

Ampacities and Mechanical Properties of Rectangular Copper Bus Bars

The ampacity tables presented here are for rectangular bus bars of Copper No. 110 whose surface condition is similar to that of busses at typical installations. Ampacities were calculated using a nominal conductivity of 99% IACS and should also be applicable to other coppers with the same electrical conductivity. Listed for 60 Hz at temperature rises of 30, 60, and 65 C° ambient, they are determined from accurate emissivity coefficients measured by calorimetric techniques. The methods are described in "**Electrical Coils and Conductors**", by H.B. Dwight (McGraw-Hill Publishing Co., New York, 1945, Chapter 19).

Ampacity Calculations - Accurate emissivity is essential because it is used to calculate the heat dissipated by radiation, a factor in the general equation for ampacity:

$$I = \sqrt{\frac{WR + WC}{R}}$$

where I is ampacity (amp), WR is heat dissipated by radiation (watts), WC is heat dissipated by natural convection (watts), and R is resistance (ohms) at operating temperature and 60 Hz.

Table 1. **Ampacities of Copper No. 110 Bus Bars** - Ampacities in this table are for bus bars having an emissivity of 0.4.

This was observed on samples exposed for 60 days in an industrial environment, and it is probably identical to that of bus bars in service.

Direct-current ampacities may differ from AC° ampacities because of AC° skin effect:

$$I_{DC} = I_{AC} \sqrt{S}$$

where I DC° is DC° ampacity at 60 Hz (amp), and S is the skin effect ratio at 60 Hz.

Table 2. **Mechanical Properties of Copper No. 110 Bus Bars** - This table lists properties useful in calculating such characteristics as stiffness and deflection that are often required by designers of bus bar systems.

Table 3. **Quick Bus Bar Selector** - Knowing the ampacity, designers and estimators can get the approximate bus bar size. Ampacity of the bus bar selected must then be verified by checking table 1.

Table 4. Effect of **Emissivity and Number of Busses on Ampacity** - Data here show how higher emissivities improve ampacity. Multiple busses also affect ampacity in a nonlinear relationship. Ampacity may be raised by increasing heat dissipation through the use of convection cooling or surface treatments. Surface treatments which emissivity are available.

