



• Application

Aluminum Conductor Aluminum-alloy Reinforced (ACAR) conductors serve as essential components in bare overhead transmission cables and primary and secondary distribution cables. ACAR's exceptional strength-to-weight ratio makes it particularly suitable for line designs where both ampacity and strength are crucial considerations. In comparison to ACSR conductors, ACAR offers higher strength and ampacity for an equal weight, making it a preferred choice for demanding transmission applications.

• Advantages

Excellent tensile strength-to-weight ratio: ACAR boasts a remarkable balance of tensile strength and weight, allowing for efficient power transmission while minimizing material usage. High resistance to corrosion: ACAR conductors are highly resistant to corrosion, ensuring longevity and reliability in various environmental conditions.

• Construction

ACAR conductors feature a concentric-stranded design comprising a core of 6201-T81 aluminum alloy wires surrounded by 1350 H-19 aluminum wires, which are concentrically stranded over the alloy core. Some designs incorporate intercalated layers of 1350 aluminum wires and 6201 alloy wires, enhancing the conductor's structural integrity and performance. This meticulous construction ensures optimal strength, durability, and conductivity in overhead transmission applications.

• Specifications

- ASTM B230 Aluminum 1350-H19 Wire for Electrical Purposes.
- ASTM B398 Aluminum-alloy 6201-T81 Wire for Electrical Purposes.
- ASTM B524 Concentric-lay-stranded Aluminum Conductors, Aluminum-alloy Reinforced (ACAR, 1350/6201).

• Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction. CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

• Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rhineland and CCS.



• National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

● Technical Parameters

Size of Conductor		Stranding Wires		Nominal Overall Diameter	Calculated Cross Section Area	Dia.of Single Wire	Nominal Overall Diameter	Nominal Weight	Rated Strength	Max.D.C. Resistance at 20°C
kcmil or AWG	Cross Section Area	1350-H19	6201-T81							
-	inch ²	-	-	inch	mm ²	mm	mm	kg/km	daN	Ω/km
30.6	0.0240	4×0.0661	3×0.0661	0.198	15.5	1.679	5.03	43	367	1.983
4.0	0.0328	4×0.0772	3×0.0772	0.232	21.2	1.961	5.89	59	498	1.454
48.7	0.0382	4×0.0834	3×0.0834	0.250	24.7	2.118	6.35	68	573	1.246
2.0	0.0521	4×0.0974	3×0.0974	0.292	33.6	2.474	7.42	93	777	0.913
77.5	0.0608	4×0.1052	3×0.1052	0.316	39.3	2.672	8.03	109	893	0.721
1/0	0.0829	4×0.1228	3×0.1228	0.368	53.5	3.119	9.35	148	1195	0.575
123.3	0.0968	4×0.1327	3×0.1327	0.398	62.5	3.371	10.11	173	1395	0.492
2/0	0.1045	4×0.1379	3×0.1379	0.414	67.4	3.503	10.52	187	1470	0.455
155.4	0.1221	4×0.1490	3×0.1490	0.447	78.7	3.785	11.35	218	1700	0.390
3/0	0.1317	4×0.1548	3×0.1548	0.464	85.0	3.932	11.80	235	1820	0.361
195.7	0.1537	4×0.1672	3×0.1672	0.502	99.1	4.247	12.74	274	2130	0.310
4/0	0.1663	4×0.1739	3×0.1739	0.522	107	4.417	13.25	297	2300	0.286
246.9	0.1939	4×0.1878	3×0.1878	0.563	125	4.770	14.31	346	2682	0.245
250	0.1963	15×0.1147	4×0.1147	0.574	127	2.913	14.56	350	2430	0.235
250	0.1963	12×0.1147	7×0.1147	0.571	127	2.913	15.96	350	2750	0.240
300	0.2358	15×0.1257	4×0.1257	0.629	152	3.193	15.96	420	2885	0.195
300	0.2358	12×0.1257	7×0.1257	0.629	152	3.193	17.24	420	3275	0.200
350	0.2748	15×0.1357	4×0.1357	0.679	177	3.447	17.24	490	3315	0.168
350	0.2748	12×0.1357	7×0.1357	0.679	177	3.447	18.44	490	3735	0.172
400	0.3142	15×0.1451	4×0.1451	0.726	203	3.685	18.44	560	3745	0.147
400	0.3142	12×0.1451	7×0.1451	0.770	203	3.685	19.55	560	4230	0.135
450	0.3534	15×0.1539	4×0.1539	0.770	228	3.909	19.55	630	4150	0.130
450	0.3534	12×0.1539	7×0.1539	0.811	228	3.909	20.60	630	4710	0.133
500	0.3926	15×0.1622	4×0.1622	0.811	253	4.120	20.60	700	4620	0.117
500	0.3926	12×0.1622	7×0.1622	0.813	253	4.120	20.65	700	5240	0.120
500	0.3924	33×0.1162	4×0.1162	0.813	253	2.951	20.65	700	4440	0.116
500	0.3924	30×0.1162	7×0.1162	0.813	253	2.951	20.65	700	4795	0.117
500	0.3924	24×0.1162	13×0.1162	0.813	253	2.951	20.65	700	5285	0.120
500	0.3924	18×0.1162	19×0.1162	0.813	253	2.951	20.65	700	5860	0.123
550	0.4318	15×0.1701	4×0.1701	0.851	279	4.321	21.66	770	5060	0.107
550	0.4318	12×0.1701	7×0.1701	0.851	279	4.321	21.66	770	5770	0.110

