

# Low Voltage Mains 3 Core PVC Cables

## 3,3kV Al Armoured

**Description** 3 Core Al PVC FRPVC SWA FRPVC, 3300 V

**F4DA 3nnn ZZ 111 0K0S**

**Description** 3 Core Al PVC LHFRPVC SWA LHFRPVC, 3300 V

**F4DA 3nnn ZZ 212 0K0S**

**Specification SANS 1507**

Last updated: December 2025

PHYSICAL	... 3nnn...	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	8,3	9,7	11,0	12,2	13,7	15,6	16,9	19,8
Insulation diameter	mm app	9,7	10,6	11,5	13,0	14,4	15,6	16,8	18,3	20,3	21,9	25,3
Bedding diameter	mm app	23,8	25,7	27,7	31,3	34,2	36,9	39,8	43,0	47,1	50,7	57,8
Armour diameter	mm app	27,8	29,7	31,7	35,3	38,2	40,9	44,8	48,0	52,1	55,7	62,8
Cable diameter	mm app	31,7	33,6	36,1	40,0	43,0	46,0	50,0	53,2	57,8	61,7	69,3
Length of cable on a drum	m	300	300	300	300	300	300	300	300	300	300	300
Cable mass (approximate)	kg/m app	1,9	2,1	2,4	2,9	3,4	3,8	4,7	5,3	6,1	7,1	8,6
Gross mass on drum	kg app	649	746	825	975	1191	1321	1624	1804	2101	2381	2977
Bending radius	mm min	317	336	361	400	430	460	500	532	578	617	693

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	0,046	0,049	0,048	0,048	0,047	0,045	0,048	0,049	0,048	0,045	0,046
Impedance Z+	Ω/km	1,443	1,044	0,772	0,535	0,388	0,308	0,253	0,204	0,159	0,130	0,106
Capacitance C+	µF/km	0,709	0,796	0,889	0,998	1,142	1,282	1,359	1,549	1,854	1,937	2,474
Resistance Ro	Ω/km	6,66	5,88	5,394	4,673	4,135	3,859	2,939	2,685	2,466	2,279	2,000
Reactance Xo	Ω/km	0,365	0,351	0,335	0,319	0,305	0,293	0,292	0,285	0,275	0,271	0,265

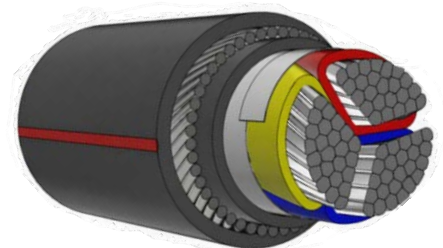
CURRENT RATINGS												
Ground	Amps	91	109	129	159	191	218	245	279	324	363	416
Ducts in ground	Amps	75	89	106	130	156	178	200	227	264	296	339
Air in Shade	Amps	86	104	125	156	191	221	253	292	345	392	460
Air in sunlight	Amps	66	79	95	118	144	166	189	217	255	289	337

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)	5,4*	5,8*	6,1*	6,8*	7,5*	7,9	10,7	11,5	12,4	13,3	15,0
Three Phase Volt Drop	mV/A/m	2,50	1,81	1,34	0,93	0,67	0,53	0,44	0,35	0,27	0,23	0,18

\* 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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