



ACSR/AW - Aluminum Conductor Steel Reinforced/AW Core

Product Description

Concentric-lay-stranded conductors made from round Aluminum Alloy 1350-H19 with an aluminum-clad steel core, either AW2 (normal strength) or AW3 (high strength).

Application

Primarily used as the phase conductor for overhead transmission and distribution. It is preferred over conventional ACSR because of its higher corrosion resistance, lighter weight, longer service life, and reduced power loss.

Product Data

Code Word	Size (AWG or kcmil)	Stranding (AI/AW)	Diameter (ins.)			Weight Per 1000 ft (lbs.)			Rated Strength (lbs.)	Resistance OHMS/1000ft		Allowable Ampacity+ (Amps)
			Individual Wires	Complete Cable	AI	AW	Total	DC @20°C		AC @75°C		
			AL	AW		AI	AW	Total				
Swan/AW	4	6/1	.0834	.0834	.250	39	16	55	1780	.3917	.4770	145
Swanate/AW	4	7/1	.0772	.1029	.257	39	24	63	2280	.3814	.4642	148
Sparrow/AW	2	6/1	.1052	.1052	.316	62	25	87	2760	.2462	.2997	194
Sparate/AW	2	7/1	.0974	.1299	.325	62	38	100	3510	.2396	.2917	198
Robin/AW	1	6/1	.1182	.1182	.355	78	31	109	3450	.1950	.2373	225
Raven/AW	1/0	6/1	.1327	.1327	.398	99	39	138	4250	.1547	.1884	260
Quail/AW	2/0	6/1	.1490	.1490	.447	124	50	174	5130	.1227	.1494	301
Pigeon/AW	3/0	6/1	.1672	.1672	.502	156	63	219	6300	.09747	.1188	347
Penguin/AW	4/0	6/1	.1878	.1878	.563	197	79	277	7690	.07726	.09422	402
Waxwing/AW	266.8	18/1	.1217	.1217	.609	250	33	283	6820	.06364	.07776	451
Partridge/AW	266.8	26/7	.1013	.0788	.642	251	98	349	10800	.06169	.07541	465
Ostrich/AW	300	26/7	.1074	.0835	.680	283	110	393	12100	.05489	.06712	500
Merlin/AW	336.4	18/1	.1367	.1367	.684	315	42	357	8540	.05044	.06175	522
Linnet/AW	336.4	26/7	.1138	.0885	.721	317	123	440	13500	.04897	.05989	537
Oriole/AW	336.4	30/7	.1059	.1059	.741	318	177	494	16700	.04795	.05861	547
Chickadee/AW	397.5	18/1	.1486	.1486	.743	373	50	422	9780	.04268	.05230	580
Brant/AW	397.5	24/7	.1287	.0858	.772	374	116	490	14100	.04185	.05124	592
Ibis/AW	397.5	26/7	.1236	.0961	.783	374	146	520	15800	.04144	.05072	597
Lark/AW	397.5	30/7	.1151	.1151	.806	375	209	584	19600	.04059	.04965	608
Pelican/AW	477	18/1	.1628	.1628	.814	447	59	507	11500	.03556	.04344	651
Flicker/AW	477	24/7	.1410	.0940	.846	449	139	589	16700	.03487	.04273	663
Hawk/AW	477	26/7	.1355	.1054	.858	449	175	624	18900	.03453	.04231	669
Hen/AW	477	30/7	.1261	.1261	.883	450	251	701	23400	.03382	.04139	682
Osprey/AW	556.5	18/1	.1758	.1758	.879	522	69	591	13200	.03050	.03749	715
Parakeet/AW	556.5	24/7	.1523	.1015	.914	524	163	687	19300	.02989	.03667	731
Dove/AW	556.5	26/7	.1463	.1138	.927	524	204	728	21900	.02958	.03627	737
Eagle/AW	556.5	30/7	.1362	.1362	.953	525	293	818	26800	.02899	.03551	751
Peacock/AW	605	24/7	.1588	.1059	.953	570	177	746	21000	.02749	.03377	770
Squab/AW	605	26/7	.1525	.1186	.966	570	222	792	23600	.02588	.03341	777
Teal/AW	605	30/19	.1420	.0852	.994	571	311	883	28500	.02672	.03274	791
Kingbird/AW	636	18/1	.1880	.1880	.940	596	79	675	15000	.02667	.03286	778
Rook/AW	636	24/7	.1628	.1085	.977	599	186	785	22000	.02616	.03216	794
Grobeak/AW	636	26/7	.1564	.1216	.990	599	233	832	24800	.02588	.03179	801
Egret/AW	636	30/19	.1456	.0874	1.019	601.4	327.5	928.9	29930	--	--	--
Flamingo/AW	666.6	24/7	.1667	.1111	1.000	628	195	823	23100	.02495	.03069	818
Gannet/AW	666.6	26/7	.1601	.1245	1.014	628	245	872	26000	.02470	.03034	825
Starling/AW	715.5	26/7	.1659	.1290	1.051	674	263	939	27500	.02300	.02830	863
Redwing/AW	715.5	30/19	.1544	.0926	1.081	676	368	1044	33400	.02260	.02777	878
Turn/AW	795	45/7	.1329	.0886	1.063	749	124	873	21500	.02135	.02638	896
Cuckoo/AW	795	24/7	.1820	.1213	1.092	749	232	981	27500	.02093	.02582	913
Drake/AW	795	26/7	.1749	.1360	1.108	749	292	1040	30500	.02070	.02549	922
Condor/AW	795	54/7	.1213	.1214	1.093	749	232	981	27800	.02091	.02578	913
Mallard/AW	795	30/19	.1628	.0977	1.140	751	409	1160	37100	.02033	.02500	938
Ruddy/AW	900	45/7	.1414	.0943	1.131	848	140	988	24000	.01886	.02330	970
Canary/AW	900	54/7	.1291	.1291	1.162	848	263	1111	31000	.01849	.02286	986
Catbird/AW	954	36/1	.1628	.1628	1.140	938	6.2	955	19460	--	--	--
Rail/AW	954	45/7	.1456	.0971	1.165	899	149	1047	25400	.01779	.02210	1003
Cardinal/AW	954	54/7	.1329	.1329	1.196	899	279	1177	32900	.01744	.02161	1022
Ortolan/AW	1033.5	45/7	.1515	.1010	1.212	973	161	1134	27200	.01641	.02044	1054
Curlew/AW	1033.5	54/7	.1383	.1383	1.244	973	302	1275	35200	.01609	.01997	1074
Bluejay/AW	1113	45/7	.1573	.1049	1.259	1048	173	1222	29300	.01606	.01905	1103
Finch/AW	1113	54/19	.1436	.0862	1.293	1055	319	1374	37500	--	--	--
Bunting/AW	1192.5	45/7	.1628	.1085	1.302	1125	186	1311	31300	--	--	--
Blitern/AW	1272	45/7	.1681	.1121	1.345	1200	198	1398	33400	--	--	--
Pheasant/AW	1272	54/19	.1535	.0921	1.382	1204	364	1568	42400	.01315	.01646	1216
Bobolink/AW	1431	45/7	.1783	.1189	1.427	1348	223	1571	37600	.01186	.01503	1283
Lapwing/AW	1590	45/7	.1880	.1253	1.504	1498	248	1745	41800	.01069	.01366	1365

