

ACSR

Aluminum Conductor Steel Reinforced

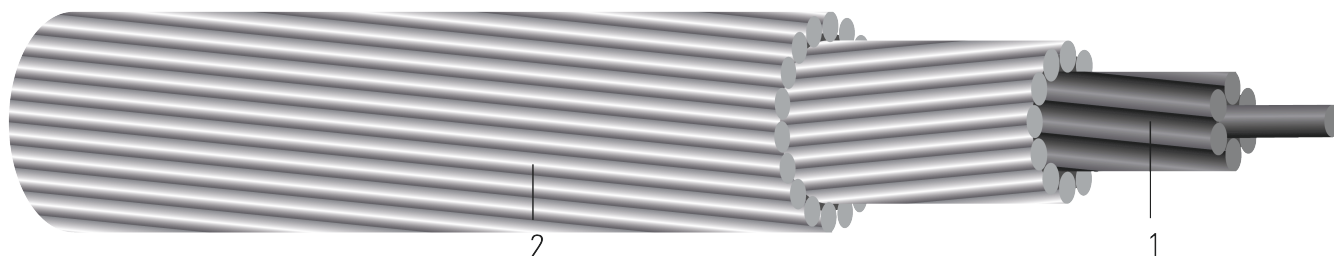


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Core:** Class A core stranding is also available in zinc-5% aluminum-mischmetal alloy coating.
2. **Stranding:** Aluminum 1350-H19 wires, concentrically stranded about a steel core.

- Standard core wire for ACSR is class A galvanized.
- 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.

APPLICATIONS AND FEATURES:

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:

- ASTM B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- ASTM B232 Concentric-Lay-Stranded, Aluminum Conductors, Coated Steel Reinforced (ACSR)
- ASTM B498 Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)
- ASTM B500 Metallic Coated Stranded Steel Core for use in overhead Electrical Conductors



