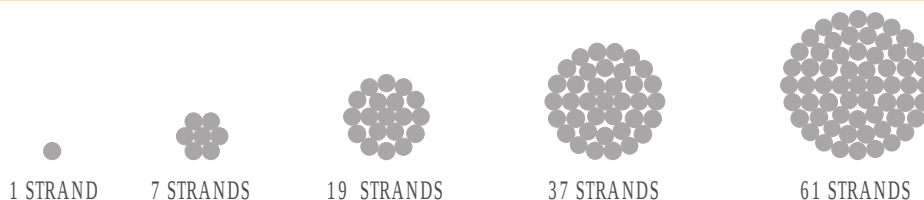


AAC Conductors

Aluminum Conductor Concentrically Stranded
(All Aluminum Conductor)



Description

1350-H19 aluminum wires, concentrically stranded.

Applications

AAC conductors are used for overhead transmission and distribution of electric energy where is not needed a high tensile strength as shorts spans.

Standards

CENTELSA'S AAC conductors are manufactured in accordance with the following standards:

ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B231, NTC 308. Concentric-Lay-Stranded Aluminum 1350 Conductors.
IEC 228 for sizes in mm².

Certifications

CENTELSA'S AAC conductors are certified by:

CIDET (Colombia) Bare Aluminum Type AAC. Cert. No. 00409.

LAPEM (Mexico) AAC. Standard CFE E0000-30.

Note: Configurations and sizes herein not specified are available upon request.

AAC Conductors (International System Unit)

Aluminum Conductor Concentrically Stranded

(All Aluminum Conductor) 1350-H19 Aluminum, wires and cables



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B231, NTC 308. Concentric-Lay-Stranded Aluminum 1350 Conductors.

SIZE AWG / kcmil	CODE WORD	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mm)	CROSS SECTION (mm ²)	CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESISTANT AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ³ (ohm/km)	CAPACITIVE REACTANCE ² (Mohm-km)
14	-	1	Sólido	1.628	2.083	1.63	5.633	13.5	41.7	28	0.63	0.4656	0.2828
12	-	1	Sólido	2.053	3.309	2.05	8.950	8.51	64.0	38	0.80	0.4481	0.2718
10	-	1	Sólido	2.588	5.260	2.59	14.23	5.36	96.1	50	1.01	0.4307	0.2607
8	-	1	Sólido	3.264	8.366	3.26	22.63	3.37	147	67	1.27	0.4132	0.2497
6	-	1	Sólido	4.114	13.30	4.11	35.97	2.12	224	89	1.60	0.3957	0.2386
6	PEACHBELL	7	A	1.555	13.30	4.67	36.69	2.16	256	91	1.69	0.3915	0.2326
30.58	-	7	-	1.679	15.50	5.04	42.75	1.85	298	100	1.83	0.3858	0.2289
4	-	1	Sólido	5.189	21.15	5.19	57.21	1.33	357	119	2.02	0.3782	0.2275
4	ROSE	7	A	1.961	21.15	5.88	58.35	1.33	400	122	2.14	0.3740	0.2215
48.69	-	7	-	2.118	24.67	6.36	68.07	1.16	458	134	2.31	0.3682	0.2178
2	IRIS	7	AA,A,B	2.473	33.63	7.42	92.78	0.855	613	162	2.69	0.3566	0.2105
77.47	-	7	-	2.672	39.25	8.02	108.3	0.732	689	179	2.91	0.3507	0.2068
1	PANSY	7	AA,A	2.777	42.41	8.33	117.0	0.678	744	188	3.02	0.3478	0.2049
1	-	19	B	1.686	42.41	8.43	117.0	0.678	790	188	3.19	0.3437	0.2044
1/0	POPPY	7	AA,A	3.120	53.51	9.36	147.6	0.537	903	217	3.40	0.3390	0.1994
1/0	-	19	B	1.894	53.51	9.47	147.6	0.537	980	218	3.59	0.3349	0.1988
123.3	-	7	-	3.371	62.48	10.11	172.4	0.460	1054	239	3.67	0.3332	0.1957
2/0	ASTER	7	AA,A	3.502	67.44	10.51	186.1	0.426	1138	251	3.81	0.3303	0.1938
2/0	-	19	B	2.126	67.44	10.63	186.1	0.426	1213	252	4.03	0.3262	0.1933
155.4	-	7	-	3.785	78.74	11.35	217.3	0.365	1302	276	4.12	0.3245	0.1901
3/0	PHLOX	7	AA,A	3.933	85.03	11.80	234.6	0.338	1377	290	4.28	0.3216	0.1883
3/0	-	19	B	2.387	85.03	11.94	234.6	0.338	1501	291	4.52	0.3175	0.1878
195.7	-	7	-	4.247	99.16	12.74	273.6	0.290	1606	319	4.62	0.3158	0.1846
4/0	OXLIP	7	AA,A	4.416	107.2	13.25	295.8	0.268	1737	335	4.81	0.3128	0.1828
4/0	-	19	B	2.680	107.2	13.40	295.8	0.268	1823	336	5.08	0.3087	0.1822
246.9	-	7	-	4.770	125.1	14.31	345.2	0.230	2027	369	5.19	0.3070	0.1791
250	VALERIAN	19	A	2.914	126.7	14.57	349.5	0.227	2112	373	5.52	0.3024	0.1782
250	-	37	B	2.088	126.7	14.62	349.5	0.227	2229	374	5.61	0.3012	0.1781
266.8	LAUREL	19	A	3.010	135.2	15.05	373.0	0.213	2254	389	5.70	0.3000	0.1767
300	PEONY	19	A	3.192	152.0	15.96	419.4	0.189	2485	419	6.05	0.2956	0.1739
300	-	37	B	2.287	152.0	16.01	419.4	0.189	2626	419	6.15	0.2943	0.1737
312.8	-	19	-	3.259	158.5	16.30	437.3	0.181	2591	430	6.18	0.2940	0.1729
336.4	TULIP	19	AA,A	3.380	170.5	16.90	470.3	0.169	2786	450	6.40	0.2912	0.1712
350	DAFFODIL	19	AA,A	3.447	177.3	17.24	489.3	0.162	2899	461	6.53	0.2898	0.1702
350	-	37	B	2.470	177.3	17.29	489.3	0.162	3064	461	6.64	0.2885	0.1701
394.5	-	19	-	3.660	199.9	18.30	551.5	0.144	3202	497	6.94	0.2852	0.1674
397.5	CANNA	19	AA,A	3.674	201.4	18.37	555.7	0.143	3227	499	6.96	0.2850	0.1672
400	-	19	AA,A	3.685	202.7	18.43	559.2	0.142	3247	501	6.98	0.2847	0.1670
400	-	37	B	2.641	202.7	18.49	559.2	0.142	3372	501	7.10	0.2835	0.1669
450	GOLDENTUF	19	AA	3.909	228.0	19.54	629.1	0.126	3578	539	7.41	0.2803	0.1642
450	T	37	A	2.801	228.0	19.61	629.1	0.126	3720	540	7.53	0.2790	0.1641
465.4	-	19	-	3.975	235.8	19.88	650.7	0.122	3701	551	7.53	0.2790	0.1634
477	-	19	AA	4.025	241.7	20.12	666.9	0.119	3793	559	7.63	0.2781	0.1628
500	COSMOS	19	AA	4.120	253.4	20.60	699.0	0.113	3976	576	7.81	0.2763	0.1617
500	ZINNIA	37	A	2.953	253.4	20.67	699.0	0.113	4134	576	7.94	0.2751	0.1615
550	HYACINTH	37	AA,A	3.097	278.7	21.68	768.9	0.103	4458	611	8.32	0.2715	0.1593
550	-	61	B	2.412	278.7	21.71	768.9	0.103	4761	612	8.38	0.2710	0.1592
556.5	-	19	AA	4.347	282.0	21.73	778.0	0.102	4425	615	8.24	0.2723	0.1591
559.5	DAHLIA	19	-	4.359	283.5	21.79	782.2	0.101	4449	617	8.26	0.2721	0.1590
600	-	37	AA,A	3.235	304.0	22.64	838.8	0.0945	4863	645	8.69	0.2682	0.1572
600	MEADOWSWEET	61	B	2.519	304.0	22.67	838.8	0.0945	5194	646	8.75	0.2677	0.1571
636	T	37	AA,A	3.330	322.3	23.31	889.2	0.0892	5155	669	8.95	0.2660	0.1558
650	-	37	AA	3.367	329.4	23.57	908.7	0.0872	5268	678	9.05	0.2652	0.1553
650	ORCHID	61	A	2.622	329.4	23.60	908.7	0.0872	5419	678	9.11	0.2647	0.1552
652.4	HEUCHERA	19	-	4.707	330.6	23.53	912.1	0.0869	5188	679	8.92	0.2663	0.1553

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AAC Conductors (International System Unit)

SIZE AWG / kcmil	CODE WORD	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mm)	CROSS SECTION (mm ²)	CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESISTANCE AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPAcity ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/km)	CAPACITIVE REACTANCE ² (Mohm-km)
700	VERBENA	37	AA	3.494	354.7	24.46	978.6	0.0810	5673	710	9.39	0.2624	0.1535
700	FLAG	61	A	2.721	354.7	24.49	978.6	0.0810	5836	710	9.45	0.2619	0.1535
740.8	-	37	-	3.594	375.4	25.16	1036	0.0766	5884	735	9.66	0.2603	0.1522
750	PETUNIA	37	AA	3.616	380.0	25.31	1049	0.0756	5957	741	9.72	0.2598	0.1519
750	CATTAIL	61	A	2.816	380.0	25.35	1049	0.0756	6132	741	9.78	0.2593	0.1518
795	ARBUTUS	37	AA	3.723	402.8	26.06	1111	0.0713	6315	768	10.01	0.2576	0.1505
800	-	37	AA	3.735	405.4	26.14	1118	0.0709	6354	771	10.04	0.2574	0.1503
800	-	61	A	2.909	405.4	26.18	1118	0.0709	6541	771	10.11	0.2569	0.1503
900	COCKSCOMB	37	AA	3.961	456.0	27.73	1258	0.0630	7003	828	10.65	0.2529	0.1475
900	SNAPDRAGON	61	A	3.085	456.0	27.77	1258	0.0630	7214	829	10.72	0.2524	0.1475
927.2	-	37	-	4.021	469.8	28.15	1296	0.0612	7214	843	10.81	0.2518	0.1468
954	GOLDENROD	61	A	3.176	483.4	28.59	1334	0.0594	7647	859	11.04	0.2502	0.1461
1000	HAWKWEED	37	AA	4.176	506.7	29.23	1398	0.0567	7781	883	11.22	0.2489	0.1450
1000	CAMELIA	61	A	3.252	506.7	29.27	1398	0.0567	8016	883	11.30	0.2484	0.1449

- Notes: 1. DC resistance calculated based on a 28.172 ohm-mm²/km
2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

AAC Conductors Aluminum Conductor Concentrically Stranded (All Aluminum Conductor) 1350-H19 Aluminum, wires and cables

Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.
ASTM B231, NTC 308. Concentric-Lay-Stranded Aluminum
1350 Conductors.

SIZE AWG / kcmil	CODE WORD	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mils)	CROSS SECTION (square inch)	CONDUCTOR DIAMETER (mils)	TOTAL WEIGHT (lb/t)	DC RESISTANCE AT 20°C ¹ (ohm/1000 ft)	TENSILE STRENGTH (lb)	AMPAcity ² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE ² (ohm/miles)	CAPACITIVE REACTANCE ² (Mohm-miles)
14	-	1	Sólido	64.11	0.00323	0.0641	3.785	4.12	92.0	28	0.025	0.7493	0.1758
12	-	1	Sólido	80.81	0.00513	0.0808	6.014	2.60	141	38	0.031	0.7212	0.1689
10	-	1	Sólido	101.9	0.00815	0.102	9.560	1.63	212	50	0.040	0.6931	0.1620
8	-	1	Sólido	128.5	0.0130	0.128	15.21	1.03	324	67	0.050	0.6649	0.1551
6	-	1	Sólido	162.0	0.0206	0.162	24.17	0.646	495	89	0.063	0.6368	0.1483
6	PEACHBELL	7	A	61.23	0.0206	0.184	24.65	0.659	564	91	0.067	0.6301	0.1445
30.58	-	7	-	66.10	0.0240	0.198	28.73	0.565	657	100	0.072	0.6208	0.1423
4	-	1	Sólido	204.3	0.0328	0.204	38.44	0.406	787	119	0.080	0.6086	0.1414
4	ROSE	7	A	77.22	0.0328	0.232	39.21	0.406	881	122	0.084	0.6019	0.1376
48.69	-	7	-	83.40	0.0382	0.250	45.74	0.355	1010	134	0.091	0.5926	0.1354
2	IRIS	7	AA,A,B	97.37	0.0521	0.292	62.34	0.260	1351	162	0.106	0.5738	0.1308
77.47	-	7	-	105.2	0.0608	0.316	72.78	0.223	1519	179	0.115	0.5644	0.1285
1	PANSY	7	AA,A	109.3	0.0657	0.328	78.62	0.207	1641	188	0.119	0.5597	0.1273
1	-	19	B	66.37	0.0657	0.332	78.62	0.207	1742	188	0.126	0.5531	0.1270
1/0	POPPY	7	AA,A	122.8	0.0829	0.368	99.21	0.164	1991	217	0.134	0.5456	0.1239
1/0	-	19	B	74.55	0.0829	0.373	99.21	0.164	2160	218	0.141	0.5390	0.1235
123.3	-	7	-	132.7	0.0968	0.398	115.8	0.140	2324	239	0.145	0.5362	0.1216
2/0	ASTER	7	AA,A	137.9	0.105	0.414	125.0	0.130	2509	251	0.150	0.5316	0.1205
2/0	-	19	B	83.70	0.105	0.418	125.0	0.130	2674	252	0.159	0.5250	0.1201

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AAC Conductors



SIZE AWG / kcmil	CODE WORD	STRAN- DND No.	CONDUCTOR TYPE	STRAND DIAMETER (mils)	CROSS SECTION (square inches)	CON- DUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/1000 ft)	DC RESIS- TANT AT 20°C¹ (ohm/1000 ft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE³ (ohm/miles)	CAPACITIVE REACTANCE² (Mohm-miles)
155.4	-	7	-	149.0	0.122	0.447	146.0	0.111	2871	276	0.162	0.5222	0.1182
3/0	PHLOX	7	AA,A	154.8	0.132	0.464	157.6	0.103	3037	290	0.169	0.5175	0.1170
3/0	-	19	B	93.98	0.132	0.470	157.6	0.103	3309	291	0.178	0.5109	0.1167
195.7	-	7	-	167.2	0.154	0.502	183.9	0.0883	3541	319	0.182	0.5082	0.1147
4/0	OXLIP	7	AA,A	173.9	0.166	0.522	198.8	0.0817	3829	335	0.189	0.5035	0.1136
4/0	-	19	B	105.5	0.166	0.528	198.8	0.0817	4019	336	0.200	0.4968	0.1132
246.9	-	7	-	187.8	0.194	0.563	232.0	0.0700	4468	369	0.205	0.4941	0.1113
250	VALERIAN	19	A	114.7	0.196	0.574	234.9	0.0691	4657	373	0.217	0.4867	0.1108
250	-	37	B	82.20	0.196	0.575	234.9	0.0691	4914	374	0.221	0.4847	0.1107
266.8	LAUREL	19	A	118.5	0.210	0.592	250.6	0.0648	4970	389	0.225	0.4828	0.1098
300	PEONY	19	A	125.7	0.236	0.628	281.8	0.0576	5478	419	0.238	0.4756	0.1081
300	-	37	B	90.05	0.236	0.630	281.8	0.0576	5789	419	0.242	0.4737	0.1080
312.8	-	19	-	128.3	0.246	0.642	293.9	0.0553	5712	430	0.243	0.4731	0.1074
336.4	TULIP	19	AA,A	133.1	0.264	0.665	316.0	0.0514	6143	450	0.252	0.4687	0.1064
350	DAFFODIL	19	AA,A	135.7	0.275	0.679	328.8	0.0494	6391	461	0.257	0.4663	0.1058
350	-	37	B	97.26	0.275	0.681	328.8	0.0494	6754	461	0.261	0.4643	0.1057
394.5	CANNA	19	-	144.1	0.310	0.720	370.6	0.0438	7060	497	0.273	0.4590	0.1040
397.5	-	19	AA,A	144.6	0.312	0.723	373.4	0.0435	7114	499	0.274	0.4586	0.1039
400	-	19	AA,A	145.1	0.314	0.725	375.8	0.0432	7158	501	0.275	0.4582	0.1038
400	GOLDENTUF	37	B	104.0	0.314	0.728	375.8	0.0432	7433	501	0.279	0.4562	0.1037
450	T	19	AA	153.9	0.353	0.769	422.8	0.0384	7889	539	0.292	0.4510	0.1020
450	-	37	A	110.3	0.353	0.772	422.8	0.0384	8202	540	0.296	0.4491	0.1019
465.4	-	19	-	156.5	0.366	0.783	437.2	0.0371	8159	551	0.297	0.4490	0.1015
477	COSMOS	19	AA	158.4	0.375	0.792	448.1	0.0362	8362	559	0.300	0.4475	0.1012
500	ZINNIA	19	AA	162.2	0.393	0.811	469.7	0.0346	8765	576	0.307	0.4447	0.1005
500	HYACINTH	37	A	116.2	0.393	0.814	469.7	0.0346	9113	576	0.312	0.4427	0.1004
550	-	37	AA,A	121.9	0.432	0.853	516.7	0.0314	9828	611	0.328	0.4369	0.0990
550	-	61	B	94.95	0.432	0.855	516.7	0.0314	10497	612	0.330	0.4361	0.0989
556.5	DAHLIA	19	AA	171.1	0.437	0.856	522.8	0.0311	9756	615	0.324	0.4382	0.0989
559.5	-	19	-	171.6	0.439	0.858	525.6	0.0309	9808	617	0.325	0.4378	0.0988
600	MEADOWSWEET	37	AA,A	127.3	0.471	0.891	563.7	0.0288	10721	645	0.342	0.4316	0.0977
600	-	61	B	99.18	0.471	0.893	563.7	0.0288	11452	646	0.345	0.4308	0.0976
636	ORCHID	37	AA,A	131.1	0.500	0.918	597.5	0.0272	11364	669	0.352	0.4281	0.0968
650	HEUCHERA	37	AA	132.5	0.511	0.928	610.6	0.0266	11615	678	0.356	0.4268	0.0965
650	-	61	A	103.2	0.511	0.929	610.6	0.0266	11946	678	0.359	0.4260	0.0965
652.4	-	19	-	185.3	0.512	0.927	612.9	0.0265	11437	679	0.351	0.4285	0.0965
700	VERBENA	37	AA	137.5	0.550	0.963	657.6	0.0247	12508	710	0.370	0.4223	0.0954
700	FLAG	61	A	107.1	0.550	0.964	657.6	0.0247	12865	710	0.372	0.4215	0.0954
740.8	-	37	-	141.5	0.582	0.990	695.9	0.0233	12972	735	0.380	0.4188	0.0946
750	PETUNIA	37	AA	142.4	0.589	0.997	704.6	0.0230	13133	741	0.383	0.4181	0.0944
750	CATTAIL	61	A	110.9	0.589	0.998	704.6	0.0230	13519	741	0.385	0.4173	0.0943
795	ARBUTUS	37	AA	146.6	0.624	1.026	746.9	0.0217	13921	768	0.394	0.4145	0.0935
800	-	37	AA	147.0	0.628	1.029	751.6	0.0216	14009	771	0.395	0.4142	0.0934
800	COCKSCOM	61	A	114.5	0.628	1.031	751.6	0.0216	14420	771	0.398	0.4134	0.0934
900	B	37	AA	156.0	0.707	1.092	845.5	0.0192	15438	828	0.419	0.4070	0.0917
900	SNAPDRAGON	61	A	121.5	0.707	1.093	845.5	0.0192	15905	829	0.422	0.4062	0.0916
927.2	-	37	-	158.3	0.728	1.108	871.1	0.0186	15905	843	0.426	0.4052	0.0912
954	GOLDENROD	61	A	125.1	0.749	1.126	896.2	0.0181	16859	859	0.434	0.4027	0.0908
1000	HAWKWEED	37	AA	164.4	0.785	1.151	939.5	0.0173	17154	883	0.442	0.4006	0.0901
1000	CAMELIA	61	A	128.0	0.785	1.152	939.5	0.0173	17672	883	0.445	0.3998	0.0901

- Notes: 1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for copper and 16.946 ohm-cmil/ft for aluminum.
2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 2 ft/sec, at sea level, and at 60 Hz.
3. Inductive and capacitive reactance at 60 Hz and a 1 ft separation between phases in equilateral configuration.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

AAC Conductors (Sizes in mm²)

Aluminum Conductor Concentrically Stranded

(All Aluminum Conductor) 1350-H19 Aluminum, wires and cables

Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B231, NTC 308. Concentric-Lay-Stranded Aluminum 1350 Conductors.

IEC 228 for sizes in mm².

