

Low Voltage Mains 4 Core PVC Cables

1kV Al Armoured

Description 4 Core Al PVC FRPVC SWA FRPVC, 1000 V

F4CA 4nnn ZZ 111 0K0S

Description 4 Core Al PVC LHFRPVC SWA LHFRPVC, 1000 V

F4CA 4nnn ZZ 212 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	3,7	4,7	5,4	6,4	7,8	9,1	11,7
Gross mass on drum	kg app	461	698	829	1004	1303	1637	1843	2174	2747	3144	3975
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	10,05	6,42	5,491	4,667	3,974	2,966	2,704	2,401	2,120	1,900	1,401
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

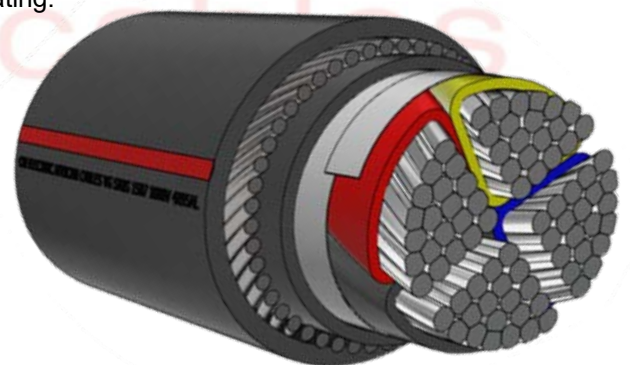
CURRENT RATINGS												
Ground	Amps	94	114	135	166	197	226	253	287	333	376	428
Ducts in ground	Amps	76	92	109	134	161	184	206	234	271	305	347
Air in Shade	Amps	87	108	131	165	201	235	267	310	366	422	492
Air in sunlight	Amps	68	83	100	125	151	175	199	229	269	308	358

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)	3,0*	5,2*	5,9*	6,7*	7,7*	10,7*	11,6*	13,0	14,5	16,0	22,6
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

* 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 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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