AWG gauge	Diameter Inches	Diameter mm	Ohms per 1000 ft	Ohms per km	Maximum amps for chassis wiring	Maximum amps for power transmission
OOOO	0.46	11.684	0.049	0.16072	380	302
OOO	0.4096	10.40384	0.0618	0.202704	328	239
OO	0.3648	9.26592	0.0779	0.255512	283	190
0	0.3249	8.25246	0.0983	0.322424	245	150
1	0.2893	7.34822	0.1239	0.406392	211	119
2	0.2576	6.54304	0.1563	0.512664	181	94
3	0.2294	5.82676	0.197	0.64616	158	75
4	0.2043	5.18922	0.2485	0.81508	135	60
5	0.1819	4.62026	0.3133	1.027624	118	47
6	0.162	4.1148	0.3951	1.295928	101	37
7	0.1443	3.66522	0.4982	1.634096	89	30
8	0.1285	3.2639	0.6282	2.060496	73	24
9	0.1144	2.90576	0.7921	2.598088	64	19
10	0.1019	2.58826	0.9989	3.276392	55	15
11	0.0907	2.30378	1.26	4.1328	47	12
12	0.0808	2.05232	1.588	5.20864	41	9.3
13	0.072	1.8288	2.003	6.56984	35	7.4
14	0.0641	1.62814	2.525	8.282	32	5.9
15	0.0571	1.45034	3.184	10.44352	28	4.7
16	0.0508	1.29032	4.016	13.17248	22	3.7
17	0.0453	1.15062	5.064	16.60992	19	2.9
18	0.0403	1.02362	6.385	20.9428	16	2.3

AWG gauge	Diameter Inches	Diameter mm	Ohms per 1000 ft	Ohms per km	Maximum amps for chassis wiring	Maximum amps for power transmission
19	0.0359	0.91186	8.051	26.40728	14	1.8
20	0.032	0.8128	10.15	33.292	11	1.5
21	0.0285	0.7239	12.8	41.984	9	1.2
22	0.0254	0.64516	16.14	52.9392	7	0.92
23	0.0226	0.57404	20.36	66.7808	4.7	0.729
24	0.0201	0.51054	25.67	84.1976	3.5	0.577
25	0.0179	0.45466	32.37	106.1736	2.7	0.457
26	0.0159	0.40386	40.81	133.8568	2.2	0.361
27	0.0142	0.36068	51.47	168.8216	1.7	0.288
28	0.0126	0.32004	64.9	212.872	1.4	0.226
29	0.0113	0.28702	81.83	268.4024	1.2	0.182
30	0.01	0.254	103.2	338.496	0.86	0.142
31	0.0089	0.22606	130.1	426.728	0.7	0.113
32	0.008	0.2032	164.1	538.248	0.53	0.091
Metric 2.0	0.00787	0.200	169.39	555.61	0.51	0.088
33	0.0071	0.18034	206.9	678.632	0.43	0.072
Metric 1.8	0.00709	0.180	207.5	680.55	0.43	0.072
34	0.0063	0.16002	260.9	855.752	0.33	0.056
Metric 1.6	0.0063	0.16002	260.9	855.752	0.33	0.056
35	0.0056	0.14224	329	1079.12	0.27	0.044
Metric 1.4	.00551	.140	339	1114	0.26	0.043
36	0.005	0.127	414.8	1360	0.21	0.035

Wire Size Cross Reference Chart

Logical AWG Size	AWG & Aught Sizes	MCM or kcmil Size	Circular Mills	Cross Section mm2	Max Metric UL 486 Equivalent mm2	Cross Section Inch2	Diameter Solid Inch	Diameter Solid MM	Diameter Stranded Approx Max Inch
41	41		8	0.00397		0.0000062	0.0028	0.071	
40	40		10	0.00501		0.0000078	0.0031	0.080	
39	39		12	0.00632		0.0000098	0.0035	0.090	
38	38		16	0.00797		0.0000123	0.0040	0.101	
37	37		20	0.01005		0.0000156	0.0045	0.113	
36	36		25	0.01267		0.0000196	0.0050	0.127	
35	35		32	0.01597		0.0000248	0.0056	0.143	
34	34		40	0.02014		0.0000312	0.0063	0.160	
33	33		50	0.02540		0.0000394	0.0071	0.180	
32	32		63	0.03203		0.0000496	0.0080	0.202	
31	31		80	0.04039		0.0000626	0.0089	0.227	
30	30		100	0.05093	0.05000	0.0000789	0.0100	0.255	
29	29		127	0.06422		0.0000995	0.0113	0.286	
28	28		160	0.08097		0.000126	0.0126	0.321	
27	27		201	0.10211		0.000158	0.0142	0.361	
26	26		254	0.12875		0.000200	0.0159	0.405	
25	25		320	0.16235		0.000252	0.0179	0.455	
24	24		404	0.20473	0.20000	0.000317	0.0201	0.511	
23	23		509	0.25815		0.000400	0.0226	0.573	
22	22		642	0.32552	0.32000	0.000505	0.0253	0.644	
21	21		810	0.41048		0.000636	0.0285	0.723	
20	20		1021	0.51760		0.000802	0.0320	0.812	0.036

