

AAC/TP All Aluminum Conductor, Twisted Pair



A Viakable Company



ALUMINUM
CONDUCTOR

Features

The two twisted cable configuration is used in applications subject to aeolian vibration and galloping due to wind and ice.

Application

For use as overhead electric conductors.

Fabricated from two component conductors of the same size twisted around each other.

Standards

Referenced ASTM Standards include:

ASTM B230: Specification for Aluminum 1350–H19 Wire for

Electrical Purposes.

ASTM B231: Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors.

Specifications

Operating temperature:

- AAC/TP 75 °C

Engineering Information

Conductor: Aluminum alloy 1350-H19 wires.

Stranding: 1350-H19 aluminum wires concentrically stranded, consisting of one or more layers of wires helically wrapped around a central wire.

Construction: AAC/TP conductors

are manufactured with rotating payoffs, take-up and capstan, and controlled lay length, twisting conductors around each other to ensure:

- No torsion in the core wires.
- Equal length of the component conductors (monitored and controlled during twisting).
- Equal tension in the component conductors (monitored and controlled during twisting).

Technical Data

AAC/TP

Code Word	Closest Size AWG or kcmil	Component Composition			Outer Dimensions			Nominal Mass lb/kft	Rated Strength lb	Resistance		† Ampacity 75 °C
		AWG or kcmil	Number of Strands	Individual Wire OD in	Minor in	Major in	Ω/kft					
							dc at 20 °C			ac at 75 °C		
Rose/TP	1	4	7	0.0772	0.232	x	0.463	78	1762	0.0392	0.0480	233.1
Iris/TP	2/0	2	7	0.0974	0.292	x	0.584	124	2700	0.0246	0.0301	312.7
Pansy/TP	3/0	1	7	0.1093	0.328	x	0.656	156	3280	0.0196	0.0239	361.1
Poppy/TP	4/0	1/0	7	0.1228	0.368	x	0.737	198	3980	0.0155	0.0190	418.4
Aster/TP	266.8	2/0	7	0.1379	0.414	x	0.827	250	5020	0.0123	0.0150	484.1
Phlox/TP	336.4	3/0	7	0.1548	0.464	x	0.929	314	6080	0.0098	0.0119	560.6
Oxlip/TP	397.5	4/0	7	0.1739	0.522	x	1.043	396	7660	0.0077	0.0095	648.1
Daisy/TP	500	266.8	7	0.1952	0.586	x	1.171	500	9660	0.0061	0.0075	749.2
Laurel/TP	500	266.8	19	0.1185	0.593	x	1.185	500	9940	0.0061	0.0075	751.5
Tulip/TP	636	336.4	19	0.1331	0.666	x	1.331	630	12300	0.0049	0.0059	871.6
Canna/TP	795	397.5	19	0.1446	0.723	x	1.446	746	14220	0.0041	0.0051	966.7
Cosmos/TP	954	477	19	0.1584	0.792	x	1.584	894	16720	0.0034	0.0042	1084.9
Zinnia/TP	954	500	19	0.1622	0.811	x	1.622	938	17520	0.0033	0.0040	1115.8
Dahlia/TP	1113	557	19	0.1711	0.856	x	1.711	1044	19500	0.0029	0.0036	1194.5
Orchid/TP	1272	636	37	0.1311	0.918	x	1.835	1192	22800	0.0026	0.0032	1296.5
Violet/TP	1431	716	37	0.1391	0.974	x	1.947	1342	25600	0.0023	0.0028	1389.3
Petunia/TP	1431	750	37	0.1424	0.997	x	1.994	1406	26200	0.0022	0.0027	1383.4
Arbutus/TP	1590	795	37	0.1466	1.026	x	2.052	1490	27800	0.0021	0.0025	1495.6
Magnolia/TP	2000	954	37	0.1606	1.124	x	2.248	1788	32800	0.0017	0.0022	1670.7
Bluebell/TP	2000	1033.5	37	0.1671	1.170	x	2.339	1938	35400	0.0016	0.0020	1758.6
Marigold/TP	2000	1113	61	0.1351	1.216	x	2.432	2086	39400	0.0015	0.0019	1847.7
Hawthorn/TP*	2250	1192.5	61	0.1398	1.258	x	2.516	2236	42200	0.0014	0.0017	1926.3

The above data are approximate and subject to normal manufacturing tolerances. Other sizes available upon request.

Direct current resistance is based on 16.946 Ω·cmil/ft (61.2% IACS) at 20 °C for 1350 aluminum nominal area of conductor with standard stranding increments per ASTM B231.

† Ampacities are based on the following: Conductivity 61.2%, Ambient 25 °C, Wind 2 ft/s, Sun, Sea level, Solar Absorption 0.5, Emissivity 0.5.

* Contact CME to review availability.

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