Table 1. Ampacities of Copper No. 110 Bus Bars

Dimensions, In.	Area		Weight Per Foot, Lb	DC Resistance at 20° C, Microhms Per Ft	30 C° Rise		50 C° Rise		65 C° Rise	
	Square In.	Circular Mils, Thousands			Skin Effect Ratio at 70° C	60-Hz Ampacity,* Amp	Skin Effect Ratio at 90° C	60-Hz Ampacity,* Amp	Skin Effect Ratio at 105° C	60-Hz Ampacity,* Amp
1/16 x 1/2	0.0312	39.7	0.121	264.0	1.00	103	1.00	136	1.00	157
1/16 x 3/4	0.0469	59.7	0.181	175.0	1.00	145	1.00	193	1.00	225
1/16 x 1	0.0625	79.6	0.241	132.0	1.00	187	1.00	250	1.00	285
1/16 x 1 1/2	0.0938	119	0.362	87.7	1.00	270	1.00	355	1.00	410
1/16 x 2	0.125	159	0.483	65.8	1.01	345	1.01	460	1.01	530
1/8 x 1/2	0.0625	79.6	0.241	132.0	1.00	153	1.00	205	1.00	235
1/8 x 3/4	0.0938	119	0.362	87.7	1.00	215	1.00	285	1.00	325
1/8 x 1	0.125	159	0.483	65.8	1.01	270	1.01	360	1.01	415
1/8 x 1 1/2	0.188	239	0.726	43.8	1.01	385	1.01	510	1.01	590
1/8 x 2	0.250	318	0.966	32.9	1.02	495	1.02	660	1.02	760
1/8 x 2 1/2	0.312	397	1.21	26.4	1.02	600	1.02	800	1.02	920
1/8 x 3	0.375	477	1.45	21.9	1.03	710	1.03	940	1.03	1,100
1/8 x 3 1/2	0.438	558	1.69	18.8	1.04	810	1.03	1,100	1.03	1,250
1/8 x 4	0.500	636	1.93	16.5	1.04	910	1.04	1,200	1.04	1,400
3/16 x 1/2	0.0938	119	0.362	87.7	1.00	195	1.00	260	1.00	300
3/16 x 3/4	0.141	179	0.545	58.4	1.01	270	1.01	360	1.01	415
3/16 x 1	0.188	239	0.726	43.8	1.01	340	1.01	455	1.01	520
3/16 x 1 1/2	0.281	358	1.09	29.3	1.02	480	1.02	630	1.02	730
3/16 x 2	0.375	477	1.45	21.9	1.03	610	1.03	810	1.03	940
3/16 x 2 1/2	0.469	597	1.81	17.5	1.04	740	1.04	980	1.03	1,150
3/16 x 3	0.562	715	2.17	14.6	1.05	870	1.05	1,150	1.04	1,350
3/16 x 3 1/2	0.656	835	2.53	12.5	1.07	990	1.06	1,300	1.06	1,500
3/16 x 4	0.750	955	2.90	11.0	1.09	1,100	1.08	1,450	1.07	1,700
1/4 x 1/2	0.125	159	0.483	65.8	1.01	240	1.01	315	1.01	360
1/4 x 3/4	0.188	239	0.726	43.8	1.01	320	1.01	425	1.01	490
1/4 x 1	0.250	318	0.966	32.9	1.02	400	1.02	530	1.02	620
1/4 x 1 1/2	0.375	477	1.45	21.9	1.03	560	1.03	740	1.03	860
1/4 x 2	0.500	637	1.93	16.5	1.04	710	1.04	940	1.04	1,100
1/4 x 2 1/2	0.625	796	2.41	13.2	1.06	850	1.06	1,150	1.06	1,300
1/4 x 3	0.750	955	2.90	11.0	1.08	990	1.08	1,300	1.07	1,550
1/4 x 3 1/2	0.875	1,110	3.38	9.40	1.10	1,150	1.09	1,500	1.09	1,750
1/4 x 4	1.00	1,270	3.86	8.23	1.12	1,250	1.11	1,700	1.10	1,950
1/4 x 5	1.25	1,590	4.83	6.58	1.16	1,500	1.15	2,000	1.14	2,350
1/4 x 6	1.50	1,910	5.80	5.49	1.18	1,750	1.17	2,350	1.17	2,700
1/4 x 8	2.00	2,550	7.73	4.11	1.23	2,250	1.22	3,000	1.21	3,450
1/4 x 10	2.50	3,180	9.66	3.29	1.27	2,700	1.26	3,600	1.25	4,200
1/4 x 12	3.00	3,820	11.6	2.74	1.31	3,150	1.30	4,200	1.28	4,900
3/8 x 3/4	0.281	358	1.09	29.3	1.02	415	1.02	550	1.02	630
3/8 x 1	0.375	477	1.45	21.9	1.03	510	1.03	680	1.03	790
3/8 x 1 1/2	0.562	715	2.17	14.6	1.05	710	1.04	940	1.04	1,100
3/8 x 2	0.750	955	2.90	11.0	1.08	880	1.08	1,150	1.07	1,350
3/8 x 2 1/2	0.938	1,190	3.62	8.77	1.12	1,050	1.10	1,400	1.09	1,600
3/8 x 3	1.12	1,430	4.35	7.35	1.15	1,200	1.14	1,600	1.13	1,850
3/8 x 3 1/2	1.31	1,670	5.06	6.28	1.18	1,350	1.16	1,800	1.15	2,100
3/8 x 4	1.50	1,910	5.80	5.49	1.20	1,500	1.19	2,000	1.18	2,350
3/8 x 5	1.88	2,390	7.26	4.38	1.24	1,800	1.23	2,400	1.22	2,800
3/8 x 6	2.25	2,860	8.69	3.66	1.27	2,100	1.26	2,800	1.24	3,250
3/8 x 8	3.00	3,820	11.6	2.74	1.33	2,650	1.31	3,550	1.30	4,100
3/8 x 10	3.75	4,770	14.5	2.19	1.38	3,200	1.36	4,300	1.35	4,900
3/8 x 12	4.50	5,730	17.4	1.83	1.42	3,700	1.40	5,000	1.38	5,800
1/2 x 1	0.500	637	1.93	16.5	1.04	620	1.04	820	1.04	940
1/2 x 1 1/2	0.750	955	2.90	11.0	1.08	830	1.08	1,100	1.07	1,250
1/2 x 2	1.00	1,270	3.86	8.23	1.12	1,000	1.11	1,350	1.10	1,550
1/2 x 2 1/2	1.25	1,590	4.83	6.58	1.16	1,200	1.15	1,600	1.14	1,850
1/2 x 3	1.50	1,910	5.80	5.49	1.20	1,400	1.19	1,850	1.18	2,150
1/2 x 3 1/2	1.75	2,230	6.76	4.70	1.24	1,550	1.22	2,100	1.21	2,400
1/2 x 4	2.00	2,550	7.73	4.11	1.26	1,700	1.25	2,300	1.24	2,650
1/2 x 5	2.50	3,180	9.66	3.29	1.32	2,050	1.30	2,750	1.29	3,150
1/2 x 6	3.00	3,820	11.6	2.74	1.36	2,400	1.34	3,150	1.33	3,650
1/2 x 8	4.00	5,090	15.5	2.06	1.42	3,000	1.40	4,000	1.39	4,600
1/2 x 10	5.00	6,360	19.3	1.65	1.47	3,600	1.45	4,800	1.44	5,500
1/2 x 12	6.00	7,640	23.2	1.37	1.52	4,200	1.51	5,600	1.50	6,400
3/4 x 4	3.00	3,820	11.6	2.74	1.42	2,050	1.40	2,750	1.38	3,150
3/4 x 5	3.75	4,770	14.5	2.19	1.48	2,400	1.46	3,250	1.44	3,750
3/4 x 6	4.50	5,730	17.4	1.83	1.52	2,800	1.50	3,750	1.48	4,300
3/4 x 8	6.00	7,640	23.2	1.37	1.60	3,500	1.58	4,700	1.56	5,400
3/4 x 10	7.50	9,550	29.0	1.10	1.67	4,200	1.64	5,600	1.62	6,500
3/4 x 12	9.00	11,500	34.8	0.914	1.72	4,900	1.69	6,500	1.67	7,500
* Applicable to typical in-service conditions (indoors, 40C° ambient temperature), horizontal run on edge, and free from external magnetic° influences.										

