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

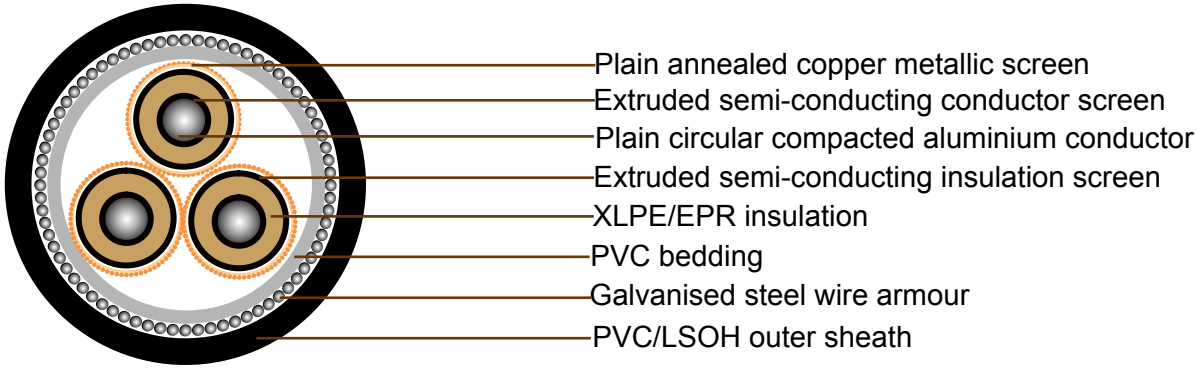
Application

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: 10kA for nominal 1 second(HEAVY DUTY)

BEDDING: PVC

ARMOURING: Galvanised steel wires

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

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	Charging current per phase	Dielectric loss per phrase	Maximum diaelectric stress	Screen DC resistance at 20°C	Armour DC resistance at 20°C	Zero sequence resistance at 20°C	Zero seq. react. at 50Hz
mm^2	Ohm/km	Ohm/km	Ohm/km	MegOhm. km	µF x km	A x km	W x km	kV x mm	Ohm/km	Ohm/km	Ohm/km	Ohm/km
35	0.868	1.11	0.127	11000	0.22	0.439	11.1	2.54	0.758	0.592	1.87	0.0779
50	0.641	0.821	0.121	9900	0.243	0.486	12.3	2.46	0.559	0.559	1.48	0.0723
70	0.443	0.569	0.112	8700	0.276	0.551	14	2.37	0.393	0.521	1.12	0.0634
95	0.32	0.41	0.106	7800	0.311	0.62	15.8	2.3	0.295	0.479	0.868	0.0583
120	0.253	0.325	0.103	7100	0.339	0.677	17.2	2.25	0.265	0.458	0.757	0.0549
150	0.206	0.265	0.0996	6600	0.368	0.734	18.6	2.22	0.265	0.431	0.699	0.052
185	0.164	0.211	0.0968	6100	0.398	0.794	20.2	2.18	0.265	0.408	0.646	0.0494
240	0.125	0.161	0.0933	5400	0.445	0.887	22.5	2.14	0.266	0.297	0.546	0.0461
300	0.1	0.13	0.091	4900	0.491	0.98	24.9	2.11	0.266	0.28	0.51	0.0441
400	0.0778	0.102	0.0876	4400	0.548	1.09	27.8	2.08	0.266	0.254	0.468	0.0409
500	0.0617	0.0823	0.0847	3900	0.62	1.24	31.4	2.05	0.265	0.232	0.434	0.0381

Cable Parameter

Sectional Area of Conductor	Nom. Conductor Diameter	Nom. Insulation Thickness	Nom. Diamete Over insulation	Screen Area on cores	No. and Diamter of Screened Wires	Nom. Diamete Over Screened Wires	Nom. Diamete Over Bedding	Nom. Diamete of Armour	Nom. Diamete Over Armour	Nom. Overall Diameter	Approx. mass
mm^2	mm	mm	mm	mm^2	no x mm	mm	mm	mm	mm	mm	kg/100m
35	6.9	3.4	14.9	23.8	14 x 0.85	18.2	42.6	2.5	47.6	53	415
50	8.1	3.4	16	32.3	19 x 0.85	19.3	45.2	2.5	50.2	55.8	460
70	9.6	3.4	17.6	46	27 x 0.85	20.9	48.9	2.5	53.9	59.7	530
95	11.4	3.4	19.3	61.3	36 x 0.85	22.6	52.8	2.5	57.8	63.8	610
120	12.8	3.4	20.7	68.1	40 x 0.85	24	55.8	2.5	60.8	67.2	675
150	14.2	3.4	22.1	68.1	40 x 0.85	25.4	59	2.5	64	70.7	730
185	15.7	3.4	23.6	68.1	40 x 0.85	26.9	62.3	2.5	67.3	74.1	800
240	18	3.4	25.9	68.1	40 x 0.85	29.2	67.4	3.15	73.7	81	990
300	20.1	3.4	28.3	68.1	40 x 0.85	31.6	72.6	3.15	78.9	86.6	1110
400	23	3.4	31.1	68.1	40 x 0.85	34.6	79.8	3.15	86.1	94.1	1290
500	26.5	3.4	34.7	68.1	40 x 0.85	38.2	87.6	3.15	93.9	102.4	1500