

## AAAC سیم های آلومینیومی آلیاژی All Aluminum Alloy 6201-T81 Conductors ( AAAC )

	Code Name	Total Area		1350 Grade Equivalent (Approx)	Stranding	Conductor Nominal diameter	Nominal Weight	Rated Strength	Maximum DC resistance at 20 °C
		AWG or MCM	mm <sup>2</sup>	AWG or MCM	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	Akron	30.58	15.52	6	7x1.68	5.04	43	4.92	2.1588
2	Alton	48.69	24.71	4	7x2.12	6.36	68	7.83	1.3557
3	Ames	77.47	39.19	2	7x2.67	8.01	108	12.42	0.8547
4	Azusa	123.3	62.44	1.0	7x3.37	10.11	171	18.88	0.5365
5	Anaheim	155.4	78.55	2/0	7x3.78	11.34	216	23.75	0.4264
6	Amherst	195.7	99.30	3/0	7x4.25	12.75	272	30.03	0.3373
7	Alliance	246.9	125.10	4/0	7x4.77	14.31	343	37.83	0.2678
8	Butte	312.8	158.60	266.8	19x3.26	16.30	435	46.46	0.2112
9	CAnton	394.5	199.90	336.4	19x3.66	18.30	548	58.56	0.1676
10	Cairo	465.4	236.40	397.5	19x3.98	19.90	649	69.25	0.1417
11	Darian	559.5	283.57	477.0	19x4.36	21.80	778	83.10	0.1181
12	Elgin	652.6	331.00	556.5	19x4.71	23.55	908	96.98	0.1012
13	Flint	740.8	374.50	636.0	37x3.59	25.13	1028	107.369	0.0894
14	Greeley	927.2	469.60	795.0	37x4.02	28.14	1289	134.62	0.0713

## All Aluminum Alloy 6201-T81 Conductors ( AAAC )

	Total Area		Equivalent Copper Area		Stranding	Conductor Overall diameter	Weight	Rated Strength	Maximum DC resistance at 20 °C
	AWG or MCM	mm <sup>2</sup>	AWG or MCM	mm <sup>2</sup>	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	6	13.28	9	7	7/1.554	4.66	36	4.206	2.5230
2	4	21.14	7	11	7/1.961	5.88	58	6.698	1.5844
3	2	33.65	5	18	7/2.474	7.42	92	10.66	0.9955
4	0	53.48	3	28	7/3.119	9.36	147	16.94	0.6263
5	2/0	67.46	2	35	7/3.503	10.51	185	20.40	0.4965
6	3/0	85.0	1	45	7/3.932	11.80	233	25.70	0.3941
7	4/0	107.3	1/0	56	7/4.417	13.25	294	32.44	0.3123
8	250	126.6	133	66	19/2.913	14.57	347	38.86	0.2645
9	300	152.1	159	80	19/3.193	15.97	417	46.69	0.2202
10	350	177.3	186	93	19/3.447	17.24	486	51.94	0.1889
11	400	202.7	212	106	19/3.686	18.43	556	59.39	0.1652
12	450	228.0	239	120	19/3.909	19.55	625	66.80	0.1469
13	500	253.3	265	133	19/4.12	20.60	695	74.20	0.1322
14	550	278.5	292	146	37/3.096	21.67	764	83.65	0.1203
15	600	303.7	318	159	37/3.233	22.63	833	91.21	0.1103
16	650	329.2	345	173	37/3.366	23.56	903	94.38	0.1017
17	700	354.6	371	186	37/3.493	24.45	973	101.63	0.09448
18	750	380.2	398	200	37/3.617	25.32	1043	108.98	0.08811
19	800	405.2	425	213	37/3.734	26.14	1112	116.14	0.08268
20	900	456.2	478	240	37/3.962	27.73	1252	130.76	0.07343
21	1000	506.8	531	266	37/4.176	29.3	1390	145.27	0.06610