Table 2. Mechanical Properties of Copper No. 110 Bus Bars

Dimensions, In.	Area		Weight Per Foot, Lb	Horizontal Axis			Vertical Axis			Yield Load,* Lb
	Square In.	Circular Mils, Thous.		Moment of Inertia In. ⁴	Section Modulus, In. ³	Radius of Gyration In.	Moment of Inertia In. ⁴	Section Modulus, In. ³	Radius of Gyration In.	
1/16 x 1/2	0.0312	39.7	0.121	0.000651	0.000260	0.144	0.0000102	0.000326	0.0180	780
1/16 x 3/4	0.0469	59.7	0.181	0.00220	0.00586	0.217	0.0000153	0.000488	0.0180	1,170
1/16 x 1	0.0625	79.6	0.241	0.00521	0.0104	0.289	0.0000203	0.000651	0.0180	1,560
1/16 x 1 1/2	0.0938	119	0.362	0.0176	0.0234	0.433	0.0000305	0.000977	0.0180	2,340
1/16 x 2	0.125	159	0.483	0.0417	0.0417	0.577	0.0000407	0.00130	0.0180	3,120
1/8 x 1/2	0.0625	79.6	0.241	0.00130	0.00521	0.144	0.0000814	0.00130	0.0361	1,560
1/8 x 3/4	0.0938	119	0.362	0.00440	0.0117	0.217	0.000122	0.00195	0.0361	2,340
1/8 x 1	0.125	159	0.483	0.0104	0.0208	0.289	0.000163	0.00260	0.0361	3,120
1/8 x 1 1/2	0.188	239	0.726	0.0352	0.0469	0.433	0.000244	0.00391	0.0361	4,690
1/8 x 2	0.250	318	0.966	0.0833	0.0833	0.577	0.000326	0.00521	0.0361	6,250
1/8 x 2 1/2	0.312	397	1.21	0.163	0.130	0.722	0.000407	0.00651	0.0361	7,810
1/8 x 3	0.375	477	1.45	0.281	0.188	0.866	0.000488	0.00781	0.0361	9,380
1/8 x 3 1/2	0.438	558	1.69	0.447	0.255	1.01	0.000570	0.00912	0.0361	10,940
1/8 x 4	0.500	636	1.93	0.667	0.333	1.16	0.000651	0.0104	0.0361	12,500
3/16 x 1/2	0.0938	119	0.362	0.00195	0.00781	0.144	0.000275	0.00293	0.0541	2,340
3/16 x 3/4	0.141	179	0.545	0.00659	0.0176	0.217	0.000412	0.00440	0.0541	3,520
3/16 x 1	0.188	239	0.726	0.0156	0.0312	0.289	0.000549	0.00586	0.0541	4,690
3/16 x 1 1/2	0.281	358	1.09	0.0527	0.0703	0.433	0.000824	0.00879	0.0541	7,031
3/16 x 2	0.375	477	1.45	0.125	0.125	0.577	0.00110	0.0117	0.0541	9,380
3/16 x 2 1/2	0.469	597	1.81	0.244	0.195	0.722	0.00137	0.0146	0.0541	11,700
3/16 x 3	0.562	715	2.17	0.422	0.281	0.866	0.00165	0.0176	0.0541	14,100
3/16 x 3 1/2	0.656	835	2.53	0.670	0.383	1.01	0.00192	0.0205	0.0541	16,400
3/16 x 4	0.750	955	2.90	1.00	0.500	1.16	0.00220	0.0234	0.0541	18,800
1/4 x 1/2	0.125	159	0.483	0.00260	0.0104	0.144	0.000651	0.00521	0.0722	3,120
1/4 x 3/4	0.188	239	0.726	0.00879	0.0234	0.217	0.000977	0.00781	0.0722	4,690
1/4 x 1	0.250	318	0.966	0.0208	0.0417	0.289	0.00130	0.0104	0.0722	6,250
1/4 x 1 1/2	0.375	477	1.45	0.0703	0.0938	0.433	0.00195	0.0156	0.0722	9,380
1/4 x 2	0.500	637	1.93	0.167	0.167	0.577	0.00260	0.0208	0.0722	12,500
1/4 x 2 1/2	0.625	796	2.41	0.326	0.260	0.722	0.00326	0.0260	0.0722	15,600
1/4 x 3	0.750	955	2.90	0.562	0.375	0.866	0.00391	0.0312	0.0722	18,800
1/4 x 3 1/2	0.875	1,110	3.38	0.893	0.510	1.01	0.00456	0.0365	0.0722	21,900
1/4 x 4	1.00	1,270	3.86	1.33	1.667	1.16	0.00521	0.0417	0.0722	25,000
