

AWG	Bare Copper						Single Build			Heavy Build			Area Circ. Mils. Nom	Single Build					Recom. Winding Tension (gram)	Typical Elongation %	AWG				
	Diameter (inches)			Resistance (ohms/1000 Ft.)			Minimum Increase (inches)	Overall Diameter (inches)			Minimum Increase (inches)	Overall Diameter (inches)			Lbs. 1000 Ft.	Ft/lb.	Ohms/lb.	Wires / Sq. In.				Ohms / Cu. In.			
	Min	Nom	Max	Min	Nom	Max *		Min	Nom	Max		Min		Nom									Max	Nom	Nom
24.0	0.0199	0.0201	0.0202	24.91	25.55	26.19	0.0010	0.0209	0.0213	0.0217	0.0019	0.0218	0.0223	0.0227	404	1.246	802.7	20.606	2 204	4.714	1 450	42	24.0		
24.5	0.0188	0.0190	0.0191	27.86	28.60	29.34	0.0010	0.0198	0.0202	0.0206	0.0019	0.0207	0.0211	0.0215	361	1.114	897.4	25.781	2 450	5.866	1 310	42	24.5		
25.0	0.0177	0.0179	0.0180	31.37	32.24	33.10	0.0009	0.0186	0.0190	0.0194	0.0018	0.0195	0.0199	0.0203	320	0.988	1 012	32.744	2 770	7.472	1 175	42	25.0		
25.5	0.0167	0.0169	0.0170	35.17	36.18	37.19	0.0009	0.0176	0.0180	0.0184	0.0018	0.0185	0.0189	0.0193	286	0.882	1 134	41.162	3 086	9.338	1 060	42	25.5		
26.0	0.0157	0.0159	0.0160	39.71	40.89	42.07	0.0009	0.0166	0.0170	0.0173	0.0017	0.0174	0.0178	0.0182	253	0.781	1 280	52.520	3 460	11.82	950	42	26.0		
26.5	0.0149	0.0150	0.0151	44.58	45.65	46.71	0.0009	0.0157	0.0161	0.0165	0.0017	0.0165	0.0169	0.0173	225	0.697	1 434	66.081	3 810	14.63	860	41	26.5		
27.0	0.0141	0.0142	0.0143	49.71	50.94	52.17	0.0008	0.0149	0.0153	0.0156	0.0016	0.0157	0.0161	0.0164	202	0.625	1 601	82.351	4 272	18.31	770	41	27.0		
27.5	0.0133	0.0134	0.0135	55.78	57.20	58.63	0.0008	0.0141	0.0145	0.0148	0.0016	0.0149	0.0152	0.0156	180	0.557	1 795	103.70	4 756	22.89	700	41	27.5		
28.0	0.0125	0.0126	0.0127	63.02	64.70	66.37	0.0008	0.0133	0.0137	0.0140	0.0016	0.0141	0.0144	0.0147	159	0.493	2 027	132.44	5 328	29.00	630	40	28.0		
28.5	0.0118	0.0119	0.0120	70.59	72.54	74.48	0.0008	0.0126	0.0130	0.0133	0.0016	0.0134	0.0137	0.0140	142	0.441	2 269	166.21	5 917	36.11	585	40	28.5		
29.0	0.0112	0.0113	0.0114	78.22	80.45	82.68	0.0007	0.0119	0.0123	0.0126	0.0015	0.0127	0.0130	0.0133	128	0.397	2 520	204.69	6 610	44.74	540	40	29.0		
29.5	0.0105	0.0106	0.0107	88.79	91.43	94.07	0.0007	0.0112	0.0116	0.0119	0.0015	0.0120	0.0123	0.0126	112	0.350	2 859	263.89	7 431	57.16	470	40	29.5		
30.0	0.0099	0.0100	0.0101	99.65	102.7	105.8	0.0007	0.0106	0.0109	0.0112	0.0014	0.0113	0.0116	0.0119	100	0.311	3 212	333.11	8 416	72.73	400	40	30.0		
30.5	0.0094	0.0095	0.0096	110.3	113.8	117.4	0.0007	0.0101	0.0104	0.0106	0.0014	0.0108	0.0111	0.0114	90.25	0.281	3 555	408.5	9 245	88.52	355	39	30.5		
