

Aluminum Conductor Steel Reinforced

ASTM B549, Specification for Aluminum Conductor Aluminum-Cald Steel Reinforced (ACSR/AW)

Physical and Electrical Properties

Code Word	Size (AWG or kcmil)	Strand- ing (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	
			Al	Aw									
Swan/Aw	4	6/1	0.0834	0.0834	0.0834	0.25	39	16	55	1780	0.3917	0.4770	145
Swanate/Aw	4	7/1	0.0772	0.103	0.103	0.257	39	24	63	2280	0.3814	0.4642	148
Sparrow/Aw	2	6/1	0.1052	0.1052	0.1052	0.316	62	25	87	2760	0.2462	0.2997	194
Sparate/Aw	2	7/1	0.0974	0.1298	0.1298	0.325	62	38	100	3510	0.2396	0.2917	198
Robin/Aw	1	6/1	0.1181	0.1181	0.1181	0.354	78	31	109	3450	0.1950	0.2373	225
Raven/Aw	1/0	6/1	0.1327	0.1327	0.1327	0.398	99	39	138	4250	0.1547	0.1884	260
Quail/Aw	2/0	6/1	0.1489	0.1489	0.1489	0.447	124	50	174	5130	0.1227	0.1494	301
Pigeon/Aw	3/0	6/1	0.1672	0.1672	0.1672	0.502	156	63	219	6300	0.09747	0.1188	347
Penguin/Aw	4/0	6/1	0.1878	0.1878	0.1878	0.563	197	79	277	7690	0.07726	0.09422	402
Waxwing/Aw	266.8	18/1	0.1217	0.1217	0.1217	0.609	250	33	283	6820	0.06364	0.07776	451
Partridge/Aw	266.8	26/7	0.1013	0.0788	0.2363	0.642	251	98	349	10800	0.06169	0.07541	465
Ostrich/Aw	300.0	26/7	0.1074	0.0835	0.2506	0.68	283	110	393	12100	0.05489	0.06712	500
Merlin/Aw	336.4	18/1	0.1367	0.1367	0.1367	0.684	315	42	357	8540	0.05044	0.06175	522
Linnet/Aw	336.4	26/7	0.1137	0.0885	0.2654	0.72	317	123	440	13500	0.04897	0.05989	537
Oriole/Aw	336.4	30/7	0.1059	0.1059	0.3177	0.741	318	177	494	16700	0.04795	0.05861	547
Chickadee/Aw	397.5	18/1	0.1486	0.1486	0.1486	0.743	373	50	422	9780	0.04268	0.05230	580
Brant/Aw	397.5	24/7	0.1287	0.0858	0.2574	0.772	374	116	490	14100	0.04185	0.05124	592
Ibis/Aw	397.5	26/7	0.1236	0.0962	0.2885	0.783	374	146	520	15800	0.04144	0.05072	597
Lark/Aw	397.5	30/7	0.1151	0.1151	0.3453	0.806	375	209	584	19600	0.04059	0.04965	608
Pelican/Aw	477	18/1	0.1628	0.1628	0.1628	0.814	447	59	507	11500	0.03556	0.04344	651
Flicker/Aw	477	24/7	0.141	0.094	0.2819	0.846	449	139	589	16700	0.03487	0.04273	663
Hawk/Aw	477.0	26/7	0.1354	0.1053	0.316	0.858	449	175	624	18900	0.03453	0.04231	669
Hen/Aw	477.0	30/7	0.1261	0.1261	0.3783	0.883	450	251	701	23400	0.03382	0.04139	682
Osprey/Aw	556.5	18/1	0.1758	0.1758	0.1758	0.879	522	69	591	13200	0.03050	0.03749	715
Parakeet/Aw	556.5	24/7	0.1523	0.1015	0.3045	0.914	524	163	687	19300	0.02989	0.03667	731
Dove/Aw	556.5	26/7	0.1463	0.1138	0.3413	0.927	524	204	728	21900	0.02958	0.03627	737
Eagle/Aw	556.5	30/7	0.1362	0.1362	0.4086	0.953	525	293	818	26800	0.02899	0.03551	751
Peacock/Aw	605.0	24/7	0.1588	0.1058	0.3175	0.953	570	177	746	21000	0.02749	0.03377	770
Squab/Aw	605.0	26/7	0.1525	0.1186	0.3559	0.966	570	222	792	23600	0.02588	0.03341	777
Teal/Aw	605.0	30/19	0.142	0.0852	0.426	0.994	571	311	883	28500	0.02672	0.03274	791
Kingbird/Aw	636.0	18/1	0.188	0.188	0.188	0.94	596	79	675	15000	0.02667	0.03286	778
Rook/Aw	636.0	24/7	0.1628	0.1085	0.3256	0.977	599	186	785	22000	0.02616	0.03216	794
Grosbeak/Aw	636.0	26/7	0.1564	0.1216	0.3649	0.991	599	233	832	24800	0.02588	0.03179	801
Flamingo/Aw	666.6	24/7	0.1667	0.1111	0.3333	1	628	195	823	23100	0.02495	0.03069	818
Gannet/Aw	666.6	26/7	0.1601	0.1245	0.3736	1.014	628	245	872	26000	0.02470	0.03034	825
Starling/Aw	715.5	26/7	0.1659	0.129	0.3871	1.051	674	263	936	27500	0.02300	0.02830	863
Redwing/Aw	715.5	30/19	0.1544	0.0927	0.4633	1.081	676	368	1044	33400	0.02260	0.02777	878
Cuckoo/Aw	795.0	24/7	0.182	0.1213	0.364	1.092	749	232	981	27500	0.02093	0.02582	913
Drake/Aw	795	26/7	0.1749	0.136	0.408	1.107	749	292	1040	30500	0.02070	0.02549	922
Tern/Aw	795	45/7	0.1329	0.0886	0.2658	1.063	749	124	873	21500	0.02135	0.02638	896
Condor/Aw	795	54/7	0.1213	0.1213	0.364	1.092	749	232	981	27800	0.02091	0.02578	913
Mallard/Aw	795	30/19	0.1628	0.0977	0.4884	1.139	751	409	1160	37100	0.02033	0.02500	938
Ruddy/Aw	900	45/7	0.1414	0.0943	0.2828	1.131	848	140	988	24000	0.01886	0.02330	970
Canary/Aw	900	54/7	0.1291	0.1291	0.3873	1.162	848	263	1111	31000	0.01849	0.02286	986
Rail/Aw	954	45/7	0.1456	0.0971	0.2912	1.165	899	149	1047	25400	0.01779	0.02210	1003
Cardinal/Aw	954	54/7	0.1329	0.1329	0.3987	1.196	899	279	1177	32900	0.01744	0.02161	1022
Ortolan/Aw	1033.5	45/7	0.1515	0.101	0.3031	1.212	973	161	1134	27200	0.01641	0.02044	1054
Curlew/Aw	1033.5	54/7	0.1383	0.1383	0.415	1.245	973	302	1275	35200	0.01609	0.01997	1074
Bluejay/Aw	1113	45/7	0.1573	0.1048	0.3145	1.258	1048	173	1222	29300	0.01606	0.01905	1103
Pheasant/Aw	1272	54/19	0.1535	0.0921	0.4604	1.381	1204	364	1568	42400	0.01315	0.01646	1216
Bobolink/Aw	1431	45/7	0.1783	0.1189	0.3566	1.427	1348	223	1571	37600	0.01186	0.01503	1283
Lapwing/Aw	1590	45/7	0.188	0.1253	0.3759	1.504	1498	248	1745	41800	0.01069	0.01366	1365

