



OVERHEAD CONDUCTORS



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ACSR

Aluminum Conductor. Steel Reinforced. Bare.

Applications

ACSR bare conductors serve primarily in medium to high voltage overhead transmission and distribution lines requiring balanced electrical and mechanical performance. ACSR are the industry standard for power infrastructure spanning diverse terrains, including challenging topographies with long spans. ACSR offers cost-effective performance for rural electrification, suburban distribution, and transmission systems operating within standard temperature ranges.

Specifications (Standards)

CunexACSR bare conductor meets or exceeds the following ASTM specifications:

B230	Aluminum 1350-H19 Wire for Electrical Purposes.
B232	Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).
B498	Zinc-Coated (Galvanized) Steel Core Wire for Use in Overhead Electrical Conductors.
B500	Metallic Coated Stranded Steel Core for Use in Overhead Electrical Conductors.

Construction

ACSR are composed of a central steel core (class A galvanized) surrounded by one or more layers of 1350-H19 hard-drawn aluminum wires. The steel core provides mechanical strength while the aluminum outer layers ensure optimal electrical conductivity. This construction allows operation at temperatures up to 75°C continuously, with emergency ratings up to 100°C for limited periods. The ratio of aluminum to steel varies by design to accommodate different strength and current-carrying requirements.

ACSR

Code Word	Size (AWG or kcmil)	Stranding (Al/Stl)	Diameter (ins.)				Weight Per 1000 ft. (lbs.)			Content (%)		Rated Strength (lbs.)	Resistance OHMS/1000 ft.		Allowable Ampacity+ (Amps)
			Individual Wires		Steel Core	Comp. Cable	Al	Stl	Total	Al	Stl		DC @ 20°C	AC @ 75°C	
			Al	Stl											
Turkey	6	6/1	.0661	.0661	.0661	.198	24	12	36	67.88	32.12	1190	.641	.806	105
Swan	4	6/1	.0834	.0834	.0834	.25	39	18	57	67.87	32.12	1860	.403	.515	140
Swanate	4	7/1	.0772	.103	.103	.257	39	28	67	58.1	41.9	2360	.399	.519	140
Sparrow	2	6/1	.1052	.1052	.1052	.316	62	29	91	67.9	32.1	2850	.254	.332	184
Sparate	2	7/1	.0974	.1298	.1298	.325	62	45	107	58.12	41.88	3460	.251	.338	184
Robin	1	6/1	.1181	.1181	.1181	.354	78	37	115	67.88	32.12	3550	.201	.268	212
Raven	1/0	6/1	.1327	.1327	.1327	.398	99	47	145	67.89	32.11	4380	.159	.217	242
Quail	2/0	6/1	.1489	.1489	.1489	.447	124	59	183	67.88	32.12	5310	.126	.176	276
Pigeon	3/0	6/1	.1672	.1672	.1672	.502	156	74	230	67.87	32.13	6620	.100	.144	315
Penguin	4/0	6/1	.1878	.1878	.1878	.563	197	93	291	67.88	32.12	8350	.0795	.119	357
Waxwing	266.8	18/1	.1217	.1217	.1217	.609	250	39	289	86.43	13.57	6880	.0643	.0787	449
Partridge	266.8	26/7	.1013	.0788	.2363	.642	251	115	367	68.51	31.49	11300	.0637	.0779	475
Ostrich	300	26/7	.1074	.0835	.2506	.68	283	130	412	68.51	31.49	12700	.0567	.0693	492
Merlin	336.4	18/1	.1367	.1367	.1367	.684	315	49	365	86.43	13.57	8680	.0510	.0625	519
Linnet	336.4	26/7	.1137	.0885	.2654	.72	317	146	462	68.51	31.49	14100	.0505	.0618	529
Oriole	336.4	30/7	.1059	.1059	.3177	.741	318	209	526	60.35	39.65	17300	.0502	.0613	535
Chickadee	397.5	18/1	.1486	.1486	.1486	.743	373	58	431	86.43	13.57	9940	.0432	.0529	576
Brant	397.5	24/7	.1287	.0858	.2574	.772	374	137	511	73.21	26.79	14600	.0430	.0526	584
Ibis	397.5	26/7	.1236	.0962	.2885	.783	374	172	546	68.51	31.49	16300	.0428	.0523	587
Lark	397.5	30/7	.1151	.1151	.3453	.806	375	247	622	60.35	39.65	20300	.0425	.0519	594
Pelican	477	18/1	.1628	.1628	.1628	.814	447	70	517	86.44	13.56	11800	.0360	.0442	646
Flicker	477	24/7	.141	.094	.2819	.846	449	164	614	73.21	26.79	17200	.0358	.0439	655
Hawk	477	26/7	.1354	.1053	.316	.858	449	207	656	68.51	31.49	19500	.0356	.0436	659
Hen	477	30/7	.1261	.1261	.3783	.883	450	296	746	60.35	39.65	23800	.0354	.0433	666
Osprey	556.5	18/1	.1758	.1758	.1758	.879	522	82	603	86.43	13.57	13700	.0308	.0379	711
Parakeet	556.5	24/7	.1523	.1015	.3045	.914	524	192	716	73.21	26.79	19800	.0307	.0376	721
Dove	556.5	26/7	.1463	.1138	.3413	.927	524	241	765	68.51	31.49	22600	.0306	.0375	726
Eagle	556.5	30/7	.1362	.1362	.4086	.953	525	345	871	60.35	39.65	27800	.0303	.0372	734
Peacock	605	24/7	.1588	.1059	.3177	.953	570	209	779	73.2	26.8	21600	.0282	.0346	760
Squab	605	26/7	.1525	.1186	.3559	.966	570	262	832	68.51	31.49	24300	.0281	.0345	765
Wood Duck	605.0	30/7	.142	.142	.426	.994	571	375	946	60.35	39.65	28900	.0279	.0342	774
Teal	605.0	30/19	.142	.0852	.426	.994	571	367	939	60.86	39.14	30000	.0279	.0342	773
Kingbird	636	18/1	.188	.188	.188	.94	596	94	690	86.43	13.57	15700	.0270	.0332	773
Swift	636.0	36/1	.1329	.1329	.1329	.93	596	47	643	92.72	7.28	13690	.0271	.0334	769
Rook	636	24/7	.1628	.1085	.3256	.977	599	219	818	73.22	26.78	22600	.0268	.0330	784
Grosbeak	636	26/7	.1564	.1216	.3649	.991	599	275	874	68.51	31.49	25200	.0267	.0328	789

