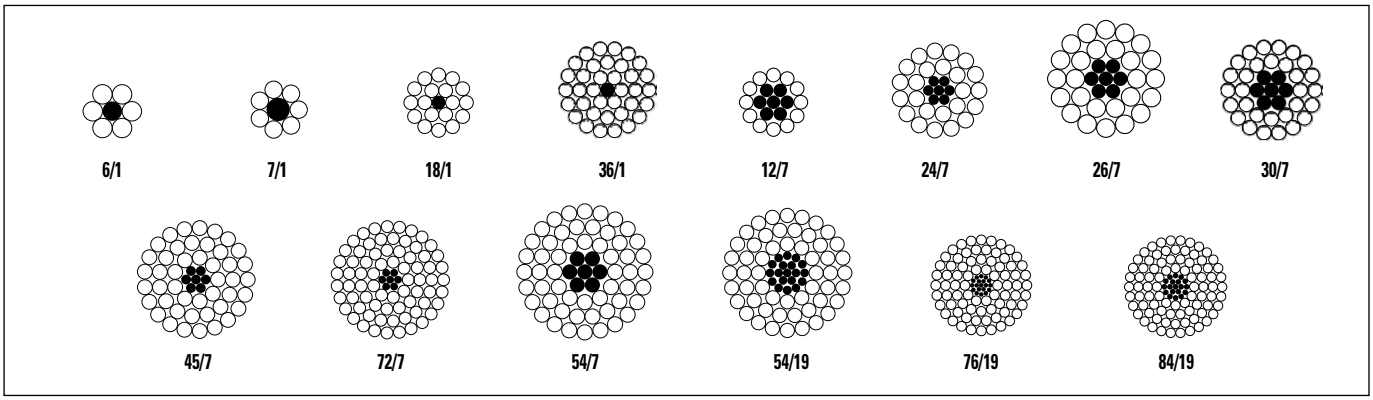
TransPowr® ACSR Bare Overhead Conductor

Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded



Product Construction:

Complete Conductor:

ACSR is a composite concentric-lay-stranded conductor. The conductors are manufactured in accordance with the requirements of the latest applicable issue of CAN/CSA C61089.

The steel strand or strands form the central core of the conductor, around which is stranded one or more layers of aluminum 1350-H19 wires. The steel core may consist of a single strand or a concentric stranded cable of 7, 19, 37, or more wires. Numerous combinations of aluminum and steel strands and layers are possible. The sizes and strandings listed on the following pages are common examples used in overhead lines. Metric (mm^2) sizes are also available.

The Canadian ACSR conductors are similar in design (strand component size and configuration) to the ACSR conductors designed to ASTM B232 specifications. Differences lie in the methods used to calculate the rated strength and dc resistance values.

CAN/CSA C61089 refers to ACSR as Type A1/S1A conductors, where the A1 refers to 1350 H19 aluminum and the S1A as Class A galvanized, regular strength steel.

Features and Benefits:

ACSR conductors are recognized for their record of economy, dependability and favorable strength/weight ratio. ACSR conductors combine the light weight and good conductivity of aluminum with the high tensile strength and ruggedness of steel. In line design, this can provide higher tensions, less sag, and longer span lengths than obtainable with most other types of overhead conductors. The steel strands are added as mechanical reinforcements. The cross-sections above illustrate some common strandings.

The steel core wires are protected from corrosion by galvanizing. The standard Class A zinc coating is usually adequate for ordinary environments. For greater protection, Class B coating may be specified. High Strength (S2A) or Extra High Strength (S3A) steel core with Class A galvanizing are also available.

The product is available with conductor corrosion inhibitor treatment applied to the central steel component.

Applications:

Aluminum Conductors, Steel-Reinforced (ACSR) are extensively used for overhead distribution and transmission lines.

Options:

- High-Conductivity aluminum (/HC) (62.2% IACS)
- CSA high-strength Class A galvanized steel core (S2A)
- CSA extra-high-strength Class A galvanized steel core (S3A)
- ASTM regular-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA2 to ASTM B802)
- ASTM high-strength Class A zinc-5% aluminum mischmetal alloy-coated steel core (/MA3 to ASTM B803)
- Aluminum-clad steel core (20SA)
- Non-Specular surface finish (/NS)
- Aluminum Alloy Steel Reinforced Conductors (A2/SxA and A4/SxA) designs are available
- E3X® surface coating (/E3X)

For more information, contact your General Cable sales representative or e-mail infoca@generalcable.com.

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ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED (MECHANICAL PROPERTIES)

