3-Layer 35kV AAC Tree Wire

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.

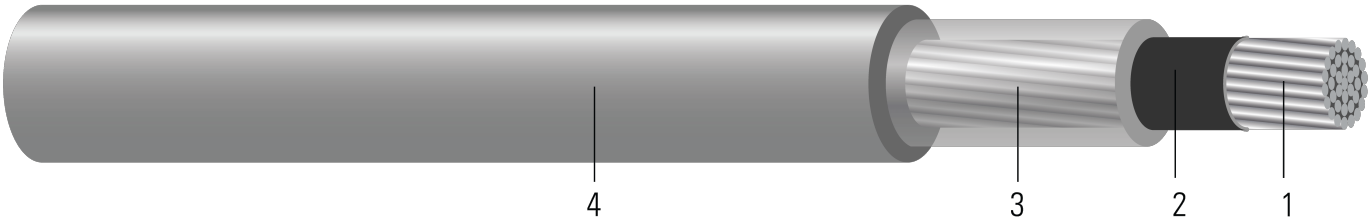

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Concentrically stranded AAC
2. **Strand Shield:** Semi-conducting cross linked polymer
3. **Inner Layer:** Low-Density Track-Resistant Crosslinked Polyethylene (XLPE)
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 - 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
4/0	7	0.475	15	175	125	1.105	527	3447
266.8	19	0.537	15	175	125	1.167	603	4473
336.4	19	0.603	15	175	125	1.233	696	5535
397.5	19	0.659	15	175	125	1.289	777	6399
477	19	0.722	20	175	125	1.362	889	7524
556.5	37	0.78	20	175	125	1.42	987	8946
636	37	0.835	20	175	125	1.475	1085	10260
795	37	0.932	20	175	125	1.572	1278	12510
795	19	0.932	20	175	125	1.572	1278	12510

All dimensions are nominal and subject to normal manufacturing tolerances