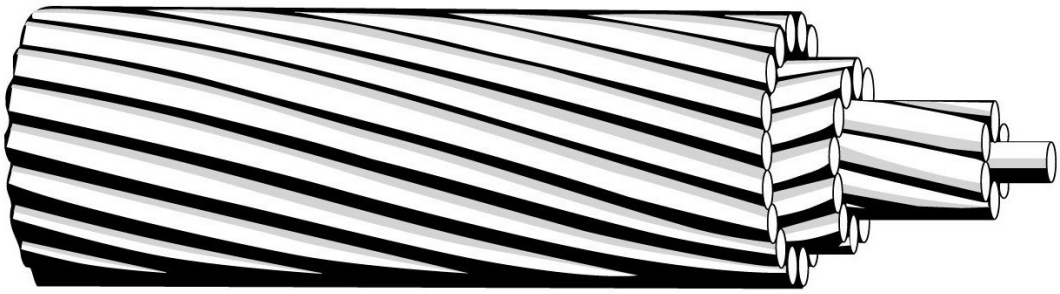
ACSR

Aluminum Conductor. Steel Reinforced . Bare.



APPLICATIONS

Used as bare overhead transmission conductor and as primary and secondary distribution conductor and messenger support. ACSR offers optimal strength for line design. Variable steel core stranding enables desired strength to be achieved without sacrificing ampacity.

SPECIFICATIONS

Southwire's ACSR 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

- Aluminum 1350-H19 wires, concentrically stranded about a steel core. Standard core wire for ACSR is class A galvanized.
- Class A core stranding is also available in zinc-5% aluminum-mischmetal alloy coating.
- For aluminum-clad (AW) ACSR, please refer to the ACSR/AW catalog sheet
- Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.
- ACSR conductor is also available in non-specular.

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Code Word	Size (AWG or kcmil)	Strand-ing (Al/Stl)	Diameter (ins.)				Weight Per 1000 ft. (lbs.)			Content (%)		Rated Strength (lbs.)	Resistance OHMS/1000 ft.		Allowable Ampacity+ (Amps)
			Individual Wires		Steel Core	Complete 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

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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.

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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	@ 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															

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