



## 6.35/11kV Single Core Screened & PVC Sheathed (Cu Conductor)

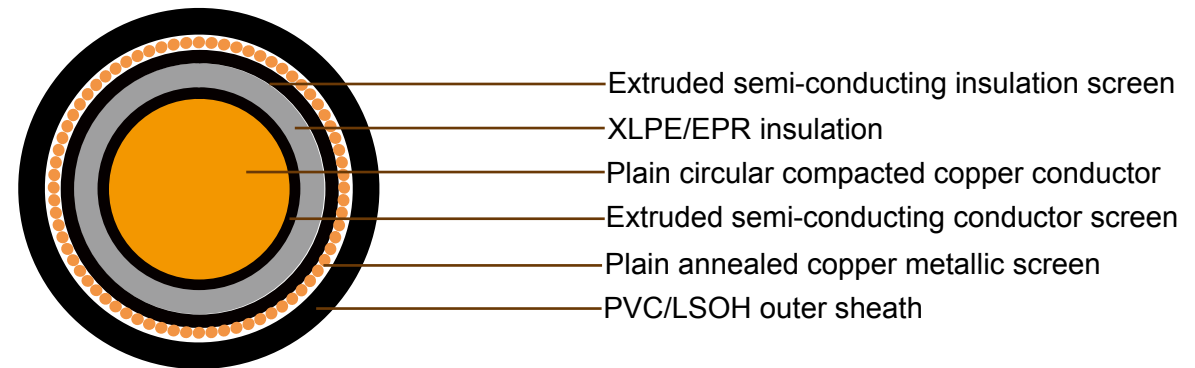
### Application

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 and 90°C			Insulation resistance at 20°C	Conductor to screen capacitance	Maximum dielectric stress	Current Ratings		
		Trefoil or Flat touching	flat spaced	Trefoil touching	flat touching	flat spaced				Unenclosed In Air	Buried Direct	Buried In Ducts (c)
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF x km	kV x mm	A	A	A
16	1.15	1.47	1.47	0.161	0.176	0.222	14000	0.177	2.77	125	120	101
25	0.727	0.927	0.927	0.152	0.167	0.213	12000	0.198	2.65	163	154	129
35	0.524	0.668	0.668	0.147	0.163	0.208	11000	0.219	2.55	197	183	153
50	0.387	0.494	0.494	0.14	0.155	0.201	10000	0.242	2.46	237	216	181
70	0.268	0.342	0.342	0.135	0.15	0.196	8800	0.275	2.37	294	263	221
95	0.193	0.247	0.247	0.122	0.138	0.183	7700	0.314	2.3	359	313	264
120	0.153	0.196	0.195	0.117	0.133	0.178	7000	0.346	2.25	413	355	305
150	0.124	0.16	0.159	0.114	0.129	0.175	6400	0.374	2.21	470	397	341
185	0.0991	0.128	0.127	0.111	0.126	0.172	5900	0.407	2.17	539	447	384
240	0.0754	0.098	0.0973	0.106	0.122	0.167	5300	0.456	2.13	637	516	443
300	0.0601	0.0791	0.0781	0.104	0.119	0.165	4800	0.503	2.1	730	579	509
400	0.047	0.0631	0.0618	0.0988	0.115	0.161	4300	0.561	2.07	848	655	575
500	0.0366	0.0508	0.0489	0.097	0.112	0.158	3900	0.62	2.05	978	737	647
630	0.0283	0.0412	0.0389	0.0953	0.111	0.156	3500	0.694	2.02	1122	823	722



