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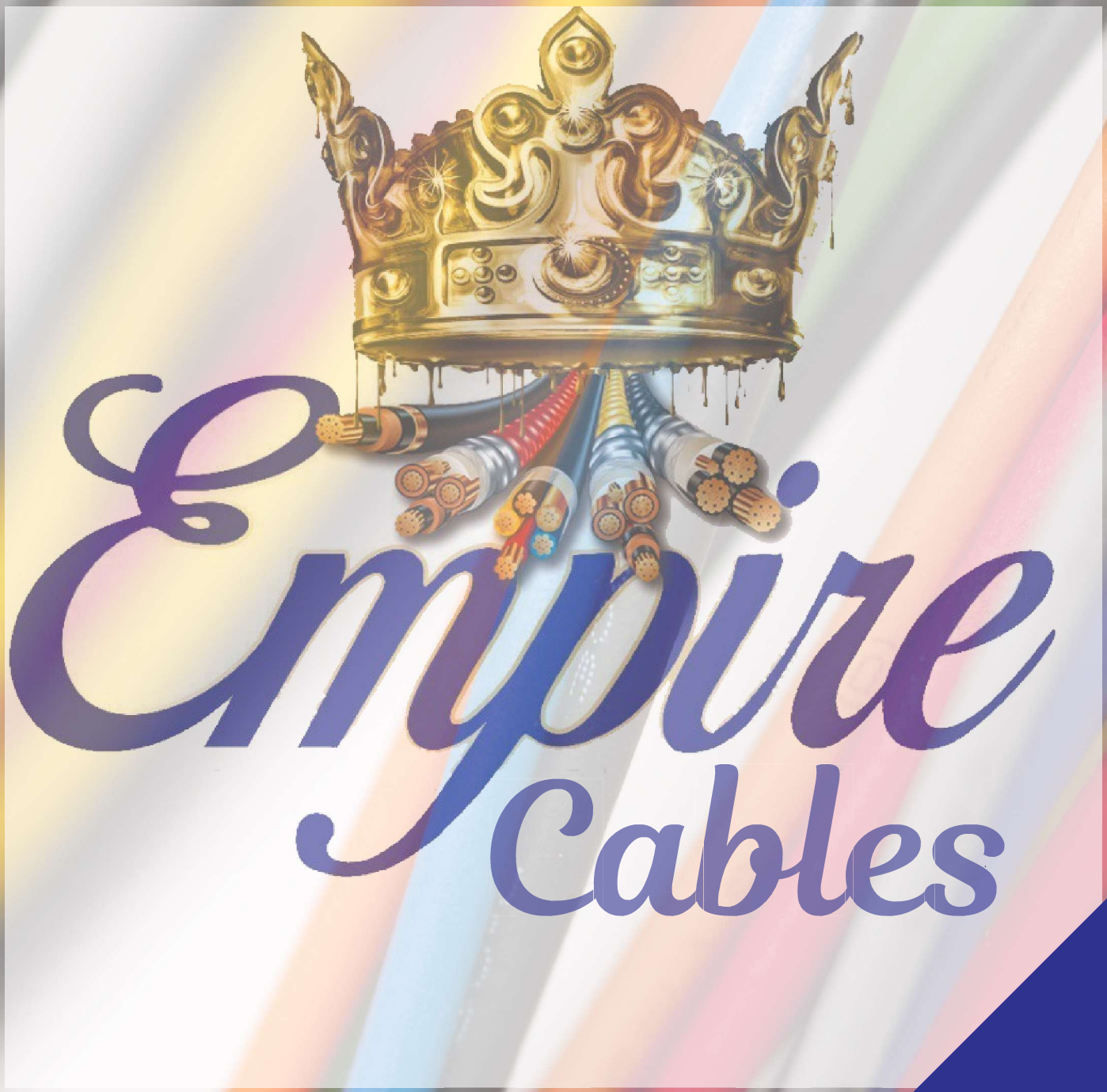


PVC
SOLAR
RUBBER

PVC PRODUCTS

HOUSE WIRE

(GPW)

APPLICATION

General wiring of factories, private, municipal and industrial buildings, control panels, switchboards and appliances operating at normal temperature.

MOST OFTEN USED BY

Electricians, electrical contractors, Appliance manufacturers
switchboard and control panel manufacturers.

SPECIFICATION

Voltage rating	600/1000	volts
Test Voltage	3000	volts (rms)
Temperature range	-10 to + 70	°C
Insulation	General purpose PVC	
Colours	red, white, blue, green/yellow, black, brown, blue, yellow, orange, purple, pink, grey	
Conductors	Plain soft copper wire (annealed)	

PACKAGING

100 m shrink-wrapped coils or up to 1000 m on wooden drums/plastic bobbins

TECHNICAL DATA

Size	Strand std Resistance	Nom OD	Current* Rating	Volt Drop	Approx. Mass
mm²	Ω/km @ 20°C	mm	Amp	mV/A/m	kg/100m
1	18.1	2.9	16	44.0	1.8
1.5	12.1	3.2	20	29.0	2.3
2.5	7.41	3.6	27	18.0	3.3
4	4.61	4.6	37	11.0	5.3
6	3.08	5.1	47	7.0	7.1
10	1.83	6.0	65	5.0	11.4
16	1.15	7.0	87	3.0	17.0
25	0.727	8.6	114	2.0	25.2
35	0.524	9.9	141	1.5	35.5
50	0.387	11.2	182	1.0	44.8
70	0.268	13.7	234	0.7	69.0
95	0.193	15.6	284	0.5	94.0
120	0.153	16.6	284	0.5	108.7
150	0.124	20.5	284	0.5	148.8

*Single phase rating in ambient air temperature of 30°C for 2 cores.
Conductor temperature 70°C as per Table 6.2(a) SANS 10142-2012 INSTALLATION METHOD 3

SINGLE CORE

PVC PVC CABLE

(GPW)

APPLICATION

General wiring of factories, private, municipal and industrial buildings, control panels, switchboards and appliances operating at normal temperature.

MOST OFTEN USED BY

Electricians, electrical contractors, Appliance manufacturers
switchboard and control panel manufacturers.

SPECIFICATION

Voltage rating	600/1000	volts
Test Voltage	3000	volts (rms)
Temperature range	-10 to + 70	°C
Insulation	General purpose PVC	
Colours	red, white, blue, green/yellow, black, brown, blue, yellow, orange, purple, pink, grey	
Conductors	High conductivity annealed standard copper	

PACKAGING

1000 m on wooden drums.

TECHNICAL DATA

					Cables A.C. or D.C.		
Rated Area	Nominal Diameters		Nominal Mass	Impedance	Current Rating		Voltage Drop per Amp per metre
mm^2	D1	D2	(kg/km)	(Ω/km)	Ground	Air	(mV)
25	5.95	11.91	366	0.8767	118	133	1.7
35	7.00	12.96	469	0.6356	156	165	1.3
50	8.15	15.15	632	0.4745	186	203	0.9
70	9.79	16.56	880	0.3356	232	251	0.7
95	11.54	19.04	1160	0.2500	281	313	0.5
120	12.96	20.24	1413	0.2054	324	362	0.4
150	14.39	22.07	1734	0.1734	370	414	0.3
185	16.10	24.80	2145	0.1499	424	462	0.3
240	18.71	27.81	2725	0.1268	498	578	0.2
300	21.45	30.75	3375	0.1131	566	660	0.2
400	24.30	34.10	4395	0.1028	651	704	0.2
500	26.51	37.13	5299	0.0963	740	821	0.2
630	33.15	43.62	6965	0.0890	863	960	0.2

- Maximum Sustained Conductor Temperature 70 °C
- Ground Temperature 25 °C
- Ambient Air Temperature 30 °C
- Ground Thermal Resistivity 1.2 Km/W
- Minimum Trench or Duct Depth at laying 500 mm

PANELFLEX

SINGLE CORE PVC INSULATED CABLE

(LOW VOLTAGE 1000V)

SPECIFICATION SABS 1574 , 70°C

Conductor	Flexible Copper - Class 5
Insulation	PVC (Flexible Grade)
Application	Used for Panel and Instrument Wiring

PACKAGING

100 m shrink-wrapped coils or // 500 to 1000 m length plastic reels available on request.

TECHNICAL DATA

Phase Conductor Size	Approximate Diameter	Approximate Cable Mass	Coils / Drums	DC Resistance @ 20°C	Current unenclosed in Air
mm^2	mm	kg	m	Ω/km/phase	(A)
0.5	2.4	10	100	39.000	3
0.75	2.7	14	100	26.000	6
1	3.1	18	100	19.500	10
1.5	3.3	24	100	13.300	16
2.5	3.8	35	100	7.980	25
4	4.6	54	100	4.950	32
6	5.9	78	100	3.300	43
10	7.2	121	100	1.910	59
16	8.4	181	100	1.210	82

Larger sizes available on request

POWERFLEX

(FLEXIBLE SINGLE POWER CORES)

APPLICATION

This highly flexible range of power cable can be used as a convenient replacement for the less flexible solid SANS class 2 cores.
This makes it easier to loom in confined spaces such as PANELS.
The inner dielectric consists of general purpose PVC bonded to the outer nitrile PVC sheath which has excellent water, oil as well as abrasion resistant properties allowing for further use in borehole pumps and engine rooms.

MOST OFTEN USED BY

Electricians, electrical contractors, D.I.Y enthusiasts.