CODE WORD (1)	CSA DESIGNATION	CONDUCTOR SIZE		STRANDING NO. X DIA. (mm)		CROSS-SECTION (mm²)		O.D. (mm)	NOMINAL MASS KG/KM (2)			RATED STRENGTH kN
		AWG or kcmil	mm²	AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	
Turkey	13-A1/S1A-6/1	#6	13.3	6x1.68	1x1.68	15.50	13.3	5.04	53.77	36.52	17.25	5.19
Swan	21-A1/S1A-6/1	#4	21.2	6x2.12	1x2.12	24.70	21.2	6.36	85.62	58.16	27.46	8.15
Swanate	21-A1/S1A-7/1	#4	21.1	7x1.96	1x2.61	26.50	21.1	6.53	99.52	57.89	41.62	10.2
Sparrow	34-A1/S1A-6/1	#2	33.6	6x2.67	1x2.67	39.20	33.6	8.01	139.2	92.25	46.97	12.4
Sparate	34-A1/S1A-7/1	#2	33.5	7x2.47	1x3.30	42.10	33.5	8.24	158.5	91.94	66.54	15.6
Robin	42-A1/S1A-6/1	#1	42.4	6x3.00	1x3.00	49.50	42.4	9.00	171.5	116.5	54.99	15.5
Raven	54-A1/S1A-6/1	1/0	53.5	6x3.37	1x3.37	62.40	53.5	10.1	216.4	147.0	69.40	18.9
Quail	67-A1/S1A-6/1	2/0	67.4	6x3.78	1x3.78	78.60	67.4	11.3	272.2	184.9	87.31	23.5
Pigeon	85-A1/S1A-6/1	3/0	85.0	6x4.25	1x4.25	99.30	85.0	12.8	344.1	233.7	110.4	29.6
Penguin	107-A1/S1A-6/1	4/0	107.2	6x4.77	1x4.77	125.1	107.2	14.3	433.4	294.4	139.0	37.3
Owl	135-A1/S1A-6/7	266.8	135.2	6x5.36	7x1.79	153.0	135.2	16.1	509.4	371.8	137.7	42.3
Waxwing	135-A1/S1A-18/1	266.8	135.2	18x3.09	1x3.09	142.5	135.2	15.5	430.1	371.8	58.34	31.2
Spoonbill	135-A1/S1A-22/7	266.8	135.2	22x2.80	7x1.55	148.7	135.5	15.9	477.1	373.8	103.2	39.2
Scaup	135-A1/S1A-24/7	266.8	135.2	24x2.68	7x1.79	153.0	135.4	16.1	511.6	373.9	137.7	45.0
Partridge	135-A1/S1A-26/7	266.8	135.2	26x2.57	7x2.00	156.9	135.2	16.3	544.6	372.8	171.9	50.0
Junco	136-A1/S1A-30/7	266.8	135.2	30x2.40	7x2.40	167.4	135.7	16.8	623.1	375.6	247.5	61.2
Phoebe	152-A1/S1A-18/1	300	152.0	18x3.28	1x3.28	160.5	152.0	16.4	484.6	418.9	65.74	35.2
Piper	152-A1/S1A-30/7	300	152.0	30x2.54	7x2.54	187.5	152.0	17.8	697.9	420.7	277.2	67.8
Ostrich	152-A1/S1A-26/7	300	152.0	26x2.73	7x2.12	176.9	152.0	17.3	613.7	420.6	193.1	56.3
Merlin	171-A1/S1A-18/1	336.4	170.5	18x3.47	1x3.47	179.7	170.5	17.4	542.4	468.8	73.57	39.3
Woodcock	171-A1/S1A-22/7	336.4	170.5	22x3.14	7x1.74	187.0	170.4	17.8	600.2	470.1	130.1	48.4
Widgeon	171-A1/S1A-24/7	336.4	170.5	24x3.01	7x2.00	192.8	170.8	18.0	643.5	471.6	171.9	54.8
Linnet	170-A1/S1A-26/7	336.4	170.5	26x2.89	7x2.25	198.4	170.5	18.3	688.9	471.4	217.5	62.4
Oriole	171-A1/S1A-30/7	336.4	170.5	30x2.69	7x2.69	210.3	170.5	18.8	782.8	471.9	310.9	76.0
Chickadee	201-A1/S1A-18/1	397.5	201.4	18x3.77	1x3.77	212.1	201.4	18.9	640.3	553.4	86.85	45.4
Stork	201-A1/S1A-22/7	397.5	201.4	22x3.41	7x1.90	220.8	200.9	19.3	709.6	554.5	155.1	57.4
Brant	202-A1/S1A-24/7	397.5	201.4	24x3.27	7x2.18	227.7	201.6	19.6	760.8	556.6	204.2	64.8
Ibis	201-A1/S1A-26/7	397.5	201.4	26x3.14	7x2.44	234.1	201.4	19.9	812.3	556.5	255.8	71.5
Lark	201-A1/S1A-30/7	397.5	201.4	30x2.92	7x2.92	247.8	201.4	20.4	922.4	556.0	366.4	88.6
Pelican	242-A1/S1A-18/1	477	241.7	18x4.13	1x4.13	254.5	241.7	20.7	768.4	664.2	104.2	54.5
Toucan	242-A1/S1A-22/7	477	241.7	22x3.74	7x2.08	265.5	241.7	21.2	852.9	667.0	185.9	68.9
Flicker	242-A1/S1A-24/7	477	241.7	24x3.58	7x2.39	273.0	241.6	21.5	912.6	667.2	245.4	76.9
Hawk	242-A1/S1A-26/7	477	241.7	26x3.44	7x2.67	280.8	241.7	21.8	974.2	667.9	306.3	85.8
Hen	242-A1/S1A-30/7	477	241.7	30x3.20	7x3.20	297.6	241.7	22.4	1108	667.8	440.0	103
Heron	253-A1/S1A-30/7	500	253.4	30x3.28	7x3.28	312.6	253.4	23.0	1164	701.6	462.3	108
Osprey	282-A1/S1A-18/1	556.5	282.0	18x4.47	1x4.47	298.2	282.5	22.4	900.1	778.0	122.1	63.9
Sapsucker	282-A1/S1A-22/7	556.5	282.0	22x4.04	7x2.24	309.6	282.0	22.9	993.9	778.3	215.6	78.8
Parakeet	282-A1/S1A-24/7	556.5	282.0	24x3.87	7x2.58	318.9	282.3	23.2	1066	779.7	286.0	88.3
Dove	282-A1/S1A-26/7	556.5	282.0	26x3.72	7x2.89	328.5	282.0	23.6	1140	781.0	358.9	100
Eagle	282-A1/S1A-30/7	556.5	282.0	30x3.46	7x3.46	347.9	282.0	24.2	1295	780.7	514.4	120
-none-	307-A1/S1A-22/7	605	306.6	22x4.21	7x2.34	336.4	306.6	23.9	1080	845.2	235.3	84.8
Peacock	306-A1/S1A-24/7	605	306.6	24x4.03	7x2.69	345.9	306.1	24.2	1156	845.5	310.9	95.9
Squab	306-A1/S1A-26/7	605	306.6	26x3.87	7x3.01	355.6	305.8	24.5	1235	845.3	389.3	107
Wood Duck	307-A1/S1A-30/7	605	306.6	30x3.61	7x3.61	378.7	307.1	25.3	1410	849.9	560.0	131
Duck	307-A1/S1A-54/7	605	306.6	54x2.69	7x2.69	346.7	306.6	24.2	1163	852.6	310.9	101

(1) Code words shown denote ACSR with regular-strength Class A galvanized steel core (S1A). 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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ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED (ELECTRICAL PROPERTIES)