1/4 x 5	1.25	1,590	4.83	2.60	1.04	1.44	0.00651	0.0521	0.0722	31,200
1/4 x 6	1.50	1,910	5.80	4.50	1.50	1.73	0.00781	0.0625	0.0722	37,500
1/4 x 8	2.00	2,550	7.73	10.7	2.67	2.31	0.00104	0.0833	0.0722	50,000
1/4 x 10	2.50	3,180	9.66	20.8	4.17	2.89	0.0130	0.104	0.0722	62,500
1/4 x 12	3.00	3,820	11.6	36.0	6.00	3.46	0.0156	0.125	0.0722	75,000
3/8 x 3/4	0.281	358	1.09	0.0132	0.0352	0.217	0.00330	0.0176	0.108	7,030
3/8 x 1	0.375	477	1.45	0.0312	0.0625	0.289	0.00439	0.0234	0.108	9,380
3/8 x 1 1/2	0.562	715	2.17	0.105	0.141	0.433	0.00659	0.0352	0.108	14,100
3/8 x 2	0.750	955	2.90	0.250	0.250	0.577	0.00879	0.0469	0.108	18,800
3/8 x 2 1/2	0.938	1,190	3.62	0.488	0.391	0.722	0.0110	0.0586	0.108	23,400
3/8 x 3	1.12	1,430	4.35	0.844	0.562	0.866	0.0132	0.0703	0.108	28,100
3/8 x 3 1/2	1.31	1,670	5.06	1.34	0.766	1.01	0.0154	0.0820	0.108	32,800
3/8 x 4	1.50	1,910	5.80	2.00	1.00	1.16	0.0176	0.0938	0.108	37,500
3/8 x 5	1.88	2,390	7.26	3.91	1.56	1.44	0.0220	0.117	0.108	46,900
3/8 x 6	2.25	2,860	8.69	6.75	2.25	1.73	0.0264	0.141	0.108	56,200
3/8 x 8	3.00	3,820	11.6	16.0	4.00	2.31	0.0352	0.188	0.108	75,000
3/8 x 10	3.75	4,770	14.5	31.2	6.25	2.89	0.0439	0.234	0.108	93,800
3/8 x 12	4.50	5,730	17.4	54.0	9.00	3.46	0.0527	0.281	0.108	112,000
1/2 x 1	0.500	637	1.93	0.0417	0.0833	0.289	0.0104	0.0417	0.144	9,000
1/2 x 1 1/2	0.750	955	2.90	0.0141	0.188	0.433	0.0156	0.0625	0.144	13,500
1/2 x 2	1.00	1,270	3.86	0.0333	0.333	0.577	0.0208	0.0833	0.144	18,000
1/2 x 2 1/2	1.25	1,590	4.83	0.0651	0.521	0.722	0.0260	0.104	0.144	22,500
1/2 x 3	1.50	1,910	5.80	1.12	0.750	0.866	0.0312	0.125	0.144	27,000
1/2 x 3 1/2	1.75	2,230	6.76	1.79	1.02	1.01	0.0365	0.146	0.144	31,500
1/2 x 4	2.00	2,550	7.73	2.67	1.33	1.16	0.0417	0.167	0.144	36,000
1/2 x 5	2.50	3,180	9.66	5.21	2.08	1.44	0.0521	0.208	0.144	45,000
1/2 x 6	3.00	3,820	11.6	9.00	3.00	1.73	0.0625	0.250	0.144	54,000
1/2 x 8	4.00	5,090	15.5	21.3	5.33	2.31	0.0833	0.333	0.144	72,000
1/2 x 10	5.00	6,360	19.3	41.7	8.33	2.89	0.104	0.417	0.144	90,000
1/2 x 12	6.00	7,640	23.2	72.0	12.0	3.46	0.125	0.500	0.144	108,000
3/4 x 4	3.00	3,820	11.6	4.00	2.00	1.16	0.141	0.375	0.216	54,000
3/4 x 5	3.75	4,770	14.5	7.81	3.12	1.44	0.176	0.469	0.216	67,500
3/4 x 6	4.50	5,730	17.4	13.5	4.50	1.73	0.211	0.562	0.216	81,000
3/4 x 8	6.00	7,640	23.2	32.0	8.00	2.31	0.281	0.750	0.216	108,000
3/4 x 10	7.50	9,550	29.0	62.5	12.5	2.89	0.352	0.938	0.216	135,000
3/4 x 12	9.00	11,500	34.8	108.	18.0	3.46	0.422	1.12	0.216	162,000
* In this instance, yeild load equals yeild strength times cross-sectional area of the busbar. A yeild strength of 25,000 psi has been assumed for busbar less than 1/2 in. thick and 18,000 psi for busbar 1/2 in. thick or more.										

