

Description: 88 kV Aluminium, XLPE, Corrugated Seamless Aluminium (CSA), LLDPE Graphite

Specification: SANS 60840 / IEC 60840/ NRS 077, Fully Water Blocked

Last updated: February 2026

PHYSICAL													
Conductor size	mm ²	300	400	500	630	800	1000						
Conductor diameter	mm	20,4	23,9	26,4	29,7	34,2	38,3						
Diameter over s/c conductor screen	mm	25,0	28,4	30,9	34,3	38,7	42,8						
Diameter over XLPE insulation	mm	49,3	51,8	54,0	57,7	62,6	67,0						
Diameter over s/c core screen	mm	51,4	53,9	56,1	59,8	64,6	69,1						
Diameter over CSA sheath	mm	70,4	73,1	75,4	79,2	84,2	88,8						
Final diameter of cable (D)	mm	81,4	84,1	86,4	90,2	97,4	102,0						
Cable mass (approximate)	kg/m	5,9	6,4	6,8	7,6	8,9	9,9						
Gross mass (500 m) (approximate)	kg	4220	4450	4690	5070	5700	6220						
Minimum installation bending radius	m	1,63	1,68	1,73	1,80	1,95	2,04						
ELECTRICAL RATINGS													
DC Resistance @ 20°C	Ω/km	0,100	0,078	0,0605	0,0469	0,0367	0,0291						
Max Electric stress at conductor screen	kV/mm	5,98	5,96	5,89	5,69	5,47	5,30						
Min Electric stress at insulation screen	kV/mm	3,03	3,27	3,37	3,38	3,39	3,39						
Capacitance	µF/km	0,204	0,232	0,249	0,266	0,290	0,310						
Zero Sequence Resistance @ 90 °C	Ω/km	0,209	0,178	0,154	0,133	0,115	0,102						
Zero Sequence Reactance @ 90 °C	Ω/km	0,0878	0,0801	0,0759	0,0718	0,0672	0,0636						
ELECTRICAL RATINGS (FORMATION BASED)													
		Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat
Current rating in ground	Amps	423	449	484	516	549	589	621	673	698	765	771	858
Current rating in air in shade	Amps	583	668	680	787	782	912	901	1060	1028	1226	1159	1400
AC Resistance @ 90 °C	Ω/km	0,129	0,129	0,101	0,101	0,0789	0,0787	0,0619	0,0616	0,0493	0,0489	0,0402	0,0396
Reactance	Ω/km	0,147	0,205	0,139	0,197	0,134	0,192	0,130	0,188	0,126	0,184	0,121	0,179
Impedance	Ω/km	0,196	0,242	0,172	0,221	0,156	0,208	0,144	0,197	0,135	0,190	0,128	0,184
Sheath standing voltage outer phases	V/km	25,1	58,4	28,4	66,9	32,0	76,1	35,8	86,6	40,7	99,0	44,5	110,0
SHORT CIRCUIT RATINGS													
Symmetrical fault rating (250 °C)	kA (1 s)	28,3		37,8		47,2		59,5		75,6		94,5	
Earth fault rating (150 °C)	kA (1 s)	34,2		35,3		36,3		38,2		40,6		42,8	

The current ratings above are based on standard laying conditions for a single circuit in isolation as follows:

- Conductor temperature = 90 °C
- Soil thermal resistance = 1,2 K·m/W
- Soil temperature = 25 °C
- Air temperature = 30 °C
- Depth of burial = 1200 mm
- * Flat spacing 2D
- ±5% tolerance on dimensions



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