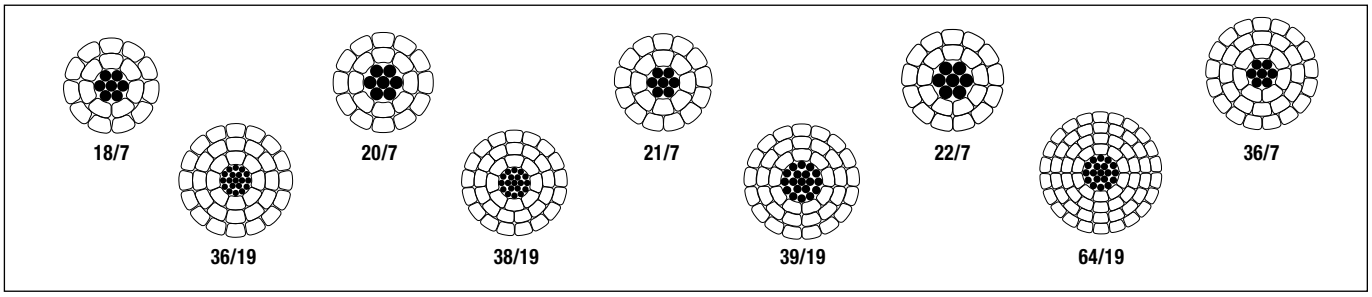
TransPowr® ACSR/TW Bare Overhead Conductor

Trapezoidal Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded



Product Construction:

Complete Conductor:

TransPowr® ACSR/TW is a trapezoidal aluminum conductor steel-reinforced concentric-lay-stranded conductor. The aluminum strands are trapezoidal in shape.

The wedge-shaped aluminum strands enable a more compact alignment of the aluminum wires. Conductor designs that maintain the same circular mil cross-sectional area of aluminum as a conventional round conductor result in a TW conductor that is 10 to 15 percent smaller in overall diameter. Conductor designs that maintain the same overall diameter as a conventional round conductor result in a TW conductor that has 20 to 25 percent more aluminum cross-sectional area packed in.

The ACSR/TW conductors are manufactured in accordance with the requirements of the latest issue of ASTM B779.

The steel strands form the central core of the conductor, around which is stranded two, three or four layers of aluminum 1350-H19 wires. The steel core may consist of a concentric stranded cable of 7, 19 or more wires. Numerous combinations of aluminum and steel strands and layers are possible. The sizes and constructions listed on the following pages are common examples used in overhead lines.

For ACSR/TW conductors, the standard Class A galvanized coating is usually adequate for ordinary environments.

Features and Benefits:

TransPowr ACSR/TW has a continuous operating temperature rating of 75°C. ACSR and ACSR/TW conductors have an “industry-accepted” short-duration maximum operating temperature rating of 100°C. Operation of the conductor at elevated temperatures may increase the conductor sag properties and lower the rated tensile strength of the conductor.

TransPowr ACSR/TW conductors are recognized for their record of economy, dependability and favorable strength-to-weight ratio. ACSR/TW conductors constructed of equivalent aluminum circular mil cross-sectional area provide a conductor that is smaller in overall diameter than the equivalent conventional round wire ACSR conductor. The reduced conductor diameter is advantageous in reducing the effects of ice and wind loading on the conductor.

ACSR/TW conductors constructed to be equivalent overall diameter enable a greater circular mil cross-sectional area of aluminum within the conductor, reducing power loss in the conductor for day-to-day operations as well as allowing a significant increase in conductor current-carrying capacity.

Applications:

Trapezoidal aluminum conductors steel-reinforced (ACSR/TW) are used for overhead transmission lines.

Options:

- E3X® surface coating (/E3X)
- High-conductivity aluminum (/HC) (62.2% IACS)
- Regular-strength Class C galvanized steel core (/GC2)
- High-strength Class A galvanized steel core (/GA3 to ASTM B606)
- Extra-high-strength Class A galvanized steel core (/GA4 to ASTM B957)
- Ultra-high-strength Class A galvanized steel core (/GA5 to ASTM B957)
- Regular-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA2 to ASTM B802)
- High-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA3 to ASTM B803)
- Extra-high-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA4 to ASTM B958)
- Ultra-high-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA5 to ASTM B958)
- Aluminum-clad steel core (/AW)
- Non-specular surface finish (/NS)

TransPowr® ACSR/TW Bare Overhead Conductor

Trapezoidal Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR/TW (MECHANICAL PROPERTIES) - REDUCED DIAMETER - CONDUCTORS SIZED TO HAVE EQUIVALENT CIRCULAR MIL AREA TO REGULAR ACSR

