



TABLE 3 Diameters, Areas, and Mass of Concentric-Lay-Stranded Copper Conductors (Explanatory Note 8)

Size of Conductor,		Nominal Conductor Diameter, in. ^A					Area, in. ²	Mass		DC Resistance at 20°C ^B	
		Concentric Strand						lbs/1000 ft	kg/km	Ω/1000 ft	Ω/km
cmil or AWG numbers	mm ²	Class AA	Class A	Class B	Reverse Concentric Compressed Class B Diameter, in.	Unilay Compressed ^C Diameter, in.					
*5 000 000 cmil	2530	...	2.580	2.581	...	...	3.927	15 890	23 649	0.00218	0.00715
4 500 000 cmil	2280	...	2.448	2.448	...	...	3.534	14 300	21 283	0.00242	0.00794
4 000 000 cmil	2030	...	2.307	2.309	...	...	3.142	12 590	18 738	0.00270	0.00886
3 500 000 cmil	1770	...	2.158	2.159	...	...	2.749	11 020	16 401	0.00308	0.0101
*3 000 000 cmil	1520	...	1.998	1.998	...	...	2.356	9 353	13 920	0.00356	0.0117
*2 500 000 cmil	1270	...	1.823	1.824	...	...	1.963	7 794	11 600	0.00428	0.0140
*2 000 000 cmil	1010	...	1.630	1.632	1.583	1.533	1.571	6 175	9 190	0.00529	0.0174
1 900 000 cmil	963	...	1.590	1.590	1.542	1.494	1.492	5 866	8 730	0.00557	0.0183
1 800 000 cmil	912	...	1.547	1.548	1.502	1.454	1.414	5 558	8 272	0.00588	0.0193
*1 750 000 cmil	887	...	1.526	1.526	1.480	1.434	1.374	5 403	8 041	0.00604	0.0198
1 700 000 cmil	861	...	1.504	1.504	1.459	1.413	1.335	5 249	7 812	0.00622	0.0204
1 600 000 cmil	801	...	1.459	1.459	1.415	1.371	1.257	4 940	7 352	0.00661	0.0217
*1 500 000 cmil	760	...	1.411	1.412	1.370	1.327	1.178	4 631	6 892	0.00705	0.0231
1 400 000 cmil	709	...	1.364	1.364	1.323	1.282	1.100	4 323	6 435	0.00756	0.0248
1 300 000 cmil	659	...	1.314	1.315	1.275	1.236	1.021	4 014	5 974	0.00814	0.0267
*1 250 000 cmil	633	...	1.288	1.289	1.250	1.212	0.9817	3 859	5 743	0.00847	0.0278
1 200 000 cmil	608	...	1.263	1.263	1.225	1.187	0.9425	3 705	5 514	0.00882	0.0289
1 100 000 cmil	557	...	1.209	1.209	1.173	1.137	0.8639	3 396	5 054	0.00962	0.0316
*1 000 000 cmil	507	1.151	1.152	1.152	1.117	1.084	0.7854	3 088	4 596	0.0106	0.0348
900 000 cmil	456	1.092	1.094	1.094	1.060	1.028	0.7069	2 779	4 136	0.0118	0.0387
*800 000 cmil	405	1.029	1.031	1.031	1.000	0.969	0.6283	2 470	3 676	0.0132	0.0433
*750 000 cmil	380	0.997	0.998	0.998	0.968	0.939	0.5890	2 316	3 447	0.0141	0.0462
*700 000 cmil	355	0.963	0.964	0.964	0.935	0.907	0.5498	2 161	3 216	0.0151	0.0495
650 000 cmil	329	0.928	0.929	0.929	0.901	0.874	0.5105	2 007	2 987	0.0163	0.0535
*600 000 cmil	304	0.891	0.891	0.893	0.866	0.840	0.4712	1 883	2 758	0.0177	0.0581
550 000 cmil	279	0.853	0.853	0.855	0.829	0.804	0.4320	1 698	2 527	0.0192	0.0630
*500 000 cmil	253	0.811	0.813	0.813	0.789	0.766	0.3927	1 544	2 298	0.0212	0.0695
450 000 cmil	228	0.770	0.772	0.772	0.749	0.727	0.3534	1 389	2 067	0.0235	0.0771
*400 000 cmil	203	0.726	0.726	0.728	0.706	0.685	0.3142	1 235	1 838	0.0264	0.0866
