

# High Voltage XLPE Cable Data Sheet

## 44kV Copper Milliken

**Description:** 44 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 <sup>2</sup>	1200	1600	2000	2500				
Conductor diameter	mm	43,4	50,7	56,1	62,8				
Diameter over s/c conductor screen	mm	48,1	54,9	61,3	67,2				
Diameter over XLPE insulation	mm	61,8	68,6	75,3	81,1				
Diameter over s/c core screen	mm	64,8	71,6	78,2	84,0				
Diameter over CSA sheath	mm	84,5	91,6	98,4	104,5				
Final diameter of cable (D)	mm	96,5	103,6	110,4	116,5				
Cable mass (approximate)	kg/m	16,9	20,9	25,4	31,1				
Gross mass (500 m) (approximate)	kg	9860	11800	14100	16900				
Minimum installation bending radius	m	2,89	3,11	3,31	3,50				
ELECTRICAL RATINGS (FORMATION BASED)									
DC Resistance @ 20°C	Ω/km	0,0151	0,0113	0,0090	0,0072				
Max Electric stress at conductor screen	kV/mm	4,21	4,15	4,05	4,01				
Min Electric stress at insulation screen	kV/mm	3,27	3,32	3,30	3,32				
Capacitance	μF/km	0,553	0,622	0,678	0,737				
Zero Sequence Resistance @ 90 °C	Ω/km	0,0888	0,0782	0,0713	0,0660				
Zero Sequence Reactance @ 90 °C	Ω/km	0,05223	0,0479	0,0464	0,0434				
ELECTRICAL RATINGS (FORMATION BASED)									
		Tref	*Flat	Tref	*Flat	Tref	*Flat	Tref	*Flat
Current rating in ground	Amps	1005	1162	1094	1305	1152	1412	1203	1516
Current rating in air in shade	Amps	1564	1999	1754	2319	1885	2551	2016	2811
AC Resistance @ 90 °C	Ω/km	0,0222	0,0218	0,0181	0,0176	0,0158	0,0152	0,0141	0,0133
Reactance	Ω/km	0,110	0,168	0,105	0,163	0,102	0,160	0,099	0,157
Impedance	Ω/km	0,112	0,169	0,106	0,164	0,103	0,161	0,100	0,157
Sheath standing voltage outer phases	V/km	57,9	149,0	62,0	167,0	64,3	179,0	66,4	191,0
SHORT CIRCUIT RATINGS									
Symmetrical fault rating (250 °C)	kA (1 s)	172,0		229,0		189,0		358,0	
Earth fault rating (150 °C )	kA (1 s)	39,6		43,0		49,5		49,2	

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.