CODE WORD (1)	SIZE AWG OR kcmil	TYPE	NO. AL WIRES	FILL FACTOR	EQUIV. AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. IN	APPROX. WEIGHT LB/KFT (2)			PERCENT BY WEIGHT		RATED STRENGTH LBS		
								TOTAL	AL		TOTAL	AL	STEEL	AL	STEEL	GA2	GA3 (HS)	GA5 (UHS)
Oriole/ACSR/TW	336.4	23	18	88.7	0.1367	7x0.1059	0.318	0.3258	0.2642	0.692	524.7	315.9	208.9	60.21%	39.81%	17200	18400	19600
Flicker/ACSR/TW	477.0	13	18	90.8	0.1628	7x0.0940	0.282	0.4233	0.3747	0.777	612.6	448.1	164.6	73.15%	26.87%	17200	18100	19000
Hawk/ACSR/TW	477.0	16	18	90.8	0.1628	7x0.1053	0.316	0.4356	0.3747	0.790	654.8	448.3	206.5	68.46%	31.54%	19400	20500	21700
Hen/ACSR/TW	477.0	23	22	89.5	0.1472	7x0.1261	0.378	0.4618	0.3744	0.821	744.5	448.4	296.1	60.23%	39.77%	23800	25500	27200
Parakeet/ACSR/TW	556.5	13	18	91.7	0.1758	7x0.1015	0.304	0.4939	0.4372	0.835	714.5	522.7	191.9	73.16%	26.86%	20000	21100	22200
Dove/ACSR/TW	556.5	16	20	91.1	0.1668	7x0.1138	0.341	0.5082	0.4370	0.852	764.1	522.9	241.2	68.43%	31.57%	22600	24000	25300
Rook/ACSR/TW	636.0	13	18	92.4	0.1880	7x0.1085	0.326	0.5644	0.4997	0.890	816.8	597.5	219.2	73.15%	26.84%	22900	24100	25400
Grosbeak/ACSR/TW	636.0	16	20	91.8	0.1783	7x0.1216	0.365	0.5807	0.4994	0.908	872.9	597.5	275.4	68.45%	31.55%	25400	27000	28600
Tern/ACSR/TW	795.0	7	17	93.5	0.2163	7x0.0888	0.266	0.6678	0.6244	0.958	892.2	745.3	146.8	83.54%	16.45%	21800	22700	23500
Puffin/ACSR/TW	795.0	11	18	93.3	0.2102	7x0.1108	0.332	0.6921	0.6246	0.980	975.3	746.7	228.6	76.56%	23.44%	25900	27200	28500
Condor/ACSR/TW	795.0	13	18	93.3	0.2102	7x0.1213	0.364	0.7055	0.6246	0.991	1021	747.0	274.0	73.16%	26.84%	27900	29500	31000
Drake/ACSR/TW	795.0	16	20	92.8	0.1994	7x0.1360	0.408	0.7262	0.6246	1.010	1092	747.3	344.4	68.43%	31.54%	31800	33800	35700
Mallard/ACSR/TW	795.0	23	22	92.4	0.1901	19x0.0977	0.488	0.7669	0.6244	1.047	1232	747.9	484.4	60.71%	39.32%	38700	41400	44000
Phoenix/ACSR/TW	954.0	5	30	91.4	0.1783	7x0.0837	0.251	0.7876	0.7491	1.050	1029	899.0	130.5	87.37%	12.68%	23700	24500	25200
Rail/ACSR/TW	954.0	7	33	90.9	0.1700	7x0.0971	0.291	0.8009	0.7490	1.063	1075	899.3	175.6	83.66%	16.33%	25900	26900	27900
Cardinal/ACSR/TW	954.0	13	20	94.1	0.2184	7x0.1329	0.399	0.8464	0.7493	1.081	1224	895.2	328.9	73.14%	26.87%	33500	35400	37200
Snowbird/ACSR/TW	1033.5	5	30	91.8	0.1856	7x0.0871	0.261	0.8534	0.8116	1.091	1115	974.1	141.3	87.36%	12.67%	25700	26500	27300
Ortolan/ACSR/TW	1033.5	7	33	91.4	0.1770	7x0.1010	0.303	0.8681	0.8120	1.104	1165	974.9	190.0	83.68%	16.31%	28100	29200	30200
Curlew/ACSR/TW	1033.5	13	20	93.8	0.2273	7x0.1383	0.415	0.9167	0.8116	1.127	1327	970.5	356.2	73.13%	26.84%	36300	38300	40300
Avocet/ACSR/TW	1113.0	5	30	92.2	0.1926	7x0.0904	0.271	0.9190	0.8740	1.130	1201	1049	152.2	87.34%	12.67%	27500	28400	29200
Bluejay/ACSR/TW	1113.0	7	33	91.7	0.1836	7x0.1049	0.315	0.9342	0.8737	1.144	1254	1049	204.9	83.65%	16.34%	30200	31400	32600
Finch/ACSR/TW	1113.0	13	20	94.0	0.2359	19x0.0862	0.431	0.9850	0.8741	1.169	1422	1045	377.1	73.49%	26.52%	39100	41200	43200
Oxbird/ACSR/TW	1192.5	5	30	92.5	0.1994	7x0.0936	0.281	0.9850	0.9368	1.168	1287	1124	163.2	87.33%	12.68%	29500	30400	31300
Bunting/ACSR/TW	1192.5	7	33	92.0	0.1901	7x0.1086	0.326	1.0010	0.9366	1.182	1344	1125	219.6	83.71%	16.34%	32400	33700	34900
Grackle/ACSR/TW	1192.5	13	38	91.3	0.1771	19x0.0892	0.446	1.0550	0.9358	1.224	1529	1125	403.8	73.58%	26.41%	41900	44100	46300
Scissortail/ACSR/TW	1272.0	5	30	92.7	0.2059	7x0.0967	0.290	1.0500	0.9989	1.204	1373	1199	174.1	87.33%	12.68%	31400	32400	33400
Bittern/ACSR/TW	1272.0	7	33	92.2	0.1963	7x0.1121	0.336	1.0680	0.9987	1.219	1433	1199	234.0	83.67%	16.33%	34600	35900	37200
Pheasant/ACSR/TW	1272.0	13	39	91.5	0.1806	19x0.0921	0.460	1.1260	0.9989	1.264	1631	1201	430.5	73.64%	26.39%	44100	46400	48800
Dipper/ACSR/TW	1351.5	7	33	92.5	0.2024	7x0.1155	0.346	1.1350	1.0620	1.255	1523	1275	248.4	83.72%	16.31%	36700	38100	39500
Martin/ACSR/TW	1351.5	13	39	91.8	0.1862	19x0.0949	0.474	1.1960	1.0620	1.301	1733	1276	457.0	73.63%	26.37%	46800	49300	51800
Bobolink/ACSR/TW	1431.0	7	33	92.7	0.2082	7x0.1189	0.357	1.2010	1.1230	1.290	1612	1349	263.3	83.68%	16.33%	38900	40400	41900
Plover/ACSR/TW	1431.0	13	39	92.1	0.1916	19x0.0977	0.488	1.2670	1.1240	1.337	1836	1352	484.4	73.64%	26.38%	49600	52300	54900
Lapwing/ACSR/TW	1590.0	7	33	93.2	0.2195	7x0.1253	0.376	1.3350	1.2490	1.357	1792	1499	292.4	83.65%	16.32%	42200	43900	45500
Falcon/ACSR/TW	1590.0	13	42	92.1	0.1946	19x0.1030	0.515	1.4060	1.2480	1.408	2038	1500	538.4	73.60%	26.42%	55100	58000	61000
Chukar/ACSR/TW	1780.0	8	36	93.2	0.2224	19x0.0874	0.437	1.5120	1.3980	1.447	2067	1680	387.7	81.28%	18.76%	50700	52800	54900
Bluebird/ACSR/TW	2156.0	8	60	91.6	0.1896	19x0.0961	0.480	1.8320	1.6940	1.604	2511	2043	468.7	81.36%	18.67%	61100	63700	66200

