



3-Layer 35kV AAAC Tree Wire/Spacer Cable

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

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



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Aluminum-alloy 6201-T81 wires, concentrically stranded.
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

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 B398 Standard Specification for Aluminum-Alloy 6201-T81 and 6201-T83 Wire for Electrical Purposes
- ASTM B400 Standard Specification for Compact Round 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
48.69	7	0.250	15	175	125	0.88	278	1584
77.47	7	0.316	15	175	125	0.946	333	2520
123.3	7	0.398	15	175	125	1.028	411	4014

All dimensions are nominal and subject to normal manufacturing tolerances