ACSR

Scoter	636.0	30/7	.1456	.1456	.4368	1.019	600	395	995	60.35	39.65	30400	.0256	.0325	798
Egret	636	30/19	.1456	.0874	.4368	1.019	600	386	987	60.85	39.15	31500	.0266	.0326	798
Flamingo	666.6	24/7	.1667	.1111	.3333	1	628	230	858	73.21	26.79	23700	.0256	.0315	807
Gannet	666.6	26/7	.1601	.1245	.3736	1.014	628	289	916	68.51	31.49	26400	.0255	.0313	812
Stilt	715.5	24/7	.1727	.1151	.3453	1.036	674	247	920	73.21	26.79	25500	.0239	.0294	844
Starling	715.5	26/7	.1659	.129	.3871	1.051	674	310	984	68.51	31.49	28400	.0238	.0292	849
Redwing	715.5	30/19	.1544	.0927	.4633	1.081	676	435	1110	60.85	39.15	34600	.0236	.0290	859
Coot	795	36/1	.1486	.1486	.1486	1.04	745	58	804	92.72	7.28	16710	.0217	.0268	884
Drake	795	26/7	.1749	.136	.408	1.107	749	344	1093	68.51	31.49	31500	.0214	.0263	907
Tern	795	45/7	.1329	.0886	.2658	1.063	749	146	895	83.67	16.33	22100	.0216	.0269	887
Condor	795	54/7	.1213	.1213	.364	1.092	749	274	1023	73.21	26.79	28200	.0215	.0272	889
Mallard	795	30/19	.1628	.0977	.4884	1.14	751	483	1234	60.86	39.14	38400	.0213	.0261	918
Ruddy	900	45/7	.1414	.0943	.2828	1.131	848	165	1013	83.67	16.33	24400	.0191	.0239	958
Canary	900	54/7	.1291	.1291	.3873	1.162	848	310	1158	73.22	26.78	31900	.0190	.0241	961
Rail	954	45/7	.1456	.0971	.2912	1.165	899	175	1074	83.67	16.33	25900	.0180	.0225	993
Cardinal	954	54/7	.1329	.1329	.3987	1.196	899	329	1227	73.21	26.79	33800	.0179	.0228	996
Ortolan	1033.5	45/7	.1515	.101	.3031	1.212	973	190	1163	83.67	16.33	27700	.0167	.0209	1043
Curlew	1033.5	54/7	.1383	.1383	.415	1.245	973	356	1330	73.21	26.79	36600	.0165	.0211	1047
Bluejay	1113	45/7	.1573	.1048	.3145	1.258	1048	205	1253	83.67	16.33	29800	.0155	.0194	1092
Finch	1113	54/19	.1436	.0861	.4307	1.292	1053	375	1429	73.72	26.28	39100	.0154	.0197	1093
Bunting	1192.5	45/7	.1628	.1085	.3256	1.302	1123	219	1343	83.67	16.33	32000	.0144	.0182	1139
Grackle	1192.5	54/19	.1486	.0892	.4458	1.337	1129	402	1531	73.72	26.28	41900	.0144	.0184	1140
Bittern	1272	45/7	.1681	.1121	.3362	1.345	1198	234	1432	83.67	16.33	34100	.0135	.0171	1184
Pheasant	1272	54/19	.1535	.0921	.4605	1.381	1204	429	1633	73.71	26.29	43600	.0135	.0173	1187
Dipper	1351.5	45/7	.1733	.1155	.3466	1.386	1273	248	1521	83.67	16.33	36200	.0127	.0162	1229
Martin	1351.5	54/19	.1582	.0949	.4746	1.424	1279	456	1735	73.72	26.28	46300	.0127	.0163	1232
Bobolink	1431	45/7	.1783	.1189	.3566	1.427	1348	263	1611	83.67	16.33	38300	.0120	.0153	1272
Lapwing	1590	45/7	.188	.1253	.3759	1.504	1498	292	1790	83.67	16.33	42200	.0108	.0139	1354
Falcon	1590	54/19	.1716	.103	.5148	1.544	1505	536	2041	73.72	26.28	54500	.0108	.0140	1359
Chukar	1780	84/19	.1456	.0874	.4368	1.602	1685	386	2072	81.35	18.65	51000	.0097	.0125	1453
Bluebird	2156	84/19	.1602	.0962	.4808	1.762	2040	468	2508	81.34	18.66	60300	.00801	.0105	1623
Kiwi	2167	72/7	.1735	.1157	.347	1.735	2051	249	2300	89.17	10.82	49800	.00801	.0106	1607

+Conductor temperature of 75°C, ambient temperature 25°C, emissivity 0.5, wind 2 ft./sec., in sun.

ACSR

Single-Layer Aluminum Conductor, Steel Reinforced (ACSR) High Mechanical Strength

Code Word	Size (kcmil)	Stranding (Al/St)	Diameter (in)				Weight (lb/1000 ft)			Content (% Weight)		RBS (lb)	Resistance (Ω/1000 ft)		Ampacity+ (amp)
			Aluminum Wires	Steel Wires	Steel Core	Complete Conductor	Al.	Steel	Total	Al.	Steel		dc @ 20°C	ac @ 75°C	
Grouse	80.0	8/1	0.1000	0.1667	0.1667	0.367	75	74	149	50.4	49.6	5,190	0.2065	0.2888	205
Petrel	101.8	12/7	0.0921	0.0921	0.2763	0.461	96	158	254	37.8	62.2	10,400	0.1583	0.2493	234
Minorca	110.8	12/7	0.0961	0.0961	0.2883	0.481	104	172	276	37.8	62.2	11,300	0.1454	0.2331	245
Leghorn	134.6	12/7	0.1059	0.1059	0.3177	0.530	127	209	336	37.8	62.2	13,600	0.1197	0.2000	271
Guinea	159.0	12/7	0.1151	0.1151	0.3453	0.576	150	247	396	37.8	62.2	16,000	0.1014	0.1757	296
Dotterel	176.9	12/7	0.1214	0.1214	0.3642	0.607	167	274	441	37.8	62.2	17,300	0.0911	0.1618	313
Dorking	190.8	12/7	0.1261	0.1261	0.3783	0.631	180	296	476	37.8	62.2	18,700	0.0845	0.1530	325
Brahma	203.2	16/19	0.1127	0.0977	0.4885	0.714	191	483	675	28.4	71.6	28,400	0.0764	0.1499	340
Cochin	211.3	12/7	0.1327	0.1327	0.3981	0.664	199	328	527	37.8	62.2	20,700	0.0763	0.1410	343

+ Based on 25°C ambient temperature, 2 ft/s perpendicular wind, 0.5 emissivity/absorptivity, 60 Hz, noon on June 10th

ACSR/AW

Aluminum Conductor. Aluminum-Clad Steel Reinforced. Bare.

Applications

ACSR/AW bare conductors are specifically designed for overhead transmission and distribution lines in severe environments with high corrosion concerns. These conductors serve effectively in coastal areas, industrial zones with chemical emissions, and regions with high atmospheric pollution. ACSR/AW provides enhanced corrosion protection while maintaining the mechanical advantages of steel-reinforced conductors, making it ideal for applications requiring both strength and extended service life under harsh conditions.

Specifications (Standards)

ACSR/AW bare conductor meets or exceeds the following ASTM specifications:

B-230	Aluminum Wire, 1350-H19 for Electrical Purposes.
B-502	Aluminum-Clad Steel Core Wire for Aluminum Conductors, Aluminum-Clad Steel Reinforced.
B-549	Reinforced (ACSR/AW). Aluminum Conductors, Concentric-Lay-Stranded, Aluminum-Clad Steel

Construction

ACSR/AW conductors incorporate a central core of aluminum-clad steel wires surrounded by one or more layers of 1350-H19 hard-drawn aluminum wires in concentric layers. The steel core provides mechanical strength while the aluminum cladding on the steel creates a protective barrier against corrosion and galvanic action. This construction maintains a standard operating temperature of 75°C continuously, with emergency ratings up to 100°C, while offering significantly improved corrosion resistance compared to standard ACSR conductors.