SIZE AWG / kcmil	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mm)	CROSS SECTION (mm ²)	CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESISTANCE AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (kg)	AMPACITY ¹ (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/km)	CAPACITIVE REACTANCE ² (Mohm-km)
4	1	Sólido	2.257	4.001	2.26	10.82	7.04	77.4	42	0.88	0.4410	0.2673
4	7	B	0.853	4.000	2.56	11.04	7.04	67.5	43	0.93	0.4368	0.2613
6	1	Sólido	2.764	6.000	2.76	16.23	4.70	110	54	1.08	0.4257	0.2576
6	7	B	1.045	6.004	3.14	16.56	4.69	101	55	1.14	0.4215	0.2516
10	1	Sólido	3.569	10.00	3.57	27.06	2.82	172	75	1.39	0.4064	0.2454
10	7	B	1.349	10.00	4.05	27.60	2.82	196	76	1.47	0.4023	0.2394
12.5	7	A,B	1.508	12.50	4.52	34.50	2.30	245	88	1.64	0.3939	0.2341
16	1	Sólido	4.514	16.00	4.51	43.29	1.76	270	100	1.76	0.3887	0.2342
16	7	A,B	1.706	16.00	5.12	44.15	1.80	308	102	1.86	0.3846	0.2282
20	7	A,B	1.908	20.01	5.72	55.22	1.44	378	117	2.08	0.3761	0.2228
25	1	Sólido	5.642	25.00	5.64	67.63	1.13	413	132	2.20	0.3719	0.2235
25	7	A,B	2.133	25.01	6.40	69.01	1.13	464	135	2.32	0.3677	0.2175
31.5	7	AA,A,B	2.394	31.51	7.18	86.94	0.912	574	156	2.61	0.3590	0.2120
35	7	B	2.524	35.02	7.57	96.63	0.820	638	167	2.75	0.3550	0.2095
40	7	AA,A	2.698	40.02	8.09	110.4	0.718	702	181	2.94	0.3500	0.2063
50	19	B	1.831	50.03	9.16	138.0	0.574	916	209	3.47	0.3375	0.2004
63	7	AA,A	3.386	63.03	10.16	173.9	0.456	1064	241	3.69	0.3329	0.1955
70	19	B	2.166	70.01	10.83	193.2	0.410	1259	258	4.10	0.3248	0.1924
80	7	AA,A	3.815	80.02	11.45	220.8	0.359	1296	279	4.15	0.3239	0.1898
95	19	B	2.524	95.07	12.62	262.3	0.302	1678	312	4.78	0.3133	0.1851
100	7	AA,A	4.265	100.0	12.80	275.9	0.287	1620	321	4.64	0.3155	0.1844
120	37	B	2.033	120.1	14.23	331.4	0.239	2113	361	5.46	0.3032	0.1794
125	7	AA	4.769	125.0	14.31	345.0	0.230	2026	369	5.19	0.3071	0.1791
125	19	A	2.895	125.1	14.48	345.1	0.230	2085	370	5.49	0.3029	0.1785
140	7	AA	5.047	140.0	15.14	386.4	0.205	2269	396	5.50	0.3028	0.1764
140	19	A	3.063	140.0	15.32	386.3	0.205	2289	398	5.80	0.2987	0.1759
150	37	B	2.272	150.0	15.90	413.9	0.192	2639	415	6.11	0.2948	0.1741
160	19	A	3.275	160.1	16.38	441.6	0.180	2616	432	6.21	0.2936	0.1727
180	19	A	3.474	180.1	17.37	496.9	0.160	2944	465	6.58	0.2892	0.1698
185	37	B	2.524	185.1	17.67	510.8	0.155	3198	474	6.78	0.2869	0.1690
200	19	AA,A	3.661	200.0	18.31	551.8	0.144	3204	497	6.94	0.2852	0.1673
224	19	AA	3.875	224.1	19.38	618.2	0.128	3516	533	7.34	0.2809	0.1646
240	37	B	2.239	240.2	20.15	662.7	0.120	4179	558	7.78	0.2766	0.1628
250	19	AA	4.094	250.1	20.47	690.1	0.115	3925	571	7.76	0.2768	0.1620
250	37	B	2.934	250.2	20.54	690.2	0.115	4081	572	7.89	0.2756	0.1618
280	19	AA	4.332	280.0	21.66	772.7	0.103	4395	613	8.21	0.2725	0.1593
280	37	A	3.105	280.2	21.74	773.0	0.103	4481	613	8.35	0.2713	0.1591
300	61	B	2.503	300.2	22.53	828.1	0.0957	5128	640	8.70	0.2682	0.1574
315	37	AA,A	3.293	315.1	23.05	869.4	0.0912	5040	660	8.85	0.2668	0.1563
355	37	AA	3.496	355.2	24.47	979.9	0.0809	5681	710	9.40	0.2623	0.1535
355	61	A,B	2.723	355.2	24.51	980.1	0.0809	5844	711	9.46	0.2618	0.1534
400	37	AA	3.711	400.2	25.98	1104	0.0718	6273	765	9.98	0.2578	0.1506
400	61	A,B	2.890	400.1	26.01	1104	0.0718	6457	765	10.04	0.2573	0.1506
450	37	AA	3.936	450.2	27.55	1242	0.0638	6913	822	10.58	0.2534	0.1478
450	61	A,B	3.065	450.1	27.59	1242	0.0638	7120	822	10.65	0.2529	0.1478
500	37	AA	4.149	500.2	29.04	1380	0.0574	7681	876	11.15	0.2494	0.1453
500	61	A,B	3.231	500.1	29.08	1380	0.0575	7912	876	11.22	0.2489	0.1452
560	61	AA,A	3.419	560.0	30.77	1545	0.0513	8860	939	11.88	0.2447	0.1425
630	61	AA,A	3.627	630.3	32.64	1739	0.0456	9771	1007	12.60	0.2402	0.1397
630	91	B	2.969	630.0	32.66	1738	0.0456	10053	1007	12.64	0.2400	0.1397

Notes: 1. DC resistance calculated based on a 28.172 ohm-mm²/km

2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.

3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.

4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

AAAC Conductors

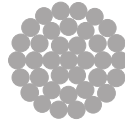
Aluminum Alloy Conductor
(All Aluminum Alloy Conductor)



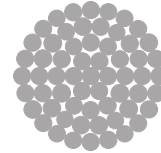
7 STRANDS



19 STRANDS



37 STRANDS



61 STRANDS

Description

6201-T81 aluminum alloy wires, concentrically stranded.

Applications

AAAC conductors are used for overhead transmission and distribution of electric energy. Also are used as neutral messenger in multiplex aluminum cable for distribution.

Standards

CENTELSA'S AAAC conductors are manufactured in accordance with the following standards:

ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.

ASTM B399, NTC 3730. Concentric-Lay-Stranded Aluminum Alloy 6201-T81 Conductors.

IEC 208 for sizes in mm².

Certifications

CENTELSA'S AAC conductors are certified by:
CIDET (Colombia) Bare Aluminum Alloy Type AAAC.

Note: Configurations and sizes herein not specified are available upon request.

AAAC Conductors (International System Unit)

Aluminum Alloy Conductor Concentrically Stranded

(All Aluminum Alloy Conductor) 6201-T81 Aluminum Alloy Conductors

Standards: ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.
ASTM B399, NTC 3730. Concentric-Lay-Stranded Aluminum Alloy 6201-T81 Conductors.

SIZE AWG / kcmil	CODE WORD	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mm)	CROSS SECTION (mm ²)	CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESISTANCE AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPA CITY ¹ (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/km)	CAPACITIVE REACTANCE ² (Mohm-km)
6	-	7	A	1.555	13.30	4.67	36.48	2.52	431	85	1.69	0.3915	0.2326
30.58	AKRON	7	A	1.679	15.50	5.04	42.52	2.16	502	94	1.83	0.3858	0.2289
4	-	7	A	1.961	21.15	5.88	58.03	1.58	685	114	2.14	0.3740	0.2215
48.69	ALTON	7	A	2.118	24.67	6.36	67.69	1.36	799	126	2.31	0.3682	0.2178
2	-	7	AA,A	2.473	33.63	7.42	92.26	0.996	1090	153	2.69	0.3566	0.2105
77.47	AMES	7	AA,A	2.672	39.25	8.02	107.7	0.853	1272	168	2.91	0.3507	0.2068
1	-	7	-	2.777	42.41	8.33	116.4	0.790	1374	176	3.02	0.3478	0.2049
1	-	19	-	1.686	42.41	8.43	116.4	0.790	1331	177	3.19	0.3437	0.2044
1/0	-	7	AA,A	3.120	53.51	9.36	146.8	0.626	1734	204	3.40	0.3390	0.1994
1/0	-	19	-	1.894	53.51	9.47	146.8	0.626	1680	205	3.59	0.3349	0.1988
123.3	AZUSA	7	AA,A	3.371	62.48	10.11	171.4	0.536	1939	225	3.67	0.3332	0.1957
2/0	-	7	AA,A	3.502	67.44	10.51	185.0	0.497	2093	236	3.81	0.3303	0.1938
2/0	-	19	-	2.126	67.44	10.63	185.0	0.497	2117	236	4.03	0.3262	0.1933
155.4	ANAHEIM	7	AA,A	3.785	78.74	11.35	216.1	0.425	2444	260	4.12	0.3245	0.1901
3/0	-	7	AA,A	3.933	85.03	11.80	233.3	0.394	2639	272	4.28	0.3216	0.1883
3/0	-	19	-	2.387	85.03	11.94	233.3	0.394	2669	273	4.52	0.3175	0.1878
195.7	AMHERST	7	AA,A	4.247	99.16	12.74	272.1	0.338	3077	300	4.62	0.3158	0.1846
4/0	-	7	AA,A	4.416	107.2	13.25	294.2	0.312	3327	315	4.81	0.3128	0.1828
4/0	-	19	-	2.680	107.2	13.40	294.2	0.312	3366	316	5.08	0.3087	0.1822
246.9	ALLIANCE	7	AA	4.770	125.1	14.31	343.3	0.268	3882	347	5.19	0.3070	0.1791
250	-	19	A	2.914	126.7	14.57	347.6	0.264	3976	351	5.52	0.3024	0.1782
250	-	37	-	2.088	126.7	14.62	347.6	0.264	3891	351	5.61	0.3012	0.1781
266.8	-	19	-	3.010	135.2	15.05	370.9	0.248	4244	365	5.70	0.3000	0.1767
300	-	19	A	3.192	152.0	15.96	417.1	0.220	4772	393	6.05	0.2956	0.1739
300	-	37	-	2.287	152.0	16.01	417.1	0.220	4669	393	6.15	0.2943	0.1737
312.8	BUTTE	19	A	3.259	158.5	16.30	434.9	0.211	4765	404	6.18	0.2940	0.1729
336.4	-	19	-	3.380	170.5	16.90	467.7	0.197	5124	422	6.40	0.2912	0.1712
350	-	19	A	3.447	177.3	17.24	486.6	0.189	5331	433	6.53	0.2898	0.1702
350	-	37	-	2.470	177.3	17.29	486.6	0.189	5447	433	6.64	0.2885	0.1701
394.5	CANTON	19	AA,A	3.660	199.9	18.30	548.5	0.168	6009	467	6.94	0.2852	0.1674
397.5	-	19	-	3.674	201.4	18.37	552.6	0.166	6055	469	6.96	0.2850	0.1672
400	-	19	AA,A	3.685	202.7	18.43	556.1	0.165	6093	471	6.98	0.2847	0.1670
400	-	37	-	2.641	202.7	18.49	556.1	0.165	6225	471	7.10	0.2835	0.1669
450	-	19	AA	3.909	228.0	19.54	625.6	0.147	6855	507	7.41	0.2803	0.1642
450	-	37	-	2.801	228.0	19.61	625.6	0.147	7004	507	7.53	0.2790	0.1641
465.4	CAIRO	19	AA	3.975	235.8	19.88	647.0	0.142	7089	517	7.53	0.2790	0.1634
477	-	19	-	4.025	241.7	20.12	663.2	0.139	7266	525	7.63	0.2781	0.1628
500	-	19	AA	4.120	253.4	20.60	695.2	0.132	7616	541	7.81	0.2763	0.1617
500	-	37	-	2.953	253.4	20.67	695.2	0.132	7782	541	7.94	0.2751	0.1615
550	-	37	AA,A	3.097	278.7	21.68	764.7	0.120	8560	575	8.32	0.2715	0.1593
550	-	61	-	2.412	278.7	21.71	764.7	0.120	8466	575	8.38	0.2710	0.1592
556.5	-	19	-	4.347	282.0	21.73	773.7	0.119	8477	578	8.24	0.2723	0.1591
559.5	DARIEN	19	AA	4.359	283.5	21.79	777.9	0.118	8523	580	8.26	0.2721	0.1590
600	-	37	AA,A	3.235	304.0	22.64	834.2	0.110	9338	607	8.69	0.2682	0.1572
600	-	61	-	2.519	304.0	22.67	834.2	0.110	9235	607	8.75	0.2677	0.1571
636	-	37	-	3.330	322.3	23.31	884.2	0.104	9480	629	8.95	0.2660	0.1558
650	-	37	AA	3.367	329.4	23.57	903.7	0.102	9688	637	9.05	0.2652	0.1553
650	-	61	-	2.622	329.4	23.60	903.7	0.102	10005	638	9.11	0.2647	0.1552
652.4	ELGIN	19	AA	4.707	330.6	23.53	907.0	0.101	9938	638	8.92	0.2663	0.1553
700	-	37	AA	3.494	354.7	24.46	973.2	0.0944	10434	667	9.39	0.2624	0.1535
700	-	61	-	2.721	354.7	24.49	973.2	0.0944	10775	668	9.45	0.2619	0.1535
740.8	FLINT	37	AA	3.594	375.4	25.16	1030	0.0892	11042	691	9.66	0.2603	0.1522
750	-	37	AA	3.616	380.0	25.31	1043	0.0881	11179	697	9.72	0.2598	0.1519
750	-	61	-	2.816	380.0	25.35	1043	0.0881	11544	697	9.78	0.2593	0.1518
795	-	37	-	3.723	402.8	26.06	1105	0.0832	11850	722	10.01	0.2576	0.1505

Continued on page 13



AAAC Conductors (International System Unit)

SIZE AWG / kcmil	CODE WORD	STRAN- DND No.	CONDUCTOR TYPE	STRAND DIAMETER (mm)	CROSS SECTION (mm²)	CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE³ (ohm/km)	CAPACITIVE REACTANCE² (Mohm-km)
800	-	37	AA	3.735	405.4	26.14	1112	0.0826	11924	725	10.04	0.2574	0.1503
800	-	61	-	2.909	405.4	26.18	1112	0.0826	12314	725	10.11	0.2569	0.1503
900	-	37	AA	3.961	456.0	27.73	1251	0.0735	13415	779	10.65	0.2529	0.1475
900	-	61	-	3.085	456.0	27.77	1251	0.0735	13853	780	10.72	0.2524	0.1475
927.2	GREELEY	37	AA	4.021	469.8	28.15	1289	0.0713	13820	794	10.81	0.2518	0.1468
954	-	61	-	3.176	483.4	28.59	1326	0.0693	14684	808	11.04	0.2502	0.1461
1000	-	37	AA	4.176	506.7	29.23	1390	0.0661	14905	831	11.22	0.2489	0.1450
1000	-	61	-	3.252	506.7	29.27	1390	0.0661	14741	832	11.30	0.2484	0.1449

- Notes: 1. DC resistance calculated based on a 32.841 ohm-mm²/km
 2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
 3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
 4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

AAAC Conductors Aluminum Alloy Conductor Concentrically Stranded (All Aluminum Alloy Conductor) 6201-T81 Aluminum Alloy Conductors

Standards: ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.
 ASTM B399, NTC 3730. Concentric-Lay-Stranded Aluminum Alloy
 6201-T81 Conductors.

SIZE AWG / kcmil	CODE WORD	STRAN- DND No.	CONDUCTOR TYPE	STRAND DIAMETER (mils)	CROSS SECTION (square inches)	CON- DUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/1000 ft)	DC RESIS- TANT AT 20°C¹ (ohm/1000 ft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE³ (ohm/miles)	CAPACITIVE REACTANCE² (Mohm-miles)
6	-	7	A	61.23	0.0206	0.184	24.51	0.768	950	85	0.067	0.6301	0.1445
30.58	AKRON	7	A	66.10	0.0240	0.198	28.57	0.659	1107	94	0.072	0.6208	0.1423
4	-	7	A	77.22	0.0328	0.232	39.00	0.483	1511	114	0.084	0.6019	0.1376
48.69	ALTON	7	A	83.40	0.0382	0.250	45.49	0.414	1762	126	0.091	0.5926	0.1354
2	-	7	AA,A	97.37	0.0521	0.292	62.00	0.304	2402	153	0.106	0.5738	0.1308
77.47	AMES	7	AA,A	105.2	0.0608	0.316	72.38	0.260	2804	168	0.115	0.5644	0.1285
1	-	7	-	109.3	0.0657	0.328	78.19	0.241	3029	176	0.119	0.5597	0.1273
1	-	19	-	66.37	0.0657	0.332	78.19	0.241	2935	177	0.126	0.5531	0.1270
1/0	-	7	AA,A	122.8	0.0829	0.368	98.66	0.191	3822	204	0.134	0.5456	0.1239
1/0	-	19	-	74.55	0.0829	0.373	98.66	0.191	3703	205	0.141	0.5390	0.1235
123.3	AZUSA	7	AA,A	132.7	0.0968	0.398	115.2	0.163	4274	225	0.145	0.5362	0.1216
2/0	-	7	AA,A	137.9	0.105	0.414	124.3	0.151	4614	236	0.150	0.5316	0.1205
2/0	-	19	-	83.70	0.105	0.418	124.3	0.151	4667	236	0.159	0.5250	0.1201
155.4	ANAHEIM	7	AA,A	149.0	0.122	0.447	145.2	0.130	5387	260	0.162	0.5222	0.1182
3/0	-	7	AA,A	154.8	0.132	0.464	156.8	0.120	5817	272	0.169	0.5175	0.1170
3/0	-	19	-	93.98	0.132	0.470	156.8	0.120	5884	273	0.178	0.5109	0.1167
195.7	AMHERST	7	AA,A	167.2	0.154	0.502	182.8	0.103	6784	300	0.182	0.5082	0.1147
4/0	-	7	AA,A	173.9	0.166	0.522	197.7	0.0952	7335	315	0.189	0.5035	0.1136
4/0	-	19	-	105.5	0.166	0.528	197.7	0.0952	7420	316	0.200	0.4968	0.1132
246.9	ALLIANCE	7	AA	187.8	0.194	0.563	230.7	0.0816	8559	347	0.205	0.4941	0.1113
250	-	19	A	114.7	0.196	0.574	233.6	0.0806	8766	351	0.217	0.4867	0.1108
250	-	37	-	82.20	0.196	0.575	233.6	0.0806	8578	351	0.221	0.4847	0.1107
266.8	-	19	-	118.5	0.210	0.592	249.3	0.0755	9356	365	0.225	0.4828	0.1098
300	-	19	A	125.7	0.236	0.628	280.3	0.0672	10520	393	0.238	0.4756	0.1081

AAAC Conductors

SIZE AWG / kcmil	CODE WORD	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mils)	CROSS SECTION (square inches)	CONDUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/1000 ft)	DC RESISTANT AT 20°C ¹ (ohm/1000 ft)	TENSILE STRENGTH (Lb)	AMPACITY ¹ (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE ² (ohm/miles)	CAPACITIVE REACTANCE ² (Mohm-miles)
300	-	37	-	90.05	0.236	0.630	280.3	0.0672	10294	393	0.242	0.4737	0.1080
312.8	BUTTE	19	A	128.3	0.246	0.642	292.2	0.0644	10505	404	0.243	0.4731	0.1074
336.4	-	19	-	133.1	0.264	0.665	314.3	0.0599	11297	422	0.252	0.4687	0.1064
350	-	19	A	135.7	0.275	0.679	327.0	0.0576	11754	433	0.257	0.4663	0.1058
350	-	37	-	97.26	0.275	0.681	327.0	0.0576	12009	433	0.261	0.4643	0.1057
394.5	CANTON	19	AA,A	144.1	0.310	0.720	368.6	0.0511	13248	467	0.273	0.4590	0.1040
397.5	-	19	-	144.6	0.312	0.723	371.4	0.0507	13349	469	0.274	0.4586	0.1039
400	-	19	AA,A	145.1	0.314	0.725	373.7	0.0504	13433	471	0.275	0.4582	0.1038
400	-	37	-	104.0	0.314	0.728	373.7	0.0504	13725	471	0.279	0.4562	0.1037
450	-	19	AA	153.9	0.353	0.769	420.4	0.0448	15112	507	0.292	0.4510	0.1020
450	-	37	-	110.3	0.353	0.772	420.4	0.0448	15440	507	0.296	0.4491	0.1019
465.4	CAIRO	19	AA	156.5	0.366	0.783	434.8	0.0433	15629	517	0.297	0.4490	0.1015
477	-	19	-	158.4	0.375	0.792	445.6	0.0422	16019	525	0.300	0.4475	0.1012
500	-	19	AA	162.2	0.393	0.811	467.1	0.0403	16791	541	0.307	0.4447	0.1005
500	-	37	-	116.2	0.393	0.814	467.1	0.0403	17156	541	0.312	0.4427	0.1004
550	-	37	AA,A	121.9	0.432	0.853	513.8	0.0366	18871	575	0.328	0.4369	0.0990
550	-	61	-	94.95	0.432	0.855	513.8	0.0366	18664	575	0.330	0.4361	0.0989
556.5	-	19	-	171.1	0.437	0.856	519.9	0.0362	18689	578	0.324	0.4382	0.0989
559.5	DARIEN	19	AA	171.6	0.439	0.858	522.7	0.0360	18790	580	0.325	0.4378	0.0988
600	-	37	AA,A	127.3	0.471	0.891	560.5	0.0336	20587	607	0.342	0.4316	0.0977
600	-	61	-	99.18	0.471	0.893	560.5	0.0336	20361	607	0.345	0.4308	0.0976
636	-	37	-	131.1	0.500	0.918	594.2	0.0317	20899	629	0.352	0.4281	0.0968
650	-	37	AA	132.5	0.511	0.928	607.3	0.0310	21359	637	0.356	0.4268	0.0965
650	-	61	-	103.2	0.511	0.929	607.3	0.0310	22058	638	0.359	0.4260	0.0965
652.4	ELGIN	19	AA	185.3	0.512	0.927	609.5	0.0309	21909	638	0.351	0.4285	0.0965
700	-	37	AA	137.5	0.550	0.963	654.0	0.0288	23002	667	0.370	0.4223	0.0954
700	-	61	-	107.1	0.550	0.964	654.0	0.0288	23754	668	0.372	0.4215	0.0954
740.8	FLINT	37	AA	141.5	0.582	0.990	692.1	0.0272	24343	691	0.380	0.4188	0.0946
750	-	37	AA	142.4	0.589	0.997	700.7	0.0269	24645	697	0.383	0.4181	0.0944
750	-	61	-	110.9	0.589	0.998	700.7	0.0269	25451	697	0.385	0.4173	0.0943
795	-	37	-	146.6	0.624	1.026	742.7	0.0253	26124	722	0.394	0.4145	0.0935
800	-	37	AA	147.0	0.628	1.029	747.4	0.0252	26288	725	0.395	0.4142	0.0934
800	-	61	-	114.5	0.628	1.031	747.4	0.0252	27148	725	0.398	0.4134	0.0934
900	-	37	AA	156.0	0.707	1.092	840.8	0.0224	29574	779	0.419	0.4070	0.0917
900	-	61	-	121.5	0.707	1.093	840.8	0.0224	30541	780	0.422	0.4062	0.0916
927.2	GREELEY	37	AA	158.3	0.728	1.108	866.2	0.0217	30468	794	0.426	0.4052	0.0912
954	-	61	-	125.1	0.749	1.126	891.3	0.0211	32374	808	0.434	0.4027	0.0908
1000	-	37	AA	164.4	0.785	1.151	934.2	0.0201	32860	831	0.442	0.4006	0.0901
1000	-	61	-	128.0	0.785	1.152	934.2	0.0201	32499	832	0.445	0.3998	0.0901

Notes: 1. DC resistance calculated based on a 10.371 ohm-cmil/ft resistivity for copper and 16.946 ohm-cmil/ft for aluminum.

2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 2 ft/sec, at sea level, and at 60 Hz.

3. Inductive and capacitive reactance at 60 Hz and a 1 ft separation between phases in equilateral configuration.

4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

AAAC Conductors (Sizes in mm²)

Aluminum Alloy Conductor Concentrically Stranded

(All Aluminum Alloy Conductor) 6201-T81 Aluminum Alloy Conductors



Standards: ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.

ASTM B399, NTC 3730. Concentric-Lay-Stranded Aluminum Alloy 6201-T81 Conductors.

IEC 208 for sizes in mm².

