

Description: 132 kV Copper, 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	20,7	24,0	28,7	30,4	34,2	38,7						
Diameter over s/c conductor screen	mm	25,2	28,6	63,4	35,0	38,8	43,4						
Diameter over XLPE insulation	mm	57,2	60,0	66,1	67,2	71,5	76,6						
Diameter over s/c core screen	mm	59,8	62,7	67,1	70,1	74,4	79,5						
Diameter over CSA sheath	mm	79,2	82,3	99,0	89,9	94,4	99,7						
Final diameter of cable (D)	mm	90,2	94,3	111,0	103,1	107,6	112,5						
Cable mass (approximate)	kg/m	9,0	9,5	11,1	13,6	15,7	18,2						
Gross mass (500 m) (approximate)	kg	5770	6030	6790	8050	9120	10400						
Minimum installation bending radius	m	1,80	1,89	2,22	2,06	2,15	2,25						
ELECTRICAL RATINGS													
DC Resistance @ 20°C	Ω/km	0,0601	0,0470	0,0366	0,0283	0,0221	0,0176						
Max Electric stress at conductor screen	kV/mm	7,38	7,19	57,60	6,68	6,43	6,18						
Min Electric stress at insulation screen	kV/mm	3,25	3,43	55,20	3,48	3,49	3,50						
Capacitance	µF/km	0,170	0,188	3,330	0,213	0,227	0,244						
Zero Sequence Resistance @ 90 °C	Ω/km	0,1480	0,1290	0,1040	0,0995	0,0888	0,0804						
Zero Sequence Reactance @ 90 °C	Ω/km	0,0950	0,0879	0,0896	0,0790	0,0749	0,0706						
ELECTRICAL RATINGS (FORMATION BASED)													
		Tref	*Flat	Tref	*Flat	Tref	*Flat	Trefoil	*Flat	Tref	*Flat	Tref	*Flat
Current rating in ground	Amps	536	574	605	654	620	691	761	845	838	947	906	1045
Current rating in air in shade	Amps	739	843	847	977	968	1141	1104	1303	1239	1488	1369	1675
AC Resistance @ 90 °C	Ω/km	0,078	0,078	0,062	0,061	0,049	0,049	0,039	0,038	0,032	0,031	0,0268	0,0260
Reactance	Ω/km	0,153	0,211	0,146	0,204	0,145	0,203	0,137	0,195	0,132	0,190	0,127	0,185
Impedance	Ω/km	0,171	0,225	0,158	0,213	0,153	0,208	0,142	0,198	0,136	0,192	0,130	0,187
Sheath standing voltage outer phases	V/km	30,9	73,9	35,0	84,3	34,2	87,2	43,8	109,0	47,8	121,0	50,8	133,0
SHORT CIRCUIT RATINGS													
Symmetrical fault rating (250 °C)	kA (1 s)	42,9	57,2	71,5	90,1	114,0	143,0						
Earth fault rating (150 °C)	kA (1 s)	39,4	40,7	49,5	44,4	46,6	49,1						

*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



DISCLAIMER: CBI reserves the right to change product specifications from time to time to effect improvements and /or enhancements and accepts no liability arising from any difference between the published parameters of this data sheet and the finished product, unless by prior written agreement.

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