

Low Voltage Mains 3 Core XLPE Cables

1kV Cu Unarmoured

Description 3 Core Cu XLPE FRPVC, 1000 V

F2CC 3nnn ZZ 001 0K0S

Description 3 Core Cu XLPE LHFRPVC, 1000 V

F2CC 3nnn ZZ 002 0K0S

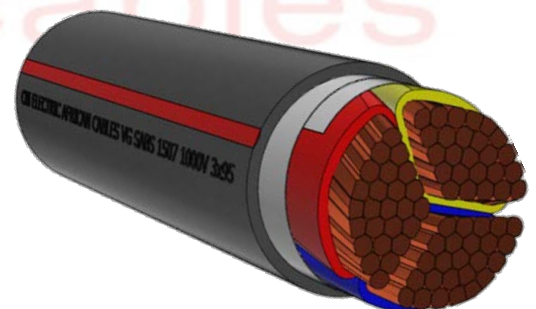
Specification SANS 1507

Last updated: December 2025

| PHYSICAL | ...3nnn... | 3025 | 3035 | 3050 | 3070 | 3095 | 3120 | 3150 | 3185 | 3240 | 3300 | 3400 |
|---------------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Conductor size | mm ² nom | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 |
| Conductor diameter | mm app | 5,0 | 5,9 | 6,9 | 8,9 | 9,8 | 11,0 | 12,2 | 13,7 | 15,7 | 17,5 | 19,8 |
| Insulation diameter | mm app | 6,9 | 7,8 | 8,9 | 11,2 | 12,0 | 13,5 | 15,1 | 17,0 | 19,2 | 21,3 | 24,0 |
| Layup diameter | mm app | 14,9 | 16,8 | 19,2 | 24,0 | 25,8 | 28,8 | 32,7 | 36,7 | 41,4 | 45,6 | 51,5 |
| Armour diameter | mm app | - | - | - | - | - | - | - | - | - | - | - |
| Cable diameter | mm app | 18,7 | 20,6 | 23,1 | 28,3 | 30,1 | 33,1 | 37,5 | 41,4 | 46,6 | 51,3 | 57,6 |
| Length of cable on a drum | m | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Cable mass (approximate) | kg/m app | 0,9 | 1,2 | 1,6 | 2,2 | 3,0 | 3,7 | 4,6 | 5,7 | 7,5 | 9,3 | 11,9 |
| Gross mass on drum | kg app | 292 | 402 | 515 | 724 | 971 | 1192 | 1561 | 1928 | 2492 | 3097 | 3870 |
| Bending radius | mm min | 150 | 165 | 185 | 226 | 241 | 265 | 300 | 332 | 372 | 410 | 461 |
| ELECTRICAL | | | | | | | | | | | | |
| DC Resistance @ 20 °C | Ω/km | 0,727 | 0,524 | 0,387 | 0,268 | 0,193 | 0,153 | 0,124 | 0,099 | 0,075 | 0,060 | 0,047 |
| AC Resistance @ 90 °C | Ω/km | 0,927 | 0,669 | 0,494 | 0,342 | 0,247 | 0,196 | 0,160 | 0,128 | 0,099 | 0,080 | 0,064 |
| Reactance X+ | Ω/km | 0,050 | 0,050 | 0,048 | 0,052 | 0,047 | 0,046 | 0,047 | 0,047 | 0,048 | 0,047 | 0,046 |
| Impedance Z+ | Ω/km | 0,929 | 0,670 | 0,496 | 0,346 | 0,252 | 0,202 | 0,167 | 0,137 | 0,110 | 0,093 | 0,079 |
| Capacitance C+ | µF/km | 0,263 | 0,301 | 0,312 | 0,359 | 0,388 | 0,397 | 0,382 | 0,375 | 0,400 | 0,418 | 0,426 |
| Resistance Ro | Ω/km | 3,71 | 2,67 | 1,976 | 1,370 | 0,989 | 0,786 | 0,639 | 0,513 | 0,395 | 0,320 | 0,256 |
| Reactance Xo | Ω/km | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| CURRENT RATINGS | | | | | | | | | | | | |
| Ground | Amps | 141 | 170 | 201 | 250 | 298 | 340 | 379 | 430 | 499 | 563 | 640 |
| 110mm Ducts in ground | Amps | 112 | 135 | 161 | 200 | 239 | 273 | 307 | 349 | 406 | 458 | 521 |
| Air in Shade | Amps | 127 | 157 | 191 | 248 | 300 | 350 | 400 | 465 | 553 | 636 | 741 |
| Air in sunlight | Amps | 112 | 138 | 167 | 216 | 261 | 304 | 346 | 400 | 475 | 545 | 633 |
| SHORT CIRCUIT RATING | | | | | | | | | | | | |
| Symmetrical (250 °C) | kA (1 sec) | 3,6 | 5,0 | 7,2 | 10,0 | 13,6 | 17,2 | 21,5 | 26,5 | 34,3 | 42,9 | 57,2 |
| Earth fault (200 °C) | kA (1 sec) | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 |
| Three Phase Volt Drop | mV/A/m | 1,61 | 1,16 | 0,86 | 0,60 | 0,44 | 0,35 | 0,29 | 0,24 | 0,19 | 0,16 | 0,14 |

The ratings above are based on standard laying conditions for a single circuit in isolation, with the following parameters:

- Conductor temperature = 90 °C
- Soil thermal resistance = 1,2 Km/W
- Soil temperature = 25 °C
- Air temperature = 30 °C
- Depth of burial = 500 mm
- Single circuit in isolation
- 5% tolerance on dimensions



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