

Description:**ALUMINIUM, XLPE, W/B, CSA, LLDPE, HIGH STRESS****Voltage & Specification:****51/88kV, 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	24.2	27.7	30.2	33.5	38.0	42.1						
Diameter over XLPE insulation	mm	48.6	51.1	53.3	57.0	61.8	66.3						
Diameter over s/c core screen	mm	50.7	53.1	55.4	59.1	63.9	68.4						
Diameter over CSA sheath	mm	69.6	72.3	74.6	78.5	83.5	88.1						
Final diameter of cable (D)	mm	80.6	83.3	85.6	89.5	96.7	101.3						
Cable mass (approximate)	kg/m	5.8	6.3	6.8	7.5	8.8	9.8						
Gross mass (500 m) (approximate)	kg	4150	4350	4600	5000	5600	6150						
Minimum installation bending radius	m	1.6	1.7	1.7	1.8	1.9	2.0						
RATINGS:													
		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground	Amps	423	449	483	515	547	586	617	668	692	758	763	846
Current rating in air	Amps	588	672	685	790	787	915	906	1061	1034	1225	1163	1395
AC Resistance @ 90°C	Ω/km	0.1290	0.1289	0.1009	0.1006	0.0790	0.0787	0.0621	0.0616	0.0496	0.0490	0.0405	0.0397
Reactance	Ω/km	0.1467	0.2048	0.1383	0.1964	0.1338	0.1918	0.1290	0.1871	0.1249	0.1829	0.1207	0.1787
Impedance	Ω/km	0.1954	0.2420	0.1712	0.2207	0.1554	0.2074	0.1432	0.1970	0.1344	0.1894	0.1273	0.1831
Sheath standing voltage (flat - centre phase)	V/km	25.14	46.18	28.46	52.75	31.96	59.81	35.69	67.69	40.49	77.29	44.09	85.71
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	6.0	6.0	5.9	5.7	5.5	5.3						
Min Electric stress at insulation screen	kV/mm	3.0	3.3	3.4	3.4	3.4	3.4						
Capacitance	μF/km	0.1999	0.2271	0.2446	0.2621	0.2852	0.3059						
Zero Sequence Resistance	Ω/km	0.1872	0.1567	0.1330	0.1132	0.0974	0.0855						
Zero Sequence Reactance	Ω/km	0.0873	0.0794	0.0753	0.0712	0.0664	0.0629						
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)	41.4	43.0	44.3	46.6	49.6	52.3						

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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