Wire Gauge AWG Size Chart: The Ultimate Guide for Your Projects

Tackling electrical work, from a simple DIY lamp repair to a full-blown shed wiring, means getting your wire gauge right. You can't just guess; the wrong size leads to overheating, poor performance, or even fire. This chart is your go-to guide, breaking down American Wire Gauge (AWG) sizes by diameter, cross-sectional area, and how much current they can safely handle. You'll quickly see why a lower AWG number—like 10 AWG for heavier loads—means a much thicker wire than, say, 22 AWG, which is perfect for delicate signal circuits. Keep this handy, print it out, or save the PDF for all your projects.

AWG GAUGE	DIAMETER (IN)	DIAMETER (MM)	AREA (CIRCULAR MILS)	AREA (MM²)	MAX AMPS (CHASSIS WIRING)	MAX AMPS (POWER TRANSMISSION)
4/0 (0000)	0.46	11.684	211600	107.2	300	260
3/0 (000)	0.4096	10.404	167800	85	225	200
2/0 (00)	0.3648	9.266	133100	67.4	195	175
1/0 (0)	0.3249	8.252	105600	53.5	150	150
1	0.2893	7.348	83690	42.4	120	130
2	0.2576	6.543	66370	33.6	95	115
3	0.2294	5.827	52640	26.7	85	100
4	0.2043	5.189	41740	21.2	70	85
5	0.1819	4.621	33100	16.8	60	75
6	0.162	4.115	26240	13.3	50	65
8	0.1285	3.264	16510	8.37	35	50
10	0.1019	2.588	10380	5.26	25	30
12	0.0808	2.053	6530	3.31	20	20
14	0.0641	1.628	4110	2.08	15	15
16	0.0508	1.291	2580	1.31	10	10
18	0.0403	1.024	1620	0.823	7	5
20	0.032	0.812	1020	0.518	5	2.5
22	0.0253	0.644	642			

18 rows