

Description:**COPPER, 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	20.7	24.0	27.2	30.4	34.2	38.7
Diameter over s/c conductor screen	mm	25.5	28.6	31.8	35.0	38.8	43.4
Diameter over XLPE insulation	mm	58.6	60.0	63.4	67.2	71.4	76.5
Diameter over s/c core screen	mm	61.3	62.7	66.1	70.1	74.3	79.4
Diameter over CSA sheath	mm	80.9	82.3	85.8	89.9	94.3	99.7
Final diameter of cable (D)	mm	94.1	95.5	99.0	103.1	107.5	112.9
Cable mass (approximate)	kg/m	9.5	10.4	11.8	13.6	15.7	18.2
Gross mass (500 m) (approximate)	kg	6000	6700	7100	8000	9050	10350
Minimum installation bending radius	m	1.9	1.9	2.0	2.1	2.2	2.3

RATINGS:

		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground	Amps	535	572	605	652	678	738	756	833	831	930	899	1022
Current rating in air	Amps	741	839	855	979	977	1131	1109	1297	1245	1477	1376	1658
AC Resistance @ 90°C	Ω/km	0.0779	0.0777	0.0616	0.0614	0.0489	0.0485	0.0389	0.0384	0.0318	0.0311	0.0268	0.0260
Reactance	Ω/km	0.1550	0.2130	0.1466	0.2047	0.1409	0.1989	0.1363	0.1944	0.1315	0.1896	0.1267	0.1848
Impedance	Ω/km	0.1734	0.2268	0.1590	0.2137	0.1491	0.2048	0.1418	0.1981	0.1353	0.1921	0.1295	0.1866
Sheath standing voltage (flat - centre phase)	V/km	31.55	58.65	35.48	66.60	39.44	75.07	43.49	84.19	47.34	93.41	50.62	102.02

ELECTRICAL PARAMETERS:

DC Resistance @ 20°C	Ω/km	0.0601	0.047	0.0366	0.0283	0.0221	0.0176
Max Electric stress at conductor screen	kV/mm	7.2	7.2	6.9	6.7	6.4	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	0.1671	0.1876	0.2015	0.2132	0.2280	0.2447
Zero Sequence Resistance	Ω/km	0.1279	0.1106	0.0957	0.0834	0.0739	0.0664
Zero Sequence Reactance	Ω/km	0.0960	0.0879	0.0827	0.0787	0.0745	0.0704
Symmetrical fault rating (250°C)	kA (1s)	43.1	57.4	71.8	90.4	114.9	143.6
Earth fault rating (150°C)	kA (1s)	48.0	48.9	51.0	53.4	56.0	59.2

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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