Table 1 – Weights and Measurements

Stock Number	Code Word	Size (AWG or kcmil)	Stranding (Al/Stl)	AL Strand Dia inch	Steel Strand Dia inch	Steel Core inch	Overall OD inch	AL Weight lbs/1,000'	Steel Weight lbs/1,000'	Overall Weight lbs/1,000'
101162	Turkey	6	6/1	0.0661	0.0661	0.0661	0.198	24	12	36
101170	Swan	4	6/1	0.0834	0.0834	0.0834	0.25	39	18	57
101188	Swanate	4	7/1	0.0772	0.103	0.103	0.257	39	28	67
101196	Sparrow	2	6/1	0.1052	0.1052	0.1052	0.316	62	29	91
101204	Sparate	2	7/1	0.0974	0.1298	0.1298	0.325	62	45	107
101212	Robin	1	6/1	0.1181	0.1181	0.1181	0.354	78	37	115
101220	Raven	1/0	6/1	0.1327	0.1327	0.1327	0.398	99	47	145
101238	Quail	2/0	6/1	0.1489	0.1489	0.1489	0.447	124	59	183
101246	Pigeon	3/0	6/1	0.1672	0.1672	0.1672	0.502	156	74	230
101253	Penguin	4/0	6/1	0.1878	0.1878	0.1878	0.563	197	93	291
101261	Waxwing	266.8	18/1	0.1217	0.1217	0.1217	0.609	250	39	289
101345	Partridge	266.8	26/7	0.1013	0.0788	0.2363	0.642	251	115	367
621641	Ostrich	300	26/7	0.1074	0.0835	0.2506	0.68	283	130	412
101279	Merlin	336.4	18/1	0.1367	0.1367	0.1367	0.684	315	49	365
101360	Linnet	336.4	26/7	0.1137	0.0885	0.2654	0.72	317	146	462
101378	Oriole	336.4	30/7	0.1059	0.1059	0.3177	0.741	318	209	526
101287	Chickadee	397.5	18/1	0.1486	0.1486	0.1486	0.743	373	58	431
	Brant	397.5	24/7	0.1287	0.0858	0.2574	0.772	374	137	511
101386	Ibis	397.5	26/7	0.1236	0.0962	0.2885	0.783	374	172	546
101394	Lark	397.5	30/7	0.1151	0.1151	0.3453	0.806	375	247	622
101295	Pelican	477	18/1	0.1628	0.1628	0.1628	0.814	447	70	517
101402	Flicker	477	24/7	0.141	0.094	0.2819	0.846	449	164	614
101410	Hawk	477	26/7	0.1354	0.1053	0.316	0.858	449	207	656
101428	Hen	477	30/7	0.1261	0.1261	0.3783	0.883	450	296	746
101303	Osprey	556.5	18/1	0.1758	0.1758	0.1758	0.879	522	82	603
101436	Parakeet	556.5	24/7	0.1523	0.1015	0.3045	0.914	524	192	716
101444	Dove	556.5	26/7	0.1463	0.1138	0.3413	0.927	524	241	765
101451	Eagle	556.5	30/7	0.1362	0.1362	0.4086	0.953	525	345	871
101469	Peacock	605	24/7	0.1588	0.1059	0.3177	0.953	570	209	779
663730	Squab	605	26/7	0.1525	0.1186	0.3559	0.966	570	262	832
	Wood Duck	605	30/7	0.142	0.142	0.426	0.994	571	375	946
101709	Teal	605	30/19	0.142	0.0852	0.426	0.994	571	367	939
101311	Kingbird	636	18/1	0.188	0.188	0.188	0.94	596	94	690
	Swift	636	36/1	0.1329	0.1329	0.1329	0.93	596	47	643
101485	Rook	636	24/7	0.1628	0.1085	0.3256	0.977	599	219	818
101493	Grosbeak	636	26/7	0.1564	0.1216	0.3649	0.991	599	275	874
	Scoter	636	30/7	0.1456	0.1456	0.4368	1.019	600	395	995
101717	Egret	636	30/19	0.1456	0.0874	0.4368	1.019	600	386	987
101519	Flamingo	666.6	24/7	0.1667	0.1111	0.3333	1	628	230	858
	Gannet	666.6	26/7	0.1601	0.1245	0.3736	1.014	628	289	916
	Stilt	715.5	24/7	0.1727	0.1151	0.3453	1.036	674	247	920



