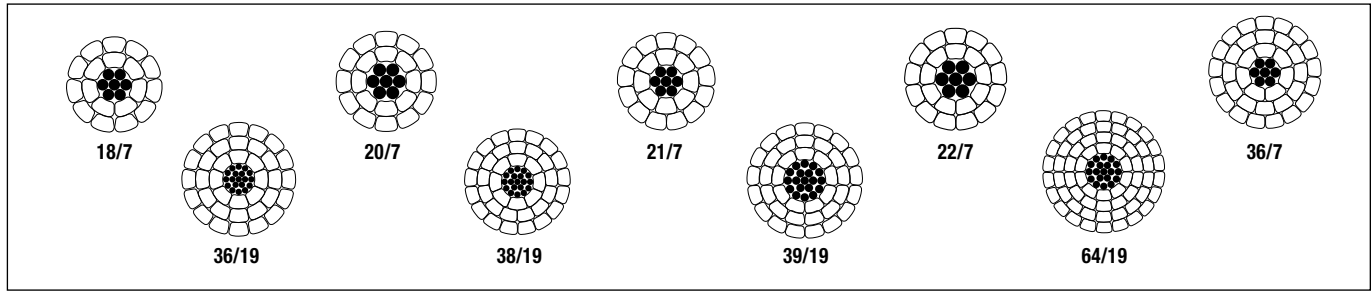


TransPowr[®] ACSR/TW Bare Overhead Conductor

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 equivalent overall diameter enable a greater circular mil cross-sectional area of aluminum within the conductor, allowing a significant increase in conductor current-carrying capacity.

Applications:

Trapezoidal Aluminum Conductors Steel-Reinforced (ACSR/TW) are used for overhead transmission lines.

Electrical Parameters:

The electrical parameters for the trapezoidal ACSR equivalent circular mil area and equivalent overall diameter conductors may be found in the last table of this section.

Options:

- High-Conductivity aluminum (/HC) (62.2% IACS)
- Regular-strength Class C galvanized steel core (/GC2)
- High-strength Class A galvanized steel core (/GA3)
- Extra-high-strength Class A galvanized steel core (/GA4)
- Ultra-high-strength Class A galvanized steel core (/GA5)
- Regular-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA2)
- High-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA3)
- Extra-high-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA4)
- Ultra-high-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA5)
- Aluminum-clad steel core (/AW)
- Non-Specular surface finish (/NS)
- E3X[®] surface coating (/E3X)

At the present time, CAN/CSA C61089 does not recognize TW conductor designs. The information provided on the following pages is from our US catalog.

For other conductor sizes, designs and/or specific installation requirements not shown in the tables, contact your General Cable sales representative or e-mail infoca@generalcable.com.

