

Description:

COPPER, XLPE, W/B, CSA, LLDPE, HIGH STRESS

Voltage & Specification:

38.1/66kV, 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	24.4	27.7	31.1	34.1	37.9	42.5						
Diameter over XLPE insulation	mm	44.5	47.0	49.9	53.0	57.0	61.8						
Diameter over s/c core screen	mm	46.3	48.8	51.6	54.7	58.9	63.8						
Diameter over CSA sheath	mm	65.0	67.7	70.7	73.9	78.3	83.3						
Final diameter of cable (D)	mm	76.0	78.7	81.7	84.9	89.3	96.5						
Cable mass (approximate)	kg/m	7.2	8.1	9.4	11.0	13.0	15.6						
Gross mass (500 m) (approximate)	kg	4745	5225	5825	6620	7620	8930						
Minimum installation bending radius	m	1.5	1.6	1.6	1.7	1.8	1.9						
RATINGS:													
		Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)	Trefoil	Flat (2D)
Current rating in ground	Amps	540	577	610	657	685	745	762	839	836	936	906	1030
Current rating in air	Amps	757	879	873	1025	1000	1189	1133	1365	1270	1554	1401	1740
AC Resistance @ 90°C	Ω/km	0.0780	0.0778	0.0618	0.0614	0.0491	0.0486	0.0393	0.0385	0.0322	0.0312	0.0272	0.0261
Reactance	Ω/km	0.1413	0.1994	0.1342	0.1922	0.1282	0.1863	0.1239	0.1820	0.1197	0.1777	0.1167	0.1748
Impedance	Ω/km	0.1614	0.2140	0.1477	0.2018	0.1373	0.1925	0.1300	0.1860	0.1239	0.1804	0.1198	0.1767
Sheath standing voltage (flat - centre phase)	V/km	32.61	59.94	36.46	67.84	40.52	76.49	44.62	85.69	48.34	94.82	53.01	105.12
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	5.2	5.2	5.2	5.1	4.9	4.8						
Min Electric stress at insulation screen	kV/mm	2.8	3.1	3.2	3.3	3.3	3.3						
Capacitance	μF/km	0.2308	0.2622	0.2924	0.3151	0.3397	0.3692						
Zero Sequence Resistance	Ω/km	0.1401	0.1213	0.1058	0.0932	0.0828	0.0744						
Zero Sequence Reactance	Ω/km	0.0809	0.0744	0.0690	0.0653	0.0618	0.0582						
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)	38.6	40.2	42.0	43.9	46.5	49.5						

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%



POWER BY INNOVATION... INNOVATION THROUGH PARTNERSHIPS

CBI-electric: african cables
B-BBEE Level 2 contributor

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

A member of the **REUNERT** Group
 A Division of ATC (Pty) Ltd
 Registration No. 1955/003773/07

SABS
 ISO 9001
SABS
 ISO 14001
SABS
 OHSAS 18001