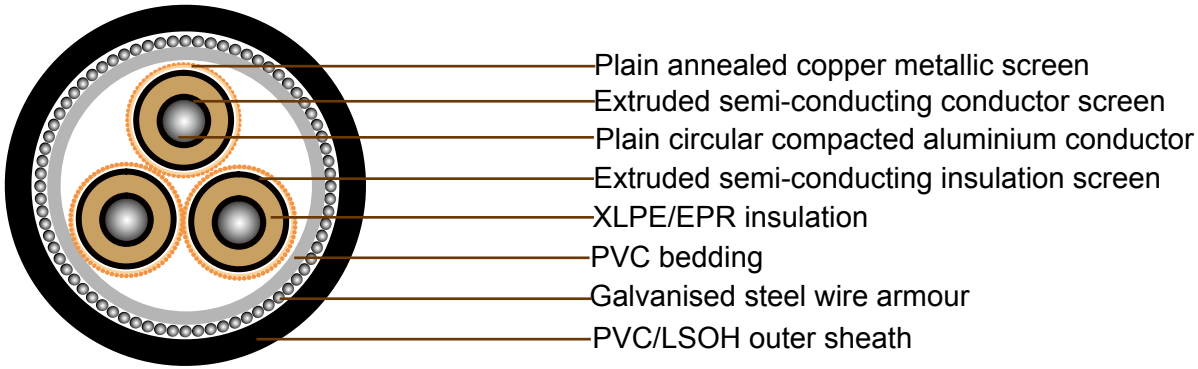
3.8/6.6kV Three Core Individual Screened & PVC/SWA/PVC Sheathed (Al Conductor)

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	0.12	8700	0.278	0.332	5.04	1.92	0.761	0.643	1.91	0.0709
50	0.641	0.822	0.115	7800	0.309	0.369	5.61	1.87	0.559	0.616	1.52	0.0658
70	0.443	0.569	0.106	6800	0.353	0.422	6.41	1.82	0.393	0.559	1.14	0.0574
95	0.32	0.41	0.101	6000	0.4	0.478	7.26	1.77	0.295	0.521	0.884	0.0528
120	0.253	0.325	0.0976	5500	0.439	0.524	7.96	1.74	0.265	0.487	0.769	0.0497
150	0.206	0.265	0.0948	5100	0.477	0.569	8.66	1.72	0.266	0.465	0.714	0.0472
185	0.164	0.211	0.0923	4700	0.518	0.618	9.4	1.7	0.265	0.438	0.66	0.0449
240	0.125	0.162	0.0896	4300	0.561	0.67	10.2	1.62	0.265	0.312	0.556	0.0424
300	0.1	0.13	0.0885	4100	0.582	0.695	10.6	1.5	0.265	0.288	0.515	0.0415
400	0.0778	0.102	0.0857	3900	0.613	0.731	11.1	1.39	0.265	0.261	0.473	0.039

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	mm2	no x mm	mm	mm	mm	mm	mm	kg/100m
35	6.9	2.5	13	23.8	14 x 0.85	16.3	38.6	2.5	43.6	48.6	370
50	8.1	2.5	14.2	32.3	19 x 0.85	17.5	41.1	2.5	46.1	51.5	410
70	9.6	2.5	15.8	46	27 x 0.85	19.1	44.7	2.5	49.7	55.3	480
95	11.4	2.5	17.5	61.3	36 x 0.85	20.8	48.6	2.5	53.6	59.4	555
120	12.8	2.5	18.9	68.1	40 x 0.85	22.2	51.6	2.5	56.6	62.6	615
150	14.2	2.5	20.3	68.1	40 x 0.85	23.6	54.9	2.5	59.9	66.1	665
185	15.7	2.5	21.8	68.1	40 x 0.85	25.1	58.3	2.5	63.3	69.7	735
240	18	2.6	24.3	68.1	40 x 0.85	27.6	63.9	3.15	70.2	77.3	940
300	20.1	2.8	27	68.1	40 x 0.85	30.3	70	3.15	76.3	83.7	1070
400	23	3	30.3	68.1	40 x 0.85	33.6	77.2	3.15	83.5	91.4	1240