SIZE AWG / kcmil	STRANDS No.	CONDUCTOR TYPE	STRAND DIAMETER (mm)	CROSS SECTION (mm ²)	CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESISTANT AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/km)	CAPACITIVE REACTANCE ² (Mohm-km)
16	7	A	1.706	16.00	5.12	43.90	2.09	518	96	1.86	0.3846	0.2282
20	7	A	1.908	20.01	5.72	54.92	1.67	649	110	2.08	0.3761	0.2228
25	7	A	2.133	25.01	6.40	68.63	1.34	810	127	2.32	0.3677	0.2175
31.5	7	A	2.394	31.51	7.18	86.45	1.06	1021	146	2.61	0.3590	0.2120
40	7	AA,A	2.698	40.02	8.09	109.8	0.837	1297	170	2.94	0.3500	0.2063
50	7	AA,A	3.016	50.01	9.05	137.2	0.670	1620	196	3.28	0.3416	0.2010
63	7	AA,A	3.386	63.03	10.16	172.9	0.531	1956	226	3.69	0.3329	0.1955
80	7	AA,A	3.815	80.02	11.45	219.5	0.419	2483	262	4.15	0.3239	0.1898
100	7	AA,A	4.265	100.0	12.80	274.4	0.335	3103	302	4.64	0.3155	0.1844
112	7	AA	4.514	112.0	13.54	307.4	0.299	3476	324	4.92	0.3112	0.1817
125	19	AA,A	2.895	125.1	14.48	343.2	0.268	3926	348	5.49	0.3029	0.1785
140	19	AA,A	3.063	140.0	15.32	384.1	0.239	4395	373	5.80	0.2987	0.1759
160	19	AA,A	3.275	160.1	16.38	439.2	0.209	4812	406	6.21	0.2936	0.1727
180	19	AA,A	3.474	180.1	17.37	494.1	0.186	5414	437	6.58	0.2892	0.1698
200	19	AA,A	3.661	200.0	18.31	548.8	0.167	6013	467	6.94	0.2852	0.1673
224	19	AA	3.875	224.1	19.38	614.8	0.149	6736	501	7.34	0.2809	0.1646
250	19	AA	4.094	250.1	20.47	686.3	0.134	7519	537	7.76	0.2768	0.1620
280	37	AA	3.105	280.2	21.74	768.7	0.120	8605	576	8.35	0.2713	0.1591
315	37	AA	3.293	315.1	23.05	864.6	0.106	9269	620	8.85	0.2668	0.1563
355	37	AA	3.496	355.2	24.47	974.5	0.0943	10448	668	9.40	0.2623	0.1535
400	37	AA	3.711	400.2	25.98	1098	0.0837	11772	719	9.98	0.2578	0.1506
450	37	AA	3.936	450.2	27.55	1235	0.0744	13243	773	10.58	0.2534	0.1478
500	37	AA	4.149	500.2	29.04	1373	0.0670	14715	825	11.15	0.2494	0.1453
560	37	AA	4.390	560.0	30.73	1537	0.0598	16474	884	11.80	0.2452	0.1426
630	37	AA	4.657	630.2	32.60	1729	0.0532	18539	949	12.52	0.2407	0.1398

Notes: 1. DC resistance calculated based on a 28.172 ohm-mm²/km

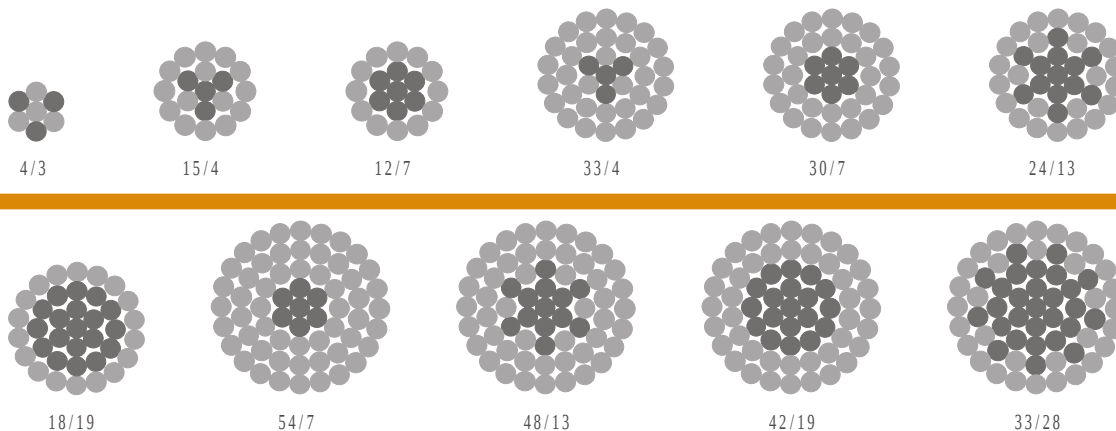
2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.

3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.

4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACAR Conductors

Aluminum Conductor Alloy Reinforced Conductors
(Aluminum Conductor Alloy Reinforced)



Description

1350-H19 aluminum wires, concentrically stranded about a 6201-T81 aluminum alloy wires core.

Applications

ACAR conductors are used for overhead transmission and distribution of electric energy.

Because of its good Tensile Strength / Weight ratio, ACAR conductors are used when good Ampacity a tensile strength are required.

Standards

CENTELSA'S ACAR conductors are manufactured in accordance with the following standards:

ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.

ASTM B524, Concentric-Lay-Stranded Aluminum Conductors, Aluminum Alloy Reinforced (ACAR,1350/6201).

Note: Configurations and sizes herein not specified are available upon request.

ACAR Conductors (International System Unit)

Aluminum Conductor Alloy Reinforced Conductors

(Aluminum Conductor Alloy Reinforced)

1350 H-19 Aluminum Conductor, 6201 T81 Aluminum Alloy Reinforced



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.

ASTM B524, Concentric-Lay-Stranded Aluminum Conductors, Aluminum Alloy Reinforced (ACAR,1350/6201).

SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mm)	CROSS SECTION		CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/km)	CAPACITIVE REACTANCE ² (Mohm-km)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (mm ²)	ALUMINUM ALLOY (mm ²)								
30.58	4	3	1.679	8.854	6.641	5.04	42.65	1.97	375	98	1.83	0.3858	0.2289
4	4	3	1.962	12.09	9.064	5.88	58.22	1.45	507	118	2.14	0.3740	0.2215
48.69	4	3	2.119	14.10	10.57	6.36	67.91	1.24	587	130	2.31	0.3682	0.2178
2	4	3	2.474	19.21	14.41	7.42	92.55	0.910	794	158	2.69	0.3566	0.2105
77.47	4	3	2.673	22.43	16.82	8.02	108.1	0.780	912	174	2.91	0.3507	0.2068
1/0	4	3	3.120	30.58	22.93	9.36	147.3	0.572	1222	212	3.40	0.3390	0.1994
123.3	4	3	3.372	35.70	26.78	10.11	172.0	0.490	1392	233	3.67	0.3332	0.1957
2/0	4	3	3.503	38.54	28.90	10.51	185.6	0.454	1502	245	3.81	0.3303	0.1938
155.4	4	3	3.785	45.00	33.75	11.35	216.7	0.389	1739	269	4.12	0.3245	0.1901
3/0	4	3	3.933	48.59	36.44	11.80	234.0	0.360	1861	283	4.28	0.3216	0.1883
195.7	4	3	4.247	56.66	42.50	12.74	272.9	0.309	2171	311	4.62	0.3158	0.1846
4/0	4	3	4.417	61.27	45.95	13.25	295.1	0.285	2347	327	4.81	0.3128	0.1828
246.9	4	3	4.771	71.49	53.62	14.31	344.4	0.245	2739	360	5.19	0.3070	0.1791
250	12	7	2.914	80.01	46.67	14.57	348.8	0.239	2814	365	5.52	0.3024	0.1782
250	15	4	2.914	100.0	26.67	14.57	349.1	0.234	2488	369	5.52	0.3024	0.1782
300	12	7	3.192	96.01	56.00	15.96	418.6	0.199	3344	409	6.05	0.2956	0.1739
300	15	4	3.192	120.0	32.00	15.96	418.9	0.195	2947	413	6.05	0.2956	0.1739
350	12	7	3.448	112.0	65.34	17.24	488.3	0.171	3816	451	6.53	0.2898	0.1702
350	15	4	3.448	140.0	37.34	17.24	488.7	0.167	3389	455	6.53	0.2898	0.1702
400	12	7	3.686	128.0	74.67	18.43	558.1	0.150	4318	490	6.98	0.2847	0.1670
400	15	4	3.686	160.0	42.67	18.43	558.6	0.146	3821	495	6.98	0.2847	0.1670
450	12	7	3.909	144.0	84.01	19.54	627.8	0.133	4809	527	7.41	0.2803	0.1642
450	15	4	3.909	180.0	48.00	19.54	628.4	0.130	4240	532	7.41	0.2803	0.1642
500	12	7	4.121	160.0	93.34	20.60	697.6	0.120	5344	563	7.81	0.2763	0.1617
500	18	19	2.953	123.3	130.1	20.67	697.0	0.122	6001	559	7.94	0.2751	0.1615
500	24	13	2.953	164.3	89.02	20.67	697.7	0.119	5395	564	7.94	0.2751	0.1615
500	30	7	2.953	205.4	47.93	20.67	698.3	0.117	4901	570	7.94	0.2751	0.1615
500	33	4	2.953	226.0	27.39	20.67	698.6	0.115	4530	573	7.94	0.2751	0.1615
503.6	15	4	4.136	201.5	53.72	20.68	703.2	0.116	4745	571	7.84	0.2760	0.1615
550	12	7	4.322	176.0	102.7	21.61	767.4	0.109	5878	598	8.19	0.2727	0.1594
550	15	4	4.322	220.0	58.67	21.61	768.0	0.106	5182	603	8.19	0.2727	0.1594
550	18	19	3.097	135.6	143.1	21.68	766.7	0.111	6555	593	8.32	0.2715	0.1593
550	24	13	3.097	180.8	97.92	21.68	767.4	0.109	5875	599	8.32	0.2715	0.1593
550	30	7	3.097	226.0	52.72	21.68	768.1	0.106	5317	605	8.32	0.2715	0.1593
550	33	4	3.097	248.6	30.13	21.68	768.5	0.105	4903	608	8.32	0.2715	0.1593
587.2	15	4	4.466	234.9	62.64	22.33	820.0	0.0996	5533	628	8.46	0.2702	0.1579
600	12	7	4.514	192.0	112.0	22.57	837.1	0.0997	6413	631	8.55	0.2694	0.1573
600	15	4	4.514	240.0	64.01	22.57	837.9	0.0974	5654	637	8.55	0.2694	0.1573
600	18	19	3.235	147.9	156.1	22.64	836.4	0.1020	7151	626	8.69	0.2682	0.1572
600	24	13	3.235	197.2	106.8	22.64	837.2	0.0995	6409	632	8.69	0.2682	0.1572
600	30	7	3.235	246.5	57.52	22.64	838.0	0.0971	5800	638	8.69	0.2682	0.1572
600	33	4	3.235	271.2	32.87	22.64	838.3	0.0960	5349	641	8.69	0.2682	0.1572
649.5	18	19	3.366	160.1	169.0	23.56	905.5	0.0942	7528	657	9.05	0.2652	0.1553
650	18	19	3.367	160.2	169.1	23.57	906.1	0.0941	7534	658	9.05	0.2652	0.1553
650	24	13	3.367	213.6	115.7	23.57	907.0	0.0918	6797	664	9.05	0.2652	0.1553
650	30	7	3.367	267.0	62.31	23.57	907.8	0.0897	6202	671	9.05	0.2652	0.1553
650	33	4	3.367	293.8	35.61	23.57	908.2	0.0886	5748	674	9.05	0.2652	0.1553
653.1	12	7	4.710	209.0	121.9	23.55	911.2	0.0916	6980	665	8.92	0.2662	0.1553
700	18	19	3.494	172.6	182.1	24.46	975.9	0.0874	8114	688	9.39	0.2624	0.1535
700	24	13	3.494	230.1	124.6	24.46	976.7	0.0853	7320	695	9.39	0.2624	0.1535
700	30	7	3.494	287.6	67.10	24.46	977.6	0.0833	6679	702	9.39	0.2624	0.1535
700	33	4	3.494	316.3	38.35	24.46	978.1	0.0823	6191	705	9.39	0.2624	0.1535
739.8	18	19	3.592	182.4	192.5	25.14	1031	0.0827	8513	712	9.65	0.2603	0.1522
750	18	19	3.617	184.9	195.2	25.31	1046	0.0816	8631	718	9.72	0.2598	0.1519
750	24	13	3.617	246.5	133.5	25.31	1046	0.0796	7762	726	9.72	0.2598	0.1519

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ACAR Conductors (International System Unit)

SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mm)	CROSS SECTION		CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE² (ohm/km)	CAPACITIVE REACTANCE² (Mohm-km)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (mm²)	ALUMINUM ALLOY (mm²)								
750	30	7	3.617	308.1	71.90	25.31	1047	0.0777	7056	733	9.72	0.2598	0.1519
750	33	4	3.617	338.9	41.08	25.31	1048	0.0768	6524	736	9.72	0.2598	0.1519
800	18	19	3.735	197.2	208.2	26.14	1115	0.0765	9206	748	10.04	0.2574	0.1503
800	24	13	3.735	262.9	142.4	26.14	1116	0.0746	8280	755	10.04	0.2574	0.1503
800	30	7	3.735	328.7	76.69	26.14	1117	0.0728	7526	762	10.04	0.2574	0.1503
800	33	4	3.735	361.5	43.82	26.14	1118	0.0720	6959	766	10.04	0.2574	0.1503
850	18	19	3.850	209.5	221.2	26.95	1185	0.0720	9711	776	10.35	0.2551	0.1489
850	24	13	3.850	279.4	151.3	26.95	1186	0.0702	8706	784	10.35	0.2551	0.1489
850	30	7	3.850	349.2	81.48	26.95	1187	0.0686	7882	791	10.35	0.2551	0.1489
850	33	4	3.850	384.1	46.56	26.95	1188	0.0678	7271	795	10.35	0.2551	0.1489
853.7	24	13	3.859	280.6	152.0	27.01	1191	0.0699	8744	786	10.37	0.2549	0.1488
853.7	30	7	3.859	350.7	81.84	27.01	1192	0.0683	7917	793	10.37	0.2549	0.1488
853.7	33	4	3.859	385.8	46.76	27.01	1193	0.0675	7303	797	10.37	0.2549	0.1488
900	18	19	3.962	221.9	234.2	27.73	1255	0.0680	10282	804	10.65	0.2529	0.1475
900	24	13	3.962	295.8	160.2	27.73	1256	0.0663	9218	812	10.65	0.2529	0.1475
900	30	7	3.962	369.8	86.28	27.73	1257	0.0648	8346	819	10.65	0.2529	0.1475
900	33	4	3.962	406.7	49.30	27.73	1257	0.0640	7699	823	10.65	0.2529	0.1475
927.2	24	13	4.021	304.7	165.1	28.15	1294	0.0644	9497	826	10.81	0.2518	0.1468
950	18	19	4.071	234.2	247.2	28.49	1324	0.0644	10853	831	10.94	0.2509	0.1462
950	24	13	4.071	312.2	169.1	28.49	1326	0.0628	9730	839	10.94	0.2509	0.1462
950	30	7	4.071	390.3	91.07	28.49	1327	0.0613	8810	847	10.94	0.2509	0.1462
950	33	4	4.071	429.3	52.04	28.49	1327	0.0606	8127	851	10.94	0.2509	0.1462
1000	18	19	4.176	246.5	260.2	29.23	1394	0.0612	11424	857	11.22	0.2489	0.1450
1000	24	13	4.176	328.7	178.0	29.23	1395	0.0597	10242	865	11.22	0.2489	0.1450
1000	30	7	4.176	410.8	95.86	29.23	1397	0.0583	9273	874	11.22	0.2489	0.1450
1000	33	4	4.176	451.9	54.78	29.23	1397	0.0576	8555	878	11.22	0.2489	0.1450
1000	33	28	3.253	274.1	232.6	29.27	1394	0.0607	10981	860	11.30	0.2484	0.1449
1000	42	19	3.253	348.9	157.8	29.27	1396	0.0593	10211	868	11.30	0.2484	0.1449
1000	48	13	3.253	398.7	108.0	29.27	1396	0.0585	9462	873	11.30	0.2484	0.1449
1000	54	7	3.253	448.6	58.15	29.27	1397	0.0577	8889	878	11.30	0.2484	0.1449
1024.5	24	13	4.227	336.7	182.4	29.59	1430	0.0583	10493	878	11.36	0.2480	0.1444
1024.5	30	7	4.227	420.9	98.21	29.59	1431	0.0569	9501	887	11.36	0.2480	0.1444
1080.6	18	19	4.341	266.4	281.2	30.39	1506	0.0566	12345	898	11.67	0.2460	0.1432
1080.6	24	13	4.341	355.2	192.4	30.39	1508	0.0552	11068	907	11.67	0.2460	0.1432
1100	18	19	4.380	271.2	286.2	30.66	1533	0.0556	12567	908	11.77	0.2453	0.1427
1100	24	13	4.380	361.5	195.8	30.66	1535	0.0543	11267	917	11.77	0.2453	0.1427
1100	30	7	4.380	451.9	105.4	30.66	1536	0.0530	10201	926	11.77	0.2453	0.1427
1100	33	4	4.380	497.1	60.26	30.66	1537	0.0524	9410	930	11.77	0.2453	0.1427
1100	33	28	3.411	301.5	255.8	30.70	1534	0.0552	12079	911	11.85	0.2449	0.1427
1100	42	19	3.411	383.8	173.6	30.70	1535	0.0539	11232	919	11.85	0.2449	0.1427
1100	48	13	3.411	438.6	118.8	30.70	1536	0.0532	10408	925	11.85	0.2449	0.1427
1100	54	7	3.411	493.4	63.96	30.70	1537	0.0524	9778	930	11.85	0.2449	0.1427
1109	24	13	4.398	364.5	197.4	30.78	1547	0.0538	11359	921	11.82	0.2450	0.1425
1109	30	7	4.398	455.6	106.3	30.78	1549	0.0525	10284	930	11.82	0.2450	0.1425
1172	18	19	4.521	288.9	305.0	31.64	1634	0.0522	13389	944	12.15	0.2430	0.1412
1172	30	7	4.521	481.5	112.4	31.64	1637	0.0497	10869	962	12.15	0.2430	0.1412
1198	24	13	4.571	393.8	213.3	31.99	1672	0.0498	12270	965	12.29	0.2421	0.1407
1198	30	7	4.571	492.2	114.8	31.99	1673	0.0486	11110	974	12.29	0.2421	0.1407
1200	18	19	4.575	295.8	312.2	32.02	1673	0.0510	13709	957	12.30	0.2421	0.1407
1200	24	13	4.575	394.4	213.6	32.02	1674	0.0497	12291	966	12.30	0.2421	0.1407
1200	30	7	4.575	493.0	115.0	32.02	1676	0.0486	11128	975	12.30	0.2421	0.1407
1200	33	4	4.575	542.3	65.74	32.02	1677	0.0480	10265	980	12.30	0.2421	0.1407
1200	33	28	3.563	328.9	279.1	32.06	1673	0.0506	13069	960	12.38	0.2416	0.1406
1200	42	19	3.563	418.7	189.4	32.06	1675	0.0494	12116	969	12.38	0.2416	0.1406
1200	48	13	3.563	478.5	129.6	32.06	1676	0.0487	11201	974	12.38	0.2416	0.1406

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ACAR Conductors (International System Unit)



SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mm)	CROSS SECTION		CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ³ (ohm/km)	CAPACITIVE REACTANCE ³ (Mohm-km)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (mm ²)	ALUMINUM ALLOY (mm ²)								
1200	54	7	3.563	538.3	69.78	32.06	1677	0.0480	10495	980	12.38	0.2416	0.1406
1250	18	19	4.669	308.1	325.3	32.68	1743	0.0489	14280	981	12.55	0.2405	0.1397
1250	24	13	4.669	410.8	222.5	32.68	1744	0.0478	12803	990	12.55	0.2405	0.1397
1250	30	7	4.669	513.6	119.8	32.68	1746	0.0466	11592	999	12.55	0.2405	0.1397
1250	33	4	4.669	564.9	68.47	32.68	1747	0.0461	10693	1004	12.55	0.2405	0.1397
1250	33	28	3.636	342.7	290.7	32.72	1743	0.0485	13614	984	12.63	0.2400	0.1396
1250	42	19	3.636	436.1	197.3	32.72	1745	0.0475	12621	993	12.63	0.2400	0.1396
1250	48	13	3.636	498.4	135.0	32.72	1746	0.0468	11668	998	12.63	0.2400	0.1396
1250	54	7	3.636	560.7	72.68	32.72	1746	0.0461	10932	1004	12.63	0.2400	0.1396
1277	42	19	3.676	445.5	201.5	33.08	1782	0.0465	12893	1006	12.77	0.2392	0.1391
1277	54	7	3.676	572.8	74.25	33.08	1784	0.0451	11168	1017	12.77	0.2392	0.1391
1300	18	19	4.762	320.5	338.3	33.33	1812	0.0471	14852	1004	12.80	0.2390	0.1387
1300	24	13	4.762	427.3	231.4	33.33	1814	0.0459	13315	1014	12.80	0.2390	0.1387
1300	30	7	4.762	534.1	124.6	33.33	1816	0.0448	12056	1023	12.80	0.2390	0.1387
1300	33	4	4.762	587.5	71.21	33.33	1816	0.0443	11121	1028	12.80	0.2390	0.1387
1300	33	28	3.709	356.4	302.4	33.37	1813	0.0467	14158	1008	12.88	0.2386	0.1387
1300	42	19	3.709	453.5	205.2	33.37	1814	0.0456	13125	1016	12.88	0.2386	0.1387
1300	48	13	3.709	518.3	140.4	33.37	1815	0.0450	12134	1022	12.88	0.2386	0.1387
1300	54	7	3.709	583.1	75.59	33.37	1816	0.0443	11369	1028	12.88	0.2386	0.1387
1361.5	54	7	3.795	610.7	79.17	34.15	1902	0.0423	11907	1056	13.18	0.2368	0.1376
1400	33	28	3.848	383.8	325.6	34.63	1952	0.0433	15122	1053	13.37	0.2358	0.1369
1400	42	19	3.848	488.4	221.0	34.63	1954	0.0424	13975	1062	13.37	0.2358	0.1369
1400	48	13	3.848	558.2	151.2	34.63	1955	0.0418	12889	1068	13.37	0.2358	0.1369
1400	54	7	3.848	628.0	81.41	34.63	1956	0.0412	12043	1074	13.37	0.2358	0.1369
1500	33	28	3.984	411.2	348.9	35.85	2092	0.0404	16202	1097	13.84	0.2332	0.1353
1500	42	19	3.984	523.3	236.7	35.85	2093	0.0396	14974	1106	13.84	0.2332	0.1353
1500	48	13	3.984	598.1	162.0	35.85	2095	0.0390	13810	1112	13.84	0.2332	0.1353
1500	54	7	3.984	672.8	87.22	35.85	2096	0.0384	12903	1118	13.84	0.2332	0.1353
1534.4	42	19	4.029	535.3	242.2	36.26	2141	0.0387	15317	1121	13.99	0.2323	0.1347

- Notes: 1. DC resistance calculated based on a 28.172 ohm-mm²/km and 32.841 ohm-mm²/km conductivity for aluminum and aluminum alloy.
2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACAR Conductors

Aluminum Conductor Alloy Reinforced Conductors (Aluminum Conductor Alloy Reinforced)

1350 H-19 Aluminum Conductor, 6201 T81 Aluminum Alloy Reinforced

Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.
ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.
ASTM B524, Concentric-Lay-Stranded Aluminum Conductors,
Aluminum Alloy Reinforced (ACAR,1350/6201).

SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mils)	CROSS SECTION		CON- DUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/Kft)	DC RESIS- TANT AT 20°C ¹ (ohm/Kft)	TENSILE STRENGTH (Lb)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE ² (ohm/miles)	CAPACITIVE REACTANCE ² (Mohm-miles)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (square inches)	ALUMINUM ALLOY (square inches)								
30.58	4	3	66.10	0.0137	0.0103	0.198	28.66	0.602	826	98	0.072	0.6208	0.1423
4	4	3	77.24	0.0187	0.0140	0.232	39.12	0.441	1119	118	0.084	0.6019	0.1376
48.69	4	3	83.43	0.0219	0.0164	0.250	45.63	0.378	1294	130	0.091	0.5926	0.1354
2	4	3	97.40	0.0298	0.0223	0.292	62.19	0.277	1750	158	0.106	0.5738	0.1308
77.47	4	3	105.2	0.0348	0.0261	0.316	72.61	0.238	2010	174	0.115	0.5644	0.1285
1/0	4	3	122.8	0.0474	0.0355	0.368	98.97	0.174	2694	212	0.134	0.5456	0.1239
123.3	4	3	132.8	0.0553	0.0415	0.398	115.6	0.149	3068	233	0.145	0.5362	0.1216
2/0	4	3	137.9	0.0597	0.0448	0.414	124.7	0.138	3312	245	0.150	0.5316	0.1205
155.4	4	3	149.0	0.0697	0.0523	0.447	145.6	0.118	3834	269	0.162	0.5222	0.1182
3/0	4	3	154.8	0.0753	0.0565	0.464	157.3	0.110	4104	283	0.169	0.5175	0.1170
195.7	4	3	167.2	0.0878	0.0659	0.502	183.4	0.0941	4786	311	0.182	0.5082	0.1147
4/0	4	3	173.9	0.0950	0.0712	0.522	198.3	0.0870	5175	327	0.189	0.5035	0.1136
246.9	4	3	187.8	0.111	0.0831	0.563	231.4	0.0746	6038	360	0.205	0.4941	0.1113
250	12	7	114.7	0.124	0.0723	0.574	234.4	0.0730	6203	365	0.217	0.4867	0.1108
250	15	4	114.7	0.155	0.0413	0.574	234.6	0.0713	5486	369	0.217	0.4867	0.1108
300	12	7	125.7	0.149	0.0868	0.628	281.3	0.0608	7372	409	0.238	0.4756	0.1081
300	15	4	125.7	0.186	0.0496	0.628	281.5	0.0594	6497	413	0.238	0.4756	0.1081
350	12	7	135.7	0.174	0.1013	0.679	328.1	0.0521	8413	451	0.257	0.4663	0.1058
350	15	4	135.7	0.217	0.0579	0.679	328.4	0.0509	7472	455	0.257	0.4663	0.1058
400	12	7	145.1	0.198	0.1157	0.725	375.0	0.0456	9520	490	0.275	0.4582	0.1038
400	15	4	145.1	0.248	0.0661	0.725	375.3	0.0445	8425	495	0.275	0.4582	0.1038
450	12	7	153.9	0.223	0.1302	0.769	421.9	0.0405	10603	527	0.292	0.4510	0.1020
450	15	4	153.9	0.279	0.0744	0.769	422.3	0.0396	9348	532	0.292	0.4510	0.1020
500	12	7	162.2	0.248	0.1447	0.811	468.8	0.0365	11781	563	0.307	0.4447	0.1005
500	18	19	116.3	0.191	0.2017	0.814	468.4	0.0373	13230	559	0.312	0.4427	0.1004
500	24	13	116.3	0.255	0.1380	0.814	468.8	0.0364	11893	564	0.312	0.4427	0.1004
500	30	7	116.3	0.318	0.0743	0.814	469.2	0.0355	10804	570	0.312	0.4427	0.1004
500	33	4	116.3	0.350	0.0425	0.814	469.4	0.0351	9987	573	0.312	0.4427	0.1004
503.6	15	4	162.8	0.312	0.0833	0.814	472.6	0.0354	10461	571	0.309	0.4442	0.1004
550	12	7	170.2	0.273	0.1591	0.851	515.6	0.0332	12959	598	0.322	0.4389	0.0991
550	15	4	170.2	0.341	0.0909	0.851	516.1	0.0324	11425	603	0.322	0.4389	0.0991
550	18	19	121.9	0.210	0.2218	0.853	515.2	0.0339	14452	593	0.328	0.4369	0.0990
550	24	13	121.9	0.280	0.1518	0.853	515.7	0.0331	12952	599	0.328	0.4369	0.0990
550	30	7	121.9	0.350	0.0817	0.853	516.2	0.0323	11722	605	0.328	0.4369	0.0990
550	33	4	121.9	0.385	0.0467	0.853	516.4	0.0319	10810	608	0.328	0.4369	0.0990
587.2	15	4	175.8	0.364	0.0971	0.879	551.0	0.0303	12198	628	0.333	0.4349	0.0981
600	12	7	177.7	0.298	0.1736	0.889	562.5	0.0304	14137	631	0.337	0.4336	0.0978
600	15	4	177.7	0.372	0.0992	0.889	563.0	0.0297	12464	637	0.337	0.4336	0.0978
600	18	19	127.4	0.229	0.2420	0.891	562.1	0.0311	15766	626	0.342	0.4316	0.0977
600	24	13	127.4	0.306	0.1656	0.891	562.6	0.0303	14130	632	0.342	0.4316	0.0977
600	30	7	127.4	0.382	0.0892	0.891	563.1	0.0296	12787	638	0.342	0.4316	0.0977
600	33	4	127.4	0.420	0.0509	0.891	563.3	0.0293	11793	641	0.342	0.4316	0.0977
649.5	18	19	132.5	0.248	0.2620	0.927	608.4	0.0287	16597	657	0.356	0.4268	0.0965
650	18	19	132.6	0.248	0.2622	0.928	608.9	0.0287	16610	658	0.356	0.4268	0.0965
650	24	13	132.6	0.331	0.1794	0.928	609.5	0.0280	14985	664	0.356	0.4268	0.0965
650	30	7	132.6	0.414	0.0966	0.928	610.0	0.0273	13674	671	0.356	0.4268	0.0965
650	33	4	132.6	0.455	0.0552	0.928	610.3	0.0270	12673	674	0.356	0.4268	0.0965
653.1	12	7	185.4	0.324	0.1890	0.927	612.3	0.0279	15389	665	0.351	0.4284	0.0965
700	18	19	137.6	0.267	0.2823	0.963	655.7	0.0266	17887	688	0.370	0.4223	0.0954
700	24	13	137.6	0.357	0.1932	0.963	656.3	0.0260	16138	695	0.370	0.4223	0.0954
700	30	7	137.6	0.446	0.1040	0.963	656.9	0.0254	14726	702	0.370	0.4223	0.0954
700	33	4	137.6	0.490	0.0594	0.963	657.2	0.0251	13648	705	0.370	0.4223	0.0954
739.8	18	19	141.4	0.283	0.2984	0.990	693.0	0.0252	18769	712	0.380	0.4189	0.0946
750	18	19	142.4	0.287	0.3025	0.997	702.6	0.0249	19027	718	0.383	0.4181	0.0944
750	24	13	142.4	0.382	0.2070	0.997	703.2	0.0243	17113	726	0.383	0.4181	0.0944

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ACAR Conductors



SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mils)	CROSS SECTION		CON- DUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/Kft)	DC RESIS- TANT AT 20°C¹ (ohm/Kft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE³ (ohm/miles)	CAPACITIVE REACTANCE² (Mohm-miles)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (square inches)	ALUMINUM ALLOY (square inches)								
750	30	7	142.4	0.478	0.1114	0.997	703.9	0.0237	15556	733	0.383	0.4181	0.0944
750	33	4	142.4	0.525	0.0637	0.997	704.2	0.0234	14384	736	0.383	0.4181	0.0944
800	18	19	147.0	0.306	0.3227	1.029	749.4	0.0233	20296	748	0.395	0.4142	0.0934
800	24	13	147.0	0.408	0.2208	1.029	750.1	0.0227	18254	755	0.395	0.4142	0.0934
800	30	7	147.0	0.509	0.1189	1.029	750.8	0.0222	16593	762	0.395	0.4142	0.0934
800	33	4	147.0	0.560	0.0679	1.029	751.1	0.0219	15343	766	0.395	0.4142	0.0934
850	18	19	151.6	0.325	0.3428	1.061	796.3	0.0219	21409	776	0.407	0.4105	0.0925
850	24	13	151.6	0.433	0.2346	1.061	797.0	0.0214	19194	784	0.407	0.4105	0.0925
850	30	7	151.6	0.541	0.1263	1.061	797.7	0.0209	17378	791	0.407	0.4105	0.0925
850	33	4	151.6	0.595	0.0722	1.061	798.1	0.0207	16031	795	0.407	0.4105	0.0925
853.7	24	13	151.9	0.435	0.2356	1.063	800.5	0.0213	19277	786	0.408	0.4102	0.0924
853.7	30	7	151.9	0.544	0.1269	1.063	801.2	0.0208	17454	793	0.408	0.4102	0.0924
853.7	33	4	151.9	0.598	0.0725	1.063	801.5	0.0206	16100	797	0.408	0.4102	0.0924
900	18	19	156.0	0.344	0.3630	1.092	843.1	0.0207	22668	804	0.419	0.4070	0.0917
900	24	13	156.0	0.459	0.2484	1.092	843.9	0.0202	20323	812	0.419	0.4070	0.0917
900	30	7	156.0	0.573	0.1337	1.092	844.6	0.0197	18400	819	0.419	0.4070	0.0917
900	33	4	156.0	0.630	0.0764	1.092	845.0	0.0195	16974	823	0.419	0.4070	0.0917
927.2	24	13	158.3	0.472	0.2559	1.108	869.4	0.0196	20937	826	0.426	0.4052	0.0912
950	18	19	160.3	0.363	0.3831	1.122	889.9	0.0196	23927	831	0.431	0.4037	0.0909
950	24	13	160.3	0.484	0.2622	1.122	890.7	0.0192	21452	839	0.431	0.4037	0.0909
950	30	7	160.3	0.605	0.1412	1.122	891.5	0.0187	19422	847	0.431	0.4037	0.0909
950	33	4	160.3	0.665	0.0807	1.122	891.9	0.0185	17917	851	0.431	0.4037	0.0909
1000	18	19	164.4	0.382	0.4033	1.151	936.8	0.0186	25187	857	0.442	0.4006	0.0901
1000	24	13	164.4	0.509	0.2760	1.151	937.6	0.0182	22581	865	0.442	0.4006	0.0901
1000	30	7	164.4	0.637	0.1486	1.151	938.5	0.0178	20445	874	0.442	0.4006	0.0901
1000	33	4	164.4	0.700	0.0849	1.151	938.9	0.0176	18860	878	0.442	0.4006	0.0901
1000	33	28	128.1	0.425	0.3605	1.152	937.1	0.0185	24208	860	0.445	0.3998	0.0901
1000	42	19	128.1	0.541	0.2446	1.152	937.8	0.0181	22510	868	0.445	0.3998	0.0901
1000	48	13	128.1	0.618	0.1674	1.152	938.3	0.0178	20860	873	0.445	0.3998	0.0901
1000	54	7	128.1	0.695	0.0901	1.152	938.9	0.0176	19597	878	0.445	0.3998	0.0901
1024.5	24	13	166.4	0.522	0.2827	1.165	960.6	0.0178	23134	878	0.447	0.3991	0.0897
1024.5	30	7	166.4	0.652	0.1522	1.165	961.5	0.0173	20946	887	0.447	0.3991	0.0897
1080.6	18	19	170.9	0.413	0.4358	1.196	1012	0.0173	27217	898	0.459	0.3959	0.0890
1080.6	24	13	170.9	0.551	0.2982	1.196	1013	0.0168	24401	907	0.459	0.3959	0.0890
1100	18	19	172.4	0.420	0.4436	1.207	1030	0.0170	27705	908	0.463	0.3948	0.0887
1100	24	13	172.4	0.560	0.3035	1.207	1031	0.0165	24839	917	0.463	0.3948	0.0887
1100	30	7	172.4	0.700	0.1634	1.207	1032	0.0161	22489	926	0.463	0.3948	0.0887
1100	33	4	172.4	0.771	0.0934	1.207	1033	0.0160	20746	930	0.463	0.3948	0.0887
1100	33	28	134.3	0.467	0.3966	1.209	1031	0.0168	26629	911	0.467	0.3940	0.0886
1100	42	19	134.3	0.595	0.2691	1.209	1032	0.0164	24762	919	0.467	0.3940	0.0886
1100	48	13	134.3	0.680	0.1841	1.209	1032	0.0162	22946	925	0.467	0.3940	0.0886
1100	54	7	134.3	0.765	0.0991	1.209	1033	0.0160	21557	930	0.467	0.3940	0.0886
1109	24	13	173.1	0.565	0.3060	1.212	1040	0.0164	25042	921	0.465	0.3943	0.0886
1109	30	7	173.1	0.706	0.1648	1.212	1041	0.0160	22673	930	0.465	0.3943	0.0886
1172	18	19	178.0	0.448	0.4727	1.246	1098	0.0159	29519	944	0.478	0.3910	0.0877
1172	30	7	178.0	0.746	0.1741	1.246	1100	0.0152	23961	962	0.478	0.3910	0.0877
1198	24	13	180.0	0.610	0.3306	1.260	1123	0.0152	27052	965	0.484	0.3897	0.0874
1198	30	7	180.0	0.763	0.1780	1.260	1124	0.0148	24493	974	0.484	0.3897	0.0874
1200	18	19	180.1	0.459	0.4840	1.261	1124	0.0155	30224	957	0.484	0.3896	0.0874
1200	24	13	180.1	0.611	0.3311	1.261	1125	0.0152	27097	966	0.484	0.3896	0.0874
1200	30	7	180.1	0.764	0.1783	1.261	1126	0.0148	24534	975	0.484	0.3896	0.0874
1200	33	4	180.1	0.841	0.1019	1.261	1127	0.0146	22632	980	0.484	0.3896	0.0874
1200	33	28	140.3	0.510	0.4326	1.262	1124	0.0154	28813	960	0.487	0.3888	0.0874
1200	42	19	140.3	0.649	0.2936	1.262	1125	0.0151	26711	969	0.487	0.3888	0.0874
1200	48	13	140.3	0.742	0.2009	1.262	1126	0.0149	24694	974	0.487	0.3888	0.0874

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ACAR Conductors

SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mm)	CROSS SECTION		CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Km)	AMPACITY ¹ (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (mm ²)	ALUMINUM ALLOY (mm ²)								
1200	54	7	140.3	0.834	0.1082	1.262	1127	0.0146	23137	980	0.487	0.3888	0.0874
1250	18	19	183.8	0.478	0.5041	1.287	1171	0.0149	31483	981	0.494	0.3871	0.0868
1250	24	13	183.8	0.637	0.3449	1.287	1172	0.0146	28226	990	0.494	0.3871	0.0868
1250	30	7	183.8	0.796	0.1857	1.287	1173	0.0142	25556	999	0.494	0.3871	0.0868
1250	33	4	183.8	0.876	0.1061	1.287	1174	0.0140	23575	1004	0.494	0.3871	0.0868
1250	33	28	143.1	0.531	0.4506	1.288	1171	0.0148	30013	984	0.497	0.3863	0.0868
1250	42	19	143.1	0.676	0.3058	1.288	1172	0.0145	27824	993	0.497	0.3863	0.0868
1250	48	13	143.1	0.773	0.2092	1.288	1173	0.0143	25723	998	0.497	0.3863	0.0868
1250	54	7	143.1	0.869	0.1127	1.288	1174	0.0141	24101	1004	0.497	0.3863	0.0868
1277	42	19	144.7	0.691	0.3124	1.302	1198	0.0142	28425	1006	0.503	0.3850	0.0864
1277	54	7	144.7	0.888	0.1151	1.302	1199	0.0138	24622	1017	0.503	0.3850	0.0864
1300	18	19	187.5	0.497	0.5243	1.312	1218	0.0143	32742	1004	0.504	0.3847	0.0862
1300	24	13	187.5	0.662	0.3587	1.312	1219	0.0140	29355	1014	0.504	0.3847	0.0862
1300	30	7	187.5	0.828	0.1932	1.312	1220	0.0137	26578	1023	0.504	0.3847	0.0862
1300	33	4	187.5	0.911	0.1104	1.312	1221	0.0135	24518	1028	0.504	0.3847	0.0862
1300	33	28	146.0	0.552	0.4687	1.314	1218	0.0142	31214	1008	0.507	0.3839	0.0862
1300	42	19	146.0	0.703	0.3180	1.314	1219	0.0139	28937	1016	0.507	0.3839	0.0862
1300	48	13	146.0	0.803	0.2176	1.314	1220	0.0137	26752	1022	0.507	0.3839	0.0862
1300	54	7	146.0	0.904	0.1172	1.314	1221	0.0135	25065	1028	0.507	0.3839	0.0862
1361.5	54	7	149.4	0.947	0.1227	1.345	1278	0.0129	26251	1056	0.519	0.3811	0.0855
1400	33	28	151.5	0.595	0.5047	1.363	1312	0.0132	33338	1053	0.526	0.3794	0.0851
1400	42	19	151.5	0.757	0.3425	1.363	1313	0.0129	30811	1062	0.526	0.3794	0.0851
1400	48	13	151.5	0.865	0.2343	1.363	1314	0.0127	28416	1068	0.526	0.3794	0.0851
1400	54	7	151.5	0.973	0.1262	1.363	1314	0.0126	26550	1074	0.526	0.3794	0.0851
1500	33	28	156.9	0.637	0.5408	1.411	1406	0.0123	35720	1097	0.545	0.3752	0.0840
1500	42	19	156.9	0.811	0.3669	1.411	1407	0.0121	33011	1106	0.545	0.3752	0.0840
1500	48	13	156.9	0.927	0.2511	1.411	1408	0.0119	30446	1112	0.545	0.3752	0.0840
1500	54	7	156.9	1.043	0.1352	1.411	1408	0.0117	28447	1118	0.545	0.3752	0.0840
1534.4	42	19	158.6	0.830	0.3754	1.427	1439	0.0118	33768	1121	0.551	0.3739	0.0837

- Notes: 1. DC resistance calculated based on a 16.946 ohm-cmil/ft and 19.755 ohm-cmil/ft conductivity for aluminum and aluminum alloy.
2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 2 ft/sec, at sea level, and at 60 Hz.
3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACAR Conductors (Sizes in mm²)

Aluminum Conductor Alloy Reinforced Conductors

(Aluminum Conductor Alloy Reinforced)

1350 H-19 Aluminum Conductor, 6201 T81 Aluminum Alloy Reinforced



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.
 ASTM B398, NTC 2729. Aluminum Alloy 6201-T81 Wire.
 ASTM B524, Concentric-Lay-Stranded Aluminum Conductors,

SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mm)	CROSS SECTION		CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C¹ (ohm/Km)	TENSILE STRENGTH (Kmp)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE² (ohm/Km)	CAPACITIVE REACTANCE² (Mohm-Km)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (mm²)	ALUMINUM ALLOY (mm²)								
16	4	3	1.706	9.143	6.857	5.12	44.04	1.91	387	100	1.86	0.3846	0.2282
20	4	3	1.907	11.43	8.571	5.72	55.05	1.53	480	114	2.08	0.3762	0.2229
25	4	3	2.132	14.29	10.71	6.40	68.81	1.22	595	131	2.32	0.3677	0.2175
31.5	4	3	2.394	18.00	13.50	7.18	86.71	0.971	744	152	2.61	0.3590	0.2120
40	4	3	2.697	22.86	17.14	8.09	110.1	0.765	929	176	2.94	0.3500	0.2063
50	4	3	3.016	28.57	21.43	9.05	137.6	0.612	1151	203	3.28	0.3416	0.2010
63	4	3	3.385	36.00	27.00	10.16	173.4	0.486	1403	234	3.69	0.3329	0.1955
80	4	3	3.815	45.71	34.29	11.44	220.2	0.382	1751	272	4.15	0.3239	0.1898
100	4	3	4.265	57.14	42.86	12.79	275.3	0.306	2189	313	4.64	0.3155	0.1844
112	4	3	4.514	64.00	48.00	13.54	308.3	0.273	2452	336	4.92	0.3112	0.1817
125	4	3	4.768	71.43	53.57	14.30	344.1	0.245	2736	360	5.19	0.3071	0.1791
140	15	4	3.063	110.5	29.47	15.31	385.8	0.212	2714	393	5.80	0.2987	0.1759
140	12	7	3.063	88.42	51.58	15.31	385.5	0.217	3080	389	5.80	0.2987	0.1759
160	15	4	3.274	126.3	33.68	16.37	440.9	0.185	3058	427	6.21	0.2936	0.1727
160	12	7	3.274	101.1	58.95	16.37	440.6	0.190	3443	423	6.21	0.2936	0.1727
180	15	4	3.473	142.1	37.89	17.37	496.1	0.165	3440	459	6.58	0.2892	0.1699
180	12	7	3.473	113.7	66.32	17.37	495.6	0.168	3873	455	6.58	0.2892	0.1699
200	15	4	3.661	157.9	42.11	18.30	551.2	0.148	3771	491	6.94	0.2852	0.1673
200	12	7	3.661	126.3	73.68	18.30	550.7	0.152	4261	486	6.94	0.2852	0.1673
224	15	4	3.874	176.8	47.16	19.37	617.3	0.132	4165	527	7.34	0.2809	0.1646
224	12	7	3.874	141.5	82.53	19.37	616.8	0.135	4725	522	7.34	0.2809	0.1646
250	15	4	4.093	197.4	52.63	20.47	689.0	0.118	4649	564	7.76	0.2768	0.1620
250	12	7	4.093	157.9	92.11	20.47	688.4	0.121	5273	559	7.76	0.2768	0.1620
250	18	19	2.933	121.6	128.4	20.53	687.8	0.124	5922	554	7.88	0.2756	0.1619
250	24	13	2.933	162.2	87.84	20.53	688.4	0.121	5323	560	7.88	0.2756	0.1619
250	30	7	2.933	202.7	47.30	20.53	689.1	0.118	4836	565	7.88	0.2756	0.1619
250	33	4	2.933	223.0	27.03	20.53	689.4	0.117	4470	568	7.88	0.2756	0.1619
280	15	4	4.332	221.1	58.95	21.66	771.6	0.106	5207	605	8.21	0.2725	0.1593
280	12	7	4.332	176.8	103.2	21.66	771.0	0.108	5906	599	8.21	0.2725	0.1593
280	18	19	3.104	136.2	143.8	21.73	770.3	0.111	6586	595	8.34	0.2713	0.1592
280	24	13	3.104	181.6	98.38	21.73	771.0	0.108	5903	600	8.34	0.2713	0.1592
280	30	7	3.104	227.0	52.97	21.73	771.7	0.105	5342	606	8.34	0.2713	0.1592
280	33	4	3.104	249.7	30.27	21.73	772.1	0.104	4926	609	8.34	0.2713	0.1592
315	18	19	3.292	153.2	161.8	23.05	866.6	0.0984	7206	640	8.85	0.2669	0.1563
315	24	13	3.292	204.3	110.7	23.05	867.4	0.0960	6501	646	8.85	0.2669	0.1563
315	30	7	3.292	255.4	59.59	23.05	868.2	0.0937	5932	652	8.85	0.2669	0.1563
315	33	4	3.292	280.9	34.05	23.05	868.6	0.0926	5498	655	8.85	0.2669	0.1563
355	18	19	3.495	172.7	182.3	24.47	976.7	0.0873	8120	689	9.40	0.2624	0.1535
355	24	13	3.495	230.3	124.7	24.47	977.6	0.0852	7326	696	9.40	0.2624	0.1535
355	30	7	3.495	287.8	67.16	24.47	978.5	0.0832	6685	702	9.40	0.2624	0.1535
355	33	4	3.495	316.6	38.38	24.47	978.9	0.0822	6196	706	9.40	0.2624	0.1535
400	18	19	3.710	194.6	205.4	25.97	1100	0.0775	9084	741	9.97	0.2579	0.1506
400	24	13	3.710	259.5	140.5	25.97	1101	0.0756	8170	749	9.97	0.2579	0.1506
400	30	7	3.710	324.3	75.68	25.97	1102	0.0738	7427	756	9.97	0.2579	0.1506
400	33	4	3.710	356.8	43.24	25.97	1103	0.0730	6867	760	9.97	0.2579	0.1506
450	18	19	3.935	218.9	231.1	27.55	1238	0.0689	10146	797	10.58	0.2534	0.1478
450	24	13	3.935	291.9	158.1	27.55	1239	0.0672	9096	805	10.58	0.2534	0.1478
450	30	7	3.935	364.9	85.14	27.55	1240	0.0656	8236	813	10.58	0.2534	0.1478
450	33	4	3.935	401.4	48.65	27.55	1241	0.0649	7597	817	10.58	0.2534	0.1478
500	18	19	4.148	243.2	256.8	29.04	1376	0.0620	11273	850	11.15	0.2494	0.1453
500	24	13	4.148	324.3	175.7	29.04	1377	0.0605	10107	858	11.15	0.2494	0.1453
500	30	7	4.148	405.4	94.59	29.04	1378	0.0591	9151	867	11.15	0.2494	0.1453
500	33	4	4.148	445.9	54.05	29.04	1379	0.0584	8441	871	11.15	0.2494	0.1453
500	33	28	3.231	270.5	229.5	29.07	1376	0.0615	11119	853	11.22	0.2489	0.1453
500	42	19	3.231	344.3	155.7	29.07	1377	0.0601	10272	861	11.22	0.2489	0.1453

