DATA SHEET

Low Voltage Mains 4 Core XLPE Cables
1kV Cu Unarmoured

CBi electric african cables
a Reunert company

Description 4 Core Cu XLPE FRPVC, 1000 V — **F2CC 4nnn ZZ 001 0K0S**

Description 4 Core Cu XLPE LHFRPVC, 1000 V — **F2CC 4nnn ZZ 002 0K0S**

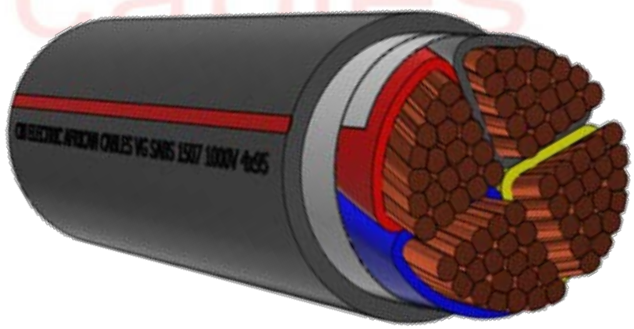
Specification SANS 1507

Last updated: December 2025

PHYSICAL	…4nnn…	4025	4035	4050	4070	4095	4120	4150	4185	4240	4300	4400
Conductor size	mm² 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	1,2	1,6	2,1	2,9	4,0	5,0	6,1	7,6	10,0	12,5	16,0
Gross mass on drum	kg app	398	512	675	951	1298	1664	2072	2536	3291	4096	5293
Bending radius	mm min	173	191	218	252	289	318	348	393	441	493	555
ELECTRICAL												
DC Resistance @ 20 °C	Ω/km	0,727	0,524	0,387	0,268	0,193	0,153	0,124	0,099	0,075	0,060	0,047
AC Resistance @ 90 °C	Ω/km	0,927	0,669	0,494	0,342	0,247	0,196	0,160	0,128	0,099	0,080	0,064
Reactance X+	Ω/km	0,058	0,059	0,056	0,055	0,055	0,055	0,055	0,055	0,056	0,056	0,054
Impedance Z+	Ω/km	0,929	0,671	0,497	0,347	0,253	0,204	0,169	0,140	0,113	0,097	0,084
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	3,71	2,67	1,976	1,370	0,989	0,786	0,639	0,513	0,395	0,320	0,256
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	145	175	207	255	305	348	391	444	515	581	659
110mm Ducts in ground	Amps	116	139	166	205	246	281	317	361	419	473	537
Air in Shade	Amps	136	167	203	260	319	373	429	499	594	684	793
Air in sunlight	Amps	119	146	177	226	276	322	369	428	508	583	674
SHORT CIRCUIT RATING												
Symmetrical (250 ºC)	kA (1 sec)	3,6	5,0	7,2	10,0	13,6	17,2	21,5	26,5	34,3	42,9	57,2
Earth fault (200 ºC)	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	1,61	1,16	0,86	0,60	0,44	0,35	0,29	0,24	0,20	0,17	0,14

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



CBi electric: african cables | a division of ATC Pty Ltd | Registration No. 1955/003773/07
PO Box 172, Vereeniging 1930 | 1 Steel Road, Peacehaven, Vereeniging, 1939, South Africa
Tel: +27 16 430 6000 | www.cbi-electric.com | a Reunert company | B-BBEE Level 1
ISO 9001 | ISO 14001 | ISO 45001