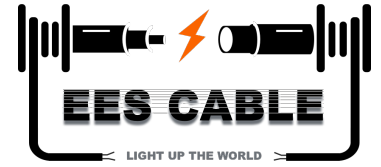
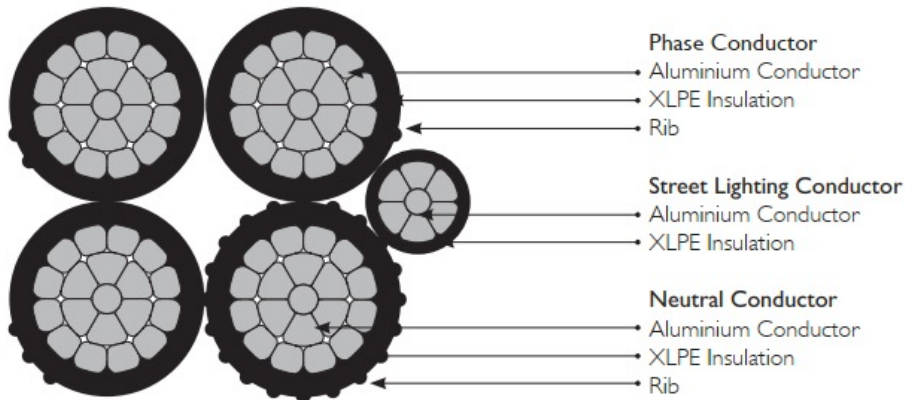


BS 7870-5 0.6/I (1.2) kV Aerial Bundled Cables Low Voltage(ABC LV)



BS 7870-5 0.6/I (1.2) kV



DESCRIPTION

The aerial bundled cables designed for overhead distribution lines have all conductors made of aluminium 1350 and are insulated with XLPE . Phase and neutral cores are laid up in a bundle with a left hand lay. Cables are rated at 0.6/1(1.2) kV and conform to BS 7870-5.

The main advantage of aerial bundled cables include :

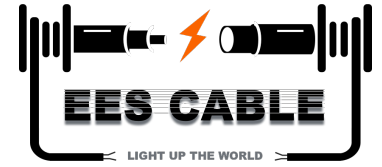
1. Ease of erection and stringing
2. Practically no tree - trimming required
3. Less maintenance

CONSTRUCTION

- 1 **Conductor (For either phase, neutral or street lighting) :**
The conductors shall be of aluminium 1350 wires and are compacted circular stranded.
- 2 **Insulation :**
The conductors shall be extruded with Cross-linked Polyethylene (XLPE) material as insulation. Each phase core is marked with numerals and letters 1 ONE, 2 TWO or 3 THREE and with one rib, two ribs or three ribs to denote the phases. The neutral core carries equally spaced ribs right round the circumference.
- 3 **Assembly :**
The cores shall be laid up with a left hand (S) lay.

BS 7870-5 0.6/I (1.2) kV

Aerial Bundled Cables Low Voltage(ABC LV)



BS 7870-5

0.6/I (1.2) kV

Cables without street lighting

Phase conductor

Nominal cross-sectional area	mm ²	25	35	50	70	95	25	35	50	70	95	120
Number of cores		1	1	1	1	1	3	3	3	3	3	3
Minimum number of wires		6	6	6	12	15	6	6	6	12	15	15
Nominal insulation thickness	mm	1.3	1.3	1.5	1.5	1.7	1.3	1.3	1.5	1.5	1.7	1.7
Diameter of insulated core	mm	8.8	9.8	11.5	13.2	15.3	8.8	9.8	11.5	13.2	15.3	16.8
Max. dc resistance at 20°C	ohm/km	1.20	0.868	0.641	0.443	0.320	1.20	0.868	0.641	0.443	0.320	0.253
Current rating at still wind ambient temperature = 30°C Conductor temperature = 75°C	A	84	104	129	167	209	84	104	129	167	209	283

Neutral conductor

Nominal cross-sectional area	mm ²	25	35	50	70	95	25	35	50	70	95	120
Minimum number of wires		6	6	6	12	15	6	6	6	12	15	15
Nominal insulation thickness	mm	1.3	1.3	1.5	1.5	1.7	1.3	1.3	1.5	1.5	1.7	1.7
Diameter of insulated core	mm	8.8	9.8	11.5	13.2	15.3	8.8	9.8	11.5	13.2	15.3	16.8
Max. dc resistance at 20°C	ohm/km	1.20	0.868	0.641	0.443	0.320	1.20	0.868	0.641	0.443	0.320	0.253

Completed cable

Minimum breaking load	kN	8.2	11.2	15.2	22.0	30.6	16.4	22.4	30.4	44.0	61.2	77.6
Approx. overall diameter	mm	17.6	19.6	23.0	26.4	30.6	21.2	23.7	27.8	31.9	36.9	40.6
Approx. weight of cable	kg/km	210	270	360	500	680	410	550	730	1000	1370	1690
Packing length	m/drum	1,000	1,000	1,000	1,000	500	1,000	1,000	1,000	1,000	500	500

Cables with street lighting

Phase conductor

Nominal cross-sectional area	mm ²	50	70	95
Number of cores		3	3	3
Minimum number of wires		6	12	15
Nominal insulation thickness	mm	1.5	1.5	1.7
Diameter of insulated core	mm	11.5	13.2	15.3
Max. dc resistance at 20°C	ohm/km	0.641	0.443	0.320
Current rating at still wind, ambient temperature = 30°C conductor temperature = 75°C	A	129	167	209

Neutral conductor

Nominal cross-sectional area	mm ²	50	70	95
Minimum number of wires		6	12	15
Nominal insulation thickness	mm	1.5	1.5	1.7
Diameter of insulated core	mm	11.5	11.5	15.3
Max. dc resistance at 20°C	ohm/km	0.641	0.443	0.320

Street lighting conductor

Nominal cross-sectional area	mm ²	25	25	25
Minimum number of wires		6	6	6
Nominal insulation thickness	mm	1.3	1.3	1.3
Diameter of insulated core	mm	8.8	8.8	8.8
Max. dc resistance at 20°C	ohm/km	1.20	1.20	1.20

Completed cable

Minimum breaking load	kN	34.5	48.1	65.3
Approx. overall diameter	mm	29.8	33.6	38.2
Approx. weight of cable	kg/km	830	1100	1470
Packing length	m/drum	1,000	1,000	500