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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES			APPROX. WEIGHT LB/1000 FT (2)			PERCENT BY MASS		RATED STRENGTH LBS			STANDARD PACKAGES (3)		
								TOTAL	AL	O.D. INCHES	TOTAL	AL	STEEL	AL	STEEL	GA2	GA3 (HS)	GA5 (UHS)	REEL DESIGNATION	WEIGHT LBS	LENGTH FEET
Oriole/ACSR/TW	336.4	23	17	88.7	0.1407	7x0.1059	0.3177	0.3258	0.2642	0.69	526	318	209	60.34	39.66	17100	18300	19500	RMT 84.36	7743	14720
																			NR 60.28	4276	8130
Flicker/ACSR/TW	477	13	18	91.3	0.1628	7x0.0940	0.2820	0.4234	0.3748	0.78	612	448	164	73.14	26.86	17200	18100	19000	RM 84.36	6765	11050
																			NR 60.28	4506	7360
Hawk/ACSR/TW	477	16	18	91.3	0.1628	7x0.1053	0.3159	0.4355	0.3745	0.79	655	448	206	68.47	31.53	19400	20500	21700	RMT 84.36	7233	11050
																			NR 60.28	3620	5530
Hen/ACSR/TW	477	23	16	88.7	0.1727	7x0.1261	0.3783	0.4620	0.3746	0.83	746	450	296	60.34	39.66	23600	25300	27000	RM68.38	7288	9770
																			NR 60.28	3648	4890
Parakeet/ACSR/TW	556.5	13	18	92.0	0.1758	7x0.1015	0.3045	0.4938	0.4372	0.84	714	522	192	73.15	26.85	20000	21100	22200	RM 68.38	6770	9480
																			NR 60.28	3385	4740
Dove/ACSR/TW	556.5	16	20	91.8	0.1668	7x0.1138	0.3414	0.5083	0.4371	0.85	764	523	241	68.45	31.55	22600	24000	25300	RMT 84.36	8036	10520
																			NR 60.28	4018	5260
Rook/ACSR/TW	636	13	18	92.6	0.1880	7x0.1085	0.3255	0.5641	0.4994	0.89	816	597	219	73.15	26.85	22900	24100	25400	RM 68.38	6766	8290
																			NR 60.28	3387	4150
Grosbeak/ACSR/TW	636	16	20	92.0	0.1783	7x0.1216	0.3648	0.5809	0.4996	0.91	873	598	275	68.47	31.53	25400	27000	28600	RMT 84.36	8030	9200
																			NR 66.28	4015	4600
Tern/ACSR/TW	795	7	17	93.5	0.2163	7x0.0888	0.2664	0.6680	0.6247	0.96	892	745	147	83.54	16.46	21900	22700	23500	RM 68.38	5601	6280
																			NR 60.28	2801	3140
Puffin/ACSR/TW	795	11	21	93.5	0.1945	7x0.1108	0.3324	0.6916	0.6241	0.98	974	746	229	76.55	23.45	26200	27500	28800	RMT 84.36	7542	7740
																			NR 60.28	3771	3870
Condor/ACSR/TW	795	13	21	93.0	0.1945	7x0.1213	0.3639	0.7051	0.6242	0.99	1020	746	274	73.15	26.85	28200	29800	31300	RMT 84.36	7896	7740
																			NR 60.28	3948	3870
Drake/ACSR/TW	795	16	20	93.1	0.1993	7x0.1360	0.4080	0.7259	0.6242	1.01	1091	747	344	68.45	31.55	31800	33800	35700	RMT 84.36	8042	7370
																			NR 60.28	4016	3680
Mallard/ACSR/TW	795	23	22	93.0	0.1901	19x0.0977	0.4885	0.7668	0.6244	1.046	1234	751	483	60.84	39.16	38700	41400	44000	RMT 84.36	9946	8060
																			NR 60.28	3973	3220
Phoenix/ACSR/TW	954	5	30	92.9	0.1784	7x0.0837	0.2511	0.7882	0.7497	1.04	1028	898	130	87.32	12.68	23800	24500	25200	RMT 84.45	9448	9190
																			NR 66.28	4729	4600
Rail/ACSR/TW	954	7	33	92.2	0.1700	7x0.0971	0.2913	0.8011	0.7493	1.06	1074	899	175	83.66	16.34	25900	26900	27900	RMT 84.45	10848	10100
																			RM 68.38	5424	5050
Cardinal/ACSR/TW	954	13	21	93.9	0.2131	7x0.1329	0.3987	0.8463	0.7492	1.08	1224	895	329	73.15	26.85	33500	35400	37200	RMT 84.36	7896	6450
																			NR 60.28	3942	3220
Snowbird/ACSR/TW	1033.5	5	30	92.5	0.1856	7x0.0871	0.2613	0.8532	0.8115	1.09	1114	972	141	87.32	12.68	25700	26500	27300	RMT 84.45	9455	8490
																			RM 66.32	4722	4240
Ortolan/ACSR/TW	1033.5	7	33	92.3	0.1769	7x0.1010	0.3030	0.8673	0.8112	1.10	1163	973	190	83.68	16.32	28100	29100	30200	RMT 84.45	10842	9320
																			RM 68.38	5421	4660
Curlew/ACSR/TW	1033.5	13	21	93.7	0.2219	7x0.1383	0.4149	0.9170	0.8118	1.13	1326	970	356	73.15	26.85	36300	38300	40300	RMT 84.36	7890	5950
																			NR 60.28	3952	2980
Avocet/ACSR/TW	1113	5	30	93.0	0.1926	7x0.0904	0.2712	0.9186	0.8737	1.13	1199	1047	152	87.32	12.68	27500	28300	29200	RMT 84.36	9439	7870
																			RM 66.32	4726	3940
Bluejay/ACSR/TW	1113	7	33	92.7	0.1837	7x0.1049	0.3147	0.9351	0.8746	1.14	1253	1048	205	83.66	16.34	30300	31400	32600	RMT 84.45	10840	8650
																			RM 68.38	5426	4330
Finch/ACSR/TW	1113	13	39	91.9	0.1689	19x0.0862	0.4310	0.9845	0.8737	1.18	1427	1051	376	73.64	26.36	39100	41200	43200	RMT 90.45	14556	10200
																			RMT 84.36	7278	5100
Oxbird/ACSR/TW	1192.5	5	30	93.2	0.1993	7x0.0936	0.2808	0.9843	0.9361	1.17	1285	1122	163	87.31	12.69	29400	30400	31300	RMT 84.36	9446	7350
																			RM 66.32	4717	3670
Bunting/ACSR/TW	1192.5	7	33	93.0	0.1901	7x0.1086	0.3258	1.0016	0.9368	1.18	1343	1123	220	83.65	16.35	32400	33700	34900	RMT 84.45	10849	8080
																			RM 68.38	5425	4040

(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 not exactly equal the sum of the component values.

