



ACSS - Aluminum Conductor Steel Supported

APPLICATION: Used for Overhead distribution and transmission lines, new line applications that require high emergency loading, and where vibration is a problem. ACSS operates continuously at high temperatures up to 250°C full strength. Although similar to standard ACSR, ACSS sags less and is self-damping during installation. It also carries a higher current than standard ACSR.

CONSTRUCTION: Aluminum alloy 1350 wires, concentrically stranded around a steel core. Non-Specular finish available on request.

SPECIFICATIONS: ACSS bare conductors meet or exceed the following ASTM specifications:

- B-498 Zinc-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)
- B-606 High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced
- B-609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes
- B-802 Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)
- B-803 High-Strength Zinc-5 % Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Use in Overhead Electrical Conductors
- B-856 Concentric Lay-Stranded Aluminum Conductors, Coated Steel Supported (ACSS)

Code Word	Conductor Size	Stranding (Alu/Steel)	Diameter			Comple e Cable Outer Dia	Weight			Rated Strength		Resistance*		Ampacity* @ 200°C
			Individual Wire		Steel Core		Alu	Steel	Total	Standard	High Strength	DC @ 20°C	AC @ 75°C	
			Alu	Steel										
	AWG/kcmil		Inches	Inches	Inches	Inches	lbs/kft	lbs/kft	lbs/kft	lbs/kft	lbs	Ohms/kf	Ohms/kf	amps
Partridge/ACSS	266.8	26/7	0.1013	0.0788	0.236	0.642	252	116	367	8880	9730	0.0619	0.0761	812
Junco/ACSS	266.8	30/7	0.0943	0.0943	0.283	0.660	252	166	418	11700	13000	0.0615	0.0756	822
Ostrich/ACSS	300.0	26/7	0.1074	0.0835	0.251	0.680	283	130	413	10000	10900	0.0551	0.0677	877
Linnet/ACSS	336.4	26/7	0.1137	0.0885	0.265	0.720	317	146	463	11200	12300	0.0491	0.0604	945
Oriole/ACSS	336.4	30/7	0.1059	0.1059	0.318	0.741	318	209	527	14800	16300	0.0488	0.0600	957
Brant/ACSS	397.5	24/7	0.1287	0.0858	0.257	0.772	375	137	512	11000	12100	0.0417	0.0514	1047
Ibis/ACSS	397.5	26/7	0.1236	0.0962	0.289	0.783	375	172	547	13000	14200	0.0416	0.0512	1054
Lark/ACSS	397.5	30/7	0.1151	0.1151	0.345	0.806	376	247	622	17500	19300	0.0413	0.0508	1068
Flicker/ACSS	477.0	24/7	0.1410	0.0940	0.282	0.846	450	164	614	1300	14200	0.0348	0.0429	1180
Hawk/ACSS	477.0	26/7	0.1354	0.1053	0.316	0.858	450	207	657	15600	17100	0.0346	0.0427	1188
Hen/ACSS	477.0	30/7	0.1261	0.1261	0.378	0.883	451	296	747	21000	22700	0.0344	0.0424	1204
Parakeet/ACSS	556.5	24/7	0.1523	0.1015	0.305	0.914	522	192	714	15200	16600	0.0298	0.0368	1306
Dove/ACSS	556.5	26/7	0.1463	0.1138	0.341	0.927	525	241	766	18200	19900	0.0297	0.0366	1315
Eagle/ACSS	556.5	30/7	0.1362	0.1362	0.409	0.953	526	345	871	24500	26500	0.0295	0.0363	1331
Peacock/ACSS	605.0	24/7	0.1588	0.1058	0.318	0.953	571	209	779	16500	18100	0.0274	0.0339	1379
Squab/ACSS	605.0	26/7	0.1525	0.1186	0.356	0.966	571	262	833	19700	21300	0.0273	0.0345	1389
Wood Duck/ACSS	605.0	30/7	0.1420	0.1420	0.426	0.994	572	375	947	26000	28300	0.0271	0.0337	1407