(1) Code words shown denote ACSR/TW with regular-strength Class A Galvanized steel core (/GA2). See the Options section to find the appropriate code word modifier designation for alternative design options.
(2) Due to rounding, total values may be slightly greater or slightly less than the sum of the component values.
Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

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Trapezoidal Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR/TW (ELECTRICAL PROPERTIES) - REDUCED DIAMETER - CONDUCTORS SIZED TO HAVE EQUIVALENT CIRCULAR MIL AREA TO REGULAR ACSR

CODE WORD (1)	SIZE AWG OR kcmil	TYPE	NO. AL WIRES	FILL FACTOR	EQUIV. AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. IN	RESISTANCE (3) OHMS/KFT			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/KFT (5)	CAPACITIVE REACTANCE MEGAOHM/ KFT (5)
								TOTAL	AL		DC @20°C	AC @25°C	AC @75°C	STD.	E3X®			
Oriole/ACSR/TW	336.4	23	18	88.7	0.1367	7x0.1059	0.318	0.3258	0.2642	0.692	0.0497	0.0508	0.0608	525	590	0.0240	0.0857	0.5554
Flicker/ACSR/TW	477.0	13	18	90.8	0.1628	7x0.0940	0.282	0.4233	0.3747	0.777	0.0356	0.0365	0.0436	640	720	0.0263	0.0836	0.5374
Hawk/ACSR/TW	477.0	16	18	90.8	0.1628	7x0.1053	0.316	0.4356	0.3747	0.790	0.0355	0.0363	0.0434	645	725	0.0270	0.0830	0.5348
Hen/ACSR/TW	477.0	23	22	89.5	0.1472	7x0.1261	0.378	0.4618	0.3744	0.821	0.0352	0.0360	0.0430	655	740	0.0285	0.0818	0.5286
Parakeet/ACSR/TW	556.5	13	18	91.7	0.1758	7x0.1015	0.304	0.4939	0.4372	0.835	0.0305	0.0313	0.0374	705	795	0.0283	0.0819	0.5260
Dove/ACSR/TW	556.5	16	20	91.1	0.1668	7x0.1138	0.341	0.5082	0.4370	0.852	0.0304	0.0312	0.0373	710	805	0.0291	0.0813	0.5229
Rook/ACSR/TW	636.0	13	18	92.4	0.1880	7x0.1085	0.326	0.5644	0.4997	0.890	0.0267	0.0275	0.0328	765	870	0.0302	0.0804	0.5160
Grosbeak/ACSR/TW	636.0	16	20	91.8	0.1783	7x0.1216	0.365	0.5807	0.4994	0.908	0.0266	0.0273	0.0326	770	875	0.0310	0.0798	0.5130
Tern/ACSR/TW	795.0	7	17	93.5	0.2163	7x0.0888	0.266	0.6678	0.6244	0.958	0.0215	0.0223	0.0266	870	990	0.0318	0.0792	0.5045
Puffin/ACSR/TW	795.0	11	18	93.3	0.2102	7x0.1108	0.332	0.6921	0.6246	0.980	0.0214	0.0221	0.0264	875	1000	0.0330	0.0784	0.5010
Condor/ACSR/TW	795.0	13	18	93.3	0.2102	7x0.1213	0.364	0.7055	0.6246	0.991	0.0214	0.0221	0.0263	880	1005	0.0336	0.0780	0.4992
Drake/ACSR/TW	795.0	16	20	92.8	0.1994	7x0.1360	0.408	0.7262	0.6246	1.010	0.0213	0.0219	0.0262	885	1010	0.0346	0.0773	0.4962
Mallard/ACSR/TW	795.0	23	22	92.4	0.1901	19x0.0977	0.488	0.7669	0.6244	1.047	0.0211	0.0217	0.0259	900	1030	0.0364	0.0761	0.4906
Phoenix/ACSR/TW	954.0	5	30	91.4	0.1783	7x0.0837	0.251	0.7876	0.7491	1.050	0.0181	0.0190	0.0233	950	1085	0.0347	0.0772	0.4902
Rail/ACSR/TW	954.0	7	33	90.9	0.1700	7x0.0971	0.291	0.8009	0.7490	1.063	0.0180	0.0189	0.0232	955	1090	0.0354	0.0768	0.4883
