

All Aluminum-Alloy 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
	Nominal	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
Flint	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

Physical contents of aluminum alloy:

1. Resistivity - 0.0326 Ohms mm²/m at 20°C
2. Density - 2.70 kgm/dm³ at 20°C
3. Coefficient of Linear Expansion - 23 x 10⁻⁶ / °C
4. Constant Mass Temperature Coefficient (α) - 0.00360/ °C
5. Material - Heat treated Al. Mg. Si. Alloy - Approximately 0.5% Mg & 0.5% Si