ACAR - Aluminum Conductor Alloy (6201) Reinforced

Product Description

ACAR is a concentric-lay stranded conductor made up of Aluminum 1350-H19 and Aluminum Alloy 6201 strands. While the 6201 Alloy strands usually make up the core with the Aluminum 1350 stranded around them, in some constructions the 6201 Alloy can be distributed in the layers of 1350 Aluminum. The Aluminum Alloy 6201 wires of ACAR preform much like the galvanized steel core of ACSR by mechanically reinforcing the conductor while offering a much higher ampacity. For equal weight, ACAR conductors offer higher strength and ampacity than ACSR conductors.

Application

Aluminum conductor alloy (6201) reinforced (ACAR) is used as bare overhead transmission and both primary and secondary distribution cable. A good strength to weight ratio make ACAR a preferred choice for lines where both strength and current carrying capacity are the foremost considerations.

Product Data

Size (KCMIL)	Stranding (EC/6201)	Diameter (inches)			Weight Per 1000 Ft (lbs.)	Rated Strength (lbs.)	Resistance		Allowable Ampacity+ (Amps)
		Individual Wires		Complete Cable			DC @ 20°C	AC @ 75°C	
		6201	1350						
355.0	12/7	.1367	.1367	.6830	332.1	8500	.0514	.0624	519
465.9	12/7	.1566	.1566	.7830	435.8	11000	.0392	.0477	616
503.6	12/7	.1628	.1628	.8140	471.1	11900	.0362	.0441	646
653.1	12/7	.1854	.1854	.9270	611.0	15400	.0279	.0342	760
739.8	30/7	.1414	.1414	.9900	692.7	15300	.0240	.0296	831
739.8	18/19	.1414	.1414	.9900	691.6	18800	.0252	.0308	814
853.7	30/7	.1519	.1519	1.0630	799.3	17500	.0208	.0257	907
853.7	18/19	.1519	.1519	1.0630	798.0	21500	.0218	.0268	890
927.2	30/7	.1583	.1583	1.1080	868.2	19000	.0192	.0238	955
927.2	18/19	.1583	.1583	1.1080	866.7	23400	.0201	.0247	936
1024.5	30/7	.1664	.1664	1.1650	959.3	20900	.0173	.0216	1015
1024.5	18/19	.1664	.1664	1.1650	957.7	25800	.0182	.0225	995
1081.0	30/7	.1709	.1709	1.1960	1012.1	22100	.0164	.0205	1048
1081.0	18/19	.1709	.1709	1.1960	1010.5	27200	.0172	.0213	1028
1109.0	30/7	.1731	.1731	1.2120	1038.4	22700	.0160	.0200	1065
1109.0	18/19	.1731	.1731	1.2120	1036.6	27900	.0168	.0208	1044
1172.0	30/7	.1780	.1780	1.2460	1097.3	24000	.0152	.0190	1101
1172.0	18/19	.1780	.1780	1.2460	1095.5	29500	.0159	.0198	1080
1197.0	30/7	.1799	.1799	1.2590	1120.8	24500	.0148	.0187	1115
1197.0	18/19	.1799	.1799	1.2590	1118.9	30200	.0156	.0194	1094
1280.0	30/7	.1860	.1860	1.3020	1198.5	26200	.0139	.0175	1160
1280.0	18/19	.1860	.1860	1.3020	1196.5	32200	.0146	.0182	1139
1361.0	42/19	.1494	.1494	1.3440	1273.6	30300	.0133	.0168	1196
1527.0	42/19	.1582	.1582	1.4240	1428.8	33600	.0118	.0151	1314
1703.0	42/19	.1671	.1671	1.5040	1593.5	37500	.0106	.0137	1363
1933.0	42/19	.1780	.1780	1.6020	1808.8	42500	.00936	.0123	1465
2267.0	42/19	.1928	.1928	1.7350	2142.0	49900	.00806	.0108	1594
2493.0	72/19	.1655	.1655	1.8210	2356.9	50400	.00722	.0099	1687
2493.0	54/37	.1655	.1655	1.8210	2354.5	57600	.00743	.0101	1670

+Ampacity based on 75 C conductor temperature, 25 C ambient temperature, with 2 ft./sec. wind in the sun.

*Manufactured with pride in DeKalb, IL USA.

Specification Data

ASTM B-230	Aluminum wire, 1350-H19 for electrical purposes
ASTM B-398	Aluminum-Alloy 6201-T81 for electrical purposes only
ASTM B-524	Concentric-lay-stranded aluminum conductors, aluminum alloy reinforced ACAR 1350/6201