



3-Layer 35kV AAC Tree Wire/Spacer Cable

An Alternative and Robust Design to Bare AAC Conductors to Harden the Electrical Grids.

3-Layer 35kV AAC Tree Wire Concentrically Stranded AAC Track-Resistant Crosslinked Polyethylene.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Concentrically stranded AAC
2. **Strand Shield:** Semi-conducting cross linked polymer
3. **Inner Layer:** Low-Density Crosslinked Polyethylene (LDXLPE)
4. **Outer Layer:** High-Density Track-Resistant Crosslinked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

Used for primary and secondary overhead distribution where limited space is available or desired for rights-of-way. Installed the same as bare conductors, however, covering is effective in preventing direct shorts and instantaneous flashovers should tree limbs or other objects contact conductors in such close proximity.

- Tree Wire - Used for spans where trees crowd the right-of-way, such as in wooded residential areas, when a minimum of interference with the environment is desired. Covering minimizes power outages due to conductor contact with tree limbs, reducing the need for frequent or severe trimming.
- Covered Aerial MV Cable (CAMV)/Spacer Cable - Installed with other Covered Aerial MV cables and a supporting messenger through a series of space-maintaining devices (spacers). The resulting close-proximity configuration minimizes the amount of space and hardware required for line installation, particularly useful in congested areas.
- Covering Rated 90°C Normal and 130°C Emergency Operation. Unless adequate knowledge of the thermal characteristics of the environment is known, the permissible conductor temperature should be reduced by 10°C or in accordance with available data.

SPECIFICATIONS:

- ASTM B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- ASTM B231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors
- ICEA S-121-733 Tree Wire and Messenger Supported Spacer Cable





Table 1 – Weights and Measurements

Cond. Size	Cond. Strands	Diameter Over Conductor	Conductor Shield Thickness	Inner Layer Thickness	Outer Layer Thickness	Approx. OD	Approx. Weight	Rated Strength
AWG/ Kcmil	#	inch	mil	mil	mil	inch	lb/1000ft	lb
1/0	7	0.336	15	175	125	0.966	368	1791
2/0	7	0.376	15	175	125	1.006	411	2259
3/0	7	0.423	15	175	125	1.053	464	2736

All dimensions are nominal and subject to normal manufacturing tolerances