SPECIFICATION SABS 1574 - 3

Voltage rating	600/1000	volts
Spark Test Voltage	6000	volts (rms)
Voltage Withstand Test	2.5	kV for 10 mins.
Current rating	as per table below	
Conductor	Annealed PCW class 5.	
Temperature Range	-10 to + 70	˚C
Insulation	General purpose PVC D3 as per SABC 1411 P2	
Sheathing	Nitrile PVC (coloured) D6 as per SABS 1411 P 2	
Colours	Any colour as per customer	

PACKAGING

100 m shrink-wrapped coils or on 500 to 1000 m length wooden drums

TECHNICAL DATA

Size	Individual wire OD	Nom.Core diameter	Mass	Current Rating	
				1-Phase	3-Phase
mm^2	Nom. mm	mm	kg/100m	A	A
16	0.34	9.8	22	76	68
25	0.34	11.0	29	101	89
35	0.34	12.0	39	125	110
50	0.34	14.6	56	151	134
70	0.34	17.1	81	192	171
95	0.34	19.0	105	232	207
120	0.34	21.6	134	269	239
150	0.34	22.5	154	350	322
185	0.34	25.5	192	440	404

Maximum conductor temperature 70˚C ; ambient air temperature 30˚C
Current Ratings as per SANS 10142-1:2005 Table 6.2(a) Installation Method 2

HRQ WIRE

(PVC insulated)

DESCRIPTION

Conductor : Solid annealed copper — to SABS 1411 Part 1
Insulation : 105˚C PVC (high temperature) — to SABS 1411 Part 2 - D5

APPLICATION

Fluorescent Light fittings and ballasts , Capacitor Tails.

MOST OFTEN USED BY

Electricians, electrical contractors, Neon light manufacturers, switchboard and control panel manufacturers.

PROPERTIES

		1.9mm OD	2.4mm OD	
Specification	:	SANS 1507		
Voltage Rating	:	300/500	600/1000	volts
Test Voltage	:	1200	2000	volts (rms) for 10 mins
Current Rating	:	10	10	Ampere
Temperature Range	:	-10 to + 105		˚C
Single Φ Volt Drop	:	93		mV/A/m
Packaging	:	2000m	1500m	reels

Colours : any standard colour
Insulation : High temperature PVC
water, oil, and abrasion resistant.

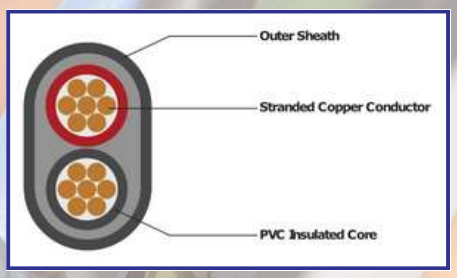
TECHNICAL DATA

CABLE SIZE	OD'S		Spark Test Voltage	Current Rating	Conductor Resistance	Approx. Mass
	STRAND	CORE				
mm^2	mm	mm	kV(rms)	A (max)	Ω/km	100m Coil
0.5	0.8	1.9	5	10	36	0.9
0.5	0.8	24	6	10	36	1.2

current rating assumption : ambient air temperature 30˚C and maximum conductor temperature 70˚C

ILLUMINATION CABLE

(2 CORE FLAT)



APPLICATION

Where quick fit light bulb holders are required.

MOST OFTEN USED BY

Electricians, electrical contractors. Municipal festival street lighting, house parties, pool parties etc.

SPECIFICATION

SANS	1507	
Voltage Rating	300/500	volts
Test Voltage	3000	volts (rms)
Temperature range	-10 to + 70	˚C
Insulation/Sheathing	General purpose PVC	
Insulation Colours	Red/Black	
Sheath Colours	Black	

PACKAGING

100m shrink-wrapped coils or up to 1000m plastic bobbins

TECHNICAL DATA

			current	volt		
size	**cores**	**Major**	**Minor**	**rating**	**drop**	**mass**
mm^2	**number**	**mm**	**mm**	**A(max)**	**mV/A/m**	**kg/100m**
2.5	2	8.9	5.3	27	18	9.9
4	2	11.9	6.4	27	18	15.5

NB cores are manufactured generally to SANS 1507

TRAILING CABLE

(MULTI-CORE TRAILING CABLE)

APPLICATION

For the power supply to any mobile or portable equipment in the most adverse weather conditions, in harsh mechanical and chemical environments such as :- construction sites, open cast mines, factories, dockyards, railways and engine rooms.

SPECIFICATION : SABS 1574

Voltage Rating	600/1000	volts
Test Voltage	6000	volts (rms)
Maximum Current Rating	Single phase (see table below)	Amp (max.)
Temperature Range	-10 to + 70	˚C
Conductor	Annealed PCW class 5	
Insulation	Excellent electrical grade PVC	
Sheathing	Orange coloured Nitrile PVC	
Core Colours	Red, Yellow, Blue, Black	

PACKAGING

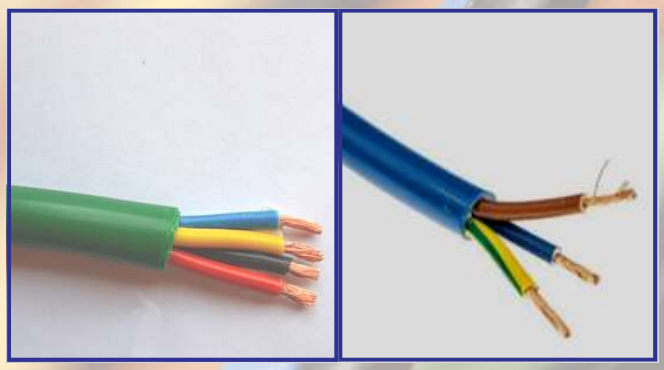
500 m drums

TECHNICAL DATA

size	strand standard resistance	Nom. OD	Max. Rating	Volt Drop	mass
mm^2	Ω/km @ 20 ˚C	mm	Ampere	mV/A/m	kg/100m
1.5x4	6.98	12.4	15	14.1	23
2.5x4	7.98	13.4	20	15.9	31
4x4	4.95	14.6	30	10.0	44
6x4	3.30	16.3	35	7.0	56
10x4	1.91	18.7	50	4.1	79
16x4	1.21	24.3	65	2.8	118
25x4	0.78	28.2	85	1.8	171
35x4	0.55	31.6	103	1.0	223

*Single phase rating in ambient air temperature of 30˚C for 2 cores.
Conductor temperature 70˚C

SUBMERSIBLE PUMP CABLE



APPLICATION

The nitrile PVC sheath has excellent water, oil as well as abrasion resistant properties allowing for use in borehole and submersible pumps,
sewerage extraction plants as well as engine rooms.

MOST OFTEN USED BY

Electricians, electrical contractors, farmers, D.I.Y enthusiasts.

SPECIFICATION SABS 1574

Voltage rating	600/1000	volts
Spark test voltage	6000	volts (rms) on cores
Voltage Withstand Test	2.5 kV for 10 mins after 2 hours in the water	
Conductor	Annealed PCW class 5	
Temperature range	-10 to + 70 ˚C	
Insulation	General purpose PVC	
Sheathing	Nitrile PVC	

PACKAGING

100 m shrink-wrapped coils or on 500 to 1000 m length Wooden drums

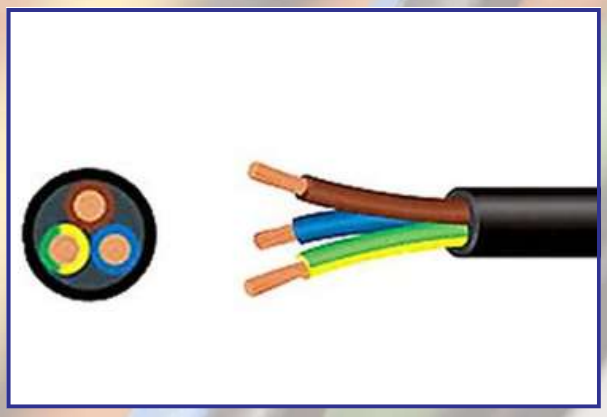
TECHNICAL DATA

3 - Core (BLUE SHEATH)					
Size	**Individual wire OD**	**Nom. Core diameter**	**Current rating**	**Volt Drop**	**Mass**
mm^2	**Nom. mm**	**mm**	**Ampere**	**mV/A/m**	**kg/100m**
1.5	0.242	9.9	16	30.0	13.7
2.5	0.242	11.9	25	20.0	20.2
4	0.300	13.2	32	12.0	27.6
6	0.300	14.7	37	8.0	36.4
10	0.300	16.8	50	5.0	53.0
16	0.300	19.4	65	3.0	73.0

4 - Core (LIGHT GREEN SHEATH)					
Size	**Individual wire OD**	**Nom.Core diameter**	**Current rating**	**Volt Drop**	**Mass**
mm^2	**Nom. mm**	**mm**	**Ampere**	**mV/A/m**	**kg/100m**
1.5	0.242	10.7	16	30.0	16.7
2.5	0.242	13.1	25	20.0	25.5
4	0.300	14.3	32	12.0	34.3
6	0.300	16.0	37	8.0	45.6
10	0.300	18.3	50	5.0	67.0
16	0.300	21.4	65	3.0	92.9