## 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 <sup>2</sup>	mm	mm	mm	mm <sup>2</sup>	no x mm	mm	mm	kg/100m
16	4.8	3.4	12.8	16	28 x 0.85	14.1	20.3	58
25	5.8	3.4	13.8	20	36 x 0.85	15.3	21.5	73
35	6.8	3.4	14.8	20	36 x 0.85	16.3	22.5	84
50	8	3.4	16	20	36 x 0.85	17.6	23.8	98
70	9.6	3.4	17.6	20	36 x 0.85	19.0	25.2	121
95	11.5	3.4	19.4	20	36 x 0.85	20.7	26.9	148
120	13.1	3.4	21	20	36 x 0.85	22.1	28.3	174
150	14.5	3.4	22.4	20	36 x 0.85	23.5	29.7	202
185	16.1	3.4	24.1	20	36 x 0.85	25.3	31.5	240
240	18.5	3.4	26.5	20	36 x 0.85	27.6	33.8	298
300	20.7	3.4	28.9	20	36 x 0.85	29.8	36.2	360
400	23.6	3.4	31.8	20	36 x 0.85	33.2	39.8	449
500	26.5	3.4	34.7	20	36 x 0.85	36.5	43.3	550
630	29.9	3.4	38.4	20	36 x 0.85	40.1	47.1	690



## 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 and 90°C			Insulation resistance at 20°C	Conductor to screen capacitance	Maximum dielectric stress	Current Ratings		
		Trefoil or Flat touching	flat spaced	Trefoil touching	flat touching	flat spaced				Unenclosed In Air	Buried Direct	Buried In Ducts (c)
mm <sup>2</sup>	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF x km	kV x mm	A	A	A
16	1.15	1.47	1.47	0.161	0.176	0.222	14000	0.177	2.77	125	120	101
25	0.727	0.927	0.927	0.152	0.167	0.213	12000	0.198	2.65	164	154	129
35	0.524	0.668	0.668	0.147	0.163	0.208	11000	0.219	2.55	200	184	154
50	0.387	0.494	0.494	0.14	0.155	0.201	10000	0.242	2.46	242	217	183
70	0.268	0.342	0.342	0.135	0.15	0.196	8800	0.275	2.37	298	262	221
95	0.193	0.247	0.247	0.122	0.138	0.183	7700	0.314	2.3	362	311	267
120	0.153	0.196	0.195	0.117	0.133	0.178	7000	0.346	2.25	413	351	301
150	0.124	0.16	0.159	0.114	0.129	0.175	6400	0.374	2.21	467	391	336
185	0.0991	0.128	0.127	0.111	0.126	0.172	5900	0.407	2.17	535	439	377
240	0.0754	0.098	0.0973	0.106	0.122	0.167	5300	0.456	2.13	627	503	432
300	0.0601	0.0791	0.0781	0.104	0.119	0.165	4800	0.503	2.1	715	561	493
400	0.047	0.0631	0.0618	0.0988	0.115	0.161	4300	0.561	2.07	824	630	553
500	0.0366	0.0508	0.0489	0.097	0.112	0.158	3900	0.62	2.05	943	702	616
630	0.0283	0.0412	0.0389	0.0953	0.111	0.156	3500	0.694	2.02	1072	777	681



## 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 <sup>2</sup>	mm	mm	mm	mm <sup>2</sup>	no x mm	mm	mm	kg/100m
16	4.8	3.4	12.8	15.9	28 x 0.85	16.1	20.3	59
25	5.8	3.4	13.8	24.4	43 x 0.85	17.1	21.2	78
35	6.8	3.4	14.8	34.4	24 x 1.35	19.1	23.2	99
50	8	3.4	16	48.7	34 x 1.35	20.3	24.4	125
70	9.6	3.4	17.6	68	30 x 1.70	22.6	26.9	165
95	11.5	3.4	19.4	69	48 x 1.35	23.7	27.9	195
120	13.1	3.4	21	69	48 x 1.35	25.3	29.4	225
150	14.5	3.4	22.4	69	48 x 1.35	26.7	31.1	255
185	16.1	3.4	24.1	69	48 x 1.35	28.4	32.7	285
240	18.5	3.4	26.5	69	48 x 1.35	30.8	35.3	345
300	20.7	3.4	28.9	69	48 x 1.35	33.2	37.9	410
400	23.6	3.4	31.8	69	48 x 1.35	36.3	41.2	505
500	26.5	3.4	34.7	69	48 x 1.35	39.2	44.3	605
630	29.9	3.4	38.4	69	48 x 1.35	42.9	48.7	730
800	35.9	3.4	44.5	69	48 x 1.35	49	55	925