

## CHART C: COPPER CONDUCTORS, DIMENSIONS AND RESISTANCE

AWG 36-18

AWG	Stranding	Diameter		Area			Conductor Resistance	
		[in]	[mm]	CMA	[in <sup>2</sup> ]	[mm <sup>2</sup> ]	[Ω/Mft]	[Ω/km]
36	7x44	0.006	0.152	28.00	0.00002	0.014	387.4	1271.0
34	7x42	0.008	0.191	43.75	0.00003	0.022	236.8	777.0
32	solid	0.008	0.203	39.75	0.00005	0.032	174.0	571.0
32	7x40	0.009	0.236	67.27	0.00005	0.034	164.0	538.0
32	19x44	0.010	0.241	76.00	0.00006	0.038	136.6	448.0
30	solid	0.010	0.254	100.50	0.00008	0.051	111.3	365.0
30	7x38	0.012	0.300	112.00	0.00009	0.057	103.3	339.0
30	19x42	0.012	0.305	118.80	0.00009	0.060	87.4	286.7
28	solid	0.013	0.330	158.80	0.00012	0.080	70.7	232.0
28	7x36	0.015	0.381	141.75	0.00011	0.072	64.9	213.0
28	19x40	0.015	0.373	182.59	0.00014	0.093	56.7	186.0
27	7x35	0.018	0.457	219.52	0.00017	0.111	54.6	179.0
26	solid	0.016	0.409	252.80	0.00020	0.128	43.6	143.0
26	7x34	0.019	0.483	277.83	0.00022	0.141	37.2	122.0
26	10x36	0.019	0.472	250.00	0.00020	0.127	41.8	137.0
26	19x38	0.019	0.480	304.00	0.00024	0.155	34.4	113.0
24	solid	0.020	0.511	404.00	0.00032	0.205	27.2	89.4
24	7x32	0.023	0.584	448.00	0.00035	0.227	14.1	46.4
24	10x34	0.023	0.584	396.60	0.00031	0.202	26.1	85.6
24	19x36	0.024	0.599	475.00	0.00038	0.242	21.1	69.2
24	41x40	0.023	0.592	384.40	0.00030	0.196	25.6	84.0
22	solid	0.025	0.643	642.50	0.00050	0.324	16.9	55.3
22	7x30	0.030	0.762	700.00	0.00055	0.355	14.8	48.4
22	19x34	0.028	0.780	754.11	0.00060	0.384	13.7	45.1
22	26x36	0.030	0.762	650.00	0.00051	0.331	15.9	52.3
20	solid	0.032	0.810	1024.00	0.00080	0.519	10.5	34.6
20	7x28	0.038	0.965	1111.00	0.00087	0.562	10.3	33.8
20	10x30	0.035	0.889	1000.00	0.00079	0.510	10.3	33.9
20	19x32	0.037	0.940	1216.00	0.00096	0.620	8.6	28.3
20	26x34	0.036	0.914	1031.94	0.00082	0.526	10.1	33.0
20	41x36	0.035	0.889	1025.00	0.00081	0.520	10.0	32.9
18	solid	0.047	1.200	1624.00	0.00128	0.823	6.6	21.8
18	7x26	0.048	1.219	1769.60	0.00140	0.902	5.9	19.2
18	16x30	0.047	1.194	1600.00	0.00126	0.815	6.5	21.3
18	19x30	0.049	1.245	1900.00	0.00150	0.969	5.5	17.9

AWG 18-2

AWG	Stranding	Diameter		Area			Conductor Resistance	
		[in]	[mm]	CMA	[in <sup>2</sup> ]	[mm <sup>2</sup> ]	[Ω/Mft]	[Ω/km]
18	41x34	0.047	1.194	1627.30	0.00128	0.829	6.4	20.9
18	65x36	0.047	1.194	1625.00	0.00128	0.828	6.4	21.0
16	solid	0.051	1.290	2581.00	0.00203	1.310	4.2	13.7
16	7x24	0.060	1.524	2828.00	0.00223	1.440	3.7	12.0
16	19x29	0.058	1.473	2383.50	0.00203	1.310	4.0	13.2
16	26x30	0.059	1.499	2600.00	0.00205	1.324	4.0	13.1
16	65x34	0.059	1.499	2580.00	0.00204	1.315	4.3	14.0
16	105x36	0.059	1.499	2625.00	0.00207	1.338	4.0	13.1
14	solid	0.064	1.630	4110.00	0.00322	2.080	2.6	8.6
14	7x22	0.073	1.854	4480.00	0.00354	2.284	2.3	7.6
14	19x27	0.073	1.854	3830.40	0.00302	1.950	2.7	8.9
14	41x30	0.074	1.880	4095.00	0.00322	2.080	2.5	8.3
14	105x34	0.074	1.880	4167.50	0.00329	2.120	2.5	8.2
12	solid	0.081	2.050	6529.00	0.00513	3.310	1.6	5.4
12	7x20	0.096	2.438	7168.00	0.00513	3.310	1.5	4.8
12	19x25	0.093	2.362	6087.60	0.00566	3.650	1.7	5.6
12	65x30	0.095	2.413	6500.00	0.00481	3.100	1.7	5.7
12	165x34	0.095	2.413	6549.00	0.00513	3.310	1.6	5.2
10	solid	0.102	2.590	10380.40	0.00815	5.260	1.0	3.4
10	37x26	0.115	2.921	9353.80	0.00739	4.770	1.1	3.6
10	49x27	0.116	2.946	9878.40	0.00780	5.030	1.1	3.6
10	105x30	0.116	2.946	10530.00	0.00832	5.370	1.0	3.2
8	49x25	0.147	3.734	15700.00	0.01240	8.000	0.7	2.2
8	133x29	0.147	3.734	16984.50	0.01342	8.660	0.6	2.0
8	655x36	0.147	3.734	16625.00	0.01313	8.470	0.6	2.0
6	133x27	0.180	4.572	26812.80	0.02119	13.670	0.5	1.5
6	259x30	0.184	4.674	25900.00	0.02046	13.200	0.4	1.3
6	1050x36	0.184	4.674	26250.40	0.02074	13.380	0.4	1.3
4	133x27	0.232	5.8900	42613	0.0337	21.730	0.249	0.8
4	259x27	0.232	5.89	52214	0.0413	26.620	0.248	0.8
4	1666x36	0.232	5.89	41650	0.0329	21.240	0.249	0.8
2	133x23	0.292	7.41	67936	0.0537	34.640	0.157	0.5
2	259x26	0.292	7.41	65475	0.0518	33.390	0.156	0.5
2	665x30	0.292	7.41	66500	0.0526	33.910	0.156	0.5
2	2646x36	0.292	7.41	66150	0.0523	33.730	0.157	0.5

AWG TABLE CHARTS

Tool Box