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			Individual Wire		Steel Core		Alu	Steel	Total	Standard	High Strength	DC @ 20°C	AC @ 75°C	
			Alu	Steel										
	AWG/kcmil		Inches	Inches	Inches	Inches	lbs/kft	lbs/kft	lbs/kft	lbs/kft	lbs	Ohms/kf	Ohms/kf	amps
Teal/ACSS	605.0	30/19	0.1420	0.0852	0.426	0.994	572	367	940	26600	29300	0.0272	0.0335	1406
Rook/ACSS	636.0	24/7	0.1628	0.1085	0.326	0.977	600	219	819	17300	19000	0.0261	0.0322	1425
Grosbeak/ACSS	636.0	26/7	0.1564	0.1216	0.365	0.991	600	275	875	20700	22400	0.0260	0.0321	1435
Scoter/ACSS	636.0	24/7	0.1456	0.1456	0.437	1.019	601	395	996	27400	29700	0.0258	0.0318	1454
Egret/ACSS	636.0	26/7	0.1456	0.0874	0.437	1.019	601	387	988	28000	30900	0.0258	0.0319	1453
Flamingo/ACSS	666.6	24/7	0.1667	0.1111	0.333	1.000	629	230	859	18200	19900	0.0249	0.0308	1470
Gannet/ACSS	666.6	26/7	0.1601	0.1245	0.374	1.014	629	289	917	21700	23400	0.0248	0.0306	1480
Stilt/ACSS	715.5	24/7	0.1727	0.1151	0.345	1.036	675	247	921	19500	21300	0.0232	0.0287	1540
Starling/ACSS	715.5	26/7	0.1659	0.1290	0.387	1.051	375	310	985	23300	25200	0.0231	0.0286	1550
Redwing/ACSS	715.5	30/19	0.1544	0.0927	0.463	1.081	677	435	1111	30800	34000	0.0230	0.0284	1570
Cuckoo/ACSS	795.0	24/7	0.1820	0.1213	0.364	1.092	750	274	1024	21700	23300	0.0209	0.0259	1650
Drake/ACSS	795.0	26/7	0.1749	0.1360	0.408	1.107	750	344	1094	25900	28000	0.0209	0.0257	1662
Macaw/ACSS	795.0	42/7	0.1376	0.0764	0.229	1.055	750	109	859	11800	12600	0.0211	0.0262	1662
Tern/ACSS	795.0	45/7	0.1329	0.0886	0.266	1.063	750	146	896	14200	15200	0.0210	0.0263	1618
Condor/ACSS	795.0	54/7	0.1213	0.1213	0.364	1.092	750	274	1024	21700	23300	0.0209	0.0266	1618
Mallard/ACSS	795.0	30/19	0.1628	0.0977	0.488	1.139	752	483	1235	34300	37900	0.0207	0.0255	1683
Ruddy/ACSS	900.0	45/7	0.1414	0.0943	0.283	1.131	849	165	1014	15800	17000	0.0186	0.0233	1755
Canary/ACSS	900.0	54/7	0.1291	0.1291	0.387	1.162	849	310	1159	24600	26400	0.0184	0.0238	1756
Redbird/ACSS	900.0	24/7	0.1994	0.1329	0.399	1.198	900	329	1229	26000	28000	0.0174	0.0217	1859
Rail/ACSS	954.0	45/7	0.1456	0.0971	0.291	1.165	900	175	1075	16700	18000	0.0175	0.0220	1824
Towhee/ACSS	954.0	48/7	0.1410	0.1097	0.329	1.175	900	224	1124	19700	21300	0.0150	0.0218	1842
Cardinal/ACSS	954.0	54/7	0.1329	0.1329	0.399	1.196	900	329	1229	26000	28000	0.0174	0.0233	996
Canvasback/ACSS	954.0	30/19	0.1783	0.1070	0.535	1.248	902	580	1482	41100	45400	0.0172	0.0214	1897
Snowbird/ACSS	1033.5	42/7	0.1569	0.0871	0.261	1.203	975	141	1116	15400	16500	0.0162	0.0204	1924
Ortolan/ACSS	1033.5	45/7	0.1515	0.1010	0.303	1.212	975	190	1165	18100	19500	0.0162	0.0204	1921





