

Description: Copper 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	43.4	50.7	56.1	62.8
Diameter over s/c conductor screen	mm	47.6	54.9	61.1	67.8
Diameter over XLPE insulation	mm	61.3	68.6	75.1	81.7
Diameter over s/c core screen	mm	64.3	71.5	78	84.6
Diameter over CSA metallic sheath	mm	87	94.5	101.2	107.1
Final diameter of cable (D)	mm	100.2	107.7	114.4	120.3
Cable mass (approximate)	kg/m	17.2	21.6	25.8	31.3
Gross mass (500 m) (approximate)	kg	10100	12300	14400	17150
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	1001	1140	1094	1275	1156	1375	1211	1468
Current rating in air @ 90°C	Amps	1575	1968	1774	2274	1916	2500	2050	2734
AC Resistance @ 90°C	Ω/km	0.0214	0.0212	0.0172	0.0169	0.0147	0.0144	0.0129	0.0125
Reactance	Ω/km	0.1129	0.1710	0.1077	0.1658	0.1051	0.1632	0.1013	0.1593
Impedance	Ω/km	0.1149	0.1723	0.1091	0.1667	0.1062	0.1638	0.1021	0.1598
Sheath standing voltage (flat - centre phase)	V/km	58.03	115.74	62.26	128.11	64.91	137.01	67.23	145.44

ELECTRICAL PARAMETERS:

DC Resistance @ 20°C	Ω/km	0.0151	0.0113	0.009	0.0072
Max Electric stress at conductor screen	kV/mm	4.2	4.1	4.0	4.0
Max Electric stress at insulation screen	kV/mm	3.3	3.3	3.3	3.3
Capacitance	μF/km	0.5482	0.6222	0.6763	0.7426
Zero Sequence Resistance	Ω/km	0.0679	0.0598	0.0544	0.0503
Zero Sequence Reactance	Ω/km	0.0549	0.0508	0.0490	0.0457
Symmetrical fault rating (@ 250°C limit)	kA (1s)	172.3	229.7	287.1	358.9
Earth fault rating (@ 150°C limit)	kA (1s)	51.7	56.1	60.1	63.6

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

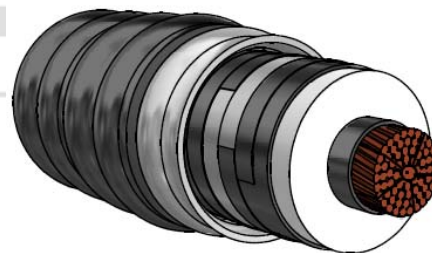
Soil thermal resistance = 1.2Km/W

Soil temperature = 25°C

Depth of burial = 1.2m

Air temperature = 30°C

Earthing: Cross bonded or single point bonded



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