OVERHEAD TRANSMISSION LINES | ABC

CONSTRUCTION DETAILS:

1. **Conductor**

   Circular, stranded and compacted or uncompacted Aluminium conductors.

2. **Insulation:**

   An extruded layer of Cross Linked Polyethylene (XLPE) with 2.5% Carbon. Black.

- **Assembly:**

  Cores are assembled to form two (Duplex), three (Triplex), four (Quadruplex) or more conductors.

The phase cores shall be identified by continuous, longitudinal ridges. The neutral core shall be without any ridges, while the pilot wire consists of a bare Copper conductor.

Applicable Standards:

- NFC 33-209
- HD 626

Applications:

Aerial Bundled Cable (ABC) is suitable for overhead distribution networks applications, service drop cable between a power pole and the service entrance, or as a secondary distribution cable between poles. The use of these services drop or secondary distribution cables is limited to circuits, not exceeding 1000 volts phase-to-phase or 600 volts phase-to-ground, to a normal temperature rating of the service conductor temperature of 90 °C.

OVERHEAD TRANSMISSION LINES

ABC

ABC WITHOUT SUPPORTING NEUTRAL

Nominal Cross Sectional Area for Phase	Max. DC. resistance at 20˚C	Approx. Overall Diameter	Approx. Weight
mm^2	Ω/km	mm	kg/km
Two Conductors (Duplex)			
16	1.7986	15	140
25	1.1787	18	215
35	0.8317	22	435
50	0.5944	25	580
Four Conductors (Quadruplex)			
16	1.7986	18	280
25	1.1787	22	430
35	0.8317	24	535
50	0.5944	30	795
70	0.4367	33	995
95	0.3081	38	1350

OVERHEAD TRANSMISSION LINES | ABC

ABC WITH SUPPORTING NEUTRAL

Nominal Cross Sectional Area for Phase	Nominal Cross Sectional Area for Support Neutral	Max. DC. Resistance at 20°C	Max. DC. Resistance at 20°C for Neutral	Approx. Overall Diameter	Approx. Weight
mm²	mm²	Ω/km	Ω/km	mm	kg/km
Three Conductors with Supporting Neutral					
25	54.6	1.1787	0.63	30	530
35		0.8317		33	780
50		0.5944		36	990
70		0.4367		37.5	1140
70	70	0.4367	0.5	40	1170
95		0.3081		44	1378
120		0.2456		46	1675
150		0.1960		48	1820
120	95	0.2456	0.343	47	1770
150		0.1960		49	1865