AAAC-ASTM B399

All Alloy Aluminum Conductor

ASTM B399, Specification for Concentric-lay-stranded 6201-T81 Aluminum Alloy Conductors

Code Name	Area		Size	No.&Diameter of wires	Overall Diameter	Weight	Nominal Breaking Load
	Nomina	Actual					
	MCM	mm^2	AWG or MCM	mm	mm	kg/km	kN
Akron	30.58	15.48	6	7/1.68	5.04	42.7	4.92
Alton	48.69	24.71	4	7/2.12	6.35	68	7.84
Ames	77.47	39.22	2	7/2.67	8.02	108	12.45
Azusa	123.3	62.38	1/0	7/3.37	10.11	172	18.97
Anaheim	155.4	78.65	2/0	7/3.78	11.35	217	23.93
Amherst	195.7	99.22	3/0	7/4.25	12.75	273	30.18
Alliance	246.9	125.1	4/0	7/4.77	14.31	345	38.05
Butte	312.8	158.6	266.8	19/3.26	16.3	437	48.76
Canton	394.5	199.9	336.4	19/3.66	18.3	551	58.91
Cairo	465.4	235.8	397.5	19/3.98	19.88	650	69.48
Darien	559.5	283.5	477	19/4.36	21.79	781	83.52
Elgin	652.4	330.6	556.5	19/4.71	23.54	911	97.42
Fint	740.8	375.3	636	37/3.59	25.16	1035	108.21
Greely	927.2	469.8	795	37/4.02	28.14	1295	135.47

AAAC-AS 1531-1991All Alloy Aluminum Conductor

Code Name		Stranding and wire diameter	Cross sectional area	AAAC/1120		AAAC/6201	
AAAC /1120	AAAC /6201	mm	mm^2	Calculated breaking load （CBL） kN	D.C. resistance at 20 °C	Calculated breaking load （CBL） kN	D.C. resistance at 20°C
Chlorine	Diamond	7/2.50	34.36	8.18	0.864	9.64	0.967
Chromium	Dolomite	7/2.75	41.58	9.91	0.713	11.6	0.799
Fluorine	Emerald	7/3.00	49.48	11.8	0.599	13.9	0.671
Helium	Garnet	7/3.75	77.28	17.6	0.383	21.7	0.43
Hydrogen	Jade	7/4.50	111.3	24.3	0.266	31.2	0.298
Iodine	Jasper	7/4.75	124	27.1	0.239	34.8	0.268
Krypton	Opal	19/3.25	157.6	37.4	0.189	44.2	0.212
Lutetium	Patronite	19/3.50	182.8	41.7	0.163	51.3	0.183
Neon	Pearl	19/3.75	209.8	47.8	0.142	58.8	0.159
Nitrogen	Ruby	37/3.00	261.6	62.2	0.114	73.5	0.128
Nobelium	Rutheniu m	37/3.25	307	72.8	0.0973	86.1	0.109
Oxygen	Rutile	19/4.75	336.7	73.6	0.0884	94.4	0.0991
Phosphorus	Sapphire	37/3.75	408.5	93.1	0.0731	115	0.0819
Selenium	Spinel	61/3.25	506.1	114	0.0592	135	0.0662
Silicon	Tantalum	61/3.50	586.9	127	0.0511	156	0.0572
Sulfur	Topaz	61/3.75	673.4	145	0.0444	179	0.0498

AAAC-DIN 48201-DIN EN 50182All Alloy Aluminum ConductorDIN 48201-Al Aluminum Alloy Stranded Conductor DINEN 50182-Conductors for overhead lines

Size (mm)	Calculated Area	Stranding and wire diameter	Overall diameter	Linear mass	Rated strength	Max.DC resistance at 20℃
	mm^2	mm	mm	kg/km	daN	Ohm/km
16	15.89	7/1.70	5.1	43	444	2.091
25	24.25	7/2.10	6.3	66	677	1.3703
35	34.36	7/2.50	7.5	94	960	0.9669
50	49.48	7/3.00	9	135	1382	0.6714
50	48.36	19/1.80	9	133	1350	0.6905
70	65.82	19/2.10	10.5	181	1838	0.5073
95	93.27	19/2.50	12.5	256	2605	0.3579
120	117	19/2.80	14	322	3268	0.2854
150	147.1	37/2.25	15.2	406	4109	0.2274
185	181.6	37/2.50	17.5	500	5073	0.1842
240	242.54	61/2.25	20.2	670	6774	0.1383
300	299.43	61/2.50	22.5	827	8363	0.112
400	400.14	61/2.89	26	1104	11176	0.0838
500	499.83	61/3.23	29.1	1379	13960	0.06709
625	626.2	91/2.96	32.6	1732	17490	0.054
800	802.1	91/3.35	36.8	2218	22402	0.0418
1000	999.71	91/3.74	41.1	2767	27922	0.0335

AAAC-BS 50183

All Aluminum Alloy Conductor Specification for All Aluminium Alloy Stranded Conductors

