

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

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

*Last updated: December 2025*

<b>PHYSICAL</b>													
Conductor size	mm <sup>2</sup>	300	400	500	630	800	1000						
Conductor diameter	mm	20,7	24,1	27,4	30,4	34,2	38,7						
Diameter over s/c conductor screen	mm	24,5	27,9	31,3	34,2	38,1	42,7						
Diameter over XLPE insulation	mm	48,8	51,2	54,5	57,7	61,9	66,8						
Diameter over s/c core screen	mm	50,8	53,3	56,6	59,8	64,0	68,9						
Diameter over CSA sheath	mm	69,8	72,5	75,8	79,2	83,6	88,7						
Final diameter of cable (D)	mm	80,8	83,5	86,8	90,2	96,8	101,9						
Cable mass (approximate)	kg/m	7,8	8,7	10,0	11,7	14,0	16,4						
Gross mass (500 m) (approximate)	kg	5140	5630	6280	7100	8280	9480						
Minimum installation bending radius	m	1,62	1,67	1,74	1,80	1,94	2,04						
<b>ELECTRICAL RATINGS</b>													
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	6,03	6,00	5,85	5,68	5,49	5,30						
Min Electric stress at insulation screen	kV/mm	3,01	3,27	3,36	3,37	3,38	3,38						
Capacitance	µF/km	0,202	0,229	0,250	0,265	0,286	0,309						
Zero Sequence Resistance @ 90 °C	Ω/km	0,1590	0,1400	0,1230	0,1090	0,0978	0,0885						
Zero Sequence Reactance @ 90 °C	Ω/km	0,0865	0,0790	0,0739	0,0704	0,0667	0,0628						
<b>ELECTRICAL RATINGS (FORMATION BASED)</b>													
		Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat
Current rating in ground	Amps	540	577	611	659	687	750	766	848	845	952	914	1052
Current rating in air in shade	Amps	747	864	863	1010	987	1172	1121	1347	1255	1533	1387	1728
AC Resistance @ 90 °C	Ω/km	0,0780	0,0778	0,0617	0,0614	0,0490	0,0485	0,0391	0,0385	0,0320	0,0311	0,0270	0,0260
Reactance	Ω/km	0,146	0,204	0,138	0,196	0,132	0,190	0,128	0,186	0,125	0,183	0,121	0,179
Impedance	Ω/km	0,165	0,218	0,151	0,205	0,141	0,196	0,134	0,190	0,129	0,186	0,124	0,180
Sheath standing voltage outer phases	V/km	32,0	75,2	36,0	85,6	40,0	96,9	44,2	109,0	49,4	123,0	52,7	135,0
<b>SHORT CIRCUIT RATINGS</b>													
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)	33,8	34,9	36,5	38,1	40,2	42,6						

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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