● Technical Parameters

Size of Conductor		Stranding Wires		Nominal Overall Diameter	Calculated Cross Section Area	Dia.of Single Wire	Nominal Overall Diameter	Nominal Weight	Rated Strength	Max.D.C. Resistance at 20°C
kcmil or AWG	Cross Section Area	1350-H19	6201-T81							
-	inch ²	-	-	inch	mm ²	mm	mm	kg/km	daN	Ω/km
550	0.4320	33x0.1219	4x0.1219	0.853	279	3.1	21.66	770	4800	0.105
550	0.4320	30x0.1219	7x0.1219	0.853	279	3.1	21.66	770	5195	0.106
550	0.4320	24x0.1219	13x0.1219	0.853	279	3.1	21.66	770	5730	0.109
550	0.4320	18x0.1219	19x0.1219	0.853	279	3.1	21.66	770	6395	0.111
600	0.4712	15x0.1777	4x0.1777	0.889	304	4.513	22.58	840	5550	0.0978
600	0.4712	12x0.1777	7x0.1777	0.889	304	4.513	22.58	840	6260	0.100
600	0.4709	33x0.1273	4x0.1273	0.891	304	3.23	22.63	840	5240	0.096
600	0.4709	30x0.1273	7x0.1273	0.891	304	3.23	22.63	840	5680	0.097
600	0.4709	24x0.1273	13x0.1273	0.891	304	3.23	22.63	840	6260	0.100
600	0.4709	18x0.1273	19x0.1273	0.891	304	3.23	22.63	840	7020	0.102
650	0.5102	33x0.1325	4x0.1325	0.928	329	3.36	23.57	910	5680	0.089
650	0.5102	30x0.1325	7x0.1325	0.928	329	3.36	23.57	910	6130	0.090
650	0.5102	24x0.1325	13x0.1325	0.928	329	3.36	23.57	910	6800	0.092
650	0.5102	18x0.1325	19x0.1325	0.928	329	3.36	23.57	910	7600	0.095
700	0.5494	33x0.1375	4x0.1375	0.963	355	3.49	24.46	980	6040	0.083
700	0.5494	30x0.1375	7x0.1375	0.963	355	3.49	24.46	980	6530	0.084
700	0.5494	24x0.1375	13x0.1375	0.963	355	3.49	24.46	980	7150	0.086
700	0.5494	18x0.1375	19x0.1375	0.963	355	3.49	24.46	980	7950	0.088
750	0.5892	33x0.1424	4x0.1424	0.997	380	3.62	25.32	1050	6400	0.077
750	0.5892	30x0.1424	7x0.1424	0.997	380	3.62	25.32	1050	6930	0.078
750	0.5892	24x0.1424	13x0.1424	0.997	380	3.62	25.32	1050	7600	0.080
750	0.5892	18x0.1424	19x0.1424	0.997	380	3.62	25.32	1050	8440	0.082
800	0.6280	33x0.1470	4x0.1470	1.029	405	3.73	26.15	1120	6800	0.072
800	0.6280	30x0.1470	7x0.1470	1.029	405	3.73	26.15	1120	7370	0.073
800	0.6280	24x0.1470	13x0.1470	1.029	405	3.73	26.15	1120	8080	0.075
800	0.6280	18x0.1470	19x0.1470	1.029	405	3.73	26.15	1120	9010	0.077
850	0.6679	33x0.1516	4x0.1516	1.061	431	3.85	26.95	1190	7100	0.068
850	0.6679	30x0.1516	7x0.1516	1.061	431	3.85	26.95	1190	7720	0.069
850	0.6679	24x0.1516	13x0.1516	1.061	431	3.85	26.95	1190	8530	0.071
850	0.6679	18x0.1516	19x0.1600	1.061	431	3.85	26.95	1190	9500	0.072
900	0.7072	33x0.1560	4x0.1560	1.092	456	3.96	27.75	1260	7550	0.064