(3) Weights shown are for conductor only and do not include the reel. Normal length and shipping tolerances apply.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

TransPwr® ACSR/TW Bare Overhead Conductor

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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. INCHES	RESISTANCE (4) OHMS/1000 FT			AMPACITY 75°C (5)	GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/1000 FT (6)	CAPACITIVE REACTANCE MEGA OHM 1000 FT (6)
								TOTAL	AL		DC @ 20°C	AC @ 25°C	AC @ 75°C				
Oriole/ACSR/TW	336.4	23	17	88.7	0.1407	7x0.1059	0.3177	0.3258	0.2642	0.69	0.0502	0.0513	0.0613	525	0.0236	0.0861	0.5553
Flicker/ACSR/TW	477	13	18	91.3	0.1628	7x0.0940	0.2820	0.4234	0.3748	0.78	0.0357	0.0366	0.0437	640	0.0259	0.0839	0.5375
Hawk/ACSR/TW	477	16	18	91.3	0.1628	7x0.1053	0.3159	0.4355	0.3745	0.79	0.0356	0.0364	0.0435	645	0.0266	0.0834	0.5349
Hen/ACSR/TW	477	23	16	88.7	0.1727	7x0.1261	0.3783	0.4620	0.3746	0.83	0.0354	0.0362	0.0433	655	0.0280	0.0822	0.5278
Parakeet/ACSR/TW	556.5	13	18	92.0	0.1758	7x0.1015	0.3045	0.4938	0.4372	0.84	0.0306	0.0314	0.0375	705	0.0279	0.0822	0.5259
Dove/ACSR/TW	556.5	16	20	91.8	0.1668	7x0.1138	0.3414	0.5083	0.4371	0.85	0.0305	0.0313	0.0374	710	0.0287	0.0816	0.5232
Rook/ACSR/TW	636	13	18	92.6	0.1880	7x0.1085	0.3255	0.5641	0.4994	0.89	0.0268	0.0275	0.0329	765	0.0298	0.0808	0.5159
Grosbeak/ACSR/TW	636	16	20	92.0	0.1783	7x0.1216	0.3648	0.5809	0.4996	0.91	0.0267	0.0274	0.0327	770	0.0307	0.0801	0.5129
Tern/ACSR/TW	795	7	17	93.5	0.2163	7x0.0888	0.2664	0.6680	0.6247	0.96	0.0215	0.0223	0.0266	870	0.0315	0.0795	0.5042
Puffin/ACSR/TW	795	11	21	93.5	0.1945	7x0.1108	0.3324	0.6916	0.6241	0.98	0.0215	0.0222	0.0264	875	0.0327	0.0786	0.5009
Condor/ACSR/TW	795	13	21	93.0	0.1945	7x0.1213	0.3639	0.7051	0.6242	0.99	0.0214	0.0221	0.0264	880	0.0333	0.0782	0.4987
Drake/ACSR/TW	795	16	20	93.1	0.1993	7x0.1360	0.4080	0.7259	0.6242	1.01	0.0213	0.0220	0.0262	885	0.0342	0.0776	0.4962
Mallard/ACSR/TW	795	23	22	93.0	0.1901	19x0.0977	0.4885	0.7668	0.6244	1.046	0.0213	0.0219	0.0261	895	0.0360	0.0764	0.4907
Phoenix/ACSR/TW	954	5	30	92.9	0.1784	7x0.0837	0.2511	0.7882	0.7497	1.04	0.0181	0.0190	0.0233	950	0.0343	0.0775	0.4910
Rail/ACSR/TW	954	7	33	92.2	0.1700	7x0.0971	0.2913	0.8011	0.7493	1.06	0.0180	0.0189	0.0232	955	0.0350	0.0771	0.4889
Cardinal/ACSR/TW	954	13	21	93.9	0.2131	7x0.1329	0.3987	0.8463	0.7492	1.08	0.0178	0.0185	0.0221	985	0.0364	0.0762	0.4851
Snowbird/ACSR/TW	1033.5	5	30	92.5	0.1856	7x0.0871	0.2613	0.8532	0.8115	1.09	0.0167	0.0176	0.0215	995	0.0357	0.0766	0.4844
Ortolan/ACSR/TW	1033.5	7	33	92.3	0.1769	7x0.1010	0.3030	0.8673	0.8112	1.10	0.0167	0.0175	0.0215	1000	0.0364	0.0762	0.4827
Curlew/ACSR/TW	1033.5	13	21	93.7	0.2219	7x0.1383	0.4149	0.9170	0.8118	1.13	0.0165	0.0171	0.0204	1035	0.0379	0.0752	0.4787
Avocet/ACSR/TW	1113	5	30	93.0	0.1926	7x0.0904	0.2712	0.9186	0.8737	1.13	0.0155	0.0164	0.0200	1045	0.0370	0.0758	0.4790
Bluejay/ACSR/TW	1113	7	33	92.7	0.1837	7x0.1049	0.3147	0.9351	0.8746	1.14	0.0155	0.0163	0.0200	1050	0.0377	0.0753	0.4772
Finch/ACSR/TW	1113	13	39	91.9	0.1689	19x0.0862	0.4310	0.9845	0.8737	1.18	0.0154	0.0162	0.0198	1065	0.0399	0.0740	0.4716
Oxbird/ACSR/TW	1192.5	5	30	93.2	0.1993	7x0.0936	0.2808	0.9843	0.9361	1.17	0.0145	0.0154	0.0188	1090	0.0382	0.0750	0.4738
Bunting/ACSR/TW	1192.5	7	33	93.0	0.1901	7x0.1086	0.3258	1.0016	0.9368	1.18	0.0144	0.0153	0.0187	1095	0.0390	0.0746	0.4720

(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.

(4) 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 to ohms/km, multiply by 3.281.