Table 3. Quick Bus Bar Size Selector

Required Ampacity,* (Range) Amp	Bus Bar Dimentions, In.**		
	30 C° Rise	50 C° Rise	65 C° Rise
100 (100-149)	1/16x1/2,1/16x3/4	1/16x1/2	
150 (150-199)	1/16x1 1/8x1/2 3/16x1/2	1/16x3/4	1/16x1/2
200 (200-249)	1/8x3/4 1/4x1/2	1/8x1/2	1/16x3/4 1/8x1/2
250 (250-299)	1/16x1 1/2 1/8x1 3/16x3/4	1/16x1 1/8x3/4 3/16x1/2	1/16x1
300 (300-349)	1/16x2 3/16x1 1/4x3/4	 1/4x1/2	1/8x3/4 3/16x1/2
350 (350-399)	1/8x1 1/2	1/16x1 1/2 1/8x1 3/16x3/4	1/4x1/2
400 (400-449)	1/4x3/4 3/8x3/4	1/4x3/4	1/4x1/2
400 (400-449)	1/4x1 3/8x3/4	1/4x3/4	1/16x1 1/2 1/8x1 3/16x3/4
450 (450-499)	1/8x2 3/16x1/2	1/16x2 3/16x1	1/4x3/4
500 (500-599)	1/4x1 1/2 3/8x1	1/8x1 1/2 1/4x1 3/8x3/4	1/16x2 1/8x1 1/2 3/16x1