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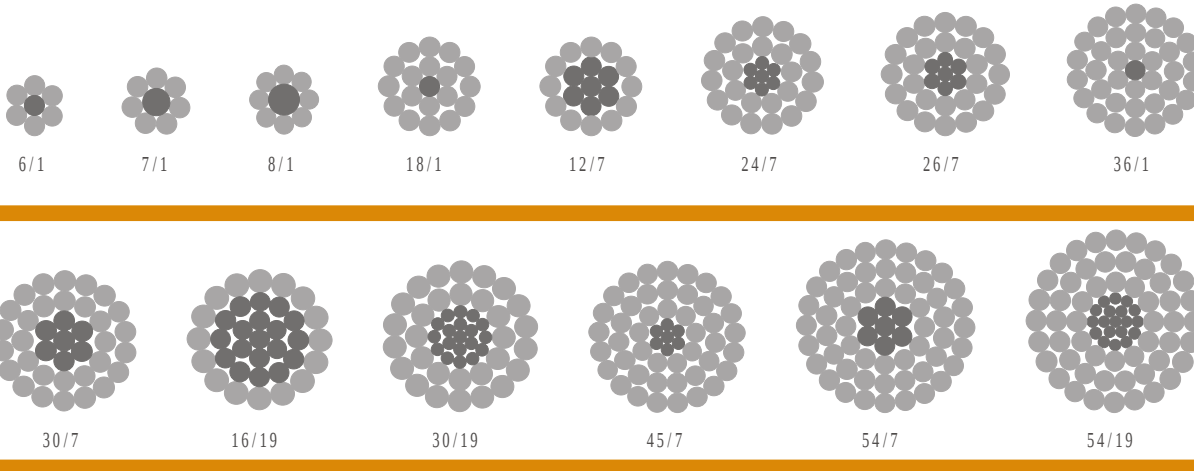
ACAR Conductors (Sizes in mm²)

SIZE AWG / kcmil	STRANDS		STRAND DIAMETER (mm)	CROSS SECTION		CON- DUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Km)	AMPACITY ¹ (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
	ALUMINUM	ALUMINUM ALLOY		ALUMINUM (mm ²)	ALUMINUM ALLOY (mm ²)								
500	48	13	3.231	393.4	106.6	29.07	1378	0.0593	9471	866	11.22	0.2489	0.1453
500	54	7	3.231	442.6	57.38	29.07	1379	0.0584	8846	871	11.22	0.2489	0.1453
560	18	19	4.390	272.4	287.6	30.73	1541	0.0554	12626	911	11.80	0.2452	0.1426
560	24	13	4.390	363.2	196.8	30.73	1542	0.0540	11320	920	11.80	0.2452	0.1426
560	30	7	4.390	454.1	105.9	30.73	1543	0.0527	10249	928	11.80	0.2452	0.1426
560	33	4	4.390	499.5	60.54	30.73	1544	0.0521	9454	932	11.80	0.2452	0.1426
560	33	28	3.419	303.0	257.0	30.77	1541	0.0549	12136	914	11.88	0.2447	0.1426
560	42	19	3.419	385.6	174.4	30.77	1542	0.0537	11284	922	11.88	0.2447	0.1426
560	48	13	3.419	440.7	119.3	30.77	1543	0.0529	10457	927	11.88	0.2447	0.1426
560	54	7	3.419	495.7	64.26	30.77	1544	0.0522	9824	932	11.88	0.2447	0.1426
630	18	19	4.656	306.5	323.5	32.59	1733	0.0492	14204	978	12.52	0.2407	0.1398
630	24	13	4.656	408.6	221.4	32.59	1735	0.0480	12735	987	12.52	0.2407	0.1398
630	30	7	4.656	510.8	119.2	32.59	1736	0.0469	11530	996	12.52	0.2407	0.1398
630	33	4	4.656	561.9	68.11	32.59	1737	0.0463	10636	1001	12.52	0.2407	0.1398
630	33	28	3.626	340.8	289.2	32.64	1734	0.0488	13541	981	12.60	0.2402	0.1397
630	42	19	3.626	433.8	196.2	32.64	1735	0.0477	12553	990	12.60	0.2402	0.1397
630	48	13	3.626	495.7	134.3	32.64	1736	0.0470	11605	995	12.60	0.2402	0.1397
630	54	7	3.626	557.7	72.30	32.64	1737	0.0464	10874	1001	12.60	0.2402	0.1397
710	33	28	3.850	384.1	325.9	34.65	1954	0.0433	15135	1054	13.37	0.2357	0.1369
710	42	19	3.850	488.9	221.1	34.65	1956	0.0423	13987	1062	13.37	0.2357	0.1369
710	48	13	3.850	558.7	151.3	34.65	1957	0.0417	12900	1068	13.37	0.2357	0.1369
710	54	7	3.850	628.5	81.48	34.65	1958	0.0411	12053	1074	13.37	0.2357	0.1369
800	33	28	4.086	432.8	367.2	36.78	2202	0.0384	17054	1130	14.20	0.2312	0.1340
800	42	19	4.086	550.8	249.2	36.78	2203	0.0376	15760	1140	14.20	0.2312	0.1340
800	48	13	4.086	629.5	170.5	36.78	2205	0.0370	14536	1146	14.20	0.2312	0.1340
800	54	7	4.086	708.2	91.80	36.78	2206	0.0365	13581	1152	14.20	0.2312	0.1340

- Notes:
1. DC resistance calculated based on a 28.172 ohm-mm²/km and 32.841 ohm-mm²/km conductivity for aluminum and aluminum alloy.
 2. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
 3. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
 4. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACSR Conductors

Aluminum Conductors Reinforced with Galvanized Steel
(Aluminum Conductor Coated-Steel Reinforced)



Description

1350-H19 aluminum wires, concentrically stranded about a galvanized steel core.

The galvanized normally is Class A, (ACSR /GA) optionally it is available in Class B (ACSR/GB) and Class C (ACSR/GC).

The Steel core can be 1, 7, or 19 wires concentrically stranded.

Applications

ACSR conductors are used for overhead transmission and distribution of electric energy.

ACSR Conductors have a very good Tensile Strength, which is useful for overhead lines. With different aluminum wires - steel core stranding, it could be obtained different tensile strength without sacrifice Ampacity.

Also are used as neutral messenger in multiplex aluminum cable for distribution.

Standards

CENTELSA'S ACSR conductors are manufactured in accordance with the following standards:

ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B498, NTC 461. Zinc-Coated (Galvanized) Steel core wire for ACSR conductors.

ASTM B500, NTC 1984. Zinc-Coated (Galvanized) Stranded Steel Core for ACSR conductors.

ASTM B232, Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).

Certifications

CENTELSA'S ACSR conductors are certified by:

CIDET (Colombia) Bare Aluminum Type ACSR. Cert. No. 00411.

LAPEM (Mexico) ACSR. Standard CFE E0000-12.

ANCE (Mexico) ACSR. Standard NOM 063.

Note: Configurations and sizes herein not specified are available upon request.

ACSR/GA Conductors (International System Unit)

Aluminum Conductor Galvanized Steel Reinforced Conductors

(Aluminum Conductor Coated-Steel Reinforced)

1350 H-19 Aluminum Conductor, Galvanized Class A Steel Reinforced. Stranding Class AA

Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B498, NTC 461. Zinc-Coated (Galvanized) Steel core wire for ACSR conductors.

ASTM B500, NTC 1984. Zinc-Coated (Galvanized) Stranded Steel Core for ACSR conductors.

ASTM B232, Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (K/m)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
		ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm ²)	STEEL (mm ²)								
6	TURKEY	6	1	1.680	1.680	13.30	2.214	5.04	53.74	2.10	540	93	1.62	0.3948	0.2287
5	THRUSH	6	1	1.887	1.887	16.78	2.800	5.66	67.85	1.66	676	107	1.82	0.3860	0.2232
4	SWAN	6	1	2.119	2.119	21.16	3.527	6.36	85.53	1.32	845	123	2.05	0.3772	0.2177
4	SWANATE	7	1	1.962	2.614	21.16	5.367	6.54	99.86	1.30	1072	120	2.11	0.3751	0.2163
2	SPARROW	6	1	2.672	2.672	33.64	5.612	8.02	136.0	0.829	1294	162	2.58	0.3597	0.2066
2	SPARATE	7	1	2.474	3.300	33.65	8.553	8.25	158.9	0.819	1651	159	2.66	0.3576	0.2052
80 HS	GROUSE	8	1	2.540	4.242	40.54	14.13	9.32	221.8	0.674	2357	175	3.00	0.3484	0.1994
1	ROBIN	6	1	3.000	3.000	42.41	7.069	9.00	171.4	0.658	1616	186	2.90	0.3510	0.2011
101.8 HS	PETREL	12	7	2.340	2.340	51.61	30.10	11.70	378.2	0.514	4713	206	4.54	0.3172	0.1886
1/0	RAVEN	6	1	3.370	3.370	53.52	8.925	10.11	216.4	0.521	1986	213	3.26	0.3423	0.1955
110.8 HS	MINORCA	12	7	2.441	2.441	56.16	32.76	12.21	411.6	0.473	5128	214	4.74	0.3140	0.1866

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ACSR/GA Conductors (International System Unit)



SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Knm)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
		ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm ²)	STEEL (mm ²)								
2/0	QUAIL	6	1	3.784	3.784	67.48	11.24	11.35	272.7	0.413	2403	243	3.66	0.3335	0.1900
134.6 HS	LEGHORN	12	7	2.691	2.691	68.25	39.78	13.45	500.0	0.389	6183	236	5.22	0.3067	0.1819
159 HS	GUINEA	12	7	2.924	2.924	80.58	47.00	14.62	590.6	0.329	7277	255	5.67	0.3004	0.1779
3/0	PIGEON	6	1	4.248	4.248	85.04	14.17	12.74	343.7	0.328	3000	277	4.10	0.3248	0.1845
176.9 HS	DOTTEREL	12	7	3.084	3.084	89.64	52.29	15.42	657.0	0.296	7860	268	5.98	0.2964	0.1754
190.8 HS	DORKING	12	7	3.203	3.203	96.69	56.40	16.02	708.7	0.275	8478	278	6.21	0.2935	0.1736
203.2 HS	BRAHMA	16	19	2.863	2.863	103.0	91.93	18.14	1005	0.247	12932	278	7.36	0.2807	0.1677
211.3 HS	COCHIN	12	7	3.371	3.371	107.1	62.47	16.86	784.9	0.248	9391	291	6.54	0.2897	0.1712
4/0	PENGUIN	6	1	4.770	4.770	107.2	17.88	14.31	433.5	0.260	3784	316	4.61	0.3161	0.1790
266.8	WAXWING	18	1	3.093	3.093	135.2	7.509	15.46	431.6	0.211	3122	393	6.00	0.2962	0.1753
266.8	PARTRIDGE	26	7	2.574	2.002	135.3	22.04	16.30	547.2	0.208	5126	401	6.62	0.2888	0.1727
300	OSTRICH	26	7	2.729	2.121	152.1	24.73	17.28	614.8	0.185	5757	432	7.02	0.2844	0.1700
336.4	WIDGEON	18	1	3.473	3.473	170.5	9.473	17.37	544.2	0.167	3937	455	6.74	0.2874	0.1697
336.4	LINNET	26	7	2.890	2.246	170.6	27.73	18.30	689.5	0.165	6400	464	7.43	0.2800	0.1672
336.4	ORIOLE	30	7	2.690	2.690	170.5	39.78	18.83	784.6	0.164	7883	469	7.78	0.2766	0.1659
397.5	CHICADEE	18	1	3.775	3.775	201.5	11.19	18.88	642.9	0.141	4509	505	7.32	0.2811	0.1658
397.5	BRANT	24	7	3.269	2.180	201.4	26.13	19.62	762.6	0.141	6643	512	7.88	0.2756	0.1639
397.5	IBIS	26	7	3.141	2.441	201.5	32.76	19.89	814.5	0.140	7398	515	8.07	0.2738	0.1633
397.5	LARK	30	7	2.924	2.924	201.4	47.00	20.47	927.1	0.139	9249	521	8.45	0.2703	0.1619
477	PELICAN	18	1	4.135	4.135	241.7	13.44	20.68	771.5	0.118	5332	566	8.02	0.2743	0.1614
477	FLICKER	24	7	3.581	2.388	241.7	31.35	21.49	915.1	0.117	7801	573	8.63	0.2688	0.1596
477	HAWK	26	7	3.441	2.675	241.8	39.34	21.79	977.7	0.117	8882	577	8.85	0.2669	0.1589
477	HEN	30	7	3.203	3.203	241.7	56.40	22.42	1112	0.116	10798	584	9.26	0.2634	0.1575
556.5	OSPREY	18	1	4.467	4.467	282.1	15.66	22.33	900.2	0.101	6221	623	8.67	0.2684	0.1577
556.5	PARAKEET	24	7	3.868	2.579	282.0	36.57	23.21	1068	0.100	9008	631	9.32	0.2630	0.1559
556.5	DOVE	26	7	3.717	2.891	282.1	45.95	23.54	1141	0.0999	10277	635	9.56	0.2611	0.1552
556.5	EAGLE	30	7	3.460	3.460	282.1	65.82	24.22	1298	0.0991	12600	643	10.00	0.2576	0.1539
605	PEACOCK	24	7	4.033	2.690	306.6	39.78	24.20	1161	0.0924	9796	665	9.72	0.2598	0.1539
605	SQUAB	26	7	3.875	3.013	306.6	49.91	24.54	1240	0.0919	11066	669	9.96	0.2579	0.1532
605	WOOD-DUCK	30	7	3.608	3.608	306.7	71.53	25.25	1411	0.0912	13106	677	10.43	0.2545	0.1519
605	TEAL	30	19	3.608	2.165	306.7	69.95	25.26	1400	0.0912	13603	677	10.43	0.2545	0.1519
636	KINGBIRD	18	1	4.775	4.775	322.3	17.92	23.88	1029	0.0884	7110	676	9.26	0.2634	0.1545
636	ROOK	24	7	4.135	2.756	322.3	41.76	24.81	1220	0.0879	10290	686	9.96	0.2579	0.1527
636	GROSBECK	26	7	3.973	3.089	322.3	52.46	25.16	1303	0.0874	11426	690	10.21	0.2560	0.1520
636	SCOTER	30	7	3.699	3.699	322.4	75.22	25.89	1484	0.0867	13780	698	10.69	0.2526	0.1507
636	EGRET	30	19	3.699	2.220	322.4	73.54	25.90	1472	0.0868	14301	698	10.70	0.2526	0.1507
636	SWIFT	36	1	3.377	3.377	322.4	8.951	23.64	959.3	0.0887	6244	671	9.76	0.2595	0.1550
666.6	FLAMINGO	24	7	4.234	2.822	337.9	43.78	25.40	1279	0.0838	10789	706	10.20	0.2562	0.1516
666.6	GANNET	26	7	4.068	3.163	337.9	55.00	25.76	1367	0.0834	11980	711	10.46	0.2543	0.1509
715.5	STARLING	26	7	4.214	3.277	362.6	59.04	26.69	1467	0.0777	12857	742	10.83	0.2516	0.1492
715.5	REDWING	30	19	3.923	2.353	362.6	82.62	27.46	1654	0.0772	15720	751	11.34	0.2482	0.1479
715.5	STILT	24	7	4.386	2.924	362.6	47.00	26.32	1373	0.0781	11580	738	10.57	0.2535	0.1499
795	CUKOO	24	7	4.623	3.082	402.9	52.22	27.74	1525	0.0703	12661	787	11.14	0.2495	0.1474
795	TERN	45	7	3.377	2.251	403.1	27.86	27.02	1335	0.0709	10019	775	10.72	0.2524	0.1487
795	MALLARD	30	19	4.135	2.482	402.9	91.93	28.95	1839	0.0695	17481	802	11.96	0.2442	0.1454
795	DRAKE	26	7	4.442	3.455	402.9	65.63	28.13	1630	0.0700	14289	792	11.42	0.2476	0.1467
795	COOT	36	1	3.775	3.775	402.9	11.19	26.43	1199	0.0710	7598	770	10.91	0.2510	0.1497
795	CONDOR	54	7	3.082	3.082	402.9	52.22	27.74	1525	0.0703	12783	784	11.23	0.2489	0.1474
900	RUDDY	45	7	3.593	2.396	456.3	31.56	28.75	1512	0.0626	11107	837	11.41	0.2477	0.1457
900	CANARY	54	7	3.280	3.280	456.3	59.15	29.52	1727	0.0621	14478	847	11.96	0.2442	0.1444
954	CATBIRD	36	1	4.135	4.135	483.4	13.44	28.95	1438	0.0592	8962	861	11.95	0.2442	0.1454
954	RAIL	45	7	3.699	2.467	483.6	33.46	29.60	1602	0.0591	11773	867	11.75	0.2455	0.1443
954	CARDINAL	54	7	3.377	3.377	483.7	62.66	30.39	1830	0.0586	15343	878	12.31	0.2420	0.1430
1033.5	TANAGER	36	1	4.304	4.304	523.8	14.54	30.13	1558	0.0546	9708	904	12.44	0.2412	0.1435
1033.5	ORTOLAN	45	7	3.850	2.566	523.9	36.20	30.80	1735	0.0546	12580	911	12.23	0.2425	0.1424

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ACSR/GA Conductors (International System Unit)

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (K/m)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ³ (ohm/Km)	CAPACITIVE REACTANCE ³ (Mohm-Km)
		ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm²)	STEEL (mm²)								
1033.5	CURLEW	54	7	3.514	3.514	523.7	67.85	31.62	1982	0.0541	16613	922	12.81	0.2390	0.1411
1113	BLUEJAY	45	7	3.995	2.665	564.1	39.05	31.97	1869	0.0507	13554	953	12.69	0.2397	0.1406
1113	FINCH	54	19	3.647	2.190	564.1	71.57	32.83	2132	0.0505	17734	962	13.30	0.2362	0.1394
1192.5	BUNTING	45	7	4.135	2.756	604.3	41.76	33.08	2002	0.0473	14512	993	13.13	0.2371	0.1390
1192.5	GRACKLE	54	19	3.775	2.266	604.4	76.62	33.98	2284	0.0471	18993	1004	13.76	0.2336	0.1377
1272	SKYLARK	36	1	4.775	4.775	644.7	17.92	33.43	1918	0.0444	11951	1024	13.80	0.2333	0.1385
1272	BITTERN	45	7	4.271	2.848	644.7	44.59	34.17	2136	0.0443	15487	1033	13.57	0.2346	0.1374
1272	PHEASANT	54	19	3.899	2.340	644.7	81.71	35.09	2436	0.0442	19819	1044	14.21	0.2311	0.1362
1351.5	DIPPER	45	7	4.402	2.934	684.9	47.33	35.21	2269	0.0417	16447	1071	13.98	0.2324	0.1360
1351.5	MARTIN	54	19	4.019	2.411	685.0	86.74	36.17	2588	0.0416	21049	1083	14.65	0.2289	0.1347
1431	BOBOLINK	45	7	4.530	3.021	725.3	50.18	36.24	2403	0.0394	17424	1108	14.39	0.2302	0.1346
1431	PLOVER	54	19	4.135	2.482	725.2	91.93	37.22	2740	0.0393	22294	1120	15.07	0.2267	0.1334
1510.5	NUTHATCH	45	7	4.654	3.102	765.5	52.90	37.23	2536	0.0373	18177	1144	14.78	0.2282	0.1334
1510.5	PARROT	54	19	4.249	2.548	765.7	96.88	38.23	2892	0.0372	23518	1157	15.48	0.2247	0.1321
1590	LAPWING	45	7	4.775	3.183	805.8	55.70	38.20	2669	0.0355	19136	1180	15.17	0.2262	0.1321
1590	FALCON	54	19	4.359	2.617	805.9	102.2	39.24	3045	0.0353	24780	1193	15.89	0.2227	0.1308

- Notes: 1. HS denotes High Strength of ACSR/GA conductor
2. DC resistance calculated based on a 28.172 ohm-mm²/km and 191.57 ohm-mm²/km conductivity for aluminum and galvanized steel.
3. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
4. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
5. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACSR/GA Conductors

Aluminum Conductor Galvanized Steel Reinforced Conductors

(Aluminum Conductor Coated-Steel Reinforced)

1350 H-19 Aluminum Conductor, Galvanized Class A Steel Reinforced. Stranding Class AA



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B498, NTC 461. Zinc-Coated (Galvanized) Steel core wire for ACSR conductors.

ASTM B500, NTC 1984. Zinc-Coated (Galvanized) Stranded Steel Core for ACSR conductors.