CABTYRE

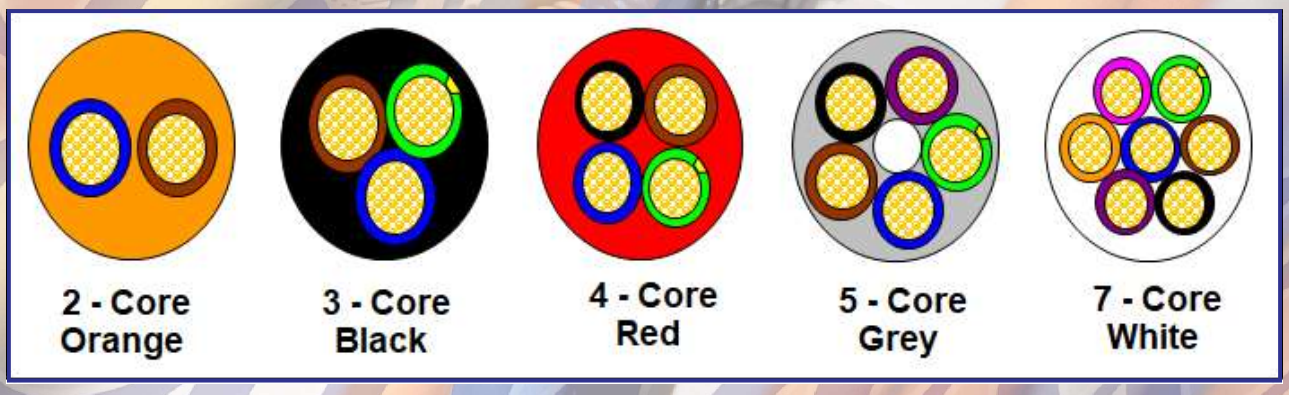
(FLEXIBLE WIRING CABLE)



CONDUCTOR
Annealed PCW class 5
INSULATION
General purpose PVC, FR and oil resistant
Spark Test Voltage 5kV rms
Withstand Test 1.5kV rms 10minutes
SHEATH (Embossed)
Flexible PVC
COLOURS: Black, White, Grey, Red and Orange(on request)
DUMMY CORE
Flexible PE

SPECIFICATION : SANS 1574

SAMPLE OF SHEATH COLORS AVAILABLE ON REQUEST

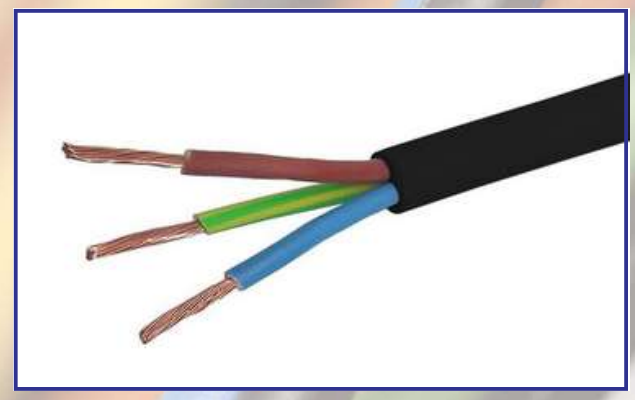


LIGHT DUTY 300/300V

Phase size	mm^2	0.5				0.75		
Number of cores		2	3	4		3		
Approximate Cable OD	mm	5.0	5.3	5.7		6.1		
Cable Mass (Approximate)	kg/100m	3.5	4.15	5.0		5.5		
Current Rating Single Phase values*	Amps AC (max)	3				3		
Installation Bending Radius	mm (min)	49.6	53	57		64		
Voltage Drop (Single Phase) *	mV/A/m (min)	58				62		
Conductor Resistance	W/km @ 20°C (max)	39				26		
Dielectric Resistance	MΩ.km @ 70°C (min)	0.012				0.011		

CABTYRE

(FLEXIBLE WIRING CABLE)



NORMAL DUTY 300/500V

Phase size	mm²	0.75					1				
Number of cores		2	3	4	5	7	2	3	4	5	7
Approximate Cable OD	mm	6.2	6.6	7.1	7.9	8.7	6.4	6.8	7.3	8.2	9.0
Cable Mass (Approximate)	kg/100m	5.4	6.459	7.706	9.572	12.084	5.9	7.1	8.6	10.6	13.5
Current Rating Single Phase values*	Amps AC (max)	6					10				
Installation Bending Radius	mm (min)	61.54	65.68	70.51	78.95	87	63.52	67.84	72.88	81.6	90
Voltage Drop (Single Phase) *	mV/A/m (min)	58					43				
Conductor Resistance	W/km @ 20°C (max)	26					19.5				
Dielectric Resistance	MΩ.km @ 70°C (min)	0.0110					0.0100				

Phase size	mm²	1.5					2.5				
Number of cores		2	3	4	5	7	2	3	4	5	7
Approximate Cable OD	mm	7.3	8.1	8.9	9.9	10.9	9.1	10.0	10.7	11.9	13.2
Cable Mass (Approximate)	kg/100m	8.1	10.4	12.9	15.9	20.2	12.8	16.2	19.6	24.1	30.9
Current Rating Single Phase values*	Amps AC (max)	16					25				
Installation Bending Radius	mm (min)	73.42	80.64	88.73	98.85	109	91.28	99.76	107.32	119.4	132
Voltage Drop (Single Phase) *	mV/A/m (min)	29					17				
Conductor Resistance	W/km @ 20°C (max)	13.3					7.98				
Dielectric Resistance	MΩ.km @ 70°C (min)	0.0100					0.0090				

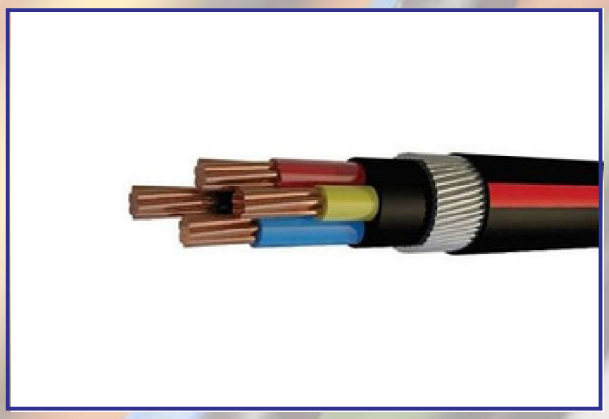
Phase size	mm²	4				
Number of cores		2	3	4	5	7
Approximate Cable OD	mm	10.3	11.3	12.1	13.7	15.1
Cable Mass (Approximate)	kg/100m	18.0	23.1	28.3	35.5	45.8
Current Rating Single Phase values*	Amps AC (max)	32				
Installation Bending Radius	mm (min)	103.378	112.776	121.407	136.915	151.3
Voltage Drop (Single Phase) *	mV/A/m (min)	11				
Conductor Resistance	W/km @ 20°C (max)	4.95				
Dielectric Resistance	MΩ.km @ 70°C (min)	0.0074				

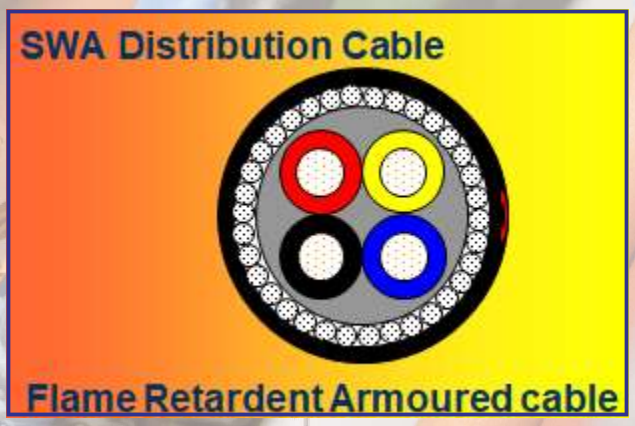
* Continuous operation at 70°C ; ambient air temperature 30°C ; installed in free air ; not coiled or blanketed; multiple cores equally loaded at an operating frequency of +/- 50 Hz.

Application : Used to wire Extension cords, Household and industrial Appliances, Electric tools
Extracts out of SANS 1574 : 2004

PVC DISTRIBUTION CABLES

(Bells Cables)





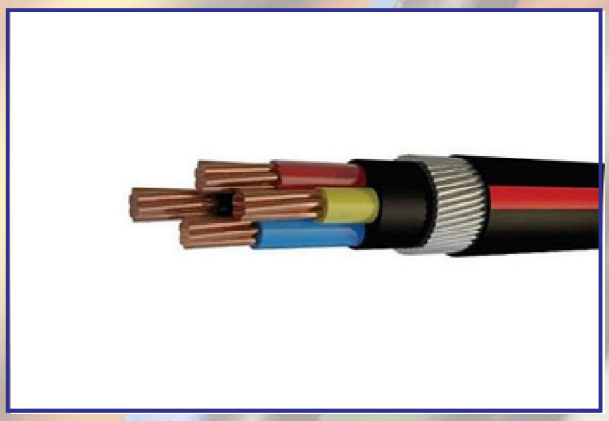
Description : conductors	Plain soft(annealed) copper wire - SABS 1411 P 1 Class 2 .
Insulation:	PVC extruded cores .
Bedding:	Black PVC
Sheath:	PVC Black mainly (Available in various grades and colours of PVC)
Configuration:	Multicore : cores + bedding + galvanized steel wire armor + sheath
Voltage Rating:	600 / 1000 V
Specification:	SABS 1507 Part 3 : PVC Distribution Cables
Application:	Fixed installation
Identification:	Sheath Embossed + Coloured stripe to indicate the Grade of PVC
(see below)	
Colour of stripe:	RED (FR) BLUE (LHFR) WHITE (NHLSFR)
Grade of PVC	Fl retardant only Low halogen Halogen Free