CODE WORD	CONDUCTOR SIZE		PERCENT BY MASS		RESISTANCE (3)OHMS/KM			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS CM	INDUCTIVE REACTANCE OHM/KM (5)	CAPACITIVE REACTANCE MEGAOHM-KM (5)
	AWG OR kcmil	mm²	AL	STEEL	DC @20°C	AC @25°C	AC @75°C	STANDARD	E3X®			
Turkey	#6	13.3	67.92%	32.08%	2.160	2.204	2.76	95	102	0.055	0.476	0.2290
Swan	#4	21.2	67.93%	32.07%	1.357	1.384	1.76	126	136	0.082	0.446	0.2179
Swanate	#4	21.1	58.17%	41.82%	1.355	1.382	1.78	126	136	0.086	0.441	0.2165
Sparrow	#2	33.6	66.27%	33.74%	0.8528	0.8701	1.14	166	181	0.124	0.415	0.2068
Sparate	#2	33.5	58.01%	41.98%	0.8512	0.8685	1.14	167	182	0.131	0.410	0.2054
Robin	#1	42.4	67.93%	32.06%	0.6766	0.6904	0.902	192	210	0.170	0.390	0.2012
Raven	1/0	53.5	67.93%	32.07%	0.5359	0.5469	0.736	219	241	0.186	0.384	0.1957
Quail	2/0	67.4	67.93%	32.08%	0.4257	0.4344	0.594	251	277	0.220	0.372	0.1902
Pigeon	3/0	85.0	67.92%	32.08%	0.3376	0.3446	0.480	287	320	0.264	0.359	0.1847
Penguin	4/0	107.2	67.93%	32.07%	0.2676	0.2732	0.389	328	368	0.312	0.346	0.1791
Owl	266.8	135.2	72.99%	27.03%	0.2122	0.2168	0.301	385	436	0.386	0.327	0.1735
Waxwing	266.8	135.2	86.45%	13.56%	0.2127	0.2174	0.2603	409	459	0.600	0.2963	0.1754
Spoonbill	266.8	135.2	78.35%	21.63%	0.2134	0.2181	0.2611	411	462	0.631	0.2923	0.1742
Scaup	266.8	135.2	73.08%	26.92%	0.2136	0.2182	0.2613	412	464	0.646	0.2907	0.1736
Partridge	266.8	135.2	68.45%	31.56%	0.2136	0.2182	0.2613	413	466	0.661	0.2887	0.1729
Junco	266.8	135.2	60.28%	39.72%	0.2140	0.2185	0.2617	416	469	0.692	0.2854	0.1716
Phoebe	300	152.0	86.44%	13.57%	0.1893	0.1936	0.2318	440	495	0.637	0.2917	0.1726
Piper	300	152.0	60.28%	39.72%	0.1903	0.1944	0.2327	448	507	0.735	0.2809	0.1688
Ostrich	300	152.0	68.54%	31.46%	0.1900	0.1942	0.2325	445	503	0.701	0.2845	0.1701
Merlin	336.4	170.5	86.43%	13.56%	0.1689	0.1728	0.2068	472	534	0.674	0.2874	0.1699
Woodcock	336.4	170.5	78.32%	21.68%	0.1691	0.1729	0.2070	475	538	0.707	0.2838	0.1687
Widgeon	336.4	170.5	73.29%	26.71%	0.1693	0.1731	0.2072	476	540	0.725	0.2818	0.1681
Linnet	336.4	170.5	68.43%	31.57%	0.1696	0.1734	0.2076	478	542	0.744	0.2799	0.1674
Oriole	336.4	170.5	60.28%	39.72%	0.1696	0.1734	0.2076	481	546	0.777	0.2766	0.1660
Chickadee	397.5	201.4	86.43%	13.56%	0.1429	0.1464	0.1752	524	595	0.732	0.2812	0.1659
Stork	397.5	201.4	78.14%	21.86%	0.1432	0.1466	0.1755	527	599	0.768	0.2776	0.1647
Brant	397.5	201.4	73.16%	26.84%	0.1433	0.1466	0.1755	529	602	0.789	0.2756	0.1641
Ibis	397.5	201.4	68.51%	31.49%	0.1435	0.1468	0.1757	530	604	0.808	0.2736	0.1634
Lark	397.5	201.4	60.28%	39.72%	0.1436	0.1469	0.1758	534	609	0.844	0.2704	0.1621
Pelican	477	241.7	86.44%	13.56%	0.1191	0.1223	0.1462	587	670	0.802	0.2743	0.1616
Toucan	477	241.7	78.20%	21.80%	0.1194	0.1224	0.1464	591	675	0.841	0.2707	0.1603
Flicker	477	241.7	73.11%	26.89%	0.1194	0.1223	0.1464	593	678	0.863	0.2687	0.1597
Hawk	477	241.7	68.56%	31.44%	0.1196	0.1225	0.1466	594	680	0.884	0.2671	0.1591
Hen	477	241.7	60.27%	39.71%	0.1196	0.1225	0.1466	599	686	0.927	0.2635	0.1577
Heron	500	253.4	60.27%	39.72%	0.1142	0.1169	0.1399	617	708	0.948	0.2618	0.1566
Osprey	556.5	282.0	86.43%	13.57%	0.1021	0.1051	0.1256	646	741	0.866	0.2684	0.1579
Sapsucker	556.5	282.0	78.31%	21.69%	0.1023	0.1051	0.1257	650	746	0.908	0.2648	0.1567
Parakeet	556.5	282.0	73.14%	26.83%	0.1023	0.1050	0.1256	653	750	0.933	0.2628	0.1560
Dove	556.5	282.0	68.51%	31.48%	0.1024	0.1051	0.1257	655	753	0.954	0.2612	0.1554
Eagle	556.5	282.0	60.29%	39.72%	0.1026	0.1051	0.1258	660	759	1.000	0.2576	0.1540
-none-	605	306.6	78.26%	21.79%	0.09410	0.09680	0.1157	685	788	0.948	0.2618	0.1547
Peacock	605	306.6	73.14%	26.89%	0.09410	0.09672	0.1156	688	792	0.972	0.2599	0.1540
Squab	605	306.6	68.45%	31.52%	0.09426	0.09681	0.1157	690	795	0.997	0.2579	0.1534
Wood Duck	605	306.6	60.28%	39.72%	0.09435	0.09679	0.1158	695	802	1.040	0.2546	0.1520
Duck	605	306.6	73.31%	26.73%	0.09460	0.09722	0.1162	686	790	0.981	0.2592	0.1540

(3) Based on a conductivity of 61.0% IACS at 20°C for aluminum. Per CSA C61089, the conductivity of the steel is not to be factored in. For the AWG sizes of ACSR, the approximated hysteresis losses in the steel are included.

(4) Based on a conductor temperature of 75°C at 60 Hz and the following conditions, 32°C ambient temperature, 1.98 ft/sec (0.6 m/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, 42° 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 95.0 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.

(5) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm).