ASTM B232, Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/Kft)	DC RESIS- TANT AT 20°C¹ (ohm/Kft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE² (ohm/miles)	CAPACITIVE REACTANCE² (Mohm-miles)
		ALUMINUM	STEEL	ALUMINUM (mils)	STEEL (mils)	ALUMINUM (square inches)	STEEL (square inches)								
6	TURKEY	6	1	66.14	66.14	0.0206	0.00343	0.198	36.11	0.639	1190	93	0.064	0.6353	0.1425
5	THRUSH	6	1	74.29	74.29	0.0260	0.00434	0.223	45.59	0.507	1491	107	0.072	0.6211	0.1390
4	SWAN	6	1	83.43	83.43	0.0328	0.00547	0.250	57.47	0.402	1863	123	0.081	0.6071	0.1356
4	SWANATE	7	1	77.24	102.9	0.0328	0.00832	0.257	67.10	0.397	2364	120	0.083	0.6037	0.1348
2	SPARROW	6	1	105.2	105.2	0.0521	0.00870	0.316	91.41	0.253	2852	162	0.102	0.5789	0.1287
2	SPARATE	7	1	97.40	129.9	0.0522	0.0133	0.325	106.8	0.250	3641	159	0.105	0.5755	0.1279
80 HS	GROUSE	8	1	100.0	167.0	0.0628	0.0219	0.367	149.0	0.205	5197	175	0.118	0.5606	0.1242
1	ROBIN	6	1	118.1	118.1	0.0657	0.0110	0.354	115.2	0.201	3562	186	0.114	0.5649	0.1253
101.8 HS	PETREL	12	7	92.13	92.13	0.0800	0.0467	0.461	254.2	0.157	10389	206	0.179	0.5104	0.1175
1/0	RAVEN	6	1	132.7	132.7	0.0830	0.0138	0.398	145.4	0.159	4379	213	0.128	0.5508	0.1218
110.8 HS	MINORCA	12	7	96.10	96.10	0.0870	0.0508	0.481	276.6	0.144	11306	214	0.186	0.5053	0.1162
2/0	QUAIL	6	1	149.0	149.0	0.105	0.0174	0.447	183.2	0.126	5298	243	0.144	0.5367	0.1184
134.6 HS	LEGHORN	12	7	105.9	105.9	0.106	0.0617	0.530	336.0	0.119	13630	236	0.205	0.4935	0.1133
159 HS	GUINEA	12	7	115.1	115.1	0.125	0.0729	0.576	396.9	0.100	16043	255	0.223	0.4834	0.1108
3/0	PIGEON	6	1	167.2	167.2	0.132	0.0220	0.502	231.0	0.100	6614	277	0.162	0.5227	0.1149
176.9 HS	DOTTEREL	12	7	121.4	121.4	0.139	0.0810	0.607	441.5	0.0903	17328	268	0.236	0.4769	0.1093
190.8 HS	DORKING	12	7	126.1	126.1	0.150	0.0874	0.631	476.2	0.0837	18691	278	0.245	0.4724	0.1081
203.2 HS	BRAHMA	16	19	112.7	97.72	0.160	0.1425	0.714	675.4	0.0754	28510	278	0.290	0.4518	0.1044
211.3 HS	COCHIN	12	7	132.7	132.7	0.166	0.0968	0.664	527.5	0.0756	20703	291	0.257	0.4662	0.1066
4/0	PENGUIN	6	1	187.8	187.8	0.166	0.0277	0.563	291.3	0.0793	8343	316	0.181	0.5086	0.1115
266.8	WAXWING	18	1	121.8	121.8	0.210	0.0116	0.609	290.0	0.0642	6884	393	0.236	0.4766	0.1092
266.8	PARTRIDGE	26	7	101.3	78.82	0.210	0.0342	0.642	367.7	0.0635	11301	401	0.261	0.4647	0.1076
300	OSTRICH	26	7	107.4	83.50	0.236	0.0383	0.680	413.2	0.0565	12692	432	0.276	0.4576	0.1059
336.4	WIDGEON	18	1	136.7	136.7	0.264	0.0147	0.684	365.7	0.0509	8681	455	0.265	0.4625	0.1057
336.4	LINNET	26	7	113.8	88.43	0.264	0.0430	0.720	463.3	0.0504	14110	464	0.292	0.4507	0.1042
336.4	ORIOLE	30	7	105.9	105.9	0.264	0.0617	0.741	527.2	0.0500	17380	469	0.306	0.4451	0.1033
397.5	CHICADEE	18	1	148.6	148.6	0.312	0.0173	0.743	432.0	0.0431	9941	505	0.288	0.4524	0.1033
397.5	BRANT	24	7	128.7	85.83	0.312	0.0405	0.772	512.4	0.0429	14646	512	0.310	0.4436	0.1021
397.5	IBIS	26	7	123.7	96.10	0.312	0.0508	0.783	547.3	0.0426	16310	515	0.318	0.4406	0.1017
397.5	LARK	30	7	115.1	115.1	0.312	0.0729	0.806	623.0	0.0423	20390	521	0.333	0.4350	0.1008
477	PELICAN	18	1	162.8	162.8	0.375	0.0208	0.814	518.4	0.0359	11755	566	0.316	0.4414	0.1005
477	FLICKER	24	7	141.0	94.02	0.375	0.0486	0.846	614.9	0.0357	17198	573	0.340	0.4325	0.0994
477	HAWK	26	7	135.5	105.3	0.375	0.0610	0.858	657.0	0.0355	19581	577	0.348	0.4295	0.0990
477	HEN	30	7	126.1	126.1	0.375	0.0874	0.883	747.5	0.0353	23806	584	0.365	0.4240	0.0981
556.5	OSPREY	18	1	175.9	175.9	0.437	0.0243	0.879	604.9	0.0308	13715	623	0.341	0.4320	0.0983
556.5	PARAKEET	24	7	152.3	101.5	0.437	0.0567	0.914	717.4	0.0306	19859	631	0.367	0.4232	0.0971
556.5	DOVE	26	7	146.3	113.8	0.437	0.0712	0.927	766.8	0.0305	22658	635	0.376	0.4201	0.0967
556.5	EAGLE	30	7	136.2	136.2	0.437	0.1020	0.954	872.3	0.0302	27779	643	0.394	0.4146	0.0958
605	PEACOCK	24	7	158.8	105.9	0.475	0.0617	0.953	780.0	0.0282	21597	665	0.383	0.4181	0.0959
605	SQUAB	26	7	152.6	118.6	0.475	0.0774	0.966	833.2	0.0280	24396	669	0.392	0.4151	0.0955
605	WOOD-DUCK	30	7	142.0	142.0	0.475	0.1109	0.994	948.3	0.0278	28894	677	0.411	0.4095	0.0946
605	TEAL	30	19	142.0	85.24	0.475	0.1084	0.994	940.7	0.0278	29990	677	0.411	0.4095	0.0946
636	KINGBIRD	18	1	188.0	188.0	0.500	0.0278	0.940	691.3	0.0269	15676	676	0.365	0.4239	0.0963
636	ROOK	24	7	162.8	108.5	0.500	0.0647	0.977	819.7	0.0268	22686	686	0.392	0.4151	0.0951
636	GROSBECK	26	7	156.4	121.6	0.500	0.0813	0.991	875.9	0.0267	25191	690	0.402	0.4120	0.0947
636	SCOTER	30	7	145.6	145.6	0.500	0.1166	1.019	997.0	0.0264	30381	698	0.421	0.4065	0.0939
636	EGRET	30	19	145.6	87.40	0.500	0.1140	1.020	988.9	0.0265	31529	698	0.421	0.4065	0.0939
636	SWIFT	36	1	133.0	133.0	0.500	0.0139	0.931	644.6	0.0271	13766	671	0.384	0.4175	0.0966
666.6	FLAMINGO	24	7	166.7	111.1	0.524	0.0679	1.000	859.4	0.0255	23786	706	0.402	0.4122	0.0944
666.6	GANNET	26	7	160.2	124.5	0.524	0.0853	1.014	918.3	0.0254	26411	711	0.412	0.4092	0.0940
715.5	STARLING	26	7	165.9	129.0	0.562	0.0915	1.051	985.5	0.0237	28345	742	0.427	0.4049	0.0930
715.5	REDWING	30	19	154.4	92.64	0.562	0.1281	1.081	1112	0.0235	34656	751	0.446	0.3994	0.0921
715.5	STILT	24	7	172.7	115.1	0.562	0.0729	1.036	922.3	0.0238	25530	738	0.416	0.4079	0.0934
795	CUKOO	24	7	182.0	121.3	0.624	0.0809	1.092	1025	0.0214	27913	787	0.438	0.4016	0.0918

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ACSR/GA Conductors

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/Kft)	DC RESIS- TANT AT 20°C¹ (ohm/Kft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE² (ohm/miles)	CAPACITIVE REACTANCE² (Mohm-miles)
		ALUMINUM	STEEL	ALUMINUM (mils)	STEEL (mils)	ALUMINUM (square inches)	STEEL (square inches)								
795	TERN	45	7	133.0	88.62	0.625	0.0432	1.064	897.2	0.0216	22089	775	0.422	0.4061	0.0926
795	MALLARD	30	19	162.8	97.72	0.624	0.1425	1.140	1236	0.0212	38539	802	0.471	0.3929	0.0905
795	DRAKE	26	7	174.9	136.0	0.625	0.1017	1.108	1095	0.0213	31503	792	0.450	0.3985	0.0914
795	COOT	36	1	148.6	148.6	0.625	0.0173	1.040	805.6	0.0216	16751	770	0.430	0.4040	0.0933
795	CONDOR	54	7	121.3	121.3	0.624	0.0809	1.092	1025	0.0214	28182	784	0.442	0.4005	0.0918
900	RUDDY	45	7	141.5	94.33	0.707	0.0489	1.132	1016	0.0191	24487	837	0.449	0.3986	0.0908
900	CANARY	54	7	129.1	129.1	0.707	0.0917	1.162	1161	0.0189	31919	847	0.471	0.3929	0.0900
954	CATBIRD	36	1	162.8	162.8	0.749	0.0208	1.140	966.6	0.0180	19759	861	0.471	0.3930	0.0905
954	RAIL	45	7	145.6	97.13	0.750	0.0519	1.165	1077	0.0180	25955	867	0.463	0.3951	0.0899
954	CARDINAL	54	7	133.0	133.0	0.750	0.0971	1.196	1230	0.0179	33825	878	0.485	0.3894	0.0891
1033.5	TANAGER	36	1	169.4	169.4	0.812	0.0225	1.186	1047	0.0167	21403	904	0.490	0.3881	0.0894
1033.5	ORTOLAN	45	7	151.6	101.0	0.812	0.0561	1.213	1166	0.0166	27735	911	0.481	0.3902	0.0887
1033.5	CURLEW	54	7	138.3	138.3	0.812	0.1052	1.245	1332	0.0165	36625	922	0.504	0.3846	0.0879
1113	BLUEJAY	45	7	157.3	104.9	0.874	0.0605	1.258	1256	0.0154	29882	953	0.500	0.3857	0.0876
1113	FINCH	54	19	143.6	86.22	0.874	0.1109	1.293	1433	0.0154	39097	962	0.524	0.3800	0.0868
1192.5	BUNTING	45	7	162.8	108.5	0.937	0.0647	1.302	1345	0.0144	31993	993	0.517	0.3816	0.0866
1192.5	GRACKLE	54	19	148.6	89.21	0.937	0.1188	1.338	1535	0.0144	41873	1004	0.542	0.3759	0.0858
1272	SKYLARK	36	1	188.0	188.0	0.999	0.0278	1.316	1289	0.0135	26348	1024	0.544	0.3755	0.0863
1272	BITTERN	45	7	168.1	112.1	0.999	0.0691	1.345	1435	0.0135	34144	1033	0.534	0.3776	0.0856
1272	PHEASANT	54	19	153.5	92.13	0.999	0.1267	1.382	1637	0.0135	43694	1044	0.560	0.3720	0.0848
1351.5	DIPPER	45	7	173.3	115.5	1.062	0.0734	1.386	1524	0.0127	36259	1071	0.550	0.3740	0.0847
1351.5	MARTIN	54	19	158.2	94.92	1.062	0.1345	1.424	1739	0.0127	46405	1083	0.577	0.3683	0.0839
1431	BOBOLINK	45	7	178.3	118.9	1.124	0.0778	1.427	1615	0.0120	38414	1108	0.566	0.3705	0.0839
1431	PLOVER	54	19	162.8	97.72	1.124	0.1425	1.465	1841	0.0120	49150	1120	0.593	0.3648	0.0831
1510.5	NUTHATCH	45	7	183.2	122.1	1.187	0.0820	1.466	1704	0.0114	40073	1144	0.582	0.3672	0.0831
1510.5	PARROT	54	19	167.3	100.3	1.187	0.1502	1.505	1943	0.0113	51848	1157	0.610	0.3616	0.0823
1590	LAPWING	45	7	188.0	125.3	1.249	0.0863	1.504	1794	0.0108	42187	1180	0.597	0.3641	0.0823
1590	FALCON	54	19	171.6	103.0	1.249	0.1584	1.545	2046	0.0108	54631	1193	0.626	0.3584	0.0815

Notes: 1. HS denotes High Strength of ACSR conductor

2. DC resistance calculated based on a 16.946 ohm-cmil/ft and 115.23 ohm-cmil/ft conductivity for aluminum and galvanized steel.

3. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 2 ft/sec, at sea level, and at 60 Hz.

4. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.

5. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACSR/GA Conductors (Sizes in mm²)

Aluminum Conductor Galvanized Steel Reinforced Conductors
(Aluminum Conductor Coated-Steel Reinforced)

1350 H-19 Aluminum Conductor, Galvanized Class A Steel Reinforced. Stranding Class AA



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B498, NTC 461. Zinc-Coated (Galvanized) Steel core wire for ACSR conductors.

ASTM B500, NTC 1984. Zinc-Coated (Galvanized) Stranded Steel Core for ACSR conductors.

ASTM B232M, Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).

SIZE AWG / kcmil	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESISTANCE AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Kg)	AMPACTY ² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
	ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm ²)	STEEL (mm ²)								
12.5	6	1	1.629	1.629	12.50	2.084	4.89	50.55	2.23	508	90	1.57	0.3971	0.2302
16	6	1	1.843	1.843	16.01	2.668	5.53	64.70	1.74	645	104	1.78	0.3878	0.2243
20	6	1	2.061	2.061	20.02	3.336	6.18	80.91	1.39	799	119	1.99	0.3793	0.2190
20	7	1	1.908	2.550	20.01	5.107	6.37	94.68	1.38	1018	116	2.05	0.3771	0.2176
25	6	1	2.304	2.304	25.02	4.169	6.91	101.1	1.12	978	136	2.23	0.3709	0.2137
25	7	1	2.133	2.840	25.01	6.335	7.11	118.0	1.10	1258	133	2.29	0.3688	0.2124
31.5	6	1	2.586	2.586	31.51	5.252	7.76	127.4	0.885	1211	156	2.50	0.3622	0.2082
31.5	7	1	2.394	3.190	31.51	7.992	7.98	148.7	0.874	1544	153	2.57	0.3601	0.2068
40	6	1	2.914	2.914	40.01	6.669	8.74	161.7	0.697	1524	180	2.81	0.3532	0.2025
40 HS	8	1	2.524	4.200	40.03	13.85	9.25	218.2	0.682	2316	174	2.98	0.3490	0.1998
50	6	1	3.258	3.258	50.02	8.337	9.77	202.2	0.558	1856	205	3.15	0.3448	0.1971
50 HS	12	7	2.304	2.304	50.03	29.08	11.51	365.9	0.531	4641	202	4.47	0.3184	0.1894
56 HS	12	7	2.438	2.438	56.02	32.73	12.20	411.0	0.474	5122	214	4.73	0.3141	0.1866
63	6	1	3.657	3.657	63.02	10.50	10.97	254.7	0.443	2245	234	3.53	0.3361	0.1916
63 HS	12	7	2.586	2.586	63.03	36.77	12.93	461.9	0.421	5713	227	5.02	0.3096	0.1838
71 HS	12	7	2.745	2.745	71.02	41.28	13.71	519.3	0.374	6418	241	5.32	0.3052	0.1810
80	6	1	4.121	4.121	80.03	13.33	12.36	323.4	0.349	2823	268	3.98	0.3271	0.1859
80 HS	12	7	2.914	2.914	80.03	46.68	14.57	586.5	0.332	7227	255	5.65	0.3006	0.1781
90 HS	12	7	3.091	3.091	90.05	52.49	15.45	659.7	0.295	7891	269	6.00	0.2962	0.1753
100	6	1	4.607	4.607	100.0	16.67	13.82	404.3	0.279	3529	304	4.45	0.3187	0.1806
100 HS	12	7	3.258	3.258	100.0	58.43	16.30	733.8	0.265	8781	282	6.32	0.2922	0.1728
100 HS	16	19	2.821	2.440	100.0	88.84	17.84	972.6	0.255	12506	275	7.24	0.2820	0.1684
125	18	1	2.974	2.974	125.0	6.947	14.87	399.0	0.228	2955	375	5.77	0.2991	0.1771
125	24	7	2.576	1.720	125.1	16.26	15.46	473.8	0.226	4212	380	6.21	0.2936	0.1753
125	26	7	2.475	1.920	125.1	20.27	15.66	505.1	0.225	4807	382	6.36	0.2918	0.1747
140	18	1	3.147	3.147	140.0	7.778	15.74	446.8	0.204	3233	402	6.11	0.2948	0.1744
140	24	7	2.726	1.820	140.1	18.21	16.36	530.6	0.202	4717	408	6.57	0.2893	0.1726
140	26	7	2.619	2.040	140.1	22.88	16.60	567.1	0.201	5315	410	6.74	0.2874	0.1719
160	18	1	3.365	3.365	160.1	8.893	16.83	510.9	0.178	3696	437	6.53	0.2898	0.1712
160	24	7	2.914	1.940	160.1	20.69	17.48	605.4	0.177	5322	443	7.02	0.2844	0.1694
160	26	7	2.800	2.180	160.1	26.13	17.74	648.0	0.176	6020	446	7.20	0.2824	0.1687
160	30	7	2.606	2.606	160.0	37.45	18.25	737.3	0.175	7413	451	7.54	0.2789	0.1674
180	18	1	3.569	3.569	180.1	10.00	17.85	574.7	0.158	4099	471	6.92	0.2854	0.1684
180	24	7	3.091	2.060	180.1	23.33	18.54	681.6	0.157	5936	477	7.45	0.2799	0.1666
180	26	7	2.969	2.310	180.0	29.34	18.81	728.2	0.157	6677	480	7.64	0.2780	0.1659
180	30	7	2.764	2.764	180.0	41.88	19.34	827.4	0.155	8308	485	7.99	0.2746	0.1646
200	18	1	3.762	3.762	200.1	11.12	18.81	638.5	0.142	4478	503	7.30	0.2814	0.1659
200	24	7	3.258	2.170	200.1	25.89	19.54	757.0	0.142	6591	509	7.85	0.2759	0.1641
200	26	7	3.130	2.430	200.1	32.46	19.81	808.3	0.141	7338	513	8.04	0.2741	0.1634
200	30	7	2.914	2.914	200.1	46.56	20.39	919.7	0.140	9170	519	8.42	0.2706	0.1621
224	18	1	3.981	3.981	224.1	12.45	19.91	715.0	0.127	4942	539	7.72	0.2771	0.1632
224	24	7	3.448	2.300	224.1	29.08	20.69	848.5	0.126	7393	547	8.31	0.2716	0.1614
224	26	7	3.313	2.570	224.1	36.31	20.96	905.1	0.126	8214	550	8.51	0.2698	0.1608
224	30	7	3.084	3.084	224.1	52.15	21.58	1030	0.125	9994	557	8.91	0.2663	0.1594
250	18	1	4.206	4.206	250.1	13.89	21.03	798.1	0.114	5516	578	8.16	0.2730	0.1606
250	24	7	3.642	2.430	250.0	32.46	21.86	946.8	0.113	8073	585	8.78	0.2675	0.1588
250	26	7	3.499	2.720	250.0	40.67	22.16	1011	0.113	9184	589	9.00	0.2656	0.1581
250	30	7	3.258	3.258	250.1	58.43	22.81	1152	0.112	11181	596	9.42	0.2621	0.1567
280	18	1	4.451	4.451	280.1	15.56	22.26	893.8	0.102	6177	620	8.63	0.2687	0.1579
280	24	7	3.855	2.570	280.1	36.31	23.13	1060	0.101	8946	628	9.29	0.2632	0.1561
280	26	7	3.703	2.880	280.0	45.60	23.45	1133	0.101	10200	632	9.52	0.2613	0.1554
280	30	7	3.448	3.448	280.1	65.44	24.14	1290	0.0998	12522	640	9.97	0.2579	0.1540
315	18	1	4.721	4.721	315.1	17.50	23.61	1006	0.0904	6950	667	9.16	0.2643	0.1551
315	24	7	4.088	2.730	315.0	40.97	24.54	1193	0.0899	10078	676	9.85	0.2588	0.1532

Continued on page 32

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ACSR/GA Conductors (Sizes in mm²)

SIZE AWG / kcmil	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
	ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm ²)	STEEL (mm ²)								
315	26	7	3.928	3.060	315.1	51.48	24.89	1276	0.0895	11193	680	10.11	0.2568	0.1526
315	30	19	3.657	2.200	315.1	72.23	25.63	1441	0.0888	14021	688	10.58	0.2534	0.1512
355	24	7	4.340	2.890	355.0	45.92	26.03	1343	0.0798	11325	728	10.45	0.2543	0.1504
355	26	7	4.170	3.240	355.1	57.71	26.40	1435	0.0794	12578	733	10.72	0.2524	0.1498
355	30	19	3.882	2.330	355.1	81.01	27.18	1621	0.0788	15406	741	11.22	0.2489	0.1484
400	24	7	4.607	3.070	400.1	51.82	27.64	1514	0.0708	12568	784	11.10	0.2498	0.1476
400	26	7	4.426	3.450	400.0	65.44	28.05	1620	0.0705	14221	789	11.39	0.2478	0.1469
400	30	19	4.121	2.470	400.1	91.04	28.83	1825	0.0700	17331	798	11.91	0.2445	0.1455
450	45	7	3.569	2.380	450.2	31.14	28.55	1491	0.0635	10959	830	11.34	0.2482	0.1460
450	54	7	3.258	3.258	450.2	58.43	29.33	1705	0.0629	14293	840	11.88	0.2447	0.1447
500	45	7	3.762	2.510	500.2	34.64	30.10	1657	0.0571	12181	885	11.95	0.2442	0.1435
500	54	7	3.434	3.434	500.1	64.68	30.89	1892	0.0566	15851	896	12.51	0.2407	0.1423
560	45	7	3.891	2.650	560.1	38.61	31.84	1855	0.0510	13439	948	12.64	0.2400	0.1408
560	54	19	3.634	2.180	560.1	70.92	32.70	2116	0.0508	17590	958	13.25	0.2365	0.1395
630	45	7	4.223	2.810	630.3	43.41	33.77	2087	0.0453	15118	1019	13.41	0.2355	0.1380
630	54	19	3.855	2.310	630.3	79.63	34.68	2379	0.0452	19344	1029	14.05	0.2320	0.1367
710	45	7	4.483	2.990	710.3	49.15	35.87	2353	0.0402	17066	1094	14.24	0.2310	0.1351
710	54	19	4.092	2.450	710.2	89.57	36.80	2680	0.0401	21778	1106	14.90	0.2275	0.1339
800	45	7	4.758	3.170	800.1	55.25	38.06	2650	0.0357	18992	1175	15.11	0.2265	0.1323
800	54	19	4.344	2.600	800.3	100.9	39.06	3019	0.0356	24534	1188	15.82	0.2231	0.1311

- Notes: 1. HS denotes High Strength of ACSR/GA conductor
2. DC resistance calculated based on a 28.172 ohm-mm²/km and 191.57 ohm-mm²/km conductivity for aluminum and aluminum clad steel
3. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
4. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
5. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACSR/AW Conductors

Aluminum Conductors Reinforced with Aluminum Coated Steel
(Aluminum Conductor Aluminum Clad-Steel Reinforced)



6/1



5/2



4/3



3/4



2 /5



7/1



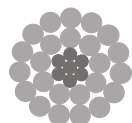
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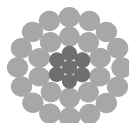
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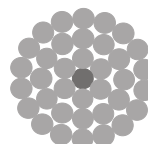
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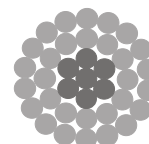
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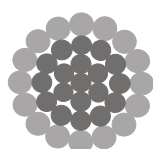
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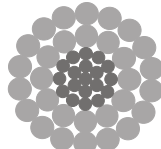
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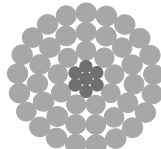
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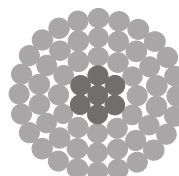
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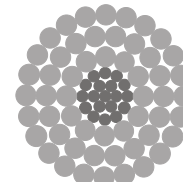
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Description

1350-H19 aluminum wires, concentrically stranded about aluminum coated steel core. The coating of steel wires consists of an aluminum layer.

