

Low Voltage Mains 4 Core XLPE Cables

1kV Al Unarmoured

Description 4 Core Al XLPE FRPVC, 1000 V

F2CA 4nnn ZZ 001 0K0S

Description 4 Core Al XLPE LHFRPVC, 1000 V

F2CA 4nnn ZZ 002 0K0S

Specification SANS 1507

Last updated: December 2025

PHYSICAL	...4nnn...	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	7,6	8,6	9,8	11,7	13,3	15,0	16,6	18,9	21,3	23,8	26,7
Layup diameter	mm app	17,7	20,0	22,9	27,2	31,3	35,0	38,8	44,0	49,5	55,2	62,0
Armour diameter	mm app	-	-	-	-	-	-	-	-	-	-	-
Cable diameter	mm app	21,6	23,9	27,2	31,5	36,1	39,8	43,5	49,2	55,2	61,7	69,4
Length of cable on a drum	m	300	300	300	300	300	300	300	300	300	300	300
Cable mass (approximate)	kg/m app	0,5	0,7	0,9	1,2	1,6	1,9	2,3	3,0	3,8	4,8	6,0
Gross mass on drum	kg app	210	251	321	438	582	689	887	1067	1367	1684	2201
Bending radius	mm min	173	191	218	252	289	318	348	393	441	493	555

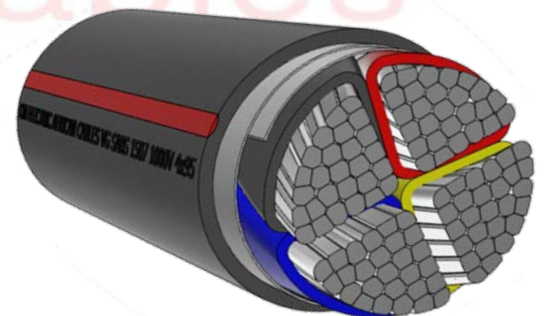
ELECTRICAL												
DC Resistance @ 20 °C	Ω/km	1,200	0,868	0,641	0,443	0,320	0,253	0,206	0,164	0,125	0,100	0,078
AC Resistance @ 90 °C	Ω/km	1,539	1,113	0,822	0,568	0,411	0,325	0,265	0,211	0,161	0,130	0,102
Reactance X+	Ω/km	0,054	0,057	0,056	0,056	0,055	0,053	0,056	0,057	0,056	0,056	0,054
Impedance Z+	Ω/km	1,540	1,114	0,824	0,571	0,414	0,329	0,271	0,219	0,171	0,141	0,115
Capacitance C+	µF/km	0,158	0,175	0,179	0,191	0,212	0,216	0,208	0,207	0,217	0,226	0,228
Resistance Ro	Ω/km	6,15	4,45	3,288	2,273	1,643	1,300	1,059	0,845	0,646	0,519	0,407
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	113	136	160	198	236	270	304	346	403	456	523
110mm Ducts in ground	Amps	90	108	128	159	191	219	246	281	328	371	426
Air in Shade	Amps	105	130	158	202	248	290	333	389	464	537	629
Air in sunlight	Amps	93	113	138	175	214	250	286	333	397	458	535

SHORT CIRCUIT RATING												
Symmetrical (250 °C)	kA (1 sec)	2,4	3,3	4,7	6,6	9,0	11,3	14,2	17,5	22,7	28,3	37,8
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	2,67	1,93	1,43	0,99	0,72	0,57	0,47	0,38	0,30	0,24	0,20

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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