

Description: 132 kV Aluminium, XLPE, Corrugated Seamless Aluminium (CSA), #LLDPE Graphite

Specification: SANS/IEC 60840/ NRS 077, Core Water Blocked Only

Last updated: December 2025

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	25,1	28,3	30,4	33,8	38,1	42,3						
Diameter over XLPE insulation	mm	57,9	59,8	60,7	65,8	69,4	75,5						
Diameter over s/c core screen	mm	60,6	62,3	63,1	68,3	71,8	78,0						
Diameter over CSA sheath	mm	80,0	81,7	82,7	88,1	91,7	98,2						
Final diameter of cable (D)	mm	91,0	91,7	95,9	101,3	104,9	111,4						
Cable mass (approximate)	kg/m	7,2	6,9	8,2	9,2	10,0	11,4						
Gross mass (500 m) (approximate)	kg	4870	4720	5350	5870	6280	6980						
Minimum installation bending radius	m	1,82	1,83	1,92	2,03	2,10	2,23						
ELECTRICAL RATINGS													
DC Resistance @ 20°C	Ω/km	0,1000	0,0778	0,0605	0,0469	0,0367	0,0291						
Max Electric stress at conductor screen	kV/mm	7,27	7,21	7,25	6,76	6,67	6,21						
Min Electric stress at insulation screen	kV/mm	3,15	3,41	3,63	3,47	3,66	3,48						
Capacitance	µF/km	0,166	0,186	0,201	0,208	0,232	0,240						
Zero Sequence Resistance @ 90 °C	Ω/km	0,1980	0,1680	0,1460	0,1240	0,1080	0,0951						
Zero Sequence Reactance @ 90 °C	Ω/km	0,0965	0,0877	0,0822	0,0789	0,0729	0,0703						
ELECTRICAL RATINGS (FORMATION BASED)													
Current rating in ground	Amps	421	447	480	513	546	586	617	670	690	758	766	854
Current rating in air in shade	Amps	577	653	671	767	772	890	887	1030	1008	1183	1145	1363
AC Resistance @ 90 °C	Ω/km	0,129	0,129	0,101	0,101	0,079	0,079	0,062	0,062	0,049	0,049	0,040	0,040
Reactance	Ω/km	0,154	0,212	0,144	0,202	0,141	0,199	0,137	0,195	0,130	0,188	0,127	0,185
Impedance	Ω/km	0,201	0,248	0,176	0,226	0,161	0,214	0,150	0,204	0,139	0,195	0,133	0,189
Sheath standing voltage outer phases	V/km	24,3	57,4	27,2	65,4	32,0	76,0	35,7	86,3	39,6	97,3	43,3	109,0
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)	39,9	40,4	40,6	43,4	45,1	48,3						

*Note LLDPE default, datasheet applicable for MDPE and HDPE where required.

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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