Logical AWG Size	AWG & Aught Sizes	MCM or kcmil Size	Circular Mills	Cross Section mm2	Max Metric UL 486 Equivalent mm2	Cross Section Inch2	Diameter Solid Inch	Diameter Solid MM	Diameter Stranded Approx Max Inch
20	20		1021	0.51760		0.000802	0.0320	0.812	0.036
19	19		1288	0.65268		0.00101	0.0359	0.912	
18	**18**		1624	0.82301		0.00128	0.0403	1.02	0.046
17	**17**		2048	1.03780		0.00161	0.0453	1.15	
16	**16**		2582	1.30864	1.30000	0.00203	0.0508	1.29	0.058
15	**15**		3256	1.65016		0.00256	0.0571	1.45	
14	**14**		4106	2.08080	2.10000	0.00323	0.0641	1.63	0.073
13	**13**		5178	2.62384		0.00407	0.0720	1.83	
12	**12**		6529	3.30859	3.30000	0.00513	0.0808	2.05	0.092
11	**11**		8233	4.17204		0.00647	0.0907	2.30	
10	**10**	10	10382	5.26084	5.30000	0.00815	0.102	2.59	0.116
9	**9**	13	13091	6.63377		0.0103	0.114	2.91	0.130
8	**8**	17	16507	8.36501	8.40000	0.0130	0.128	3.26	0.146
7	**7**	21	20815	10.5481		0.0163	0.144	3.66	0.164
6	**6**	26	26248	13.3008	13.30000	0.0206	0.162	4.12	0.184
5	**5**	33	33098	16.7720		0.0260	0.182	4.62	0.206
4	**4**	42	41735	21.1490		0.0328	0.204	5.19	0.232
3	**3**	53	52627	26.6684	26.70000	0.0413	0.229	5.83	0.260
2	**2**	66	66361	33.6281	33.60000	0.0521	0.258	6.54	0.292
1	**1**	84	83680	42.4042		0.0657	0.289	7.35	0.332
0	**1/0**	106	105518	53.4705		0.0829	0.325	8.25	0.373
-1	**2/0**	133	133056	67.4249		0.1045	0.365	9.27	0.419
-2	**3/0**	168	167780	85.0210		0.1318	0.410	10.40	0.471
-3	**4/0**	212	211566	107.209		0.1662	0.460	11.68	0.528
-3.7	4.7/0	**250**	250000	126.677	120.00000	0.1963	0.500	12.70	0.575
-4.5	5.5/0	**300**	300000	152.012		0.2356	0.548	13.91	0.630
-5.2	6.2/0	**350**	350000	177.348		0.2749	0.592	15.03	0.681

Logical AWG Size	AWG & Aught Sizes	MCM or kcmil Size	Circular Mills	Cross Section mm2	Max Metric UL 486 Equivalent mm2	Cross Section Inch2	Diameter Solid Inch	Diameter Solid MM	Diameter Stranded Approx Max Inch
-5.7	6.7/0	**400**	400000	202.683		0.3142	0.632	16.06	0.728
-6.3	7.3/0	**450**	450000	228.018		0.3534	0.671	17.04	
-6.7	7.7/0	**500**	500000	253.354		0.3927	0.707	17.96	0.814
-7.5	8.5/0	**600**	600000	304.025		0.4712	0.775	19.67	0.893
-8.2	9.2/0	**700**	700000	354.695		0.5498	0.837	21.25	0.964
-8.5	9.5/0	**750**	750000	380.031		0.5890	0.866	22.00	0.999
-8.7	9.7/0	**800**	800000	405.366		0.6283	0.894	22.72	1.032
-9.2	10.2/0	**900**	900000	456.037		0.7069	0.949	24.10	
-9.7	10.7/0	**1000**	1000000	506.708	508.00000	0.7854	1.000	25.40	1.153
-10.7	11.7/0	1250	1250000	633.384		0.9817	1.118	28.40	1.289
-11.4	12.4/0	1500	1500000	760.061		1.1781	1.225	31.11	1.413
-12.1	13.1/0	1750	1750000	886.738		1.3744	1.323	33.60	
-12.7	13.7	2000	2000000	1013.415	1016.00000	1.5708	1.414	35.92	1.632

Definitions:

Mil: 1/1000 of an inch

Circular Mil: The area of a circle 1/1000 inch in diameter

MCM: Thousands of Circular Mils

kcmil: Thousands of Circular Mils (same as MCM)

AWG: -4.3125 LN (mm2) + 17.16 (approx interpolated) –or-

AWG: -4.3125 LN (inch2) - 10.74 (approx interpolated)

Aught: An old English contraction of "one naught" meaning "one zero".

Logical AWG numbers are developed by continuing the series in a logarithmic relationship to the cross sectional area of the wire.