

SPECIFICATIONS AND STANDARDS

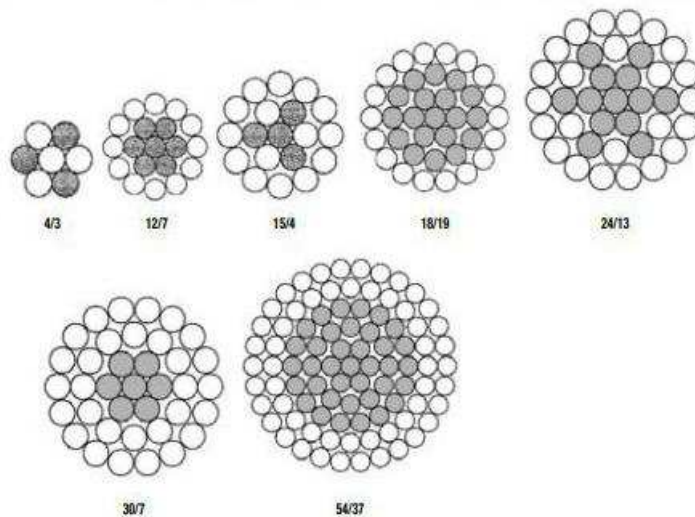
ACAR bare conductor meets or exceeds the following ASTM specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes
- B-398 Aluminum-Alloy 6201-T81 for Electrical Purposes.
- B-524 Concentric-Lay-Stranded Aluminum Conductors, Aluminum Alloy Reinforced ACAR,1350/6201.



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 Aluminum Alloy Reinforced (ACAR) is recommended for use as a transmission cable between the power station and substations, and as primary and secondary distribution cable. ACAR has moderate breaking load (Higher than AAC and lower than ACSR). ACAR has good corrosion resistance (no steel wires). ACAR has high conductivity when compared to ACSR and AAAC.

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



ACAR conductors manufactured to ASTM-B524.

Size (kcmil)	Stranding (EC/6201)	Diameter(ins)			Weigh per 1000 ft. (Lbs.)	Rated strength (Lbs.)	Resistance		Allowable ampacity + (Amps)
		Individual wire		Compl ete			DC at 20°C	AC at 75°C	
		620	13						
355.0	1	0.1367	0.1367	0.683	332.1	850	.0514	.0624	519
465.9	1	0.1566	0.1566	0.783	435.8	11000	.0392	.0477	616
503.6	1	0.1628	0.1628	0.814	471.1	11900	.0362	.0441	646
653.1	1	0.1854	0.1854	0.927	611.0	15400	.0279	.0342	760
739.8	3	0.1414	0.1414	0.990	692.7	15300	.0240	.0296	831
739.8	18	0.1414	0.1414	0.990	691.6	18800	.0252	.0308	814
853.7	3	0.1519	0.1519	1.063	799.3	17500	.0208	.0257	907
853.7	18	0.1519	0.1519	1.063	798.0	21500	.0218	.0268	890
927.2	3	0.1583	0.1583	1.108	868.2	19000	.0192	.0238	955
927.2	18	0.1583	0.1583	1.108	866.7	23400	.0201	.0247	936
1024.5	3	0.1664	0.1664	1.165	959.3	20900	.0173	.0216	1015
1024.5	18	0.1664	0.1664	1.165	957.7	25800	.0182	.0225	995
1081.0	3	0.1709	0.1709	1.196	1012.1	22100	.0164	.0205	1048
1081.0	18	0.1709	0.1709	1.196	1010.5	27200	.0172	.0213	1028
1109.0	3	0.1731	0.1731	1.212	1038.4	22700	.0160	.0200	1065
1109.0	1	0.1731	0.1731	1.212	1036.6	27900	.0168	.0208	1044
1172.0	3	0.1780	0.1780	1.246	1097.3	24000	.0152	.0190	1101
1172.0	1	0.1780	0.1780	1.246	1095.5	29500	.0159	.0198	1080
1197.0	3	0.1799	0.1799	1.259	1120.8	24500	.0148	.0187	1115
1197.0	1	0.1799	0.1799	1.259	1118.9	30200	.0156	.0194	1094
1280.0	3	0.1860	0.1860	1.302	1198.5	26200	.0139	.0175	1160
1280.0	1	0.1860	0.1860	1.302	1196.5	32200	.0146	.0182	1139
1361.0	4	0.1494	0.1494	1.344	1273.6	30300	.0133	.0168	1196
1527.0	4	0.1582	0.1582	1.424	1428.8	33600	.0118	.0151	1314
1703.0	4	0.1671	0.1671	1.504	1593.5	37500	.0106	.0137	1363
1933.0	4	0.1780	0.1780	1.602	1808.8	42500	.00936	.0123	1465
2267.0	4	0.1928	0.1928	1.735	2142.0	49900	.00806	.0108	1594
2493.0	7	0.1655	0.1655	1.821	2356.9	50400	.00722	.0099	1687
2493.0	5	0.1655	0.1655	1.821	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.