

**1.1 3 x 95 mm<sup>2</sup> + 1 x 100 mm<sup>2</sup> Aerial Bundled Conductor**

Item No.	Description	Unit	Specified
1	Name of Manufacturer		
2	Place of Manufacturer		
3	Nominal size of Conductor Bundle	sq. mm.	3 x 95 mm <sup>2</sup> + 1 x 100 mm <sup>2</sup>
4	Manufacturing Standard		IEC 1089, IS : 398/ Part- IV IEC 502, IS : 7098/I/88, IS 8130/1984
5	Voltage Rating	Kv	0.65/1.1
6	Number of wires in Phase Conductor		19
7	Diameter of wires in Phase Conductor	mm	3.00
8	Minimum wire breaking load after Stranding for Phase & Street light Conductor.	k N/mm <sup>2</sup>	
9	Cross sectional Area of Phase Conductor	mm <sup>2</sup>	95
10	Cross sectional Area of Street lighting Conductor	mm <sup>2</sup>	
11	Diameter of Circumscribed Circle over Bundle.	mm	28.3 (Apprx.)
12	Weight of one Insulated Phase Conductor.	Kg/Km.	310 (Apprx.)
13	Material of Insulation		XLPE to IS : 7098/I/88 Part- IV
	Minimum average Insulation Thickness	mm	1.7 (Phase)
	Minimum Insulation Thickness	mm	1.4 (Phase)
14	Modulus of elasticity of Phase Conductors	k N/mm <sup>2</sup>	7000 kg/mm <sup>2</sup> (Apprx.)
15	Temperature Coefficient of Linear Expansion for Phase.	Per degree C	23 x 10 <sup>-6</sup> (apprx.)
16	Short Circuit Rating of Phase conductor	KA	9.0 (for one second )
17	Source of Aluminium Rod for Phase Conductor.		
18	Lay Ratio of Phase Conductors ;		} Max. 25 times the pitch circle die.
	Inner Layer		
	Middle Layer		
	Outer Layer		
19	Minimum Bending Radius of		
	Single Core	mm	190
	Bundle	mm	314
20	Maximum Phase & Neutral Conductor D.C. Resistance ( at 20 deg.C )	ohm/km	0.32
21	Maximum Phase Conductor A.C. Resistance ( at 90 deg.C )	ohm/km	0.41 (approx )
22	50 Hz Inductive Reactance	ohm/km	0.117 (approx )
23	Current Rating (Phase ) at 40 deg.C Ambient and 90 deg.C conductor Temperature ( Phase conductor )	A	220
24	Derating Factor :		
	30 deg.C Ambient Temperature		1.10
	50 deg.C Ambient Temperature		0.90
25	Material of Neutral Catenary conductor		All Aluminium Alloy conductor
26	Manufacturer of Neutral Catenary conductor		
27	Manufacturing Standard for Neutral Catenary		IS:398
28	Form of Neutral Catenary Conductor		Compacted Circular
29	Cross sectional area of Neutral conductor	sq. mm.	100
30	Diameter of Neutral Catenary conductor	mm	12.6 (approx.)
31	Number of wires in Neutral Catenary Conductor	No.	7
32	Weight of Neutral Catenary	Kg/Km.	260
33	Ultimate Tensile Strength of Neutral Catenary	kn	29
34	Maximum Permissible Tensile Stress of Neutral Catenary at :-		
	installation	kN	25 % of UTS
	Service	kN	40% of UTS
35	Modulus of elasticity of Neutral catenary conductor	Kn/sq.mm	6324
36	Co-efficient of Linear Expansion of Neutral Catenary conductor	per deg.c	-6 23x10
37	Current Rating ( Neutral ) at 40 deg.C Ambient and 75 deg.c Conducto Temp-erature	A	250
38	Total Weight of Bundle	Kg/Km.	1200(approx.)
39	Length of Bundle Conductor per Drum	m	250 mtrs.+/-5%
40	Drum Dimensions		
	i) Overall height		1500 mm (approx.)
	ii) Overall Width		855 mm (approx.)
41	Diameter of Drum Core (Approx. dia of Barrel)		700 mm
42	Axle Hole Diameter	mm	80 (approx.)
43	Gross Weight of laden Drum	Kg	680 (approx.)

**N.B: GTP of the quoted material will be submitted.**