



## 3GKW-MW 0.6/1KV Medium Wall Single Core

### Applications

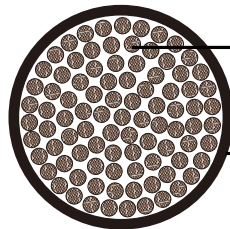
Single core power and control cable designed for protected, fixed installation inside and outside railway vehicles for connecting fixed and moving parts in direct current and alternating voltage technology, especially converter technology.



### Standard

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

### Construction



Stranded Tinned Copper Conductor

Electron Beam Crosslinkable LSZH Insulation

- **Conductors:** Circular Class 5

stranded tinned copper to IEC60228/VDE 0295.

- **Insulation:** Electron beam crosslinkable LSZH compound.

### Electrical Characteristics at 20°C

|                                 |                 |       |      |      |      |      |      |      |      |      |       |       |
|---------------------------------|-----------------|-------|------|------|------|------|------|------|------|------|-------|-------|
| Nominal Conductor Cross Section | mm <sup>2</sup> | 0.5   | 0.75 | 1    | 1.5  | 2.5  | 4.0  | 6.0  | 10   | 16   | 25    | 35    |
| Maximum Conductor Resistance    | Ω/km            | 40.1  | 26.7 | 20.0 | 13.7 | 8.21 | 5.09 | 3.39 | 1.95 | 1.24 | 0.795 | 0.565 |
| Voltage Rating                  | KV              | 0.6/1 |      |      |      |      |      |      |      |      |       |       |

|                                 |                 |       |       |      |       |       |       |        |        |        |
|---------------------------------|-----------------|-------|-------|------|-------|-------|-------|--------|--------|--------|
| Nominal Conductor Cross Section | mm <sup>2</sup> | 50    | 70    | 95   | 120   | 150   | 185   | 240    | 300    | 400    |
| Maximum Conductor Resistance    | Ω/km            | 0.393 | 0.277 | 0.21 | 0.164 | 0.132 | 0.108 | 0.0817 | 0.0654 | 0.0495 |
| Voltage Rating                  | KV              | 0.6/1 |       |      |       |       |       |        |        |        |

### Mechanical and Thermal Properties

Minimum Bending Radius: 4xOD (Static); 6xOD (Flexing)

Temperature Range: -40°C ~+120°C (Static); -35°C ~+90°C (Flexing)

Short Circuit Temperature: +280°C



### ↳ Dimensions and Weight

| No. of cores & Nominal Conductor Cross Sectional Area No. × mm <sup>2</sup> | Number and Nominal Diameter of Strands No./mm |           | Nominal Insulation Thickness mm | Nominal Overall Diameter mm | Nominal Weight kg/km |
|---|---|-----------|---------------------------------|-----------------------------|----------------------|
| 1×0.5   | 19/0.18                                       | 16/0.20   | 0.5                             | 2.0                         | 8                    |
| 1×0.75  | 24/0.20                                       |           | 0.5                             | 2.2                         | 11                   |
| 1×1.0   | 32/0.20                                       |           | 0.55                            | 2.45                        | 14                   |
| 1×1.5   | 30/0.25                                       |           | 0.55                            | 2.7                         | 20                   |
| 1×2.5   | 50/0.25                                       |           | 0.6                             | 3.3                         | 31                   |
| 1×4   | 56/0.30                                       |           | 0.65                            | 3.95                        | 45                   |
| 1×6   | 84/0.30                                       |           | 0.7                             | 4.7                         | 69                   |
| 1×10  | 80/0.40                                       |           | 0.8                             | 5.85                        | 113                  |
| 1×16  | 119/0.41                                      | 126/0.40  | 0.9                             | 7.3                         | 156                  |
| 1×25  | 182/0.41                                      | 196/0.40  | 1.0                             | 8.9                         | 250                  |
| 1×35  | 266/0.41                                      | 276/0.40  | 1.1                             | 10.2                        | 330                  |
| 1×50  | 378/0.41                                      | 396/0.40  | 1.2                             | 11.9                        | 500                  |
| 1×70  | 348/0.51                                      | 360/0.50  | 1.3                             | 14.3                        | 690                  |
| 1×95  | 444/0.51                                      | 475/0.50  | 1.4                             | 15.9                        | 883                  |
| 1×120   | 551/0.51                                      | 608/0.50  | 1.5                             | 17.9                        | 1180                 |
| 1×150   | 722/0.51                                      | 756/0.50  | 1.6                             | 20.3                        | 1460                 |
| 1×185   | 874/0.51                                      | 925/0.50  | 1.7                             | 22.0                        | 1780                 |
| 1×240   | 1147/0.51                                     | 1221/0.50 | 1.9                             | 25.2                        | 2220                 |
| 1×300   | 1443/0.51                                     | 1525/0.50 | 2.0                             | 28.0                        | 3000                 |
| 1×400   | 2016/0.51                                     | 2013/0.50 | 2.2                             | 33.8                        | 4000                 |



Impact Resistant



Highly Flexible



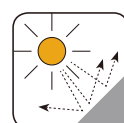
Cold Resistant



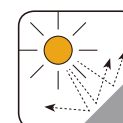
Soldering Heat Resistant



IRM 902 Mineral Oil Resistant



UV Resistant



Ozone Resistant



Acid and Alkali 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



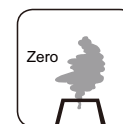
Low Corrosivity  
EN 50267-2-2/NF C32-074  
IEC 60754-2/NF C20-453



Low Toxicity



Low Smoke Emission  
IEC 61034/NFC20-902  
EN 50268/NF C32-073



Zero Halogen  
IEC 60754-1/NF C20-454  
EN 50267-2-1