ACSR/AW

Code Word	Size (AWG or kcmil)	Stranding (Al/Aw)	Diameter (ins.)				Weight Per 1000 ft. (lbs.)			Rated Strength (lbs.)	Resistance OHMS/1000 ft.		Allowable Ampacity+ (Amps)
			Individual Wires	Aw	Aw Core	Comp. Cable	Al	Aw	Total		DC @ 20°C	AC @ 75°C	
Swan/Aw	4	6/1	.0834	.0834	.0834	.25	39	16	55	1780	.3917	.4770	145
Swanate/Aw	4	7/1	.0772	.103	.103	.257	39	24	63	2280	.3814	.4642	148
Sparrow/Aw	2	6/1	.1052	.1052	.1052	.316	62	25	87	2760	.2462	.2997	194
Sparate/Aw	2	7/1	.0974	.1298	.1298	.325	62	38	100	3510	.2396	.2917	198
Robin/Aw	1	6/1	.1181	.1181	.1181	.354	78	31	109	3450	.1950	.2373	225
Raven/Aw	1/0	6/1	.1327	.1327	.1327	.398	99	39	138	4250	.1547	.1884	260
Quail/Aw	2/0	6/1	.1489	.1489	.1489	.447	124	50	174	5130	.1227	.1494	301
Pigeon/Aw	3/0	6/1	.1672	.1672	.1672	.502	156	63	219	6300	.09747	.1188	347
Penguin/Aw	4/0	6/1	.1878	.1878	.1878	.563	197	79	277	7690	.07726	.09422	402
Waxwing/Aw	266.8	18/1	.1217	.1217	.1217	.609	250	33	283	6820	.06364	.07776	451
Partridge/Aw	266.8	26/7	.1013	.0788	.2363	.642	251	98	349	10800	.06169	.07541	465
Ostrich/Aw	300.0	26/7	.1074	.0835	.2506	.68	283	110	393	12100	.05489	.06712	500
Merlin/Aw	336.4	18/1	.1367	.1367	.1367	.684	315	42	357	8540	.05044	.06175	522
Linnet/Aw	336.4	26/7	.1137	.0885	.2654	.72	317	123	440	13500	.04897	.05989	537
Oriole/Aw	336.4	30/7	.1059	.1059	.3177	.741	318	177	494	16700	.04795	.05861	547
Chickadee/Aw	397.5	18/1	.1486	.1486	.1486	.743	373	50	422	9780	.04268	.05230	580
Brant/Aw	397.5	24/7	.1287	.0858	.2574	.772	374	116	490	14100	.04185	.05124	592
Ibis/Aw	397.5	26/7	.1236	.0962	.2885	.783	374	146	520	15800	.04144	.05072	597
Lark/Aw	397.5	30/7	.1151	.1151	.3453	.806	375	209	584	19600	.04059	.04965	608
Pelican/Aw	477	18/1	.1628	.1628	.1628	.814	447	59	507	11500	.03556	.04344	651
Flicker/Aw	477	24/7	.141	.094	.2819	.846	449	139	589	16700	.03487	.04273	663
Hawk/Aw	477.0	26/7	.1354	.1053	.316	.858	449	175	624	18900	.03453	.04231	669
Hen/Aw	477.0	30/7	.1261	.1261	.3783	.883	450	251	701	23400	.03382	.04139	682
Osprey/Aw	556.5	18/1	.1758	.1758	.1758	.879	522	69	591	13200	.03050	.03749	715
Parakeet/Aw	556.5	24/7	.1523	.1015	.3045	.914	524	163	687	19300	.02989	.03667	731
Dove/Aw	556.5	26/7	.1463	.1138	.3413	.927	524	204	728	21900	.02958	.03627	737
Eagle/Aw	556.5	30/7	.1362	.1362	.4086	.953	525	293	818	26800	.02899	.03551	751
Peacock/Aw	605.0	24/7	.1588	.1058	.3175	.953	570	177	746	21000	.02749	.03377	770
Squab/Aw	605.0	26/7	.1525	.1186	.3559	.966	570	222	792	23600	.02588	.03341	777
Teal/Aw	605.0	30/19	.142	.0852	.426	.994	571	311	883	28500	.02672	.03274	791
Kingbird/Aw	636.0	18/1	.188	.188	.188	.94	596	79	675	15000	.02667	.03286	778
Rook/Aw	636.0	24/7	.1628	.1085	.3256	.977	599	186	785	22000	.02616	.03216	794
Grosbeak/Aw	636.0	26/7	.1564	.1216	.3649	.991	599	233	832	24800	.02588	.03179	801
Flamingo/Aw	666.6	24/7	.1667	.1111	.3333	1	628	195	823	23100	.02495	.03069	818
Gannet/Aw	666.6	26/7	.1601	.1245	.3736	1.014	628	245	872	26000	.02470	.03034	825
Starling/Aw	715.5	26/7	.1659	.129	.3871	1.051	674	263	936	27500	.02300	.02830	863

ACSR/AW

Redwing/Aw	715.5	30/19	.1544	.0927	.4633	1.081	676	368	1044	33400	.02260	.02777	878
Cuckoo/Aw	795.0	24/7	.182	.1213	.364	1.092	749	232	981	27500	.02093	.02582	913
Drake/Aw	795	26/7	.1749	.136	.408	1.107	749	292	1040	30500	.02070	.02549	922
Tern/Aw	795	45/7	.1329	.0886	.2658	1.063	749	124	873	21500	.02135	.02638	896
Condor/Aw	795	54/7	.1213	.1213	.364	1.092	749	232	981	27800	.02091	.02578	913
Mallard/Aw	795	30/19	.1628	.0977	.4884	1.139	751	409	1160	37100	.02033	.02500	938
Ruddy/Aw	900	45/7	.1414	.0943	.2828	1.131	848	140	988	24000	.01886	.02330	970
Canary/Aw	900	54/7	.1291	.1291	.3873	1.162	848	263	1111	31000	.01849	.02286	986
Rail/Aw	954	45/7	.1456	.0971	.2912	1.165	899	149	1047	25400	.01779	.02210	1003
Cardinal/Aw	954	54/7	.1329	.1329	.3987	1.196	899	279	1177	32900	.01744	.02161	1022
Ortolan/Aw	1033.5	45/7	.1515	.101	.3031	1.212	973	161	1134	27200	.01641	.02044	1054
Curlew/Aw	1033.5	54/7	.1383	.1383	.415	1.245	973	302	1275	35200	.01609	.01997	1074
Bluejay/Aw	1113	45/7	.1573	.1048	.3145	1.258	1048	173	1222	29300	.01606	.01905	1103
Pheasant/Aw	1272	54/19	.1535	.0921	.4604	1.381	1204	364	1568	42400	.01315	.01646	1216
Bobolink/Aw	1431	45/7	.1783	.1189	.3566	1.427	1348	223	1571	37600	.01186	.01503	1283
Lapwing/Aw	1590	45/7	.188	.1253	.3759	1.504	1498	248	1745	41800	.01069	.01366	1365

+Conductor temperature of 75°C ambient temperature 25°C, emissivity 0.5, wind 2 ft./sec., in sun.

Code Word	Size (AWG or kcmil)	Stranding (Al/Aw)	Diameter (ins.)				Weight Per 1000 ft. (lbs.)			Rated Strength (lbs.)	Resistance OHMS/1000 ft.		Allowable Ampacity+ (Amps)
			Individual Wires		Aw Core	Comp. Cable	Al	Aw	Total		DC @ 20°C	AC @ 75°C	
Grouse/AW	80.0	8/1	.1000	.1670	.1670	.367	75.1	62.6	137.7	4,890	.1942	.2357	227
Petrel/AW	101.8	12/7	.0921	.0921	.2763	.460	96.0	133.9	229.9	9,910	.1425	.1736	281
Minorca/AW	110.8	12/7	.0961	.0961	.2883	.481	104.5	145.8	250.3	10,800	.1326	.1594	297
Leghorn/AW	134.6	12/7	.1059	.1059	.3177	.530	127.0	177.0	304.0	13,000	.1078	.1313	335
Guinea/AW	159.0	12/7	.1151	.1151	.3453	.576	150.0	209.1	359.1	15,300	.09123	.1112	372
Dotterel/AW	176.9	12/7	.1214	.1214	.3642	.607	166.8	232.7	399.5	16,900	.08201	.09988	398
Dorking/AW	190.8	12/7	.1261	.1261	.3783	.631	180.0	251.0	431.0	18,300	.07601	.09261	418
Brahma/AW	203.2	16/19	.1127	.0977	.4885	.714	191.7	411.0	602.7	27,100	.06570	.07994	464
Cochin/AW	211.3	12/7	.1327	.1327	.3981	.664	199.3	278.0	477.3	19,800	.06863	.08364	445

+Conductor temperature of 75°C ambient temperature 25°C, emissivity 0.5, wind 2 ft./sec., in sun.

