

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

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

*Last updated: December 2025*

PHYSICAL													
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	25,2	28,6	32,0	34,9	38,8	43,4						
Diameter over XLPE insulation	mm	49,5	51,9	55,2	58,4	62,7	67,6						
Diameter over s/c core screen	mm	51,6	54,0	57,3	60,5	64,7	69,6						
Diameter over CSA sheath	mm	70,5	73,2	76,6	79,9	84,3	89,4						
Final diameter of cable (D)	mm	81,5	84,2	87,6	90,9	97,5	102,6						
Cable mass (approximate)	kg/m	7,9	8,8	10,1	11,8	14,1	16,5						
Gross mass (500 m) (approximate)	kg	5190	5680	6320	7140	8320	9520						
Minimum installation bending radius	m	1,63	1,68	1,75	1,82	1,95	2,05						
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	5,98	5,96	5,82	5,65	5,47	5,29						
Min Electric stress at insulation screen	kV/mm	3,05	3,28	3,37	3,38	3,39	3,39						
Capacitance	µF/km	0,206	0,233	0,255	0,270	0,290	0,313						
Zero Sequence Resistance @ 90 °C	Ω/km	0,1580	0,1390	0,1220	0,1080	0,0971	0,0879						
Zero Sequence Reactance @ 90 °C	Ω/km	0,0872	0,0797	0,0745	0,0711	0,0673	0,0633						
ELECTRICAL RATINGS (FORMATION BASED)													
		Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat
Current rating in ground	Amps	540	577	610	659	686	749	765	848	845	952	914	1052
Current rating in air in shade	Amps	746	862	862	1008	988	1168	1120	1344	1254	1529	1386	1724
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	0,197	0,133	0,191	0,129	0,187	0,126	0,184	0,121	0,179
Impedance	Ω/km	0,166	0,219	0,152	0,206	0,141	0,197	0,134	0,191	0,130	0,186	0,124	0,181
Sheath standing voltage outer phases	V/km	31,9	75,1	35,9	85,4	39,9	96,7	44,1	109,0	49,3	123,0	52,7	135,0
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)	34,3		35,4		36,9		38,5		40,6		43,1	

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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