● Technical Parameters

Size of Conductor		Stranding Wires		Nominal Overall Diameter	Calculated Cross Section Area	Dia.of Single Wire	Nominal Overall Diameter	Nominal Weight	Rated Strength	Max.D.C. Resistance at 20°C
kcmil or AWG	Cross Section Area	1350-H19	6201-T81							
-	inch ²	-	-	inch	mm ²	mm	mm	kg/km	daN	Ω/km
900	0.7072	30×0.1560	7×0.1560	1.092	456	3.96	27.75	1260	8170	0.065
900	0.7072	24×0.1560	13×0.1560	1.092	456	3.96	27.75	1260	9015	0.067
900	0.7072	18×0.1560	19×0.1560	1.092	456	3.96	27.75	1260	9950	0.068
950	0.7458	33×0.1602	4×0.1602	1.121	481	4.07	28.50	1330	7950	0.061
950	0.7458	30×0.1602	7×0.1602	1.121	481	4.07	28.50	1330	8160	0.062
950	0.7458	24×0.1602	13×0.1602	1.121	481	4.07	28.50	1330	9500	0.063
950	0.7458	18×0.1602	19×0.1602	1.121	481	4.07	28.50	1330	10610	0.065
1000	0.7853	33×0.1644	4×0.1644	1.151	507	4.17	29.30	1400	8390	0.058
1000	0.7853	30×0.1644	7×0.1644	1.151	507	4.17	29.30	1400	9060	0.059
1000	0.7853	24×0.1644	13×0.1644	1.151	507	4.17	29.30	1400	10030	0.060
1000	0.7853	18×0.1644	19×0.1644	1.151	507	4.17	29.30	1400	11190	0.061
1000	0.7849	54×0.1280	7×0.1280	1.152	507	3.25	29.32	1397	8750	0.058
1000	0.7849	48×0.1280	13×0.1280	1.152	507	3.25	29.32	1397	9370	0.059
1000	0.7849	42×0.1280	19×0.1280	1.152	507	3.25	29.32	1397	10710	0.060
1000	0.7849	33×0.1280	28×0.1280	1.152	507	3.25	29.32	1397	12210	0.061
1100	0.8637	33×0.1724	4×0.1724	1.207	557	4.38	30.65	1540	9190	0.053
1100	0.8637	30×0.1724	7×0.1724	1.207	557	4.38	30.65	1540	9990	0.053
1100	0.8637	24×0.1724	13×0.1724	1.207	557	4.38	30.65	1540	11010	0.054
1100	0.8637	18×0.1724	19×0.1724	1.207	557	4.38	30.65	1540	12300	0.056
1100	0.8641	54×0.1343	7×0.1343	1.209	557	3.41	30.70	1540	9590	0.053
1100	0.8641	48×0.1343	13×0.1343	1.209	557	3.41	30.70	1540	10170	0.054
1100	0.8641	42×0.1343	19×0.1343	1.209	557	3.41	30.70	1540	11070	0.055
1100	0.8641	33×0.1343	28×0.1343	1.209	557	3.41	30.70	1540	11810	0.055
1200	0.9426	33×0.1801	4×0.1801	1.261	608	4.57	32.0	1680	10030	0.048
1200	0.9426	30×0.1801	7×0.1801	1.261	608	4.57	32.0	1680	10880	0.049
1200	0.9426	24×0.1801	13×0.1801	1.261	608	4.57	32.0	1680	12035	0.050
1200	0.9426	18×0.1801	19×0.1801	1.261	608	4.57	32.0	1680	13400	0.051
1200	0.9430	54×0.1403	7×0.1403	1.263	608	3.56	32.10	1680	10260	0.048
1200	0.9430	48×0.1403	13×0.1403	1.263	608	3.56	32.10	1680	10970	0.049
1200	0.9430	42×0.1403	19×0.1403	1.263	608	3.56	32.10	1680	11860	0.050
1200	0.9430	33×0.1403	28×0.1403	1.263	608	3.56	32.10	1680	12790	0.051