ACSS

Aluminum Conductor, Steel Supported. Bare.

Applications

ACSS bare conductors are primarily used in high-temperature overhead transmission lines, especially in regions with high ambient temperatures and long spans requiring superior mechanical strength. They excel in high-capacity power corridors and both urban and suburban distribution networks. These conductors are particularly valuable in areas subject to ice loading and high wind conditions, as well as in retrofit projects where increased capacity is needed without modifying existing towers.

Specifications

US Electric Wire's ACSS conductor meets or exceeds the following ASTM specifications:

B500	Metallic Coated Stranded Steel Core for Use in Overhead Electrical Conductors.
B609	Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes.
B802	Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR).
B803	High-Strength Zinc-5% Aluminum Mischmetal Alloy-Coated Steel Core Wire for Use in Overhead Electrical Conductors.
B856	Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Supported (ACSS).
B958	Extra-High-Strength and Ultra-High-Strength Class A Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Use in Overhead Electrical Conductors.

Construction

ACSS conductors consist of a high-strength galvanized steel core (single or stranded) wrapped with fully annealed 1350-O aluminum wires in concentric layers. This specific design enables operation at temperatures up to 250°C with minimal sag, as the steel core bears mechanical loads while the annealed aluminum maintains conductivity at high temperatures. This construction results in reduced sag compared to conventional ACSR conductors when operating at elevated temperatures, helping maintain necessary clearance requirements under heavy load conditions. Additionally, the construction provides self-damping characteristics that help reduce vibration during service.

ACSS

Code Word	Size (kcmil)	Strand -ing (Al/St)	Diameter (in)				Weight (lbs/1000 ft)			Rated Strength (lbs)			Resistance (OHMS/1000ft)		Ampacity @ 200°C (AMPS)
			Individual Wires		Steel Core	Comp Cable	Al	Steel	Total	Standard Strength	High* Strength	HS285** Strength	DC @ 20°C	AC @ 75°C	
			Al	Steel											
Partridge/ACSS	266.8	26/7	0.1013	0.0788	0.2363	0.642	251.3	115.5	366.8	8880	9730	11400	.0619	.0761	812
Junco/ACSS	266.8	30/7	0.0943	0.0943	0.2829	0.660	251.9	165.5	417.4	11700	13000	15200	.0615	.0756	822
Ostrich/ACSS	300.0	26/7	0.1074	0.0835	0.2506	0.680	282.6	129.9	412.5	10000	10900	12800	.0551	.0677	877
Linnet/ACSS	336.4	26/7	0.1137	0.0885	0.2654	0.720	316.8	145.7	462.5	11200	12300	14400	.0491	.0604	945
Oriole/ACSS	336.4	30/7	0.1059	0.1059	0.3177	0.741	317.6	208.7	526.3	14800	16300	19100	.0488	.0600	957
Brant/ACSS	397.5	24/7	0.1287	0.0858	0.2574	0.772	374.4	137.0	511.4	11000	12100	14100	.0417	.0514	1047
Ibis/ACSS	397.5	26/7	0.1236	0.0962	0.2885	0.783	374.4	172.1	546.5	13000	14200	16500	.0416	.0512	1054
Lark/ACSS	397.5	30/7	0.1151	0.1151	0.3453	0.806	375.3	246.5	621.8	17500	19300	22600	.0413	.0508	1068
Flicker/ACSS	447	24/7	0.1410	0.0940	0.2819	0.846	449.3	164.4	613.7	13000	14200	16400	.0348	.0429	1180
Hawk/ACSS	447	26/7	0.1354	0.1053	0.3160	0.858	449.3	206.5	655.8	15600	17100	19800	.0346	.0427	1188
Hen/ACSS	447	30/7	0.1261	0.1261	0.3783	0.883	450.4	295.9	746.3	21000	22700	26700	.0344	.0424	1204
Parakeet/ACSS	556.5	24/7	0.1523	0.1015	0.3045	0.914	524.0	192.0	716.0	15200	16600	19100	.0298	.0368	1306
Dove/ACSS	556.5	26/7	0.1463	0.1138	0.3413	0.927	524.2	240.9	765.1	18200	19900	23200	.0297	.0366	1315
Eagle/ACSS	556.5	30/7	0.1362	0.1362	0.4086	0.953	525.4	345.2	870.6	24500	26500	31100	.0295	.0363	1331
Peacock/ACSS	605	24/7	0.1588	0.1058	0.3175	0.953	569.8	208.5	778.3	16500	18100	20800	.0274	.0339	1379
Squab/ACSS	605	26/7	0.1525	0.1186	0.3559	0.966	569.8	261.9	831.7	19700	21300	25200	.0273	.0337	1389
Wood Duck/ACSS	605	30/7	0.1420	0.1420	0.4260	0.994	571.2	375.3	946.5	26000	28300	33300	.0271	.0334	1407
Teal/ACSS	605	30/19	0.1420	0.0852	0.4260	0.994	571.2	367.4	938.6	26600	29300	34800	.0272	.0335	1406
Rook/ACSS	636	24/7	0.1628	0.1085	0.3256	0.977	599.0	219.2	818.2	17300	19000	21900	.0261	.0322	1425
Grosbeak/ACSS	636	26/7	0.1564	0.1216	0.3649	0.991	599.0	275.4	874.4	20700	22400	26000	.0260	.0321	1435
Scoter/ACSS	636	30/7	0.1456	0.1456	0.4368	1.019	600.5	394.5	995.0	27400	29700	35000	.0258	.0318	1454
Egret/ACSS	636	30/19	0.1456	0.0874	0.4368	1.019	600.5	386.3	986.8	28000	30900	36600	.0258	.0319	1453
Flamingo/ACSS	666.6	24/7	0.1667	0.1111	0.3333	1.000	627.9	229.7	857.6	18200	19900	22900	.0249	.0308	1470
Gannet/ACSS	666.6	26/7	0.1601	0.1245	0.3736	1.014	627.8	288.6	916.4	21700	23400	27300	.0248	.0306	1480
Stilt/ACSS	715.5	24/7	0.1727	0.1151	0.3453	1.036	673.9	246.5	920.4	19500	21300	24600	.0232	.0287	1540
Starling/ACSS	715.5	26/7	0.1659	0.1290	0.3871	1.051	673.9	309.8	983.7	23300	25200	29800	.0231	.0286	1550
Redwing/ACSS	715.5	30/19	0.1544	0.0927	0.4633	1.081	675.6	434.6	1110.2	30800	34000	39800	.0230	.0284	1570
Cuckoo/ACSS	795	24/7	0.1820	0.1213	0.3640	1.092	748.8	274.0	1022.8	21700	23300	26900	.0209	.0259	1650
Drake/ACSS	795	26/7	0.1749	0.1360	0.4080	1.107	748.8	344.2	1093.0	25900	28000	32600	.0209	.0257	1662
Macaw/ACSS	795	42/7	0.1376	0.0764	0.2293	1.055	748.8	108.7	857.5	11800	12600	14300	.0211	.0262	1621
Tern/ACSS	795	45/7	0.1329	0.0886	0.2658	1.063	748.8	146.1	894.9	14200	15200	17400	.0210	.0263	1618
Condor/ACSS	795	54/7	0.1213	0.1213	0.3640	1.092	748.8	274.0	1022.8	21700	23300	26900	.0209	.0266	1618
Mallard/ACSS	795	30/19	0.1628	0.0977	0.4884	1.139	750.6	482.8	1233.4	34300	37900	44300	.0207	.0255	1683
Ruddy/ACSS	900	45/7	0.1414	0.0943	0.2828	1.131	847.7	165.4	1012.1	15800	17000	19200	.0186	.0233	1755
Canary/ACSS	900	54/7	0.1291	0.1291	0.3873	1.162	847.7	310.1	1157.8	24600	26400	30500	.0184	.0236	1756

