ACSR BARE OVERHEAD SUPPORTING NEUTRAL

ACSR - ALUMINUM CONDUCTOR STEEL REINFORCED - 1350 SERIES ALLOY WITH STEEL SUPPORT CENTER WIRE

Patents: encorewire.com/patents

ENGINEERING SPECIFICATIONS

Standards

ASTM B230: Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes
ASTM B232: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR)
RUS Accepted; RoHS Compliant

CONSTRUCTION

Conductors

Stranded, Concentric-Lay Aluminum 1350 Series with Steel Support Center Wire(s) per ASTM B232

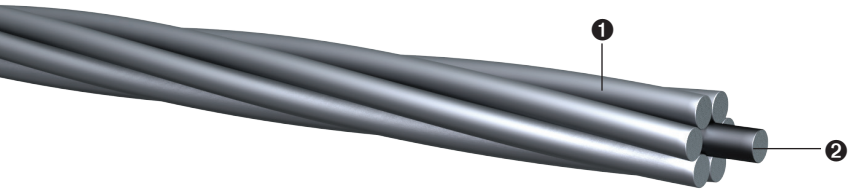
Assembly

ACSR bare overhead supporting neutrals are concentric-lay-stranded conductors with a single steel core wire or stranded steel core wires surrounded by one or more layers of helically applied aluminum alloy 1350 wires. Outer layer has right-handed lay.

APPLICATIONS

Suitable for overhead transmission and distribution applications that require rated strengths for steel support. Encore's ACSR overhead neutrals include Class AA for bare conductors commonly used in overhead lines, and/or Class A for conductors to be covered with weather-resistant materials.

Please inquire about availability on sizes and constructions not listed below.



1. Stranded Aluminum Coated Steel Reinforced (ACSR), 1350 Series Alloy
2. Steel Support Center Wire

Code Name	Conductor Sizes		Strands (Alum/Stl)	Class	Nominal Diameters			Content % of Weight		Approximate Net Weight (lbs/1000 ft)	Rated Strength (lbs)	Resistance DC Resistance at 20C AC Resistance at 60 Hz (Ohms/1000 ft)[1]				Phase-to-Neutral Reactance 25°C / @ 60 Hz 1ft. equiv. spacing (Megohms/1000 ft)[1]		Ampacity (Amps)[2,3]
	KCMIL	AWG			Alum Diam	Steel Diam	Finished OD	Alum %	Steel %			DC 20°C	AC 25°C	AC 50°C	AC 75°C	Capacitive	Inductive	
Turkey	26.24	6	6/1	AA, A	0.0661	0.0661	0.198	67.8	32.2	36	1190	0.642	0.655	0.750	0.816	0.751	0.1201	105
Swan	41.40	4	6/1	AA, A	0.0834	0.0834	0.250	67.9	32.1	57	1860	0.403	0.412	0.479	0.522	0.715	0.1152	140
Swanate	41.74	4	7/1	AA, A	0.0772	0.1029	0.257	58.2	41.8	67	2360	0.399	0.407	0.463	0.517	0.710	0.1153	140
Sparrow	66.36	2	6/1	AA, A	0.1052	0.1052	0.316	67.9	32.1	91	2850	0.253	0.259	0.308	0.336	0.679	0.1100	185
Sparate	66.36	2	7/1	AA, A	0.0974	0.1299	0.325	58.1	41.9	107	3640	0.251	0.256	0.297	0.330	0.674	0.1081	185
Robin	83.69	1	6/1	AA, A	0.1181	0.1181	0.354	67.9	32.1	115	3550	0.201	0.206	0.247	0.270	0.660	0.1068	210
Raven	105.60	1/0	6/1	AA, A	0.1327	0.1327	0.398	67.9	32.1	145	4380	0.159	0.163	0.197	0.216	0.642	0.1040	240
Quail	133.10	2/0	6/1	AA, A	0.1489	0.1489	0.447	67.9	32.1	183	5300	0.127	0.130	0.162	0.176	0.624	0.1017	275
Pigeon	167.80	3/0	6/1	AA, A	0.1672	0.1672	0.502	67.9	32.1	231	6620	0.100	0.103	0.121	0.145	0.606	0.0992	315
Penguin	211.60	4/0	6/1	AA, A	0.1878	0.1878	0.563	67.9	32.1	291	8350	0.080	0.082	0.107	0.116	0.597	0.0964	365
Waxwing	266.80	-	18/1	AA	0.1217	0.1217	0.609	86.4	13.6	289	6880	0.0644	0.0657	0.0723	0.0788	0.576	0.0934	445
Merlin	336.40	-	18/1	AA	0.1367	0.1367	0.684	86.4	13.6	365	8700	0.0510	0.0523	0.0574	0.0625	0.560	0.0877	515
Chickadee	397.50	-	18/1	AA	0.1486	0.1486	0.743	86.4	13.6	431	9900	0.0432	0.0443	0.0487	0.0528	0.544	0.0856	575
Pelican	477.00	-	18/1	AA	0.1628	0.1628	0.814	86.4	13.6	517	11800	0.0360	0.0369	0.0405	0.0441	0.528	0.0835	640
Osprey	556.20	-	18/1	AA	0.1758	0.1758	0.879	86.4	13.6	603	13700	0.0309	0.0318	0.0348	0.0379	0.518	0.0818	710
Kingbird	636.00	-	18/1	AA	0.1880	0.1880	0.940	86.4	13.6	690	15700	0.0269	0.0278	0.0306	0.0332	0.507	0.0805	773
Coot	795.00	-	36/1	AA	0.1486	0.1486	1.040	92.7	7.3	804	16800	0.0217	0.0225	0.0247	0.0268	0.492	0.0780	884
Skylark	1272.00	-	36/1	AA	0.1880	0.1880	1.316	92.7	7.3	1286	26400	0.0135	0.0145	0.0159	0.0173	0.455	0.0720	1084

[1] Table 4-15 Aluminum Electrical Conductor Handbook.
DC Resistance based on 16.95 Ohms-cmil/ft (20°C); 61.20% IACS for EC-1350; 8% of ACS for steel
AC Resistance at 60Hz
[2] Ampacity based on 75°C conductor temp; 25°C ambient temp; 0.5 coefficients emissivity and absorption; 2ft./sec wind; 96 watts /sq. ft sun.
The above data is approximate and subject to normal manufacturing tolerances.
[3] Engineers: Reference the Aluminum Electrical Conductors Handbook.