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ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED (MECHANICAL PROPERTIES)

CODE WORD (1)	CSA DESIGNATION	CONDUCTOR SIZE		STRANDING NO. X DIA. (mm)		CROSS-SECTION (mm²)		O.D. (mm)	NOMINAL MASS KG/KM (2)			RATED STRENGTH kN
		AWG or kcmil	mm²	AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	
Kingbird	323-A1/S1A-18/1	636	322.3	18x4.78	1x4.78	341.0	323.0	23.9	1029	889.7	139.6	73.0
Goldfinch	322-A1/S1A-22/7	636	322.3	22x4.32	7x2.40	354.1	322.3	24.5	1137	889.9	247.5	89.3
Rook	323-A1/S1A-24/7	636	322.3	24x4.14	7x2.76	365.0	323.1	24.8	1220	892.2	327.3	101
Grosbeak	322-A1/S1A-26/7	636	322.3	26x3.97	7x3.09	374.3	322.3	25.2	1300	889.5	410.3	111
Scoter	323-A1/S1A-30/7	636	322.3	30x3.70	7x3.70	397.8	322.6	25.9	1481	892.8	588.2	138
Egret	322-A1/S1A-30/19	636	322.3	30x3.70	19x2.22	396.1	322.3	25.9	1470	892.8	577.1	141
Goose	322-A1/S1A-54/7	636	322.3	54x2.76	7x2.76	365.0	322.3	24.8	1225	897.5	327.3	104
Flamingo	337-A1/S1A-24/7	666.6	337.8	24x4.23	7x2.82	381.0	337.3	25.4	1273	931.5	341.7	105
Gannet	338-A1/S1A-26/7	666.6	337.8	26x4.07	7x3.16	393.2	338.3	25.8	1364	934.9	429.1	116
-none-	338-A1/S1A-42/7	666.6	337.8	42x3.20	7x1.78	355.2	337.8	24.5	1073	936.6	136.1	77.8
Gull	338-A1/S1A-54/7	666.6	337.8	54x2.82	7x2.82	381.0	337.8	25.4	1279	936.9	341.7	109
Stilt	363-A1/S1A-24/7	715.5	362.5	24x4.39	7x2.92	410.1	363.3	26.3	1370	1003	366.4	113
Starling	363-A1/S1A-26/7	715.5	362.5	26x4.21	7x3.28	421.1	362.6	26.7	1463	1000	462.3	125
Redwing	363-A1/S1A-30/19	715.5	362.5	30x3.92	19x2.35	444.5	362.6	27.4	1649	1002	646.6	154
-none-	363-A1/S1A-42/19	715.5	362.5	42x3.32	7x1.84	382.2	363.6	25.4	1154	1008	145.5	83.6
Crow	363-A1/S1A-54/7	715.5	362.5	54x2.92	7x2.92	408.5	362.6	26.3	1371	1005	366.4	117
Macaw	403-A1/S1A-42/7	795	402.8	42x3.49	7x1.94	422.5	402.8	26.8	1276	1114	161.7	92.5
Tern	404-A1/S1A-45/7	795	402.8	45x3.38	7x2.25	431.6	403.8	27.0	1338	1120	217.5	101
Puffin	403-A1/S1A-22/7	795	402.8	22x4.83	7x2.68	442.6	403.1	27.4	1421	1112	308.6	112
Cuckoo	402-A1/S1A-24/7	795	402.8	24x4.62	7x3.08	454.5	402.3	27.7	1519	1111	407.6	124
Condor	403-A1/S1A-54/7	795	402.8	54x3.08	7x3.08	454.5	402.8	27.7	1525	1118	407.6	126
Drake	403-A1/S1A-26/7	795	402.8	26x4.44	7x3.45	468.0	402.8	28.1	1624	1113	511.4	138
Mallard	403-A1/S1A-30/19	795	402.8	30x4.13	19x2.48	493.7	402.8	28.9	1832	1112	720.1	171
-none-	443-A1/S1A-42/7	874.5	443.1	42x3.67	7x2.04	467.2	443.1	28.1	1411	1232	178.8	102
Crane	443-A1/S1A-54/7	874.5	443.1	54x3.23	7x3.23	499.8	443.1	29.1	1677	1229	448.3	138
-none-	456-A1/S1A-42/7	900	456.0	42x3.72	7x2.07	480.0	456.5	28.5	1450	1266	184.1	105
Ruddy	456-A1/S1A-45/7	900	456.0	45x3.59	7x2.40	487.2	455.5	28.7	1511	1264	247.5	114
Canary	456-A1/S1A-54/7	900	456.0	54x3.28	7x3.28	515.4	456.0	29.5	1730	1268	462.3	143
Phoenix	483-A1/S1A-42/7	954	483.4	42x3.83	7x2.13	508.8	483.4	29.4	1537	1342	194.9	109
Rail	484-A1/S1A-45/7	955	483.8	45x3.70	7x2.47	517.4	483.8	29.6	1604	1342	262.1	120
Towhee	483-A1/S1A-48/7	953.5	483.2	48x3.58	7x2.79	526.0	483.2	29.9	1675	1341	334.5	131
Redbird	483-A1/S1A-24/7	952.5	482.6	24x5.06	7x3.38	545.4	482.6	30.4	1824	1333	490.9	149
Cardinal	483-A1/S1A-54/7	954	483.4	54x3.38	7x3.38	547.3	483.4	30.4	1837	1346	490.9	151
Snowbird	524-A1/S1A-42/7	1033.5	523.7	42x3.98	7x2.21	549.4	523.7	30.5	1659	1449	209.9	118
Ortolan	524-A1/S1A-45/7	1034	523.9	45x3.85	7x2.57	560.2	523.9	30.8	1737	1453	283.8	128
Whooper	525-A1/S1A-48/7	1035	524.5	48x3.73	7x2.90	570.7	524.5	31.1	1817	1456	361.4	142
Curlew	524-A1/S1A-54/7	1033.5	523.7	54x3.51	7x3.51	590.2	523.7	31.6	1981	1452	529.4	163
Beaumont (Avocet)	564-A1/S1A-42/7	1113	564.0	42x4.13	7x2.30	591.7	564.0	31.7	1787	1560	227.3	126
Bullfinch	564-A1/S1A-48/7	1113	564.0	48x3.87	7x3.01	614.4	564.0	32.3	1956	1567	389.3	150
Finch	564-A1/S1A-54/19	1113	564.0	54x3.65	19x2.19	636.6	564.0	32.9	2131	1570	561.6	180

(1) Code words shown denote ACSR with regular-strength Class A galvanized steel core (S1A). 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 Bare Overhead Conductor

Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED (ELECTRICAL PROPERTIES)

