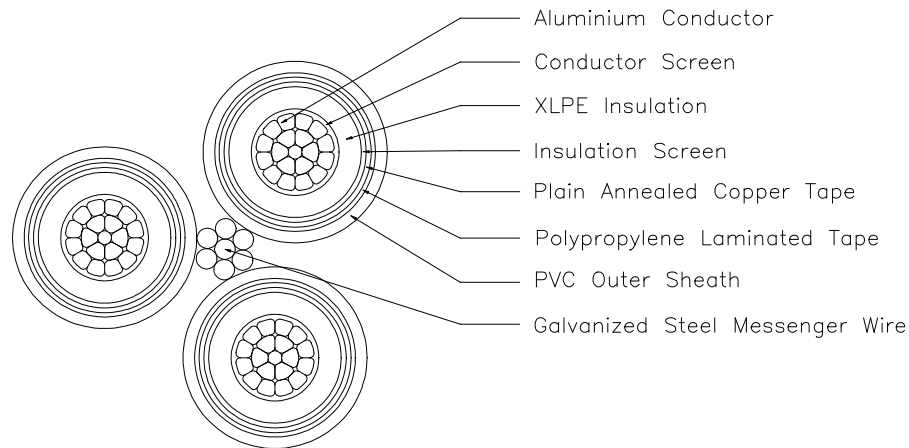


MEDIUM VOLTAGE, XLPE INSULATED, PVC OUTER SHEATHED AERIAL BUNDLE CABLES



DESCRIPTION

Circular compacted stranded aluminium conductor, XLPE insulated, copper tape screened and PVC outer sheathed cable. The three XLPE insulated and copper tape screened single core cables are bundled around the galvanized steel messenger wires in a right hand lay.

CONSTRUCTION

1 **Conductor**

Phase conductors are circular compacted stranded H68 aluminium to BS2627.
The standard messenger comprises of stranded galvanized steel wires.

2 **Conductor screen**

Extruded layer of semiconductive compound.

3 **Insulation**

XLPE (cross-linked polyethylene) rated at 90°C.

4 **Insulation screen**

4a **Non-metallic part**

Extruded layer of semiconductive compound.

4b **Metallic part**

Copper tape screen (SCT).

5 **Colour for core identification**

Red, yellow and blue tapes shall be applied between non metallic and metallic part of insulation screen.
The outer sheath shall be embossed with figures 1, 2, 3 corresponding to red, yellow, blue phase.

6 **Separator**

Polypropylene laminated tape.

7 **Outer sheath**

PVC type ST2 to IEC 60502 colour black.

8 **Assembly**

The three XLPE insulated and copper tape screened single core cables are bundled around the galvanized steel messenger wires in a right hand lay.

**12.7/22 (24) KV MEDIUM VOLTAGE, XLPE INSULATED, PVC OUTER SHEATHED
AERIAL BUNDLE CABLES**

SCHEDULE OF TECHNICAL PARTICULARS

Phase conductor								
Nominal cross-sectional area	mm ²	50	70	95	120	150	185	240
Number of cores		3	3	3	3	3	3	3
Minimum number of wires		6	12	15	15	15	30	30
Nominal diameter of conductor	mm	8.1	9.7	11.5	12.9	14.3	16.1	18.4
Nominal thickness of XLPE insulation	mm	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Metallic screening approx. thickness of copper tape	mm	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nominal thickness of outer sheath	mm	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Nominal diameter over sheathing	mm	27.2	28.8	30.5	32.0	33.4	35.1	37.5
Max. dc resistance at 20°C	ohm/km	0.641	0.443	0.320	0.253	0.206	0.164	0.125
Earth fault current carrying capacity of metallic screen at								
-1 second (1 Core)	kA	1.96	2.11	2.26	2.40	2.53	2.68	2.90
-3 seconds (1 Core)	kA	1.13	1.21	1.31	1.38	1.46	1.55	1.67
Messenger - Galvanized steel wire								
Nominal cross-sectional area	mm ²	50	50	50	50	50	50	50
Stranding	No./mm	7/3.15	7/3.15	7/3.15	7/3.15	7/3.15	7/3.15	7/3.15
Direction of the outermost layer		Right-hand (Z)						
Overall diameter	mm	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Minimum breaking load	kg	6270	6270	6270	6270	6270	6270	6270
Completed cable								
Approx. overall diameter	mm	64	67	70	73	75	78	83
Approx. weight of cable	kg/km	3150	3540	3980	4360	4770	5300	6100
Packing length	m/drum	500	500	500	500	500	250	250

**19/33 (36) KV MEDIUM VOLTAGE, XLPE INSULATED, PVC OUTER SHEATHED
AERIAL BUNDLE CABLES**

SCHEDULE OF TECHNICAL PARTICULARS

Phase conductor								
Nominal cross-sectional area	mm ²	50	70	95	120	150	185	240
Number of cores		3	3	3	3	3	3	3
Minimum number of wires		6	12	15	15	15	30	30
Nominal diameter of conductor	mm	8.1	9.7	11.5	12.9	14.3	16.1	18.4
Nominal thickness of XLPE insulation	mm	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Metallic screening approx. thickness of copper tape	mm	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nominal thickness of outer sheath	mm	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Nominal diameter over sheathing	mm	32.2	33.8	35.5	37.0	38.4	40.1	42.5
Max. dc resistance at 20°C	ohm/km	0.641	0.443	0.320	0.253	0.206	0.164	0.125
Earth fault current carrying capacity of metallic screen at								
	-1 second (1 Core)	kA	2.41	2.56	2.72	2.86	2.99	3.14
-3 seconds (1 Core)	kA	1.39	1.48	1.57	1.65	1.72	1.81	1.94
Messenger - Galvanized steel wire								
Nominal cross-sectional area	mm ²	50	50	50	50	50	50	50
Stranding	No./mm	7/3.15	7/3.15	7/3.15	7/3.15	7/3.15	7/3.15	7/3.15
Direction of the outermost layer		Right-hand (Z)						
Overall diameter	mm	9.45	9.45	9.45	9.45	9.45	9.45	9.45
Minimum breaking load	kg	6270	6270	6270	6270	6270	6270	6270
Completed cable								
Approx. overall diameter	mm	73	76	79	82	84	87	91
Approx. weight of cable	kg/km	3980	4400	4880	5300	5740	6310	7160
Packing length	m/drum	500	500	500	250	250	250	250