ALL REDUCED FLAME PROPAGATION

Phase size	**mm²**		**2.5**				**4**			
Number of cores			2	3	4	7	2	3	4	7
Approximate Cable OD	**mm**		13.8	14.2	15.1	17.9	16.4	16.2	17.3	20.9
SWA OD	**mm**		0.90	0.90	0.90	1.25	1.25	0.90	0.90	1.25
Despatch Length	**m**		500				500			
Cable Mass (Approximate)	**kg/100m**		38	42	48	75	58	55	65	102
Installation Bending Radius	**m**	**min**	137.8	141.544	150.519	178.7	163.6	161.848	173.173	208.9
Current Rating 3 phase line values*	**Amps AC**	**(max)**	28	25	25	25	38	33	33	33
Voltage Drop (Phase) *	**mV/A/m**	**(min)**	18				11			
Test Voltage AC/DC	**kV @ 10mins**	**(min)**	2kV AC or 3kV DC				2kV AC or 3kV DC			
Conductor Resistance	**W/km @ 20°C**	**(max)**	7.41				4.61			
Dielectric Resistance	**MΩ.km @ 23°C**	**(min)**	20				19			

PVC DISTRIBUTION CABLES

(Bells Cables)



Phase size	mm²		6			10		
Number of cores			2	3	4	2	3	4
Approximate Cable OD	mm		17.4	18.0	18.7	19.3	19.6	21.8
SWA OD	mm		1.25	1.25	1.25	1.25	1.25	1.25
Dispatch Length	m		500			500		
Cable Mass (Approximate)	kg/100m		67	75	77	84	87	115
Installation Bending Radius	m	min	173.8	179.864	187.464	193	195.6	217.6
Current Rating 3 phase line values*	Amps AC	(max)	49	42	42	67	58	58
Voltage Drop (Phase) *	mV/A/m	(min)	7.3			4.4		
Test Voltage AC/DC	kV @ 10mins	(min)	2kV AC or 3kV DC			2kV AC or 3kV DC		
Conductor Resistance	W/km @ 20°C	(max)	3.08			1.83		
Dielectric Resistance	MΩ.km @ 23°C	(min)	17			14		

Phase size	mm²		16		
Number of cores			2	3	4
Approximate Cable OD	mm		20.9	22.8	24.7
SWA OD	mm		1.25	1.25	1.25
Despatch Length	m		500		
Cable Mass (Approximate)	kg/100m		104	129	154
Installation Bending Radius	m	min	209	227.88	246.88
Current Rating 3 phase line values*	Amps AC	(max)	89	77	77
Voltage Drop (Phase) *	mV/A/m	(min)	2.8		
Test Voltage AC/DC	kV @ 10mins	(min)	2kV AC or 3kV DC		
Conductor Resistance	W/km @ 20°C	(max)	1.15		
Dielectric Resistance	MΩ.km @ 23°C	(min)	11		

* Continuous operation at 70°C ; ambient air temperature 30°C ; installed in free air ; not coiled or blanketed; multiple cores equally loaded at an operating frequency of +/- 50 Hz.

Application

Used for mains distribution in:-

street lighting as well as industrial, residential and commercial premises.

These cables may be :-

buried directly in the ground, installed in pipes, on racks or pinned directly to the wall.

NB!

1. **The correction factors stipulated in SANS 10142-1:2003 must be adhered to**
2. **The low halogen and Halogen Free cables can be used as above as well as in confined areas such as offices and mines.**

Codes for the various PVC Grades

FR	Reduced flame propagation
LHLSFR	Low halogen, low smoke and reduced flame propagation
NHLSFR	No halogen, low smoke and reduced flame propagation

Core colours	NB!
2C red, black	red, yellow & blue are the phase cores
3C red, yellow, blue	Black, if present, is the neutral core
4C red, yellow, blue, black	Green/yellow, if present, is the earth core
7C red, yellow, blue, black, violet, brown, orange	

BARE COPPER EARTH WIRE

(plain)

DESCRIPTION

Plain copper stranded single core annealed wire

SPECIFICATION SABS 1411 part 1

PACKAGING

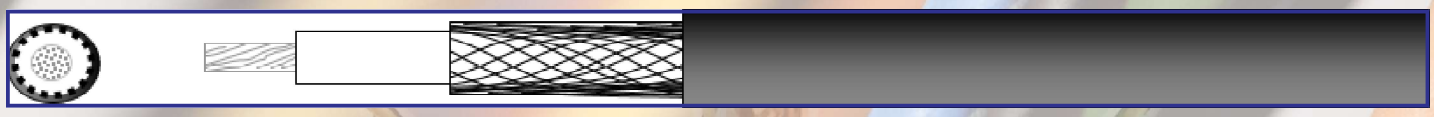
5kg Coils
500kg wooden drums
Other masses or lengths on request

TECHNICAL DATA

Size	Number of wires	Individual wire OD	Nom.Core diameter	Current rating	Volt Drop	Mass
mm^2		Nom. mm	mm	Ampere	mV/A/m	kg/100m
1	7	0.44	1.3	16	44.0	0.9
1.5	7	0.52	1.5	19	29.0	1.2
2.5	7	0.66	2.0	28	18.0	2.1
4	7	0.83	2.5	39	11.0	3.4
6	7	1.04	3.1	48	7.3	5.1
10	7	1.35	4.1	66	4.4	8.9
16	7	1.68	5.0	86	2.8	13.8
25	7	2.05	6.2	115	1.8	20.5
35	19	1.50	7.5	142	1.3	29.8
50	19	1.68	8.4	180	1.0	37.4
70	19	2.10	10.5	230	0.7	58.5
95	19	2.48	12.4	280	0.5	81.6
120	19	2.82	14.1	330	0.4	105.5
150	37	2.25	15.8	380	0.3	130.8
185	37	2.52	17.6	430	0.3	164.1
240	61	2.25	20.2	510	0.3	215.6
300	61	2.52	22.7	600	0.2	270.5

as per Table 6.2(a) SANS 10142-1 INSTALLATION METHOD 3

RUNWAY LIGHTING CABLE



APPLICATION

This fairly flexible cable is used to supply power to airport runway lighting.
The insulation is of high voltage grade UV stabilized polyethylene possessing excellent crush and water resistance.
The outer nitrile PVC sheath has excellent water, oil as well as abrasion and UV resistant properties.

MOST OFTEN USED BY

Electricians, electrical contractors to the airport services.

SPECIFICATION

Voltage Rating	5000	volts
Spark Test Voltage	10 000	volts (rms)
Conductor	Annealed TCW class 5	
Temperature Range	-10 to + 70	°C
Insulation	High voltage grade polyethylene	
Sheathing	Nitrile PVC	

PACKAGING

1000m length on slatted wooden drums

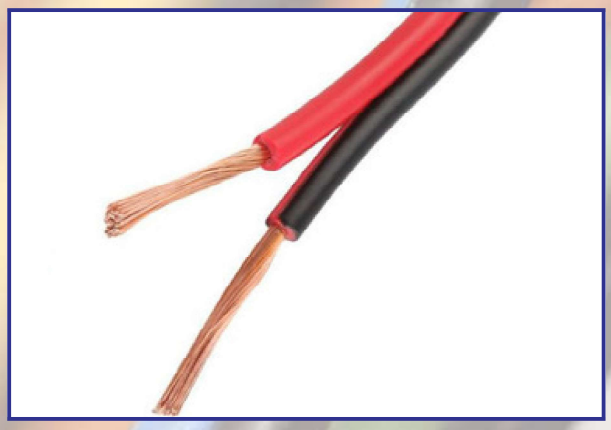
TECHNICAL DATA

Size	Individual wire OD	Nom.Core diameter	Volt Drop	Current rating	Mass	Dielectric Resistance
mm^2	Nom. mm	mm	mV/A/m	Ampere	kg/100m	MΩ.km
6	0.34	12.6	7.3	35	24.0	1000

Maximum conductor temperature 70°C ; ambient air temperature 30°C ; current rating for a duty cycle of 100% .

AUDIO

(TWO CORE FLAT FLEXIBLE CABLE)



APPLICATION

Alarm systems, loud speakers, intercoms car radios and light appliances operating at normal temperature.

MOST OFTEN USED BY

Electricians, electrical contractors
hobbyists and alarm installation.

SPECIFICATION SABS 1574 : 2004

Voltage Rating	24	volts
Test Voltage	1500	volts (rms)
Temperature Range	-10 to + 70	°C
Insulation	General purpose flexible PVC	
Colours	Brown, Black, Grey White, Transparent Polarity is indicated by a colour tracer or in the case of plain colours by a rib.	
conductors	Annealed PCW class 5 SABS 1411 Class 5	

PACKAGING

100m shrink-wrapped coils or up to 1000m on reels.

