

Low Voltage 3 Core LV XLPE Cables Armoured with ECC

Cable Code F2CC 3nnn ZZ 111 0K0S

Description 3 Core Cu XLPE PVC SWA ECC PVC, 1000 V

Specification SANS 1507

Last updated: May 2025

PHYSICAL		... naaa ...	3915	3925	3004	3006	3010	3016
Conductor size	mm ² nom		1.5	2.5	4	6	10	16
Conductor diameter	mm app		1.6	2.1	2.6	3.1	3.9	3.9
Insulation diameter	mm app		3.0	3.5	4.0	4.6	5.3	5.3
Bedding diameter	mm app		8.3	9.3	10.4	11.7	13.3	13.3
Armour diameter	mm app		10.1	11.1	12.2	13.5	15.1	15.1
Cable diameter	mm app		13.3	14.3	15.4	16.7	18.5	18.5
Length of cable on a drum	m		500	500	500	500	500	500
Cable mass (approximate)	kg/m app		0.3	0.4	0.5	0.6	0.7	0.9
Gross mass on drum	kg app		184	216	252	306	410	494
Bending radius	mm min		133	143	154	167	185	185
ELECTRICAL								
DC Resistance @ 20 °C	Ω/km		12.100	7.410	4.610	3.080	1.830	1.150
AC Resistance @ 90 °C	Ω/km		15.429	9.449	5.878	3.927	2.334	1.467
Reactance X+	Ω/km		0.069	0.065	0.065	0.065	0.065	0.048
Impedance Z+	Ω/km		15.429	9.449	5.879	3.928	2.334	1.467
Capacitance C+	µF/km		0.166	0.187	0.207	0.228	0.253	0.372
Resistance Ro	Ω/km		34.89	24.88	18.865	13.139	9.377	6.460
Reactance Xo	Ω/km		0.405	0.370	0.346	0.328	0.310	0.302
CURRENT RATINGS								
Ground	Amps		29	39	50	63	84	109
Ducts in ground	Amps		24	31	41	51	67	88
Air in Shade	Amps		25	33	44	56	75	99
Air in sunlight	Amps		22	30	39	49	66	87
SHORT CIRCUIT RATING								
Symmetrical (250 °C)	kA (1 sec)		0.2	0.4	0.6	0.9	1.4	2.3
Earth fault (200 °C)	kA (1 sec)		0.4*	0.6*	0.7*	0.9*	1.2	1.7

* In practice the earth fault rating must be limited to symmetrical fault rating.

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 resistivity = 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