The Steel core can be 1, 7, or 19 strands; in some ACSR/AW conductors made of 7 wires, steel wires can be stranded in the first layer.

Applications

ACSR/AW conductors are used for overhead transmission and distribution of electric energy.

ACSR/AW Conductors have a very good Tensile Strength, which is useful for overhead lines. With different aluminum wires - steel core stranding, it could be obtained different tensile strength without sacrifice Ampacity.

ACSR/AW Conductors are used when an additional corrosion protection is required. Also are used as neutral messenger in multiplex aluminum cable for distribution.

Standards

CENTELSA'S ACSR/AW conductors are manufactured in accordance with the following standards:

ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B502, NTC 2473. Aluminum Clad Steel Core Wire for ACSR/AW conductors.

ASTM B549, NTC 2616 Concentric-Lay-Stranded Aluminum Conductors, Aluminum Clad Steel Reinforced (ACSR/AW).

ASTM B232M, Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR) Reference for mm² sizes

Certifications

CENTELSA'S ACSR/AW conductors are certified by:
LAPEM (Mexico) ACSR/AW. Standard CFE E0000-18.

Note: Configurations and sizes herein not specified are available upon request.

ACSR/AW Conductors (International System Unit) Aluminum Conductors Reinforced with Aluminum Coated Steel (Aluminum Conductor aluminum Clad-Steel Reinforced)



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B502, NTC 2473. Aluminum Clad Steel Core Wire for ACSR/AW conductors.

ASTM B549, NTC 2616 Concentric-Lay-Stranded Aluminum Conductors, Aluminum Clad Steel Reinforced (ACSR/AW).

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
		ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm²)	STEEL (mm²)								
25.69 HS	-	2	5	2.879	2.879	13.02	32.53	8.64	253.0	1.20	4064	147	2.78	0.3541	0.2030
31.3 HS	-	3	4	2.595	2.595	15.86	21.17	7.79	184.6	1.25	2778	144	2.51	0.3620	0.2080
32.39 HS	-	2	5	3.233	3.233	16.41	41.07	9.70	319.4	0.947	5126	170	3.12	0.3454	0.1975
35.15 HS	-	4	3	2.382	2.382	17.81	13.35	7.15	138.0	1.28	1900	142	2.30	0.3684	0.2121
37.95 HS	-	5	2	2.213	2.213	19.23	7.693	6.64	104.1	1.31	1265	139	2.14	0.3740	0.2156
39.47 HS	-	3	4	2.914	2.914	20.00	26.68	8.74	232.6	0.990	3494	166	2.81	0.3532	0.2025
40.84 HS	-	2	5	3.630	3.630	20.69	51.75	10.89	402.5	0.752	6102	195	3.51	0.3367	0.1920
4	SWAN/AW	6	1	2.119	2.119	21.15	3.527	6.36	82.06	1.29	809	125	2.05	0.3772	0.2177
4	SWANATE/AW	7	1	1.962	2.614	21.15	5.367	6.54	94.43	1.25	1033	121	2.11	0.3751	0.2163
44.32 HS	-	4	3	2.674	2.674	22.46	16.86	8.02	174.2	1.02	2385	164	2.58	0.3597	0.2066
47.85 HS	-	5	2	2.485	2.485	24.25	9.700	7.46	131.3	1.04	1587	161	2.40	0.3652	0.2101
49.78 HS	-	3	4	3.272	3.272	25.22	33.63	9.82	293.3	0.785	4396	191	3.16	0.3445	0.1969
51.5 HS	-	2	5	4.076	4.076	26.10	65.27	12.23	507.7	0.596	7471	224	3.94	0.3279	0.1865
52.62	-	6	1	2.379	2.379	26.66	4.449	7.14	102.5	1.02	1011	144	2.30	0.3685	0.2121
55.89 HS	-	4	3	3.003	3.003	28.32	21.25	9.01	219.6	0.806	2996	190	2.90	0.3510	0.2010
60.34 HS	-	5	2	2.791	2.791	30.57	12.24	8.37	165.6	0.823	1982	186	2.70	0.3565	0.2045
62.77 HS	-	3	4	3.675	3.675	31.81	42.38	11.03	369.7	0.622	5102	219	3.55	0.3357	0.1914
64.92 HS	-	2	5	4.577	4.577	32.90	82.30	13.73	640.2	0.473	8864	257	4.42	0.3192	0.1809
2	SPARROW/AW	6	1	2.672	2.672	33.63	5.612	8.02	130.5	0.810	1253	165	2.58	0.3598	0.2066
2	SPARATE/AW	7	1	2.474	3.300	33.63	8.553	8.25	150.3	0.788	1594	160	2.66	0.3576	0.2052
70.48 HS	-	4	3	3.372	3.372	35.71	26.77	10.12	276.8	0.639	3675	219	3.26	0.3422	0.1955
76.08 HS	-	5	2	3.134	3.134	38.55	15.44	9.40	208.8	0.653	2473	215	3.03	0.3477	0.1990
79.13 HS	-	3	4	4.126	4.126	40.10	53.46	12.38	466.2	0.494	6238	252	3.99	0.3270	0.1859
80 HS	-	8	1	2.540	4.242	40.54	14.13	9.32	205.0	0.634	2216	176	3.00	0.3484	0.1994
83.69	-	6	1	3.000	3.000	42.41	7.069	9.00	163.0	0.638	1564	189	2.90	0.3510	0.2011
88.84 HS	-	4	3	3.786	3.786	45.02	33.76	11.36	348.9	0.507	4389	254	3.66	0.3335	0.1900
95.91 HS	-	5	2	3.518	3.518	48.60	19.44	10.55	263.1	0.518	2984	249	3.40	0.3390	0.1935
99.83 HS	-	3	4	4.634	4.634	50.58	67.43	13.90	588.2	0.391	7421	289	4.48	0.3182	0.1803
101.8 HS	PETREL/AW	12	7	2.340	2.340	51.58	30.10	11.70	342.2	0.467	4494	216	4.54	0.3172	0.1886
1/0	RAVEN/AW	6	1	3.370	3.370	53.51	8.925	10.11	207.6	0.509	1927	216	3.26	0.3423	0.1955
110.8 HS	MINORCA/AW	12	7	2.441	2.441	56.14	32.76	12.21	372.4	0.429	4891	225	4.74	0.3140	0.1866
112.1 HS	-	4	3	4.253	4.253	56.80	42.60	12.76	440.3	0.402	5374	293	4.11	0.3247	0.1844
121 HS	-	5	2	3.952	3.952	61.31	24.55	11.86	332.0	0.411	3644	288	3.82	0.3302	0.1879
2/0	QUAIL/AW	6	1	3.784	3.784	67.44	11.24	11.35	261.6	0.404	2329	247	3.66	0.3335	0.1900
134.6 HS	LEGHORN/AW	12	7	2.691	2.691	68.20	39.78	13.46	452.3	0.353	5894	248	5.22	0.3066	0.1819
141.3 HS	-	4	3	4.774	4.774	71.60	53.75	14.32	555.3	0.319	6421	339	4.61	0.3160	0.1789
152.5 HS	-	5	2	4.436	4.436	77.27	30.94	13.31	418.5	0.326	4383	332	4.29	0.3215	0.1824
159 HS	GUINEA/AW	12	7	2.924	2.924	80.57	47.00	14.62	534.4	0.299	6936	268	5.67	0.3004	0.1779
3/0	PIGEON/AW	6	1	4.248	4.248	85.03	14.17	12.74	329.8	0.320	2858	281	4.10	0.3248	0.1845
176.9 HS	DOTTEREL/AW	12	7	3.084	3.084	89.64	52.29	15.42	594.5	0.269	7686	282	5.98	0.2964	0.1754
190.8 HS	DORKING/AW	12	7	3.203	3.203	96.68	56.40	16.02	641.2	0.249	8290	292	6.21	0.2935	0.1736
203.2 HS	BRAHMA/AW	16	19	2.863	2.863	103.0	91.93	18.14	894.9	0.215	12286	298	7.36	0.2807	0.1677
211.3 HS	COCHIN/AW	12	7	3.371	3.371	107.1	62.47	16.86	710.2	0.225	8974	305	6.54	0.2897	0.1712
4/0	PENGUIN/AW	6	1	4.770	4.770	107.2	17.88	14.31	416.0	0.254	3487	320	4.61	0.3161	0.1790
266.8	WAXWING/AW	18	1	3.093	3.093	135.2	7.509	15.46	422.5	0.209	3096	396	6.00	0.2962	0.1753
266.8	PARTRIDGE/AW	26	7	2.574	2.002	135.2	22.04	16.30	520.6	0.202	4900	407	6.62	0.2888	0.1727
300	OSTRICH/AW	26	7	2.729	2.121	152.0	24.73	17.28	585.1	0.180	5504	438	7.02	0.2844	0.1700
336.4	MERLIN/AW	18	1	3.473	3.473	170.5	9.473	17.37	532.7	0.165	3873	457	6.74	0.2874	0.1697
336.4	LINNET/AW	26	7	2.890	2.246	170.5	27.73	18.30	656.1	0.161	6116	471	7.43	0.2800	0.1672
336.4	ORIOLE/AW	30	7	2.690	2.690	170.5	39.78	18.83	737.0	0.157	7595	479	7.78	0.2766	0.1659
397.5	CHICADEE/AW	18	1	3.775	3.775	201.4	11.19	18.88	629.5	0.140	4435	507	7.32	0.2811	0.1658
397.5	BRANTI/AW	24	7	3.269	2.180	201.4	26.13	19.62	731.3	0.137	6377	518	7.88	0.2756	0.1639
397.5	IBIS/AW	26	7	3.141	2.441	201.4	32.76	19.89	775.2	0.136	7160	522	8.07	0.2738	0.1633
397.5	LARK/AW	30	7	2.924	2.924	201.4	47.00	20.47	870.8	0.133	8908	532	8.45	0.2703	0.1619
477	PELICAN/AW	18	1	4.135	4.135	241.7	13.44	20.68	755.4	0.117	5198	568	8.02	0.2743	0.1614

Continued on page 36

ACSR/AW Conductors (International System Unit).

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C¹ (ohm/Km)	TENSILE STRENGTH (Kg)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE² (ohm/Km)	CAPACITIVE REACTANCE² (Mohm-Km)
		ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm²)	STEEL (mm²)								
477	FLICKER/AW	24	7	3.581	2.388	241.7	31.35	21.49	877.6	0.114	7573	580	8.63	0.2688	0.1596
477	HAWK/AW	26	7	3.441	2.675	241.7	39.34	21.79	930.4	0.113	8595	585	8.85	0.2669	0.1589
477	HEN/AW	30	7	3.203	3.203	241.7	56.40	22.42	1045	0.111	10610	596	9.26	0.2634	0.1575
556.5	OSPNEY/AW	18	1	4.467	4.467	282.0	15.66	22.33	881.3	0.100	6011	626	8.67	0.2684	0.1577
556.5	PARAKEET/AW	24	7	3.868	2.579	282.0	36.57	23.21	1024	0.0981	8742	638	9.32	0.2630	0.1559
556.5	DOVE/AW	26	7	3.717	2.891	282.0	45.95	23.54	1086	0.0970	9942	644	9.56	0.2611	0.1552
556.5	EAGLE/AW	30	7	3.460	3.460	282.0	65.82	24.22	1219	0.0951	12161	656	10.00	0.2576	0.1539
605	PEACOCK/AW	24	7	4.033	2.690	306.6	39.78	24.20	1113	0.0902	9508	672	9.72	0.2598	0.1539
605	SQUAB/AW	26	7	3.875	3.013	306.6	49.91	24.54	1180	0.0893	10703	679	9.96	0.2579	0.1532
605	WOOD-DUCK/AW	30	7	3.608	3.608	306.6	71.53	25.25	1325	0.0875	12872	691	10.43	0.2545	0.1519
605	TEAL/AW	30	19	3.608	2.165	306.6	69.95	25.26	1316	0.0876	12911	690	10.43	0.2545	0.1519
636	KINGBIRD/AW	18	1	4.775	4.775	322.3	17.92	23.88	1007	0.0875	6811	680	9.26	0.2634	0.1545
636	SWIFT/AW	36	1	3.377	3.377	322.3	8.951	23.64	948.2	0.0883	6182	673	9.76	0.2595	0.1550
636	ROOK/AW	24	7	4.135	2.756	322.3	41.76	24.81	1170	0.0858	9987	694	9.96	0.2579	0.1527
636	GROSBEAK/AW	26	7	3.973	3.089	322.3	52.46	25.16	1241	0.0849	11251	700	10.21	0.2560	0.1520
636	SCOTER/AW	30	7	3.699	3.699	322.3	75.22	25.89	1393	0.0832	13285	713	10.69	0.2526	0.1507
636	EGRET/AW	30	19	3.699	2.220	322.3	73.54	25.90	1383	0.0834	13574	712	10.70	0.2526	0.1507
666	FLAMINGO/AW	24	7	4.232	2.822	337.5	43.78	25.39	1225	0.0820	10465	714	10.20	0.2562	0.1516
666	GANNET/AW	26	7	4.066	3.163	337.5	55.00	25.75	1300	0.0811	11789	720	10.46	0.2543	0.1509
715	STILIT/AW	24	7	4.385	2.924	362.3	47.00	26.31	1316	0.0763	11235	746	10.56	0.2535	0.1499
715	ATARLING/AW	26	7	4.213	3.277	362.3	59.04	26.68	1395	0.0755	12459	753	10.83	0.2516	0.1492
715	REDWING/AW	30	19	3.922	2.353	362.3	82.62	27.45	1555	0.0742	15135	766	11.34	0.2482	0.1479
795	COOT/AW	36	1	3.775	3.775	402.8	11.19	26.43	1185	0.0707	7523	772	10.91	0.2510	0.1497
795	CUKOO/AW	24	7	4.623	3.082	402.8	52.22	27.74	1462	0.0687	12487	796	11.14	0.2495	0.1474
795	DRAKE/AW	26	7	4.442	3.455	402.8	65.63	28.13	1551	0.0679	13851	804	11.42	0.2476	0.1467
795	TERN/AW	45	7	3.377	2.251	402.8	27.86	27.02	1301	0.0700	9732	780	10.72	0.2524	0.1487
795	CONDOR/AW	54	7	3.082	3.082	402.8	52.22	27.74	1462	0.0687	12609	793	11.23	0.2489	0.1474
795	MALLARD/AW	30	19	4.135	2.482	402.8	91.93	28.95	1729	0.0667	16835	817	11.96	0.2442	0.1454
900	RUDDY/AW	45	7	3.593	2.396	456.0	31.56	28.75	1473	0.0619	10875	842	11.41	0.2477	0.1457
900	CANARY/AW	54	7	3.280	3.280	456.0	59.15	29.52	1656	0.0607	14080	857	11.96	0.2442	0.1444
954	CATBIRD/AW	36	1	4.135	4.135	483.4	13.44	28.95	1422	0.0589	8828	863	11.95	0.2442	0.1454
954	RAIL/AW	45	7	3.699	2.467	483.4	33.46	29.60	1562	0.0584	11528	872	11.75	0.2455	0.1443
954	CARDINAL/AW	54	7	3.377	3.377	483.4	62.66	30.39	1755	0.0572	14921	888	12.31	0.2420	0.1430
1033.5	TANAGER/AW	36	1	4.304	4.304	523.7	14.54	30.13	1541	0.0544	9562	906	12.44	0.2412	0.1435
1033.5	ORTOLAN/AW	45	7	3.850	2.566	523.7	36.20	30.80	1691	0.0539	12315	916	12.23	0.2425	0.1424
1033.5	CURLEW/AW	54	7	3.514	3.514	523.7	67.85	31.62	1901	0.0528	15928	932	12.81	0.2390	0.1411
1113	BLUEJAY/AW	45	7	3.995	2.665	564.0	39.05	31.97	1822	0.0500	13270	958	12.69	0.2397	0.1406
1113	FINCH/AW	54	19	3.647	2.190	564.0	71.57	32.83	2046	0.0493	17026	973	13.30	0.2362	0.1394
1192.5	BUNTING/AW	45	7	4.135	2.756	604.2	41.76	33.08	1952	0.0467	14209	999	13.13	0.2371	0.1390
1192.5	GRACKLE/AW	54	19	3.775	2.266	604.2	76.62	33.98	2192	0.0460	18235	1014	13.76	0.2336	0.1377
1272	SKYLARK/AW	36	1	4.775	4.775	644.5	17.92	33.43	1896	0.0442	11651	1027	13.80	0.2333	0.1385
1272	BITTERN/AW	45	7	4.271	2.848	644.5	44.59	34.17	2082	0.0438	15162	1039	13.57	0.2346	0.1374
1272	PHEASANT/AW	54	19	3.899	2.340	644.5	81.71	35.09	2337	0.0432	19242	1055	14.21	0.2311	0.1362
1351	DIPPER/AW	45	7	4.402	2.934	684.6	47.33	35.21	2211	0.0412	16099	1077	13.98	0.2324	0.1360
1351	MARTIN/AW	54	19	4.018	2.411	684.6	86.74	36.16	2482	0.0406	20433	1093	14.65	0.2289	0.1347
1431	BOBOLINK/AW	45	7	4.530	3.021	725.1	50.18	36.24	2342	0.0389	17058	1114	14.39	0.2302	0.1346
1431	PLOVER/AW	54	19	4.135	2.482	725.1	91.93	37.22	2630	0.0384	21648	1132	15.07	0.2267	0.1334
1510	NUTHATCH/AW	45	7	4.653	3.102	765.1	52.90	37.22	2471	0.0369	17995	1150	14.78	0.2282	0.1334
1510	PARROT/AW	54	19	4.248	2.548	765.1	96.88	38.23	2774	0.0364	22829	1169	15.48	0.2247	0.1321
1590	LAPWING/AW	45	7	4.775	3.183	805.7	55.70	38.20	2602	0.0350	18947	1186	15.17	0.2262	0.1321
1590	FALCON/AW	54	19	4.359	2.617	805.7	102.2	39.24	2922	0.0345	24060	1205	15.89	0.2227	0.1308

Notes: 1. HS denotes High Strength of ACSR/AW conductor

2. DC resistance calculated based on a 28.172 ohm-mm²/km and 191.57 ohm-mm²/km conductivity for aluminum and aluminum clad steel.

3. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.

4. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.

5. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACSR/AW Conductors

Aluminum Conductors Reinforced with Aluminum Coated Steel (Aluminum Conductor aluminum Clad-Steel Reinforced)



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B502, NTC 2473. Aluminum Clad Steel Core Wire for ACSR/AW conductors.

ASTM B549, NTC 2616 Concentric-Lay-Stranded Aluminum Conductors, Aluminum Clad Steel Reinforced (ACSR/AW).

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/Kft)	DC RESIS- TANT AT 20°C¹ (ohm/Kft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE² (ohm/miles)	CAPACITIVE REACTANCE² (Mohm-miles)
		ALUMINUM	STEEL	ALUMINUM (inches)	STEEL (inches)	ALUMINUM (square inches)	STEEL (square inches)								
25.69 HS	-	2	5	113.3	113.3	0.0202	0.0504	0.340	170.0	0.364	8960	147	0.109	0.5699	0.1262
31.3 HS	-	3	4	102.2	102.2	0.0246	0.0328	0.306	124.0	0.380	6124	144	0.099	0.5825	0.1292
32.39 HS	-	2	5	127.3	127.3	0.0254	0.0637	0.382	214.7	0.289	11300	170	0.123	0.5558	0.1227
35.15 HS	-	4	3	93.78	93.78	0.0276	0.0207	0.281	92.72	0.391	4189	142	0.091	0.5929	0.1318
37.95 HS	-	5	2	87.13	87.13	0.0298	0.0119	0.261	69.95	0.399	2789	139	0.084	0.6018	0.1340
39.47 HS	-	3	4	114.7	114.7	0.0310	0.0413	0.344	156.3	0.302	7702	166	0.111	0.5684	0.1258
40.84 HS	-	2	5	142.9	142.9	0.0321	0.0802	0.429	270.5	0.229	13452	195	0.138	0.5418	0.1193
4	SWAN/AW	6	1	83.43	83.43	0.0328	0.0055	0.250	55.14	0.392	1783	125	0.081	0.6071	0.1353
4	SWANATE/AW	7	1	77.24	102.9	0.0328	0.0083	0.257	63.45	0.382	2278	121	0.083	0.6037	0.1344
44.32 HS	-	4	3	105.3	105.3	0.0348	0.0261	0.316	117.1	0.310	5257	164	0.102	0.5789	0.1284
47.85 HS	-	5	2	97.83	97.83	0.0376	0.0150	0.294	88.20	0.316	3499	161	0.095	0.5878	0.1305
49.78 HS	-	3	4	128.8	128.8	0.0391	0.0521	0.386	197.1	0.239	9692	191	0.124	0.5544	0.1224
51.5 HS	-	2	5	160.5	160.5	0.0404	0.1012	0.481	341.2	0.182	16470	224	0.155	0.5277	0.1159
52.62	-	6	1	93.66	93.66	0.0413	0.0069	0.281	68.89	0.309	2229	144	0.090	0.5930	0.1318
55.89 HS	-	4	3	118.2	118.2	0.0439	0.0329	0.355	147.5	0.246	6605	190	0.114	0.5648	0.1249
60.34 HS	-	5	2	109.9	109.9	0.0474	0.0190	0.330	111.3	0.251	4370	186	0.106	0.5737	0.1271
62.77 HS	-	3	4	144.7	144.7	0.0493	0.0657	0.434	248.4	0.190	11249	219	0.140	0.5403	0.1189
64.92 HS	-	2	5	180.2	180.2	0.0510	0.1276	0.541	430.2	0.144	19541	257	0.174	0.5136	0.1124
2	SPARROW/AW	6	1	105.2	105.2	0.0521	0.0087	0.316	87.69	0.247	2762	165	0.102	0.5790	0.1284
2	SPARATE/AW	7	1	97.40	129.9	0.0521	0.0133	0.325	101.0	0.240	3514	160	0.105	0.5755	0.1275
70.48 HS	-	4	3	132.8	132.8	0.0554	0.0415	0.398	186.0	0.195	8101	219	0.128	0.5507	0.1215
76.08 HS	-	5	2	123.4	123.4	0.0598	0.0239	0.370	140.3	0.199	5452	215	0.119	0.5596	0.1237
79.13 HS	-	3	4	162.4	162.4	0.0621	0.0829	0.487	313.3	0.150	13753	252	0.157	0.5262	0.1155
80 HS	-	8	1	100.0	167.0	0.0628	0.0219	0.367	137.7	0.193	4886	176	0.118	0.5606	0.1239
83.69	-	6	1	118.1	118.1	0.0657	0.0110	0.354	109.5	0.195	3449	189	0.114	0.5649	0.1250
88.84 HS	-	4	3	149.1	149.1	0.0698	0.0523	0.447	234.4	0.155	9677	254	0.144	0.5367	0.1181
95.91 HS	-	5	2	138.5	138.5	0.0753	0.0301	0.416	176.8	0.158	6578	249	0.134	0.5456	0.1202
99.83 HS	-	3	4	182.4	182.4	0.0784	0.1045	0.547	395.2	0.119	16360	289	0.176	0.5121	0.1121
101.8 HS	PETREL/AW	12	7	92.13	92.13	0.0800	0.0467	0.461	229.9	0.142	9908	216	0.179	0.5104	0.1172
1/0	RAVEN/AW	6	1	132.7	132.7	0.0829	0.0138	0.398	139.5	0.155	4248	216	0.128	0.5508	0.1215
110.8 HS	MINORCA/AW	12	7	96.10	96.10	0.0870	0.0508	0.481	250.2	0.131	10782	225	0.186	0.5053	0.1159
112.1 HS	-	4	3	167.4	167.4	0.0880	0.0660	0.502	295.9	0.122	11847	293	0.162	0.5226	0.1146
121 HS	-	5	2	155.6	155.6	0.0950	0.0380	0.467	223.1	0.125	8033	288	0.150	0.5315	0.1168
2/0	QUAIL/AW	6	1	149.0	149.0	0.105	0.0174	0.447	175.8	0.123	5134	247	0.144	0.5367	0.1181
134.6 HS	LEGHORN/AW	12	7	105.9	105.9	0.106	0.0617	0.530	303.9	0.108	12993	248	0.206	0.4935	0.1130
141.3 HS	-	4	3	188.0	188.0	0.111	0.0833	0.564	373.1	0.0971	14156	339	0.182	0.5085	0.1112
152.5 HS	-	5	2	174.6	174.6	0.120	0.0480	0.524	281.2	0.0993	9664	332	0.169	0.5174	0.1134
159 HS	GUINEA/AW	12	7	115.1	115.1	0.125	0.0729	0.576	359.1	0.0912	15291	268	0.223	0.4834	0.1106
3/0	PIGEON/AW	6	1	167.2	167.2	0.132	0.0220	0.502	221.6	0.0976	6302	281	0.162	0.5227	0.1146
176.9 HS	DOTTRELL/AW	12	7	121.4	121.4	0.139	0.0810	0.607	399.5	0.0820	16944	282	0.236	0.4769	0.1090
190.8 HS	DORKING/AW	12	7	126.1	126.1	0.150	0.0874	0.631	430.9	0.0760	18277	292	0.245	0.4724	0.1079
203.2 HS	BRAHMA/AW	16	19	112.7	112.7	0.160	0.1425	0.714	601.4	0.0656	27086	298	0.290	0.4518	0.1042
211.3 HS	COCHIN/AW	12	7	132.7	132.7	0.166	0.0968	0.664	477.2	0.0686	19785	305	0.257	0.4662	0.1064
4/0	PENGUIN/AW	6	1	187.8	187.8	0.166	0.0277	0.563	279.5	0.0774	7687	320	0.181	0.5086	0.1112
266.8	WAXWING/AW	18	1	121.8	121.8	0.210	0.0116	0.609	283.9	0.0636	6826	396	0.236	0.4766	0.1089
266.8	PARTRIDGE/AW	26	7	101.3	78.82	0.210	0.0342	0.642	349.8	0.0617	10802	407	0.261	0.4647	0.1073
300	OSTRICH/AW	26	7	107.4	83.50	0.236	0.0383	0.680	393.2	0.0549	12135	438	0.276	0.4576	0.1056
336.4	MERLIN/AW	18	1	136.7	136.7	0.264	0.0147	0.684	358.0	0.0504	8539	457	0.265	0.4625	0.1055
336.4	LINNET/AW	26	7	113.8	88.43	0.264	0.0430	0.720	440.9	0.0489	13484	471	0.292	0.4507	0.1039
336.4	ORIOLE/AW	30	7	105.9	105.9	0.264	0.0617	0.741	495.2	0.0480	16743	479	0.306	0.4451	0.1031
397.5	CHICADEE/AW	18	1	148.6	148.6	0.312	0.0173	0.743	423.0	0.0427	9778	507	0.288	0.4524	0.1030
397.5	BRANT/AW	24	7	128.7	85.83	0.312	0.0405	0.772	491.4	0.0419	14059	518	0.310	0.4436	0.1019
397.5	IBIS/AW	26	7	123.7	96.10	0.312	0.0508	0.783	520.9	0.0414	15785	522	0.318	0.4406	0.1015
397.5	LARK/AW	30	7	115.1	115.1	0.312	0.0729	0.806	585.2	0.0406	19638	532	0.333	0.4350	0.1006
477	PELICAN/AW	18	1	162.8	162.8	0.375	0.0208	0.814	507.6	0.0356	11459	568	0.316	0.4414	0.1003

