

**Description:** 66 kV Aluminium, XLPE, Corrugated Seamless Aluminium (CSA), #LLDPE Graphite

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

Last updated: December 2025

<b>PHYSICAL</b>													
Conductor size	mm <sup>2</sup>	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	24,9	28,4	30,9	34,2	38,7	42,8						
Diameter over XLPE insulation	mm	45,1	47,9	50,0	52,9	57,8	62,1						
Diameter over s/c core screen	mm	46,8	49,5	51,7	54,6	59,4	63,8						
Diameter over CSA sheath	mm	65,5	68,4	70,7	73,8	78,8	83,3						
Final diameter of cable (D)	mm	76,5	79,4	81,7	84,8	89,8	96,5						
Cable mass (approximate)	kg/m	5,3	5,7	6,2	6,8	7,7	9,0						
Gross mass (500 m) (approximate)	kg	3890	4120	4360	4680	5130	5770						
Minimum installation bending radius	m	1,53	1,59	1,63	1,70	1,80	1,93						
<b>ELECTRICAL RATINGS</b>													
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	5,15	5,14	5,12	5,11	4,91	4,77						
Min Electric stress at insulation screen	kV/mm	2,85	3,04	3,16	3,30	3,28	3,28						
Capacitance	µF/km	0,234	0,266	0,288	0,319	0,346	0,372						
Zero Sequence Resistance @ 90 °C	Ω/km	0,2170	0,1840	0,1590	0,1390	0,1210	0,1070						
Zero Sequence Reactance @ 90 °C	Ω/km	0,0829	0,0756	0,0715	0,0670	0,0627	0,0593						
<b>ELECTRICAL RATINGS (FORMATION BASED)</b>													
		Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat
Current rating in ground	Amps	424	449	484	516	549	589	622	674	698	766	772	859
Current rating in air in shade	Amps	583	675	680	794	783	922	902	1074	1035	1247	1160	1417
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	0,04
Reactance	Ω/km	0,143	0,201	0,135	0,193	0,131	0,189	0,126	0,184	0,120	0,179	0,118	0,176
Impedance	Ω/km	0,193	0,239	0,169	0,218	0,153	0,204	0,140	0,194	0,130	0,185	0,125	0,180
Sheath standing voltage (outer phases)	V/km	25,5	58,9	28,9	67,4	32,5	76,7	36,5	87,3	40,3	98,6	45,2	111,0
<b>SHORT CIRCUIT RATINGS</b>													
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)	31,4	32,6	33,6	35,0	37,4	39,6						

\*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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