

All Aluminum Conductor. Trapezoidal Shaped Aluminum Strands. Bare.



APPLICATIONS

Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductor (AAC/TW) is designed for use as a bare overhead conductor. There are two designs of AAC/TW. One design gives an equal area of aluminum when compared to the standard AAC conductor sizes. The other design is conductor with overall outside diameters that are in fixed-increments. Use of this conductor in the equal area design allows comparable ampacity in a smaller diameter conductor when compared with standard AAC conductor. Use of this conductor in the fixed-increment diameter design allows more ampacity in an equal diameter conductor when compared with standard AAC conductor.

SPECIFICATIONS

Southwire's AAC/TW conductor meets or exceeds ASTM specifications:

- B230 Aluminum 1350-H19 Wire for Electrical Purposes.
- B778 Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors (AAC/TW).

CONSTRUCTION

Aluminum 1350-H19 trapezoidal shaped wires, concentrically stranded.

**AAC/TW CONDUCTORS
AREA EQUAL TO STANDARD AAC SIZES**

Code Name	Size	No. of Wires	No. of Layers	Conductor Diameter (ins.)	Weight per 1000 ft. (lbs.)	Rated Strength (lbs.)	Resistance Ohms/1000 ft.		Allowable Ampacities+ (Amps)
							DC @ 25°C	AC @ 75°C	
Tulip/TW	336.4	17	2	0.612	315.2	6220	0.0514	0.0630	502
Canna/TW	397.5	17	2	0.661	372.4	7230	0.0435	0.0534	557
Cosmos/TW	477.0	17	2	0.720	446.9	8530	0.0363	0.0445	623
Zinnia/TW	500.0	17	2	0.736	468.4	8940	0.0346	0.0425	641
Mistletoe/TW	556.5	17	2	0.775	521.3	9950	0.0311	0.0383	685
Meadowsweet/TW	600.0	17	2	0.803	652.1	10700	0.0288	0.0355	718
Orchid/TW	636.0	17	2	0.825	595.8	11400	0.0272	0.0335	744
Verbena/TW	700.0	17	2	0.864	655.7	12500	0.0247	0.0305	789
Nasturtium/TW	750.0	17	2	0.893	702.6	13400	0.0230	0.0286	823
Arbutus/TW	795.0	17	2	0.919	744.7	13900	0.0217	0.0270	853
Cockscomb/TW	900.0	17	3	0.990	846.6	15800	0.0192	0.0239	924
Magnolia/TW	954.0	31	3	1.018	897.4	16700	0.0181	0.0226	957
Hawkweed/TW	1000.0	31	3	1.041	940.6	17500	0.0173	0.0216	984
Bluebell/TW	1033.5	31	3	1.057	972.2	18100	0.0167	0.0210	1004
Marigold/TW	1113.0	31	3	1.095	1047.0	19500	0.0155	0.0195	1049
Hawthorn/TW	1192.5	31	3	1.132	1122.0	20900	0.0145	0.0183	1094
Narcissus/TW	1272.0	31	3	1.168	1196.0	22300	0.0136	0.0173	1136
Columbine/TW	1351.5	31	3	1.202	1271.0	23700	0.0128	0.0163	1177
Carnation/TW	1431.0	31	3	1.236	1346.0	24600	0.0121	0.0155	1218
Coreopsis/TW	1590.0	49	4	1.315	1503.0	27300	0.0109	0.0141	1298
Jessamine/TW	1750.0	49	4	1.377	1654.0	30000	0.0099	0.0129	1371
Cowslip/TW	2000.0	49	4	1.468	1890.0	34500	0.0086	0.0115	1477
Lupine/TW	2500.0	71	5	1.648	2369.0	42400	0.0070	0.0097	1661
Trillium/TW	3000.0	71	5	1.799	2843.0	50900	0.0058	0.0084	1822

+Ampacity calculated assuming: ambient 25°C, conductor 75°C wind 2 ft./sec., sun.

AAC/TW CONDUCTORS FIXED DIAMETER INCREMENTS									
Code Name	Size	No. of Wires	No. of Layers	Conductor Diameter (ins.)	Weight per 1000 ft. (lbs.)	Rated Strength (lbs.)	Resistance Ohms/1000 ft.		Allowable Ampacities+ (Amps)
							DC @ 25°C	AC @ 75°C	
Logan/TW	322.5	17	2	0.60	302.1	5960	0.0536	0.0657	489
Wheeler/TW	449.4	17	2	0.70	421.0	8030	0.0385	0.0472	601
Robson/TW	595.8	17	2	0.80	558.2	10700	0.0290	0.0358	715
McKinley/TW	761.5	17	2	0.90	713.3	13400	0.0227	0.0281	831
Rainier/TW	918.8	31	3	1.00	864.3	16100	0.0188	0.0235	935
Helens/TW	1123.1	31	3	1.10	1056.0	19700	0.0154	0.0194	1055
Baker/TW	1346.8	31	3	1.20	1267.0	23600	0.0128	0.0164	1175
Hood/TW	1583.2	34	3	1.30	1489.0	27200	0.0109	0.0141	1292
Whitney/TW	1812.7	49	4	1.40	1713.0	31100	0.0095	0.0125	1398
Powell/TW	2093.6	49	4	1.50	1978.0	35900	0.0083	0.0112	1508
Jefferson/TW	2388.1	52	4	1.60	2256.0	40100	0.0073	0.0100	1618
Shasta/TW	2667.2	71	5	1.70	2528.0	45200	0.0065	0.0092	1718
Adams/TW	3006.2	71	5	1.80	2848.0	51000	0.0059	0.0085	1818

+Ampacity calculated assuming: ambient 25°C, conductor 75°C wind 2 ft./sec., sun.