Cardinal/ACSR/TW	954.0	13	20	94.1	0.2184	7x0.1329	0.399	0.8464	0.7493	1.081	0.0178	0.0185	0.0220	985	1130	0.0367	0.0760	0.4856
Snowbird/ACSR/TW	1033.5	5	30	91.8	0.1856	7x0.0871	0.261	0.8534	0.8116	1.091	0.0167	0.0176	0.0216	995	1140	0.0361	0.0763	0.4842
Ortolan/ACSR/TW	1033.5	7	33	91.4	0.1770	7x0.1010	0.303	0.8681	0.8120	1.104	0.0166	0.0175	0.0215	1005	1145	0.0367	0.0760	0.4823
Curlew/ACSR/TW	1033.5	13	20	93.8	0.2273	7x0.1383	0.415	0.9167	0.8116	1.127	0.0164	0.0171	0.0204	1035	1190	0.0382	0.0750	0.4790
Avocet/ACSR/TW	1113.0	5	30	92.2	0.1926	7x0.0904	0.271	0.9190	0.8740	1.130	0.0155	0.0164	0.0201	1045	1195	0.0374	0.0755	0.4787
Bluejay/ACSR/TW	1113.0	7	33	91.7	0.1836	7x0.1049	0.315	0.9342	0.8737	1.144	0.0155	0.0164	0.0200	1050	1200	0.0381	0.0751	0.4768
Finch/ACSR/TW	1113.0	13	20	94.0	0.2359	19x0.0862	0.431	0.9850	0.8741	1.169	0.0153	0.0159	0.0190	1085	1245	0.0396	0.0742	0.4734
Oxbird/ACSR/TW	1192.5	5	30	92.5	0.1994	7x0.0936	0.281	0.9850	0.9368	1.168	0.0145	0.0154	0.0188	1090	1250	0.0386	0.0748	0.4735
Bunting/ACSR/TW	1192.5	7	33	92.0	0.1901	7x0.1086	0.326	1.0010	0.9366	1.182	0.0144	0.0153	0.0187	1095	1255	0.0394	0.0743	0.4716
Grackle/ACSR/TW	1192.5	13	38	91.3	0.1771	19x0.0892	0.446	1.0550	0.9358	1.224	0.0143	0.0151	0.0185	1110	1280	0.0416	0.0731	0.4661
Scissortail/ACSR/TW	1272.0	5	30	92.7	0.2059	7x0.0967	0.290	1.0500	0.9989	1.204	0.0136	0.0145	0.0176	1130	1300	0.0398	0.0741	0.4687
Bittern/ACSR/TW	1272.0	7	33	92.2	0.1963	7x0.1121	0.336	1.0680	0.9987	1.219	0.0135	0.0144	0.0176	1140	1310	0.0406	0.0736	0.4668
Pheasant/ACSR/TW	1272.0	13	39	91.5	0.1806	19x0.0921	0.460	1.1260	0.9989	1.264	0.0134	0.0142	0.0173	1155	1335	0.0429	0.0724	0.4612
Dipper/ACSR/TW	1351.5	7	33	92.5	0.2024	7x0.1155	0.346	1.1350	1.0620	1.255	0.0127	0.0136	0.0166	1180	1360	0.0418	0.0730	0.4623
Martin/ACSR/TW	1351.5	13	39	91.8	0.1862	19x0.0949	0.474	1.1960	1.0620	1.301	0.0126	0.0134	0.0164	1200	1385	0.0442	0.0717	0.4567
Bobolink/ACSR/TW	1431.0	7	33	92.7	0.2082	7x0.1189	0.357	1.2010	1.1230	1.290	0.0120	0.0129	0.0157	1220	1410	0.0430	0.0723	0.4580
Plover/ACSR/TW	1431.0	13	39	92.1	0.1916	19x0.0977	0.488	1.2670	1.1240	1.337	0.0119	0.0127	0.0155	1240	1435	0.0454	0.0711	0.4523
Lapwing/ACSR/TW	1590.0	7	33	93.2	0.2195	7x0.1253	0.376	1.3350	1.2490	1.357	0.0108	0.0118	0.0142	1300	1505	0.0452	0.0712	0.4500
Falcon/ACSR/TW	1590.0	13	42	92.1	0.1946	19x0.1030	0.515	1.4060	1.2480	1.408	0.0108	0.0116	0.0140	1325	1535	0.0478	0.0699	0.4442
Chukar/ACSR/TW	1780.0	8	36	93.2	0.2224	19x0.0874	0.437	1.5120	1.3980	1.447	0.00965	0.0106	0.0128	1395	1625	0.0484	0.0696	0.4399
Bluebird/ACSR/TW	2156.0	8	60	91.6	0.1896	19x0.0961	0.480	1.8320	1.6940	1.604	0.00800	0.00897	0.0105	1585	1860	0.0537	0.0672	0.4238

