



## SPECIFICATIONS AND STANDARDS

ACAR bare conductor meets or exceeds the following ASTM specifications:

B-341 Aluminum-Coated Steel Core Wire for Aluminum Conductors, Steel Reinforced.

B-500 Metallic Coated Stranded Steel Core For Aluminum 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.

B-803 High-Strength Zinc-5% Aluminum-Mischmetal Alloy-Coated Steel Core Wire for Aluminum and Aluminum-Alloy Conductors, Steel Reinforced.

B-856 Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Supported (ACSS)

## CONSTRUCTION

ACAR is composed out of 1350-H19 aluminum wires surrounding a aluminum alloy 6201-T81 core. Some of the constructions include alternate wires (1350-H19 and alloy 6201-T81) in the same layer.

## APPLICATIONS

Aluminum Conductor Steel Supported is recommended for use high temperature lines mainly when conductor is done over an existing line construction. In this case same tensions and loads are applied over the line but higher currents can be transferred

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



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## ACSS conductors manufactured to ASTM-B856.

Code word (ACSS)	Size (kcmil)	Stranding (Al/St)	Diameter(In)				Weight per 1000 ft (lb)	Rated strength			Resistance		Ampacity at 200°C(AMPS)
			Individual wire		Steel core	Comp. cable		Standard strength Lbs	High strength Lbs	HS285** strength Lbs	DC at 20°C	AC at 75°C	
			Al	Steel									
Partridge	266.8	26/7	0.1013	0.0788	0.2363	0.642	366.8	8880	9730	11400	.0619	.0761	812
Junco	266.8	30/7	0.0943	0.0943	0.2829	0.660	417.4	11700	13000	15200	.0615	.0756	822
Ostrich	300.0	26/7	0.1074	0.0835	0.2506	0.680	412.4	10000	10900	12800	.0551	.0677	877
Linnet	336.4	26/7	0.1137	0.0885	0.2654	0.720	462.5	11200	12300	14400	.0491	.0604	945
Oriole	336.4	30/7	0.1059	0.1059	0.3177	0.741	526.3	14800	16300	19100	.0488	.0600	957
Brant	397.5	24/7	0.1287	0.0858	0.2574	0.772	511.4	11000	12100	14100	.0417	.0514	1047
Lbis	397.5	26/7	0.1236	0.0962	0.2885	0.783	546.5	13000	14200	16500	.0416	.0512	1054
Lark	397.5	30/7	0.1151	0.1151	0.3453	0.806	621.9	17500	19300	22600	.0413	.0508	1068
Flick	477	24/7	0.1410	0.0940	0.2819	0.846	613.6	13000	14200	16400	.0348	.0429	1180
Haw	477	26/7	0.1354	0.1053	0.3160	0.858	655.8	15600	17100	19800	.0346	.0427	1188
Hen	477	30/7	0.1261	0.1261	0.3783	0.883	746.3	21000	22700	26700	.0344	.0424	1204
Par	556.5	24/7	0.1523	0.1015	0.3045	0.914	715.9	15200	16600	19200	.0298	.0368	1306
Dov	556.5	26/7	0.1463	0.1138	0.3413	0.927	765.1	18200	19900	23200	.0297	.0366	1315
Eagl	556.5	30/7	0.1362	0.1362	0.4086	0.953	870.6	24500	26500	31100	.0295	.0363	1331
Pea	605	24/7	0.1588	0.1058	0.3175	0.953	778.3	16500	18100	20800	.0274	.0339	1379
Squ	605	26/7	0.1525	0.1186	0.3559	0.966	831.8	19700	21300	25200	.0273	.0337	1389
Woo	605	30/7	0.1420	0.1420	0.4260	0.994	946.5	26000	28300	33300	.0271	.0334	1407
Teal	605	30/19	0.1420	0.0852	0.4260	0.994	938.6	26600	29300	34800	.0272	.0335	1406
Roo	636	24/7	0.1628	0.1085	0.3256	0.977	818.2	17300	19000	21900	.0261	.0322	1425
Gro	636	26/7	0.1564	0.1216	0.3649	0.991	874.4	20700	22400	26000	.0260	.0321	1435
Scot	636	30/7	0.1456	0.1456	0.4368	1.019	995.0	27400	29700	35000	.0258	.0318	1454
Egr	636	30/19	0.1456	0.0874	0.4368	1.019	986.8	28000	30900	36600	.0258	.0319	1453
Fla	666.6	24/7	0.1667	0.1111	0.3333	1.000	857.6	18200	19900	22900	.0249	.0308	1470
Gan	666.6	26/7	0.1601	0.1245	0.3736	1.014	916.4	21700	23400	27300	.0248	.0306	1480
Stilt	715.5	24/7	0.1727	0.1151	0.3453	1.036	920.5	19500	21300	24600	.0232	.0287	1540
Starl	715.5	26/7	0.1659	0.1290	0.3871	1.051	983.7	23300	25200	29800	.0231	.0286	1550
Red	715.5	30/19	0.1544	0.0927	0.4633	1.081	1110.1	30800	34000	39800	.0230	.0284	1570
Cuc	795	24/7	0.1820	0.1213	0.3640	1.092	1022.7	21700	23300	26900	.0209	.0259	1650



