

Low Voltage Mains 4 Core PVC Cables 1kV Al Armoured ECC

Description 4 Core Al PVC FRPVC SWA ECC FRPVC, 1000 V

F4CA 4nnn ZZ 121 0K0S

Description 4 Core Al PVC LHFRPVC SWA ECC LHFRPVC, 1000 V

F4CA 4nnn ZZ 222 0K0S

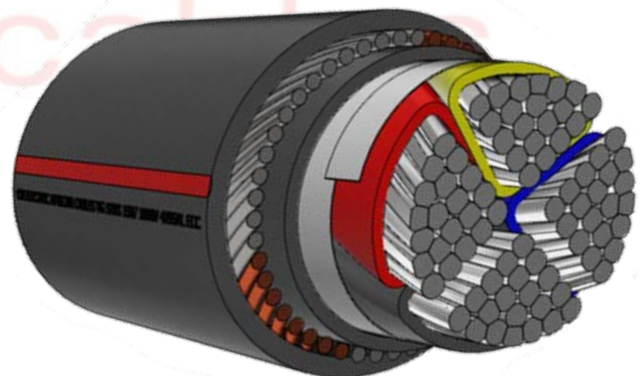
Specification SANS 1507

Last updated: December 2025

| PHYSICAL | ... naaa ... | 4025 | 4035 | 4050 | 4070 | 4095 | 4120 | 4150 | 4185 | 4240 | 4300 | 4400 |
|---------------------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Conductor size | mm ² nom | 25 | 35 | 50 | 70 | 95 | 120 | 150 | 185 | 240 | 300 | 400 |
| Conductor diameter | mm app | 5,7 | 6,7 | 7,8 | 9,4 | 11,1 | 12,5 | 13,7 | 15,5 | 17,7 | 20,0 | 22,5 |
| Insulation diameter | mm app | 8,2 | 9,2 | 10,7 | 12,3 | 14,4 | 15,8 | 17,5 | 19,7 | 22,4 | 25,0 | 28,0 |
| Bedding diameter | mm app | 19,2 | 21,5 | 24,9 | 28,6 | 33,8 | 37,0 | 40,7 | 46,0 | 52,0 | 58,1 | 65,0 |
| Armour diameter | mm app | 24,3 | 28,1 | 31,5 | 35,8 | 40,9 | 45,6 | 49,3 | 54,6 | 60,6 | 66,7 | 74,9 |
| Cable diameter | mm app | 28,0 | 32,0 | 35,8 | 40,5 | 46,1 | 50,8 | 54,5 | 60,2 | 67,1 | 73,2 | 81,4 |
| Length of cable on a drum | m | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| Cable mass (approximate) | kg/m app | 1,4 | 2,0 | 2,4 | 3,0 | 3,8 | 4,8 | 5,5 | 6,5 | 7,9 | 9,3 | 11,8 |
| Gross mass on drum | kg app | 463 | 700 | 835 | 1014 | 1315 | 1650 | 1859 | 2198 | 2772 | 3177 | 4016 |
| Bending radius | mm min | 280 | 320 | 358 | 405 | 461 | 508 | 545 | 602 | 671 | 732 | 814 |
| ELECTRICAL | | | | | | | | | | | | |
| DC Resistance @ 20 °C | Ω/km | 1,200 | 0,868 | 0,641 | 0,443 | 0,320 | 0,253 | 0,206 | 0,164 | 0,125 | 0,100 | 0,078 |
| AC Resistance @ 70 °C | Ω/km | 1,442 | 1,043 | 0,770 | 0,533 | 0,385 | 0,305 | 0,248 | 0,198 | 0,151 | 0,122 | 0,095 |
| Reactance X+ | Ω/km | 0,054 | 0,057 | 0,056 | 0,056 | 0,055 | 0,053 | 0,056 | 0,057 | 0,056 | 0,056 | 0,054 |
| Impedance Z+ | Ω/km | 1,443 | 1,045 | 0,772 | 0,536 | 0,389 | 0,309 | 0,254 | 0,206 | 0,161 | 0,134 | 0,110 |
| Capacitance C+ | µF/km | 0,816 | 0,914 | 0,957 | 1,057 | 1,093 | 1,154 | 1,189 | 1,276 | 1,392 | 1,520 | 1,690 |
| Resistance Ro | Ω/km | 6,25 | 4,66 | 3,051 | 2,075 | 1,602 | 1,366 | 1,144 | 0,858 | 0,789 | 0,628 | 0,485 |
| Reactance Xo | Ω/km | 0,328 | 0,323 | 0,318 | 0,307 | 0,302 | 0,296 | 0,294 | 0,294 | 0,288 | 0,286 | 0,281 |
| CURRENT RATINGS | | | | | | | | | | | | |
| Ground | Amps | 94 | 114 | 135 | 165 | 196 | 224 | 251 | 283 | 326 | 365 | 414 |
| Ducts in ground | Amps | 76 | 92 | 109 | 134 | 160 | 182 | 204 | 230 | 265 | 296 | 335 |
| Air in Shade | Amps | 87 | 108 | 131 | 165 | 201 | 234 | 265 | 305 | 359 | 411 | 478 |
| Air in sunlight | Amps | 68 | 83 | 100 | 125 | 150 | 174 | 197 | 226 | 264 | 300 | 348 |
| SHORT CIRCUIT RATING | | | | | | | | | | | | |
| Symmetrical (160 °C) | kA (1 sec) | 1,9 | 2,7 | 3,8 | 5,3 | 7,2 | 9,1 | 11,4 | 14,1 | 18,2 | 22,8 | 30,4 |
| Earth fault (160 °C) | kA (1 sec) | 1,6 | 2,2 | 3,4 | 5,1 | 6,4 | 7,4 | 8,7 | 11,9 | 12,3 | 15,4 | 20,1 |
| Three Phase Volt Drop | mV/A/m | 2,50 | 1,81 | 1,34 | 0,93 | 0,67 | 0,54 | 0,44 | 0,36 | 0,28 | 0,23 | 0,19 |

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

- Conductor temperature = 70 °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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