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Physical and Electrical Properties

Code Word	Size (AWG or kcmil)	Strand- ing (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	
			Al	Aw									
High Mechanical Strength													
Grouse/AW	80	8/1	0.1	0.167	0.167	0.367	75.1	62.6	137.7	4890	0.1942	0.2357	227
Petrel/AW	101.8	12/7	0.0921	0.0921	0.2763	0.46	96	133.9	229.9	9910	0.1425	0.1736	281
Minorca/AW	110.8	12/7	0.0961	0.0961	0.2883	0.481	104.5	145.8	250.3	10800	0.1326	0.1594	297
Leghorn/AW	134.6	12/7	0.1059	0.1059	0.3177	0.53	127	177	304	13000	0.1078	0.1313	335
Guinea/AW	159	12/7	0.1151	0.1151	0.3453	0.576	150	209.1	359.1	15300	0.09123	0.1112	372
Dotterel/AW	176.9	12/7	0.1214	0.1214	0.3642	0.607	166.8	232.7	399.5	16900	0.08201	0.09988	398
Dorking/AW	190.8	12/7	0.1261	0.1261	0.3783	0.631	180	251	431	18300	0.07601	0.09261	418
Brahma/AW	203.2	16/19	0.1127	0.0977	0.4885	0.714	191.7	411	602.7	27100	0.0657	0.07994	464
Cochin/AW	211.3	12/7	0.1327	0.1327	0.3981	0.664	199.3	278	477.3	19800	0.06863	0.08364	445