

Description: Aluminium Milliken conductor, XLPE, W/B, CSA, LLDPE, HS
Voltage & Specification: 76/132kV, 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	51.0	56.1	62.9
Diameter over s/c conductor screen	mm	47.6	55.0	61.1	67.1
Diameter over XLPE insulation	mm	82.0	89.5	96.0	102.4
Diameter over s/c core screen	mm	84.9	92.4	98.9	105.3
Diameter over CSA metallic sheath	mm	108.4	117.0	125.0	130.0
Final diameter of cable (D)	mm	121.6	130.2	138.2	143.2
Cable mass (approximate)	kg/m	13.2	15.3	17.5	19.5
Gross mass (500 m) (approximate)	kg	8300	9350	10450	11450
Minimum installation bending radius	m	3.6	3.9	4.1	4.3

RATINGS:

		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground @ 90°C	Amps	843	942	953	1087	1040	1208	1103	1303
Current rating in air @ 90°C	Amps	1294	1531	1512	1823	1684	2061	1834	2284
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	0.1251	0.1832	0.1186	0.1767	0.1163	0.1744	0.1114	0.1695
Impedance	Ω/km	0.1291	0.1859	0.1210	0.1783	0.1179	0.1755	0.1126	0.1703
Sheath standing voltage (flat - centre phase)	V/km	46.70	93.19	52.25	106.94	56.72	118.50	59.42	126.92

ELECTRICAL PARAMETERS:

DC Resistance @ 20°C	Ω/km	0.0247	0.0186	0.0149	0.0127
Max Electric stress at conductor screen	kV/mm	5.9	5.7	5.5	5.4
Max Electric stress at insulation screen	kV/mm	3.4	3.5	3.5	3.5
Capacitance	μF/km	0.2557	0.2851	0.3078	0.3285
Zero Sequence Resistance	Ω/km	0.0693	0.0588	0.0518	0.0478
Zero Sequence Reactance	Ω/km	0.0697	0.0637	0.0618	0.0575
Symmetrical fault rating (@ 250°C limit)	kA (1s)	111.0	148.0	185.0	231.3
Earth fault rating (@ 150°C limit)	kA (1s)	64.4	69.5	74.3	77.2

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

Soil thermal resistance = 1.2Km/W

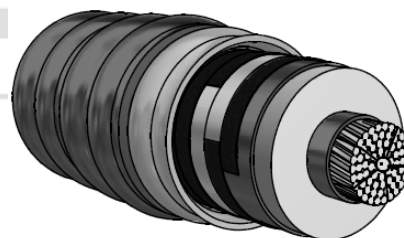
Soil temperature = 25°C

Depth of burial = 1.2m

Air temperature = 30°C

Earthing: Cross bonded or single point bonded

Tolerance on dimensions = +5%



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