

AWG	Diameter		Turns of wire, without insulation		Area		Copper wire							
							Resistance/length <sup>[7]</sup>		Ampacity, <sup>[8]</sup> at 20 °C insulation material temperature rating, or for single unbundled wires in equipment for 16 AWG and smaller <sup>[9]</sup>			Fusing current <sup>[10][11]</sup>		
			60 °C	75 °C	90 °C	Preece <sup>[12][13][14][15]</sup>			Onderdonk <sup>[16][15]</sup>					
	(in)	(mm)	(per in)	(per cm)	(kcmil)	(mm <sup>2</sup> )	(mΩ/m <sup>[a]</sup> )	(mΩ/ft <sup>[b]</sup> )	(A)			~10 s	1 s	32 ms
0000 (4/0)	0.4600 <sup>[c]</sup>	11.684 <sup>[c]</sup>	2.17	0.856	212	107	0.1608	0.04901	195	230	260	3.2 kA	33 kA	182 kA
000 (3/0)	0.4096	10.405	2.44	0.961	168	85.0	0.2028	0.06180	165	200	225	2.7 kA	26 kA	144 kA
00 (2/0)	0.3648	9.266	2.74	1.08	133	67.4	0.2557	0.07793	145	175	195	2.3 kA	21 kA	115 kA
0 (1/0)	0.3249	8.251	3.08	1.21	106	53.5	0.3224	0.09827	125	150	170	1.9 kA	16 kA	91 kA
1	0.2893	7.348	3.46	1.36	83.7	42.4	0.4066	0.1239	110	130	145	1.6 kA	13 kA	72 kA
2	0.2576	6.544	3.88	1.53	66.4	33.6	0.5127	0.1563	95	115	130	1.3 kA	10.2 kA	57 kA
3	0.2294	5.827	4.36	1.72	52.6	26.7	0.6465	0.1970	85	100	115	1.1 kA	8.1 kA	45 kA
4	0.2043	5.189	4.89	1.93	41.7	21.2	0.8152	0.2485	70	85	95	946 A	6.4 kA	36 kA
5	0.1819	4.621	5.50	2.16	33.1	16.8	1.028	0.3133				795 A	5.1 kA	28 kA
6	0.1620	4.115	6.17	2.43	26.3	13.3	1.296	0.3951	55	65	75	668 A	4.0 kA	23 kA
7	0.1443	3.665	6.93	2.73	20.8	10.5	1.634	0.4982				561 A	3.2 kA	18 kA
8	0.1285	3.264	7.78	3.06	16.5	8.37	2.061	0.6282	40	50	55	472 A	2.5 kA	14 kA
9	0.1144	2.906	8.74	3.44	13.1	6.63	2.599	0.7921				396 A	2.0 kA	11 kA
10	0.1019	2.588	9.81	3.86	10.4	5.26	3.277	0.9989	30	35	40	333 A	1.6 kA	8.9 kA
11	0.0907	2.305	11.0	4.34	8.23	4.17	4.132	1.260				280 A	1.3 kA	7.1 kA
12	0.0808	2.053	12.4	4.87	6.53	3.31	5.211	1.588	20	25	30	235 A	1.0 kA	5.6 kA
13	0.0720	1.828	13.9	5.47	5.18	2.62	6.571	2.003				198 A	798 A	4.5 kA
14	0.0641	1.628	15.6	6.14	4.11	2.08	8.286	2.525	15	20	25	166 A	633 A	3.5 kA
15	0.0571	1.450	17.5	6.90	3.26	1.65	10.45	3.184				140 A	502 A	2.8 kA
16	0.0508	1.291	19.7	7.75	2.58	1.31	13.17	4.016			18	117 A	398 A	2.2 kA
17	0.0453	1.150	22.1	8.70	2.05	1.04	16.61	5.064				99 A	316 A	1.8 kA
18	0.0403	1.024	24.8	9.77	1.62	0.823	20.95	6.385	10	14	16	83 A	250 A	1.4 kA
19	0.0359	0.912	27.9	11.0	1.29	0.653	26.42	8.051	—	—	—	70 A	198 A	1.1 kA
20	0.0320	0.812	31.3	12.3	1.02	0.518	33.31	10.15	5	11	—	58.5 A	158 A	882 A
21	0.0285	0.723	35.1	13.8	0.810	0.410	42.00	12.80	—	—	—	49 A	125 A	700 A
22	0.0253	0.644	39.5	15.5	0.642	0.326	52.96	16.14	3	7	—	41 A	99 A	551 A
23	0.0226	0.573	44.3	17.4	0.509	0.258	66.79	20.36	—	—	—	35 A	79 A	440 A
24	0.0201	0.511	49.7	19.6	0.404	0.205	84.22	25.67	2.1	3.5	—	29 A	62 A	348 A
25	0.0179	0.455	55.9	22.0	0.320	0.162	106.2	32.37	—	—	—	24 A	49 A	276 A
26	0.0159	0.405	62.7	24.7	0.254	0.129	133.9	40.81	1.3	2.2	—	20 A	39 A	218 A
27	0.0142	0.361	70.4	27.7	0.202	0.102	168.9	51.47	—	—	—	17 A	31 A	174 A
28	0.0126	0.321	79.1	31.1	0.160	0.0810	212.9	64.90	0.83	1.4	—	14 A	24 A	137 A
29	0.0113	0.286	88.8	35.0	0.127	0.0642	268.5	81.84	—	—	—	12 A	20 A	110 A
30	0.0100	0.255	99.7	39.3	0.101	0.0509	338.6	103.2	0.52	0.86	—	10 A	15 A	86 A
31	0.00893	0.227	112	44.1	0.0797	0.0404	426.9	130.1	—	—	—	9 A	12 A	69 A
32	0.00795	0.202	126	49.5	0.0632	0.0320	538.3	164.1	0.32	0.53	—	7 A	10 A	54 A
33	0.00708	0.180	141	55.6	0.0501	0.0254	678.8	206.9	—	—	—	6 A	7.7 A	43 A
34	0.00630	0.160	159	62.4	0.0398	0.0201	856.0	260.9	0.18	0.3	—	5 A	6.1 A	34 A
35	0.00561	0.143	178	70.1	0.0315	0.0160	1079	329.0	—	—	—	4 A	4.8 A	27 A
36	0.00500 <sup>[c]</sup>	0.127 <sup>[c]</sup>	200	78.7	0.0250	0.0127	1361	414.8	—	—	—	4 A	3.9 A	22 A
37	0.00445	0.113	225	88.4	0.0198	0.0100	1716	523.1	—	—	—	3 A	3.1 A	17 A
38	0.00397	0.101	252	99.3	0.0157	0.00797	2164	659.6	—	—	—	3 A	2.4 A	14 A
39	0.00353	0.0897	283	111	0.0125	0.00632	2729	831.8	—	—	—	2 A	1.9 A	11 A
40	0.00314	0.0799	318	125	0.00989	0.00501	3441	1049	—	—	—	1 A	1.5 A	8.5 A