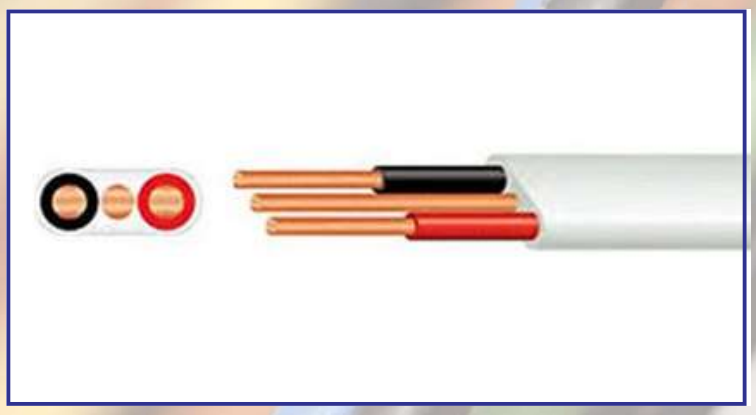
TECHNICAL DATA

size	strand	axes			current*		Approx
	OD	major	minor		rating		Mass
mm^2	mm	mm	mm		Amp		kg/100m
0.5	0.87	5.2	2.5		3		1.3
0.75	1.25	6.0	2.9		6		1.7
1	1.35	6.2	3.0		10		1.7
1.5	1.65	6.8	3.3		16		2.0
2.5	2.15	7.8	3.8		25		2.4
4	2.66	8.8	4.3		32		2.8

NB! Customer specification can be made on request as a Special cable.
*Single phase rating in ambient air temperature of 30°C for 2 cores.

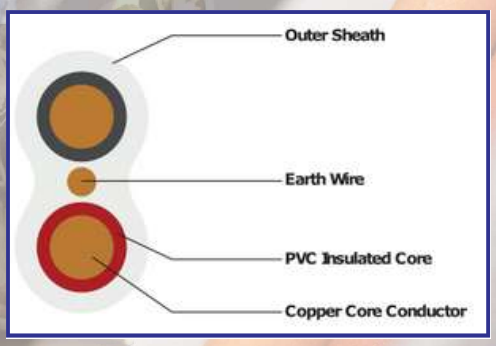
FLAT TWIN AND EARTH

(FTE)



DESCRIPTION

Conductor :	Solid annealed copper	to SABS 1411 Part 1
Insulation :	General purpose PVC	to SABS 1411 Part 2 - D5
Earth Conductor :	Solid annealed BARE copper	
Sheath :	General purpose PVC	



APPLICATION

General purpose Household and Industrial wiring :-
Under roof, under floor and under plaster

MOST OFTEN USED BY

Electricians, electrical contractors,

PROPERTIES

voltage rating	300/500	volts
temperature range	-10 to + 70	°C
core colours	Red & Black	To SANS 1411 Part 2
sheath colours	White & Black	To SANS 1411 Part 2
conductors	High Conductivity annealed solid conductors Manufactured to SANS 1411 Part1	

PACKAGING

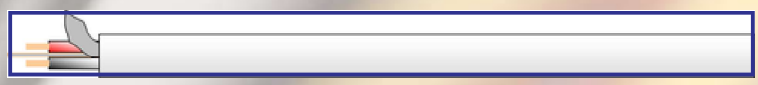
100m shrink-wrapped coils
1000m drums or reels

TECHNICAL DATA

Core size		Current	Volt	Major	Minor	mass
Phase	Earth	Rating	Drop	axis	axis	
mm^2	mm^2	A	mV/A/m	mm	mm	kg/100m
1	1.00	14	30.0	7.4	4.1	6.0
1.5	1.00	18	28.0	8.4	4.6	8.4
2.5	1.50	25	18.0	10.0	5.2	12.0
4	1.50	30	10.8	12.0	6.3	17.2
6	2.50	39	7.0	13.2	6.9	23.0
10	4.00	54	4.4	16.5	8.2	36.0

Table 6.3a SANS 10142
Continuous operation at 70°C ; ambient air temperature 30°C

SURFIX CABLE



DESCRIPTION

Conductor :	Annealed PCW class 5	to SABS 1411 Part 1
Insulation :	General purpose PVC	to SABS 1411 Part 2 - D5
Earth Conductor :	Solid annealed BARE Tinned copper	
Aluminum Rating	0.1 mm thick laminated applied longitudinally to be electrically in contact with the earth wire.	
Hours	General purpose PVC	

MOST OFTEN USED BY

Electricians, electrical contractors,

PROPERTIES

Voltage Rating	300/500	volts
Temperature Range	-10 to + 70	°C
2 Core Colours	Red & Black	
3 Core Colours	Red, yellow & Blue	
4 Core Colours	Red, yellow, Blue & Black	
Sheath Colours	White (Black on request)	

PACKAGING

100m shrink-wrapped coils
1000m drums or reels

TECHNICAL DATA

Core size		Phase	Current	Volt	1 sec	OD	Mass
Phase	Earth OD	DC Resistance	Rating	Drop	SCCT	Approx.	
mm²	mm²	Ω/km@20°C	[A]	[mV/A/m]	[kA]	[mm]	[kg/100m]
2-Core							
1.5	1	12.1	19	29	0.14	7.7	10.7
2.5	1.38	7.41	27	18	0.24	8.8	14.4
4	1.38	4.61	36	12	0.38	10.2	20.3
3-Core							
1.5	1	12.1	19	25	0.14	7.9	10.8
2.5	1.38	7.41	27	14	0.24	9.3	15.6
4	1.38	4.61	36	9	0.38	10.9	21.1
4-Core							
1.5	1	12.1	19	25	0.14	8.7	13.2
2.5	1.38	7.41	27	14	0.24	10.3	19.4
4	1.38	4.61	36	9	0.38	11.7	26.6

Continuous operation at 70°C ; ambient air temperature 30°C

AUTOMOTIVE TRAILER CABLE

DESCRIPTION

2, 3, 5, and 7 core cable sheathed with carbon loaded PVC.
These cables are water, oils and dilute acid resistant.

APPLICATION

Wiring of all types of motor vehicles and trailers.

MOST OFTEN USED BY

Auto electricians, municipalities transport and haulage companies.

PROPERTIES

Voltage Rating	100	volts
Test Voltage	1000	volts RMS between cores
Temperature Range	-10 to + 70	°C
Core Colours	2 core - red, black 3 core - black, red, green 5 core - 7 core - yellow(in the center), red, white, blue, brown, black, green	
Sheath Colour	black	
Conductors	High Conductivity annealed flexible conductors Class 5 as per SANS 1411 Part 1	

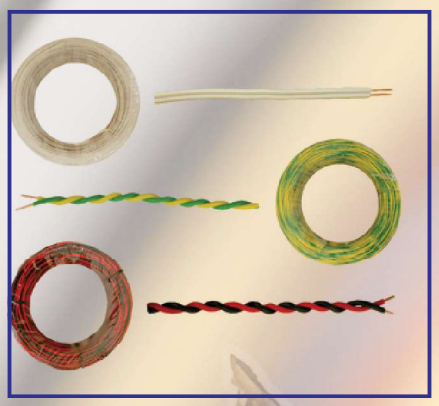
PACKAGING

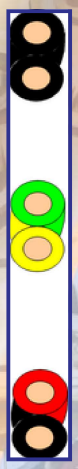
100m shrink-wrapped coils
1000m drums or reels

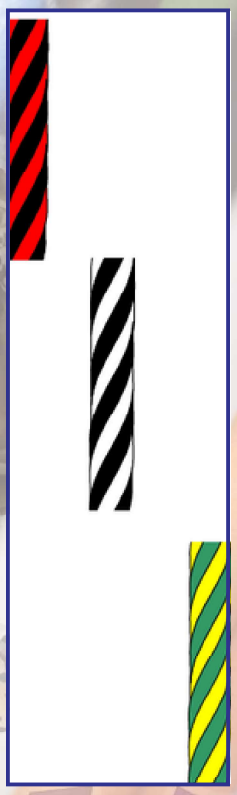
TECHNICAL DATA

		Stranding		Nominal Mass	
Size	**cores**	**No.**	**OD**	**OD**	
mm²			**mm**	**mm**	**kg/100m**
0.75	3	10	0.3	6.2	5.55
0.75	5	10	0.3	7.2	8.22
0.75	7	10	0.3	8.1	10.00
1.5	2	23	0.3	6.4	5.40
1.5	3	23	0.3	7.1	9.23
1.5	5	23	0.3	8.4	13.71
2.5/1.6	1x2.5+6x1.6	23/35	0.3/.3	10.3	21.00

BLASTING WIRE







DESCRIPTION
2 Core PVC insulated twisted wire

APPLICATION
Blasting Wire

PROPERTIES

Temperature Range :	-10 to +70 deg C
Core Colours:	Red/Black, Green/Yellow, Black/Black
Conductors:	Flexible or Solid

PACKAGING
30 m shrink-wrapped coils
50 m shrink-wrapped coils
100 m shrink-wrapped coils
300 m reels

Manufactured to client specification and requirement

DROP WIRE

APPLICATION

TELEPHONE POLE TO HOUSE WIRING

MOST OFTEN USED BY

Telephone technicians

SPECIFICATION	TELKOM	
Voltage Rating	100	volts
Test Voltage	1500	volts (rms)
Temperature Range	-10 to + 70	˚C
Insulation	UV re-enforced PVC	
Colours	BLACK	
Conductors	Copper Clad Steel Wire	

PACKAGING

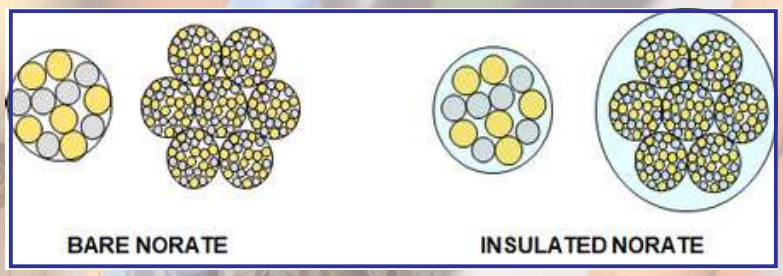
500m on reels.