● Technical Parameters

Size of Conductor		Stranding Wires		Nominal Overall Diameter	Calculated Cross Section Area	Dia.of Single Wire	Nominal Overall Diameter	Nominal Weight	Rated Strength	Max.D.C. Resistance at 20°C
kcmil or AWG	Cross Section Area	1350-H19	6201-T81							
-	inch ²	-	-	inch	mm ²	mm	mm	kg/km	daN	Ω/km
1250	0.9817	33×0.1838	4×0.1838	1.287	633	4.67	32.70	1750	10480	0.046
1250	0.9817	30×0.1838	7×0.1838	1.287	633	4.67	32.70	1750	11370	0.147
1250	0.9817	24×0.1838	13×0.1838	1.287	633	4.67	32.70	1750	12520	0.048
1250	0.9817	18×0.1838	19×0.1838	1.287	633	4.67	32.70	1750	13990	0.049
1250	0.9810	54×0.1431	7×0.1431	1.288	633	3.63	32.72	1750	10700	0.046
1250	0.9810	48×0.1431	13×0.1431	1.288	633	3.63	32.72	1750	11400	0.047
1250	0.9810	42×0.1431	19×0.1431	1.288	633	3.63	32.72	1750	12340	0.048
1250	0.9810	33×0.1431	28×0.1431	1.288	633	3.63	32.72	1750	13320	0.049
1300	1.0205	33×0.1874	4×0.1874	1.312	659	4.76	33.33	1820	10880	0.044
1300	1.0205	30×0.1874	7×0.1874	1.312	659	4.76	33.33	1820	11810	0.045
1300	1.0205	24×0.1874	13×0.1874	1.312	659	4.76	33.33	1820	13000	0.046
1300	1.0205	18×0.1874	19×0.1874	1.312	659	4.76	33.33	1820	14520	0.047
1300	1.0212	54×0.1460	7×0.1460	1.314	659	3.71	33.38	1825	11150	0.044
1300	1.0212	48×0.1460	13×0.1460	1.314	659	3.71	33.38	1825	11900	0.045
1300	1.0212	42×0.1460	19×0.1460	1.314	659	3.71	33.38	1825	12830	0.046
1300	1.0212	33×0.1460	28×0.1460	1.314	659	3.71	33.38	1825	13850	0.047
1400	1.0996	54×0.1515	7×0.1515	1.364	709	3.85	34.65	1960	11770	0.041
1400	1.0996	48×0.1515	13×0.1515	1.364	709	3.85	34.65	1960	12600	0.042
1400	1.0996	42×0.1515	19×0.1515	1.364	709	3.85	34.65	1960	13670	0.043
1400	1.0996	33×0.1515	28×0.1515	1.364	709	3.85	34.65	1960	14790	0.044
1500	1.1779	54×0.1568	7×0.1568	1.411	760	3.98	35.85	2100	12610	0.039
1500	1.1779	48×0.1568	13×0.1568	1.411	760	3.98	35.85	2100	13500	0.0395
1500	1.1779	42×0.1568	19×0.1568	1.411	760	3.98	35.85	2100	14650	0.040
1500	1.1779	33×0.1568	28×0.1568	1.411	760	3.98	35.85	2100	15850	0.041
1600	1.2573	54×0.1620	7×0.1620	1.458	811	4.11	37.05	2240	13500	0.036
1600	1.2573	48×0.1620	13×0.1620	1.458	811	4.11	37.05	2240	14430	0.037
1600	1.2573	42×0.1620	19×0.1620	1.458	811	4.11	37.05	2240	15630	0.037
1600	1.2573	33×0.1620	28×0.1620	1.458	811	4.11	37.05	2240	16920	0.038
1700	1.3345	54×0.1669	7×0.1669	1.502	861	4.24	38.15	2380	14300	0.034
1700	1.3345	48×0.1669	13×0.1669	1.502	861	4.24	38.15	2380	15320	0.0354
1700	1.3345	42×0.1669	19×0.1669	1.502	861	4.24	38.15	2380	16610	0.035