*350 000 cmil	177	0.710	0.679	0.681	0.661	0.641	0.2749	1 081	1 609	0.0302	0.0991
*300 000 cmil	152	0.657	0.629	0.630	0.611	0.594	0.2356	926.3	1 378.6	0.0353	0.116
*250 000 cmil	127	0.600	0.574	0.575	0.558	0.542	0.1963	771.9	1 148.8	0.0423	0.139
* No. 0000	107	0.522	0.522	0.528	0.512	0.498	0.1662	653.1	972.0	0.0500	0.164
* No. 000	85.0	0.464	0.464	0.470	0.456	0.443	0.1318	518.1	771.1	0.0630	0.207
* No. 00	67.4	0.414	0.414	0.419	0.405	0.395	0.1045	410.9	611.5	0.0795	0.261
* No. 0	53.5	0.368	0.368	0.373	0.362	0.352	0.08289	325.8	484.9	0.100	0.328
* No. 1, 3 wire	42.4	0.360	...	...	...	...	0.06573	255.9	380.9	0.127	0.417
* No. 1	42.4	...	0.328	0.332	0.322	0.313	0.06573	258.4	384.6	0.127	0.522
* No. 2, 3 wire	33.6	0.320	...	...	...	...	0.05213	202.9	301.9	0.159	0.522
* No. 2	33.6	...	0.292	0.292	0.283	...	0.05213	204.9	304.9	0.159	0.659
* No. 3, 3 wire	26.7	0.285	...	...	...	...	0.04134	160.9	239.5	0.201	0.659
* No. 3	26.7	...	0.260	0.260	0.252	...	0.04134	162.5	241.9	0.201	0.830
* No. 4, 3 wire	21.2	0.254	...	...	...	...	0.03278	127.6	189.9	0.253	0.830
* No. 4	21.2	...	0.232	0.232	0.225	...	0.03278	128.9	191.8	0.253	1.05
* No. 5	16.8	...	...	0.206	0.200	...	0.02600	102.2	152.1	0.319	1.05
* No. 6	13.3	...	...	0.184	0.178	...	0.02062	81.05	120.63	0.403	1.32
* No. 7	10.6	...	...	0.164	0.159	...	0.01635	64.28	95.67	0.509	1.67
* No. 8	8.37	...	...	0.146	0.142	...	0.01297	50.97	75.86	0.640	2.10
* No. 9	6.63	...	...	0.130	0.126	...	0.01028	40.42	60.16	0.809	2.65
* No. 10	5.26	...	...	0.116	0.113	...	0.008155	32.06	47.72	1.02	3.35
* No. 12	3.31	...	...	0.0915	0.089	...	0.005129	20.16	30.00	1.63	5.35
* No. 14	2.08	...	...	0.0726	0.071	...	0.003225	12.68	18.87	2.58	8.46
* No. 16	0.823	...	...	0.0576	...	...	0.002028	7.974	11.868	4.10	13.4
* No. 18	0.519	...	...	0.0456	...	...	0.001276	5.015	7.464	6.54	21.4
* No. 20	0.519	...	...	0.0363	...	...	0.0008023	3.154	4.694	10.3	33.8
* No. 22	0.324	...	...	0.0288	...	...	0.0005067	1.992	2.965	16.4	53.8
* No. 24	0.205	...	...	0.0228	...	...	0.0003176	1.249	1.859	26.1	85.6

* The sizes of conductors which have been marked with a single asterisk provide for one or more schedules of preferred series, and are commonly used in the industry. The sizes not marked are given simply as a matter of reference, and it is suggested that their use be discouraged.

^A To calculate the nominal diameters of Class C or Class D conductors or of any concentric-lay-stranded conductors made from round wires of uniform diameters, multiply the diameter of an individual wire (as given in Table 1) by that one of the following factors which applies:

^B DC resistances apply to Class B, C, and D stranding. For other classes of stranding, refer to Test Method B 193.

^C For conductors manufactured for subsequent covering or insulating.