## All Aluminum Alloy 6201 Conductors ( AAAC - 6201 )

	Code Name	Area Actual	Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
		mm <sup>2</sup>	mm <sup>2</sup>	N° / mm	mm	Kg / Km	kN	Ω / Km
1	Diamond	34.36	18.0	7/2.50	7.50	94.3	9.64	0.967
2	Dolomite	41.58	21.8	7/2.75	8.25	113	11.6	0.799
3	Emerald	49.48	26.0	7/3.00	9.00	135	13.9	0.671
4	Garnet	77.28	40.6	7/3.75	11.3	211	21.7	0.430
5	Jade	111.3	58.4	7/4.50	13.5	304	31.2	0.298
6	Jasper	124.0	65.1	7/4.75	14.3	339	34.8	0.268
7	Opal	157.6	82.7	19/3.25	16.3	433	44.2	0.212
8	Patronite	182.8	96.0	19/3.50	17.5	503	51.3	0.183
9	Pearl	209.8	110.1	19/3.75	18.8	576	58.8	0.159
10	Rutile	336.7	176.8	19/4.75	23.8	924	94.4	0.0991
11	Ruby	261.6	137.3	37/3.00	21.0	721	73.5	0.128
12	Ruthenium	307.0	161.2	37/3.25	22.8	845	86.1	0.109
13	Sapphire	408.5	214.5	37/3.75	26.3	1120	115	0.0819
14	Spinel	506.1	265.7	61/3.25	29.3	1400	135	0.0662
15	Tantalum	586.9	308.1	61/3.50	31.5	1620	156	0.0572
16	Topaz	673.4	353.5	31/3.75	33.8	1860	179	0.0498

## All Aluminum Alloy 1120 Conductors ( AAAC - 1120 )

	Code Name	Area Actual	Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
		mm <sup>2</sup>	mm <sup>2</sup>	N° / mm	mm	Kg / Km	kN	Ω / Km
1	Chlorine	34.36	20.3	7/2.50	7.50	94.3	8.18	0.864
2	Chromium	41.58	24.5	7/2.75	8.25	113	9.91	0.713
3	Fluorine	49.48	29.2	7/3.00	9.0	135	11.8	0.599
4	Helium	77.28	45.6	7/3.75	11.3	211	17.6	0.383
5	Hydrogen	111.3	65.7	7/4.50	13.5	304	24.3	0.266
6	Iodine	124.0	73.2	7/4.75	14.3	339	27.1	0.239
7	Krypton	157.6	93.0	19/3.25	16.3	433	37.4	0.189
8	Lutetium	182.8	107.9	19/3.50	17.5	503	41.7	0.163
9	Neon	209.8	123.8	19/3.75	18.8	576	47.8	0.142
10	Oxygen	336.7	198.7	19/4.75	23.8	924	73.6	0.0884
11	Nitrogen	261.6	154.3	37/3.00	21.0	721	62.2	0.114
12	Nobelium	307.0	181.1	37/3.25	22.8	845	72.8	0.0973
13	Phosphorous	408.5	241.0	37/3.75	26.3	1120	93.1	0.0731
14	Selenium	506.1	298.6	61/3.25	29.3	1400	114	0.0592
15	Silicon	586.9	346.3	61/3.50	31.5	1620	127	0.0511
16	Sulfur	673.4	397.3	61/3.75	33.8	1860	145	0.0444

## All Aluminum Alloy 1120 Conductors ( AAAC - 1120 )

	Code Name	Area Actual	Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
		mm <sup>2</sup>	mm <sup>2</sup>	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	-	10	6.24	7/1.47	4.41	32	3.33	2.771
2	Box	15	9.88	7/1.85	5.55	51	5.27	1.750
3	Acacia	20	12.50	7/2.08	6.24	65	6.67	1.384
4	Almond	25	15.80	7/2.34	7.02	82	8.44	1.094
5	Cedar	30	18.60	7/2.54	7.62	97	9.94	0.9281
6	-	35	22.1	7/2.77	8.31	115	11.82	0.7804
7	Fir	40	25.1	7/2.95	8.85	131	13.40	0.6880
8	Hazel	50	31.4	7/3.30	9.90	164	16.80	0.5498
9	Pine	60	37.6	7/3.61	10.83	196	20.08	0.4595
10	-	70	44.1	7/3.91	11.73	230	23.56	0.3917
11	Willow	75	47.1	7/4.04	12.12	245	25.15	0.3669
12	-	80	50.7	7/4.19	12.57	264	27.05	0.3411
13	-	90	57.2	7/4.45	13.35	298	30.51	0.3024
14	Oak	100	62.4	7/4.65	13.95	325	33.30	0.2769
15	-	100	62.3	19/2.82	14.1	326	33.26	0.2788
16	Mulberry	125	79.2	19/3.18	15.9	415	42.29	0.2192
17	Ash	150	94.9	19/3.48	17.4	497	50.65	0.1830
18	Elm	175	111.0	19/3.76	18.8	580	59.10	0.1568
19	Poplar	200	126.0	37/2.87	20.09	659	67.08	0.1385
20	-	225	142.0	37/3.05	21.35	744	75.76	0.1226
21	Sycamore	250	159.0	37/3.23	22.61	835	84.97	0.1094
22	Upas	300	190.0	37/3.53	24.71	997	101.5	0.09155
23	-	350	221.0	37/3.81	26.67	1162	118.2	0.0786
24	Yew	400	251.0	37/4.06	28.42	1319	134.2	0.0692

