

Single Core

Copper, XLPE Insulated, FRPVC, AWA, FRPVC / LHFRPVC (Type A) armoured.

SIZE CODE:

XL 1x(conductor size)FR / LH 33kV

Application

For use in power circuits of 19/33kV earthed systems. Installed in cable trays, ducts and underground.

Specification: SANS 1339

Voltage Rating: 19/33kV

Construction

Single Core, circular Copper stranded conductor, XLPE insulated, individually copper tape screened, flame retardant PVC or low halogen FRPVC bedded, Aluminium wire armoured, flame retardant or low halogen FRPVC sheathed.

Physical properties and dimensions

Electrical Properties

Conductor size	Conductor diameter	Insulation diameter	Bedding diameter	Armour			Cable diameter	Cable mass	Gross mass (500m)	Bending radius	Current rating			Resistance Ω /km max		Reactance Ω /km	Impedance Ω /km	Capacitance μ F/km	Short circuit ratings	
				diameter	wire diameter	total area					air	ground	ducts	dc @ 20°C	ac @ 90°C				Symmetrical	Earth fault
50	8.3	27.8	31.4	35.4	2.00	163.4	39.9	2.1	1,151	798	240	205	185	0.387	0.494	0.165	0.521	0.139	6.4	14.5
70	10.0	29.5	33.1	37.1	2.00	169.6	41.6	2.4	1,296	832	295	250	225	0.268	0.342	0.156	0.376	0.154	9.3	15.0
95	11.8	31.4	35.0	39.0	2.00	179.1	43.7	2.8	1,485	873	360	295	280	0.193	0.247	0.148	0.288	0.170	12.9	15.9
120	13.1	32.7	36.3	40.3	2.00	185.4	45.0	3.1	1,638	899	410	335	310	0.153	0.198	0.141	0.243	0.181	16.3	16.4
150	14.8	34.4	38.2	43.2	2.50	245.4	48.1	3.6	1,916	962	465	370	335	0.124	0.163	0.137	0.213	0.195	20.1	21.7
185	16.4	35.9	39.7	44.7	2.50	255.3	49.8	4.1	2,150	997	525	410	365	0.099	0.133	0.133	0.188	0.209	25.1	22.6
240	18.9	38.5	42.3	47.3	2.50	270.0	52.4	4.8	2,499	1048	610	470	405	0.075	0.105	0.126	0.164	0.230	33.0	23.9
300	21.2	40.8	44.8	49.8	2.50	284.7	55.1	5.6	2,886	1102	685	520	440	0.060	0.087	0.122	0.150	0.257	41.4	25.2

Cable Identification:

FRPVC (red stripe), LHFRPVC (blue stripe), LSZH / HFFR (white stripe), PE (no stripe).



Item	Description
1	Annealed Copper conductor
2	Semi-conductive conductor screen
3	TR XLPE Insulation
4	Semi-conductive core screen
5	Semi-conductive bedding tape
6	Copper tape screen
7	Bedding
8	Aluminium wire armouring
9	Sheath

Revision: R00 01/12/2016