ACSS

Code Word	Size (kcmil)	Strand-ing (Al/St)	Diameter (in)				Weight (lbs/1000 ft)			Rated Strength (lbs)			Resistance (OHMS/1000ft)		Ampacity @ 200°C (AMPS)
			Individual Wires		Steel Core	Comp Cable	Al	Steel	Total	Standard Strength	High* Strength	HS285** Strength	DC @ 20°C	AC @ 75°C	
			Al	Steel											
Redbird/ACSS	954	24/7	0.1994	0.1329	0.3987	1.196	898.5	328.7	1227.2	26000	28000	32300	.0174	.0217	1859
Rail/ACSS	954	45/7	0.1456	0.0971	0.2912	1.165	898.5	175.3	1073.8	16700	18000	20400	.0175	.0220	1824
Towhee/ACSS	954	48/7	0.1410	0.1097	0.3290	1.175	898.5	223.7	1122.2	19700	21300	24300	.0175	.0218	1842
Cardinal/ACSS	954	54/7	0.1329	0.1329	0.3987	1.196	898.6	328.7	1227.2	26000	28000	32300	.0174	.0223	1825
Canvasback/ACSS	954	30/19	0.1783	0.1070	0.5350	1.248	900.7	579.4	1480.1	41100	45400	53100	.0172	.0214	1897
Snowbird/ACSS	1033.5	42/7	0.1569	0.0871	0.2614	1.203	973.4	141.3	1114.7	15400	16500	18500	.0162	.0204	1924
Ortolan/ACSS	1033.5	45/7	0.1515	0.1010	0.3031	1.212	973.4	190.0	1163.4	18100	19500	22000	.0162	.0204	1921
Curlew/ACSS	1033.5	54/7	0.1383	0.1383	0.4150	1.245	973.4	356.2	1329.6	28200	30300	35000	.0161	.0206	1924
Bluejay/ACSS	1113	45/7	0.1573	0.1048	0.3145	1.258	1048.3	204.5	1252.8	19500	21100	23800	.0150	.0190	2017
Finch/ACSS	1113	54/19	0.1436	0.0861	0.4307	1.292	1053.4	375.5	1428.9	30400	33200	38700	.0150	.0193	2015
Bunting/ACSS	1192.5	45/7	0.1628	0.1085	0.3256	1.302	1123.2	219.2	1342.4	21400	23500	25400	.0140	.0178	2110
Bittern/ACSS	1272	45/7	0.1681	0.1121	0.3363	1.345	1198.0	234.0	1432.0	22300	24000	27100	.0131	.0167	2201
Pheasant/ACSS	1272	54/19	0.1535	0.0921	0.4604	1.381	1203.9	429.2	1633.1	34100	37300	43000	.0131	.0169	2200
Dipper/ACSS	1351	45/7	0.1733	0.1155	0.3465	1.386	1272.5	248.3	1520.8	23700	25500	28800	.0124	.0158	2289
Martin/ACSS	1351	54/19	0.1582	0.0949	0.4745	1.424	1278.7	455.8	1734.5	36200	39600	45600	.0123	.0160	2288
Bobolink/ACSS	1431	45/7	0.1783	0.1189	0.3566	1.427	1347.8	263.0	1610.8	25100	27000	30500	.0117	.0150	2375
Plover/ACSS	1431	54/19	0.1628	0.0977	0.4884	1.465	1354.4	482.8	1837.2	38400	41900	48300	.0117	.0151	2375
Nuthatch/ACSS	1510	45/7	0.1832	0.1221	0.3664	1.465	1422.2	277.5	1699.7	26500	28100	31800	.0111	.0143	2459
Parrot/ACSS	1510	54/19	0.1672	0.1003	0.5017	1.505	1429.2	509.5	1938.7	40400	44200	51000	.0110	.0144	2460
Ratite/ACSS	1590	42/7	0.1946	0.1081	0.3243	1.492	1497.6	217.4	1715.0	23400	25000	27900	.0105	.0136	2543
Lapwing/ACSS	1590	45/7	0.1880	0.1253	0.3759	1.504	1497.6	292.2	1789.8	27900	29600	33500	.0105	.0136	2543
Falcon/ACSS	1590	54/19	0.1716	0.1030	0.5148	1.544	1504.9	536.5	2041.4	42600	46600	53700	.0105	.0137	2545
Chukar/ACSS	1780	84/19	0.1456	0.0873	0.4367	1.601	1684.7	386.1	2070.8	35400	38200	43900	.0094	.0122	2751
Mockingbird/ACSS	2034.5	72/7	0.1681	0.1121	0.3362	1.681	1925.6	233.7	2159.3	27200	28900	32000	.0083	.0110	2960
Roadrunner/ACSS	2057	76/19	0.1645	0.0768	0.3839	1.700	1946.9	298.3	2245.2	31700	33900	38300	.0082	.0108	2992
Bluebird/ACSS	2156	84/19	0.1602	0.0961	0.4806	1.762	2040.6	467.6	2508.2	42100	45500	51700	.0078	.0103	3106
Kiwi/ACSS	2167	72/7	0.1735	0.1157	0.3470	1.735	2051.0	248.9	2299.9	29000	30800	34100	.0078	.0104	3080
Thrasher/ACSS	2312	76/19	0.1744	0.0814	0.4070	1.802	2188.2	335.3	2523.5	35600	38100	43000	.0073	.0098	3218
Joree/ACSS	2515	76/19	0.1819	0.0849	0.4245	1.880	2380.4	364.7	2745.1	38700	41400	46800	.0067	.0092	3390

Notes:

- (1) All data refers to nominal cable manufactured in accordance with ASTM B856.
- (2) Resistance and ampacity calculations use aluminum conductivity of 63% IACS at 20°C and steel conductivity of 8% IACS at 20°C.
- (3) Ampacity ratings reflect the following conditions: 200°C conductor temperature, 25°C ambient temperature, 2ft/sec wind speed, direct sunlight exposure, 0.5 emissivity, 0.5 coefficient of solar absorption, at sea level.
- (4) Standard strength core ratings conform to Class A specifications per ASTM B802.
- (5) High strength core ratings conform to Class A specifications per ASTM B803.
- * High strength option indicated by "HS" suffix (e.g., Parrot/ACSS/HS)
- ** Enhanced high strength option indicated by "HS285" suffix (e.g., Parrot/ACSS/HS285)

AAC

All Aluminum Conductor. Bare.

Applications

Used primarily in overhead transmission and distribution lines. Ideal for urban areas with short spans and high conductivity requirements. Suitable for installations where lightweight conductors are preferred.

Specifications (Standards)

ASTM B230	Aluminum 1350-H19 Wire for Electrical Purposes.
ASTM B231	Concentric-Lay-Stranded Aluminum Conductors.

Construction

Made from **1350-H19 aluminum**, which is **99.5% pure aluminum**. Stranded in a **concentric-lay configuration** to provide flexibility and mechanical strength. Available in different stranding options, such as **7, 19, 37, 61, or 91 wires** depending on size and application.