CODE WORD	CONDUCTOR SIZE		PERCENT BY MASS		RESISTANCE (3)OHMS/KM			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS CM	INDUCTIVE REACTANCE OHM/KM (5)	CAPACITIVE REACTANCE MEGAOHM-KM (5)
	AWG or kcmil	mm²	AL	STEEL	DC @20°C	AC @25°C	AC @75°C	STANDARD	E3X®			
Kingbird	636	322.3	86.46%	13.57%	0.08928	0.09213	0.1100	703	808	0.927	0.2635	0.1547
Goldfinch	636	322.3	78.27%	21.77%	0.08951	0.09216	0.1101	707	814	0.972	0.2599	0.1535
Rook	636	322.3	73.13%	26.83%	0.08953	0.09210	0.1101	709	818	0.997	0.2579	0.1528
Grosbeak	636	322.3	68.42%	31.56%	0.08962	0.09211	0.1101	712	822	1.02	0.2559	0.1522
Scoter	636	322.3	60.28%	39.72%	0.08975	0.09211	0.1102	717	829	1.07	0.2526	0.1508
Egret	636	322.3	60.73%	39.26%	0.08975	0.09211	0.1102	717	829	1.07	0.2526	0.1508
Goose	636	322.3	73.27%	26.72%	0.09012	0.09269	0.1108	707	815	1.01	0.2572	0.1528
Flamingo	666.6	337.8	73.17%	26.84%	0.08539	0.08791	0.1050	731	844	1.02	0.2559	0.1517
Gannet	666.6	337.8	68.54%	31.46%	0.08552	0.08796	0.1051	733	847	1.05	0.2543	0.1511
-none-	666.6	337.8	87.29%	12.68%	0.08575	0.08854	0.1057	722	832	0.966	0.2602	0.1534
Gull	666.6	337.8	73.25%	26.72%	0.08595	0.08847	0.1057	728	841	1.03	0.2556	0.1518
Stilt	715.5	362.5	73.21%	26.74%	0.07956	0.08202	0.09795	763	883	1.06	0.2533	0.1500
Starling	715.5	362.5	68.35%	31.60%	0.07965	0.08202	0.09799	766	887	1.08	0.2517	0.1493
Redwing	715.5	362.5	60.76%	39.21%	0.07981	0.08204	0.09806	771	895	1.13	0.2480	0.1480
-none-	715.5	362.5	87.35%	12.61%	0.07970	0.08244	0.09835	755	872	1.00	0.2576	0.1517
Crow	715.5	362.5	73.30%	26.73%	0.08008	0.08254	0.09858	761	881	1.06	0.2530	0.1500
Macaw	795	402.8	87.30%	12.67%	0.07190	0.07461	0.08893	805	933	1.05	0.2536	0.1492
Tern	795	402.8	83.71%	16.26%	0.07198	0.07459	0.08894	807	935	1.07	0.2523	0.1488
Puffin	795	402.8	78.25%	21.72%	0.07158	0.07408	0.08837	812	942	1.09	0.2513	0.1482
Cuckoo	795	402.8	73.14%	26.83%	0.07164	0.07403	0.08835	815	946	1.12	0.2494	0.1475
Condor	795	402.8	73.31%	26.73%	0.07210	0.07449	0.08891	812	943	1.12	0.2490	0.1475
Drake	795	402.8	68.53%	31.49%	0.07166	0.07396	0.08830	818	950	1.14	0.2477	0.1469
Mallard	795	402.8	60.70%	39.31%	0.07178	0.07393	0.08831	824	959	1.19	0.2441	0.1455
-none-	874.5	443.1	87.31%	12.67%	0.06538	0.06807	0.08106	854	992	1.11	0.2497	0.1469
Crane	874.5	443.1	73.29%	26.73%	0.06547	0.06782	0.08087	862	1004	1.18	0.2454	0.1452
-none-	900	456.0	87.31%	12.70%	0.06343	0.06613	0.07871	870	1011	1.12	0.2487	0.1462
Ruddy	900	456.0	83.65%	16.38%	0.06358	0.06618	0.07881	871	1013	1.14	0.2477	0.1458
Canary	900	456.0	73.29%	26.72%	0.06365	0.06600	0.07868	877	1023	1.19	0.2441	0.1446
Phoenix	954	483.4	87.31%	12.68%	0.05995	0.06265	0.07452	900	1049	1.16	0.2467	0.1448
Rail	955	483.8	83.67%	16.34%	0.05989	0.06248	0.07436	903	1053	1.18	0.2454	0.1444
Towhee	953.5	483.2	80.06%	19.97%	0.05998	0.06248	0.07439	905	1056	1.19	0.2444	0.1440
Redbird	952.5	482.6	73.08%	26.91%	0.05968	0.06202	0.07389	912	1065	1.22	0.2428	0.1432
Cardinal	954	483.4	73.27%	26.72%	0.06007	0.06240	0.07435	909	1062	1.23	0.2418	0.1432
Snowbird	1033.5	523.7	87.34%	12.65%	0.05530	0.05803	0.06894	946	1105	1.20	0.2438	0.1429
Ortolan	1034	523.9	83.65%	16.34%	0.05539	0.05801	0.06895	947	1107	1.22	0.2425	0.1425
Whooper	1035	524.5	80.13%	19.89%	0.05541	0.05792	0.06889	950	1111	1.24	0.2415	0.1421
Curlew	1033.5	523.7	73.30%	26.72%	0.05547	0.05780	0.06881	955	1118	1.28	0.2392	0.1413
Beaumont (Avocet)	1113	564.0	87.30%	12.72%	0.05137	0.05413	0.06423	989	1158	1.25	0.2408	0.1411
Bullfinch	1113	564.0	80.11%	19.90%	0.05141	0.05395	0.06409	994	1166	1.29	0.2385	0.1404
Finch	1113	564.0	73.67%	26.35%	0.05145	0.05379	0.06397	1000	1174	1.33	0.2362	0.1395

(3) Based on a conductivity of 61.0% IACS at 20°C for aluminum. Per CSA C61089, the conductivity of the steel is not to be factored in. For the AWG sizes of ACSR, the approximated hysteresis losses in the steel are included.

(4) Based on a conductor temperature of 75°C at 60 Hz and the following conditions, 32°C ambient temperature, 1.98 ft/sec (0.6 m/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, 42° 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 95.0 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.

(5) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm).

