

Voltage Rating: 6.35/11kV
Specification: SANS 1713

Application

For use in power circuits of 6.35/11kV earthed systems.
Suspended in air.

Construction

3 Core, circular Aluminium stranded conductor, XLPE insulated, individually Copper tape screened, flame retardant PVC sheathed + steel catenary, flame retardant PVC sheathed.

SIZE CODE AS 3x(conductor size)+(catenary size)CAT 11kV

Phase Core

| Conductor size | mm ² nom | 35 | 50 | 70 | 95 | 120 | 150 | 185 |
|----------------------|---------------------|------|------|------|-------|-------|-------|-------|
| Conductor diameter | mm app. | 7.15 | 8.25 | 9.95 | 11.80 | 13.10 | 14.80 | 16.35 |
| Insulation diameter | mm app. | 17.3 | 18.4 | 20.1 | 21.9 | 23.2 | 24.5 | 26.1 |
| Core sheath diameter | mm app. | 22.5 | 23.6 | 25.3 | 27.4 | 28.7 | 30.2 | 31.7 |

Catenary (Support Core)

| Conductor size | mm ² nom | 50 | 50 | 50 | 50 | 70 | 70 | 70 |
|--|---------------------|------|------|------|------|-------|-------|-------|
| Conductor diameter | mm app. | 9.00 | 9.00 | 9.00 | 9.00 | 10.80 | 10.80 | 10.80 |
| Insulation diameter | mm app. | 11.5 | 11.5 | 11.5 | 11.5 | 13.3 | 13.3 | 13.3 |
| Maximum tensile strength and pulling force of catenary | kN | 26 | 26 | 26 | 26 | 37 | 37 | 37 |

Cable

| | | | | | | | | |
|-------------------|-----------|------|-------|-------|-------|-------|-------|-------|
| Cable diameter | mm app. | 49 | 51 | 55 | 59 | 62 | 65 | 69 |
| Cable mass | kg/m app. | 2.31 | 2.52 | 2.85 | 3.28 | 3.61 | 3.99 | 4.43 |
| Gross mass (500m) | kg app. | 993 | 1,055 | 1,155 | 1,285 | 1,382 | 1,496 | 1,628 |
| Bending radius | mm min. | 691 | 724 | 775 | 831 | 896 | 935 | 981 |

Current rating

| In air | Amps | 150 | 185 | 230 | 280 | 325 | 370 | 430 |
|--------|------|-----|-----|-----|-----|-----|-----|-----|
|--------|------|-----|-----|-----|-----|-----|-----|-----|

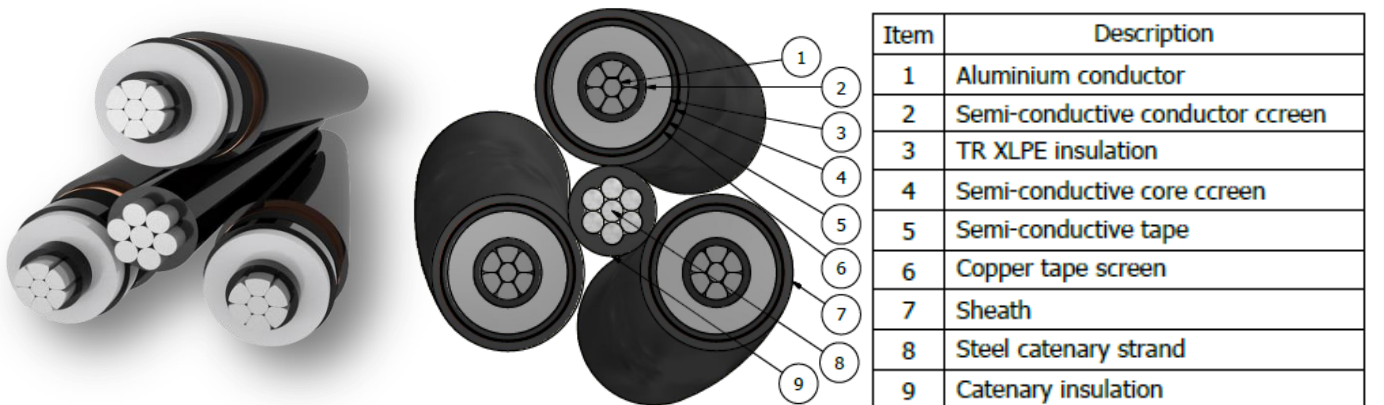
Resistance

| | | | | | | | | |
|-----------|-----------|-------|-------|-------|-------|-------|-------|-------|
| dc @ 20°C | Ω/km max | 0.868 | 0.641 | 0.443 | 0.320 | 0.253 | 0.206 | 0.164 |
| ac @ 90°C | Ω /km max | 1.113 | 0.822 | 0.568 | 0.411 | 0.325 | 0.265 | 0.211 |

| | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Reactance | Ω /km | 0.136 | 0.124 | 0.121 | 0.114 | 0.111 | 0.106 | 0.103 |
| Impedance | Ω /km | 1.121 | 0.832 | 0.581 | 0.426 | 0.342 | 0.284 | 0.233 |

Short circuit ratings

| | | | | | | | | |
|-------------|-----------|-----|-----|-----|-----|------|------|------|
| Symmetrical | kA (1sec) | 3.0 | 4.0 | 5.8 | 8.0 | 10.2 | 12.5 | 15.7 |
| Earth fault | kA (1sec) | 1.5 | 1.6 | 1.7 | 1.9 | 2.0 | 2.1 | 2.3 |



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