

Description:**COPPER, XLPE, W/B, CSA, LLDPE, HIGH STRESS****Voltage & Specification:****25.4/44kV, 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	20.8	24.1	27.4	30.5	34.3	38.8						
Diameter over s/c conductor screen	mm	24.2	27.5	30.9	33.9	37.7	42.2						
Diameter over XLPE insulation	mm	39.9	42.8	45.9	48.7	52.3	56.7						
Diameter over s/c core screen	mm	41.3	44.5	47.6	50.4	54.2	58.6						
Diameter over CSA sheath	mm	59.6	63.1	66.3	69.4	73.4	77.9						
Final diameter of cable (D)	mm	70.6	74.1	77.3	80.4	84.4	88.9						
Cable mass (approximate)	kg/m	6.6	7.6	8.8	10.4	12.3	14.6						
Gross mass (500 m) (approximate)	kg	4500	5005	5620	6395	7365	8480						
Minimum installation bending radius	m	1.4	1.5	1.5	1.6	1.7	1.8						
RATINGS:													
		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground	Amps	542	579	612	659	687	747	764	842	839	939	904	1030
Current rating in air	Amps	762	894	879	1041	1006	1207	1140	1388	1278	1581	1409	1779
AC Resistance @ 90°C	Ω/km	0.0781	0.0778	0.0619	0.0614	0.0492	0.0486	0.0394	0.0385	0.0323	0.0312	0.0275	0.0261
Reactance	Ω/km	0.1366	0.1947	0.1304	0.1885	0.1247	0.1828	0.1204	0.1785	0.1161	0.1742	0.1116	0.1696
Impedance	Ω/km	0.1574	0.2097	0.1443	0.1982	0.1341	0.1891	0.1267	0.1826	0.1205	0.1770	0.1149	0.1716
Sheath standing voltage (flat - centre phase)	V/km	33.39	60.85	37.21	68.72	41.23	77.34	45.43	86.69	49.22	95.94	52.34	104.47
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	4.2	4.2	4.1	4.1	4.1	4.1						
Min Electric stress at insulation screen	kV/mm	2.5	2.7	2.8	2.9	3.0	3.0						
Capacitance	μF/km	0.2778	0.3133	0.3498	0.3821	0.4231	0.4719						
Zero Sequence Resistance	Ω/km	0.1458	0.1257	0.1096	0.0968	0.0862	0.0778						
Zero Sequence Reactance	Ω/km	0.0750	0.0696	0.0646	0.0610	0.0574	0.0536						
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)	35.4	37.5	39.4	41.2	43.6	46.3						

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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PO Box 172, Vereeniging 1930 - Steel Road, Peacehaven, Vereeniging 1939, South Africa

Tel: +27 16 430 6000 - Fax: +27 16 430 6235 - www.cbi-electric.com

Directors: AE Dickson, PJ Banda, GW Eddey, TA Pooe, Z Mjali

Alternate Director: PW de Villiers

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