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Drak	795	26/7	0.1749	0.1360	0.4080	1.107	1093.0	25900	28000	32600	.0209	.0257	1662
Mac	795	42/7	0.1376	0.0764	0.2293	1.055	857.5	11800	12600	14300	.0211	.0262	1621
Tern	795	45/7	0.1329	0.0886	0.2658	1.063	894.9	14200	15200	17400	.0210	.0263	1618
Con	795	54/7	0.1213	0.1213	0.3640	1.092	1022.7	21700	23300	26900	.0209	.0266	1618
Mall	795	30/19	0.1628	0.0977	0.4884	1.139	1233.4	34300	37900	44300	.0207	.0255	1683
Rud	900	45/7	0.1414	0.0943	0.2828	1.131	1013.1	15800	17000	19200	.0186	.0233	1755
Can	900	54/7	0.1291	0.1291	0.3873	1.162	1157.8	24600	26400	30500	.0184	.0236	1756
Red	954	24/7	0.1994	0.1329	0.3987	1.196	1227.3	26000	28000	32300	.0174	.0217	1859
Rail	954	45/7	0.1456	0.0971	0.2912	1.165	1073.9	16700	18000	20400	.0175	.0220	1824
Tow	954	48/7	0.1410	0.1097	0.3290	1.175	1122.3	19700	21300	24300	.0175	.0218	1842
Car	954	54/7	0.1329	0.1329	0.3987	1.196	1227.3	26000	28000	32300	.0174	.0223	1825
Can	954	30/19	0.1783	0.1070	0.5350	1.248	1480.1	41100	45400	53100	.0172	.0214	1897
Sno	1033.5	42/7	0.1569	0.0871	0.2614	1.203	1114.7	15400	16500	18500	.0162	.0204	1924
Orto	1033.5	45/7	0.1515	0.1010	0.3031	1.212	1163.4	18100	19500	22000	.0162	.0204	1921
Curl	1033.5	54/7	0.1383	0.1383	0.4150	1.245	1329.6	28200	30300	35000	.0161	.0206	1924
Blue	1113	45/7	0.1573	0.1048	0.3145	1.258	1252.8	19500	21100	23800	.0150	.0190	2017
Finc	1113	54/19	0.1436	0.0861	0.4307	1.292	1428.9	30400	33200	38700	.0150	.0193	2015
Bunt	1192.5	45/7	0.1628	0.1085	0.3256	1.302	1342.4	21400	23500	25400	.0140	.0178	2110
Bitte	1272	45/7	0.1681	0.1121	0.3362	1.345	1431.9	22300	24000	27200	.0131	.0167	2200
Phe	1272	54/19	0.1535	0.0921	0.4604	1.381	1633.0	34100	37300	43000	.0131	.0169	2200
Dipp	1351	45/7	0.1733	0.1155	0.3465	1.386	1520.8	23700	25500	28800	.0124	.0158	2289
Mart	1351	54/19	0.1582	0.0949	0.4745	1.424	1734.5	36200	39600	45600	.0123	.0160	2288
Bob	1431	45/7	0.1783	0.1189	0.3566	1.427	1610.8	25100	27000	30500	.0117	.0150	2375
Plov	1431	54/19	0.1628	0.0977	0.4884	1.465	1837.2	38400	41900	48300	.0117	.0151	2375
Nuth	1510	45/7	0.1832	0.1221	0.3664	1.465	1699.8	26500	28100	31800	.0111	.0143	2459
Parr	1510	54/19	0.1672	0.1003	0.5017	1.505	1938.6	40400	44200	51000	.0110	.0144	2460
Ratit	1590	42/7	0.1946	0.1081	0.3243	1.492	1715.0	23400	25000	27900	.0105	.0136	2543
Lap	1590	45/7	0.1880	0.1253	0.3759	1.504	1789.8	27900	29600	33500	.0105	.0136	2543
Falc	1590	54/19	0.1716	0.1030	0.5148	1.544	2041.4	42600	46600	53700	.0105	.0137	2545
Chu	1780	84/19	0.1456	0.0873	0.4367	1.601	2070.8	35400	38200	43900	.0094	.0122	2751
Moc	2034.5	72/7	0.1681	0.1121	0.3362	1.681	2159.3	27200	28900	32000	.0083	.0110	2960
Roa	2057	76/19	0.1645	0.0768	0.3839	1.700	2245.2	31700	33900	38300	.0082	.0108	2992



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Blue	2156	84/19	0.1602	0.0961	0.4806	1.762	2508.2	42100	45500	51700	.0078	.0103	3106
Kiwi	2167	72/7	0.1735	0.1157	0.3470	1.735	2299.9	29000	30800	34100	.0078	.0104	3080
Thra	2312	76/19	0.1744	0.0814	0.4070	1.802	2523.5	35600	38100	43000	.0073	.0098	3218
Jore	2515	76/19	0.1819	0.0849	0.4245	1.880	2745.1	38700	41400	46800	.0067	.0092	3390

### Notes:

- (1) Data based on a nominal cable manufactured in accordance with ASTM B 856.
- (2) Resistance and ampacity based on an aluminum conductivity of 63%, IACS at 20°C, and a steel conductivity of 8% IACS at 20°C.
- (3) Ampacity based on 200°C cond. temperature, 25°C ambient temperature, 2 ft/sec. wind, in sun, with an emissivity of 0.5 and a coefficient of solar absorption of 0.5, at sea level. (4) Rated strength for standard strength core based on Class A Galfan coated steel core wire in accordance with ASTM B 802.
- (5) Rated strength for high strength core based on Class A Galfan coated high strength steel core wire in accordance with B 803.

\*\* Designated by "/HS" (e.g. Drake/ACSS/HS)

\*\* Designated by "/HS285" (e.g. Drake/ACSS/HS285)