



NO. OF BARS	THICKNESS (INCHES)	WIDTH	AREA IN CM (THDS.)	ALUMINUM (SEE NOTE 5)				COPPER			
				AMPACITY		LBS. PER FOOT	MICROHMS PER FT. @70 C	AMPACITY		LBS. PER FOOT	MICROHMS PER FT. @70 C
				SEE NOTE 2	SEE NOTE 3			SEE NOTE 2	SEE NOTE 3		
1	1/8	1/2	79.6	114	112	.07	271.60	154	152	.242	105.49
		3/4	119.4	159	157	.11	180.90	215	212	.362	106.32
		1	159.2	203	200	.15	135.80	275	271	.483	79.74
		1 1/2	238.7	287	283	.22	90.54	390	385	.725	53.16
		2	318.3	370	364	.29	67.91	503	496	.966	39.87
	1/4	1/2	159.2	177	174	.15	135.80	238	234	.483	79.74
		1	318.3	302	297	.29	67.91	409	403	.966	39.87
		1 1/2	477.5	421	415	.44	45.27	572	564	1.45	26.58
		2	636.6	537	529	.59	33.95	731	721	1.93	19.94
		2 1/2	795.8	651	636	.73	27.16	887	869	2.42	15.95
		3	954.9	762	746	.88	22.63	1040	1019	2.90	13.29
		3 1/2	1,114.0	873	841	1.03	19.40	1192	1152	3.38	11.39
		4	1,273.0	982	946	1.17	16.98	1342	1298	3.86	9.97
	6	1,910.0	1408	1320	1.76	11.32	1931	1820	5.80	6.65	
	8	2,546.0	1823	1649	2.34	8.49	2506	2292	7.73	4.98	
	3/8	1	477.5	387	381	.44	45.27	524	517	1.45	26.58
		1 1/2	716.2	533	525	.66	30.18	724	714	2.17	17.72
		2	954.9	675	665	.88	22.63	919	906	2.90	13.29
		2 1/2	1,194.0	814	796	1.10	18.11	1110	1087	3.62	10.63
		3	1,432.0	951	930	1.32	15.09	1298	1272	4.35	8.85
		4	1,910.0	1219	1175	1.76	11.32	1667	1612	5.80	6.65
		6	2,865.0	1740	1629	2.64	7.55	2388	2250	8.69	4.43
	8	3,820.0	2248	2035	3.52	5.66	3092	2828	11.59	3.32	
	1/2	1	636.6	466	459	.59	33.95	632	622	1.93	19.94
1 1/2		954.9	636	626	.88	22.63	863	851	2.90	13.29	
2		1,273.0	800	788	1.17	16.98	1088	1073	3.86	9.97	
3		1,910.0	1118	1093	1.76	11.32	1525	1494	5.80	6.64	
4		2,546.0	1427	1376	2.34	8.49	1951	1887	7.73	4.98	
6		3,820.0	2029	1899	3.52	5.66	2783	2623	11.59	3.32	
8		5,093.0	2615	2366	4.69	4.25	3596	3289	15.46	2.49	
2	1/4	2	1,273.0	969	935	1.18	16.98	1301	1259	3.86	9.97
		3	1,910.0	1363	1285	1.76	11.32	1834	1735	5.80	6.65
		4	2,546.0	1745	1596	2.34	8.49	2350	2163	7.72	4.98
		6	3,820.0	2483	2152	3.52	5.66	3352	2937	11.60	3.32
		8	5,093.0	3198	2605	4.68	4.25	4325	3583	15.46	2.49
3	1/4	2	1,910.0	1397	1336	1.77	11.32	1865	1787	5.79	6.65
		3	2,865.0	1957	1813	2.64	7.54	2616	2432	8.70	4.43
		4	3,820.0	2498	2226	3.51	5.66	3342	2996	11.58	3.32
		6	5,730.0	3543	2947	5.28	3.77	4745	3992	17.40	2.22
8	7,640.0	4552	3493	7.02	2.83	6105	4770	23.19	1.66		
4	1/4	2	2,546.0	1823	1735	2.36	8.49	2426	2313	7.72	4.96
		3	3,820.0	2549	2337	3.52	5.66	3394	3123	11.60	3.32
		4	5,093.0	3249	2850	4.68	4.25	4328	3819	15.44	2.49
		6	7,639.0	4598	3728	7.04	2.83	6130	5026	23.20	1.66
8	10,186.0	5899	4354	9.36	2.12	7872	5916	30.92	1.24		
5	1/4	4	6,365.0	3999	3471	5.85	3.40	5312	4637	19.30	1.99
		6	9,550.0	5650	4502	8.80	2.26	7512	6048	29.00	1.33
		8	12,730.0	7242	5202	11.70	1.70	9634	7041	38.65	0.99
6	1/4	4	7,640.0	4748	4090	7.02	2.83	6295	5452	23.16	1.66
		6	11,460.0	6702	5273	10.56	1.89	8891	7064	34.80	1.11
		8	15,380.0	8585	6043	14.04	1.42	11395	8154	46.38	0.83
7	1/4	6	13,370.0	7753	6041	12.32	1.62	10270	8076	40.60	0.95
		8	17,822.0	9926	6878	16.38	1.21	13150	9259	54.11	0.71