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Stock Number	Code Word	Size	Stranding	AL Strand Dia	Steel Strand Dia	Steel Core	Overall OD	AL Weight	Steel Weight	Overall Weight
		(AWG or kcmil)	(Al/Stl)	inch	inch	inch	inch	lbs/1,000'	lbs/1,000'	lbs/1,000'
101527	Starling	715.5	26/7	0.1659	0.129	0.3871	1.051	674	310	984
	Redwing	715.5	30/19	0.1544	0.0927	0.4633	1.081	676	435	1110
101337	Coot	795	36/1	0.1486	0.1486	0.1486	1.04	745	58	804
101543	Drake	795	26/7	0.1749	0.136	0.408	1.107	749	344	1093
101550	Tern	795	45/7	0.1329	0.0886	0.2658	1.063	749	146	895
101568	Condor	795	54/7	0.1213	0.1213	0.364	1.092	749	274	1023
101733	Mallard	795	30/19	0.1628	0.0977	0.4884	1.14	751	483	1234
298570	Ruddy	900	45/7	0.1414	0.0943	0.2828	1.131	848	165	1013
101584	Canary	900	54/7	0.1291	0.1291	0.3873	1.162	848	310	1158
101592	Rail	954	45/7	0.1456	0.0971	0.2912	1.165	899	175	1074
101600	Cardinal	954	54/7	0.1329	0.1329	0.3987	1.196	899	329	1227
101618	Ortolan	1033.5	45/7	0.1515	0.101	0.3031	1.212	973	190	1163
101626	Curlew	1033.5	54/7	0.1383	0.1383	0.415	1.245	973	356	1330
101634	Bluejay	1113	45/7	0.1573	0.1048	0.3145	1.258	1048	205	1253
101741	Finch	1113	54/19	0.1436	0.0861	0.4307	1.292	1053	375	1429
101642	Bunting	1192.5	45/7	0.1628	0.1085	0.3256	1.302	1123	219	1343
101758	Grackle	1192.5	54/19	0.1486	0.0892	0.4458	1.337	1129	402	1531
101659	Bittern	1272	45/7	0.1681	0.1121	0.3362	1.345	1198	234	1432
101766	Pheasant	1272	54/19	0.1535	0.0921	0.4605	1.381	1204	429	1633
101667	Dipper	1351.5	45/7	0.1733	0.1155	0.3466	1.386	1273	248	1521
101774	Martin	1351.5	54/19	0.1582	0.0949	0.4746	1.424	1279	456	1735
101675	Bobolink	1431	45/7	0.1783	0.1189	0.3566	1.427	1348	263	1611
101691	Lapwing	1590	45/7	0.188	0.1253	0.3759	1.504	1498	292	1790
101808	Falcon	1590	54/19	0.1716	0.103	0.5148	1.544	1505	536	2041
226043	Chukar	1780	84/19	0.1456	0.0874	0.4368	1.602	1685	386	2072
194241	Bluebird	2156	84/19	0.1602	0.0962	0.4808	1.762	2040	468	2508
226043	Kiwi	2167	72/7	0.1735	0.1157	0.347	1.735	2051	249	2300
101816	Grouse	80	8/1	0.1	0.1667	0.1667	0.367	75	74	149
101824	Petrel	101.8	12/7	0.0921	0.0921	0.2763	0.461	96	158	254
101832	Minorca	110.8	12/7	0.0961	0.0961	0.2885	0.481	104	172	276
101840	Leghorn	134.6	12/7	0.1059	0.1059	0.3177	0.53	127	209	336
101857	Guinea	159	12/7	0.1151	0.1151	0.3453	0.576	150	247	396
203190	Dotterel	176.9	12/7	0.1214	0.1214	0.3642	0.607	167	274	441
101873	Dorking	190.8	12/7	0.1261	0.1261	0.3783	0.631	180	296	476
101881	Brahma	203.2	16/19	0.1127	0.0977	0.4885	0.714	191	483	675
101899	Cochin	211.3	12/7	0.1327	0.1327	0.3981	0.664	199	328	527



Table 2 – Electrical and Engineering Data

Stock Number	Code Word	Size	Rated Strength	DC Resistance @ 20C	AC Resistance @ 75C	Allowable Ampacity+
		(AWG or kcmil)	lbs	Ohms/1,000'	Ohms/1,000'	Amps
101162	Turkey	6	1190	0.641	0.806	105
101170	Swan	4	1860	0.403	0.515	140
101188	Swanate	4	2360	0.399	0.519	140
101196	Sparrow	2	2850	0.254	0.332	184
101204	Sparate	2	3460	0.251	0.338	184
101212	Robin	1	3550	0.201	0.268	212
101220	Raven	1/0	4380	0.159	0.217	242
101238	Quail	2/0	5310	0.126	0.176	276
101246	Pigeon	3/0	6620	0.1	0.144	315
101253	Penguin	4/0	8350	0.0795	0.119	357
101261	Waxwing	266.8	6880	0.0643	0.0787	449
101345	Partridge	266.8	11300	0.0637	0.0779	475
621641	Ostrich	300	12700	0.0567	0.0693	492
101279	Merlin	336.4	8680	0.051	0.0625	519
101360	Linnet	336.4	14100	0.0505	0.0618	529
101378	Oriole	336.4	17300	0.0502	0.0613	535
101287	Chickadee	397.5	9940	0.0432	0.0529	576
	Brant	397.5	14600	0.043	0.0526	584
101386	Ibis	397.5	16300	0.0428	0.0523	587
101394	Lark	397.5	20300	0.0425	0.0519	594
101295	Pelican	477	11800	0.036	0.0442	646
101402	Flicker	477	17200	0.0358	0.0439	655
101410	Hawk	477	19500	0.0356	0.0436	659
101428	Hen	477	23800	0.0354	0.0433	666
101303	Osprey	556.5	13700	0.0308	0.0379	711
101436	Parakeet	556.5	19800	0.0307	0.0376	721
101444	Dove	556.5	22600	0.0306	0.0375	726
101451	Eagle	556.5	27800	0.0303	0.0372	734
101469	Peacock	605	21600	0.0282	0.0346	760
663730	Squab	605	24300	0.0281	0.0345	765
	Wood Duck	605	28900	0.0279	0.0342	774
101709	Teal	605	30000	0.0279	0.0342	773
101311	Kingbird	636	15700	0.027	0.0332	773
	Swift	636	13690	0.0271	0.0334	769
101485	Rook	636	22600	0.0268	0.033	784
101493	Grosbeak	636	25200	0.0267	0.0328	789
	Scoter	636	30400	0.0256	0.0325	798
101717	Egret	636	31500	0.0266	0.0326	798
101519	Flamingo	666.6	23700	0.0256	0.0315	807
	Gannet	666.6	26400	0.0255	0.0313	812
	Stilt	715.5	25500	0.0239	0.0294	844