(1) Code words shown denote ACSR/TW with regular-strength Class A Galvanized steel core (/GA2). See the Options section to find the appropriate code word modifier designation for alternative design options.
(3) Based on a conductivity of 61.2% (minimum lot average) IACS at 20°C for aluminum and 8% IACS at 20°C for the steel core. AC resistance for single-layer and three-layer designs approximates the effects of core magnetization. To convert to ohms/mile, multiply by 5.28. To convert of ohms/km, multiply by 3.281.
(4) Based on a conductor temperature of 75°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.5 coefficient of emissivity for a standard conductor and 0.9 for a E3X coated conductor, 0.5 coefficient of absorptivity for a standard conductor and 0.2 for a E3X coated conductor, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0 W/ft² of solar and radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.
(5) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius.

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Trapezoidal Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR/TW (MECHANICAL PROPERTIES) - EQUIVALENT DIAMETER - CONDUCTORS SIZED TO HAVE EQUIVALENT DIAMETER TO REGULAR ACSR

CODE WORD (1)	SIZE AWG OR kcmil	TYPE	NO. AL WIRES	FILL FACTOR	EQUIV. AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. IN	APPROX. WEIGHT LB/KFT (2)			PERCENT BY WEIGHT		RATED STRENGTH LBS		
								TOTAL	AL		TOTAL	AL	STEEL	AL	STEEL	GA2	GA3 (HS)	GA5 (UHS)
Calumet/ACSR/TW	565.3	16	20	91.1	0.1681	7x0.1146	0.344	0.5161	0.4439	0.858	775.7	531.1	244.6	68.47%	31.53%	22900	24300	25700
Mohawk/ACSR/TW	571.7	13	18	91.8	0.1782	7x0.1030	0.309	0.5073	0.4489	0.846	734.4	536.9	197.6	73.11%	26.91%	20600	21700	22800
Oswego/ACSR/TW	664.8	16	20	92.0	0.1823	7x0.1244	0.373	0.6071	0.5220	0.927	912.8	624.6	288.2	68.43%	31.57%	26600	28200	29900
Mystic/ACSR/TW	666.6	13	18	92.5	0.1924	7x0.1111	0.333	0.5912	0.5233	0.911	855.7	625.8	229.9	73.13%	26.87%	24000	25300	26600
Wabash/ACSR/TW	762.8	16	20	92.6	0.1953	7x0.1331	0.399	0.6965	0.5991	0.990	1047	716.9	329.9	68.47%	31.51%	30500	32400	34200
Maumee/ACSR/TW	768.2	13	20	92.7	0.1960	7x0.1195	0.358	0.6819	0.6034	0.977	986.8	720.9	265.9	73.05%	26.95%	27700	29200	30700
Kettle/ACSR/TW	957.2	7	33	91.0	0.1703	7x0.0973	0.292	0.8037	0.7517	1.065	1079	902.5	176.3	83.64%	16.34%	26000	27000	28000
Suwannee/ACSR/TW	959.6	16	22	93.2	0.2088	7x0.1493	0.448	0.8763	0.7538	1.108	1317	902.0	415.1	68.49%	31.52%	37200	40100	42500
Columbia/ACSR/TW	966.2	13	18	93.9w	0.2317	7x0.1338	0.401	0.8574	0.7590	1.089	1241	907.7	333.4	73.14%	26.87%	34000	35800	37700
Genesee/ACSR/TW	1158.0	7	33	91.9	0.1873	7x0.1078	0.323	0.9731	0.9092	1.166	1308	1092	216.4	83.49%	16.54%	31600	32900	34300