Required Ampacity,* (Range) Amp	Bus Bar Dimensions, In.**		
	30 C° Rise	50 C° Rise	65 C° Rise
600 (600-699)	1/8x2 1/2 3/16x2 1/2x1 1/2x1	1/8x2 3/16x1 1/2 1/4x1	 1/4x1 3/8x3/4
700 (700-799)	1/8x3 3/16x2 1/2 1/4x2 3/8x1 1/2	 1/4x1 1/2	1/8x2 3/16x1 1/2 3/8x1
800 (800-899)	1/8x3 1/2 3/16x3 1/4x2 1/2 3/8x2	1/8x2 1/2 3/16x2 1/2x1	 1/4x1 1/2
900 (900-999)	1/8x4 3/16x3 1/2 1/4x3	1/8x3 3/16x2 1/2 1/4x2 3/8x1 1/2	1/8x2 1/2 1/2x1
1000 (1000-1249)	3/16x4 1/4x3 1/2 3/8x2 1/2, 3/8x3 1/2x2, 1/2x2 1/2	1/8x4 3/16x3 1/4x2 1/2 3/8x2	1/8x3 3/16x2 1/2 1/4x2 3/8x1 1/2
1250 (1250-1499)	 1/4x4 3/8x3 1/2 1/2x3	 3/16x3 1/2, 3/16x4 1/4x3 3/8x2 1/2 1/2x2	 1/8x4 3/16x3 1/4x2 1/2 3/8x2
1500 (1500-1749)	 1/4x5 3/8x4 1/2x3 1/2, 1/2x4	 1/4x3 1/2, 1/4x4 3/8x3 1/2x2 1/2	 3/16x3 1/2, 3/16x4 1/4x3 3/8x2 1/2 1/2x2
1750 (1750-1999)	 1/4x6 3/8x5	 3/8x3 1/2 1/2x3	 1/4x3 1/2, 1/4x4 3/8x3 1/2x2 1/2
2000 (2000-2499)	 1/4x8 3/8x6 1/2x5, 1/2x6 3/4x4, 3/4x5	 1/4x6 3/8x5 1/2x4	 1/4x5 3/8x4 1/2x3 1/2
2500 (2500-2999)	 1/4x10 3/8x8 3/4x6	 3/8x6 1/2x5 3/4x4	 1/4x6 3/8x5 1/2x4
3000 (3000-3499)	 1/4x12 3/8x10 1/2x8	 1/4x8 1/2x6 3/4x5	 1/4x8 3/8x6 1/2x5 3/4x4

Required Ampacity,* (Range) Amp	Bus Bar Dimensions, In.**		
	30 C° Rise	50 C° Rise	65 C° Rise
3500 (3500-3999)	3/8x12 1/2x10 3/4x8	1/4x10 3/8x8 3/4x6	1/2x6 3/4x5
4000 (4000-4499)	1/2x12 3/4x10	1/4x12 3/8x10 1/2x8	1/4x10 3/8x8 3/4x6
4500 (4500-4999)	3/4x12	1/2x10 3/4x8	1/4x12 3/8x10 1/2x8
5000 (5000-5999)		3/8x12 1/2x12 3/4x10	3/8x12 1/2x10 3/4x8

* For 60 Hz current

** Table gives bus bar cross sections which will probably be large enough for ampacities within each range. Knowing required ampacity, determine possible bus bar dimensions from the table. Then check Table 1 to verify that size selected has the necessary ampacity.

Example: Assume that required ampacity is 185 amp at 30 C° rise. Table 3 indicates that 1/16 x 1 in. size would probably be adequate. This is confirmed by Table 1 which lists the ampacity of 1/16 x 1 in. bus bar as 187 amp.

Table 4. Effect of Emissivity and Number of Busses on Ampacity

Number of 1/4x4 in. Busses*	Ampacity, Amp											
	30 C° Rise				50 C° Rise				65 C° Rise			
	Emissivity				Emissivity				Emissivity			
	0.15	0.4	0.7	0.9	0.15	0.4	0.7	0.9	0.15	0.4	0.7	0.9
1	1100	1250	1400	1600	1500	1700	1900	2000	1700	1950	2200	2300
2	1900	2050	2200	2300	2550	2750	2950	3100	2950	3200	3400	3600
3	2500	2700	2850	3000	3400	3600	3850	4000	3950	4200	4500	4600
4	3100	3300	3450	3600	4200	4400	4700	4800	4900	5100	5400	5600

* 1/4 in. spacing. Ampacities of bus bar systems of other configurations must be calculated, taking into account size, spacing, number of bus bars and overall skin-effect ratio.