

## 3-Layer 25kV AAAC Tree Wire

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

3-Layer 25kV AAAC Tree Wire Concentrically Stranded AAAC Track-Resistant Crosslinked Polyethylene.

Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Concentrically stranded AAAC
2. **Strand Shield:** Semi-conducting cross linked polymer
3. **Inner Layer:** Low-Density Track-Resistant Crosslinked Polyethylene
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 - 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 B399 Standard Specification for Concentric-Lay-Stranded, Aluminum Alloy 6201-T81 Conductors
- ICEA S-121-733 Tree Wire and Messenger Supported Spacer Cable



**Table 1 – Weights and Measurements**

Cond. Size AWG/Kcmil	Diameter Over Conductor inch	Inner Layer Thickness mil	Approx. OD inch	Approx. Weight lb/1000ft
48.69	0.250	125	0.78	225
77.47	0.316	125	0.846	275
123.3	0.398	125	0.928	348
155.4	0.447	125	0.977	396
195.7	0.502	125	1.032	454
246.9	0.563	125	1.093	525
312.8	0.642	125	1.172	611
394.5	0.72	125	1.251	716
465.4	0.783	125	1.313	805
559.5	0.858	125	1.398	932
652.4	0.927	125	1.467	1044
740.8	0.99	125	1.53	1148

All dimensions are nominal and subject to normal manufacturing tolerances

