

# Low Voltage Mains 3 Core PVC Cables

## 1kV Cu Unarmoured

Description 3 Core Cu PVC FRPVC, 1000 V

F4CC 3nnn ZZ 001 0K0S

Description 3 Core Cu PVC LHFRPVC, 1000 V

F4CC 3nnn ZZ 002 0K0S

Specification SANS 1507

Last updated: December 2025

PHYSICAL	... naaa ...	3025	3035	3050	3070	3095	3120	3150	3185	3240	3300	3400
Conductor size	mm <sup>2</sup> nom	25	35	50	70	95	120	150	185	240	300	400
Conductor diameter	mm app	5,0	5,9	6,9	8,9	9,8	11,0	12,2	13,7	15,7	17,5	19,8
Insulation diameter	mm app	7,5	8,4	9,8	11,8	13,1	14,3	16,0	17,9	20,3	22,5	25,3
Layup diameter	mm app	16,6	18,5	21,4	25,8	28,5	31,0	34,5	38,5	43,6	48,4	54,2
Armour diameter	mm app	-	-	-	-	-	-	-	-	-	-	-
Cable diameter	mm app	20,5	22,4	25,7	30,1	32,8	35,7	39,3	43,3	48,8	54,0	60,3
Length of cable on a drum	m	300	300	300	300	300	300	300	300	300	300	300
Cable mass (approximate)	kg/m app	1,0	1,3	1,8	2,4	3,2	4,0	4,9	6,1	8,0	10,0	12,6
Gross mass on drum	kg app	348	438	578	803	1079	1311	1655	2081	2639	3281	4125
Bending radius	mm min	164	179	206	241	262	286	314	346	391	432	482

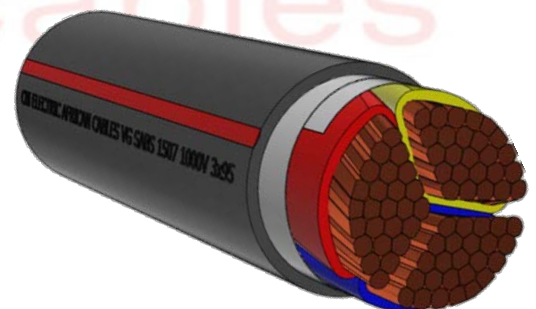
ELECTRICAL												
DC Resistance @ 20 °C	Ω/km	0,727	0,524	0,387	0,268	0,193	0,153	0,124	0,099	0,075	0,060	0,047
AC Resistance @ 70 °C	Ω/km	0,870	0,627	0,464	0,321	0,232	0,184	0,150	0,121	0,093	0,075	0,060
Reactance X+	Ω/km	0,050	0,050	0,048	0,052	0,047	0,046	0,047	0,047	0,048	0,047	0,046
Impedance Z+	Ω/km	0,872	0,629	0,466	0,326	0,237	0,190	0,157	0,130	0,104	0,089	0,076
Capacitance C+	µF/km	0,667	0,762	0,759	0,939	0,908	0,999	0,991	0,997	1,032	1,051	1,092
Resistance Ro	Ω/km	3,48	2,51	1,854	1,286	0,928	0,738	0,600	0,482	0,371	0,301	0,241
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	118	142	168	210	251	285	321	364	422	476	540
Ducts in ground	Amps	94	113	134	168	200	228	258	292	340	384	436
Air in Shade	Amps	103	126	154	199	241	279	321	372	442	508	590
Air in sunlight	Amps	81	99	120	153	185	213	244	280	331	378	437

SHORT CIRCUIT RATING												
Symmetrical (160 °C)	kA (1 sec)	2,9	4,0	5,8	8,1	10,9	13,8	17,3	21,3	27,6	34,5	46,0
Earth fault (160 °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	1,51	1,09	0,81	0,56	0,41	0,33	0,27	0,22	0,18	0,15	0,13

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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