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				AMPACITY		LBS. PER FOOT	MICROHMS PER FT. @70 C	AMPACITY		LBS. PER FOOT	MICROHMS PER FT. @70 C
				SEE NOTE 2	SEE NOTE 3			SEE NOTE 2	SEE NOTE 3		
8	1/4	6	15,280.0	8804	6808	14.08	1.42	11645	9086	46.40	0.83
			20,372.0	11265	7711	18.72	1.06	14905	10760	61.84	0.62
9	1/4	6	17,190.0	9854	7575	15.84	1.26	13020	10095	52.20	0.74
			22,914.0	12605	8541	21.06	0.94	16660	11455	69.57	0.55
10	1/4	6	19,100.0	10905	8338	17.60	1.13	14400	11100	58.00	0.67
			25,460.0	13945	9369	23.40	0.85	18415	12545	77.30	0.49
11	1/4	6	21,010.0	11955	9102	19.36	1.03	15775	12105	63.80	0.60
			28,006.0	15285	10195	25.74	0.77	20170	13640	85.03	0.45
12	1/4	6	22,920.0	13005	9866	21.12	0.94	17150	13110	69.60	0.55
			30,560.0	16625	11025	28.08	0.71	21925	14725	92.86	0.41
2	1/2	2	2,546.0	1458	1411	2.34	8.49	1961	1902	7.72	4.98
		3	3,820.0	2015	1906	3.52	5.66	2715	2577	11.60	3.22
		4	5,093.0	2555	2346	4.68	4.24	3445	3182	15.46	2.49
		6	7,639.0	3597	3131	7.04	2.83	4861	4275	23.20	1.66
3	1/2	8	10,186.0	4608	3770	9.38	2.12	6236	5189	31.92	1.25
		4	7,640.0	3670	3291	7.02	2.83	4918	4437	23.19	1.66
		6	11,460.0	5146	4311	10.56	1.88	6902	5848	34.77	1.11
4	1/2	8	15,280.0	6572	5083	14.07	1.42	8824	6950	46.38	0.831
		4	10,186.0	4782	4228	9.36	2.12	6384	5679	30.92	1.250
		6	15,280.0	6688	5473	14.08	1.42	8933	7392	46.36	0.831
5	1/2	8	20,372.0	8527	6362	18.76	1.06	11395	8659	61.84	0.623
		4	12,730.0	5892	5161	11.70	1.69	7847	6915	38.65	0.997
		6	19,100.0	8227	6626	17.60	1.13	10960	8921	57.95	0.665
6	1/2	8	25,460.0	10475	7624	23.45	0.849	13960	10340	77.30	0.498
		4	15,280.0	7002	6092	14.04	1.420	9309	8148	46.38	0.831
		6	22,920.0	9765	7775	21.12	0.943	12980	10445	69.54	0.554
7	1/2	8	30,560.0	12425	8876	28.14	0.707	16520	12005	92.76	0.415
		6	26,740.0	11300	8921	24.64	0.808	15000	11960	81.13	0.475
		8	35,644.0	14345	10120	32.83	0.606	19080	13660	108.22	0.356
8	1/2	6	30,560.0	12840	10065	28.16	0.707	17020	13475	92.72	0.415
		8	40,744.0	16320	11365	37.52	0.530	21635	15310	123.68	0.313
9	1/2	6	34,380.0	14375	11205	31.68	0.629	19040	14985	104.31	0.369
		8	45,828.0	18265	12605	42.21	0.472	24190	16955	139.14	0.277
10	1/2	6	38,200.0	15910	12350	35.20	0.566	21060	16495	115.90	0.332
		8	50,920.0	20210	13840	46.90	0.424	26745	18600	154.60	0.248

NOTES: (Busbar ampacities worksheet fully accredited to Western Electric Co., Inc's. Power Data Sheet(s), section 16.22 of 9/1941 & 10/1967, various web sites, the physical properties of copper and Ohm's law).

1. VOLTAGE DROP = RES./FT. @ 70C x AMPERES x FT. (LOOP).
2. VOLTAGE DROP FORMULAE, APPROXIMATE
 - (a) VOLTAGE DROP FOR ALUMINUM = $\frac{17.4 \times \text{AMPS} \times \text{FT (LOOP)}}{\text{CIRCULAR MILS}}$
 - (b) VOLTAGE DROP FOR COPPER = $\frac{10.8 \times \text{AMPS} \times \text{FT (LOOP)}}{\text{CIRCULAR MILS}}$
 - (c) 1 SQUARE INCH = 1,273,237 CIRCULAR MILS.
3. AMPACITY RATINGS BASED ON 30C RISE ABOVE 40C AMBIENT. BARS WITH LONG AXIS VERTICAL. SPACING BETWEEN BARS EQUAL TO OR MORE THAN THE THICKNESS OF THE BARS; AND BARS RUN IN A HORIZONTAL PLANE.
4. AMPACITY RATINGS TO BE USED WHEN THE AMBIENT TEMPERATURE EXCEEDS 40C, OR WHEN THE LONG AXIS OF THE BARS IS IN THE HORIZONTAL PLANE, OR WHEN THE SPACING BETWEEN BARS IS LESS THAN THE THICKNESS OF THE BARS, OR WHEN THE BARS ARE RUN IN A VERTICAL DIRECTION.
5. MINIMUM BENDING RADII FOR COPPER IS EQUAL TO THE THICKNESS OF THE BARS AND FOR ALUMINUM IT IS EQUAL TO TWICE THE THICKNESS OF THE BARS. THE SURFACE ROUGHENING WHICH MAY OCCUR AT THESE BENDING RADII IS NOT CONSIDERED INJURIOUS.
6. ALUMINUM BAR IS 6101-T6 TYPE C ALLOY PER ASTM B-317.