# 3-Layer 25kV AAAC Tree Wire/Spacer Cable

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.

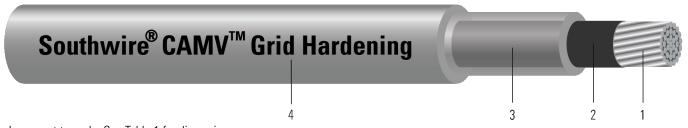


Image not to scale. See Table 1 for dimensions.

### **CONSTRUCTION:**

- 1. Conductor: 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.<br>Strands | Diameter Over<br>Conductor | Conductor Shield<br>Thickness | Inner Layer<br>Thickness | Outer Layer<br>Thickness | Approx.<br>OD | Approx.<br>Weight | Rated<br>Strength |
|---------------|------------------|----------------------------|-------------------------------|--------------------------|--------------------------|---------------|-------------------|-------------------|
| AWG/<br>Kcmil | #                | inch                       | mil                           | mil                      | mil                      | inch          | lb/1000ft         | lb                |
| 48.69         | 7                | 0.250                      | 15                            | 125                      | 125                      | 0.78          | 225               | 1584              |
| 77.47         | 7                | 0.316                      | 15                            | 125                      | 125                      | 0.846         | 275               | 2520              |
| 123.3         | 7                | 0.398                      | 15                            | 125                      | 125                      | 0.928         | 348               | 4014              |
| 155.4         | 7                | 0.447                      | 15                            | 125                      | 125                      | 0.977         | 396               | 4851              |
| 195.7         | 7                | 0.502                      | 15                            | 125                      | 125                      | 1.032         | 454               | 6111              |
| 246.9         | 7                | 0.563                      | 15                            | 125                      | 125                      | 1.093         | 525               | 7704              |

All dimensions are nominal and subject to normal manufacturing tolerances