



6.35/11kV Three Core Individual Screened & PVC Sheathed (Cu Conductor)

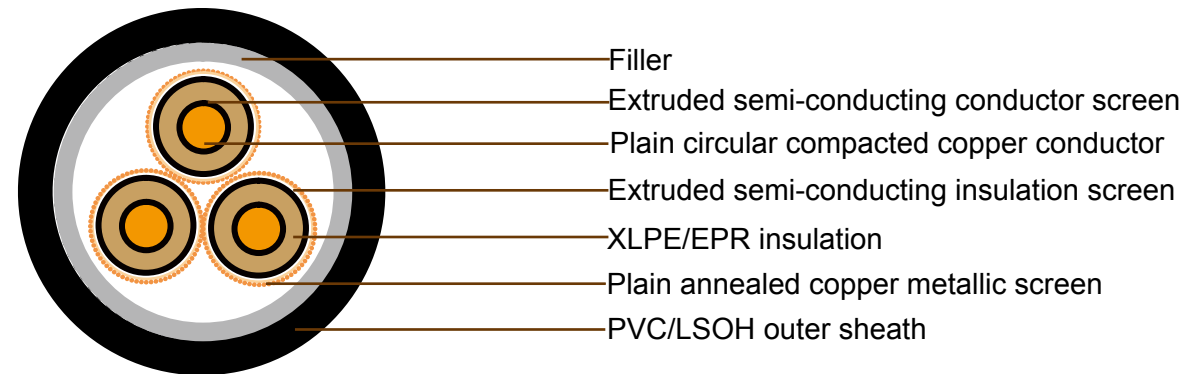
Application

These cables are designed to be used for the supply of electrical energy in fixed applications up to the rated voltages at a nominal power frequency between 49Hz and 61Hz., they are suitable for use in distribution installation, electrical power station , they are applied for installation, outdoors, underground where subject to mechanical damage.

Standard

AS/NZS 1429.1

Cable Construction



CONDUCTOR: Plain circular compacted copper to AS/NZS1125

Maximum Continuous Operating Temperature: 90°C

CONDUCTOR SCREEN: Extruded semi-conducting compound, bonded to the insulation and applied in the same operation as the insulation

INSULATION: Cross Linked Polyethylene (XLPE) – standard

Ethylene Propylene Rubber (EPR) – alternative

INSULATION SCREEN: Extruded semi-conducting compound

METALLIC SCREEN: Plain annealed copper wire: 3kA for nominal 1 second(LIGHT DUTY)

Plain annealed copper wire: 10kA for nominal 1 second(HEAVY DUTY)

SHEATH: Black 5V-90 polyvinyl chloride (PVC) – standard

Orange 5V-90 PVC inner plus black high density polyethylene (HDPE) outer – alternative

Low smoke zero halogen (LSOH) – alternative



Technical Characteristics

LIGHT DUTY

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Maximum dielectric stress	Current Ratings		
							Unenclosed In Air	Unenclosed In Air	Unenclosed In Air
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF x km	kV x mm	A	A	A
16	1.15	1.47	0.142	14000	0.177	2.77	111	112	93
25	0.727	0.927	0.134	12000	0.198	2.65	145	143	119
35	0.524	0.668	0.127	11000	0.219	2.55	175	171	143
50	0.387	0.494	0.121	10000	0.242	2.46	210	202	169
70	0.268	0.342	0.115	8800	0.275	2.37	259	246	206
95	0.193	0.247	0.106	7700	0.314	2.3	315	294	246
120	0.153	0.196	0.102	7000	0.346	2.25	360	333	284
150	0.124	0.16	0.099	6400	0.374	2.21	408	373	318
185	0.0991	0.128	0.0961	5900	0.407	2.17	466	421	358
240	0.0754	0.0985	0.0926	5300	0.456	2.13	546	486	414
300	0.0601	0.0796	0.0904	4800	0.503	2.1	622	547	474
400	0.047	0.0638	0.087	4300	0.561	2.07	714	618	536



