

# Conductor Facts



## American Wire Gage (AWG)

Nominal values for Annealed Copper (C110)

AWG	Diameter		Cross-sectional Area			Weight		Length		Resistance @20°C	
	inch	mm	CMA	in <sup>2</sup>	mm <sup>2</sup>	lb/mft	kg/km	ft/lb	m/kg	ohm/mft	ohm/km
1	0.2893	7.348	83,693	0.06573	42.41	253.3	377.0	3.947	2.652	0.1239	0.4066
2	0.2576	6.544	66,371	0.05213	33.63	200.9	299.0	4.977	3.345	0.1563	0.5127
3	0.2294	5.827	52,635	0.04134	26.67	159.3	237.1	6.276	4.218	0.1970	0.6464
4	0.2043	5.189	41,741	0.03278	21.15	126.4	188.0	7.914	5.318	0.2485	0.8152
5	0.1819	4.621	33,102	0.02600	16.77	100.2	149.1	9.980	6.706	0.3133	1.028
6	0.1620	4.115	26,251	0.02062	13.30	79.46	118.3	12.58	8.456	0.3951	1.296
7	0.1443	3.665	20,818	0.01635	10.55	63.02	93.78	15.87	10.66	0.4982	1.634
8	0.1285	3.264	16,510	0.01297	8.366	49.97	74.37	20.01	13.45	0.6282	2.061
9	0.1144	2.906	13,093	0.01028	6.634	39.63	58.98	25.23	16.96	0.7921	2.599
10	0.1019	2.588	10,383	0.008155	5.261	31.43	46.77	31.82	21.38	0.9988	3.277
11	0.09074	2.305	8,234	0.006467	4.172	24.92	37.09	40.12	26.96	1.260	4.132
12	0.08081	2.053	6,530	0.005129	3.309	19.77	29.41	50.59	34.00	1.588	5.211
13	0.07196	1.828	5,178	0.004067	2.624	15.68	23.33	63.79	42.87	2.003	6.571
14	0.06408	1.628	4,107	0.003225	2.081	12.43	18.50	80.44	54.06	2.525	8.285
15	0.05707	1.450	3,257	0.002558	1.650	9.858	14.67	101.4	68.16	3.184	10.45
16	0.05082	1.291	2,583	0.002028	1.309	7.818	11.63	127.9	85.95	4.015	13.17
17	0.04526	1.150	2,048	0.001609	1.038	6.200	9.226	161.3	108.4	5.063	16.61
18	0.04030	1.024	1,624	0.001276	0.8230	4.917	7.317	203.4	136.7	6.385	20.95
19	0.03589	0.9116	1,288	0.001012	0.6527	3.899	5.803	256.5	172.3	8.051	26.41
20	0.03196	0.8118	1,022	0.0008023	0.5176	3.092	4.602	323.4	217.3	10.15	33.31
21	0.02846	0.7229	810.1	0.0006363	0.4105	2.452	3.649	407.8	274.0	12.80	42.00
22	0.02535	0.6438	642.4	0.0005046	0.3255	1.945	2.894	514.2	345.5	16.14	52.96
23	0.02257	0.5733	509.5	0.0004001	0.2582	1.542	2.295	648.4	435.7	20.36	66.78
24	0.02010	0.5106	404.0	0.0003173	0.2047	1.223	1.820	817.6	549.4	25.67	84.21
25	0.01790	0.4547	320.4	0.0002517	0.1624	0.9699	1.443	1,031	692.8	32.37	106.2
26	0.01594	0.4049	254.1	0.0001996	0.1288	0.7692	1.145	1,300	873.6	40.81	133.9
27	0.01420	0.3606	201.5	0.0001583	0.1021	0.6100	0.9077	1,639	1,102	51.47	168.9
28	0.01264	0.3211	159.8	0.0001255	0.08098	0.4837	0.7199	2,067	1,389	64.90	212.9
29	0.01126	0.2859	126.7	0.00009954	0.06422	0.3836	0.5709	2,607	1,752	81.83	268.5
30	0.01003	0.2546	100.5	0.00007894	0.05093	0.3042	0.4527	3,287	2,209	103.2	338.5
31	0.00893	0.2268	79.70	0.00006260	0.04039	0.2413	0.3590	4,145	2,785	130.1	426.9