TECHNICAL DATA

size	strand		axes		Approx Mass
	No.	OD	major	minor	
mm^2		mm	mm	mm	kg/100m
0.40	1	0.71	4.5	2.3	1.8

NORATE : BARE TCW / SWA EARTH WIRE

CONDUCTOR
Tinned annealed copper wire (TCW)
alternated with galvanized steel wire (GSW)
INSULATION PVC
CLEAR, BLACK , GREEN/YELLOW
TEST VOLTAGES
SPARK 5.0 kV RMS
WITHSTAND 2.5 kV RMS (10mins)
WITHSTAND 5.0 kV DC (10mins)
SPECIFICATION
CURRENT RATING SANS 0142 TABLE 6
INSULATION SANS 1411 - 2



NORATE BARE EARTH WIRE 1-Ph								
	Rated Area	Equiv Area	BARE L/up OD	Cond Res	Current Rating	Mass		
	mm²	mm²	mm	Ohm/km	A	kg/100m	m/300kg	m/500kg
1	10	10	5.4	1.840	65	15	44	74
2	16	16	8.6	1.150	87	30	89	149
3	25	24	9.5	0.727	114	34	103	172
4	35	37	11.2	0.529	141	52	155	258
5	50	49	12.7	0.391	182	69	206	343
6	70	73	16.2	0.270	234	103	309	515
7	95	99	18.7	0.195	284	140	419	699
8	120	132	21.2	0.154	330	186	559	932
9	150	149	22.5	0.126	381	210	629	1048
10	185	198.2	27.0	0.100	436	279.6	837	1395

NORATE INSULATED EARTH WIRE					
			PVC	kg/100	
Insulation				m	
Radial Wall				TOT	
Nom	Min	OD			
1.2	1.0	7.8		15	
1.3	1.1	11.2		30	
1.4	1.3	12.3		34	
1.4	1.3	14.0		52	
1.5	1.3	15.7		69	
1.6	1.4	19.4		103	
1.6	1.4	21.9		140	
1.7	1.5	24.6		186	
1.8	1.6	26.1		210	

ADDITIONAL		
Lug Size	Scct Current for 1sec	Tensile Withstand Force
mm²	kA	kN
10.00	1.70	0.21
16.00	1.90	0.43
25.00	3.10	0.63
35.00	5.10	1.26
50.00	7.50	1.51
70.00	11.50	2.02
95.00	15.10	3.02
120.00	21.40	4.10
150.00	25.50	4.84
185.00	36.20	5.47

FUSE AND BINDING WIRE

(Single Solid Tinned Copper Wire)

(T.C.B)

PACKAGING

Wound on 500 gramme reels.

Copper Diameter mm	Approx. current capacity carrying	Approx. fusing current	Guage SWG
2.0	100 amps	230 amps	14
1.4	60 amps	137 amps	17
1.38	58 amps	119 amps	-
1.25	55 amps	115 amps	-
1.12	50 amps	107 amps	18
0.9	40 amps	70 amps	20
0.71	30 amps	48 amps	21
0.63	20 amps	40 amps	23
0.5	16 amps	28 amps	25

SOLAR CABLE

(1.8 kV DC)

DESCRIPTION	mm²	OD	CR Ω/km	INS OD	SHE OD	MASS KG/100 m
SOLAR (1.8 kV DC)	1.5	1.55	13.7	2.95	4.35	3.17
SOLAR (1.8 kV DC)	2.5	2.1	8.21	3.5	4.9	4.49
SOLAR (1.8 kV DC)	4	2.3	5.09	3.7	5.1	5.56
SOLAR (1.8 kV DC)	6	3.21	3.39	4.61	6.01	7.81
SOLAR (1.8 kV DC)	10	4.1	1.95	5.8	7.2	12.28
SOLAR (1.8 kV DC)	16	5	1.24	6.8	8.2	17.54
SOLAR (1.8 kV DC)	25	7.1	0.795	9.5	11.5	28.63
SOLAR (1.8 kV DC)	35	8.1	0.565	10.5	12.5	39.62
SOLAR (1.8 kV DC)	50	10.3	0.939	12.5	14.9	56.23
SOLAR (1.8 kV DC)	70	11.6	0.277	14	16.4	73.90
SOLAR (1.8 kV DC)	95	13	0.21	15.4	18	94.42
SOLAR (1.8 kV DC)	120	15.8	0.164	18.3	20.9	124.04

PACKAGING

SOLAR	1.5 mm²	500 M	REEL
SOLAR	2.5 mm²	500 M	REEL
SOLAR	4 mm²	500 M	DRUM
SOLAR	6 mm²	500 M	DRUM
SOLAR	10 mm²	500 M	DRUM
SOLAR	16 mm²	500 M	DRUM
SOLAR	25 mm²	500 M	DRUM
SOLAR	35 mm²	500 M	DRUM
SOLAR	50 mm²	500 M	DRUM
SOLAR	70 mm²	500 M	DRUM
SOLAR	95 mm²	500 M	DRUM
SOLAR	120 mm²	500 M	DRUM

Or as per customer requirement

- HIGH TEMPERATURE 105°CRATING ,FLAME RETARDANT INSULATING MATERIAL
- COLD BEND -15°C
- MAXIMUM OPERATING TEMP 105 °C
- HEAT SHOCK 150°C SANS 60811-3-1 (NO CRACKING)
- RESISTANCE TO BURNING SANS 60332-1-1
- UV STABLE AND RODENT REPELLENT SHEATHING MATERIAL

PULL WIRE CABLE

(PWC//PULLKEY WIRE)

Description:

Conductor:
- Tin Copper Wire & Plain Copper Wire
- Circular

Insulation:
- P.V.C
- Maximum operating conductor temperature 70 °C
- Coloured for core identification

Bedding:
- P.V.C or polyester tape

Armour:
- Brass plated steel braiding

Sheath:
- Flame retardant P.V.C to SABS 1411 part ll
- Tensiles before ageing >12.5 MPa
- Elongation > 150%

Line:
- Green-Line ; Blue-Line ; Yellow-Line ; Black Line

A range of rugged cables used primarily for communication and control on haulage and conveyor systems particularly in the mining industry. Mechanical protection is provided by brass plated steel wire braining under the sheath.

Class	Conductor size in mm²	Number of cores /pairs	Product Designation(line)	Nominal O/D in mm	Maximum Weight kg/100m
2	0,75	2	YELLOW	10,9	14,5
3	0,75	4	RED	7,9	11,8
6	,075	6	GREEN	10,6	16,9
18A	0,5	9+/SCR	RED	15,5	20,2

PULL WIRE CABLE

(PWC//PULLKEY WIRE)

			PVC BEDDED OD	TAPED OD
Cat. 4151	0,75 mm² 3/C with yellow core screened	black, red ,yellow	10,0	8,0
Class 3	0,75 mm² 4/C	red, yellow, green, black	10,9	8,9
Class 4	0,75 mm² 2/C	red, yellow	13,7	11,7
	0,3 mm² 2/C	blue, black		
Class 5 (Cat. 4004)	0,75 mm² 2/C with yellow core screened	red, yellow	13,7	11,7
	3,0 mm² 2/C	blue, black		
Class 6 (Cat. 4014)	0,75 mm² 6/C	blue, black, green, yellow, red, white	12,4	10,4
Class 7 (Cat. 4022)	0,75 mm² 6/C with white and blue core screened	green, red, yellow, black, white, blue	12,9	10,9
Class 8	0,75 mm² 4/C	white. yellow, green, red	13,6	11,6
	3,0 mm² 2/C	blue, black		
Class 9	0,75 mm² 7/C	brown, blue, black, green, yellow, red, white	12,4	10,4
Class 10	0,75 mm² 7/C with white core screened	brown, red, yellow, green, black, 4 x blue, white	13,2	11,2
Class 18 (Cat. 4119)	0,75 mm² 11/C with white core screened	violet, red, brown, yellow, green, black, 4 x blue, white	15,0	13,0

RUBBER PRODUCTS

TYPE 41 FLEXIBLE TRAILING CABLE

640/1100V

(phase size: 2.5 mm² - 6 mm²)

Description:

Conductor: Flexible tinned/plain soft copper - SANS 1411-1 Class 5
Insulation: EPM extruded cores - SANS 1411-3 RD3.
Sheath: CM (black or yellow), reinforced EHD RS6.

