

## 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.

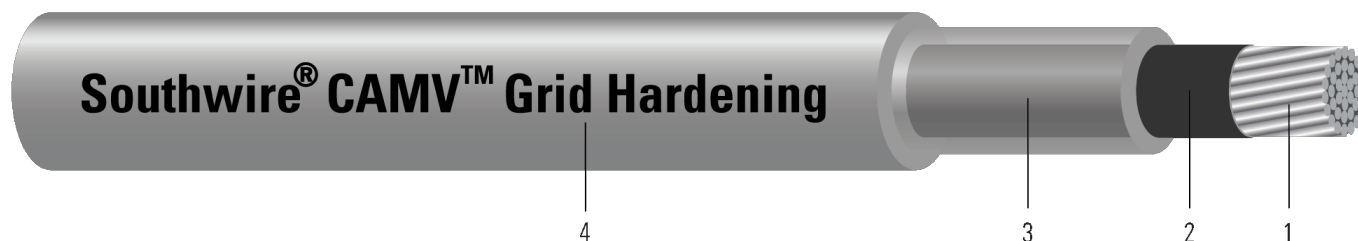


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Concentrically stranded AAAC
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



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**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/<br>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

