

ACSR/AW

APPLICATION: Used as bare overhead transmission and as primary and secondary distribution cable. ACSR/AW offers strength characteristics similar to ACSR, along with slightly greater ampacity and resistance to corrosion due to aluminum-cladding of the steel core wires.

CONSTRUCTION: Aluminum alloy 1350-H19 wires, concentrically stranded around an aluminum-clad steel core.

SPECIFICATIONS: 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 Aluminum Conductors, Concentric-Lay-Stranded, Aluminum-Clad Steel Reinforced (ACSR/AW).

Code Word	Conductor Size	Stranding (Alu/AW)	Individual Strand Diameter			Complete Cable OD	Weight			Rated Breaking Strength	Resistance**		Ampacity*
			Alu	AW	AW Core		Alu	AW	Total		DC @ 20°C	AC @ 75°C	
	AWG/kcmil		Inches	Inches	Inches	Inches	lbs/kft	lbs/kft	lbs/kft	lbs	Ohms/kft	Ohms/kft	amps
Swan/Aw	4	6/1	0.0834	0.0834	0.0834	0.250	39	16	55	1,780	0.3917	0.477	145
Swanate/Aw	4	7/1	0.0772	0.103	0.1030	0.257	39	24	63	2,280	0.3814	0.4642	148
Sparrow/Aw	2	6/1	0.1052	0.1052	0.1052	0.316	62	25	87	2,760	0.2462	0.2997	194
Sparate/Aw	2	7/1	0.0974	0.1298	0.1298	0.325	62	38	100	3,510	0.2396	0.2917	198
Robin/Aw	1	6/1	0.1181	0.1181	0.1181	0.354	78	31	109	3,450	0.1950	0.2373	225
Raven/Aw	1/0	6/1	0.1327	0.1327	0.1327	0.398	99	39	138	4,250	0.1547	0.1884	260
Quail/Aw	2/0	6/1	0.1489	0.1489	0.1489	0.447	124	50	174	5,130	0.1227	0.1494	301
Pigeon/Aw	3/0	6/1	0.1672	0.1672	0.1672	0.502	156	63	219	6,300	0.09747	0.1188	347
Penguin/Aw	4/0	6/1	0.1878	0.1878	0.1878	0.563	197	79	277	7,690	0.07726	0.09422	402
Waxwing/Aw	266.8	18/1	0.1217	0.1217	0.1217	0.609	250	33	283	6,820	0.06364	0.07776	451
Partridge/Aw	266.8	26/7	0.1013	0.0788	0.2363	0.642	251	98	349	10,800	0.06169	0.07541	465
Ostrich/Aw	300.0	26/7	0.1074	0.0835	0.2506	0.680	283	110	393	12,100	0.05489	0.06712	500
Merlin/Aw	336.4	18/1	0.1367	0.1367	0.1367	0.684	315	42	357	8,540	0.05044	0.06175	522
Linnet/Aw	336.4	26/7	0.1137	0.0885	0.2654	0.720	317	123	440	13,500	0.04897	0.05989	537
Oriole/Aw	336.4	30/7	0.1059	0.1059	0.3177	0.741	318	177	494	16,700	0.04795	0.05861	547
Chickadee/Aw	397.5	18/1	0.1486	0.1486	0.1486	0.743	373	50	422	9,780	0.04268	0.0523	580
Brant/Aw	397.5	24/7	0.1287	0.0858	0.2574	0.772	374	116	490	14,100	0.04185	0.05124	592
Ibis/Aw	397.5	26/7	0.1236	0.0962	0.2885	0.783	374	146	520	15,800	0.04144	0.05072	597
Lark/Aw	397.5	30/7	0.1151	0.1151	0.3453	0.806	375	209	584	19,600	0.04059	0.04965	608
Pelican/Aw	477.0	18/1	0.1628	0.1628	0.1628	0.814	447	59	507	11,500	0.03556	0.04344	651
Flicker/Aw	477.0	24/7	0.1410	0.0940	0.2819	0.846	449	139	589	16,700	0.03487	0.04273	663