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ACSR/AW Conductors

SIZE AWG / kcmil	CODE WORD	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (inches)	TOTAL WEIGHT (Lb/Kft)	DC RESIS- TANT AT 20°C¹ (ohm/Kft)	TENSILE STRENGTH (Lb)	AMPACITY² (A)	GEOMETRIC MEAN RADIUS (inches)	INDUCTIVE REACTANCE³ (ohm/miles)	CAPACITIVE REACTANCE³ (Mohm-miles)
		ALUMINUM	STEEL	ALUMINUM (inches)	STEEL (inches)	ALUMINUM (square inches)	STEEL (square inches)								
477	FLICKER/AW	24	7	141.0	94.02	0.375	0.0486	0.846	589.7	0.0349	16696	580	0.340	0.4325	0.0992
477	HAWK/AW	26	7	135.5	105.3	0.375	0.0610	0.858	625.2	0.0345	18950	585	0.348	0.4295	0.0987
477	HEN/AW	30	7	126.1	126.1	0.375	0.0874	0.883	702.2	0.0338	23391	596	0.365	0.4240	0.0979
556.5	OSPREY/AW	18	1	175.9	175.9	0.437	0.0243	0.879	592.2	0.0305	13252	626	0.341	0.4320	0.0980
556.5	PARAKEET/AW	24	7	152.3	101.5	0.437	0.0567	0.914	687.9	0.0299	19273	638	0.367	0.4232	0.0969
556.5	DOVE/AW	26	7	146.3	113.8	0.437	0.0712	0.927	729.7	0.0296	21919	644	0.376	0.4201	0.0965
556.5	EAGLE/AW	30	7	136.2	136.2	0.437	0.1020	0.954	819.3	0.0290	26810	656	0.394	0.4146	0.0956
605	PEACOCK/AW	24	7	158.8	105.9	0.475	0.0617	0.953	748.0	0.0275	20961	672	0.383	0.4181	0.0956
605	SQUAB/AW	26	7	152.6	118.6	0.475	0.0774	0.966	793.1	0.0272	23596	679	0.392	0.4151	0.0952
605	WOOD-DUCK/AW	30	7	142.0	142.0	0.475	0.1109	0.994	890.6	0.0267	28379	691	0.411	0.4095	0.0944
605	TEAL/AW	30	19	142.0	85.24	0.475	0.1084	0.994	884.1	0.0267	28463	690	0.411	0.4095	0.0944
636	KINGBIRD/AW	18	1	188.0	188.0	0.500	0.0278	0.940	676.8	0.0267	15016	680	0.365	0.4239	0.0960
636	SWIFT/AW	36	1	133.0	133.0	0.500	0.0139	0.931	637.1	0.0269	13629	673	0.384	0.4175	0.0963
636	ROOK/AW	24	7	162.8	108.5	0.500	0.0647	0.977	786.1	0.0262	22018	694	0.392	0.4151	0.0949
636	GROSBEAK/AW	26	7	156.4	121.6	0.500	0.0813	0.991	833.7	0.0259	24804	700	0.402	0.4120	0.0945
636	SCOTER/AW	30	7	145.6	145.6	0.500	0.1166	1.019	936.3	0.0254	29289	713	0.421	0.4065	0.0936
636	EGRET/AW	30	19	145.6	87.40	0.500	0.1140	1.020	929.5	0.0254	29926	712	0.421	0.4065	0.0936
666	FLAMINGO/AW	24	7	166.6	111.1	0.523	0.0679	1.000	823.4	0.0250	23071	714	0.401	0.4123	0.0942
666	GANNET/AW	26	7	160.1	124.5	0.523	0.0853	1.014	873.3	0.0247	25991	720	0.412	0.4092	0.0938
715	STILIT/AW	24	7	172.6	115.1	0.562	0.0729	1.036	884.0	0.0233	24769	746	0.416	0.4080	0.0932
715	ATARLING/AW	26	7	165.9	129.0	0.562	0.0915	1.051	937.5	0.0230	27468	753	0.427	0.4049	0.0927
715	REDWING/AW	30	19	154.4	92.64	0.562	0.1281	1.081	1045	0.0226	33367	766	0.446	0.3994	0.0919
795	COOT/AW	36	1	148.6	148.6	0.624	0.0173	1.040	796.4	0.0215	16586	772	0.430	0.4040	0.0930
795	CUKOO/AW	24	7	182.0	121.3	0.624	0.0809	1.092	982.7	0.0209	27529	796	0.438	0.4016	0.0916
795	DRAKE/AW	26	7	174.9	136.0	0.624	0.1017	1.108	1042	0.0207	30537	804	0.450	0.3985	0.0912
795	TERN/AW	45	7	133.0	88.62	0.624	0.0432	1.064	874.4	0.0213	21456	780	0.422	0.4061	0.0924
795	CONDOR/AW	54	7	121.3	121.3	0.624	0.0809	1.092	982.7	0.0209	27798	793	0.442	0.4005	0.0916
795	MALLARD/AW	30	19	162.8	97.72	0.624	0.1425	1.140	1162	0.0203	37116	817	0.471	0.3929	0.0903
900	RUDDY/AW	45	7	141.5	94.33	0.707	0.0489	1.132	990.0	0.0189	23975	842	0.449	0.3986	0.0905
900	CANARY/AW	54	7	129.1	129.1	0.707	0.0917	1.162	1113	0.0185	31042	857	0.471	0.3929	0.0897
954	CATBIRD/AW	36	1	162.8	162.8	0.749	0.0208	1.140	955.7	0.0179	19461	863	0.471	0.3930	0.0903
954	RAIL/AW	45	7	145.6	97.13	0.749	0.0519	1.165	1049	0.0178	25414	872	0.463	0.3951	0.0897
954	CARDINAL/AW	54	7	133.0	133.0	0.749	0.0971	1.196	1179	0.0174	32896	888	0.485	0.3894	0.0889
1033.5	TANAGER/AW	36	1	169.4	169.4	0.812	0.0225	1.186	1035	0.0166	21080	906	0.490	0.3881	0.0891
1033.5	ORTOLAN/AW	45	7	151.6	101.0	0.812	0.0561	1.213	1137	0.0164	27150	916	0.481	0.3902	0.0885
1033.5	CURLEW/AW	54	7	138.3	138.3	0.812	0.1052	1.245	1277	0.0161	35116	932	0.504	0.3846	0.0877
1113	BLUEJAY/AW	45	7	157.3	104.9	0.874	0.0605	1.258	1224	0.0152	29255	958	0.500	0.3857	0.0874
1113	FINCH/AW	54	19	143.6	86.22	0.874	0.1109	1.293	1375	0.0150	37536	973	0.524	0.3800	0.0866
1192.5	BUNTING/AW	45	7	162.8	108.5	0.937	0.0647	1.302	1311	0.0142	31325	999	0.517	0.3816	0.0864
1192.5	GRACKLE/AW	54	19	148.6	89.21	0.937	0.1188	1.338	1473	0.0140	40202	1014	0.542	0.3759	0.0856
1272	SKYLARK/AW	36	1	188.0	188.0	0.999	0.0278	1.316	1274	0.0135	25686	1027	0.544	0.3755	0.0861
1272	BITTERN/AW	45	7	168.1	112.1	0.999	0.0691	1.345	1399	0.0133	33426	1039	0.534	0.3776	0.0854
1272	PHEASANT/AW	54	19	153.5	92.13	0.999	0.1267	1.382	1571	0.0132	42422	1055	0.560	0.3720	0.0846
1351	DIPPER/AW	45	7	173.3	115.5	1.06	0.0734	1.386	1486	0.0126	35493	1077	0.550	0.3740	0.0845
1351	MARTIN/AW	54	19	158.2	94.92	1.06	0.1345	1.424	1668	0.0124	45047	1093	0.577	0.3683	0.0837
1431	BOBOLINK/AW	45	7	178.3	118.9	1.12	0.0778	1.427	1574	0.0119	37606	1114	0.566	0.3705	0.0837
1431	PLOVER/AW	54	19	162.8	97.72	1.12	0.1425	1.465	1767	0.0117	47726	1132	0.593	0.3648	0.0829
1510	NUTHATCH/AW	45	7	183.2	122.1	1.19	0.0820	1.466	1661	0.0112	39671	1150	0.582	0.3672	0.0829
1510	PARROT/AW	54	19	167.2	100.3	1.19	0.1502	1.505	1864	0.0111	50330	1169	0.610	0.3616	0.0821
1590	LAPWING/AW	45	7	188.0	125.3	1.25	0.0863	1.504	1749	0.0107	41772	1186	0.597	0.3641	0.0821
1590	FALCON/AW	54	19	171.6	103.0	1.25	0.1584	1.545	1964	0.0105	53043	1205	0.626	0.3584	0.0813

Notes: 1. HS denotes High Strength of ACSR/AW conductor

2. DC resistance calculated based on a 16.946 ohm-cmil/ft and 115.23 ohm-cmil/ft conductivity for aluminum and aluminum-clad steel

3. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 2 ft/sec, at sea level, and at 60 Hz.

4. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.

5. Data herein indicated are approximate and are subject to normal manufacturing tolerances.

ACSR/AW Conductors (Sizes in mm²)

Aluminum Conductors Reinforced with Aluminum Coated Steel (Aluminum Conductor aluminum Clad-Steel Reinforced)



Standards: ASTM B230, NTC 360. Aluminum 1350-H19 Wire.

ASTM B502, NTC 2473. Aluminum Clad Steel Core Wire for ACSR/AW conductors.

ASTM B549, NTC 2616 Concentric-Lay-Stranded Aluminum Conductors, Aluminum Clad Steel Reinforced (ACSR/AW).

ASTM B232M, Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR) Reference for mm² sizes.

SIZE AWG / kcmil	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
	ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm ²)	STEEL (mm ²)								
20	6	1	2.061	2.061	20.02	3.336	6.18	76.94	1.39	765	121	1.99	0.3793	0.2190
20	7	1	1.908	2.550	20.01	5.107	6.37	88.61	1.38	981	117	2.05	0.3771	0.2176
25	6	1	2.304	2.304	25.02	4.169	6.91	96.16	1.12	948	138	2.23	0.3709	0.2137
25	7	1	2.133	2.840	25.01	6.335	7.11	110.4	1.10	1212	134	2.29	0.3688	0.2124
31.5	6	1	2.586	2.586	31.51	5.252	7.76	121.1	0.885	1173	159	2.50	0.3622	0.2082
31.5	7	1	2.394	3.190	31.51	7.992	7.98	139.2	0.874	1518	154	2.57	0.3601	0.2068
40	6	1	2.914	2.914	40.01	6.669	8.74	153.8	0.697	1476	182	2.81	0.3532	0.2025
40 HS	8	1	2.524	4.200	40.03	13.85	9.25	201.7	0.682	2178	175	2.98	0.3490	0.1998
50	6	1	3.258	3.258	50.02	8.337	9.77	192.3	0.558	1828	208	3.15	0.3448	0.1971
50 HS	12	7	2.304	2.304	50.03	29.08	11.51	331.1	0.531	4345	212	4.47	0.3184	0.1894
56 HS	12	7	2.438	2.438	56.02	32.73	12.20	371.9	0.474	4885	225	4.73	0.3141	0.1866
63	6	1	3.657	3.657	63.02	10.50	10.97	242.3	0.443	2211	237	3.53	0.3361	0.1916
63 HS	12	7	2.586	2.586	63.03	36.77	12.93	418.0	0.421	5447	238	5.02	0.3096	0.1838
71 HS	12	7	2.745	2.745	71.02	41.28	13.71	470.0	0.374	6119	253	5.32	0.3052	0.1810
80	6	1	4.121	4.121	80.03	13.33	12.36	307.6	0.349	2690	272	3.98	0.3271	0.1859
80 HS	12	7	2.914	2.914	80.03	46.68	14.57	530.8	0.332	6889	267	5.65	0.3006	0.1781
90 HS	12	7	3.091	3.091	90.05	52.49	15.45	597.0	0.295	7717	282	6.00	0.2962	0.1753
100	6	1	4.607	4.607	100.0	16.67	13.82	384.5	0.279	3308	308	4.45	0.3187	0.1806
100 HS	12	7	3.258	3.258	100.0	58.43	16.30	664.0	0.265	8586	296	6.32	0.2922	0.1728
100 HS	16	19	2.821	2.440	100.0	88.84	17.84	866.3	0.255	11882	295	7.24	0.2820	0.1684
125	18	1	2.974	2.974	125.0	6.947	14.87	390.8	0.228	2905	377	5.77	0.2991	0.1771
140	18	1	3.147	3.147	140.0	7.778	15.74	437.6	0.204	3207	404	6.11	0.2948	0.1744
140	26	7	2.619	2.040	140.1	22.88	16.60	539.7	0.201	5082	416	6.74	0.2874	0.1719
160	18	1	3.365	3.365	160.1	8.893	16.83	500.3	0.178	3637	439	6.53	0.2898	0.1712
160	26	7	2.800	2.180	160.1	26.13	17.74	616.8	0.176	5754	452	7.20	0.2824	0.1687
160	30	7	2.606	2.606	160.0	37.45	18.25	692.5	0.175	7142	460	7.54	0.2789	0.1674
180	18	1	3.569	3.569	180.1	10.00	17.85	562.8	0.158	3998	473	6.92	0.2854	0.1684
180	24	7	3.091	2.060	180.1	23.33	18.54	653.7	0.157	5698	482	7.45	0.2799	0.1666
180	26	7	2.969	2.310	180.0	29.34	18.81	693.2	0.157	6465	487	7.64	0.2780	0.1659
180	30	7	2.764	2.764	180.0	41.88	19.34	777.4	0.155	8005	496	7.99	0.2746	0.1646
200	18	1	3.762	3.762	200.1	11.12	18.81	625.3	0.142	4405	505	7.30	0.2814	0.1659
200	24	7	3.258	2.170	200.1	25.89	19.54	726.0	0.142	6327	515	7.85	0.2759	0.1641
200	26	7	3.130	2.430	200.1	32.46	19.81	769.5	0.141	7103	520	8.04	0.2741	0.1634
200	30	7	2.914	2.914	200.1	46.56	20.39	864.1	0.140	8832	529	8.42	0.2706	0.1621
224	18	1	3.981	3.981	224.1	12.45	19.91	700.2	0.127	4860	542	7.72	0.2771	0.1632
224	24	7	3.448	2.300	224.1	29.08	20.69	813.8	0.126	7097	553	8.31	0.2716	0.1614
224	26	7	3.313	2.570	224.1	36.31	20.96	861.7	0.126	7951	558	8.51	0.2698	0.1608
224	30	7	3.084	3.084	224.1	52.15	21.58	967.9	0.125	9821	568	8.91	0.2663	0.1594
250	18	1	4.206	4.206	250.1	13.89	21.03	781.6	0.114	5377	581	8.16	0.2730	0.1606
250	24	7	3.642	2.430	250.0	32.46	21.86	908.0	0.113	7838	592	8.78	0.2675	0.1588
250	26	7	3.499	2.720	250.0	40.67	22.16	962.3	0.113	8889	598	9.00	0.2656	0.1581
250	30	7	3.258	3.258	250.1	58.43	22.81	1082	0.112	10986	608	9.42	0.2621	0.1567
280	18	1	4.451	4.451	280.1	15.56	22.26	875.3	0.102	5970	623	8.63	0.2687	0.1579
280	24	7	3.855	2.570	280.1	36.31	23.13	1017	0.101	8683	636	9.29	0.2632	0.1561
280	26	7	3.703	2.880	280.0	45.60	23.45	1078	0.101	9869	641	9.52	0.2613	0.1554
280	30	7	3.448	3.448	280.1	65.44	24.14	1212	0.0998	12087	653	9.97	0.2579	0.1540
315	18	1	4.721	4.721	315.1	17.50	23.61	984.7	0.0904	6658	670	9.16	0.2643	0.1551
315	24	7	4.088	2.730	315.0	40.97	24.54	1145	0.0899	9781	684	9.85	0.2588	0.1532
315	26	7	3.928	3.060	315.1	51.48	24.89	1214	0.0895	11022	690	10.11	0.2568	0.1526
315	30	19	3.657	2.200	315.1	72.23	25.63	1355	0.0888	13308	702	10.58	0.2534	0.1512
355	24	7	4.340	2.890	355.0	45.92	26.03	1288	0.0798	10993	736	10.45	0.2543	0.1504
355	26	7	4.170	3.240	355.1	57.71	26.40	1366	0.0794	12386	743	10.72	0.2524	0.1498
355	30	19	3.882	2.330	355.1	81.01	27.18	1524	0.0788	14838	756	11.22	0.2489	0.1484
400	24	7	4.607	3.070	400.1	51.82	27.64	1452	0.0708	12396	793	11.10	0.2498	0.1476

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ACSR/AW Conductors (Sizes in mm²)

SIZE AWG / kcmil	STRANDS		DIAMETER STRAND		CROSS SECTION		CONDUCTOR DIAMETER (mm)	TOTAL WEIGHT (Kg/Km)	DC RESIS- TANT AT 20°C ¹ (ohm/Km)	TENSILE STRENGTH (Kg)	AMPACITY ² (A)	GEOMETRIC MEAN RADIUS (mm)	INDUCTIVE REACTANCE ² (ohm/Km)	CAPACITIVE REACTANCE ² (Mohm-Km)
	ALUMINUM	STEEL	ALUMINUM (mm)	STEEL (mm)	ALUMINUM (mm ²)	STEEL (mm ²)								
400	26	7	4.426	3.450	400.0	65.44	28.05	1542	0.0705	13785	800	11.39	0.2478	0.1469
400	30	19	4.121	2.470	400.1	91.04	28.83	1716	0.0700	16692	814	11.91	0.2445	0.1455
450	45	7	3.569	2.380	450.2	31.14	28.55	1454	0.0635	10733	835	11.34	0.2482	0.1460
450	54	7	3.258	3.258	450.2	58.43	29.33	1635	0.0629	14099	849	11.88	0.2447	0.1447
500	45	7	3.762	2.510	500.2	34.64	30.10	1616	0.0571	11930	890	11.95	0.2442	0.1435
500	54	7	3.434	3.434	500.1	64.68	30.89	1815	0.0566	15421	906	12.51	0.2407	0.1423
560	45	7	3.981	2.650	560.1	38.61	31.84	1808	0.0510	13159	954	12.64	0.2400	0.1408
560	54	19	3.634	2.180	560.1	70.92	32.70	2031	0.0508	16890	968	13.25	0.2365	0.1395
630	45	7	4.223	2.810	630.3	43.41	33.77	2035	0.0453	14804	1024	13.41	0.2355	0.1380
630	54	19	3.855	2.310	630.3	79.63	34.68	2284	0.0452	18785	1040	14.05	0.2320	0.1367
710	45	7	4.483	2.990	710.3	49.15	35.87	2295	0.0402	16710	1100	14.24	0.2310	0.1351
710	54	19	4.092	2.450	710.2	89.57	36.80	2572	0.0401	21149	1117	14.90	0.2275	0.1339
800	45	7	4.758	3.170	800.1	55.25	38.06	2584	0.0357	18809	1181	15.11	0.2265	0.1323
800	54	19	4.344	2.600	800.3	100.9	39.06	2899	0.0356	23827	1200	15.82	0.2231	0.1311

- Notes: 1. HS denotes High Strength of ACSR/AW conductor
2. DC resistance calculated based on a 28.172 ohm-mm²/km and 191.57 ohm-mm²/km conductivity for aluminum and aluminum clad steel.
3. Ampacity based on 40°C ambient temperature, 80 °C conductor temperature, wind speed 610mm/sec, at sea level, and at 60 Hz.
4. Inductive and capacitive reactance at 60 Hz and a 30.5 cm separation between phases in equilateral configuration.
5. Data herein indicated are approximate and are subject to normal manufacturing tolerances.