(5) 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, 0.5 coefficient of absorbtivity, 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 sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

(6) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm). To convert the Geometric Mean Radius (GMR) to cm, divide the value by 0.03821. To convert inductive reactance to ohm/km, multiply the value by 3.281. To convert capacitive reactance to ohm/km, divide the value by 3.281.



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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES			APPROX. WEIGHT LB/1000 FT (2)			PERCENT BY MASS		RATED STRENGTH LBS			STANDARD PACKAGES (3)		
								TOTAL	AL	O.D. INCHES	TOTAL	AL	STEEL	AL	STEEL	GA2	GA3 (HS)	GA5 (UHS)	REEL DESIGNATION	WEIGHT LBS	LENGTH FEET
Grackle/ACSR/TW	1192.5	13	39	92.3	0.1749	19x0.0892	0.4460	1.0556	0.9369	1.22	1529	1126	403	73.65	26.35	41900	44100	46300	RMT 90.45	14569	9530
																			RM 72.36	7277	4760
Scissortail/ACSR/TW	1272	5	30	93.6	0.2059	7x0.0967	0.2901	1.0508	0.9994	1.20	1371	1197	174	87.30	12.70	31400	32400	33400	RMT 84.36	9460	6900
																			RM 66.32	4730	3450
Bittern/ACSR/TW	1272	7	33	93.3	0.1964	7x0.1121	0.3363	1.0685	0.9994	1.22	1432	1198	234	83.67	16.33	34600	35900	37200	RMT 84.45	10854	7580
																			RM 68.38	5427	3790
Pheasant/ACSR/TW	1272	13	39	93.0	0.1806	19x0.0921	0.4605	1.1252	0.9987	1.26	1630	1201	429	73.66	26.34	44100	46400	48800	RMT 90.45	14559	8930
																			RM 72.36	7272	4460
Dipper/ACSR/TW	1351.5	7	33	93.5	0.2024	7x0.1155	0.3465	1.1350	1.0616	1.25	1521	1273	248	83.68	16.32	36700	38100	39500	RMT 84.45	10847	7130
																			RM 68.38	5416	3560
Martin/ACSR/TW	1351.5	13	39	93.0	0.1861	19x0.0949	0.4745	1.1954	1.0610	1.30	1732	1276	456	73.68	26.32	46800	49300	51800	RMT 90.45	14548	8400
																			RM 72.36	7274	4200
Bobolink/ACSR/TW	1431	7	33	93.0	0.2083	7x0.1189	0.3567	1.2020	1.1243	1.29	1611	1348	263	83.67	16.33	38900	40400	41900	RMT 84.45	10842	6730
																			RM 68.38	5413	3360
Plover/ACSR/TW	1431	13	39	93.0	0.1916	19x0.0977	0.4885	1.2666	1.1242	1.33	1834	1351	483	73.66	26.34	49600	52200	54900	RMT 90.45	14565	7940
																			RM 72.36	7282	3970
Lapwing/ACSR/TW	1590	7	36	93.0	0.2102	7x0.1253	0.3759	1.3351	1.2488	1.36	1790	1498	292	83.67	16.33	42200	43900	45500	RMT 84.45	11831	6610
																			RM 68.38	5906	3300
Falcon/ACSR/TW	1590	13	42	93.5	0.1946	19x0.1030	0.5150	1.4066	1.2483	1.40	2038	1501	537	73.65	26.35	55100	58000	61000	RMT 90.45	15674	7690
																			RMT 84.36	7827	3840
Chukar/ACSR/TW	1780	8	38	93.5	0.2164	19x0.0874	0.4370	1.5122	1.3982	1.45	2061	1674	387	81.24	18.76	50700	52800	54900	RMT 90.45	12859	6240
																			RM 68.38	6430	3120
Bluebird/ACSR/TW	2156	8	64	91.0	0.1835	19x0.0961	0.4805	1.8312	1.6934	1.61	2512	2045	467	81.39	18.61	61100	63700	66200	RMT 96.60	21629	8610
																			RM 84.45	10802	4300

