

Low Voltage 3 Core PVC Cables Armoured with ECC

Cable Code F4CC 3nnn ZZ 111 0K0S

Description 3 Core Cu PVC 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		3.2	3.7	4.6	5.2	6.0	6.0
Bedding diameter	mm app		8.7	9.8	11.8	13.0	14.7	14.7
Armour diameter	mm app		10.5	11.6	13.6	14.8	16.5	16.5
Cable diameter	mm app		13.7	14.8	16.8	18.0	19.9	19.9
Length of cable on a drum	m		500	500	500	500	500	500
Cable mass (approximate)	kg/m app		0.4	0.4	0.6	0.7	0.9	1.0
Gross mass on drum	kg app		211	243	318	387	478	565
Bending radius	mm min		137	148	168	180	199	199
ELECTRICAL								
DC Resistance @ 20 °C	Ω/km		12.100	7.410	4.610	3.080	1.830	1.150
AC Resistance @ 70 °C	Ω/km		14.478	8.866	5.516	3.685	2.190	1.376
Reactance X+	Ω/km		0.069	0.065	0.065	0.065	0.065	0.048
Impedance Z+	Ω/km		14.478	8.866	5.516	3.686	2.191	1.377
Capacitance C+	µF/km		0.512	0.576	0.592	0.650	0.720	1.000
Resistance Ro	Ω/km		32.19	23.26	16.938	11.952	8.630	5.951
Reactance Xo	Ω/km		0.413	0.377	0.368	0.347	0.327	0.319
CURRENT RATINGS								
Ground	Amps		25	33	42	53	70	93
Ducts in ground	Amps		20	26	34	43	57	74
Air in Shade	Amps		20	27	36	45	61	80
Air in sunlight	Amps		16	22	28	36	48	63
SHORT CIRCUIT RATING								
Symmetrical (160 °C)	kA (1 sec)		0.2	0.3	0.5	0.7	1.2	1.8
Earth fault (160 °C)	kA (1 sec)		0.4*	0.5*	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 = 70 °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