31.0	0.0088	0.0089	0.0090	125.5	129.7	133.9	0.0006	0.0094	0.0097	0.0100	0.0013	0.0101	0.0105	0.0108	79.21	0.247	4 054	530.8	10 628	115.9	315	39	31.0		
31.5	0.0083	0.0084	0.0085	140.7	145.6	150.5	0.0006	0.0089	0.0092	0.0096	0.0013	0.0096	0.0100	0.0103	70.56	0.220	4 547	668.3	11 814	144.7	290	39	31.5		
32.0	0.0079	0.0080	0.0081	154.9	160.6	166.2	0.0006	0.0085	0.0088	0.0091	0.0012	0.0091	0.0095	0.0098	64.00	0.200	5 003	810.7	12 913	174.3	270	37	32.0		
32.5	0.0074	0.0075	0.0076	176.0	182.7	189.4	0.0006	0.0080	0.0083	0.0086	0.0012	0.0086	0.0090	0.0093	56.25	0.176	5 686	1 048	14 515	223.0	245	37	32.5		
33.0	0.0070	0.0071	0.0072	196.1	203.9	211.7	0.0005	0.0075	0.0078	0.0081	0.0011	0.0081	0.0085	0.0088	50.41	0.157	6 352	1 307	16 436	281.7	225	37	33.0		
33.5	0.0660	0.0067	0.0068	219.8	229.0	238.1	0.0005	0.0071	0.0074	0.0077	0.0011	0.0077	0.0080	0.0083	44.89	0.140	7 124	1 646	18 261	351.5	200	35	33.5		
34.0	0.0062	0.0063	0.0064	248.2	259.0	269.8	0.0005	0.0067	0.0070	0.0072	0.0010	0.0072	0.0075	0.0078	39.69	0.124	8 086	2 108	21 003	457.3	182	35	34.0		
34.5	0.0058	0.0059	0.0060	282.4	295.3	308.3	0.0005	0.0063	0.0066	0.0068	0.0010	0.0068	0.0071	0.0074	34.81	0.109	9 185	2 737	23 668	587.6	165	34	34.5		
35.0	0.0055	0.0056	0.0057	312.9	327.9	342.8	0.0004	0.0059	0.0062	0.0064	0.0009	0.0064	0.0067	0.0070	31.36	0.0979	10 213	3 377	26 014	716.9	147	34	35.0		
35.5	0.0052	0.0053	0.0054	348.6	366.1	383.5	0.0004	0.0056	0.0059	0.0061	0.0009	0.0061	0.0064	0.0067	28.09	0.0878	11 390	4 205	29 726	914.6	133	34	35.5		
36.0	0.0049	0.0050	0.0051	390.8	411.4	431.9	0.0004	0.0053	0.0056	0.0058	0.0008	0.0057	0.0060	0.0063	25.00	0.0783	12 772	5 298	33 057	1 142	120	33	36.0		
36.5	0.0046	0.0047	0.0048	441.2	465.7	490.1	0.0004	0.0050	0.0053	0.0055	0.0008	0.0054	0.0057	0.0060	22.09	0.0692	14 445	6 782	36 982	1 447	110	33	36.5		
37.0	0.0044	0.0045	0.0046	480.4	508.0	535.7	0.0003	0.0047	0.0050	0.0052	0.0008	0.0052	0.0055	0.0057	20.25	0.0633	15 798	8 091	40 000	1 707	100	32	37.0		
37.5	0.0041	0.0042	0.0043	549.8	583.4	617.0	0.0003	0.0044	0.0047	0.0050	0.0008	0.0049	0.0052	0.0054	17.64	0.0544	18 038	10 605	45 269	2 218	90	32	37.5		
38.0	0.0039	0.0040	0.0041	604.7	643.3	681.9	0.0003	0.0042	0.0045	0.0047	0.0007	0.0046	0.0049	0.0051	16.00	0.0501	19 952	12 933	51 652	2 785	81	31	38.0		
38.5	0.0036	0.0037	0.0038	703.9	752.1	800.2	0.0003	0.0039	0.0042	0.0044	0.0007	0.0043	0.0046	0.0048	13.69	0.0430	23 261	17 622	59 488	3 756	72	31	38.5		
39.0	0.0034	0.0035	0.0036	784.3	840.7	897.1	0.0002	0.0036	0.0039	0.0041	0.0006	0.0040	0.0043	0.0045	12.25	0.0384	26 058	22 061	65 746	4 638	64	30	39.0		