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			Individual Wire		Steel Core		Alu	Steel	Total	Standard	High Strength	DC @ 20°C	AC @ 75°C	
			Alu	Steel										
	AWG/kcmil		Inches	Inches	Inches	Inches	lbs/kft	lbs/kft	lbs/kft	lbs/kft	lbs	Ohms/kf	Ohms/kf	amps
Curlew/ACSS	1033.5	54/7	0.1383	0.1383	0.415	1.245	975	356	1331	28200	30300	0.0161	0.0206	1924
Grackle/ACSS	1192.5	54/19	0.1486	0.0892	0.446	1.338	1120	409	1531	32600	35500	0.0140	0.0182	2085
Bluejay/ACSS	1113.0	45/7	0.1573	0.1048	0.315	1.258	1050	205	1254	19500	21100	0.0150	0.0190	2017
Finch/ACSS	1113.0	54/19	0.1436	0.0861	0.431	1.292	1055	376	1431	30400	33200	0.0150	0.0193	2015
Bunting/ACSS	1192.5	45/7	0.1628	0.1085	0.326	1.302	1125	219	1344	21400	23500	0.0140	0.0178	2110
Bittern/ACSS	1272.0	45/7	0.1681	0.1121	0.336	1.345	1200	234	1434	22300	24000	0.0131	0.0167	2200
Pheasant/ACSS	1272.0	54/19	0.1535	0.0921	0.460	1.381	1206	429	1635	34100	37300	0.0131	0.0169	2200
Dipper/ACSS	1351.0	45/7	0.1733	0.1155	0.347	1.386	1274	248	1523	23700	2500	0.0124	0.0158	2289
Martin/ACSS	1351.0	54/19	0.1582	0.9049	0.475	1.424	1281	456	1737	36200	39600	0.0123	0.0160	2288
Bobolink/ACSS	1431.0	45/7	0.1783	0.1189	0.357	1.427	1350	263	1613	25100	27000	0.0117	0.0150	2375
Plover/ACSS	1431.0	54/19	0.1628	0.0977	0.488	1.465	1356	483	1939	38400	41900	0.0117	0.0151	2375
Nuthatch/ACSS	1510.0	45/7	0.1832	0.1221	0.366	1.465	1424	278	1702	26500	28100	0.0111	0.0143	2459
Parrot/ACSS	1510.0	54/19	0.1672	0.1003	0.502	1.505	1431	510	1941	40400	44200	0.0110	0.0144	2460
Ratite/ACSS	1590.0	42/7	0.1946	0.1081	0.324	1.492	1500	217	1717	23400	25000	0.0105	0.0136	2543
Lapwing/ACSS	1590.0	45/7	0.1880	0.1253	0.376	1.504	1500	292	1792	27900	29600	0.0105	0.0136	2543
Falcon/ACSS	1590.0	54/19	0.1716	0.1030	0.515	1.544	1507	537	2044	42600	46600	0.0105	0.0137	2545
Chukar/ACSS	1780.0	84/19	0.1456	0.0873	0.437	1.601	1687	386	2073	35400	38200	0.0094	0.0122	2751
Mockingbird/ACSS	2034.5	72/7	0.1681	0.1121	0.336	1.681	1928	234	2162	7200	28900	0.0083	0.0110	2960
Roadrunner/ACSS	2057.0	76/19	0.1645	0.0768	0.384	1.700	1950	298	2248	31700	33900	0.0082	0.0108	2992
Bluebird/ACSS	2156.0	84/19	0.1602	0.0961	0.481	1.762	2044	468	2511	42100	45000	0.0078	0.0103	3106
Kiwi/ACSS	2167.0	72/7	0.1735	0.1157	0.347	1.735	2054	249	2303	29000	30800	0.0078	0.0104	3080
Thrasher/ACSS	2312.0	76/19	0.1744	0.0814	0.407	1.802	2191	335	2527	35600	38100	0.0073	0.0098	3218
Joree/ACSS	2515.0	76/19	0.1819	0.0849	0.425	1.880	2384	365	2749	38700	41400	0.0067	0.0092	3390

All values are nominal and subject to correction

*Resistance and ampacity based on an aluminum conductivity of 63%, IACS at 20°C, and a steel conductivity of 8% IACS at 20°C.

*Ampacity based on a 200°C conductor temperature, 25°C ambient temperature, 2ft/sec. Wind Packing Note: Must have 18" of cable exposed and secured at inner end

