NEELKANTH CABLES

Aerial Bundled Conductor

AERIAL BUNDLED CONDUCTOR LOW VOLTAGE XLPE INSULATED

Application

Used for overhead power transmission and distribution projects.

Construction

Hard Drawn Aluminium Phase Conductor around an aluminium Alloy Suppporting Core, Insulated with Carbon loaded Cross Linked Polyethylene(XLPE), Additional sub-conductors optional in both self -supporting and supporting core System.

Phase Conductors

The material of Phase, Neutral and auxiliary conductors hard drawn Aluminium wire, which has tensile strength, before stranding minimum 140MPa and maximum 225 MPa

Supporting Conductors

A supporting conductor construced aluminium-magnesium-silicon alloy wires, which has tensile strength, before stranding minimum 295 MPa and with modulus of elasticity 59000 MPa, coeffiecent of linear expansion 23 x 10^{-6} /°C .

Insulation

Insulation material cross-linked polyethylene (XLPE) type- C, requirements as per SANS 1411-4 with contain at least 2.5% carbon black.

Standard

Low Voltage Aerial Bundled Conductor XLPE Insulated SANS-1418 Part 1 & 2.

Voltage Rating(Uo/U)	:	600/1000V
Temperature rating	:	Fixed: -10 to +90°C
Short Circuit Temp.	:	250°C
Min.Bending Radius	:	Fixed: 10 x Overall Diameter

PHYSICAL PROPERTIES FOR AERIAL BUNDLED CONDUCTOR

Catalouge Number	Type of Conductor	Nominal Cross Sectrion Area	Number of Wire in Conductor	Max. Diameter of Conductor	Nominal Thickness of Insulation	Core Diameter	Approx Cable Diameter	Approx Cable Weight
		SQ.MM	**Nos.**	**MM**	**MM**	**MM**	**MM**	**Kg/MM**
NLVABC310250	Phase, Auxiliary or Non-Strain-bearing Neutral (Aluminium)	25	7	6.3	1.4	9.4	26	507
NLVABC310350		35	7	7.3	1.6	10.9	28	612
NLVABC310500		50	7	8.4	1.6	12.0	32	730
NLVABC310700		70	19	10.2	1.8	14.2	36	945
NLVABC310950		95	19	12.0	1.8	16.0	38	1185
NLVABC311200		120	19	13.5	1.8	17.5	42	1610
NLVABC311500		150	19	15.0	1.8	18.6	48	1880
--	Service Connection (Aluminium)	16	7	5.3	1.2	8.0	--	--
		25	7	6.6	1.4	9.6	--	--
	Supporting (Aluminium Alloy)	54.6	7	9.6	1.6	13.0	--	--
		70	7	10.4	1.6	13.6	--	--

ELECTRICAL & MECHANICAL PROPERTIES

Nominal Cross Section Area	Breaking Load	Max. Conductor Resistance at 20°C	Insulation Dielectric Resistance at 20°C	Permissible Current Rating
				Phase Conductor
SQ.MM	**N**	**Ohm/Km**	**MΩ/km**	**Amp**
25	3300	1.20	50	122
35	4500	0.868	50	138
50	6200	0.641	50	168
70	8900	0.443	50	213
95	12300	0.320	50	258
120	15600	0.253	50	298
150	19200	0.206	50	332
16	2070	1.91	50	--
25	3300	1.20	50	--
54.6 (Alloy Cond.)	16600	0.63	50	--
70 (Alloy Cond.)	20100	0.50	50	--

Notes: The above data are indicative & may be changed without prior information.
Cables can be supplied in 500 MTR Drum or as per customer requirement.