High Strength ACSR/AW-Aluminum Conductor Steel Reinforced/AW Core

Code Word	Size (AWG or kcmil)	Stranding (AI/AW)	Diameter (ins.)			Weight Per 1000 ft (lbs.)			Rated Strength (lbs.)	Resistance OHMS/1000ft		Allowable Ampacity+ (Amps)
			Individual Wires	Complete Cable	AI	AW	Total	DC @20°C		AC @75°C		
			AL	AW		AI	AW	Total				
Grouse/AW	80.0	8/1	.1000	.1670	.367	75.1	62.6	137.7	4,890	.1942	.2357	227
Petrel/AW	101.8	12/7	.0921	.0921	.460	96.0	133.9	229.9	9,910	.1425	.1736	281
Minorca/AW	110.8	12/7	.0961	.0961	.481	104.5	145.8	250.3	10,800	.1326	.1594	297
Leghorn/AW	134.6	12/7	.1059	.1059	.530	127.0	177.0	304.0	13,000	.1078	.1313	335
Guinea/AW	159.0	12/7	.1151	.1151	.576	150.0	209.1	359.1	15,300	.09123	.1112	372
Dotterel/AW	176.9	12/7	.1261	.1261	.631	180.0	251.0	399.5	16,900	.08201	.09988	398
Dorking/AW	190.8	12/7	.1261	.1261	.631	180.0	251.0	431.0	18,300	.07601	.09261	418
Brahma/AW	203.2	16/19	.1127	.0977	.714	191.7	411.0	602.7	21,100	.06570	.07994	464
Cochin/AW	211.3	12/7	.1327	.1327	.664	199.3	278.0	477.3	19800	.06863	.8364	445

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

*Manufactured with pride in DeKalb, IL USA.

Specification Data

ASTM B-230	Aluminum wire, 1350-H19 for electrical purposes
ASTM B-502	Aluminum-clad steel core wire for aluminum conductors, aluminum-clad steel reinforced, either AW2 (normal strength) or AW3 (high strength)
ASTM B-549	Aluminum conductors, concentric-lay-stranded, aluminum-clad steel reinforced (ACSR/AW)

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