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.

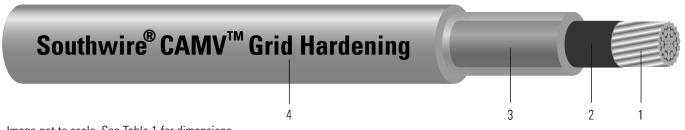


Image not to scale. See Table 1 for dimensions.

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