# All Aluminum Alloy Conductors



	Area		Equivalent Copper Area		Total Area		Stranding	Conductor Overall diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
	AWG or MCM	mm <sup>2</sup>	AWG or MCM	mm <sup>2</sup>	MCM	mm <sup>2</sup>	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	8	8.3	10	5.1	19	9.5	7/1.32	3.96	26	2.92	3.440
2	7	10.5	9	6.4	24	12.0	7/1.48	4.44	33	3.67	2.737
3	6	13.2	8	8.0	30	15.2	7/1.66	4.98	41	4.62	2.175
4	5	16.8	7	10.6	38	19.1	7/1.86	5.58	52	5.80	1.733
5	4	20.9	6	12.7	48	24.1	7/2.09	6.27	66	7.32	1.372
6	3	26.4	5	16.1	60	30.4	7/2.35	7.05	83	9.26	1.085
7	2	33.3	4	20.3	76	38.3	7/2.64	7.92	105	11.69	0.8601
8	1	41.9	3	25.5	95	48.3	7/2.96	8.88	132	14.69	0.6842
9	1/0	53.0	2	32.3	120	61.0	7/3.33	9.99	166	18.59	0.5406
10	2/0	66.8	1	40.8	152	76.8	7/3.74	11.22	210	23.45	0.4286
11	3/0	84.3	1/0	51.4	192	97.0	7/4.20	12.60	265	29.58	0.3398
12	4/0	106.4	2/0	64.9	241	122.5	7/4.72	14.16	334	37.36	0.2691
13	4/0	106.1	2/0	64.7	241	122.1	19/2.86	14.30	335	37.23	0.2713
14	266.8	133.6	3/0	81.5	304	153.8	19/3.21	16.05	421	46.90	0.2154
15	300	150.8	189	92.0	342	173.5	19/3.41	17.05	475	52.92	0.1908
16	336	169.0	4/0	103.1	384	194.4	19/3.61	18.05	533	59.31	0.1703
17	397.5	199.2	250	121.5	453	229.3	19/3.92	19.60	629	69.94	0.1444
18	477	239.7	300	146.2	544	275.9	19/4.30	21.50	756	84.16	0.1200
19	500	250.5	315	152.8	570	288.3	37/3.15	22.05	791	87.95	0.1151
20	556.5	280.0	350	170.8	635	322.2	37/3.33	23.31	885	98.28	0.1030
21	636	320.0	400	195.2	725	368.3	37/3.56	24.92	1012	112.33	0.0901
22	715.5	358.9	450	218.9	816	413.0	37/3.77	26.39	1134	125.97	0.0804
23	750	376.2	472	229.5	856	433.0	37/3.86	27.02	1188	132.06	0.0767
24	795	399.9	500	244.0	907	460.3	37/3.98	27.86	1264	140.40	0.0721
25	814.5	436.9	550	266.5	997	502.9	37/4.16	29.12	1380	153.38	0.0660

