



## ACSR ALUMINUM CONDUCTOR STEEL REINFORCED

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

**PRODUCT FEATURES:** Aluminum alloy 1350-H-19 wires, concentrically stranded about one steel core. Core wire for ACSR is available with class A, B, or C galvanizing; “aluminized” aluminum coated (AZ); or aluminum-clad (AW). Additional corrosion protection is available through the application of grease to the core or infusion of the complete cable with grease.

**SPECIFICATIONS:** ACSR bare conductor meets or exceeds the following ASTM specifications:

- **B-230** Aluminum Wire, 1350-H19 for Electrical Purposes
- **B-231** Aluminum Conductors, Concentric-Lay-Stranded
- **B-232** Aluminum Conductors, Concentric-Lay-Stranded, Coated Steel Reinforced
- **B-341** Aluminum-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR/AZ)
- **B-498** Zinc-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR/AZ)
- **B-500** Zinc-Coated and Aluminum-Coated Stranded Steel Core for Aluminum Conductors, Steel Reinforced (ACSR)



**KINGWIRE ACSR - Aluminum Conductor Steel Reinforced**

Code Word	Size (AWG or KCM)	Stranding (AL/STL)	Diameter				Weight per 1000 ft (Lbs)			Content %		Rated Breaking Strength (Lbs)	Resistance OHMS/1000 ft		Rating (AMPS)
			Indiv. Wire AL	Indiv. Wire STL	Steel Core	Complete Cable OD	AL	STL	Total	AL	STL		DC @ 20°C	AC @ 75°C	
Turkey	6	6/1	.0661	.0661	.0661	.198	24.5	11.6	36.1	67.90	32.10	1,190	.641	.806	105
Swan	4	6/1	.0834	.0834	.0834	.250	39.0	18.4	57.4	67.90	32.10	1,860	.403	.515	140
Swanate	4	7/1	.0772	.1029	.1029	.257	39.0	28.0	67.0	58.13	41.87	2,360	.399	.519	140
Sparrow	2	6/1	.1052	.1052	.1052	.316	62.0	29.3	91.3	67.90	32.10	2,850	.254	.332	184
Sparate	2	7/1	.0974	.1299	.1299	.325	62.0	44.7	105.7	58.13	41.87	3,640	.251	.338	184
Robin	1	6/1	.1181	.1181	.1181	.354	78.2	36.9	115.1	67.90	32.10	3,550	.201	.258	212
Raven	1/0	6/1	.1327	.1327	.1327	.398	98.7	46.6	145.3	67.90	32.10	4,380	.149	.217	242
Quail	2/0	6/1	.1489	.1489	.1489	.447	124.3	58.7	183.0	67.90	32.10	5,300	.126	.176	276
Pigeon	3/0	6/1	.1672	.1672	.1672	.502	156.7	74.0	230.7	67.90	32.10	6,620	.100	.144	315
Penguin	4/0	6/1	.1878	.1878	.1878	.563	197.7	93.4	291.1	67.90	32.10	8,350	.0795	.119	357
Waxwing	266.8	18/1	.1217	.1217	.1217	.609	250.3	39.2	289.5	86.45	13.55	6,880	.0643	.0787	449
Partridge	266.8	26/7	.1013	.0788	.2364	.642	251.7	115.6	367.2	68.53	31.47	11,300	.0637	.0779	475