Hudson/ACSR/TW	1158.4	13	39	91.0	0.1723	7x0.1467	0.440	1.0280	0.9093	1.209	1494	1093	400.8	73.16%	26.83%	39600	42400	44700
Cheyenne/ACSR/TW	1168.1	5	30	92.4	0.1973	7x0.0926	0.278	0.9643	0.9172	1.156	1260	1101	159.7	87.38%	12.67%	28800	29700	30700
Yukon/ACSR/TW	1233.6	13	38	91.5	0.1802	19x0.0910	0.455	1.0920	0.9689	1.245	1585	1165	420.2	73.50%	26.51%	42900	45200	47500
Nelson/ACSR/TW	1257.1	7	33	92.3	0.1952	7x0.1115	0.334	1.0560	0.9876	1.212	1417	1186	231.5	83.70%	16.34%	34200	35500	36800
Catawba/ACSR/TW	1272.0	5	30	92.7	0.2059	7x0.0967	0.290	1.0500	0.9989	1.204	1373	1199	174.1	87.33%	12.68%	31400	32400	33400
Thames/ACSR/TW	1334.6	13	39	91.7	0.1850	19x0.0944	0.472	1.1810	1.0480	1.293	1712	1260	452.2	73.60%	26.41%	46300	48800	51200
Mackenzie/ACSR/TW	1359.7	7	33	92.6	0.2030	7x0.1159	0.348	1.1420	1.0680	1.258	1533	1282	250.2	83.63%	16.32%	37000	38400	39800
Truckee/ACSR/TW	1372.5	5	30	93.0	0.2139	7x0.1004	0.301	1.1330	1.0780	1.249	1482	1294	187.7	87.31%	12.67%	33400	34500	35500
Merrimack/ACSR/TW	1433.6	13	39	92.0	0.1917	19x0.0978	0.489	1.2680	1.1260	1.338	1838	1353	485.4	73.61%	26.41%	49700	52300	55000
Miramichi/ACSR/TW	1455.3	7	33	92.9	0.2100	7x0.1200	0.360	1.2220	1.1430	1.300	1640	1372	268.2	83.66%	16.35%	39200	40700	42200
St. Croix/ACSR/TW	1467.8	5	30	93.2	0.2212	7x0.1041	0.312	1.2120	1.1530	1.291	1585	1384	201.8	87.32%	12.73%	35800	36900	38100
Rio Grande/ACSR/TW	1533.3	13	39	92.3	0.1983	19x0.1012	0.506	1.3570	1.2040	1.382	1967	1448	519.7	73.61%	26.42%	53200	56000	58900
Potomac/ACSR/TW	1557.4	7	36	92.7	0.2080	7x0.1241	0.372	1.3080	1.2230	1.345	1754	1467	286.8	83.64%	16.35%	41900	43600	45200
Platte/ACSR/TW	1569.0	5	30	93.4	0.2287	7x0.1074	0.322	1.2960	1.2320	1.333	1694	1479	214.8	87.31%	12.68%	38200	39400	40600
Pecos/ACSR/TW	1622.0	13	39	92.5	0.2039	19x0.1064	0.532	1.4420	1.2730	1.424	2105	1531	574.5	72.73%	27.29%	57500	60600	63800
Schuylkill/ACSR/TW	1657.4	7	33	93.3	0.2241	7x0.1280	0.384	1.3920	1.3020	1.384	1868	1563	305.1	83.67%	16.33%	44000	45700	47500
James/ACSR/TW	1730.6	13	39	92.8	0.2107	19x0.1075	0.538	1.5320	1.3600	1.465	2221	1634	586.5	73.57%	26.41%	59400	62600	65800
Pee Dee/ACSR/TW	1758.6	7	33	93.4	0.2308	7x0.1319	0.396	1.4760	1.3810	1.425	1982	1658	324.0	83.65%	16.35%	46700	48500	50400
Cumberland/ACSR/TW	1926.9	13	42	92.9	0.2142	19x0.1133	0.566	1.7050	1.5130	1.545	2470	1819	651.5	73.64%	26.38%	66000	69600	73200
Athabaska/ACSR/TW	1949.6	7	36	93.5	0.2327	7x0.1392	0.418	1.6380	1.5310	1.500	2199	1838	360.8	83.58%	16.41%	51900	53900	56000
Powder/ACSR/TW	2153.8	8	60	91.6	0.1895	19x0.0961	0.480	1.8300	1.6920	1.604	2509	2040	468.7	81.31%	18.68%	61100	63600	66200
Santee/ACSR/TW	2627.3	8	60	92.4	0.2093	19x0.1062	0.531	2.2330	2.0640	1.764	3061	2489	572.4	81.31%	18.70%	74500	77700	80800