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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES			APPROX. WEIGHT LB/1000 FT (2)			PERCENT BY MASS		RATED STRENGTH LBS			STANDARD PACKAGES (3)		
								TOTAL	AL	O.D. INCHES	TOTAL	AL	STEEL	AL	STEEL	GA2	GA3 (HS)	GA5 (UHS)	REEL DESIGNATION	WEIGHT LBS	LENGTH FEET
Calumet/ACSR/TW	565.3	16	20	91.5	0.1681	7x0.1146	0.3438	0.5161	0.4438	0.86	776	531	244	68.48	31.52	22900	24300	25700	RMT 84.36	8027	10350
																			NR 60.28	4010	5170
Mohawk/ACSR/TW	571.7	13	18	92.2	0.1782	7x0.1030	0.3090	0.5072	0.4489	0.85	734	537	197	73.10	26.90	20600	21700	22800	RM 66.38	6768	9220
																			NR 60.28	3384	4610
Oswego/ACSR/TW	664.8	16	20	92.3	0.1823	7x0.1244	0.3732	0.6073	0.5222	0.93	913	625	288	68.44	31.56	26600	28200	29900	RMT 84.36	8032	8800
																			NR 60.28	4016	4400
Mystic/ACSR/TW	666.6	13	20	92.3	0.1826	7x0.1111	0.3333	0.5915	0.5236	0.91	855	626	230	73.14	26.86	24000	25300	26600	RMT 84.36	7519	8790
																			NR 60.28	3755	4390
Wabash/ACSR/TW	762.8	16	20	92.9	0.1953	7x0.1331	0.3993	0.6963	0.5989	0.99	1046	717	330	68.49	31.51	30500	32400	34200	RMT 84.36	8026	7670
																			NR 60.28	4008	3830
Maumee/ACSR/TW	768.2	13	20	93.0	0.1960	7x0.1195	0.3585	0.6817	0.6032	0.98	987	721	266	73.07	26.93	27700	29200	30700	RMT 84.36	7520	7620
																			NR 60.28	3760	3810
Kettle/ACSR/TW	957.2	7	33	92.2	0.1703	7x0.0973	0.2919	0.8038	0.7518	1.06	1078	902	176	83.65	16.35	26000	27000	28000	RMT 84.45	10843	10060
																			RM 68.38	5421	5030
Suwanee/ACSR/TW	959.6	16	22	93.4	0.2089	7x0.1493	0.4479	0.8764	0.7539	1.11	1317	902	415	68.49	31.51	37200	40100	42500	RMT 84.36	8834	6710
																			RM 66.32	4410	3350
Columbia/ACSR/TW	966.2	13	21	93.6	0.2145	7x0.1338	0.4014	0.8576	0.7591	1.09	1240	907	333	73.13	26.87	34000	35800	37700	RMT 84.36	7899	6370
																			RM 66.32	3943	3180

(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 not exactly equal the sum of the component values.

(3) Weights shown are for conductor only and do not include the reel. Normal length and shipping tolerances apply.

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) – 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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. INCHES	RESISTANCE (4) OHMS/1000 FT			AMPACITY 75°C (5)	GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/1000 FT (6)	CAPACITIVE REACTANCE MEGAOhm 1000 FT (6)
								TOTAL	AL		DC @ 20°C	AC @ 25°C	AC @ 75°C				
Grackle/ACSR/TW	1192.5	13	39	92.3	0.1749	19x0.0892	0.4460	1.0556	0.9369	1.22	0.0144	0.0151	0.0185	1110	0.0412	0.0733	0.4665
Scissortail/ACSR/TW	1272	5	30	93.6	0.2059	7x0.0967	0.2901	1.0508	0.9994	1.20	0.0135	0.0145	0.0176	1130	0.0394	0.0743	0.4690
Bittern/ACSR/TW	1272	7	33	93.3	0.1964	7x0.1121	0.3363	1.0685	0.9994	1.22	0.0135	0.0144	0.0176	1135	0.0402	0.0739	0.4672
Pheasant/ACSR/TW	1272	13	39	93.0	0.1806	19x0.0921	0.4605	1.1252	0.9987	1.26	0.0135	0.0142	0.0174	1155	0.0424	0.0726	0.4619
Dipper/ACSR/TW	1351.5	7	33	93.5	0.2024	7x0.1155	0.3465	1.1350	1.0616	1.25	0.0127	0.0136	0.0166	1180	0.0414	0.0732	0.4626
Martin/ACSR/TW	1351.5	13	39	93.0	0.1861	19x0.0949	0.4745	1.1954	1.0610	1.30	0.0127	0.0135	0.0164	1195	0.0437	0.0719	0.4572
Bobolink/ACSR/TW	1431	7	33	93.0	0.2083	7x0.1189	0.3567	1.2020	1.1243	1.29	0.0120	0.0129	0.0157	1220	0.0427	0.0725	0.4578
Plover/ACSR/TW	1431	13	39	93.0	0.1916	19x0.0977	0.4885	1.2666	1.1242	1.33	0.0120	0.0128	0.0155	1240	0.0450	0.0713	0.4527
Lapwing/ACSR/TW	1590	7	36	93.0	0.2102	7x0.1253	0.3759	1.3351	1.2488	1.36	0.0108	0.0118	0.0142	1300	0.0450	0.0712	0.4495
Falcon/ACSR/TW	1590	13	42	93.5	0.1946	19x0.1030	0.5150	1.4066	1.2483	1.40	0.0108	0.0116	0.0140	1320	0.0474	0.0701	0.4448
Chukar/ACSR/TW	1780	8	38	93.5	0.2164	19x0.0874	0.4370	1.5122	1.3982	1.45	0.00964	0.0106	0.0127	1400	0.0482	0.0697	0.4398
Bluebird/ACSR/TW	2156	8	64	91.0	0.1835	19x0.0961	0.4805	1.8312	1.6934	1.61	0.00802	0.00900	0.0105	1585	0.0538	0.0672	0.4229

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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. INCHES	RESISTANCE (4) OHMS/1000 FT			AMPACITY 75°C (5)	GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/1000 FT (6)	CAPACITIVE REACTANCE MEGAOhm 1000 FT (6)
								TOTAL	AL		DC @ 20°C	AC @ 25°C	AC @ 75°C				
Calument/ACSR/TW	565.3	16	20	91.5	0.1681	7x0.1146	0.3438	0.5161	0.4438	0.86	0.0300	0.0308	0.0368	715	0.0290	0.0814	0.5217
Mohawk/ACSR/TW	571.7	13	18	92.2	0.1782	7x0.1030	0.3090	0.5072	0.4489	0.85	0.0298	0.0306	0.0365	715	0.0283	0.0820	0.5239
Oswego/ACSR/TW	664.8	16	20	92.3	0.1823	7x0.1244	0.3732	0.6073	0.5222	0.93	0.0255	0.0262	0.0313	795	0.0313	0.0796	0.5096
Mystic/ACSR/TW	666.6	13	20	92.3	0.1826	7x0.1111	0.3333	0.5915	0.5236	0.91	0.0255	0.0263	0.0314	790	0.0306	0.0801	0.5120
Wabash/ACSR/TW	762.8	16	20	92.9	0.1953	7x0.1331	0.3993	0.6963	0.5989	0.99	0.0222	0.0229	0.0273	865	0.0335	0.0781	0.4993
Maumee/ACSR/TW	768.2	13	20	93.0	0.1960	7x0.1195	0.3585	0.6817	0.6032	0.98	0.0222	0.0229	0.0273	860	0.0328	0.0786	0.5014
Kettle/ACSR/TW	957.2	7	33	92.2	0.1703	7x0.0973	0.2919	0.8038	0.7518	1.06	0.0180	0.0189	0.0232	955	0.0350	0.0770	0.4886
Suwanee/ACSR/TW	959.6	16	22	93.4	0.2089	7x0.1493	0.4479	0.8764	0.7539	1.11	0.0177	0.0183	0.0218	995	0.0376	0.0754	0.4817
Columbia/ACSR/TW	966.2	13	21	93.6	0.2145	7x0.1338	0.4014	0.8576	0.7591	1.09	0.0176	0.0183	0.0218	995	0.0367	0.0760	0.4839

(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.

(4) 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 to ohms/km, multiply by 3.281.

(5) 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, 0.5 coefficient of absorptivity, 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 sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

(6) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm). To convert the Geometric Mean Radius (GMR) to cm, divide the value by 0.03821. To convert inductive reactance to ohm/km, multiply the value by 3.281. To convert capacitive reactance to ohm/km, divide the value by 3.281.



TransPowr® ACSR/TW Bare Overhead Conductor

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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES			APPROX. WEIGHT LB/1000 FT (2)			PERCENT BY MASS		RATED STRENGTH LBS			STANDARD PACKAGES (3)		
								TOTAL	AL	O.D. INCHES	TOTAL	AL	STEEL	AL	STEEL	GA2	GA3 (HS)	GA5 (UHS)	REEL DESIGNATION	WEIGHT LBS	LENGTH FEET
Genesee/ACSR/TW	1158.0	7	33	92.5	0.1873	7x0.1078	0.3234	0.9732	0.9094	1.16	1307	1091	216	83.45	16.55	31600	32900	34100	RMT 84.45	10874	8320
																			RM 68.38	5437	4160
Hudson/ACSR/TW	1158.4	13	26	93.7	0.2111	7x0.1467	0.4401	1.0279	0.9096	1.20	1488	1087	401	73.08	26.92	39600	42500	44700	RMT 84.36	9776	6570
																			RM 66.32	4880	3280
Cheyenne/ACSR/TW	1168.1	5	30	92.9	0.1973	7x0.0926	0.2778	0.9642	0.9170	1.16	1259	1099	160	87.32	12.68	28800	29700	30700	RMT 84.45	9441	7500
																			RM 66.32	4720	3750
Yukon/ACSR/TW	1233.6	13	39	91.0	0.1778	19x0.0910	0.4550	1.0923	0.9688	1.25	1584	1165	419	73.53	26.47	42900	45200	47500	RMT 90.45	14588	9210
																			RMT 84.36	7286	4600
Nelson/ACSR/TW	1257.1	7	35	92.4	0.1895	7x0.1115	0.3345	1.0558	0.9875	1.21	1415	1184	231	83.65	16.35	34200	35500	36800	RMT 84.45	11508	8130
																			RM 68.38	5747	4060
Catawba/ACSR/TW	1272.0	5	30	93.3	0.2059	7x0.0967	0.2901	1.0507	0.9993	1.20	1371	1197	174	87.30	12.70	31400	32400	33400	RMT 84.36	5333	3890
																			RM 66.32	4716	3440
Thames/ACSR/TW	1334.6	13	39	92.6	0.1850	19x0.0944	0.4720	1.1808	1.0479	1.29	1711	1260	451	73.64	26.36	46300	48700	51200	RMT 90.45	14562	8510
																			RM 72.36	7273	4250
Mackenzie/ACSR/TW	1359.7	7	36	92.9	0.1943	7x0.1159	0.3477	1.1413	1.0674	1.26	1531	1281	250	83.67	16.33	36900	38400	39800	RMT 84.45	11832	7730
																			RM 68.38	5909	3860
Truckee/ACSR/TW	1372.5	5	30	93.6	0.2139	7x0.1004	0.3012	1.1337	1.0783	1.25	1479	1291	188	87.32	12.68	33400	34500	35500	RMT 84.36	9451	6390
																			RM 66.32	4718	3190
Merrimack/ACSR/TW	1433.6	13	39	92.1	0.1917	19x0.0978	0.4890	1.2682	1.1255	1.34	1838	1354	484	73.65	26.35	49700	52300	55000	RMT 90.45	14555	7920
																			RM 72.36	7278	3960
Miramichi/ACSR/TW	1455.3	7	36	93.4	0.2010	7x0.1200	0.3600	1.2219	1.1427	1.30	1639	1371	268	83.64	16.36	39200	40700	42200	RMT 84.45	11832	7220
																			RM 68.38	5916	3610
St. Croix/ACSR/TW	1467.8	5	30	93.4	0.2212	7x0.1041	0.3123	1.2127	1.1532	1.29	1583	1381	202	87.26	12.74	35800	36900	38100	RMT 84.36	10320	6520
																			RM 66.32	5160	3260
Rio Grande/ACSR/TW	1533.3	13	39	93.2	0.1983	19x0.1012	0.5060	1.3574	1.2046	1.38	1966	1448	518	73.63	26.37	53200	56000	58900	RMT 90.45	14569	7410
																			RM 72.36	7275	3700
Potomac/ACSR/TW	1557.4	7	36	93.2	0.2080	7x0.1241	0.3723	1.3084	1.2237	1.35	1754	1467	287	83.65	16.35	41900	43600	45200	RMT 84.45	11836	6750
																			RM 68.38	5909	3370
Platte/ACSR/TW	1569.0	5	33	93.7	0.2181	7x0.1074	0.3222	1.2962	1.2328	1.33	1691	1476	215	87.30	12.70	38200	39400	40600	RMT 84.45	10383	6140
																			RM 68.38	5192	3070
Pecos/ACSR/TW	1622.0	13	39	93.1	0.2039	19x0.1064	0.5320	1.4425	1.2736	1.42	2105	1531	573	72.77	27.23	57500	60600	63800	RMT 90.45	14732	7000
																			RM 72.36	7366	3500
Schuykill/ACSR/TW	1657.4	7	36	93.5	0.2145	7x0.1280	0.3840	1.3912	1.3012	1.39	1866	1561	305	83.66	16.34	44000	45700	47500	RMT 84.45	11831	6340
																			RM 68.38	5915	3170
James/ACSR/TW	1730.6	13	39	92.5	0.2107	19x0.1075	0.5375	1.5322	1.3598	1.47	2219	1634	585	73.64	26.36	59400	62600	65800	RMT 90.45	14557	6560
																			RM 72.36	7278	3280
Pee Dee/ACSR/TW	1758.6	7	37	93.0	0.2180	7x0.1319	0.3957	1.4764	1.3807	1.43	1980	1656	324	83.65	16.35	46700	48500	50400	RMT 90.45	12159	6140
																			RM 68.38	6079	3070
Cumberland/ACSR/TW	1926.9	13	42	93.3	0.2142	19x0.1133	0.5665	1.7044	1.5129	1.54	2469	1819	650	73.68	26.32	66000	69600	73100	RMT 90.45	15679	6350
																			RMT 84.36	7827	3170
Athabaska/ACSR/TW	1949.6	7	42	93.4	0.2155	7x0.1392	0.4176	1.6384	1.5318	1.50	2197	1836	361	83.58	16.42	51900	53900	56000	RMT 90.45	13819	6290
																			RM 72.36	6898	3140
Powder/ACSR/TW	2153.8	8	64	92.2	0.1834	19x0.0961	0.4805	1.8293	1.6915	1.60	2510	2042	467	81.37	18.63	61100	63600	66200	RMT 96.60	21611	8610
																			RMT 84.45	10793	4300
Santee/ACSR/TW	2627.3	8	64	93.1	0.2027	19x0.1062	0.5310	2.2328	2.0645	1.76	3062	2492	571	81.36	18.64	74500	77700	80800	RMT 96.60	21621	7060
																			RMT 84.45	10810	3530

(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 not exactly equal the sum of the component values.

(3) Weights shown are for conductor only and do not include the reel. Normal length and shipping tolerances apply.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