Ostrich	300.0	26/7	.1074	.0835	.2505	.680	282.9	129.8	412.7	68.53	31.47	12,700	.0567	.0693	492
Merlin	336.4	18/1	.1367	.1367	.1367	.683	315.8	49.5	365.2	86.45	13.55	8,680	.0510	.0625	519
Linnet	336.4	26/7	.1137	.0884	.2642	.720	317.1	145.4	462.5	68.53	31.47	14,100	.0505	.0618	529
Oriole	336.4	30/7	.1059	.1059	.3117	.741	318.2	208.9	527.1	60.35	39.65	17,800	.0505	.0613	535
Chickadee	397.5	18/1	.1486	.1486	.1486	.743	373.1	58.5	431.6	86.45	13.55	9,940	.0432	.0529	576
Brant	397.5	24/7	.1287	.0858	.2574	.772	375.0	137.0	512.0	73.23	26.77	14,500	.0430	.0526	584
Ibis	397.5	26/7	.1236	.0961	.2882	.783	374.7	171.9	546.6	68.53	31.47	16,300	.0428	.0523	587
Lark	397.5	30/7	.1151	.1151	.3453	.806	375.8	346.8	622.6	60.35	39.65	20,300	.0425	.0519	594
Pelican	477.0	18/1	.1628	.1628	.1628	.814	447.8	70.2	518.0	86.45	13.55	11,800	.0360	.0442	646
Flicker	477.0	24/7	.1410	.0940	.2820	.846	450.1	164.4	614.5	73.23	26.77	17,200	.0358	.0439	655
Hawk	477.0	26/7	.1354	.1053	.3159	.858	449.6	205.4	656.0	68.53	31.47	19,500	.0356	.0436	659
Hen	477.0	30/7	.1261	.1261	.3783	.883	451.1	298.2	747.3	60.35	39.65	23,800	.0354	.0433	666
Osprey	556.5	18/1	.1758	.1758	.1758	.879	552.2	81.8	604.0	86.45	13.55	13,700	.0308	.0379	711
Parakeet	556.5	24/7	.1523	.1015	.3045	.914	525.1	191.7	716.8	73.23	26.77	19,800	.0307	.0376	721
Dove	556.5	26/7	.1463	.1138	.3414	.927	525.0	241.0	766.0	68.53	31.47	22,500	.0306	.0375	726
Eagle	556.5	30/7	.1362	.1362	.4086	.953	526.3	345.6	871.9	60.35	39.75	27,800	.0303	.0372	734
Peacock	605.0	24/7	.1588	.1059	.3177	.953	570.2	208.7	779.6	73.23	26.77	21,600	.0282	.0346	760
Squab	605.0	26/7	.1525	.1186	.3558	.966	570.4	261.8	832.2	68.53	31.47	24,300	.0281	.0345	765
Wood Duck	605.0	30/7	.1420	.1420	.4260	.994	572.0	375.6	947.6	50.35	39.55	28,900	.0279	.0342	774
Teal	605.0	30/19	.1420	.0852	.4260	.994	572.0	367.4	939.4	60.89	39.11	30,000	.0278	.0342	773
Kingbird	636.0	18/1	.1880	.1880	.1880	.940	596.4	93.6	690.8	86.45	13.55	15,700	.0270	.0332	773
Swift	636.0	36/1	.1329	.1329	.1329	.930	596.9	46.8	643.7	92.80	7.20	13,800	.0271	.0334	769
Rook	636.0	24/7	.1628	.1085	.3255	.977	600.0	219.1	819.1	73.23	26.77	22,600	.0268	.0330	784
Grosbeak	636.0	26/7	.1564	.1216	.3648	.990	598.7	276.2	874.1	68.53	31.47	25,200	.0267	.0328	789
Scoter	636.0	30/7	.1456	.1456	.4368	1.019	601.4	394.9	996.3	60.35	39.55	30,400	.0256	.0325	798
Egret	636.0	30/19	.1456	.0874	.4370	1.019	601.4	386.6	988.0	60.89	39.11	31,500	.0266	.0326	798

