



3.8/6.6kV Three Core Individual Screened & PVC Sheathed (Cu Conductor)

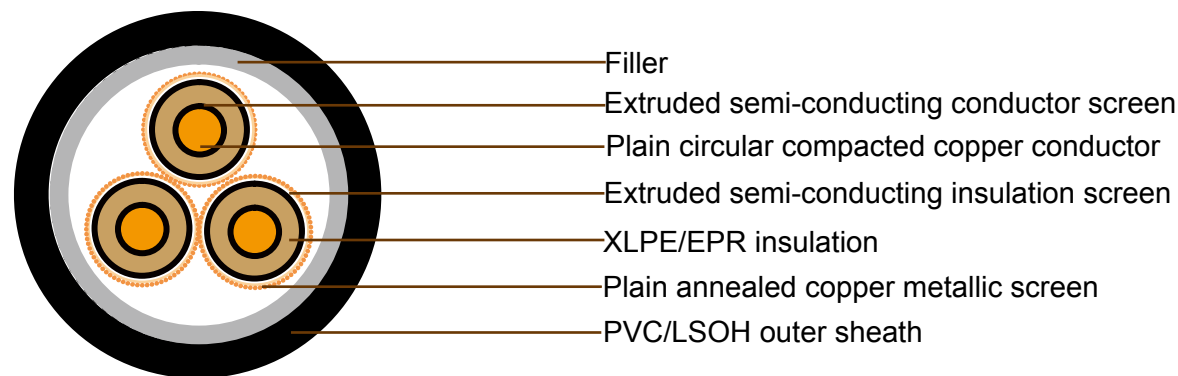
Application

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	0.134	11000	0.221	2.06	100	115	95
25	0.727	0.927	0.127	9700	0.248	1.99	129	147	122
35	0.524	0.668	0.12	8700	0.276	1.93	156	176	150
50	0.387	0.494	0.115	7800	0.308	1.87	193	213	176
70	0.268	0.342	0.109	6900	0.352	1.82	238	247	225
95	0.193	0.247	0.101	6000	0.404	1.77	284	304	253
120	0.153	0.196	0.0969	5400	0.447	1.74	329	345	289
150	0.124	0.16	0.0942	5000	0.486	1.72	375	392	325
185	0.0991	0.128	0.0917	4600	0.53	1.69	426	436	373
240	0.0754	0.0986	0.089	4200	0.576	1.61	497	501	422
300	0.0601	0.0798	0.0879	4000	0.597	1.49	567	567	479



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	2.5	11	5.7	9 x 0.85	12.4	34.6	120
25	5.8	2.5	12	6.2		13.6	37.3	154
35	6.8	2.5	13	6.8		14.5	39.5	190
50	8	2.5	14.1	6.8		15.6	42.1	231
70	9.6	2.5	15.7	7.9		17.3	45.9	302
95	11.5	2.5	17.6	8.5		18.9	49.6	387
120	13.1	2.5	19.2	9.1		20.5	53.2	467
150	14.5	2.5	20.6	9.6		21.9	56.4	554
185	16.1	2.5	22.2	10.2		23.5	60.1	669
240	18.5	2.6	24.9	10.8		26.1	66.2	859
300	20.7	2.8	27.6	11.9		29.0	72.7	1059



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	Ohm/km	Ohm/km	Ohm/km	MegOhm.km	µF x km	kV x mm	A	A	A
16	1.15	1.47	0.134	11000	0.221	2.06	100	115	95
25	0.727	0.927	0.127	9700	0.248	1.99	129	147	120
35	0.524	0.668	0.12	8700	0.276	1.93	156	176	147
50	0.387	0.494	0.115	7800	0.308	1.87	193	213	176
70	0.268	0.342	0.109	6900	0.352	1.82	238	247	225
95	0.193	0.247	0.101	6000	0.404	1.77	284	304	253
120	0.153	0.196	0.0969	5400	0.447	1.74	329	345	289
150	0.124	0.16	0.0942	5000	0.486	1.72	375	392	325
185	0.0991	0.128	0.0917	4600	0.53	1.69	426	436	373
240	0.0754	0.0986	0.089	4200	0.576	1.61	497	501	430
300	0.0601	0.0798	0.0879	4000	0.597	1.49	567	567	488
400	0.047	0.064	0.0852	3800	0.627	1.38			



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	2.5	11	5.7	10 x 0.85	14.3	35.6	130
25	5.8	2.5	12	8.5	15 x 0.85	15.3	37.9	170
35	6.8	2.5	13	11.3	20 x 0.85	16.3	40.3	215
50	8	2.5	14.1	16.5	29 x 0.85	17.4	43	275
70	9.6	2.5	15.7	22.7	40 x 0.85	19	46.7	360
95	11.5	2.5	17.6	22.7	40 x 0.85	20.9	51.1	455
120	13.1	2.5	19.2	22.7	40 x 0.85	22.5	54.8	545
150	14.5	2.5	20.6	22.7	40 x 0.85	23.9	58.2	630
185	16.1	2.5	22.2	22.7	40 x 0.85	25.5	61.8	735
240	18.5	2.6	24.9	22.7	40 x 0.85	28.2	67.9	930
300	20.7	2.8	27.6	22.7	40 x 0.85	30.9	74.3	1130
400	23.6	3	30.9	22.7	40 x 0.85	34.2	81.8	1440