



12.7/22kV Three Core Individual Screened & PVC/SWA/PVC Sheathed (Al Conductor)

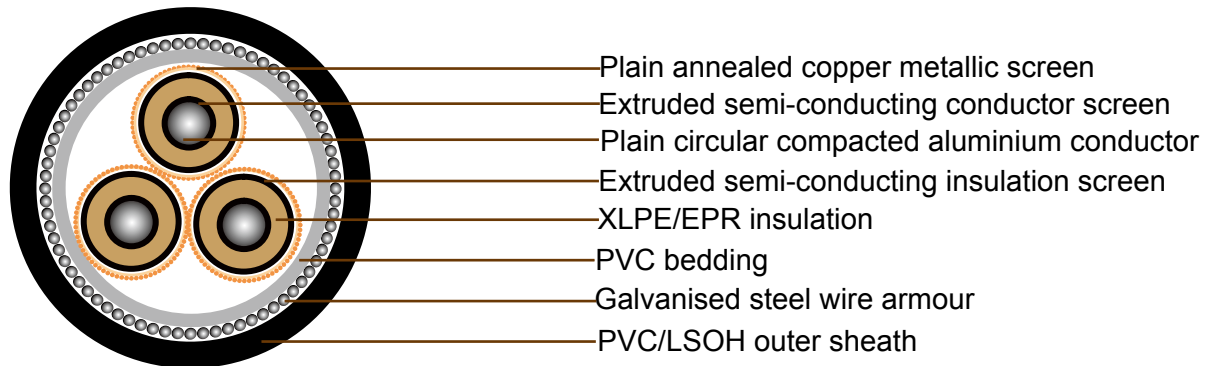
Application

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 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	0.14	15000	0.157	0.626	31.8	3.62	0.759	0.487	1.76	0.0919
50	0.641	0.821	0.134	14000	0.172	0.685	34.8	3.47	0.56	0.465	1.4	0.0855
70	0.443	0.568	0.124	13000	0.192	0.768	39	3.3	0.393	0.431	1.06	0.0757
95	0.32	0.41	0.117	11000	0.214	0.855	43.4	3.17	0.294	0.408	0.833	0.0697
120	0.253	0.325	0.113	10000	0.232	0.926	47	3.08	0.265	0.307	0.68	0.0657
150	0.206	0.265	0.11	9700	0.25	0.997	50.7	3.01	0.266	0.293	0.624	0.0622
185	0.164	0.211	0.106	9000	0.269	1.07	54.5	2.95	0.265	0.28	0.573	0.0591
240	0.125	0.161	0.102	8100	0.298	1.19	60.4	2.87	0.265	0.261	0.52	0.055
300	0.1	0.13	0.0996	7400	0.327	1.3	66.3	2.81	0.265	0.244	0.482	0.0527
400	0.0778	0.102	0.0951	6700	0.363	1.45	73.5	2.75	0.266	0.226	0.446	0.0484
500	0.0617	0.0819	0.0915	5900	0.407	1.62	82.4	2.69	0.265	0.209	0.414	0.045



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
35	6.9	5.5	19.2	23.8	14 x 0.85	22.5	52.3	2.5	57.3	63.3	535
50	8.1	5.5	20.3	32.3	19 x 0.85	23.6	54.9	2.5	59.9	66.1	585
70	9.6	5.5	21.9	46	27 x 0.85	25.2	58.6	2.5	63.6	70	665
95	11.4	5.5	23.6	61.3	36 x 0.85	26.9	62.3	2.5	67.3	74.1	750
120	12.8	5.5	25	68.1	40 x 0.85	28.3	65.5	3.15	71.8	78.8	900
150	14.2	5.5	26.4	68.1	40 x 0.85	29.7	68.7	3.15	75	82.3	975
185	15.7	5.5	27.9	68.1	40 x 0.85	31.2	72	3.15	78.3	85.9	1040
240	18	5.5	30.3	68.1	40 x 0.85	33.6	77.1	3.15	83.4	91.3	1160
300	20.1	5.5	32.6	68.1	40 x 0.85	36.1	82.8	3.15	89.1	97.3	1300
400	23	5.5	35.4	68.1	40 x 0.85	38.9	89.3	3.15	95.6	104.2	1480
500	26.5	5.5	39	68.1	40 x 0.85	42.5	97.1	3.15	103.4	112.5	1700