TransPowr® ACSR Bare Overhead Conductor

Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED (MECHANICAL PROPERTIES)

CODE WORD (1)	CSA DESIGNATION	CONDUCTOR SIZE		STRANDING NO. X DIA. (mm)		CROSS-SECTION (mm^2)		O.D. (mm)	NOMINAL MASS KG/KM (2)			RATED STRENGTH kN
		AWG or kcmil	mm^2	AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	
Oxbird	604-A1/S1A-42/7	1192.5	604.3	42x4.28	7x2.38	635.4	604.3	32.8	1919	1675	243.4	135
Bunting	606-A1/S1A-45/7	1195.5	605.8	45x4.14	7x2.76	647.6	605.8	33.1	2008	1680	327.3	148
Cormorant	603-A1/S1A-48/7	1190.5	603.2	48x4.00	7x3.11	656.4	603.2	33.3	2090	1674	415.6	158
Grackle	604-A1/S1A-54/19	1192.5	604.3	54x3.77	19x2.27	679.7	604.3	34.0	2278	1675	603.3	189
Scissortail	645-A1/S1A-42/7	1272	644.5	42x4.42	7x2.46	677.7	644.5	33.9	2047	1787	260.0	144
Bittern	644-A1/S1A-45/7	1272	644.5	45x4.27	7x2.85	689.1	644.4	34.2	2137	1788	349.0	157
Diver	646-A1/S1A-48/7	1272	644.5	48x4.14	7x3.22	703.2	646.2	34.5	2239	1793	445.5	169
Pheasant	645-A1/S1A-54/19	1272	644.5	54x3.90	19x2.34	726.8	644.5	35.1	2433	1792	641.1	200
Ringdove	685-A1/S1A-42/7	1351.5	684.8	42x4.56	7x2.53	721.1	685.9	35.0	2177	1902	275.0	153
Dipper	685-A1/S1A-45/7	1351.5	684.8	45x4.40	7x2.93	731.4	684.2	35.2	2267	1898	368.9	167
-none-	685-A1/S1A-48/7	1351.5	684.8	48x4.26	7x3.31	744.4	684.8	35.5	2370	1899	470.8	179
Martin	685-A1/S1A-54/19	1351.5	684.8	54x4.02	19x2.41	772.1	684.8	36.2	2584	1904	680.1	212
Popinjay	726-A1/S1A-42/7	1431	725.1	42x4.69	7x2.61	763.0	725.6	36.0	2305	2012	292.7	162
Bobolink	725-A1/S1A-45/7	1431	725.1	45x4.53	7x3.02	775.4	725.3	36.2	2404	2012	391.9	177
Wagtail	727-A1/S1A-48/7	1431	725.1	48x4.39	7x3.41	790.5	726.5	36.6	2516	2016	499.6	190
Plover	725-A1/S1A-54/19	1431	725.1	54x4.13	19x2.48	815.2	725.1	37.2	2730	2010	720.1	224
-none-	765-A1/S1A-42/7	1510.5	765.4	42x4.82	7x2.67	805.6	765.4	36.9	2431	2125	306.3	171
Nuthatch	765-A1/S1A-45/7	1510.5	765.4	45x4.65	7x3.10	817.0	764.2	37.2	2533	2120	412.9	184
Parrot	765-A1/S1A-54/19	1510.5	765.4	54x4.25	19x2.55	863.1	765.4	38.3	2889	2128	761.4	237
Ratite	806-A1/S1A-42/7	1590	805.7	42x4.94	7x2.75	846.6	805.7	37.9	2557	2232	324.9	180
Lapwing	806-A1/S1A-45/7	1590	805.7	45x4.77	7x3.18	859.7	805.7	38.2	2665	2231	434.5	194
Hornbill	806-A1/S1A-48/7	1590	805.7	48x4.62	7x3.60	875.9	805.7	38.5	2790	2233	556.9	211
Falcon	806-A1/S1A-54/19	1590	805.7	54x4.36	19x2.62	908.7	805.7	39.3	3043	2240	803.7	250
-none-	806-A1/S1A-72/7	1590	805.7	72x3.77	7x2.52	838.6	805.7	37.7	2511	2238	272.9	172
Chukar	902-A1/S1A-84/19	1780	901.9	84x3.70	19x2.22	974.8	901.9	46.4	3082	2505	577.1	239
Seahawk	947-A1/S1A-68/7	1869	947.0	68x4.21	7x2.34	976.7	947.0	40.7	2870	2635	235.3	191
Mockingbird	1031-A1/S1A-72/7	2034.5	1030.9	72x4.27	7x2.85	1076	1030.9	42.7	3220	2871	349.0	221
Roadrunner	1043-A1/S1A-76/19	2057.5	1042.6	76x4.18	19x1.95	1100	1042.6	43.2	3350	2905	445.2	238
Bluebird	1092-A1/S1A-84/19	2156	1092.5	84x4.07	19x2.44	1182	1092.5	44.8	3743	3046	697.1	282
Kiwi	1098-A1/S1A-72/7	2167	1098.0	72x4.41	7x2.94	1147	1098.0	44.1	3433	3062	371.4	236
Thrasher	1172-A1/S1A-76/19	2312	1171.5	76x4.43	19x2.07	1235	1171.5	45.8	3764	3263	501.7	268
Joree	1274-A1/S1A-76/19	2515	1274.4	76x4.62	19x2.16	1344	1274.4	47.8	4095	3549	546.3	292

(1) Code words shown denote ACSR with regular-strength Class A galvanized steel core (S1A). 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 Bare Overhead Conductor

Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED (ELECTRICAL PROPERTIES)