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

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			Indiv. Wire AI	Indiv. Wire STL	Steel Core	Complete Cable OD	AL	STL	Total	AL	STL		DC @ 20°C	AC @ 75°C	
Flamingo	666.6	24/7	.1667	.1111	.333	1.000	629.1	229.7	858.8	73.23	26.77	23,700	.0256	.0315	807
Gannet	666.6	26/7	.1501	.1245	.2725	1.014	628.7	288.5	917.2	68.53	31.47	26,400	.0255	.0313	812
Stilt	715.5	24/7	.1727	.1151	.3453	1.036	675.2	246.5	921.7	73.23	26.77	25,500	.0239	.0294	844
Starling	715.5	26/7	.1659	.1290	.3870	1.051	675.0	309.7	984.7	68.53	31.47	28,400	.0238	.0292	849
Redwing	715.5	30/19	.1544	.0926	.4630	1.081	676.3	434.0	1110	6089	39.11	34,600	.0236	.0290	859
Coot	715.0	36/1	.1486	.1486	.1486	1.040	746.2	58.5	804.7	92.80	7.20	16,800	.0217	.0268	884
Cuckoo	795.0	24/7	.1820	.1213	.3640	1.092	749.9	273.8	1024	72.23	26.77	27,900	.0215	.0265	901
Drake	795.0	26/7	.1749	.1360	.4080	1.108	750.3	344.2	1094	68.53	31.47	31,500	.0214	.0261	907
Tern	795.0	45/7	.1329	.0886	.2660	1.063	749.8	146.1	895.5	83.69	16.31	22,100	.0216	.0269	887
Condor	795.0	54/7	.1213	.1213	.3639	1.092	749.5	273.6	1023	73.25	26.75	28,200	.0215	.0272	889
Mallard	795.0	30/19	.1628	.0977	.4885	1.140	751.9	483.1	1235	60.89	39.11	38,400	.0213	.0261	918
Ruddy	900.0	45/7	.1414	.0943	.2829	1.131	848.7	165.5	1014	83.69	16.31	24,400	.0191	.0239	958
Canary	900.0	54/7	.1291	.1291	.3873	1.162	849.0	309.9	1149	73.25	26.75	31,900	.0190	.0241	961
Rail	954.0	45/7	.1456	.0971	.2913	1.165	899.9	175.5	1075	83.69	16.31	25,900	.0180	.0225	993
Cardinal	954.0	54/7	.1329	.1329	.3987	1.196	899.0	328.4	1228	73.25	26.75	33,800	.0179	.0228	996
Ortolan	1033.5	45/7	.1515	.1010	.3030	1.212	974.3	189.8	1164	83.69	16.31	37,700	.0167	.0209	1043
Curlew	1033.5	54/7	.1383	.1383	.4149	1.245	974.3	355.6	1330	73.25	26.75	36,600	.0165	.0211	1047
Bluejay	1113.0	45/7	.1573	.1049	.3147	1.259	1050	204.8	1255	83.69	16.31	29,800	.0155	.0194	1092
Finch	1113.0	54/19	.1436	.0862	.4310	1.293	1056	276.1	1432	73.75	26.75	39,100	.0154	.0197	1093
Bunting	1192.5	45/7	.1628	.1085	.3255	1.302	1125	219.1	1344	83.69	16.31	32,000	.0144	.0182	1139
Grackle	1192.5	54/19	.1486	.0892	.4460	1.338	1130	402.7	1533	73.75	26.25	41,900	.0144	.0184	1140
Bittern	1272.0	45/7	.1681	.1121	.3363	1.345	1200	233.9	1433	83.69	16.31	34,100	.0135	.0171	1184
Pheasant	1272.0	54/19	.1535	.0921	.4605	1.382	1206	429.3	1635	73.75	26.25	43,500	.0135	.0173	1187
Dipper	1351.0	45/7	.1733	.1155	.3465	1.386	1275	248.3	1525	83.69	16.31	36,200	.0127	.0162	1229
Martin	1351.0	54/19	.1582	.0949	.4745	1.424	1281	455.8	1737	72.75	26.25	46,300	.0127	.0163	1232
Bobolink	1431.0	45/7	.1783	.1189	.3567	1.427	1350	263.1	1613	83.69	16.31	38,300	.0120	.0153	1272
Plover	1431.0	54/19	.1628	.0977	.4885	1.465	1357	483.1	1840	73.75	26.25	49,100	.0120	.0155	1275
Nuthatch	1510.5	45/7	.1832	.1221	.3663	1.465	1425	277.4	1702	83.69	16.31	40,100	.0144	.0146	1313
Parrot	1510.5	54/19	.1672	.1003	.5015	1.505	1431	509.2	1940	73.75	26.25	51,700	.0114	.0147	1318
Lapwing	1590.0	45/7	.1880	.1253	.3759	1.504	1505	292.2	1797	83.69	16.31	42,200	.0108	.0139	1354
Falcon	1590.0	54/19	.1716	.1030	.5150	1.545	1507	537.0	2044	73.75	26.25	54,500	.0108	.0137	1359
Chukar	1780.0	84/19	.1456	.0874	.4370	1.602	1688	386.6	2975	81.3	18.7	51,000	.0097	.0125	1453
Bluebird	2156.0	84/19	.1602	.0961	.4805	1.762	2044	467.4	2511	81.3	18.7	60,300	.0081	.0106	1623
Kiwi	2167.0	72/7	.1735	.1157	.3471	1.735	2055	248.9	2303	89.2	10.8	49,800	.0080	.0106	1607
Thrasher	2312.0	76/19	.1744	.0814	.4070	1.802	2191	335.4	2527	86.73	13.27	56,700	.0075	.0100	1673
Joree	2515.0	76/19	.1819	.0849	.4245	1.880	2384	364.8	2749	85.73	13.27	61,700	.0069	.0093	1751

- Resistance is calculated using ASTM standard increments of stranding, and metal conductivities of 61.2% IACS for EC (1350), and 8% IACS for steel. AC (60 Hz) resistance includes current dependent hysteresis loss factor for 1 and 3 constructions.
- Current ratings are based on 75°C conductor temperature, 25°C ambient, 2ft/sec wind, 96/watts/sq. foot sun, 0.5 coefficients of emissivity and absorption.