Code Name	Calculated Cross Section	Stranding and wire diameter	Approx. Overall diameter	Weight	Rated Strength
	mm^2	No./mm	mm	kg/km	kN
Box	18.8	7/1.85	5.55	51.4	5.55
Acacia	23.8	7/2.08	6.24	64.9	7.02
Almond	30.1	7/2.34	7.02	82.2	8.88
Cedar	35.5	7/2.54	7.62	96.8	10.46
Deodar	42.2	7/2.77	8.31	115.2	12.44
Fir	47.8	7/2.95	8.85	130.6	14.11
Hazel	59.9	7/3.30	9.9	163.4	17.66
Pine	71.6	7/3.61	10.8	195.6	21.14
Holly	84.1	7/3.91	11.7	229.5	24.79
Willow	89.7	7/4.04	12.1	245,0	26.47
Oak	118.9	7/4.65	14	324.5	35.07
Mulberry	150.9	19/3.18	15.9	414.3	44.52
Ash	180.7	19/3.48	17.4	496.1	53.31
Elm	211	19/3.76	18.8	579.2	62.24
Poplar	239.4	37/2.87	20.1	659.4	70.61
Sycamore	303.2	37/3.23	22.6	835.2	89.4
Upas	362.1	37/3.53	24.7	997.5	106.82
Yew	479	37/4.06	28.4	1319.6	141.31
Totara	498.1	37/4.14	29	1372.1	146.93
Rubus	586.9	61/3.50	31.5	1622	173.13
Sorbus	659.4	61/3.71	33.4	1822.5	194.53
Araucaria	821.1	61/4.14	37.3	2269.4	242.24
Redwood	996.2	61/4.56	41	2753.2	293.88

AAAC-IEC61089 (A2 and A3)

Code Number	A2Conductor					Max.D.C. Resistance at 20℃
	Wires NO.	Wires Dia.	Conductor Dia.	Approx. Weight	Rated Strength	
mm	-	mm	mm	kg/km	daN	Ohm/km
16	7	1.83	5.49	50.4	5.43	1.7896
25	7	2.29	6.87	78.7	8.49	1.1453
40	7	2.89	8.67	125.9	13.58	0.7158
63	7	3.63	10.8	198.3	21.39	0.4545
100	19	2.78	13.9	316.3	33.95	0.2877
125	19	3.10	15.5	395.4	42.44	0.2302
160	19	3.51	17.55	506.1	54.32	0.1798
200	19	3.93	19.65	623.7	67.91	0.1439
250	19	4.39	21.95	790.8	84.68	0.1151
315	37	3.53	24.71	998.9	106.95	0.0916
400	37	3.98	27.86	1268.4	135.81	0.0721
450	37	4.22	29.54	1426.9	152.79	0.0641
500	37	4.45	31.15	1585.5	169.76	0.0577
560	61	3.67	33.03	1778.4	190.14	0.0516
630	61	3.89	35.01	2000.7	213.9	0.0458
710	61	4.13	37.17	2254.8	241.07	0.0407
800	61	4.38	39.42	2540.6	271.62	0.0361
900	91	3.81	41.91	2861.1	305.58	0.0321
1000	91	4.01	44.11	3179	339.53	0.0289
1120	91	4.25	46.75	3560.5	380.27	0.0258
1250	91	4.49	49.39	3973.7	424.41	-
Code Number	A3Conductor					Max.D.C. Resistance at 20℃
	Wires NO.	Wires Dia.	Conductor Dia.	Approx. Weight	Rated Strength	
mm	-	mm	mm	kg/km	daN	Ohm/km
16	7	1.84	5.52	50.80	6.04	1.7896
25	7	2.30	6.90	79.50	9.44	1.1453
40	7	2.91	8.73	127.10	15.10	0.7158
63	7	3.65	10.95	200.20	23.06	0.4545
100	19	2.79	13.95	319.30	37.76	0.2877
125	19	3.12	15.60	399.20	47.20	0.2302
160	19	3.53	17.65	511.00	58.56	0.1798
200	19	3.95	19.75	638.70	73.20	0.1439
250	19	4.41	22.05	798.40	91.50	0.1151
315	37	3.55	24.85	1008.40	115.29	0.0916
400	37	4.00	28.00	1280.50	146.4o	0.0721
450	37	4.24	29.68	1440.50	164.70	0.0641
500	37	4.47	31.29	1600.60	183.oo	0.0577

560	61	3.69	33.21	1795.30	204.95	0.0516
630	61	3.91	35.19	2019.80	230.58	0.0458
710	61	4.15	37.35	2276.20	259.86	0.0407
800	61	4.40	39.60	2564.80	282.80	0.0361
900	91	3.83	42.13	2888.30	329.40	0.0321
1000	91	4.03	44.33	3209.30	366.00	0.0289
1120	91	4.27	46.97	3594.40	409.92	0.0258
1250	-	-	-	-	-	-