(1) Code words shown denote ACSR/TW with regular-strength Class A Galvanized steel core (/GA2). See the Options section to find the appropriate code word modifier designation for alternative design options.
(2) Due to rounding, total values may be slightly greater or slightly less than the sum of the component values.
Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

TransPowr® ACSR/TW Bare Overhead Conductor

Trapezoidal Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR/TW (ELECTRICAL PROPERTIES) - EQUIVALENT DIAMETER - CONDUCTORS SIZED TO HAVE EQUIVALENT DIAMETER TO REGULAR ACSR

CODE WORD (1)	SIZE AWG OR kcmil	TYPE	NO. AL WIRES	FILL FACTOR	EQUIV. AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. IN	RESISTANCE (3) OHMS/KFT			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/KFT (5)	CAPACITIVE REACTANCE MEGAOHM/ KFT (5)
								TOTAL	AL		DC @20°C	AC @25°C	AC @75°C	STD.	E3X®			
Calumet/ACSR/TW	565.3	16	20	91.1	0.1681	7x0.1146	0.344	0.5161	0.4439	0.858	0.0299	0.0307	0.0367	720	810	0.0293	0.0811	0.5218
Mohawk/ACSR/TW	571.7	13	18	91.8	0.1782	7x0.1030	0.309	0.5073	0.4489	0.846	0.0297	0.0305	0.0365	720	810	0.0287	0.0816	0.5240
Oswego/ACSR/TW	664.8	16	20	92.0	0.1823	7x0.1244	0.373	0.6071	0.5220	0.927	0.0255	0.0262	0.0312	795	900	0.0317	0.0793	0.5096
Mystic/ACSR/TW	666.6	13	18	92.5	0.1924	7x0.1111	0.333	0.5912	0.5233	0.911	0.0255	0.0262	0.0313	790	895	0.0309	0.0799	0.5125
Wabash/ACSR/TW	762.8	16	20	92.6	0.1953	7x0.1331	0.399	0.6965	0.5991	0.990	0.0222	0.0229	0.0273	865	985	0.0339	0.0778	0.4994
Maumee/ACSR/TW	768.2	13	20	92.7	0.1960	7x0.1195	0.358	0.6819	0.6034	0.977	0.0221	0.0228	0.0272	865	980	0.0331	0.0783	0.5014
Kettle/ACSR/TW	957.2	7	33	91.0	0.1703	7x0.0973	0.292	0.8037	0.7517	1.065	0.0180	0.0189	0.0232	955	1090	0.0354	0.0768	0.4880
Suwannee/ACSR/TW	959.6	16	22	93.2	0.2088	7x0.1493	0.448	0.8763	0.7538	1.108	0.0176	0.0183	0.0218	995	1145	0.0379	0.0752	0.4817
Columbia/ACSR/TW	966.2	13	18	93.9	0.2317	7x0.1338	0.401	0.8574	0.7590	1.089	0.0176	0.0183	0.0217	995	1135	0.0370	0.0758	0.4844
Genesee/ACSR/TW	1158.0	7	33	91.9	0.1873	7x0.1078	0.323	0.9731	0.9092	1.166	0.0149	0.0157	0.0192	1075	1235	0.0388	0.0747	0.4737
Hudson/ACSR/TW	1158.4	13	39	91.0	0.1723	7x0.1467	0.440	1.0280	0.9093	1.209	0.0147	0.0155	0.0190	1090	1255	0.0410	0.0734	0.4681
Cheyenne/ACSR/TW	1168.1	5	30	92.4	0.1973	7x0.0926	0.278	0.9643	0.9172	1.156	0.0148	0.0157	0.0192	1075	1235	0.0382	0.0750	0.4751
Yukon/ACSR/TW	1233.6	13	38	91.5	0.1802	19x0.0910	0.455	1.0920	0.9689	1.245	0.0139	0.0146	0.0179	1135	1310	0.0423	0.0727	0.4635
Nelson/ACSR/TW	1257.1	7	33	92.3	0.1952	7x0.1115	0.334	1.0560	0.9876	1.212	0.0137	0.0146	0.0178	1130	1300	0.0404	0.0737	0.4677
Catawba/ACSR/TW	1272.0	5	30	92.7	0.2059	7x0.0967	0.290	1.0500	0.9989	1.204	0.0136	0.0145	0.0176	1130	1300	0.0398	0.0741	0.4687
Thames/ACSR/TW	1334.6	13	39	91.7	0.1850	19x0.0944	0.472	1.1810	1.0480	1.293	0.0128	0.0136	0.0166	1190	1375	0.0439	0.0718	0.4576
Mackenzie/ACSR/TW	1359.7	7	33	92.6	0.2030	7x0.1159	0.348	1.1420	1.0680	1.258	0.0127	0.0136	0.0165	1185	1365	0.0419	0.0729	0.4618