Classes

AAC conductors are classified based on stranding configuration:

Class AA Used for bare conductors in overhead lines where maximum flexibility is not required.
Class A Used for conductors with limited flexibility

AAC

Code Word	Size (AWG or kcmil)	Stranding		Diameter (ins.)		Cross-Sectional Area (Sq. ins.)	Weight Per 1000 ft. (lbs.)	Rated Strength (lbs.)	Resistance OHMS/1000 ft.		Allowable Ampacity+ (Amps)
		No. of Wires	Class	Individual Wires	Complete Cable				DC @ 20°C	AC @ 75°C	
Peachbell	6	7	A	.0612	.184	.0206	25	563	.658	.805	103
Rose	4	7	A	.0772	.232	.0328	39	881	.414	.506	138
Iris	2	7	AA, A	.0974	.292	.0522	62	1350	.260	.318	185
Pansy	1	7	AA	.1093	.328	.0657	78	1640	.207	.252	214
Poppy	1/0	7	AA, A	.1228	.368	.0829	99	1990	.164	.200	247
Aster	2/0	7	AA, A	.1379	.414	.1045	125	2510	.130	.159	286
Phlox	3/0	7	AA, A	.1548	.464	.1317	157	3040	.103	.126	331
Oxlip	4/0	7	AA, A	.1739	.522	.1663	198	3830	.0817	.0999	383
Sneezewort	250	7	AA	.189	.567	.1964	234	4520	.0691	.0846	425
Valerian	250	19	A	.1147	.574	.1963	234	4660	.0691	.0846	426
Daisy	266.8	7	AA	.1952	.586	.2095	250	4830	.0648	.0793	443
Laurel	266.8	19	A	.1185	.592	.2095	250	4970	.0648	.0793	444
Peony	300	19	A	.1257	.628	.2358	281	5480	.0576	.0706	478
Tulip	336.4	19	A	.1331	.665	.2644	315	6150	.0514	.0630	513
Daffodil	350	19	A	.1357	.679	.2748	328	6390	.0494	.0605	526
Canna	397.5	19	AA, A	.1446	.723	.312	373	7110	.0435	.0534	570
Goldentuft	450	19	AA	.1539	.769	.3534	422	7890	.0384	.0472	616
Cosmos	477	19	AA	.1584	.792	.3744	447	8360	.0362	.0445	639
Syringa	477.0	37	A	.1135	.795	.3744	447	8690	.0362	.0445	639
Zinnia	500	19	AA	.1622	.811	.3926	469	8760	.0346	.0425	658
Hyacinth	500	37	AA	.1162	.814	.3924	469	9110	.0346	.0425	658
Dahlia	556.5	19	AA	.1711	.856	.4369	522	9750	.0311	.0382	703
Mistletoe	556.5	37	AA	.1226	.858	.4368	522	9940	.0311	.0382	704
Meadowsweet	600	37	AA	.1273	.891	.4709	562	10700	.0228	.0355	738
Orchid	636.0	37	AA, A	.1311	.918	.4995	596	11400	.0272	.0335	765
Heuchera	650	37	AA	.1325	.928	.5102	609	11600	.0266	.0328	775
Verbena	700	37	AA	.1375	.963	.5494	656	12500	.0247	.0305	812
Flag	700	61	A	.1071	.964	.5495	656	12900	.0247	.0305	812
Violet	715.5	37	AA	.1391	.973	.5623	671	12800	.0242	.0299	823
Nasturtium	715.5	61	AA	.1083	.975	.5619	671	13100	.0242	.0299	823
Petunia	750.0	37	AA	.1424	.997	.5893	703	13100	.0230	.0286	847
Cattail	750	61	AA	.1109	.998	.5892	703	13500	.0230	.0286	847
Arbutus	795	37	AA	.1466	1.026	.6245	745	13900	.0217	.0270	878
Lilac	795.0	61	A	.1142	1.027	.6248	745	14300	.0217	.0270	879
Cockscomb	900	37	AA	.156	1.092	.7072	844	15400	.0192	.0239	948
Snapdragon	900	61	AA	.1215	1.093	.7072	844	15900	.0192	.0239	948
Magnolia	954.0	37	AA	.1606	1.124	.7495	894	16400	.0181	.0226	982

AAC

Code Word	Size (AWG or kcmil)	Stranding		Diameter (ins.)		Cross-Sectional Area (Sq. ins.)	Weight Per 1000 ft. (lbs.)	Rated Strength (lbs.)	Resistance OHMS/1000 ft.		Allowable Ampacity+ (Amps)
		No. of Wires	Class	Individual Wires	Complete Cable				DC @ 20°C	AC @ 75°C	
Goldenrod	954.0	61	A	.1251	1.125	.7498	894	16900	.0181	.0226	983
Hawkweed	1000	37	AA	.1644	1.151	.7854	937	17200	.0173	.0216	1010
Camellia	1000	61	AA	.128	1.152	.7849	937	17700	.0713	.0216	1011
Bluebell	1033.5	37	AA	.1671	1.17	.8114	969	17700	.0167	.0210	1031
Larkspur	1033.5	61	AA	.1302	1.171	.8122	969	18300	.0167	.0210	1032
Marigold	1113.0	61	AA, A	.1351	1.216	.8744	1043	19700	.0155	.0195	1079
Hawthorn	1192.5	61	AA, A	.1398	1.258	.9363	1118	21100	.0145	.0183	1124
Narcissus	1272.0	61	AA, A	.1444	1.3	.999	1192	22000	.0136	.0173	1169
Columbine	1351.5	61	AA, A	.1488	1.34	1.0608	1267	23400	.0128	.0163	1212
Carnation	1431	61	AA, A	.1532	1.378	1.1244	1341	24300	.0121	.0155	1253
Gladiolus	1510.5	61	A	.1574	1.416	1.1869	1416	25600	.0144	.0147	1294
Coreopsis	1590.0	61	AA	.1614	1.453	1.248	1490	27000	.0109	.0141	1333
Jessamine	1750.0	61	AA	.1694	1.524	1.3748	1640	29700	.00988	.0129	1408
Cowslip	2000.0	91	A	.1482	1.631	1.5697	1875	34200	.00864	.0115	1518
Sagebrush	2250	91	A	.1572	1.73	1.7662	2130	37500	.00776	.0105	1612
Lupine	2500.0	91	A	.1657	1.823	1.9623	2366	41900	.00698	.00969	1706
Bitterroot	2750	91	A	.1738	1.912	2.1589	2603	46100	.00635	.00900	1793
Trillium	3000	127	A	.1537	1.998	2.3564	2839	50300	.00582	.00834	1874
Bluebonnet	3500	127	A	.166	2.158	2.7486	3345	58700	.00499	.00756	2024

+Conductor temperature of 75°C, ambient temperature 25°C, emissivity 0.5, wind 2 ft./sec. in sun.

AAAC BARE OVERHEAD CONDUCTOR

Aluminum Alloy Conductor Concentric-Lay-Stranded.

Applications

AAAC bare conductors are primarily employed in medium to high voltage distribution and transmission lines where corrosion resistance is a priority. These conductors excel in coastal regions, industrial areas with chemical contamination, and environments with high pollution levels. AAAC provides an optimal balance of electrical performance and mechanical strength without steel reinforcement, making it suitable for moderate span lengths with enhanced corrosion resistance requirements.

Specifications (standards)

AAAC bare conductor meets or exceeds the following ASTM specifications:

**B399
B399M**

Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 Conductors.

**B398
B398M**

Standard Specification for Aluminum-Alloy 6201-T81 Wire for Electrical Purposes.

Construction

AAAC conductors consist entirely of high-strength aluminum alloy wires (typically 6201-T81 or 6101-T81) arranged in concentric layers. The aluminum alloy composition provides improved tensile strength compared to pure aluminum while maintaining good conductivity (approximately 52.5% IACS). This homogeneous construction eliminates bi-metallic corrosion concerns and offers a standard operating temperature of 90°C, with lighter weight than comparable ACSR conductors of equivalent strength.

Particularity

The basic composition of this alloy pertains to the Aluminium-Magnesium-Silicon group, which is also known in Europe as Almelec or Aldrey and after their drawing they must undergo a thermal treatment at a temperature of approximately 1965° C.