Configuration: 4 core - 3 individually screened phase cores plus an un-screened pilot core.
Voltage Rating: 640/1100 V
Specification: SABS 1520 Part 1. Low-voltage (640/1100 V and 1900/3300 V) cables.
Application: Drills ; Shuttle cars, Small pumps

Phase size	**mm²**		**2.5**	4	**6**
Pilot size	**mm²**		**2.5**	4	**6**
Normal o/d (approximate)	**mm**		kV 10 mins	kV 10 mins	kV 10 mins
Bending Radius	**mm**	**min**	150	197	180
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values**)	**Amps AC**	**(max)**	32	45	57
Short-circuit Current	**kA for 1 sec**				
Voltage Drop (phase)	**mV/A/m**		15.4	12.1	8.1
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	8.210	5.090	3.390
Conductor Resistance - phase	**MΩ @ 20° C**	**(min)**	450	400	350
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath		**%**	250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	0.70	0.93	1.07

TYPE 41 FLEXIBLE TRAILING CABLE

640/1100V

(phase size: 10 mm² - 25 mm²)

Phase size	**mm²**		**10**	**16**	**25**
Pilot size	**mm²**		**10**	**16**	**25**
Normal o/d (approximate)	**mm**		kV 10 mins	kV 10 mins	kV 10 mins
Bending Radius	**mm**	**min**	190	200	250
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values**)	**Amps AC**	**(max)**	77	100	130
Short-circuit Current	**kA for 1 sec**			1.83	3.05
Voltage Drop (phase)	**mV/A/m**		4.7	3	1.9
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	1.950	1.240	0.795
Conductor Resistance - phase	**MΩ @ 20° C**	**(min)**	300	250	250
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath		**%**	250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	1.35	1.89	2.53

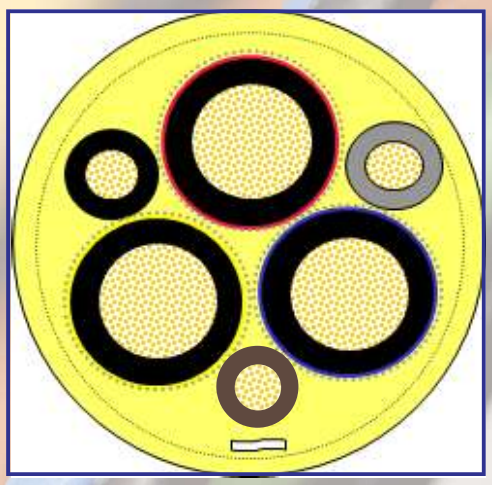
**Approximate value for continuous operation at 90 °C ; ambient air temperature 30 °C

**Installed in free air ; not coiled blanketed or heated ; multiple cores equally loaded.

TYPE 61A FLEXIBLE TRAILING CABLE

640/1100V

(phase size: 16 mm² - 35 mm²)



Description:

Conductor: Flexible tinned/plain soft copper - SANS 1411-1 Class 5
Insulation: EPM extruded cores - SANS 1411-3 RD3.
Sheath: CM (black or yellow), reinforced EHD SANS 1411 RS6.

Configuration: 6 core - 3 individually screened phase cores plus 3 un-screened pilot cores plus a semi-conducting cradle dummy center.
Voltage Rating: 640/1100 V
Specification: SABS 1520 Part 1. Low-voltage (640/1100 V and 1900/3300 V) cables.
Application: Wiring of mobile machinery, Roof Drills and Low Loaders.

Phase size	**mm²**		16	25	35
Pilot size	**mm²**		6	10	10
Normal o/d (approximate)	**mm**		35	39	43
Bending Radius	**mm**	**min**	200	250	300
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values**)	**Amps AC**	**(max)**	100	130	160
Short-circuit Current	**kA for 1 sec**		1.83	3.05	4.27
Voltage Drop (phase)	**mV/A/m**		2.65	1.95	1.24
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	1.2	0.795	0.565
Dielectric Resistance - phase	**MΩ @ 20° C**	**(min)**	140	250	200
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath		**%**	250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	1.93	2.62	3.14

TYPE 61A FLEXIBLE TRAILING CABLE

640/1100V

(phase size: 50 mm² - 95 mm²)

Phase size	**mm²**	50	70	95
Pilot size	**mm²**	16	16	16
Normal o/d (approximate)	**mm**	48	53	60
Bending Radius	**mm min**	350	390	420
Test Voltage	**kV @ 10 mins (min)**	3	3	3
Current Rating (3 phase line values**)	**Amps AC (max)**	200	245	295
Short-circuit Current	**kA for 1 sec**	6.1	8.54	11.59
Voltage Drop (phase)	**mV/A/m**	0.87	0.62	0.48
Conductor Resistance - phase	**Ω/km @ 20° C (max)**	0.393	0.277	0.21
Conductor Resistance - phase	**MΩ @ 20° C (min)**	200	150	150
Tensile Strength Insulation	**MPa (min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa (min)**	15	15	15
Elongation at Break Sheath	**%**	250	250	250
Cable Mass (Approximate)	**kg/m (nom)**	3.81	4.96	6.40

**Approximate value for continuous operation at 90 °C ; ambient air temperature 30 °C
**Installed in free air ; not coiled blanketed or heated ; multiple cores equally loaded.

TYPE 61B NON-REELING

LOW MASS CABLE

640/1100V

(phase size: 16 mm² - 35 mm²)

Description:

Conductor: Flexible tinned/plain soft copper - SANS 1411-1 Class 5
Insulation: EPM extruded cores - SANS 1411-3 RD3.
Sheath: CM (black or yellow) , reinforced EHD RS3

Configuration: 6 core - 3 individually screened phase cores plus 3 un-screened pilot cores laid up around an elastomeric dummy center.
Voltage Rating: 640/1100 V
Specification: SABS 1520 Part 1. Low-voltage (640/1100 V and 1900/3300 V) cables.
Application: Roof Drills and Low Loaders

Phase size	**mm²**		16	25	35
Pilot size	**mm²**		6	10	10
Normal o/d (approximate)	**mm**		33	37	38
Bending Radius	**mm**	**min**	200	250	300
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values)**	**Amps AC**	**(max)**	100	130	160
Short-circuit Current	**kA for 1 sec**		1.83	3.05	4.27
Voltage Drop (phase)	**mV/A/m**		2.65	1.95	1.24
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	1.24	0.795	0.565
Dielectric Resistance - phase	**MΩ @ 20° C**	**(min)**	250	250	200
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath		**%**	250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	1.76	2.32	2.61

TYPE 61B NON-REELING LOW MASS CABLE

640/1100V

(phase size: 50 mm² - 95 mm²)

Phase size	**mm²**		50	70	95
Pilot size	**mm²**		10	10	16
Normal o/d (approximate)	**mm**		43	47	55
Bending Radius	**mm**	**min**	350	390	420
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values**)	**Amps AC**	**(max)**	200	245	295
Short-circuit Current	**kA for 1 sec**		6.1	8.54	11.59
Voltage Drop (phase)	**mV/A/m**		0.87	0.62	0.48
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	0.393	0.277	0.21
Conductor Resistance - phase	**MΩ @ 20° C**	**(min)**	200	150	150
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath	**%**		250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	3.43	4.31	5.79

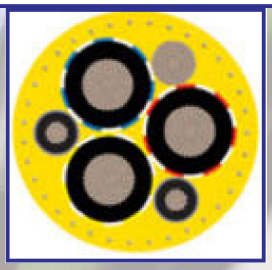
**Approximate value for continuous operation at 90 °C ; ambient air temperature 30 °C
**Installed in free air ; not coiled blanketed or heated ; multiple cores equally loaded.

TRACKLESS MINING

CABLE

640/1100V

(phase size: 16 mm² - 35 mm²)



Description:

Conductor: Flexible tinned/plain soft copper - SANS 1411-1 Class 5
Insulation: EPM extruded cores - SANS 1411-3 RD3.
Sheath: CM (black or yellow) , reinforced EHD RS6.

Configuration: 6 core - 3 individually screened phase cores plus 1 or 2 un-screened pilot cores plus 1 or 2 Earth Continuity Conductors.
Voltage Rating: 640/1100 V
Specification: SABS 1520 Part 1. Low-voltage (640/1100 V) cables.
Application: Single, double and triple boom drilling Rigs

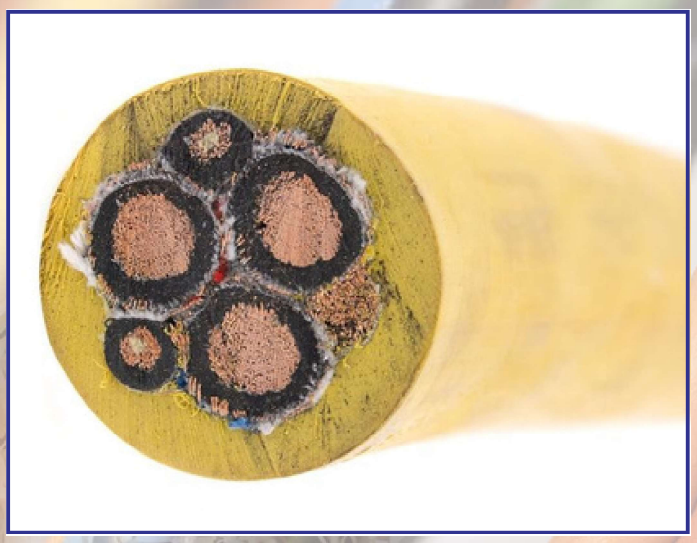
Phase size	**mm²**		16	25	35
Pilot size	**mm²**		4	6	6
ECC Size	**mm**		16	16	16
Normal o/d (approximate)	**mm**	**min**	34	34	39
Bending Radius			200	250	300
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values)**	**Amps AC**	**(max)**	100	130	160
Short-circuit Current	**kA for 1 sec**		1.83	3.05	4.27
Voltage Drop (phase)	**mV/A/m**		2.65	1.95	1.24
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	1.24	1.24	0.565
Dielectric Resistance - phase	**MΩ @ 20° C**	**(min)**	140	250	200
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath		**%**	250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	2.01	1.98	2.73