32	0.00795	0.2019	63.21	0.00004964	0.03203	0.1913	0.2847	5,227	3,512	164.1	538.3
33	0.00708	0.1798	50.13	0.00003937	0.02540	0.1517	0.2258	6,591	4,429	206.9	678.8
34	0.00630	0.1601	39.75	0.00003122	0.02014	0.1203	0.1791	8,311	5,585	260.9	856.0
35	0.00561	0.1426	31.52	0.00002476	0.01597	0.0954	0.1420	10,479	7,042	329.0	1,079
36	0.00500	0.1270	25.00	0.00001963	0.01267	0.0757	0.1126	13,214	8,880	414.8	1,361
37	0.00445	0.1131	19.83	0.00001557	0.01005	0.0600	0.0893	16,663	11,197	523.1	1,716
38	0.00397	0.1007	15.72	0.00001235	0.00797	0.0476	0.0708	21,012	14,119	659.6	2,164
39	0.00353	0.08969	12.47	0.00000979	0.00632	0.0377	0.0562	26,495	17,804	831.8	2,729
40	0.00314	0.07987	9.888	0.00000777	0.00501	0.0299	0.0445	33,410	22,451	1,049	3,441
41	0.00280	0.07113	7.842	0.00000616	0.00397	0.0237	0.0353	42,129	28,310	1,323	4,339
42	0.00249	0.06334	6.219	0.00000488	0.00315	0.0188	0.0280	53,124	35,698	1,668	5,472
43	0.00222	0.05641	4.932	0.00000387	0.00250	0.0149	0.0222	66,988	45,014	2,103	6,899
44	0.00198	0.05023	3.911	0.00000307	0.00198	0.0118	0.0176	84,470	56,762	2,652	8,700
45	0.00176	0.04473	3.102	0.00000244	0.00157	0.0094	0.0140	106,515	71,576	3,344	10,971
46	0.00157	0.03984	2.460	0.00000193	0.00125	0.0074	0.0111	134,313	90,255	4,216	13,834
47	0.00140	0.03547	1.951	0.00000153	0.00099	0.0059	0.00879	169,366	113,810	5,317	17,444
48	0.00124	0.03159	1.547	0.00000121	0.00078	0.0047	0.00697	213,566	143,511	6,704	21,996
49	0.00111	0.02813	1.227	0.000000963	0.00062	0.0037	0.00553	269,302	180,964	8,454	27,737
50	0.00099	0.02505	0.9728	0.000000764	0.00049	0.0029	0.00438	339,583	228,192	10,661	34,976
51	0.00088	0.02231	0.7715	0.000000606	0.00039	0.0023	0.00348	428,207	287,744	13,443	44,103
52	0.00078	0.01987	0.6118	0.000000481	0.00031	0.0019	0.00276	539,959	362,839	16,951	55,613
53	0.00070	0.01769	0.4852	0.000000381	0.00025	0.0015	0.00219	680,876	457,532	21,375	70,127
54	0.00062	0.01576	0.3848	0.000000302	0.00019	0.0012	0.00173	858,568	576,937	26,953	88,429
55	0.00055	0.01403	0.3051	0.000000240	0.00015	0.00092	0.00137	1,082,635	727,504	33,987	111,506
56	0.00049	0.01249	0.2420	0.000000190	0.00012	0.00073	0.00109	1,365,177	917,365	42,857	140,607
57	0.00044	0.01113	0.1919	0.000000151	0.00010	0.00058	0.00086	1,721,456	1,156,776	54,042	177,302
58	0.00039	0.00991	0.1522	0.000000120	0.000077	0.00046	0.00069	2,170,716	1,458,668	68,145	223,574
59	0.00035	0.00882	0.1207	0.000000095	0.000061	0.00037	0.00054	2,737,223	1,839,346	85,930	281,922
60	0.00031	0.00786	0.0957	0.000000075	0.000048	0.00029	0.00043	3,451,574	2,319,373	108,355	355,496

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