

American Wire Gauge Conversion Chart

Size	Diameter			Cross-Sectional Area		Resistance for copper wire	
AWG	mils	mm	inches	cmils	mm2	Ω/1000 ft	Ω/km
4/0	460	11.68	0.46	211 600	107.2	0.049	0.1608
3/0	409.6	10.4	0.4096	167 800	85.01	0.0618	0.2028
2/0	364.8	9.266	0.3648	133 100	67.43	0.0779	0.2556
1/0	324.9	8.252	0.3249	105 600	53.49	0.0983	0.3225
1	289.3	7.348	0.2893	83 690	42.41	0.1239	0.4065
2	257.6	6.543	0.2576	66 360	33.62	0.1563	0.5128
3	229.4	5.827	0.2294	52 620	26.66	0.1971	0.6467
4	204.3	5.189	0.2043	41 740	21.15	0.2485	0.8153
5	181.9	4.62	0.1819	33 090	16.77	0.3135	1.0285
6	162	4.115	0.162	26 240	13.3	0.3952	1.2966
7	144.3	3.665	0.1443	20 820	10.55	0.4981	1.6342
8	128.5	3.264	0.1285	16 510	8.367	0.6281	2.0607
9	114.4	2.906	0.1144	13 090	6.631	0.7925	2.6001
10	101.9	2.588	0.1019	10 380	5.261	0.9988	3.2769
11	90.7	2.304	0.0907	8 230	4.168	1.2607	4.1362
12	80.8	2.052	0.0808	6 530	3.308	1.5886	5.2119
13	72	1.829	0.072	5 180	2.627	2.0007	6.564
14	64.1	1.628	0.0641	4 110	2.082	2.5242	8.2815
15	57.1	1.45	0.0571	3 260	1.652	3.181	10.4364
16	50.8	1.29	0.0508	2 580	1.308	4.019	13.1857
17	45.3	1.151	0.0453	2 050	1.04	5.0541	16.5817
18	40.3	1.024	0.0403	1 620	0.823	6.386	20.9514
19	35.9	0.912	0.0359	1 290	0.653	8.0473	26.4019
20	32	0.813	0.032	1 020	0.519	10.1284	33.2297
21	28.5	0.724	0.0285	812	0.412	12.7688	41.8924
22	25.3	0.643	0.0253	640	0.324	16.2031	53.1598
23	22.6	0.574	0.0226	511	0.259	20.3059	66.6204
24	20.1	0.511	0.0201	404	0.205	25.6713	84.2234
25	17.9	0.455	0.0179	320	0.162	32.3694	106.1988
26	15.9	0.404	0.0159	253	0.128	41.0247	134.5955
27	14.2	0.361	0.0142	202	0.102	51.4356	168.752
28	12.6	0.32	0.0126	159	0.0804	65.3279	214.3304
29	11.3	0.287	0.0113	128	0.0647	81.2238	266.4823
30	10	0.254	0.01	100	0.0507	103.7146	340.271
31	8.9	0.226	0.0089	79.2	0.0401	130.9363	429.5811
32	8	0.203	0.008	64	0.0324	162.0541	531.6736
33	7.1	0.18	0.0071	50.4	0.0255	205.7422	675.0072
34	6.3	0.16	0.0063	39.7	0.0201	261.3118	857.3222
35	5.6	0.142	0.0056	31.4	0.0159	330.7227	1085.0483
36	5	0.127	0.005	25	0.0127	414.8586	1361.0847
37	4.5	0.114	0.0045	20.2	0.0103	512.1711	1680.3514
38	4	0.102	0.004	16	0.00811	648.2165	2126.6946
39	3.5	0.0889	0.0035	12.2	0.00621	846.6502	2777.7238
40	3.1	0.0787	0.0031	9.61	0.00487	1079.2367	3540.8029
41	2.8	0.0711	0.0028	7.84	0.00397	1322.8909	4340.1934
42	2.5	0.0635	0.0025	6.25	0.00317	1659.4343	5444.3384
43	2.2	0.0559	0.0022	4.84	0.00245	2142.8646	7030.3959
44	2	0.0508	0.002	4	0.00203	2592.8661	8506.7788
45	1.76	0.0447	0.0018	3.1	0.00157	3348.2259	10984.9935