Truckee/ACSR/TW	1372.5	5	30	93.0	0.2139	7x0.1004	0.301	1.1330	1.0780	1.249	0.0126	0.0135	0.0164	1185	1365	0.0413	0.0732	0.4630
Merrimack/ACSR/TW	1433.6	13	39	92.0	0.1917	19x0.0978	0.489	1.2680	1.1260	1.338	0.0119	0.0127	0.0155	1245	1440	0.0454	0.0711	0.4522
Miramichi/ACSR/TW	1455.3	7	33	92.9	0.2100	7x0.1200	0.360	1.2220	1.1430	1.300	0.0118	0.0127	0.0155	1235	1425	0.0433	0.0722	0.4567
St. Croix/ACSR/TW	1467.8	5	30	93.2	0.2212	7x0.1041	0.312	1.2120	1.1530	1.291	0.0118	0.0127	0.0154	1235	1425	0.0427	0.0725	0.4579
Rio Grande/ACSR/TW	1533.3	13	39	92.3	0.1983	19x0.1012	0.506	1.3570	1.2040	1.382	0.0111	0.0119	0.0145	1295	1500	0.0469	0.0703	0.4471
Potomac/ACSR/TW	1557.4	7	36	92.7	0.2080	7x0.1241	0.372	1.3080	1.2230	1.345	0.0110	0.0120	0.0145	1285	1490	0.0448	0.0714	0.4513
Platte/ACSR/TW	1569.0	5	30	93.4	0.2287	7x0.1074	0.322	1.2960	1.2320	1.333	0.0110	0.0120	0.0145	1285	1485	0.0441	0.0717	0.4528
Pecos/ACSR/TW	1622.0	13	39	92.5	0.2039	19x0.1064	0.532	1.4420	1.2730	1.424	0.0105	0.0113	0.0137	1340	1560	0.0485	0.0695	0.4424
Schuylkill/ACSR/TW	1657.4	7	33	93.3	0.2241	7x0.1280	0.384	1.3920	1.3020	1.384	0.0104	0.0113	0.0137	1335	1545	0.0461	0.0707	0.4469
James/ACSR/TW	1730.6	13	39	92.8	0.2107	19x0.1075	0.538	1.5320	1.3600	1.465	0.00987	0.0107	0.0129	1395	1620	0.0498	0.0689	0.4380
Pee Dee/ACSR/TW	1758.6	7	33	93.4	0.2308	7x0.1319	0.396	1.4760	1.3810	1.425	0.00979	0.0108	0.0130	1380	1605	0.0475	0.0700	0.4423
Cumberland/ACSR/TW	1926.9	13	42	92.9	0.2142	19x0.1133	0.566	1.7050	1.5130	1.545	0.00887	0.00972	0.0117	1485	1735	0.0525	0.0677	0.4297
Athabaska/ACSR/TW	1949.6	7	36	93.5	0.2327	7x0.1392	0.418	1.6380	1.5310	1.500	0.00883	0.00985	0.0118	1465	1710	0.0500	0.0688	0.4343
Powder/ACSR/TW	2153.8	8	60	91.6	0.1895	19x0.0961	0.480	1.8300	1.6920	1.604	0.00801	0.00898	0.0105	1585	1860	0.0537	0.0672	0.4238
Santee/ACSR/TW	2627.3	8	60	92.4	0.2093	19x0.1062	0.531	2.2330	2.0640	1.764	0.00656	0.00765	0.00884	1770	2085	0.0591	0.0650	0.4089

(1) Code words shown denote ACSR/TW with regular-strength Class A Galvanized steel core (/GA2). See the Options section to find the appropriate code word modifier designation for alternative design options.
(3) Based on a conductivity of 61.2% (minimum lot average) IACS at 20°C for aluminum and 8% IACS at 20°C for the steel core. AC resistance for single-layer and three-layer designs approximates the effects of core magnetization. To convert to ohms/mile, multiply by 5.28. To convert of ohms/km, multiply by 3.281.
(4) Based on a conductor temperature of 75°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.5 coefficient of emissivity for a standard conductor and 0.9 for a E3X coated conductor, 0.5 coefficient of absorptivity for a standard conductor and 0.2 for a E3X coated conductor, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0 W/ft² of solar and radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.
(5) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius.