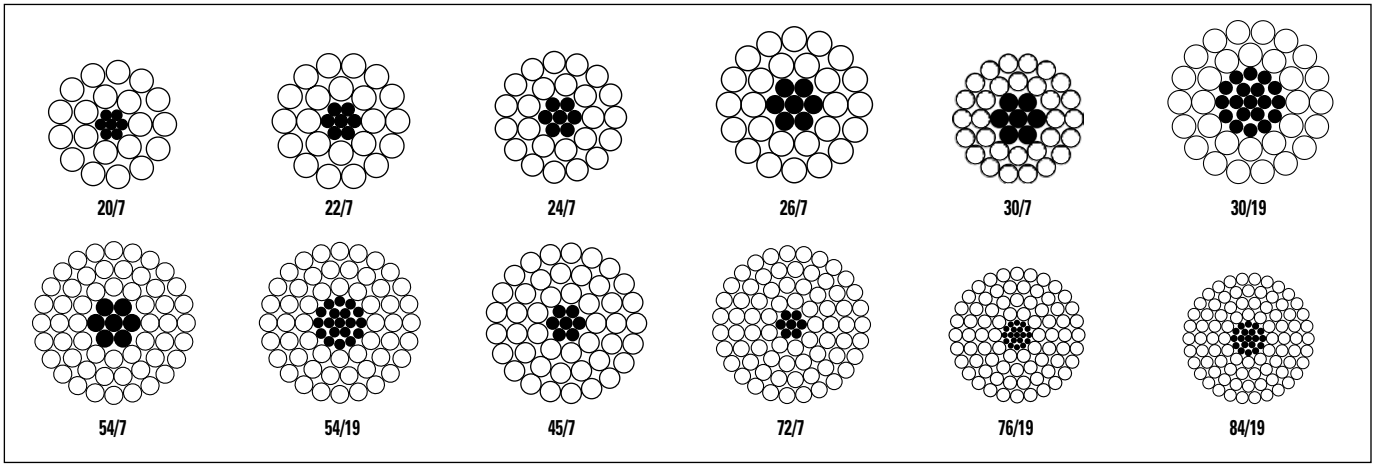
TransPowr® ACSS/AW Bare Overhead Conductor

Aluminum Conductor Aluminum-Clad Steel-Supported Concentric-Lay-Stranded



Product Construction:

Complete Conductor:

ACSS/AW is a composite concentric-lay-stranded cable. Aluminum-clad steel strands form the central core of the cable, around which is stranded one or more layers of aluminum 1350-O wires. ACSS/AW conductors are manufactured in accordance with the latest issue of ASTM B856. The "O" temper of the aluminum, a fully annealed or soft temper, causes most or all of the mechanical load of ACSS/AW to be carried by the steel. The aluminum-clad steel core may consist of 7, 19, 37 or more wires. Numerous combinations of aluminum and steel strand and layers are possible. The sizes and strandings listed on the following pages are those most frequently used for overhead lines.

Features and Benefits:

The AW core, which consists of a thick layer of aluminum (approx. 10% of the nominal wire/radius) over steel, gives ACSS/AW conductors the advantages of standard ACSS along with the light weight and good conductivity of aluminum and the high tensile strength and ruggedness of steel. ACSS/AW can operate continuously at high temperatures (250°C) without damage, allowing for a significant increase in conductor current-carrying capacity. The cross-sections above illustrate some common stranding.

Applications:

Aluminum conductor steel-supported with aluminum-clad steel wire (ACSS/AW) are used for overhead distribution and transmission lines where a high degree of corrosion resistance is required.

Options:

- E3X® surface coating (/E3X)
- Trapezoidal-shaped aluminum strands (/TW)
- Non-specular surface finish (/NS)

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Aluminum Conductor Aluminum-Clad Steel-Supported Concentric-Lay-Stranded

ACSS, ALUMINUM CONDUCTOR, STEEL-SUPPORTED, CONCENTRIC-LAY-STRANDED (MECHANICAL PROPERTIES)

CODE WORD (1)	SIZE AWG OR kcmil	STRANDING NO. X DIA. INCHES		CROSS-SECTION SQ. INCHES		O.D. IN	APPROX. WEIGHT LB/KFT (2)			PERCENT BY WEIGHT		RATED STRENGTH LBS
		AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	AL	STEEL	
Spoonbill/ACSS/AW	266.8	22x0.1101	7x0.0612	0.2300	0.2095	0.624	309.1	250.0	59.1	80.88%	19.12%	1710
Scaup/ACSS/AW	266.8	24x0.1054	7x0.0703	0.2366	0.2094	0.632	328.1	250.1	78.0	76.23%	23.77%	1710
Partridge/ACSS/AW	266.8	26x0.1013	7x0.0788	0.2437	0.2095	0.642	348.5	250.5	98.0	71.88%	28.11%	8370
Junco/ACSS/AW	266.8	30x0.0943	7x0.0943	0.2584	0.2095	0.660	391.2	250.8	140.3	64.11%	35.86%	11200
Ostrich/ACSS/AW	300.0	26x0.1074	7x0.0835	0.2739	0.2355	0.680	391.6	281.6	110.0	71.91%	28.09%	9400
Trogon/ACSS/AW	336.4	20x0.1297	7x0.0576	0.2825	0.2642	0.692	367.9	315.5	52.4	85.76%	14.23%	2160
Woodcock/ACSS/AW	336.4	22x0.1237	7x0.0687	0.2903	0.2644	0.701	390.1	315.6	74.5	80.90%	19.09%	2160
Widgeon/ACSS/AW	336.4	24x0.1184	7x0.0789	0.2985	0.2642	0.710	413.9	315.7	98.2	76.27%	23.73%	8830
Linnet/ACSS/AW	336.4	26x0.1137	7x0.0884	0.3070	0.2640	0.720	438.9	315.6	123.3	71.91%	28.09%	10500
Oriole/ACSS/AW	336.4	30x0.1059	7x0.1059	0.3259	0.2642	0.741	493.3	316.3	177.0	64.12%	35.88%	14200
Ptarmigan/ACSS/AW	397.5	20x0.1410	7x0.0627	0.3339	0.3123	0.752	434.9	372.9	62.0	85.74%	14.26%	2550
Stork/ACSS/AW	397.5	22x0.1344	7x0.0747	0.3428	0.3121	0.762	460.6	372.6	88.0	80.89%	19.12%	2550
Brant/ACSS/AW	397.5	24x0.1287	7x0.0858	0.3527	0.3122	0.772	489.1	373.0	116.2	76.26%	23.76%	10400
Ibis/ACSS/AW	397.5	26x0.1236	7x0.0961	0.3627	0.3120	0.783	518.7	372.9	145.7	71.89%	28.09%	12400
Lark/ACSS/AW	397.5	30x0.1151	7x0.1151	0.3850	0.3121	0.806	582.7	373.7	209.1	64.13%	35.88%	16700
Tailorbird/ACSS/AW	477.0	20x0.1544	7x0.0686	0.4003	0.3745	0.823	521.4	447.1	74.3	85.75%	14.24%	3060
Toucan/ACSS/AW	477.0	22x0.1472	7x0.0818	0.4112	0.3744	0.834	552.5	446.9	105.6	80.89%	19.11%	10200
Flicker/ACSS/AW	477.0	24x0.1410	7x0.0940	0.4233	0.3747	0.846	587.1	447.7	139.4	76.26%	23.74%	12500
Hawk/ACSS/AW	477.0	26x0.1354	7x0.1053	0.4353	0.3744	0.858	622.5	447.5	175.0	71.89%	28.11%	14900
Hen/ACSS/AW	477.0	30x0.1261	7x0.1261	0.4621	0.3747	0.883	699.4	448.5	250.9	64.13%	35.87%	20100
Heron/ACSS/AW	500.0	30x0.1291	7x0.1291	0.4843	0.3927	0.904	733.1	470.1	263.0	64.12%	35.88%	20600
Tody/ACSS/AW	556.5	20x0.1668	7x0.0741	0.4672	0.4370	0.890	608.5	521.8	86.6	85.75%	14.24%	3570
Sapsucker/ACSS/AW	556.5	22x0.1590	7x0.0883	0.4797	0.4368	0.901	644.4	521.4	123.0	80.91%	19.09%	11900
Parakeet/ACSS/AW	556.5	24x0.1523	7x0.1015	0.4939	0.4372	0.914	684.8	522.3	162.6	76.27%	23.74%	14600
Dove/ACSS/AW	556.5	26x0.1463	7x0.1138	0.5083	0.4371	0.927	726.9	522.5	204.4	71.88%	28.12%	17500
Eagle/ACSS/AW	556.5	30x0.1362	7x0.1362	0.5391	0.4371	0.953	816.0	523.3	292.7	64.13%	35.87%	22900
Peacock/ACSS/AW	605.0	24x0.1588	7x0.1059	0.5370	0.4753	0.953	744.8	567.8	177.0	76.24%	23.76%	15900
Squab/ACSS/AW	605.0	26x0.1525	7x0.1186	0.5522	0.4749	0.966	789.7	567.7	222.0	71.89%	28.11%	19000
Wood Duck/ACSS/AW	605.0	30x0.1420	7x0.1420	0.5860	0.4751	0.994	887.0	568.8	318.2	64.13%	35.87%	24400
Teal/ACSS/AW	605.0	30x0.1420	19x0.0852	0.5834	0.4751	0.994	880.9	568.8	312.1	64.57%	35.43%	25000
Turacos/ACSS/AW	636.0	20x0.1783	7x0.0792	0.5339	0.4994	0.951	695.2	596.2	99.0	85.76%	14.24%	10800
Goldfinch/ACSS/AW	636.0	22x0.1700	7x0.0944	0.5483	0.4994	0.963	736.7	596.1	140.6	80.91%	19.09%	13600
Rook/ACSS/AW	636.0	24x0.1628	7x0.1085	0.5643	0.4996	0.977	782.5	596.8	185.8	76.27%	23.74%	16700
Grosbeak/ACSS/AW	636.0	26x0.1564	7x0.1216	0.5808	0.4995	0.990	830.5	597.1	233.3	71.90%	28.09%	19900
Scoter/ACSS/AW	636.0	30x0.1456	7x0.1456	0.6160	0.4995	1.019	932.5	598.0	334.5	64.13%	35.87%	25100
Egret/ACSS/AW	636.0	30x0.1456	19x0.0874	0.6135	0.4995	1.019	926.4	598.0	328.5	64.55%	35.46%	26300
Flamingo/ACSS/AW	666.6	24x0.1667	7x0.1111	0.5917	0.5238	1.000	820.5	625.7	194.8	76.26%	23.74%	17500
Gannet/ACSS/AW	666.6	26x0.1601	7x0.1245	0.6086	0.5234	1.014	870.3	625.7	244.6	71.89%	28.11%	20900
Stilt/ACSS/AW	715.5	24x0.1727	7x0.1151	0.6350	0.5622	1.036	880.6	671.6	209.1	76.27%	23.75%	18800
Starling/ACSS/AW	715.5	26x0.1659	7x0.1290	0.6535	0.5620	1.051	934.5	671.9	262.6	71.90%	28.10%	22000
Redwing/ACSS/AW	715.5	30x0.1544	19x0.0926	0.6897	0.5617	1.081	1041	672.4	368.7	64.59%	35.42%	29500
Macaw/ACSS/AW	795.0	42x0.1376	7x0.0764	0.6567	0.6246	1.055	841.2	749.0	92.1	89.04%	10.95%	5100
Turbit/ACSS/AW	795.0	20x0.1994	7x0.0886	0.6677	0.6246	1.063	869.6	745.7	123.9	85.75%	14.25%	13500
Tern/ACSS/AW	795.0	45x0.1329	7x0.0886	0.6674	0.6242	1.063	872.9	749.0	123.9	85.81%	14.19%	13500
Puffin/ACSS/AW	795.0	22x0.1901	7x0.1056	0.6857	0.6244	1.077	921.3	745.3	176.0	80.90%	19.10%	17100
Cuckoo/ACSS/AW	795.0	24x0.1820	7x0.1213	0.7053	0.6244	1.092	978.0	745.8	232.2	76.26%	23.74%	20900
Condor/ACSS/AW	795.0	54x0.1213	7x0.1213	0.7049	0.6240	1.092	982.0	749.8	232.2	76.35%	23.65%	20900
Drake/ACSS/AW	795.0	26x0.1749	7x0.1360	0.7263	0.6247	1.108	1039	746.8	291.9	71.88%	28.09%	24400
Mallard/ACSS/AW	795.0	30x0.1628	19x0.0977	0.7669	0.6245	1.140	1158	747.6	410.5	64.56%	35.45%	32900
Ruddy/ACSS/AW	900.0	45x0.1414	7x0.0943	0.7555	0.7066	1.131	988.2	847.9	140.3	85.80%	14.20%	15300
Canary/ACSS/AW	900.0	54x0.1291	7x0.1291	0.7985	0.7069	1.162	1112	849.4	263.0	76.38%	23.65%	23200

(1) Code words shown, including suffix /AW, denote ACSS with aluminum-clad steel core. 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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Aluminum Conductor Aluminum-Clad Steel-Supported Concentric-Lay-Stranded

ACSS, ALUMINUM CONDUCTOR, STEEL-SUPPORTED, CONCENTRIC-LAY-STRANDED (ELECTRICAL PROPERTIES)

CODE WORD (1)	SIZE AWG OR kcmil	STRANDING NO. X DIA. INCHES		CROSS-SECTION SQ. INCHES		O.D. IN	RESISTANCE (3) OHMS/KFT				AMPACITY @75°C (4)		AMPACITY @ 200°C (4)		GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/KFT (5)	CAPACITIVE REACTANCE MEGAOHM/ KFT (5)
		AL	STEEL	TOTAL	AL		DC @20°C	AC @25°C	AC @75°C	AC @200°C	STD.	E3X®	STD.	E3X®			
Spoonbill/ACSS/AW	266.8	22x0.1101	7x0.0612	0.2300	0.2095	0.624	0.0610	0.0624	0.0750	0.107	460	515	810	900	0.0204	0.0894	0.5717
Scaup/ACSS/AW	266.8	24x0.1054	7x0.0703	0.2366	0.2094	0.632	0.0605	0.0618	0.0743	0.106	465	520	820	910	0.0209	0.0889	0.5696
Partridge/ACSS/AW	266.8	26x0.1013	7x0.0788	0.2437	0.2095	0.642	0.0598	0.0612	0.0735	0.104	470	525	825	915	0.0213	0.0885	0.5673
Junco/ACSS/AW	266.8	30x0.0943	7x0.0943	0.2584	0.2095	0.660	0.0586	0.0599	0.0720	0.102	480	535	845	935	0.0222	0.0875	0.5629
Ostrich/ACSS/AW	300.0	26x0.1074	7x0.0835	0.2739	0.2355	0.680	0.0532	0.0545	0.0654	0.0929	505	565	890	990	0.0226	0.0871	0.5582
Trogon/ACSS/AW	336.4	20x0.1297	7x0.0576	0.2825	0.2642	0.692	0.0488	0.0500	0.0601	0.0854	530	595	935	1040	0.0224	0.0873	0.5556
Woodcock/ACSS/AW	336.4	22x0.1237	7x0.0687	0.2903	0.2644	0.701	0.0483	0.0495	0.0595	0.0845	535	600	945	1050	0.0229	0.0868	0.5535
Widgeon/ACSS/AW	336.4	24x0.1184	7x0.0789	0.2985	0.2642	0.710	0.0479	0.0490	0.0589	0.0837	540	605	955	1060	0.0234	0.0863	0.5514
Linnet/ACSS/AW	336.4	26x0.1137	7x0.0884	0.3070	0.2640	0.720	0.0475	0.0486	0.0584	0.0829	545	610	960	1070	0.0239	0.0858	0.5493
Oriole/ACSS/AW	336.4	30x0.1059	7x0.1059	0.3259	0.2642	0.741	0.0465	0.0476	0.0571	0.0810	555	620	980	1095	0.0250	0.0848	0.5447
Ptarmigan/ACSS/AW	397.5	20x0.1410	7x0.0627	0.3339	0.3123	0.752	0.0413	0.0424	0.0509	0.0723	590	660	1045	1165	0.0244	0.0853	0.5424
Stork/ACSS/AW	397.5	22x0.1344	7x0.0747	0.3428	0.3121	0.762	0.0409	0.0420	0.0504	0.0716	595	665	1055	1175	0.0249	0.0849	0.5404
Brant/ACSS/AW	397.5	24x0.1287	7x0.0858	0.3527	0.3122	0.772	0.0406	0.0416	0.0499	0.0708	600	675	1065	1185	0.0255	0.0843	0.5383
Ibis/ACSS/AW	397.5	26x0.1236	7x0.0961	0.3627	0.3120	0.783	0.0402	0.0412	0.0495	0.0702	605	680	1075	1200	0.0260	0.0839	0.5362
Lark/ACSS/AW	397.5	30x0.1151	7x0.1151	0.3850	0.3121	0.806	0.0394	0.0403	0.0484	0.0686	615	695	1095	1225	0.0271	0.0829	0.5317
Tailorbird/ACSS/AW	477.0	20x0.1544	7x0.0686	0.4003	0.3745	0.823	0.0345	0.0354	0.0425	0.0603	660	745	1175	1315	0.0267	0.0833	0.5282
Toucan/ACSS/AW	477.0	22x0.1472	7x0.0818	0.4112	0.3744	0.834	0.0341	0.0350	0.0421	0.0597	665	750	1185	1330	0.0273	0.0828	0.5262
Flicker/ACSS/AW	477.0	24x0.1410	7x0.0940	0.4233	0.3747	0.846	0.0338	0.0347	0.0416	0.0591	670	760	1200	1345	0.0279	0.0823	0.5240
Hawk/ACSS/AW	477.0	26x0.1354	7x0.1053	0.4353	0.3744	0.858	0.0335	0.0344	0.0413	0.0585	675	765	1210	1355	0.0285	0.0818	0.5219
Hen/ACSS/AW	477.0	30x0.1261	7x0.1261	0.4621	0.3747	0.883	0.0328	0.0336	0.0403	0.0572	690	780	1235	1385	0.0297	0.0808	0.5174
Heron/ACSS/AW	500.0	30x0.1291	7x0.1291	0.4843	0.3927	0.904	0.0313	0.0321	0.0385	0.0546	710	805	1270	1430	0.0305	0.0802	0.5137
Tody/ACSS/AW	556.5	20x0.1668	7x0.0741	0.4672	0.4370	0.890	0.0295	0.0304	0.0365	0.0517	725	825	1300	1460	0.0289	0.0814	0.5162
Sapsucker/ACSS/AW	556.5	22x0.1590	7x0.0883	0.4797	0.4368	0.901	0.0293	0.0301	0.0361	0.0512	735	830	1310	1475	0.0295	0.0810	0.5142
Parakeet/ACSS/AW	556.5	24x0.1523	7x0.1015	0.4939	0.4372	0.914	0.0290	0.0298	0.0357	0.0507	740	840	1325	1490	0.0302	0.0804	0.5119
Dove/ACSS/AW	556.5	26x0.1463	7x0.1138	0.5083	0.4371	0.927	0.0287	0.0295	0.0354	0.0501	745	845	1340	1505	0.0308	0.0800	0.5098
Eagle/ACSS/AW	556.5	30x0.1362	7x0.1362	0.5391	0.4371	0.953	0.0281	0.0289	0.0346	0.0490	760	865	1365	1535	0.0321	0.0790	0.5053
Peacock/ACSS/AW	605.0	24x0.1588	7x0.1059	0.5370	0.4753	0.953	0.0266	0.0274	0.0329	0.0466	780	885	1400	1575	0.0315	0.0795	0.5054
Squab/ACSS/AW	605.0	26x0.1525	7x0.1186	0.5522	0.4749	0.966	0.0264	0.0272	0.0326	0.0462	785	895	1415	1590	0.0321	0.0790	0.5033
Wood Duck/ACSS/AW	605.0	30x0.1420	7x0.1420	0.5860	0.4751	0.994	0.0259	0.0266	0.0319	0.0451	800	910	1440	1625	0.0335	0.0780	0.4988
Teal/ACSS/AW	605.0	30x0.1420	19x0.0852	0.5834	0.4751	0.994	0.0259	0.0266	0.0319	0.0452	800	910	1440	1625	0.0335	0.0780	0.4988
Turacos/ACSS/AW	636.0	20x0.1783	7x0.0792	0.5339	0.4994	0.951	0.0258	0.0267	0.0320	0.0453	790	900	1420	1600	0.0309	0.0799	0.5057
Goldfinch/ACSS/AW	636.0	22x0.1700	7x0.0944	0.5483	0.4994	0.963	0.0256	0.0264	0.0317	0.0448	795	905	1435	1615	0.0315	0.0795	0.5037
Rook/ACSS/AW	636.0	24x0.1628	7x0.1085	0.5643	0.4996	0.977	0.0253	0.0261	0.0313	0.0444	805	915	1445	1630	0.0322	0.0790	0.5015
Grosbeak/ACSS/AW	636.0	26x0.1564	7x0.1216	0.5808	0.4995	0.990	0.0251	0.0259	0.0310	0.0439	810	925	1460	1645	0.0329	0.0785	0.4993
Scoter/ACSS/AW	636.0	30x0.1456	7x0.1456	0.6160	0.4995	1.019	0.0246	0.0253	0.0303	0.0429	825	945	1490	1680	0.0343	0.0775	0.4948
Egret/ACSS/AW	636.0	30x0.1456	19x0.0874	0.6135	0.4995	1.019	0.0246	0.0253	0.0304	0.0430	825	940	1490	1680	0.0344	0.0774	0.4948
Flamingo/ACSS/AW	666.6	24x0.1667	7x0.1111	0.5917	0.5238	1.000	0.0242	0.0249	0.0299	0.0423	830	945	1490	1685	0.0330	0.0784	0.4978
Gannet/ACSS/AW	666.6	26x0.1601	7x0.1245	0.6086	0.5234	1.014	0.0240	0.0247	0.0296	0.0419	835	955	1505	1700	0.0337	0.0779	0.4956
Stilt/ACSS/AW	715.5	24x0.1727	7x0.1151	0.6350	0.5622	1.036	0.0225	0.0233	0.0279	0.0395	865	990	1565	1765	0.0342	0.0776	0.4923
Starling/ACSS/AW	715.5	26x0.1659	7x0.1290	0.6535	0.5620	1.051	0.0223	0.0230	0.0276	0.0391	875	1000	1580	1785	0.0349	0.0771	0.4901
Redwing/ACSS/AW	715.5	30x0.1544	19x0.0926	0.6897	0.5617	1.081	0.0219	0.0226	0.0271	0.0383	890	1015	1610	1820	0.0364	0.0761	0.4857
Macaw/ACSS/AW	795.0	42x0.1376	7x0.0764	0.6567	0.6246	1.055	0.0209	0.0218	0.0270	0.0392	885	1005	1575	1775	0.0344	0.0774	0.4895
Turbit/ACSS/AW	795.0	20x0.1994	7x0.0886	0.6677	0.6246	1.063	0.0207	0.0215	0.0257	0.0363	910	1040	1645	1860	0.0345	0.0774	0.4882
Tern/ACSS/AW	795.0	45x0.1329	7x0.0886	0.6674	0.6242	1.063	0.0208	0.0217	0.0269	0.0390	885	1010	1585	1785	0.0349	0.0771	0.4882
Puffin/ACSS/AW	795.0	22x0.1901	7x0.1056	0.6857	0.6244	1.077	0.0205	0.0212	0.0254	0.0359	915	1050	1660	1875	0.0353	0.0768	0.4862
Cuckoo/ACSS/AW	795.0	24x0.1820	7x0.1213	0.7053	0.6244	1.092	0.0203	0.0210	0.0252	0.0356	925	1060	1675	1895	0.0360	0.0764	0.4840
Condor/ACSS/AW	795.0	54x0.1213	7x0.1213	0.7049	0.6240	1.092	0.0204	0.0213	0.0264	0.0383	900	1030	1615	1820	0.0363	0.0762	0.4841
Drake/ACSS/AW	795.0	26x0.1749	7x0.1360	0.7263	0.6247	1.108	0.0201	0.0208	0.0249	0.0352	930	1070	1690	1915	0.0368	0.0759	0.4818
Mallard/ACSS/AW	795.0	30x0.1628	19x0.0977	0.7669	0.6245	1.140	0.0197	0.0204	0.0244	0.0345	950	1090	1725	1955	0.0384	0.0749	0.4773
Ruddy/ACSS/AW	900.0	45x0.1414	7x0.0943	0.7555	0.7066	1.131	0.0183	0.0193	0.0238	0.0345	960	1100	1720	1945	0.0371	0.0757	0.4785
Canary/ACSS/AW	900.0	54x0.1291	7x0.1291	0.7985	0.7069	1.162	0.0180	0.0189	0.0233	0.0338	975	1120	1750	1980	0.0387	0.0747	0.4743

(1) Code words shown, including suffix /AW, denote ACSS with aluminum-clad steel core. See the Options section to find the appropriate code word modifier designation for alternative design options.
(3) Based on a conductivity of 63% IACS at 20°C for aluminum and 20.3% IACS at 20°C for the aluminum-clad 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 or 200°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/ft^2 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.

TransPowr® ACSS/AW Bare Overhead Conductor

Aluminum Conductor Aluminum-Clad Steel-Supported Concentric-Lay-Stranded

ACSS, ALUMINUM CONDUCTOR, STEEL-SUPPORTED, CONCENTRIC-LAY-STRANDED (MECHANICAL PROPERTIES)

CODE WORD (1)	SIZE AWG OR kcmil	STRANDING NO. X DIA. INCHES		CROSS-SECTION SQ. INCHES		O.D. IN	APPROX. WEIGHT LB/KFT (2)			PERCENT BY WEIGHT		RATED STRENGTH LBS
		AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	AL	STEEL	
Phoenix/ACSS/AW	954.0	42x0.1507	7x0.0837	0.7877	0.7491	1.155	1009	898.5	110.5	89.05%	10.95%	13600
Corncrake/ACSS/AW	954.0	20x0.2184	7x0.0971	0.8011	0.7492	1.165	1043	894.6	148.8	85.77%	14.27%	16200
Rail/ACSS/AW	954.0	45x0.1456	7x0.0971	0.8011	0.7492	1.165	1048	899.0	148.8	85.78%	14.20%	16200
Towhee/ACSS/AW	954.0	48x0.1410	7x0.1097	0.8157	0.7495	1.175	1090	899.7	189.9	82.54%	17.42%	19000
Redbird/ACSS/AW	954.0	24x0.1994	7x0.1329	0.8466	0.7495	1.196	1174	895.3	278.7	76.26%	23.74%	24600
Cardinal/ACSS/AW	954.0	54x0.1329	7x0.1329	0.8462	0.7491	1.196	1179	900.1	278.7	76.34%	23.64%	24600
Canvasback/ACSS/AW	954.0	30x0.1783	19x0.1070	0.9199	0.7491	1.248	1389	896.7	492.3	64.56%	35.44%	39400
Snowbird/ACSS/AW	1033.5	42x0.1569	7x0.0872	0.8539	0.8121	1.203	1094	973.9	120.0	89.02%	10.97%	14800
Ortolan/ACSS/AW	1033.5	45x0.1515	7x0.1010	0.8673	0.8112	1.212	1134	973.3	161.0	85.83%	14.20%	17600
Whooper/ACSS/AW	1033.5	48x0.1467	7x0.1141	0.8829	0.8113	1.223	1179	974.0	205.4	82.61%	17.42%	20600
Curlew/ACSS/AW	1033.5	54x0.1383	7x0.1383	0.9164	0.8112	1.245	1277	974.7	301.8	76.33%	23.63%	26100
Avocet/ACSS/AW	1113.0	42x0.1628	7x0.0904	0.9192	0.8743	1.248	1177	1049	129.0	89.12%	10.96%	15900
Bluejay/ACSS/AW	1113.0	45x0.1573	7x0.1049	0.9350	0.8745	1.259	1223	1049	173.6	85.77%	14.19%	18900
Bullfinch/ACSS/AW	1113.0	48x0.1523	7x0.1184	0.9515	0.8744	1.269	1271	1050	221.2	82.61%	17.40%	22200
Finch/ACSS/AW	1113.0	54x0.1436	19x0.0862	0.9854	0.8746	1.293	1370	1051	319.5	76.72%	23.32%	28800
Oxbird/ACSS/AW	1192.5	42x0.1685	7x0.0936	0.9847	0.9366	1.292	1261	1123	138.2	89.06%	10.96%	17000
Bunting/ACSS/AW	1192.5	45x0.1628	7x0.1085	1.0010	0.9367	1.302	1310	1124	185.8	85.80%	14.18%	20300
Cormorant/ACSS/AW	1192.5	48x0.1576	7x0.1226	1.0190	0.9364	1.313	1361	1124	237.2	82.59%	17.43%	23800
Grackle/ACSS/AW	1192.5	54x0.1486	19x0.0892	1.0550	0.9365	1.338	1467	1125	342.1	76.69%	23.32%	30800
Scissortail/ACSS/AW	1272.0	42x0.1740	7x0.0967	1.0500	0.9987	1.334	1345	1198	147.6	89.07%	10.97%	18200
Bittern/ACSS/AW	1272.0	45x0.1681	7x0.1121	1.0680	0.9987	1.345	1397	1198	198.3	85.76%	14.19%	21600
Diver/ACSS/AW	1272.0	48x0.1628	7x0.1266	1.0870	0.9992	1.357	1452	1199	252.9	82.58%	17.42%	25300
Pheasant/ACSS/AW	1272.0	54x0.1535	19x0.0921	1.1260	0.9993	1.382	1566	1201	364.8	76.69%	23.30%	32800
Ringdove/ACSS/AW	1351.5	42x0.1794	7x0.0997	1.1160	1.0620	1.376	1430	1273	156.9	89.02%	10.97%	19300
Dipper/ACSS/AW	1351.5	45x0.1733	7x0.1155	1.1350	1.0610	1.386	1484	1274	210.5	85.85%	14.18%	23000
1351.5/ACSS/AW	1351.5	48x0.1678	7x0.1305	1.1550	1.0610	1.398	1543	1274	268.7	82.57%	17.41%	26500
Martin/ACSS/AW	1351.5	54x0.1582	19x0.0949	1.1960	1.0610	1.424	1663	1275	387.3	76.67%	23.29%	34900
Popinjay/ACSS/AW	1431.0	42x0.1846	7x0.1026	1.1820	1.1240	1.415	1514	1348	166.1	89.04%	10.97%	20500
Bobolink/ACSS/AW	1431.0	45x0.1783	7x0.1189	1.2010	1.1240	1.427	1571	1348	223.1	85.81%	14.20%	24300
Wagtail/ACSS/AW	1431.0	48x0.1727	7x0.1343	1.2240	1.1240	1.439	1634	1350	284.6	82.62%	17.42%	28000
Plover/ACSS/AW	1431.0	54x0.1628	19x0.0977	1.2670	1.1240	1.465	1761	1351	410.5	76.72%	23.31%	36900
Nuthatch/ACSS/AW	1510.5	45x0.1832	7x0.1221	1.2680	1.1860	1.466	1659	1423	235.3	85.77%	14.18%	25700
Parrot/ACSS/AW	1510.5	54x0.1672	19x0.1003	1.3360	1.1860	1.505	1857	1425	432.6	76.74%	23.30%	38900
Ratite/ACSS/AW	1590.0	42x0.1946	7x0.1081	1.3130	1.2490	1.492	1683	1498	184.4	89.01%	10.96%	22700
Lapwing/ACSS/AW	1590.0	45x0.1880	7x0.1253	1.3350	1.2490	1.504	1747	1499	247.7	85.80%	14.18%	27000
Hornbill/ACSS/AW	1590.0	48x0.1820	7x0.1416	1.3590	1.2490	1.517	1815	1499	316.4	82.59%	17.43%	30600
Falcon/ACSS/AW	1590.0	54x0.1716	19x0.1030	1.4070	1.2490	1.545	1957	1501	456.2	76.70%	23.31%	41100
Chukar/ACSS/AW	1780.0	84x0.1456	19x0.0874	1.5130	1.3990	1.602	2014	1686	328.5	83.71%	16.31%	33600
Seahawk/ACSS/AW	1869.0	68x0.1658	7x0.0921	1.5150	1.4680	1.603	1901	1768	133.9	93.00%	7.04%	21100
Mockingbird/ACSS/AW	2034.5	72x0.1681	7x0.1121	1.6670	1.5980	1.681	2123	1924	198.3	90.63%	9.34%	26500
Roadrunner/ACSS/AW	2057.5	76x0.1645	19x0.0768	1.7030	1.6150	1.700	2200	1946	253.6	88.45%	11.53%	13200
Bluebird/ACSS/AW	2156.0	84x0.1602	19x0.0961	1.8310	1.6930	1.762	2438	2041	397.1	83.72%	16.29%	40700
Kiwi/ACSS/AW	2167.0	72x0.1735	7x0.1157	1.7760	1.7020	1.735	2261	2050	211.2	90.67%	9.34%	28200
Thrasher/ACSS/AW	2312.0	76x0.1744	19x0.0814	1.9140	1.8160	1.802	2472	2187	284.9	88.47%	11.53%	34100
Joree/ACSS/AW	2515.0	76x0.1819	19x0.0849	2.0830	1.9750	1.880	2689	2379	310.0	88.47%	11.53%	37100

(1) Code words shown, including suffix /AW, denote ACSS with aluminum-clad steel core. 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® ACSS/AW Bare Overhead Conductor

Aluminum Conductor Aluminum-Clad Steel-Supported Concentric-Lay-Stranded

ACSS, ALUMINUM CONDUCTOR, STEEL-SUPPORTED, CONCENTRIC-LAY-STRANDED (ELECTRICAL PROPERTIES)

CODE WORD (1)	SIZE AWG OR kcmil	STRANDING NO. X DIA. INCHES		CROSS-SECTION SQ. INCHES		O.D. IN	RESISTANCE (3) OHMS/KFT				AMPACITY @75°C (4)		AMPACITY @ 200°C (4)		GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/KFT (5)	CAPACITIVE REACTANCE MEGAOHM/ KFT (5)
		AL	STEEL	TOTAL	AL		DC @20°C	AC @25°C	AC @75°C	AC @200°C	STD.	E3X®	STD.	E3X®			
Phoenix/ACSS/AW	954.0	42x0.1507	7x0.0837	0.7877	0.7491	1.155	0.0174	0.0184	0.0226	0.0327	990	1135	1780	2010	0.0377	0.0753	0.4752
Corncrake/ACSS/AW	954.0	20x0.2184	7x0.0971	0.8011	0.7492	1.165	0.0172	0.0180	0.0215	0.0303	1015	1170	1850	2100	0.0378	0.0753	0.4739
Rail/ACSS/AW	954.0	45x0.1456	7x0.0971	0.8011	0.7492	1.165	0.0173	0.0182	0.0225	0.0325	995	1140	1790	2020	0.0382	0.0750	0.4739
Towhee/ACSS/AW	954.0	48x0.1410	7x0.1097	0.8157	0.7495	1.175	0.0172	0.0181	0.0223	0.0323	1000	1145	1800	2035	0.0387	0.0747	0.4725
Redbird/ACSS/AW	954.0	24x0.1994	7x0.1329	0.8466	0.7495	1.196	0.0169	0.0176	0.0210	0.0297	1035	1190	1885	2145	0.0395	0.0743	0.4697
Cardinal/ACSS/AW	954.0	54x0.1329	7x0.1329	0.8462	0.7491	1.196	0.0170	0.0178	0.0220	0.0319	1010	1160	1820	2060	0.0398	0.0741	0.4698
Canvasback/ACSS/AW	954.0	30x0.1783	19x0.1070	0.9199	0.7491	1.248	0.0164	0.0171	0.0204	0.0288	1065	1225	1945	2210	0.0421	0.0728	0.4631
Snowbird/ACSS/AW	1033.5	42x0.1569	7x0.0872	0.8539	0.8121	1.203	0.0160	0.0170	0.0209	0.0302	1040	1195	1875	2125	0.0393	0.0744	0.4689
Ortolan/ACSS/AW	1033.5	45x0.1515	7x0.1010	0.8673	0.8112	1.212	0.0160	0.0169	0.0208	0.0300	1045	1200	1885	2135	0.0397	0.0741	0.4677
Whooper/ACSS/AW	1033.5	48x0.1467	7x0.1141	0.8829	0.8113	1.223	0.0159	0.0168	0.0207	0.0298	1050	1210	1895	2150	0.0403	0.0738	0.4663
Curlew/ACSS/AW	1033.5	54x0.1383	7x0.1383	0.9164	0.8112	1.245	0.0157	0.0165	0.0204	0.0294	1065	1225	1920	2175	0.0414	0.0732	0.4635
Avocet/ACSS/AW	1113.0	42x0.1628	7x0.0904	0.9192	0.8743	1.248	0.0149	0.0159	0.0195	0.0280	1085	1255	1970	2235	0.0407	0.0736	0.4631
Bluejay/ACSS/AW	1113.0	45x0.1573	7x0.1049	0.9350	0.8745	1.259	0.0148	0.0157	0.0193	0.0278	1095	1260	1980	2245	0.0413	0.0732	0.4618
Bullfinch/ACSS/AW	1113.0	48x0.1523	7x0.1184	0.9515	0.8744	1.269	0.0147	0.0156	0.0192	0.0277	1100	1270	1995	2260	0.0418	0.0730	0.4605
Finch/ACSS/AW	1113.0	54x0.1436	19x0.0862	0.9854	0.8746	1.293	0.0146	0.0154	0.0189	0.0273	1115	1285	2015	2290	0.0430	0.0723	0.4576
Oxbird/ACSS/AW	1192.5	42x0.1685	7x0.0936	0.9847	0.9366	1.292	0.0139	0.0149	0.0182	0.0262	1135	1310	2060	2340	0.0421	0.0728	0.4577
Bunting/ACSS/AW	1192.5	45x0.1628	7x0.1085	1.0010	0.9367	1.302	0.0138	0.0148	0.0181	0.0260	1140	1315	2075	2355	0.0427	0.0725	0.4564
Cormorant/ACSS/AW	1192.5	48x0.1576	7x0.1226	1.0190	0.9364	1.313	0.0138	0.0147	0.0180	0.0259	1145	1325	2085	2370	0.0433	0.0722	0.4551
Grackle/ACSS/AW	1192.5	54x0.1486	19x0.0892	1.0550	0.9365	1.338	0.0136	0.0144	0.0177	0.0255	1160	1345	2110	2400	0.0445	0.0715	0.4522
Scissortail/ACSS/AW	1272.0	42x0.1740	7x0.0967	1.0500	0.9987	1.334	0.0130	0.0140	0.0171	0.0246	1180	1365	2150	2445	0.0435	0.0720	0.4527
Bittern/ACSS/AW	1272.0	45x0.1681	7x0.1121	1.0680	0.9987	1.345	0.0130	0.0139	0.0170	0.0244	1185	1375	2160	2460	0.0441	0.0717	0.4514
Diver/ACSS/AW	1272.0	48x0.1628	7x0.1266	1.0870	0.9992	1.357	0.0129	0.0138	0.0169	0.0242	1195	1380	2175	2475	0.0447	0.0714	0.4500
Pheasant/ACSS/AW	1272.0	54x0.1535	19x0.0921	1.1260	0.9993	1.382	0.0128	0.0136	0.0167	0.0239	1210	1400	2205	2510	0.0460	0.0708	0.4472
Ringdove/ACSS/AW	1351.5	42x0.1794	7x0.0997	1.1160	1.0620	1.376	0.0123	0.0133	0.0162	0.0231	1225	1420	2240	2545	0.0449	0.0713	0.4479
Dipper/ACSS/AW	1351.5	45x0.1733	7x0.1155	1.1350	1.0610	1.386	0.0122	0.0132	0.0161	0.0230	1230	1425	2250	2560	0.0455	0.0710	0.4466
1351.5/ACSS/AW	1351.5	48x0.1678	7x0.1305	1.1550	1.0610	1.398	0.0121	0.0131	0.0159	0.0228	1240	1435	2265	2580	0.0461	0.0707	0.4453
Martin/ACSS/AW	1351.5	54x0.1582	19x0.0949	1.1960	1.0610	1.424	0.0120	0.0129	0.0157	0.0225	1255	1455	2290	2615	0.0474	0.0701	0.4425
Popinjay/ACSS/AW	1431.0	42x0.1846	7x0.1026	1.1820	1.1240	1.415	0.0116	0.0126	0.0153	0.0219	1265	1470	2325	2645	0.0462	0.0707	0.4434
Bobolink/ACSS/AW	1431.0	45x0.1783	7x0.1189	1.2010	1.1240	1.427	0.0115	0.0125	0.0152	0.0217	1275	1480	2335	2665	0.0468	0.0704	0.4422
Wagtail/ACSS/AW	1431.0	48x0.1727	7x0.1343	1.2240	1.1240	1.439	0.0115	0.0124	0.0151	0.0216	1280	1490	2350	2680	0.0474	0.0701	0.4408
Plover/ACSS/AW	1431.0	54x0.1628	19x0.0977	1.2670	1.1240	1.465	0.0113	0.0122	0.0149	0.0213	1300	1510	2380	2715	0.0488	0.0694	0.4380
Nuthatch/ACSS/AW	1510.5	45x0.1832	7x0.1221	1.2680	1.1860	1.466	0.0109	0.0119	0.0145	0.0206	1315	1530	2420	2760	0.0481	0.0697	0.4379
Parrot/ACSS/AW	1510.5	54x0.1672	19x0.1003	1.3360	1.1860	1.505	0.0108	0.0116	0.0141	0.0202	1340	1560	2465	2815	0.0501	0.0688	0.4338
Ratite/ACSS/AW	1590.0	42x0.1946	7x0.1081	1.3130	1.2490	1.492	0.0104	0.0115	0.0139	0.0197	1350	1570	2490	2840	0.0487	0.0695	0.4351
Lapwing/ACSS/AW	1590.0	45x0.1880	7x0.1253	1.3350	1.2490	1.504	0.0104	0.0114	0.0138	0.0196	1355	1580	2505	2860	0.0493	0.0692	0.4339
Hornbill/ACSS/AW	1590.0	48x0.1820	7x0.1416	1.3590	1.2490	1.517	0.0103	0.0113	0.0137	0.0195	1365	1590	2520	2880	0.0500	0.0688	0.4326
Falcon/ACSS/AW	1590.0	54x0.1716	19x0.1030	1.4070	1.2490	1.545	0.0102	0.0111	0.0135	0.0192	1385	1615	2550	2920	0.0514	0.0682	0.4297
Chukar/ACSS/AW	1780.0	84x0.1456	19x0.0874	1.5130	1.3990	1.602	0.00928	0.0102	0.0120	0.0167	1480	1735	2775	3185	0.0529	0.0676	0.4240
Seahawk/ACSS/AW	1869.0	68x0.1658	7x0.0921	1.5150	1.4680	1.603	0.00897	0.0101	0.0118	0.0163	1490	1750	2805	3225	0.0522	0.0679	0.4239
Mockingbird/ACSS/AW	2034.5	72x0.1681	7x0.1121	1.6670	1.5980	1.681	0.00821	0.00936	0.0109	0.0150	1570	1850	2975	3425	0.0549	0.0667	0.4164
Roadrunner/ACSS/AW	2057.5	76x0.1645	19x0.0768	1.7030	1.6150	1.700	0.00810	0.00921	0.0107	0.0147	1590	1870	3010	3465	0.0558	0.0663	0.4147
Bluebird/ACSS/AW	2156.0	84x0.1602	19x0.0961	1.8310	1.6930	1.762	0.00766	0.00872	0.0102	0.0139	1650	1945	3130	3610	0.0582	0.0654	0.4091
Kiwi/ACSS/AW	2167.0	72x0.1735	7x0.1157	1.7760	1.7020	1.735	0.00771	0.00890	0.0103	0.0141	1630	1920	3095	3570	0.0567	0.0660	0.4115
Thrasher/ACSS/AW	2312.0	76x0.1744	19x0.0814	1.9140	1.8160	1.802	0.00720	0.00839	0.00974	0.0132	1695	2005	3235	3735	0.0591	0.0650	0.4055
Joree/ACSS/AW	2515.0	76x0.1819	19x0.0849	2.0830	1.9750	1.880	0.00662	0.00787	0.00909	0.0123	1775	2100	3410	3945	0.0617	0.0640	0.3990

(1) Code words shown, including suffix /AW, denote ACSS with aluminum-clad steel core. See the Options section to find the appropriate code word modifier designation for alternative design options.
(3) Based on a conductivity of 63% IACS at 20°C for aluminum and 20.3% IACS at 20°C for the aluminum-clad 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 or 200°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/ft^2 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.