

Description: Aluminium Milliken conductor, XLPE, W/B, CSA, LLDPE, HS
Voltage & Specification: 25.4/44kV, SANS IEC 60840/ NRS 077
Water blocking: Core is standard, conductor on request

Last updated: April 2018

PHYSICAL DIMENSIONS:

Conductor size (Milliken construction)	mm ²	1200	1600	2000	2500
Conductor diameter	mm	43.2	51.0	56.1	62.9
Diameter over s/c conductor screen	mm	47.2	54.1	61.1	67.1
Diameter over XLPE insulation	mm	60.7	67.8	74.9	81.0
Diameter over s/c core screen	mm	63.8	70.9	78.0	84.1
Diameter over CSA metallic sheath	mm	86.5	93.9	101.2	107.3
Final diameter of cable (D)	mm	99.7	107.1	114.4	120.5
Cable mass (approximate)	kg/m	9.7	11.5	13.3	15.3
Gross mass (500 m) (approximate)	kg	6350	7250	8150	9150
Minimum installation bending radius	m	3.0	3.2	3.4	3.6

RATINGS:

		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground @ 90°C	Amps	855	952	967	1098	1053	1216	1118	1313
Current rating in air @ 90°C	Amps	1333	1630	1558	1949	1731	2194	1882	2431
AC Resistance @ 90°C	Ω/km	0.0318	0.0318	0.0241	0.0241	0.0194	0.0194	0.0166	0.0166
Reactance	Ω/km	0.1130	0.1710	0.1070	0.1651	0.1051	0.1632	0.1012	0.1593
Impedance	Ω/km	0.1174	0.1740	0.1097	0.1669	0.1069	0.1643	0.1026	0.1602
Sheath standing voltage (flat - centre phase)	V/km	49.62	96.62	55.14	110.36	59.10	121.24	62.06	130.02

ELECTRICAL PARAMETERS:

DC Resistance @ 20°C	Ω/km	0.0247	0.0186	0.0149	0.0127
Max Electric stress at conductor screen	kV/mm	4.3	4.2	4.1	4.0
Max Electric stress at insulation screen	kV/mm	3.3	3.3	3.4	3.3
Capacitance	μF/km	0.5514	0.6142	0.6855	0.7358
Zero Sequence Resistance	Ω/km	0.0788	0.0673	0.0595	0.0544
Zero Sequence Reactance	Ω/km	0.0549	0.0500	0.0490	0.0457
Symmetrical fault rating (@ 250°C limit)	kA (1s)	111.0	148.0	185.0	231.3
Earth fault rating (@ 150°C limit)	kA (1s)	51.4	55.8	60.1	63.7

Ratings above are based on standard soil conditions for a single circuit in isolation as follows:

Soil thermal resistance = 1.2Km/W

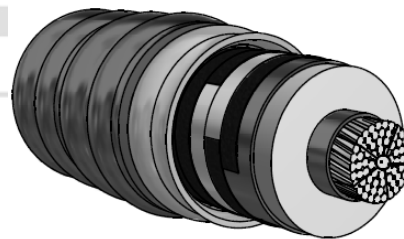
Soil temperature = 25°C

Depth of burial = 1.2m

Air temperature = 30°C

Earthing: Cross bonded or single point bonded

5% tolerance on dimensions



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