## All Aluminum Alloy Conductors ( AAAC )

	Area		Equivalent Copper Area mm <sup>2</sup>	Stranding N° / mm	Overall Diameter mm	Weight Kg / Km	Rated Strength kN	Maximum DC Resistance at 20 °C Ω / Km
	Nominal	Actual						
	mm <sup>2</sup>	mm <sup>2</sup>						
1	16	15.89	8	7/1.7	5.1	43	4.44	2.090
2	25	24.25	13	7/2.1	6.3	66	6.77	1.369
3	35	34.36	18	7/2.5	7.5	94	9.60	0.9665
4	50	49.48	26	7/3.0	9.0	135	13.82	0.6711
5	50	48.36	25	19/1.8	9.0	133	13.50	0.6902
6	70	65.82	35	19/2.1	10.5	181	18.38	0.5071
7	95	93.27	49	19/2.5	12.5	256	26.05	0.3578
8	120	117.0	61	19/2.8	14.0	322	32.68	0.2852
9	150	147.1	77	37/2.25	15.75	406	41.09	0.2273
10	185	181.6	95	37/2.5	17.50	500	50.73	0.1842
11	240	242.5	127	61/2.25	20.25	670	67.74	0.1382
12	300	299.4	157	61/2.5	22.50	827	83.63	0.1119
13	400	400.1	210	61/2.89	26.01	1104	111.76	0.08377
14	500	499.8	262	61/3.23	29.07	1379	139.60	0.06706
15	625	626.2	329	91/2.96	32.56	1732	174.90	0.05365
16	800	802.1	421	91/3.35	36.85	2218	224.02	0.04188
17	1000	999.7	525	91/3.74	41.14	2767	279.22	0.03360

## All Aluminum Alloy Conductors ( AAAC )

	Code Name	Equivalent Copper Area	Stranding	Overall Diameter	Total Area	Weight	Rated Strength	Maximum DC Resistance at 20 °C
		mm <sup>2</sup>	N ° / mm	mm	mm <sup>2</sup>	Kg / Km	kN	Ω / Km
1	ASTER 22	11.84	7/2.0	6.0	21.99	60	715	1.50
2	ASTER 34.4	18.0	7/2.5	7.5	34.36	94	1115	0.958
3	ASTER 54.6	28.6	7/3.15	9.45	54.55	149	1775	0.603
4	ASTER 75.5	41.3	19/2.25	11.25	75.54	208	2455	0.438
5	ASTER 117.0	63.9	19/2.8	14.0	117.0	322	3800	0.283
6	ASTER 148	80.9	19/3.15	15.75	148.1	407	4810	0.224
7	ASTER 181.6	99.2	37/2.5	17.5	181.6	500	5900	0.183
8	ASTER 228	124.5	37/2.8	19.6	227.8	627	7405	0.146
9	ASTER 288	157.6	37/3.15	22.05	288.3	794	9370	0.115
10	ASTER 366	200.1	37/3.55	27.85	366.2	1009	11535	0.0905
11	ASTER 570	311.6	61/3.45	31.05	570.2	1574	18530	0.0583
12	ASTER 851	464.8	91/3.45	37.95	850.7	2354	27650	0.0391
13	ASTER 1144	624.9	91/4.0	44.0	1143.5	3164	36020	0.0292
14	ASTER 1600	872.1	127/4.0	52.0	1595.9	4425	50270	0.0206



## All Aluminum Alloy Conductors Type A3

	Code Name	Area Actual	Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
		mm <sup>2</sup>	mm <sup>2</sup>	N° / mm	mm	Kg / Km	kN	Ω / Km
1	16	18.6	9.8	7/1.84	5.52	50.8	6.04	1.7896
2	25	29.0	15.2	7/2.30	6.90	79.5	9.44	1.1453
3	40	46.5	24.4	1/2.91	8.73	127.1	15.10	0.7158
4	63	73.2	38.4	7/3.65	10.95	200.2	23.06	0.4545
5	100	116	61	19/2.79	14.0	319.3	37.76	0.2877
6	125	145	76	19/3.12	15.6	399.2	47.20	0.2302
7	160	186	98	19/3.53	17.7	511.0	58.56	0.1798
8	200	232	122	19/3.95	19.8	638.7	73.20	0.1439
9	250	290	152	19/4.41	22.1	798.4	91.50	0.1151
10	315	366	192	37/3.55	24.9	1008.4	115.29	0.0916
11	400	465	244	37/4.00	28.0	1280.5	146.40	0.0721
12	450	523	275	37/4.24	29.7	1440.5	164.70	0.0641
13	500	581	305	37/4.47	31.3	1600.6	183.00	0.0577
14	560	651	342	61/3.69	33.2	1795.3	204.96	0.0516
15	630	732	384	61/3.91	35.2	2019.8	230.58	0.0458
16	710	825	433	61/4.15	37.4	2276.2	259.86	0.0407
17	800	930	488	61/4.40	39.6	2564.8	292.80	0.0361
18	900	1046	549	91/3.83	42.1	2888.3	329.40	0.0321
19	1000	1162	610	91/4.03	44.3	3209.3	366.00	0.0289
20	1120	1301	683	91/4.27	47.0	3594.5	409.92	0.0258