Cable Parameter

LIGHT DUTY

Sectional Area of Conductor	Nom. Conductor Diameter	Nom. Insulation Thickness	Nom. Diameter Over insulation	Screen Area on Each core	No. and Diameter of Screened Wires	Nom. Diameter Over Screened Wires	Nom. Overall Diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no x mm	mm	mm	kg/100m
16	4.8	3.4	12.8	5.7	10 x 0.85	14.1	40	146
25	5.8	3.4	13.8	6.8	12 x 0.85	15.3	42.3	186
35	6.8	3.4	14.8	6.8	12 x 0.85	16.3	44.7	220
50	8	3.4	16	6.8	12 x 0.85	17.6	47.4	267
70	9.6	3.4	17.6	7.4	13 x 0.85	19.0	51	342
95	11.5	3.4	19.4	7.9	14 x 0.85	20.7	55.3	432
120	13.1	3.4	21	8.5	15 x 0.85	22.1	58.9	520
150	14.5	3.4	22.4	8.5	15 x 0.85	23.5	62.3	610
185	16.1	3.4	24.1	9.6	17 x 0.85	25.3	66	735
240	18.5	3.4	26.5	10.2	18 x 0.85	27.6	71.6	920
300	20.7	3.4	28.9	11.3	20 x 0.85	29.8	76.9	1120
400	23.6	3.4	31.8	11.9	21 x 0.85	33.2	84.2	1405



Technical Characteristics

HEAVY DUTY

Nominal conductor area	Maximum Conductor DC resistance at 20°C	Cond. AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz	Insulation resistance at 20°C	Conductor to screen capacitance	Maximum dielectric stress	Current Ratings		
							Unenclosed In Air	Unenclosed In Air	Unenclosed In Air
mm ²	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF x km	kV x mm	A	A	A
16	1.15	1.47	0.142	14000	0.177	2.77	111	112	93
25	0.727	0.927	0.134	12000	0.198	2.65	145	143	119
35	0.524	0.668	0.127	11000	0.219	2.55	175	171	143
50	0.387	0.494	0.121	10000	0.242	2.46	210	202	169
70	0.268	0.342	0.115	8800	0.275	2.37	259	246	206
95	0.193	0.247	0.106	7700	0.314	2.3	315	294	246
120	0.153	0.196	0.102	7000	0.346	2.25	360	333	284
150	0.124	0.16	0.099	6400	0.374	2.21	408	373	318
185	0.0991	0.128	0.0961	5900	0.407	2.17	466	421	358
240	0.0754	0.0985	0.0926	5300	0.456	2.13	546	486	414
300	0.0601	0.0796	0.0904	4800	0.503	2.1	622	547	474
400	0.047	0.0638	0.087	4300	0.561	2.07	714	618	536
500	0.0373	0.0525	0.0847	3900	0.62	2.05			



Cable Parameter

HEAVY DUTY

Sectional Area of Conductor	Nom. Conductor Diameter	Nom. Insulation Thickness	Nom. Diameter Over insulation	Screen Area on Each core	No. and Diameter of Screened Wires	Nom. Diameter Over Screened Wires	Nom. Overall Diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no x mm	mm	mm	kg/100m
16	4.8	3.4	12.8	5.7	10 x 0.85	16.1	40	150
25	5.8	3.4	13.8	8.5	15 x 0.85	17.1	42.3	195
35	6.8	3.4	14.8	11.3	20 x 0.85	18.1	44.7	240
50	8	3.4	16	16.5	29 x 0.85	19.3	47.4	295
70	9.6	3.4	17.6	22.7	40 x 0.85	20.9	51	390
95	11.5	3.4	19.4	22.7	40 x 0.85	22.7	55.3	480
120	13.1	3.4	21	22.7	40 x 0.85	24.3	58.9	575
150	14.5	3.4	22.4	22.7	40 x 0.85	25.7	62.3	665
185	16.1	3.4	24.1	22.7	40 x 0.85	27.4	66	770
240	18.5	3.4	26.5	22.7	40 x 0.85	29.8	71.6	965
300	20.7	3.4	28.9	22.7	40 x 0.85	32.2	76.9	1160
400	23.6	3.4	31.8	22.7	40 x 0.85	35.3	84.2	1460