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	AWG/kcmil		Inches	Inches	Inches		lbs/kft	lbs/kft	lbs/kft		Ohms/kft	Ohms/kft	
Hawk/Aw	477.0	26/7	0.1354	0.1053	0.3160	0.858	449	175	624	18,900	0.03453	0.04231	669
Hen/Aw	477.0	30/7	0.1261	0.1261	0.3783	0.883	450	251	701	23,400	0.03382	0.04139	682
Osprey/Aw	556.5	18/1	0.1758	0.1758	0.1758	0.879	522	69	591	13,200	0.03050	0.03749	715
Parakeet/Aw	556.5	24/7	0.1523	0.1015	0.3045	0.914	524	163	687	19,300	0.02989	0.03667	731
Dove/Aw	556.5	26/7	0.1463	0.1138	0.3413	0.927	524	204	728	21,900	0.02958	0.03627	737
Eagle/Aw	556.5	30/7	0.1362	0.1362	0.4086	0.953	525	293	818	26,800	0.02899	0.03551	751
Peacock/Aw	605.0	24/7	0.1588	0.1059	0.3175	0.953	570	177	746	21,000	0.02749	0.03377	770
Squab/Aw	605.0	26/7	0.1525	0.1186	0.3559	0.966	570	222	792	23,600	0.02588	0.03341	777
Teal/Aw	605.0	30/19	0.1420	0.0852	0.4260	0.994	571	311	883	28,500	0.02672	0.03274	791
Kingbird/Aw	636.0	18/1	0.1880	0.1880	0.1880	0.94	596	79	675	15,000	0.02667	0.03286	778
Rook/Aw	636.0	24/7	0.1628	0.1085	0.3256	0.977	599	186	785	22,000	0.02616	0.03216	794
Grosbeak/Aw	636.0	26/7	0.1564	0.1216	0.3649	0.991	599	233	832	24,800	0.02588	0.03179	801
Flamingo/Aw	666.6	24/7	0.1667	0.1111	0.3333	1.000	628	195	823	23,100	0.02495	0.03069	818
Gannet/Aw	666.6	26/7	0.1601	0.1245	0.3736	1.014	628	245	872	26,000	0.02470	0.03034	825
Starling/Aw	715.5	26/7	0.1659	0.1290	0.3871	1.051	674	263	936	27,500	0.02300	0.0283	863
Redwing/Aw	715.5	30/19	0.1544	0.0927	0.4633	1.081	676	368	1,044	33,400	0.02260	0.02777	878
Cuckoo/Aw	795.0	24/7	0.1820	0.1213	0.3640	1.092	749	232	981	27,500	0.02093	0.02582	913
Drake/Aw	795.0	26/7	0.1749	0.1360	0.4080	1.107	749	292	1,040	30,500	0.0207	0.02549	922
Tern/Aw	795.0	45/7	0.1329	0.0886	0.2658	1.063	749	124	873	21,500	0.02135	0.02638	896
Condor/Aw	795.0	54/7	0.1213	0.1213	0.3640	1.092	749	232	981	27,800	0.02091	0.02578	913
Mallard/Aw	795.0	30/19	0.1628	0.0977	0.4884	1.139	751	409	1,160	37,100	0.02033	0.02500	938
Ruddy/Aw	900.0	45/7	0.1414	0.0943	0.2828	1.131	848	140	988	24,000	0.01886	0.02330	970
Canary/Aw	900.0	54/7	0.1291	0.1291	0.3873	1.162	848	263	1,111	31,000	0.01849	0.02286	986
Rail/Aw	954.0	45/7	0.1456	0.0971	0.2912	1.165	899	149	1,047	25,400	0.01779	0.02210	1,003
Cardinal/Aw	954.0	54/7	0.1329	0.1329	0.3987	1.196	899	279	1,177	32,900	0.01744	0.02161	1,022
Ortolan/Aw	1033.5	45/7	0.1515	0.1010	0.3031	1.212	973	161	1,134	27,200	0.01641	0.02044	1,054
Curlew/Aw	1033.5	54/7	0.1383	0.1383	0.4150	1.245	973	302	1,275	35,200	0.01609	0.01997	1,074
Bluejay/Aw	1113	45/7	0.1573	0.1048	0.3145	1.258	1,048	173	1,222	29,300	0.01606	0.01905	1,103
Pheasant/Aw	1272	54/19	0.1535	0.0921	0.4604	1.381	1,204	364	1,568	42,400	0.01315	0.01646	1,216

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	AWG/kcmil		Inches	Inches	Inches		lbs/kft	lbs/kft	lbs/kft		Ohms/kft	Ohms/kft	
Bobolink/Aw	1431	45/7	0.1783	0.1189	0.3566	1.427	1,348	223	1,571	37,600	0.01186	0.01503	1,283
Lapwing/Aw	1590	45/7	0.1880	0.1253	0.3759	1.504	1,498	248	1,745	41,800	0.01069	0.01366	1,365
High Mechanical Strength													
Grouse/Aw	80.0	8/1	0.1000	0.1670	0.1670	0.367	75	63	138	4,890	0.1942	0.2357	227
Petrel/Aw	101.8	12/7	0.0921	0.0921	0.2763	0.460	96	134	230	9,910	0.1425	0.1736	281
Minorca/Aw	110.8	12/7	0.0961	0.0961	0.2883	0.481	105	146	251	10,800	0.1326	0.1594	297
Leghorn/Aw	134.6	12/7	0.1059	0.1059	0.3177	0.530	127	177	304	13,000	0.1078	0.1313	335
Guinea/Aw	159.0	12/7	0.1151	0.1151	0.3453	0.576	150	209	359	15,300	0.09123	0.1112	372
Dotterel/Aw	176.9	12/7	0.1214	0.1214	0.3642	0.607	167	233	400	16,900	0.08201	0.09988	398
Dorking/Aw	190.8	12/7	0.1261	0.1261	0.3783	0.631	180	251	431	18,300	0.07601	0.09261	418
Brahma/Aw	203.2	16/19	0.1127	0.0977	0.4885	0.714	192	411	603	27,100	0.06570	0.07994	464
Cochin/Aw	211.3	12/7	0.1327	0.1327	0.3981	0.664	199	278	477	19,800	0.06863	0.08364	445

All values are nominal and subject to correction

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

** Resistance is calculated using ASTM standard increments of stranding, and metal conductivity of 61.2% IACS for Alu (1350) and 8% IACS for steel. AC (60Hz) resistance includes current dependent hysteresis loss factor for 1 and 3 layer constructions.