39.5	0.0032	0.0033	0.0034	879.3	946.1	1 013	0.0002	0.0034	0.0037	0.0039	0.0006	0.0038	0.0040	0.0043	10.89	0.0341	29 295	27 899	73 046	5 797	58	30	39.5		
40.0	0.0030	0.0031	0.0032	992.7	1 073	1 152	0.0002	0.0032	0.0035	0.0037	0.0006	0.0036	0.0038	0.0040	9.61	0.0301	33 217	35 847	81 630	7 341	52	29	40.0		
40.5	0.0029	0.0030	0.0031	1 058	1 145	1 233	0.0002	0.0031	0.0033	0.0035	0.0006	0.0035	0.0037	0.0038	9.00	0.0283	35 361	40 748	86 505	8 306	47	27	40.5		
41.0	0.0027	0.0028	0.0029	1 299	1 316	1 423	0.0002	0.0029	0.0031	0.0033	0.0005	0.0032	0.0034	0.0036	7.84	0.0246	40 718	53 863	104 058	11 470	42	25	41.0		
41.5	0.0025	0.0026	0.0027	1 394	1 527	1 659	0.0002	0.0027	0.0029	0.0032	0.0005	0.0030	0.0032	0.0034	6.76	0.0212	47 181	72 384	113 906	15 202	38	25	41.5		
42.0	0.0024	0.0025	0.0026	1 504	1 652	1 801	0.0002	0.0026	0.0028	0.0030	0.0004	0.0028	0.0030	0.0032	6.25	0.0195	51 313	85 147	127 551	17 638	34	24	42.0		
42.5	0.0023	0.0024	0.0025	1 626	1 793	1 960	0.0002	0.0025	0.0027	0.0028	0.0004	0.0027	0.0029	0.0031	5.76	0.0180	55 635	100 172	147 928	22 195	30	23	42.5		
43.0	0.0021	0.0022	0.0023	1 922	2 137	2 352	0.0002	0.0023	0.0025	0.0026	0.0004	0.0025	0.0027	0.0029	4.84	0.0151	66 092	141 619	176 611	31 536	26	22	43.0		
43.5	0.0020	0.0021	0.0022	2 100	2 346	2 593	0.0002	0.0022	0.0024	0.0025	0.0004	0.0024	0.0026	0.0028	4.41	0.0138	72 462	170 408	189 035	37 046	24	21	43.5		
44.0	0.0019	0.0020	0.0021	2 305	2 589	2 873	0.0002	0.00210	0.0023	0.0024	0.0004	0.0023	0.0025	0.0027	4.00	0.0125	79 798	206 897	206 611	44 641	22	21	44.0		
44.5	0.0018	0.0019	0.0020	2 541	2 871	3 201	0.0002	0.00197	0.0021	0.0022	0.0004	0.00220	0.00233	0.00250	3.61	0.0113	88 308	253 696	226 757	54 287	19	20	44.5		
Resistance **																						Ohms/gram			
(ohms/Ft.)																									
45.0	0.00169	0.00176	0.00183	3.080	3.348	3.616	0.00010	0.00179	0.00192	0.00205	0.0003	0.00199	0.00215	0.00230	3.10	0.00965	103 600	746	271 441	75 683	17.0	20	45.0		
45.5	0.00160	0.00166	0.00173	3.472	3.757	4.099	0.00010	0.00171	0.00183	0.00195	0.0003	0.00191	0.00206	0.00220	2.76	0.00834	119 900	993	301 896	94 519	15.0	20	45.5		
46.0	0.00151	0.00157	0.00164	3.870	4.207	4.544	0.00010	0.00161	0.00173	0.00185	0.0003	0.00181	0.00196	0.00210	2.47	0.00768	130 200	1 210	334 084	117 138	14.0	20	46.0		
46.5	0.00142	0.00148	0.00154	4.377	4.733	5.134	0.00010	0.00153	0.00165	0.00178	0.0003	0.00173	0.00186	0.00200	2.19	0.00663	150 880	1 573	371 802	146 645	12.0	20	46.5		
47.0	0.00135	0.00140	0.00146	4.868	5.291	5.714	0.00010	0.																	