TRACKLESS MINING

CABLE

640/1100V

(phase size: 50 mm² - 95 mm²)

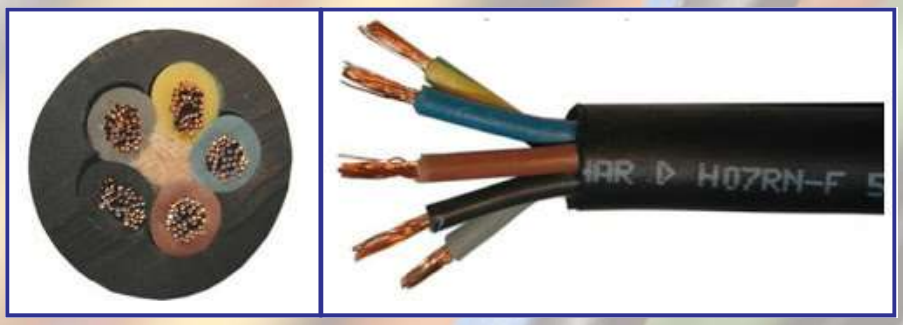


Phase size	**mm²**		50	70	95
Pilot size	**mm²**		6	10	16
ECC Size	**mm**		16	16	25
Normal o/d (approximate)	**mm**	**min**	44	47	54
Bending Radius			350	390	420
Test Voltage	**kV @ 10 mins**	**(min)**	3	3	3
Current Rating (3 phase line values)**	**Amps AC**	**(max)**	200	245	295
Short-circuit Current	**kA for 1 sec**		6.1	8.54	11.59
Voltage Drop (phase)	**mV/A/m**		0.87	0.62	0.48
Conductor Resistance - phase	**Ω/km @ 20° C**	**(max)**	0.393	0.277	0.210
Dielectric Resistance - phase	**MΩ @ 20° C**	**(min)**	200	150	150
Tensile Strength Insulation	**MPa**	**(min)**	6.5	6.5	6.5
Tensile Strength Sheath	**MPa**	**(min)**	15	15	15
Elongation at Break Sheath		**%**	250	250	250
Cable Mass (Approximate)	**kg/m**	**(nom)**	3.51	4.38	5.75

**Approximate value for continuous operation at 90 °C ; ambient air temperature 30 °C
**Installed in free air ; not coiled blanketed or heated ; multiple cores equally loaded.

H07RN-F

(phase size: 4 mm² - 6 mm²)



Description:

Conductor: Plain annealed copper wire SABS 1411 Class 5

Insulation: EPM SANS RD2
Spark Test Voltage 6kV rms
Withstand Test 2kV rms 10 minutes

Sheath: Heavy Duty CM SANS RS4
Colours: Black, other colours on request.

Configuration: DUMMY CORE: (5 CORE CENTER) - EPM
Specification: SANS 1574: 2007

VOLTAGE RATING 450/750V

Phase size	mm²	4					6				
Number of cores		1	2	3	4	5	1	2	3	4	5
Approximate Cable o/d	mm	6.6	12.4	13.2	14.7	15.8	7.6	15.4	16.6	18.9	20.0
Cable Mass (approximate)	kg/100 m	8	23	27	35	42	10	34	42	54	64
Current Single Phase Values *	Amps AC (max)	36	41	43	42	42	53	62	62	54	54
Installation Bending Radius **	m (min)	80	150	160	175	190	90	185	200	225	240
Voltage Drop (single phase)	mV/A/m (min)	9.5					6.4				
Conductor Resistance	Ω /km @ 20 °C (max)	5.09					3.39				
Dielectric Resistance	MΩ .km @23°C (min)	250					200				

H07RN-F

(phase size: 10 mm² - 35 mm²)

Phase size	mm²	10					16				
Number of cores		1	2	3	4	5	1	2	3	4	5
Approximate Cable o/d	mm	9.0	17.2	17.8	20.6	21.7	10.8	21.2	22.7	25.8	27.4
Cable Mass (approximate)	kg/100 m	15	44	54	70	82	22	66	81	105	125
Current Single Phase Values *	Amps AC (max)	74	86	85	75	75	101	115	115	100	100
Installation Bending Radius **	m (min)	110	205	215	245	260	130	255	275	310	330
Voltage Drop (single phase)	mV/A/m (min)	3.8					2.4				
Conductor Resistance	Ω /km @ 20 °C (max)	1.95					1.24				
Dielectric Resistance	MΩ .km @23°C (min)	200					150				

Phase size	mm²	25					35				
Number of cores		1	2	3	4	5	1	2	3	4	5
Approximate Cable o/d	mm	12.5	25.4	27.0	30.7	33.2	13.3	27.0	28.7	34.7	35.7
Cable Mass (approximate)	kg/100 m	32	98	121	157	192	41	120	150	209	242
Current Single Phase Values *	Amps AC (max)	135	149	149	127	127	169	185	185	158	158
Installation Bending Radius **	m (min)	150	305	325	370	400	160	325	345	415	430
Voltage Drop (single phase)	mV/A/m (min)	1.5					1.11				
Conductor Resistance	Ω /km @ 20 °C (max)	0.795					0.565				
Dielectric Resistance	MΩ .km @23°C (min)	150					140				

**** Continuous operation at 80 °C Max ; ambient air temperature 30 °C ; in free air ; not coiled or blanketed ; multiple cores equally loaded at an opening frequency of +/- 50 Hz.**

**** Recommended Bending Radius**

Application: Used to wire Extension cords, household and industrial Appliances, Electric tools

Extracts out of SANS 1574 :

POWER CORE

(1.5kV)

Description:

Conductor: Tinned or Plain annealed copper wire SABS 1411 Class 5

Dielectric: Sheath type: RS4 // CM Grey (Other colour on request)
SG // 1.3

Test Voltages: Spark: 10 kV rms // 10 minute withstand : 4 kV rms

Rating: 1500 V

Temperature Range: -10 to 90 °C

VOLTAGE RATING : 1500 V

	size	Description	CABLE		Current * Rating	Bending ** Radius	Conductor Resistance	Dielectric Resistance	Volt Drop
PM	Area		OD	Mass	Approximate	Min	Max	Min	Min
	mm²		mm	kg/100m	Amp	mm	Ω/km @ 20°C	MΩ.km @ 23°C	mV/A/m
92	16	1C X 16mm² - 15 CM Grey	9.4	23.2	100	90	1.24	400	101
93	25	1C X 25mm² - 15 CM Grey	11.3	33.9	130	110	0.795	340	112
94	35	1C X 35mm² - 15 CM Grey	11.9	42.9	160	120	0.565	300	101
95	50	1C X 50mm² - 15 CM Grey	14.5	58.0	200	150	0.393	260	90
96	70	1C X 70mm² - 15 CM Grey	16.2	77.2	245	160	0.277	230	81
97	95	1C X 95mm² -15 CM Grey	19.4	107.7	295	190	0.21	200	76
98	240	1C X 240mm² - 15 CM Grey	29.8	272.8	345	300	0.0817	180	73

** Continuous operation at 80 °C Max ; ambient air temperature 30 °C ; installed in free air ; not coiled or blanketed; multiple cores equally loaded at an operating frequency of +/- 50 Hz.

**Recommended Approximate Bending Radius

POWER CORE

(3.3kV)

Description:

Conductor: Tinned or Plain annealed copper wire SABS 1411 Class 5

Dielectric: Sheath type: RS4 // CM Black (Other colour on request)
SG // 1.3

Test Voltages: Spark: 15 kV rms // 10 minute withstand : 7.5kV rms

Rating: 3300 V

Temperature Range: - 10 to 90 °C

	size	Description	CABLE		Current * Rating	Bending ** Radius	Conductor Resistance	Dielectric Resistance	Volt Drop
PM	Area		OD	Mass	Approximate	Min	Max	Min	Min
	mm²		mm	kg/100m	Amp	mm	Ω/km @ 20°C	MΩ.km @ 23°C	mV/A/m
77	16	1C X 16mm² - 33 CM black	11.4	23	100	110	1.24	400	130
78	25	1C X 25mm² - 33 CM black	13.1	34	130	130	0.795	340	124
79	35	1C X 35mm² - 33 CM black	13.9	43	160	140	0.565	300	112
80	50	1C X 50mm² - 33 CM black	16.3	58	200	160	0.393	260	100
81	70	1C X 70mm² - 33 CM black	17.6	77	245	180	0.277	230	90
82	95	1C X 95mm² -33 CM black	20.4	108	295	200	0.21	200	84
83	120	1C X 120mm² - 33 CM black	21.8	136	345	220	0.164	180	81
84	150	1C X 150mm² - 33 CM black	23.9	171	390	240	0.132	170	77
85	185	1C X 185mm² - 33 CM black	26	210	440	260	0.108	150	75
86	240	1C X 240mm² - 33 CM black	30.6	273	520	310	0.0817	140	74

**** Continuous operation at 80 °C Max ; ambient air temperature 30 °C ; installed in free air ; not coiled or blanketed; multiple cores equally loaded at an operating frequency of +/- 50 Hz.**

****Recommended Approximate Bending Radius**

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