Properties

As regards aluminium, the wires of this alloy have a double tensile strength (greater than 30 Kg/mm²), its electrical conductivity is 15% lower (53% instead of 61%) and the weight is the same.

AAAC BARE OVERHEAD CONDUCTOR

Aluminum Alloy Conductor Concentric-Lay-Stranded.

AAAC (MECHANICAL PROPERTIES) - CONDUCTORS SIZED TO HAVE DIAMETER EQUAL TO ACSR (1)

CODE WORD	SIZE AWG OR kcmil	EQUIVALENT ACSR SIZE (2)	EQUIVALENT AAC SIZE (3)	STRANDING NO. X DIA. INCHES	CLASS	CROSS-SECTION SQ. INCHES	O.D. IN	APPROX. WEIGHT LB/ KFT	RATED STRENGTH LBS
Akron	30.6	#6 (Turkey)	#6	7x0.0661	A	0.0240	0.198	28.3	1110
Alton	48.7	#4 (Swan)	#4	7x0.0834	A	0.0382	0.250	45.1	1760
Ames	77.5	#2 (Sparrow)	#2	7x0.1052	A, AA	0.0608	0.316	71.7	2800
Azusa	123.3	1/0 (Raven)	1/0	7x0.1327	A, AA	0.0968	0.398	114.1	4280
Anaheim	155.4	2/0 (Quail)	2/0	7x0.1490	A, AA	0.1221	0.447	143.9	5390
Amherst	195.7	3/0 (Pigeon)	3/0	7x0.1672	A, AA	0.1537	0.502	181.2	6790
Alliance	246.9	4/0 (Penguin)	4/0	7x0.1878	AA	0.1939	0.563	228.6	8560
Butte	312.8	266.8 (Partridge)	266.8	19x0.1283	A	0.2456	0.642	290.9	10500
Canton	394.5	336.4 (Linnet)	336.4	19x0.1441	A, AA	0.3099	0.720	366.9	13300
Cairo	465.4	397.5 (Ibis)	397.5	19x0.1565	AA	0.3655	0.782	432.8	15600
Darien	559.5	477.0 (Hawk)	477.0	19x0.1716	AA	0.4394	0.858	520.3	18800
Elgin	652.4	556.5 (Dove)	556.5	19x0.1853	AA	0.5124	0.926	606.7	21900
Flint	740.8	636.0 (Grosbeak)	636.0	37x0.1415	AA	0.5818	0.990	691.2	24400
Greeley	927.2	795.0 (Drake)	795.0	37x0.1583	AA	0.7282	1.108	865.1	30500

(1) Our cables utilizes an aluminum alloy that meets both the requirements of 6101 T81 and 6201 T81 designation.

(2) Equivalent ACSR Size refers to an ACSR conductor size of equal diameter.

(3) Equivalent AAC Size refers to an ASTM AAC 1350 conductor of approximate equivalent electrical resistance.

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

AAAC BARE OVERHEAD CONDUCTOR

Aluminum Alloy Conductor Concentric-Lay-Stranded.

AAAC (ELECTRICAL PROPERTIES) - CONDUCTORS SIZED TO HAVE DIAMETER EQUAL TO ACSR (1)

CODE WORD	SIZE AWG OR kcmil	EQUIVALENT ACSR SIZE (2)	EQUIVALENT AAC SIZE (3)	STRANDING NO. X DIA. INCHES	CLASS	O.D. IN	RESISTANCE (4) OHMS/KFT			AMPACITY @75°C (5)		GEOMETRIC MEAN RADIUS FT	INDUCTIVE REACTANCE OHM/KFT (6)	CAPACITIVE REACTANCE MEGAOHM/ KFT (6)
							DC @20°C	AC @25°C	AC @75°C	STANDARD	E3X®			
Akron	30.6	#6 (Turkey)	#6	7x0.0661	A	0.198	0.654	0.666	0.779	105	115	0.0060	0.118	0.7512
Alton	48.7	#4 (Swan)	#4	7x0.0834	A	0.250	0.411	0.418	0.489	145	155	0.0076	0.112	0.7148
Ames	77.5	#2 (Sparrow)	#2	7x0.1052	A, AA	0.316	0.258	0.263	0.308	190	205	0.0095	0.107	0.6785
Azusa	123.3	1/0 (Raven)	1/0	7x0.1327	A, AA	0.398	0.162	0.165	0.193	255	280	0.0120	0.102	0.6421
Anaheim	155.4	2/0 (Quail)	2/0	7x0.1490	A, AA	0.447	0.129	0.131	0.153	295	325	0.0135	0.0989	0.6239
Amherst	195.7	3/0 (Pigeon)	3/0	7x0.1672	A, AA	0.502	0.102	0.104	0.122	345	380	0.0152	0.0962	0.6059
Alliance	246.9	4/0 (Penguin)	4/0	7x0.1878	AA	0.563	0.0810	0.0825	0.0966	395	440	0.0170	0.0936	0.5877
Butte	312.8	266.8 (Partridge)	266.8	19x0.1283	A	0.642	0.0642	0.0655	0.0766	460	515	0.0203	0.0896	0.5673
Canton	394.5	336.4 (Linnet)	336.4	19x0.1441	A, AA	0.720	0.0509	0.0520	0.0608	535	595	0.0227	0.0870	0.5492
Cairo	465.4	397.5 (Ibis)	397.5	19x0.1565	AA	0.782	0.0432	0.0441	0.0516	590	665	0.0247	0.0851	0.5362
Darien	559.5	477.0 (Hawk)	477.0	19x0.1716	AA	0.858	0.0359	0.0368	0.0430	665	750	0.0271	0.0829	0.5218
Elgin	652.4	556.5 (Dove)	556.5	19x0.1853	AA	0.926	0.0308	0.0316	0.0369	730	830	0.0292	0.0812	0.5098
Flint	740.8	636.0 (Grosbeak)	636.0	37x0.1415	AA	0.990	0.0272	0.0280	0.0327	790	900	0.0317	0.0793	0.4993
Greeley	927.2	795.0 (Drake)	795.0	37x0.1583	AA	1.108	0.0217	0.0226	0.0263	905	1040	0.0354	0.0768	0.4817

(1) Our cables utilizes an aluminum alloy that meets both the requirements of 6101 T81 and 6201 T81 designation.

(2) Equivalent ACSR Size refers to an ACSR conductor size of equal diameter.

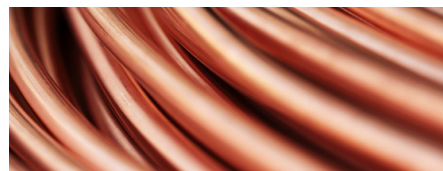
(3) Equivalent AAC Size refers to an ASTM AAC 1350 conductor of approximate equivalent electrical resistance.

(4) Based on a conductivity of 52.5% (minimum lot average) IACS at 20°C. To convert to ohms/mile, multiply by 5.28. To convert of ohms/km, multiply by 3.281.

(5) Based on a conductor temperature of 75°C at 60 Hz and the following conditions: 25°C ambient temperature, 2 ft/sec crosswind (90° to conductor), 0.5 coefficient of emissivity for a standard conductor and 0.9 for a E3X coated conductor, 0.5 coefficient of absorptivity for a standard conductor and 0.2 for a E3X coated conductor, 30° northern latitude, sea level elevation, 90° azimuth of line (East-West), clear atmosphere, and a date and time of noon on July 1 (resulting in 96.0 W/ft2 of solar and radiated heat). Actual ampacity will differ based on local conditions. For specific ampacities, please contact your General Cable sales representative.

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

Bare Copper Conductor Solid or Stranded



Hard, Medium Hard, or Soft Drawn

Description

For grounding and Bonding as specified in the National Electrical Code. Also for use in overhead transmission & distribution applications.

Suitable for numerous other applications.