## All Aluminum Alloy Conductors Type A2



	Code Name	Area Actual	Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
		mm <sup>2</sup>	mm <sup>2</sup>	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	16	18.4	9.8	7/1.83	5.49	50.4	5.43	1.7896
2	25	28.8	15.3	7/2.9	6.87	78.7	8.49	1.1453
3	40	46.0	24.4	7/2.89	8.67	125.9	13.58	0.7158
4	63	72.5	38.4	7/3.63	10.9	198.3	21.39	0.4545
5	100	115	61	19/2.78	13.9	316.3	33.95	0.2877
6	125	144	76	19/3.10	15.5	395.4	42.44	0.2302
7	160	184	98	19/3.51	17.6	506.1	54.32	0.1798
8	200	230	122	19/3.93	19.7	632.7	67.91	0.1439
9	250	288	153	19/4.39	22.0	790.8	84.88	0.1151
10	315	363	192	37/3.53	24.7	998.9	106.95	0.0916
11	400	460	244	37/3.98	27.9	1268.4	135.81	0.0721
12	450	518	275	37/4.22	29.5	1426.9	152.79	0.0641
13	500	575	305	37/4.45	31.2	1585.5	169.76	0.0577
14	560	645	342	61/3.67	33.0	1778.4	190.14	0.0516
15	630	725	384	61/3.89	35.0	2000.7	213.90	0.0458
16	710	817	433	61/4.13	37.2	2254.8	241.07	0.0407
17	800	921	488	61/4.38	39.4	2540.6	271.62	0.0361
18	900	1036	549	91/3.81	41.9	2861.1	305.58	0.0321
19	1000	1151	610	91/4.01	44.1	3179.0	339.53	0.0289
20	1120	1289	683	91/4.25	46.8	3560.5	380.27	0.0258
21	1250	1439	763	91/4.49	49.4	3973.7	424.41	0.0231

## All Aluminum Alloy Conductors ( AAAC )



	Area		Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
	Nominal	Actual						
	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	31	31.1	17.7	7/2.38	7.14	85	9.31	0.974
2	62	62.4	35.6	7/3.37	10.11	170	17.20	0.486
3	99	99.3	56.6	7/4.25	12.75	271	25.30	0.305
4	157	158.6	90.4	19/3.26	16.30	436	43.70	0.193
5	241	241.2	137.5	19/4.02	20.10	663	61.60	0.127
6	329	330.0	188.1	37/3.37	23.59	910	90.70	0.0928
7	454	454.5	259.1	61/3.08	27.72	1260	125.00	0.0675
8	593	593.6	338.4	61/3.52	31.68	1640	157.00	0.0517
9	774	774.2	441.3	61/4.02	36.18	2140	197.00	0.0396
10	910	910.7	519.1	61/4.36	39.24	2520	232.00	0.0337

## All Aluminum Alloy Conductors ( AL - 59 )



	Area		Equivalent Copper Area	Stranding	Overall Diameter	Weight	Rated Strength	Maximum DC Resistance at 20 °C
	Nominal	Actual						
	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	N ° / mm	mm	Kg / Km	kN	Ω / Km
1	31	31.1	18.3	7/2.38	7.14	85	9.31	0.943
2	62	62.4	36.8	7/3.37	10.11	170	17.20	0.470
3	99	99.3	58.6	7/4.25	12.75	271	25.30	0.296
4	157	158.6	93.5	19/3.26	16.30	436	43.70	0.186
5	241	241.2	142.3	19/4.02	20.10	663	61.60	0.123
6	329	330.0	194.7	37/3.37	23.59	910	90.70	0.0899
7	454	454.5	268.2	61/3.08	27.72	1260	125.00	0.0654
8	593	593.6	350.2	61/3.52	31.68	1640	157.00	0.0501
9	774	774.2	456.8	61/4.02	36.18	2140	197.00	0.0384
10	910	910.7	537.3	61/4.36	39.24	2520	232.00	0.0326