslinkable LSZH compound.

Electrical Characteristics at 20°C

| | | | | | | | | | | |
|---------------------------------|-----------------|-------|------|------|------|------|------|-------|-------|-------|
| Nominal Conductor Cross Section | mm ² | 1.5 | 2.5 | 4.0 | 6.0 | 10 | 16 | 25 | 35 | 50 |
| Maximum Conductor Resistance | Ω/km | 13.7 | 8.21 | 5.09 | 3.39 | 1.95 | 1.24 | 0.795 | 0.565 | 0.393 |
| Voltage Rating | KV | 1.8/3 | | | | | | | | |

| | | | | | | | | | | |
|---------------------------------|-----------------|-------|------|-------|-------|-------|--------|--------|--------|--|
| Nominal Conductor Cross Section | mm ² | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 | |
| Maximum Conductor Resistance | Ω/km | 0.277 | 0.21 | 0.164 | 0.132 | 0.108 | 0.0817 | 0.0654 | 0.0495 | |
| Voltage Rating | KV | 1.8/3 | | | | | | | | |




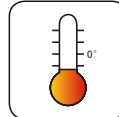







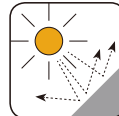
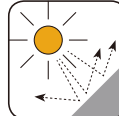

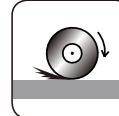


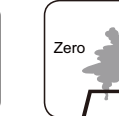


➤ Mechanical and Thermal Properties

Minimum Bending Radius: 4xOD (Static); 8xOD (Flexing)
 Temperature Range: -60°C ~+120°C (Static); -40°C ~+90°C (Flexing)
 Short Circuit Temperature: +280°C

➤ Dimensions and Weight

| No. of cores & Nominal Conductor Cross Sectional Area No. x mm ² | Number and Nominal Diameter of Strands No/mm | | Nominal Insulation Thickness mm | Nominal Overall Diameter mm | Nominal Weight kg/km |
|---|--|-----------|---------------------------------|-----------------------------|----------------------|
| 1x1.0 | 32/0.20 | | 0.7 | 4.6 | 38 |
| 1x1.5 | 30/0.25 | | 0.8 | 5.2 | 47 |
| 1x2.5 | 50/0.25 | | 0.9 | 5.8 | 63 |
| 1x4 | 56/0.30 | | 1.0 | 6.7 | 89 |
| 1x6 | 84/0.30 | | 1.1 | 7.4 | 123 |
| 1x10 | 80/0.40 | | 1.2 | 9.0 | 178 |
| 1x16 | 119/0.41 | 126/0.40 | 1.5 | 11.2 | 280 |
| 1x25 | 182/0.41 | 196/0.40 | 1.8 | 13.4 | 371 |
| 1x35 | 266/0.41 | 276/0.40 | 2.0 | 14.8 | 492 |
| 1x50 | 378/0.41 | 396/0.40 | 2.2 | 16.8 | 693 |
| 1x70 | 348/0.51 | 360/0.50 | 2.1 | 19.0 | 913 |
| 1x95 | 444/0.51 | 475/0.50 | 2.3 | 20.7 | 1160 |
| 1x120 | 551/0.51 | 608/0.50 | 2.4 | 23.4 | 1441 |
| 1x150 | 722/0.51 | 756/0.50 | 2.6 | 25.9 | 1730 |
| 1x185 | 874/0.52 | 925/0.50 | 2.8 | 27.8 | 2088 |
| 1x240 | 1147/0.51 | 1221/0.50 | 2.9 | 31.2 | 2908 |
| 1x300 | 1443/0.51 | 1525/0.50 | 3.0 | 34.2 | 3375 |
| 1x400 | 1887/0.50 | 2013/0.50 | 3.4 | 37.1 | 4250 |

| | | | | | | | | |
|---|--|---|---|--|---|--|--|---|
|  Impact Resistant |  Highly Flexible |  Cold Resistant |  Soldering Heat Resistant |  Low Temperature Resistant |  Corona Resistant |  Fire Retardant NF C32-070-2.2(C1) IEC 60332-3/EN50266 |  Flame Retardant NF C32-070-2.1(C2) IEC 60332-1/EN 50265-2-1 |  Low Corrosivity EN 50267-2-2/NF C32-074 IEC 60754-2/NF C20-453 |
|  IRM 903 Fuel Oil Resistant |  IRM 902 Mineral Oil Resistant |  UV Resistant |  Ozone Resistant |  Acid and Alkali Resistant |  Abrasion Resistant |  Low Smoke Emission IEC 61034/NFC20-902 EN 50268/NF C32-073 |  Low Toxicity |  Zero Halogen IEC 60754-1/NF C20-454 EN 50267-2-1 |