

3 x 50 mm² + 1 x 55 mm² 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 50 mm ² + 1 x 55 mm ²
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		7
7	Diameter of wires in Phase Conductor	mm	3
8	Minimum wire breaking load after Stranding for Phase & Street light Conductor.	k N/mm ²	
9	Cross sectional Area of Phase Conductor	mm ²	50 (nom)
10	Cross sectional Area of Street lighting Conductor	mm ²	Not required
11	Weight of one Insulated Phase Conductor.	Kg/Km.	166 (Apprx.)
12	Material of Insulation		XLPE
	Minimum average Insulation Thickness	mm	1.5 (Phase)
	Minimum Insulation Thickness	mm	1.2 (Phase)
13	Modulus of elasticity of Phase Conductors	k N/mm ²	
14	Temperature Coefficient of Linear Expansion for Phase & Street light Conductor.	Per degree C	23 x 10 ⁻⁶ (apprx.)
15	Short Circuit Rating of Phase conductor	KA	
16	Source of Aluminium Rod for Phase Conductor.		Specify
17	Lay Ratio of Phase Conductors ;		
	Inner Layer	}	Max. 25 times the pitch circle die.
	Middle Layer		
	Outer Layer		
18	Minimum Bending Radius of		
	Single Core	mm	140
	Bundle	mm	237
19	Maximum Phase & Neutral Conductor D.C. Resistance (at 20 deg.C)	ohm/km	0.64
20	Maximum Phase Conductor A.C. Resistance (at 90 deg.C)	ohm/km	0.821 (approx)
21	50 Hz Inductive Reactance	ohm/km	0.122 (approx)
22	Current Rating (Phase) at 40 deg.C Ambient and 90 deg.C conductor Temperature (Phase conductor)	A	140
23	Derating Factor :		
	30 deg.C Ambient Temperature		1.10
	50 deg.C Ambient Temperature		0.90
24	Material of Neutral Catenary conductor		All Aluminium Alloy conductor
25	Manufacturer of Neutral Catenary conductor		
26	Manufacturing Standard for Neutral Catenary		IS:398
27	Form of Neutral Catenary Conductor		Compacted Circular
28	Cross sectional area of Neutral conductor	sq. mm.	55 (nom)
29	Diameter of Neutral Catenary conductor	mm	9.0 (approx.)
30	Number of wires in Neutral Catenary Conductor	No.	7
31	Weight of Neutral Catenary	Kg/Km.	140
32	Ultimate Tensile Strength of Neutral Catenary	kn	16
33	Maximum Permissible Tensile Stress of Neutral Catenary at :-		
	installation	kN	25% of UTS
	Service	kN	40% of UTS
34	Modulus of elasticity of Neutral catenary conductor	Kn/sq.mm	6324
35	Co-efficient of Linear Expansion of Neutral Catenary conductor	per deg.c	23x10 ⁻⁶ (apprx)
36	Current Rating (Neutral) at 40 deg.C Ambient and 75 deg.c Conducto Temperature	A	180
37	Total Weight of Bundle	Kg/Km.	
38	Length of Bundle Conductor per Drum	m	500 mtrs.+/-5%
39	Drum Dimensions		
	i) Overall height		1600 mm (approx.)
	ii) Overall Width		910 mm (approx.)
40	deiameter of Drum Core (Approx. dia of Barrel)		700 mm
41	Axle Hole Diammeter	mm	80 (approx.)
42	Gross Weight of landen Drum	Kg	750 (approx.)

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