



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

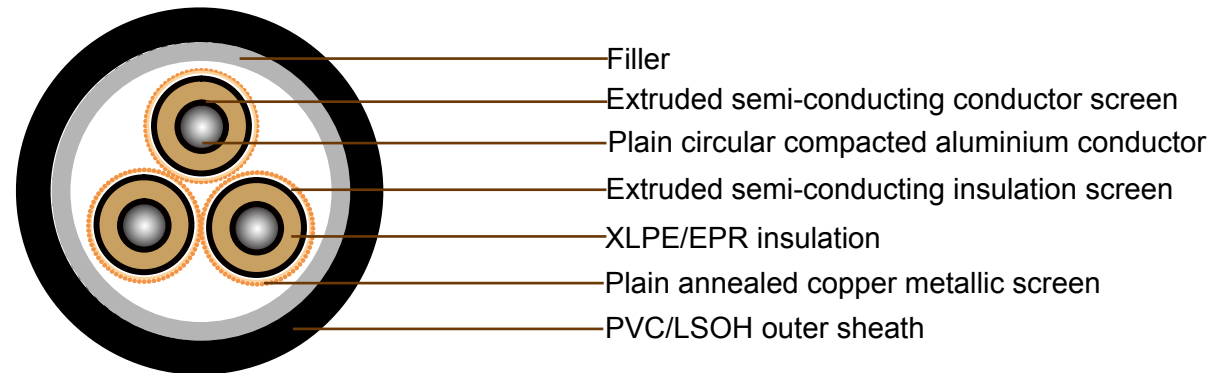
Application

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 aluminium 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
35	0.868	1.11	0.127	11000	0.22	2.54	136	133	111
50	0.641	0.821	0.121	9900	0.243	2.46	162	157	130
70	0.443	0.569	0.112	8700	0.276	2.37	201	191	160
95	0.32	0.41	0.106	7800	0.311	2.3	244	228	191
120	0.253	0.325	0.103	7100	0.339	2.25	280	259	220
150	0.206	0.265	0.0996	6600	0.368	2.22	317	290	246
185	0.164	0.211	0.0968	6100	0.398	2.18	363	328	279
240	0.125	0.161	0.0933	5400	0.445	2.14	426	379	323
300	0.1	0.13	0.091	4900	0.491	2.11	486	427	370
400	0.0778	0.102	0.0876	4400	0.548	2.08	562	487	423



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
35	6.9	3.4	14.9	6.8	12 x 0.85	16.3	43.9	153
50	8.1	3.4	16	6.8	12 x 0.85	17.5	46.7	175
70	9.6	3.4	17.6	7.4	13 x 0.85	19.0	50.4	211
95	11.4	3.4	19.3	7.9	14 x 0.85	20.7	54.2	251
120	12.8	3.4	20.7	8.5	15 x 0.85	22.1	57.5	289
150	14.2	3.4	22.1	8.5	15 x 0.85	23.5	60.7	326
185	15.7	3.4	23.6	9.6	17 x 0.85	25.2	64.6	379
240	18	3.4	25.9	10.2	18 x 0.85	27.6	70.2	459
300	20.1	3.4	28.3	10.8	19 x 0.85	29.6	74.7	535
400	23	3.4	31.1	11.9	21 x 0.85	32.7	82.3	655



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
35	0.868	1.11	0.127	11000	0.22	2.54	136	133	111
50	0.641	0.821	0.121	9900	0.243	2.46	162	157	130
70	0.443	0.569	0.112	8700	0.276	2.37	201	191	160
95	0.32	0.41	0.106	7800	0.311	2.3	244	228	191
120	0.253	0.325	0.103	7100	0.339	2.25	280	259	220
150	0.206	0.265	0.0996	6600	0.368	2.22	317	290	246
185	0.164	0.211	0.0968	6100	0.398	2.18	363	328	279
240	0.125	0.161	0.0933	5400	0.445	2.14	426	379	323
300	0.1	0.13	0.091	4900	0.491	2.11	486	427	370
400	0.0778	0.102	0.0876	4400	0.548	2.08	562	487	423



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
35	6.9	3.4	14.9	7.9	14 x 0.85	18.2	44.6	165
50	8.1	3.4	16	10.8	19 x 0.85	19.3	47.5	195
70	9.6	3.4	17.6	15.3	27 x 0.85	20.9	51.1	245
95	11.4	3.4	19.3	20.4	36 x 0.85	22.6	55	295
120	12.8	3.4	20.7	22.7	40 x 0.85	24	58.2	340
150	14.2	3.4	22.1	22.7	40 x 0.85	25.4	61.5	375
185	15.7	3.4	23.6	22.7	40 x 0.85	26.9	64.9	420
240	18	3.4	25.9	22.7	40 x 0.85	29.2	70.3	490
300	20.1	3.4	28.3	22.7	40 x 0.85	31.6	75.5	570
400	23	3.4	31.1	22.7	40 x 0.85	34.6	82.8	690