

## SPECIFICATIONS AND STANDARDS:

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

B-230 Aluminum Wire, 1350-H19 for Electrical Purposes

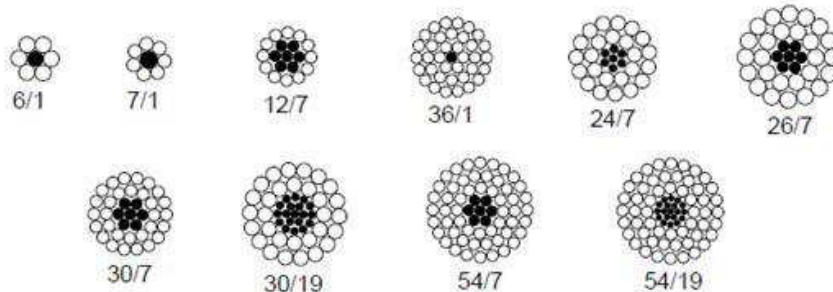
B-502 Aluminum-Clad Steel Core Wire for Aluminum Conductors, Aluminum-Clad Steel Reinforced.

B-549 Aluminum Conductors, Concentric-Lay-Stranded, Aluminum-Clad Steel Reinforced (ACSR/AW)



## CONSTRUCTION:

Aluminum alloy 1350-H-19 wires, concentrically stranded about a steel core. Core wire for ACSR is available with class A, B, or C galvanizing; "aluminized" aluminum coated (AZ); or aluminum-clad (AW) - please see our ACSR/AW spec for more information. Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.



## APPLICATIONS:

Aluminum Conductors Steel Reinforced /AW code(ACSR/AW) is recommended for use as a transmission cable between the power station and substations, and as primary and secondary distribution cable. It is composed out of 1350-H19 aluminum wires surrounding an aluminum clad steel core. ACSR/AW has as high breaking load as ACSR but better conductivity. ACSR/AW is considered less sensitive to corrosion due to its steel wires being protected by aluminum layer.

This catalogue shows the most common sizes of conductor but other sizes, to any customer specification can also be supplied.



# ACSR/AW

Aluminum Conductor Aluminum-Clad Steel Reinforced. Bare

## ACSR/AW conductors manufactured to ASTM B-549.

Code word	Size AW or kcmil	Stranding (Al/AW)	Diameter(ins.)				Comp. cable	Weight per 1000 ft. (Lbs)			Rated strength (Lbs)	Resistance $\Omega$ /1000 ft.		Allowable ampacity+ (Amps)
			Individual wire		AW core	Al		AW	Total	DC at 20°C		AC at 75°C		
			Al	AW										
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	
Lbis/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	



# ACSR/AW

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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	1.000	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
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	100
Cardina/AW	954	54/7	.1329	.1329	.3987	1.196	899	279	1177	32900	.01744	.02161	102
Ortolan/AW	1033.5	45/7	.1515	.101	.3031	1.212	973	161	1134	27200	.01641	.02044	105
Crulew/AW	1033.5	54/7	.1383	.1383	.415	1.245	973	302	1275	35200	.01609	.01997	107
Bluejay/AW	1113	45/7	.1573	.1048	.3145	1.258	1048	173	1222	29300	.01606	.01905	110
Pheasant/AW	1272	54/19	.1535	.0921	.4604	1.381	1204	364	1568	42400	.01315	.01646	121
Bobolink/AW	1431	45/7	.1783	.1189	.3566	1.427	1348	223	1571	37600	.01186	.01503	128
Lapwing/AW	1590	45/7	.188	.1253	.3759	1.504	1498	248	1745	41800	.01069	.01366	136

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

## ACSR/AW

Code word	Size (AWG) or	Strand- ing (Al/AW)	Diameter(ins.)				Weight per 1000 ft. (Lbs)			Rated strength (Lbs)	Resistance $\Omega$ /1000 ft.		Allowable ampacity+ (Amps)
			Individual wire		AW core	Comp. cable	Al	AW	Total		DC at 20°C	AC at 75°C	
			Al	AW									
<b>HIGH MECHANICAL STRENGTH</b>													
Grouse/AW	80	8/1	.1000	.1670	.1670	.367	75.1	62.6	137.7	4890	.1942	.2357	227
Petrel/AW	101.8	12/7	.0921	.0921	.2763	.460	96.0	133.9	229.9	9910	.1425	.1736	281
Minorca/AW	110.8	12/7	.0961	.0961	.2883	.481	104.5	145.8	250.3	10800	.1326	.1594	297



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Leghorn/AW	134.6	12/7	.1059	.1059	.3177	.530	127.0	177.0	304.0	13000	.1078	.1313	335
Guinea/AW	159.0	12/7	.1151	.1151	.3453	.576	150.0	209.1	359.1	15300	.09123	.1112	372
Dotterol/AW	176.9	12/7	.1214	.1214	.3642	.607	166.8	232.7	399.5	16900	.08201	.09988	398
Dorking/AW	190.8	12/7	.1261	.1261	.3783	.631	180.0	251.0	431.0	18300	.07601	.09261	418
Brahma/AW	203.2	16/19	.1127	.0977	.4885	.714	191.7	411.0	602.7	27100	.06570	.07994	464
Cochin/AW	211.3	12/7	.1327	.1327	.3981	.664	199.3	278.0	477.3	19800	.06863	.08364	445

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