

Description:**ALUMINIUM, XLPE, W/B, CSA, LLDPE, HIGH STRESS****Voltage & Specification:****76/132kV, SANS 60840 / NRS 077****Water blocking:****Core is standard, conductor on request***Last updated: April 2018***PHYSICAL DIMENSIONS:**

Conductor size	mm ²	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	25.1	28.3	30.4	33.8	38.2	42.3
Diameter over XLPE insulation	mm	58.3	59.8	61.8	65.7	70.8	75.4
Diameter over s/c core screen	mm	61.0	62.3	64.2	68.2	73.3	77.9
Diameter over CSA sheath	mm	80.4	81.7	83.8	87.9	93.2	98.0
Final diameter of cable (D)	mm	91.4	92.7	97.0	101.1	106.4	111.2
Cable mass (approximate)	kg/m	7.3	7.6	8.4	9.2	10.3	11.4
Gross mass (500 m) (approximate)	kg	4850	5000	5400	5800	6350	6950
Minimum installation bending radius	m	1.8	1.9	1.9	2.0	2.1	2.2

RATINGS:

		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground	Amps	421	446	480	512	544	584	615	666	688	754	759	842
Current rating in air	Amps	581	653	677	770	776	888	892	1030	1021	1191	1148	1356
AC Resistance @ 90°C	Ω/km	0.1290	0.1289	0.1008	0.1006	0.0789	0.0787	0.0619	0.0616	0.0494	0.0489	0.0403	0.0396
Reactance	Ω/km	0.1546	0.2127	0.1450	0.2031	0.1416	0.1996	0.1367	0.1947	0.1309	0.1889	0.1265	0.1846
Impedance	Ω/km	0.2013	0.2487	0.1766	0.2266	0.1621	0.2146	0.1500	0.2042	0.1399	0.1952	0.1328	0.1888
Sheath standing voltage (flat - centre phase)	V/km	24.19	45.06	27.51	51.62	31.78	59.54	35.54	67.45	39.29	75.82	42.87	84.19

ELECTRICAL PARAMETERS:

DC Resistance @ 20°C	Ω/km	0.1	0.0778	0.0605	0.0469	0.0367	0.0291
Max Electric stress at conductor screen	kV/mm	7.2	7.2	7.1	6.8	6.5	6.2
Min Electric stress at insulation screen	kV/mm	3.1	3.4	3.5	3.5	3.5	3.5
Capacitance	μF/km	0.1645	0.1860	0.1960	0.2087	0.2253	0.2401
Zero Sequence Resistance	Ω/km	0.1794	0.1503	0.1271	0.1077	0.0923	0.0808
Zero Sequence Reactance	Ω/km	0.0971	0.0877	0.0831	0.0788	0.0737	0.0700
Symmetrical fault rating (250°C)	kA (1s)	27.8	37.0	46.3	58.3	74.0	92.5
Earth fault rating (150°C)	kA (1s)	47.8	48.5	49.8	52.2	55.3	58.2

Ratings above are based on standard laying 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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