CODE WORD	CONDUCTOR SIZE		PERCENT BY MASS		RESISTANCE (3)OHMS/KM			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS CM	INDUCTIVE REACTANCE OHM/KM (5)	CAPACITIVE REACTANCE MEGAOHM-KM (5)
	AWG or kcmil	mm²	AL	STEEL	DC @20°C	AC @25°C	AC @75°C	STANDARD	E3X®			
Oxbird	1192.5	604.3	87.29%	12.68%	0.04795	0.05076	0.06016	1031	1210	1.29	0.2382	0.1395
Bunting	1195.5	605.8	83.67%	16.30%	0.04797	0.05066	0.06007	1034	1214	1.31	0.2372	0.1391
Cormorant	1190.5	603.2	80.10%	19.89%	0.04801	0.05058	0.06002	1037	1218	1.33	0.2359	0.1387
Grackle	1192.5	604.3	73.53%	26.48%	0.04804	0.05040	0.05988	1043	1227	1.38	0.2336	0.1378
Scissortail	1272	644.5	87.30%	12.70%	0.04497	0.04783	0.05661	1072	1261	1.34	0.2356	0.1379
Bittern	1272	644.5	83.67%	16.33%	0.04499	0.04773	0.05652	1075	1265	1.36	0.2346	0.1376
Diver	1272	644.5	80.08%	19.90%	0.04499	0.04760	0.05642	1078	1270	1.38	0.2336	0.1372
Pheasant	1272	644.5	73.65%	26.35%	0.04502	0.04741	0.05627	1085	1279	1.42	0.2313	0.1363
Ringdove	1351.5	684.8	87.37%	12.63%	0.04230	0.04523	0.05345	1112	1310	1.38	0.2336	0.1365
Dipper	1351.5	684.8	83.72%	16.27%	0.04233	0.04512	0.05337	1115	1315	1.40	0.2323	0.1361
-none-	1351.5	684.8	80.13%	19.86%	0.04235	0.04501	0.05328	1118	1320	1.42	0.2313	0.1357
Martin	1351.5	684.8	73.68%	26.32%	0.04239	0.04481	0.05313	1125	1329	1.46	0.2290	0.1349
Popinjay	1431	725.1	87.29%	12.70%	0.03995	0.04295	0.05068	1150	1358	1.42	0.2313	0.1351
Bobolink	1431	725.1	83.69%	16.30%	0.03999	0.04284	0.05060	1154	1363	1.44	0.2303	0.1348
Wagtail	1431	725.1	80.13%	19.86%	0.03998	0.04269	0.05047	1158	1369	1.46	0.2290	0.1343
Plover	1431	725.1	73.63%	26.38%	0.04003	0.04249	0.05032	1165	1379	1.51	0.2267	0.1335
-none-	1510.5	765.4	87.41%	12.60%	0.03787	0.04094	0.04823	1187	1404	1.45	0.2293	0.1339
Nuthatch	1510.5	765.4	83.70%	16.30%	0.03788	0.04079	0.04811	1191	1410	1.48	0.2280	0.1335
Parrot	1510.5	765.4	73.66%	26.36%	0.03790	0.04041	0.04779	1204	1427	1.55	0.2247	0.1322
Ratite	1590	805.7	87.29%	12.71%	0.03595	0.03909	0.04598	1224	1451	1.49	0.2274	0.1326
Lapwing	1590	805.7	83.71%	16.30%	0.03597	0.03895	0.04587	1228	1456	1.51	0.2264	0.1322
Hornbill	1590	805.7	80.04%	19.96%	0.03600	0.03883	0.04577	1232	1462	1.54	0.2251	0.1319
Falcon	1590	805.7	73.61%	26.41%	0.03603	0.03858	0.04557	1241	1474	1.59	0.2228	0.1310
-none-	1590	805.7	89.13%	10.87%	0.03611	0.03932	0.04624	1220	1445	1.49	0.2277	0.1328
Chukar	1780	901.9	81.28%	18.72%	0.04584	0.04847	0.05746	1115	1329	1.61	0.2218	0.1292
Seahawk	1869	947.0	91.81%	8.20%	0.03071	0.03432	0.04009	1336	1591	1.60	0.2225	0.1292
Mockingbird	2034.5	1030.9	89.16%	10.84%	0.02822	0.03187	0.03712	1405	1679	1.69	0.2182	0.1269
Roadrunner	2057.5	1042.6	86.72%	13.29%	0.02793	0.03145	0.03666	1418	1696	1.71	0.2172	0.1264
Bluebird	2156	1092.5	81.38%	18.62%	0.02666	0.02999	0.03497	1466	1758	1.79	0.2136	0.1247
Kiwi	2167	1098.0	89.19%	10.82%	0.02649	0.03027	0.03516	1456	1744	1.74	0.2159	0.1254
Thrasher	2312	1171.5	86.69%	13.33%	0.02485	0.02862	0.03317	1514	1818	1.81	0.2126	0.1236
Joree	2515	1274.4	86.67%	13.34%	0.02284	0.02680	0.03093	1585	1910	1.89	0.2097	0.1216

(3) Based on a conductivity of 61.0% IACS at 20°C for aluminum. Per CSA C61089, the conductivity of the steel is not to be factored in. For the AWG sizes of ACSR, the approximated hysteresis losses in the steel are included.

(4) Based on a conductor temperature of 75°C at 60 Hz and the following conditions, 32°C ambient temperature, 1.98 ft/sec (0.6 m/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, 42° 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 95.0 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.

(5) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm).

TransPowr® ACSR Bare Overhead Conductor

Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED
HIGH-STRENGTH STRANDING (MECHANICAL PROPERTIES)

CODE WORD (1)	CSA DESIGNATION	CONDUCTOR SIZE		STRANDING NO. X DIA. (mm)		CROSS-SECTION SQ (mm²)		O.D. (mm)	NOMINAL MASS KG/KM (2)			RATED STRENGTH kN
		kcmil	mm²	AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	
Grouse	41-A1/S1A-8/1	80.0	40.5	8x2.54	1x4.24	54.7	40.5	9.32	221.5	111.6	109.9	22.8
Petrel	52-A1/S1A-12/7	101.8	51.6	12x2.34	7x2.34	81.7	51.6	11.7	377.9	142.6	235.3	43.9
Minorca	56-A1/S1A-12/7	110.7	56.1	12x2.44	7x2.44	88.8	56.1	12.2	410.9	155.1	255.8	47.7
Leghorn	68-A1/S1A-12/7	134.6	68.2	12x2.69	7x2.69	108.0	68.2	13.5	499.4	188.5	310.9	57.6
Guinea	81-A1/S1A-12/7	159.0	80.6	12x2.92	7x2.92	127.2	80.6	14.6	588.4	222.1	366.4	67.5
Dotterel	90-A1/S1A-12/7	176.8	89.6	12x3.08	7x3.08	141.6	89.6	15.4	654.7	247.1	407.6	72.6
Dorking	97-A1/S1A-12/7	190.8	96.7	12x3.20	7x3.20	152.8	96.7	16.0	706.7	266.7	440.0	78.3
Auk	103-A1/S1A-8/7	203.1	102.9	8x4.05	7x2.25	130.9	102.9	14.9	501.3	283.8	217.5	49.6
Brahma	103-A1/S1A-16/19	203.3	103.0	16x2.86	19x2.48	194.6	103.0	18.1	1005	285.3	720.1	123
Cochin	107-A1/S1A-12/7	211.4	107.1	12x3.37	7x3.37	169.5	107.1	16.9	783.8	295.8	488.0	86.9

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED
CANADIAN DIAMETER-BASED SIZES (MECHANICAL PROPERTIES)

