



19/33kV Three Core Individual Screened & PVC/SWA/PVC Sheathed (Al Conductor)

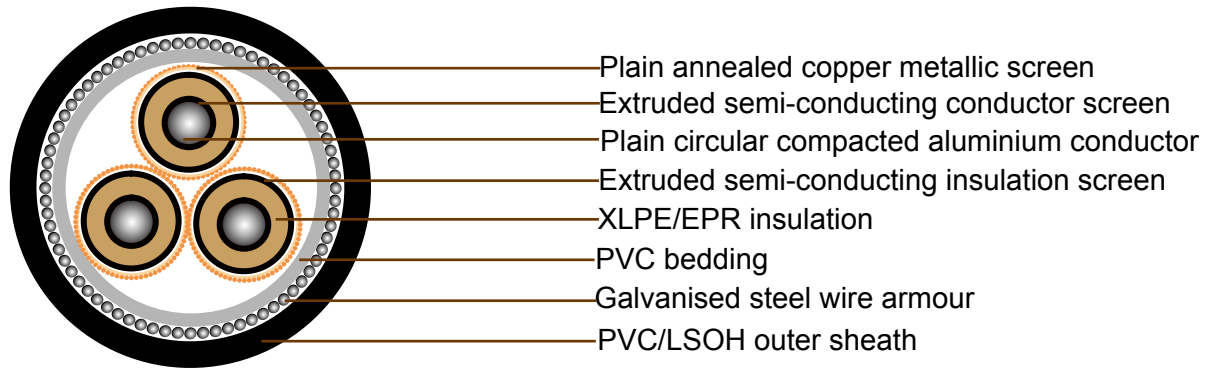
Application

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 dielectric 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	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
50	0.641	0.821	0.147	18000	0.134	0.798	60.7	4.04	0.559	0.302	1.23	0.0985
70	0.443	0.568	0.136	16000	0.148	0.885	67.3	3.81	0.392	0.288	0.942	0.0879
95	0.32	0.41	0.129	15000	0.164	0.977	74.3	3.62	0.294	0.272	0.744	0.0812
120	0.253	0.325	0.124	14000	0.176	1.05	79.9	3.5	0.265	0.264	0.647	0.0766
150	0.206	0.264	0.12	13000	0.189	1.13	85.5	3.4	0.265	0.25	0.593	0.0731
185	0.164	0.211	0.117	12000	0.202	1.2	91.5	3.31	0.265	0.241	0.543	0.0694
240	0.125	0.161	0.112	11000	0.222	1.32	101	3.2	0.266	0.226	0.492	0.0647
300	0.1	0.13	0.108	10000	0.242	1.44	110	3.11	0.265	0.216	0.458	0.0614
400	0.0778	0.102	0.103	9100	0.267	1.59	121	3.02	0.265	0.202	0.423	0.0565
500	0.0617	0.0815	0.099	8100	0.297	1.77	135	2.93	0.265	0.215	0.419	0.0524



Cable Parameter

Sectional Area of Conductor	Nom. Conductor Diameter	Nom. Insulation Thickness	Nom. Diameter Over insulation	Screen Area on cores	No. and Diameter of Screened Wires	Nom. Diameter Over Screened Wires	Nom. Diameter Over Bedding	Nom. Diameter of Armour	Nom. Diameter Over Armour	Nom. Overall Diameter	Approx. mass
mm ²	mm	mm	mm	mm ²	no x mm	mm	mm	mm	mm	mm	kg/100m
50	8.1	8	25.6	32.3	19 x 0.85	28.9	66.6	3.15	72.9	80.2	850
70	9.6	8	27.2	46	27 x 0.85	30.5	70.3	3.15	76.6	84	935
95	11.4	8	28.9	61.3	36 x 0.85	32.2	74	3.15	80.3	87.9	1030
120	12.8	8	30.3	68.1	40 x 0.85	33.6	77.2	3.15	83.5	91.3	1100
150	14.2	8	31.7	68.1	40 x 0.85	35.2	80.9	3.15	87.2	95.2	1190
185	15.7	8	33.2	68.1	40 x 0.85	36.7	84.1	3.15	90.4	98.8	1270
240	18	8	35.5	68.1	40 x 0.85	39	89.4	3.15	95.7	104.4	1400
300	20.1	8	37.8	68.1	40 x 0.85	41.3	94.6	3.15	100.9	110	1540
400	23	8	40.7	68.1	40 x 0.85	44.2	101	3.15	107.3	116.7	1720
500	26.5	8	44.2	68.1	40 x 0.85	47.7	109	3.15	115.3	125.2	1960