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Stock Number	Code Word	Size (AWG or kcmil)	Rated Strength lbs	DC Resistance @ 20C Ohms/1,000'	AC Resistance @ 75C Ohms/1,000'	Allowable Ampacity+
101527	Starling	715.5	28400	0.0238	0.0292	849
	Redwing	715.5	34600	0.0236	0.029	859
101337	Coot	795	16710	0.0217	0.0268	884
101543	Drake	795	31500	0.0214	0.0263	907
101550	Tern	795	22100	0.0216	0.0269	887
101568	Condor	795	28200	0.0215	0.0272	889
101733	Mallard	795	38400	0.0213	0.0261	918
298570	Ruddy	900	24400	0.0191	0.0239	958
101584	Canary	900	31900	0.019	0.0241	961
101592	Rail	954	25900	0.018	0.0225	993
101600	Cardinal	954	33800	0.0179	0.0228	996
101618	Ortolan	1033.5	27700	0.0167	0.0209	1043
101626	Curlew	1033.5	36600	0.0165	0.0211	1047
101634	Bluejay	1113	29800	0.0155	0.0194	1092
101741	Finch	1113	39100	0.0154	0.0197	1093
101642	Bunting	1192.5	32000	0.0144	0.0182	1139
101758	Grackle	1192.5	41900	0.0144	0.0184	1140
101659	Bittern	1272	34100	0.0135	0.0171	1184
101766	Pheasant	1272	43600	0.0135	0.0173	1187
101667	Dipper	1351.5	36200	0.0127	0.0162	1229
101774	Martin	1351.5	46300	0.0127	0.0163	1232
101675	Bobolink	1431	38300	0.012	0.0153	1272
101691	Lapwing	1590	42200	0.0108	0.0139	1354
101808	Falcon	1590	54500	0.0108	0.014	1359
226043	Chukar	1780	51000	0.0097	0.0125	1453
194241	Bluebird	2156	60300	0.00801	0.0105	1623
226043	Kiwi	2167	49800	0.00801	0.0106	1607
101816	Grouse	80	5190	0.2065	0.2888	205
101824	Petrel	101.8	10400	0.1583	0.2493	234
101832	Minorca	110.8	11300	0.1454	0.2331	245
101840	Leghorn	134.6	13600	0.1197	0.2	271
101857	Guinea	159	16000	0.1014	0.1757	296
203190	Dotterel	176.9	17300	0.0911	0.1618	313
101873	Dorking	190.8	18700	0.0845	0.153	325
101881	Brahma	203.2	28400	0.0764	0.1499	340
101899	Cochin	211.3	20700	0.0763	0.141	343

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