CODE WORD (1)	CSA DESIGNATION	CONDUCTOR SIZE		STRANDING NO. X DIA. (mm)		CROSS-SECTION SQ (mm²)		O.D. (mm)	NOMINAL MASS KG/KM (2)			RATED STRENGTH kN
		kcmil	mm²	AL	STEEL	TOTAL	AL		TOTAL	AL	STEEL	
Shelter Bay	255-A1/S1A-22/7	504.0	255.5	22x3.85	7x2.14	281.3	255.5	21.8	903.6	706.8	196.8	71.7
Chignecto	298-A1/S1A-22/7	589.0	298.4	22x4.16	7x2.31	328.4	298.4	23.6	1054	825.2	229.3	82.8
Peace River	317-A1/S1A-48/7	625.5	317.0	48x2.90	7x2.25	344.9	317.0	24.2	1097	879.9	217.5	88.0
Mica	338-A1/S1A-24/7	667.0	337.9	24x4.23	7x2.82	381.0	337.9	25.4	1273	931.5	341.7	105
Grand Rapid	347-A1/S1A-22/7	684.5	346.8	22x4.48	7x2.49	380.9	346.8	25.4	1223	957.0	266.4	96.1
Chute Des Passes	430-A1/S1A-45/7	849.5	430.5	45x3.49	7x2.33	460.3	430.5	27.9	1427	1194	233.3	107
Les Boules	440-A1/S1A-42/7	867.5	439.5	42x3.65	7x2.02	461.9	439.5	28.0	1394	1219	175.3	101
Carillon	523-A1/S1A-42/7	1031.0	522.5	42x3.98	7x2.21	549.4	522.5	30.5	1659	1449	209.9	118
Gatineau	591-A1/S1A-48/7	1166.5	591.2	48x3.96	7x3.08	643.3	591.2	33.0	2048	1641	407.6	155
Seaway	647-A1/S1A-42/7	1277.5	647.4	42x4.43	7x2.46	680.6	647.4	34.0	2055	1795	260.0	145
Bersfort	687-A1/S1A-48/7	1356.5	687.4	48x4.27	7x3.32	748.0	687.4	35.6	2381	1908	473.6	180
Bersimis	689-A1/S1A-42/7	1359.5	688.9	42x4.57	7x2.54	724.4	688.9	35.0	2187	1910	277.2	154
Nelson	932-A1/S1A-72/7	1839.5	932.1	72x4.06	7x2.71	972.5	932.1	40.6	2911	2595	315.6	200

(1) Code words shown denote ACSR with regular-strength Class A galvanized steel core (S1A). 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 Bare Overhead Conductor

Aluminum Conductor Steel-Reinforced Concentric-Lay-Stranded

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED HIGH-STRENGTH STRANDING (ELECTRICAL PROPERTIES)

CODE WORD (1)	CONDUCTOR SIZE		PERCENT BY MASS		RESISTANCE (3)OHMS/KM			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS CM	INDUCTIVE REACTANCE OHM/KM (5)	CAPACITIVE REACTANCE MEGAOHM/KM (5)
	kcmil	mm²	AL	STEEL	DC @20°C	AC @25°C	AC @75°C	STANDARD	E3X®			
Grouse	80	40.54	50.38%	49.62%	0.7098	0.7242	0.979	186	204	0.137	0.407	0.1996
Petrel	101.8	51.58	37.73%	62.27%	0.5599	0.5713	0.893	219	241	0.174	0.383	0.1888
Minorca	110.7	56.1	37.75%	62.25%	0.5143	0.5247	0.736	229	253	0.199	0.379	0.1867
Leghorn	134.6	68.2	37.75%	62.25%	0.4235	0.4321	0.619	256	284	0.230	0.369	0.1821
Guinea	159.0	80.6	37.75%	62.27%	0.3585	0.3658	0.536	281	313	0.244	0.360	0.1781
Dotterel	176.8	89.6	37.74%	62.26%	0.3223	0.3288	0.489	299	333	0.279	0.354	0.1756
Dorking	190.8	96.7	37.74%	62.26%	0.2987	0.3048	0.458	312	348	0.295	0.350	0.1738
Auk	203.1	102.9	56.61%	43.39%	0.2797	0.2855	0.414	321	360	0.315	0.345	0.1774
Brahma	203.3	103.0	28.39%	71.65%	0.2817	0.2874	0.431	332	371	0.343	0.338	0.1678
Cochin	211.4	107.1	37.74%	62.26%	0.2697	0.2752	0.419	330	369	0.318	0.344	0.1713

ACSR, ALUMINUM CONDUCTOR, STEEL REINFORCED, CONCENTRIC-LAY-STRANDED CANADIAN DIAMETER-BASED SIZES (ELECTRICAL PROPERTIES)

CODE WORD (1)	CONDUCTOR SIZE		PERCENT BY MASS		RESISTANCE (3)OHMS/KM			AMPACITY @75°C (4)		GEOMETRIC MEAN RADIUS CM	INDUCTIVE REACTANCE OHM/KM (5)	CAPACITIVE REACTANCE MEGAOHM/KM (5)
	kcmil	mm²	AL	STEEL	DC @20°C	AC @25°C	AC @75°C	STANDARD	E3X®			
Shelter Bay	504.0	255.5	78.22%	21.78%	0.1129	0.1158	0.1385	612	700	0.866	0.2684	0.1590
Chignecto	589.0	298.4	78.29%	21.76%	0.09665	0.09938	0.1188	674	775	0.936	0.2628	0.1553
Peace River	625.5	317.0	80.21%	19.83%	0.09143	0.09413	0.1125	697	802	0.966	0.2602	0.1541
Mica	667.0	337.9	73.17%	26.84%	0.08539	0.08791	0.1050	731	844	1.02	0.2559	0.1517
Grand Rapid	684.5	346.8	78.25%	21.78%	0.08313	0.08572	0.1024	740	854	1.01	0.2569	0.1518
Chute Des Passes	849.5	430.5	83.67%	16.35%	0.06734	0.06994	0.08334	840	976	1.11	0.2497	0.1472
Les Boules	867.5	439.5	87.45%	12.58%	0.06593	0.06862	0.08172	849	986	1.10	0.2503	0.1472
Carillon	1031.0	522.5	87.34%	12.65%	0.05544	0.05817	0.06911	944	1103	1.20	0.2438	0.1430
Gatineau	1166.5	591.2	80.13%	19.90%	0.04906	0.05162	0.06128	1023	1201	1.32	0.2369	0.1392
Seaway	1277.5	647.4	87.35%	12.65%	0.04476	0.04763	0.05637	1075	1264	1.34	0.2356	0.1379
Bersfort	1356.5	687.4	80.13%	19.89%	0.04220	0.04486	0.05310	1121	1322	1.42	0.2313	0.1356
Bersimis	1359.5	688.9	87.33%	12.67%	0.04207	0.04500	0.05317	1116	1315	1.38	0.2333	0.1364
Nelson	1839.5	932.1	89.14%	10.84%	0.03123	0.03468	0.04057	1327	1580	1.60	0.2221	0.1293

(4) Based on a conductivity of 61.0% IACS at 20°C for aluminum. Per CSA C61089, the conductivity of the steel is not to be factored in. For the Single Layer ACSR sizes, the approximated hysteresis losses in the steel are included.

(5) Based on a conductor temperature of 75°C at 60 Hz and the following conditions, 32°C ambient temperature, 1.98 ft/sec (0.6 m/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, 42° 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 95.0 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.

(5) Values for inductive reactance and capacitive reactance are expressed in terms of a 1 ft radius (30.48 cm).