Application

Bare Copper conductors are primarily used for grounding purposes as specified in the National Electrical Code.

Soft-drawn solid or stranded conductors, for use as grounding connections in circuits, and grounding for machinery or equipment.

Hard-drawn conductors for overhead transmission and distribution lines, as grounding connections in circuits, and grounding for machinery or equipment.

Standards

ASTM B1	Standard Specification for Hard- Drawn Copper Wire
ASTM B2	Standard Specification for Medium Hard-Drawn Copper Wire
ASTM B3	Standard Specification for Soft or Annealed Copper Wire
ASTM B8	Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft

Engineering Information

Conductor

Soft bare copper Solid or Classes A or B stranding per ASTM B-3 and B-8.

On request

Hard-drawn and Medium Hard-drawn per ASTM B-1, B-2 .

Options

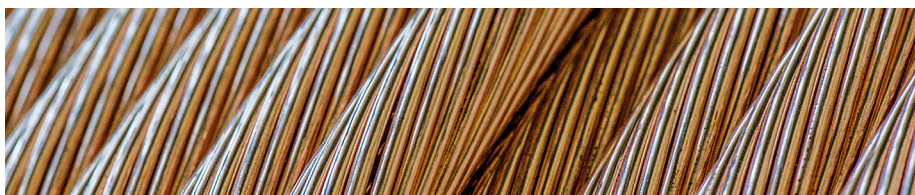
Also available in tinned copper.

Sizes

Solid—14 AWG to 2 AWG Class A—4 AWG to 1000 kcmil Class B—6 AWG to 2000 kcmil

Stranding

Soft, Medium Hard- drawn or Hard-drawn copper wires concentrically stranded, consisting of one or more layers of wires helically wrapped around a central wire.



Bare Copper Conductors Solid

Technical Data

Size	Area	Wire OD	Net Weight	Breaking Strength					
				Hard Drawn Rated Strength	dc Resistance @ 20 °C	Medium-Hard Drawn Rated Strength	dc Resistance @ 20 °C	Soft Drawn (Annealed) Rated Strength	dc Resistance @ 20 °C
AWG	cmil	in	lb/kft	lb	Ω/kft	lb	Ω/kft	lb	Ω/kft
14	4110	0.0641	12	214	2.626	167	2.613	124	2.525
12	6530	0.0808	20	337	1.652	261	1.643	198	1.588
10	10380	0.1019	31	529	1.039	410	1.033	314	0.999
8	16510	0.1285	50	826	0.653	644	0.650	480	0.628
6	26240	0.1620	79	1280	0.411	1010	0.409	763	0.395
4	41740	0.2043	126	1970	0.258	1584	0.257	1213	0.249
3	52620	0.2294	159	2439	0.205	1984	0.204	1530	0.197
2	66360	0.2576	201	3003	0.163	2450	0.162	1929	0.156

The above data are approximate and subject to normal manufacturing tolerances. Where required, the compatibility with glands, connectors and accessories should be verified using actual dimensions of the product. Other sizes available upon request.

Bare Copper Conductors Stranded

Technical Data continued

Size		Area	Class A		Class B		Net Weight	dc Resistance*
			Number of	OD	Number of	OD		
AWG	kcmil	cmil	Strands	in	Strands	in	lb/kft	20 °C
14	—	4110	—	—	7	0.0726	13	2.5800
12	—	6530	—	—	7	0.0915	20	1.6300
10	—	10380	—	—	7	0.1160	32	1.0200
8	—	16510	—	—	7	0.1460	51	0.6400
6	—	26240	—	—	7	0.1840	81	0.4030
4	—	41740	7	0.232	7	0.2320	129	0.2530
3	—	52620	7	0.260	7	0.2600	163	0.2010
2	—	66360	7	0.292	7	0.2920	205	0.1590
1	—	83690	7	0.328	19	0.3320	258	0.1270
1/0	—	105600	7	0.368	19	0.3730	326	0.1000
2/0	—	133100	7	0.414	19	0.4190	411	0.7950
3/0	—	167800	7	0.464	19	0.4700	518	0.0630
4/0	—	211600	7	0.522	19	0.5280	653	0.0500
—	250	250000	19	0.574	37	0.5750	772	0.0423
—	300	300000	19	0.629	37	0.6300	926	0.0353
—	350	350000	19	0.679	37	0.6810	1081	0.0302
—	400	400000	19	0.726	37	0.7280	1235	0.0264
—	450	450000	37	0.772	37	0.7720	1389	0.0235
—	500	500000	37	0.813	37	0.8130	1544	0.0192
—	600	600000	37	0.891	61	0.8930	1883	0.0177
—	750	750000	61	0.998	61	0.9980	2316	0.0141
—	1000	1000000	61	1.152	61	1.1520	3088	0.0106
—	1250	1250000	61	1.288	91	1.2890	3859	0.0085
—	1500	1500000	61	1.411	91	1.4120	4631	0.0071
—	1750	1750000	91	1.526	127	1.5260	5403	0.0060
—	2000	2000000	91	1.630	127	1.6320	6175	0.0053
—	1500	1500000	61	1.411	91	1.4120	4631	0.0053
—	1750	1750000	91	1.526	127	1.5260	5403	0.0060
—	2000	2000000	91	1.630	127	1.6320	6175	0.0053

The provided data are approximate and may vary within standard manufacturing tolerances. When necessary, compatibility with glands, connectors, and accessories should be confirmed using the product's actual dimensions. Additional sizes are available upon request.

Direct current resistances apply to Class B, C, and D stranding.

Bare Copper Conductors Stranded

Technical Data continued

Size	Size	Strands	Breaking Strength						Allowable Ampacity †
			Hard Drawn Rated Strength	dc Resistance @ 20 °C	Medium-Hard Drawn Rated Strength	dc Resistance @ 20 °C	Soft Drawn (Annealed) Rated Strength	dc Resistance @ 20 °C	
			lb	Ω/kft	lb	Ω/kft	lb	Ω/kft	
AWG	kcmil								
14	—	7	197	2.67900	158	2.66500	—	—	—
12	—	7	311	1.68500	248	1.67600	—	—	—
10	—	7	492	1.06000	389	1.05400	—	—	—
8	—	7	777	0.66630	610	0.66290	499	.6408	98
6	—	7	1228	0.41910	959	0.41690	794	.40300	124
4	—	7	1938	0.26360	1505	0.26220	1320	.25340	155
3	—	7	2433	0.20900	1885	0.20790	1670	.20100	—
2	—	7	3050	0.16600	2360	0.16500	2110	.15780	209
1	—	7	3801	0.13160	2955	0.13090	2552	.12520	—
1/0	—	7	4752	0.10420	3705	0.10370	3221	.10020	282
2/0	—	7	5926	0.08267	4640	0.08224	4062	.07949	329
3/0	—	7	7366	0.06556	5812	0.06522	5118	.06304	382
4/0	—	7	9154	0.05199	7278	0.05172	6459	.04999	444
4/0	—	19	9617	0.05199	7479	0.05172	6453	.04999	444
—	250	19	11360	0.04400	8836	0.04378	7627	.04231	494
—	250	37	11600	0.04400	8952	0.04378	7940	.04231	494
—	300	19	13510	0.03667	10530	0.03648	9160	.03526	556
—	350	19	15590	0.03143	12200	0.03127	10680	.03022	—
—	500	37	22510	0.02200	17550	0.02189	15240	.02116	773
—	600	37	27020	0.01834	21060	0.01825	18300	.01763	—
—	750	61	34090	0.01467	26510	0.01459	22890	.01410	1000
—	1000	61	45030	0.01100	35100	0.01094	30500	.01058	1193

† Ampacity per NEC table 310.15 (B) (21) based on 80 °C Conductor Temperature, 40 °C Ambient Temperature, 2ft/s Wind in Sun.



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