TransPwr® 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	EQUIVALENT AL DIA. INCHES	STEEL CORE NO. X DIA. INCHES	STEEL CORE O.D. INCHES	CROSS-SECTION SQ. INCHES		O.D. INCHES	RESISTANCE (4) OHMS/1000 FT			AMPACITY 75°C (5)	GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/1000 FT (6)	CAPACITIVE REACTANCE MEGA OHM 1000 FT (6)
								TOTAL	AL		DC @ 20°C	AC @ 25°C	AC @ 75°C				
Genesee/ACSR/TW	1158.0	7	33	92.5	0.1873	7x0.1078	0.3234	0.9732	0.9094	1.16	0.0149	0.0157	0.0192	1075	0.0385	0.0748	0.4739
Hudson/ACSR/TW	1158.4	13	26	93.7	0.2111	7x0.1467	0.4401	1.0279	0.9096	1.20	0.0147	0.0154	0.0183	1110	0.0402	0.0738	0.4697
Cheyenne/ACSR/TW	1168.1	5	30	92.9	0.1973	7x0.0926	0.2778	0.9642	0.9170	1.16	0.0148	0.0157	0.0191	1075	0.0379	0.0752	0.4751
Yukon/ACSR/TW	1233.6	13	39	91.0	0.1778	19x0.0910	0.4550	1.0923	0.9688	1.25	0.0139	0.0147	0.0179	1135	0.0422	0.0728	0.4628
Nelson/ACSR/TW	1257.1	7	35	92.4	0.1895	7x0.1115	0.3345	1.0558	0.9875	1.21	0.0137	0.0146	0.0178	1130	0.0402	0.0739	0.4674
Catawba/ACSR/TW	1272.0	5	30	93.3	0.2059	7x0.0967	0.2901	1.0507	0.9993	1.20	0.0135	0.0145	0.0176	1130	0.0395	0.0743	0.4688
Thames/ACSR/TW	1334.6	13	39	92.6	0.1850	19x0.0944	0.4720	1.1808	1.0479	1.29	0.0128	0.0136	0.0166	1190	0.0435	0.0720	0.4579
Mackenzie/ACSR/TW	1359.7	7	36	92.9	0.1943	7x0.1159	0.3477	1.1413	1.0674	1.26	0.0127	0.0136	0.0165	1185	0.0417	0.0730	0.4617
Truckee/ACSR/TW	1372.5	5	30	93.6	0.2139	7x0.1004	0.3012	1.1337	1.0783	1.25	0.0126	0.0135	0.0164	1185	0.0409	0.0734	0.4631
Merrimack/ACSR/TW	1433.6	13	39	92.1	0.1917	19x0.0978	0.4890	1.2682	1.1255	1.34	0.0119	0.0127	0.0155	1240	0.0452	0.0712	0.4519
Miramichi/ACSR/TW	1455.3	7	36	93.4	0.2010	7x0.1200	0.3600	1.2219	1.1427	1.30	0.0118	0.0127	0.0155	1235	0.0430	0.0723	0.4568
St. Croix/ACSR/TW	1467.8	5	30	93.4	0.2212	7x0.1041	0.3123	1.2127	1.1532	1.29	0.0117	0.0127	0.0154	1235	0.0424	0.0726	0.4576
Rio Grande/ACSR/TW	1533.3	13	39	93.2	0.1983	19x0.1012	0.5060	1.3574	1.2046	1.38	0.0112	0.0120	0.0145	1295	0.0466	0.0705	0.4474
Potomac/ACSR/TW	1557.4	7	36	93.2	0.2080	7x0.1241	0.3723	1.3084	1.2237	1.35	0.0111	0.0120	0.0145	1285	0.0445	0.0715	0.4513
Platte/ACSR/TW	1569.0	5	33	93.7	0.2181	7x0.1074	0.3222	1.2962	1.2328	1.33	0.0110	0.0120	0.0145	1285	0.0438	0.0719	0.4527
Pecos/ACSR/TW	1622.0	13	39	93.1	0.2039	19x0.1064	0.5320	1.4425	1.2736	1.42	0.0105	0.0113	0.0138	1340	0.0482	0.0697	0.4424
Schuylkill/ACSR/TW	1657.4	7	36	93.5	0.2145	7x0.1280	0.3840	1.3912	1.3012	1.39	0.0104	0.0113	0.0137	1335	0.0459	0.0708	0.4467
James/ACSR/TW	1730.6	13	39	92.5	0.2107	19x0.1075	0.5375	1.5322	1.3598	1.47	0.00989	0.0107	0.0130	1390	0.0496	0.0690	0.4374
Pee Dee/ACSR/TW	1758.6	7	37	93.0	0.2180	7x0.1319	0.3957	1.4764	1.3807	1.43	0.00979	0.0108	0.0130	1380	0.0474	0.0701	0.4416
Cumberland/ACSR/TW	1926.9	13	42	93.3	0.2142	19x0.1133	0.5665	1.7044	1.5129	1.54	0.00889	0.00974	0.0117	1485	0.0522	0.0679	0.4296
Athabaska/ACSR/TW	1949.6	7	42	93.4	0.2155	7x0.1392	0.4176	1.6384	1.5318	1.50	0.00883	0.00985	0.0118	1470	0.0499	0.0689	0.4338
Powder/ACSR/TW	2153.8	8	64	92.2	0.1834	19x0.0961	0.4805	1.8293	1.6915	1.60	0.00803	0.00900	0.0105	1580	0.0535	0.0673	0.4239
Santee/ACSR/TW	2627.3	8	64	93.1	0.2027	19x0.1062	0.5310	2.2328	2.0645	1.76	0.00658	0.00767	0.00886	1765	0.0589	0.0651	0.4090

(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.
 (4) 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 to ohms/km, multiply by 3.281.
 (5) 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, 0.5 coefficient of absorptivity, 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 sky radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.
 (6) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm). To convert the Geometric Mean Radius (GMR) to cm, divide the value by 0.03821. To convert inductive reactance to ohm/km, multiply the value by 3.281. To convert capacitive reactance to ohm/km, divide the value by 3.281.

