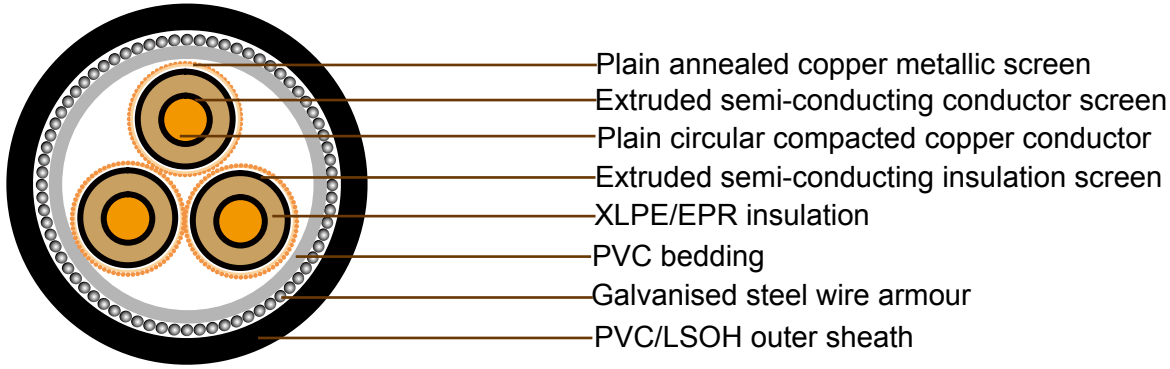
12.7/22kV Three Core Individual Screened & PVC PVC/SWA/PVC Sheathed (Cu Conductor)

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 copper 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	0.524	0.668	0.141	16000	0.156	0.622	31.6	3.63	0.531	0.487	1.29	0.0923
50	0.387	0.494	0.134	14000	0.171	0.682	34.7	3.48	0.367	0.465	1	0.0858
70	0.268	0.342	0.127	13000	0.192	0.765	38.9	3.31	0.265	0.438	0.763	0.0786
95	0.193	0.247	0.117	11000	0.216	0.862	43.8	3.16	0.265	0.408	0.675	0.0693
120	0.153	0.196	0.112	10000	0.236	0.942	47.8	3.07	0.265	0.302	0.577	0.0648
150	0.124	0.16	0.109	9500	0.254	1.01	51.5	3	0.266	0.288	0.54	0.0615
185	0.0991	0.128	0.105	8800	0.274	1.09	55.6	2.93	0.266	0.276	0.506	0.0582
240	0.0754	0.0981	0.101	7900	0.305	1.22	61.8	2.85	0.265	0.257	0.468	0.0542
300	0.0601	0.0792	0.0988	7200	0.334	1.33	67.8	2.79	0.265	0.241	0.44	0.0519
400	0.047	0.0633	0.0944	6500	0.371	1.48	75.1	2.73	0.265	0.224	0.413	0.0477
500	0.0373	0.0518	0.0915	5900	0.407	1.62	82.4	2.69	0.265	0.209	0.39	0.045

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	6.8	5.5	19.1	34	20 x 0.85	22.4	52.1	2.5	57.1	63.2	610
50	8	5.5	20.3	49.4	29 x 0.85	23.6	54.8	2.5	59.8	66	685
70	9.6	5.5	21.9	68.1	40 x 0.85	25.2	58.5	2.5	63.5	70.1	810
95	11.5	5.5	23.8	68.1	40 x 0.85	27.1	62.6	2.5	67.6	74.4	935
120	13.1	5.5	25.3	68.1	40 x 0.85	28.6	66.3	3.15	72.6	79.6	1140
150	14.5	5.5	26.8	68.1	40 x 0.85	30.1	69.6	3.15	75.9	83.1	1270
185	16.1	5.5	28.4	68.1	40 x 0.85	31.7	73	3.15	79.3	87	1400
240	18.5	5.5	30.8	68.1	40 x 0.85	34.1	78.5	3.15	84.8	92.6	1640
300	20.7	5.5	33.2	68.1	40 x 0.85	36.7	84.2	3.15	90.5	98.8	1900
400	23.6	5.5	36.1	68.1	40 x 0.85	39.6	90.7	3.15	97	105.6	2260
500	26.5	5.5	39	68.1	40 x 0.85	42.5	97.1	3.15	103.4	112.5	2640