● Technical Parameters

Size of Conductor		Stranding Wires		Nominal Overall Diameter	Calculated Cross Section Area	Dia.of Single Wire	Nominal Overall Diameter	Nominal Weight	Rated Strength	Max.D.C. Resistance at 20°C
kcmil or AWG	Cross Section Area	1350-H19	6201-T81							
-	inch ²	-	-	inch	mm ²	mm	mm	kg/km	daN	Ω/km
1700	1.3345	33×0.1669	28×0.1669	1.502	861	4.24	38.15	2380	17990	0.036
1750	1.3750	54×0.1694	7×0.1694	1.525	887	4.30	38.75	2450	14750	0.033
1750	1.3750	48×0.1694	13×0.1694	1.525	887	4.30	38.75	2450	15760	0.0335
1750	1.3750	42×0.1694	19×0.1694	1.525	887	4.30	38.75	2450	17100	0.034
1750	1.3750	33×0.1694	28×0.1694	1.525	887	4.30	38.75	2450	18520	0.035
1800	1.4140	54×0.1718	7×0.1718	1.546	912	4.36	39.30	2520	15140	0.032
1800	1.4140	48×0.1718	13×0.1718	1.546	912	4.36	39.30	2520	16210	0.0325
1800	1.4140	42×0.1718	19×0.1718	1.546	912	4.36	39.30	2520	17590	0.033
1800	1.4140	33×0.1718	28×0.1718	1.546	912	4.36	39.30	2520	19050	0.034
1900	1.4924	54×0.1765	7×0.1765	1.589	963	4.48	40.35	2660	15990	0.0305
1900	1.4924	48×0.1765	13×0.1765	1.589	963	4.48	40.35	2660	17140	0.031
1900	1.4924	42×0.1765	19×0.1765	1.589	963	4.48	40.35	2660	18560	0.0315
1900	1.4924	33×0.1765	28×0.1765	1.589	963	4.48	40.35	2660	20120	0.032
2000	1.5713	54×0.1811	7×0.1811	1.630	1013	4.60	41.40	2800	16830	0.029
2000	1.5713	48×0.1811	13×0.1811	1.630	1013	4.60	41.40	2800	18030	0.0295
2000	1.5713	42×0.1811	19×0.1811	1.630	1013	4.60	41.40	2800	19540	0.030
2000	1.5713	33×0.1811	28×0.1811	1.630	1013	4.60	41.40	2800	21140	0.0305
2000	1.5700	72×0.1482	19×0.1482	1.630	1013	3.76	41.40	2795	18210	0.0295
2000	1.5700	63×0.1482	28×0.1482	1.630	1013	3.76	41.40	2795	19275	0.0300
2000	1.5700	54×0.1482	37×0.1482	1.630	1013	3.76	41.40	2795	20695	0.0305
2250	1.7660	72×0.1572	19×0.1572	1.729	1140	3.99	43.90	3175	20200	0.0265
2250	1.7660	63×0.1572	28×0.1572	1.729	1140	3.99	43.90	3175	21450	0.0267
2250	1.7660	54×0.1572	37×0.1572	1.729	1140	3.99	43.90	3175	23050	0.027
2500	1.9620	72×0.1657	19×0.1657	1.823	1267	4.21	46.30	3530	22470	0.023
2500	1.9620	63×0.1657	28×0.1657	1.823	1267	4.21	46.30	3530	23850	0.024
2500	1.9620	54×0.1657	37×0.1657	1.823	1267	4.21	46.30	3530	25625	0.0245
2750	2.1590	72×0.1738	19×0.1738	1.912	1393	4.41	48.55	3880	24690	0.0215
2750	2.1590	63×0.1738	28×0.1738	1.912	1393	4.41	48.55	3880	26200	0.0220
2750	2.1590	54×0.1738	37×0.1738	1.912	1393	4.41	48.55	3880	28200	0.0222
3000	2.3570	72×0.1816	19×0.1816	1.998	1520	4.61	50.75	4240	26950	0.0197
3000	2.3570	54×0.1816	37×0.1816	1.998	1520	4.61	50.75	4240	28640	0.0200
3000	2.3570	63×0.1816	28×0.1816	1.998	1520	4.61	50.75	4240	30770	0.0203