Wire and Bus Sizes and Ampacities

7/8/2015

AWG	Dia mils	Dia mm	XSect-Area SqMils	SurfArea SqIn/Ft	Ohms/Ft-25C	Ohms/Ft-100C	A/SqMil X-sect **0.0037** RatedAmps	A/CM W/Ft @25C	CM/A W/Ft @100C	Lb/Ft	Watts/SqIn @25C **0.2400** RatedAmps	Bus Deg C 30	Bus Deg C 135	Aw (cm^2)	AWG to Aw	Aw to AWG
								0.0047	211.1683							
3/16x3/4			140625	22.500	0.000057924	8.3989862E-005	523.1	15.8515	22.9846	0.54155	**305.3**	270	573	0.9072563		
3/16x1.5			281250	40.500	0.000028962	4.1994931E-005	1046.3	31.7030	45.9693	1.08311	**579.3**	480	1018	1.8145125		
3/16x2			375000	40.500	2.17215E-005	3.1496198E-005	1395.0	42.2706	61.2924	1.44414	**668.9**	610	1294	2.41935		
1/4x4			1000000	102.000	8.14557E-006	1.1811074E-005	3720.0	112.7216	163.4464	3.85104	**1733.6**	1250	2652	6.4516		
1/4x3			750000	78.000	1.08608E-005	1.5748099E-005	2790.0	84.5412	122.5848	2.88828	**1312.9**	990	2100	4.8387		
1/4x2			500000	54.000	1.62911E-005	2.3622149E-005	1860.0	56.3608	81.7232	1.92552	**891.9**	710	1506	3.2258		
3/8x3/4			281250	27.000	0.000028962	4.1994931E-005	1046.3	31.7030	45.9693	1.08311	**473.0**	415	880	1.8145125		
1/4x1			250000	30.000	3.25823E-005	4.7244297E-005	930.0	28.1804	40.8616	0.96276	**470.1**	400	849	1.6129		
3/8x2			750000	30.000	1.08608E-005	1.5748099E-005	2790.0	84.5412	122.5848	2.88828	**814.2**	880	1867	4.8387		
1/2x1/2			250000	24.000	3.25823E-005	4.7244297E-005	930.0	28.1804	40.8616	0.96276	**420.5**	300	636	1.6129		
1/8x1			125000	15.000	6.51645E-005	9.4488595E-005	465.0	14.0902	20.4308	0.48138	**235.0**	400	849	0.80645		
												Wire Deg C 60	Wire Deg C 90			
0000	459.99	11.684	166183.41	17.341	4.90155E-005	7.1072522E-005	618.2	18.7325	27.1621	0.63998	**291.4**	300	405	1.0721489	5.000	-3
000	409.63	10.405	131787.56	15.443	6.18083E-005	8.9622075E-005	490.2	14.8553	21.5402	0.50752	**244.9**	260	350	0.8502406	5.000	-2
00	364.79	9.266	104514.55	13.752	7.79372E-005	0.0001130089	388.8	11.7811	17.0825	0.40249	**205.8**	225	300	0.6742861	5.000	-1
0	324.85	8.251	82881.32	12.247	9.82799E-005	0.0001425059	308.3	9.3425	13.5467	0.31918	**172.9**	195	260	0.5347171	0.53	0
1	289.29	7.348	65729.11	10.906	0.0001239264	0.0001796932	244.5	7.4091	10.7432	0.25313	**145.3**	165	220	0.4240579	0.420661279	1
2	257.62	6.544	52125.48	9.712	0.0001562685	0.0002265893	193.9	5.8757	8.5197	0.20074	**122.1**	140	190	0.3362927	0.333879078	2
3	229.42	5.827	41338.38	8.649	0.0001970461	0.0002857169	153.8	4.6597	6.7566	0.15920	**102.6**			0.2666987	0.265	3
4	204.30	5.189	32781.41	7.702	0.0002484813	0.0003602979	121.9	3.6952	5.3580	0.12624	**86.2**	105	140	0.2114925	0.210330639	4
5	181.94	4.621	25998.44	6.859	0.0003133099	0.0004542994	96.7	2.9306	4.2494	0.10012	**72.5**			0.1677315	0.166939539	5
6	162.00	4.115	20612.04	6.107	0.000395185	0.0005730183	76.7	2.3234	3.3690	0.07938	**60.9**	80	105	0.1329806	0.1325	6
7	144.28	3.665	16349.45	5.439	0.0004982166	0.0007224141	60.8	1.8429	2.6723	0.06296	**51.2**			0.1054801	0.10516532	7
8	128.49	3.264	12966.70	4.844	0.0006281912	0.0009108772	48.2	1.4616	2.1194	0.04994	**43.0**	60	80	0.083656	0.08346977	8
9	114.42	2.906	10282.41	4.314	0.000792185	0.0011486683	38.3	1.1590	1.6806	0.03960	**36.2**			0.066338	0.06625	9
10	101.90	2.588	8155.29	3.842	0.0009988083	0.001448272	**30.3**	0.9193	1.3330	0.03141	**30.4**	40	55	0.0526147	0.05258266	10
11	90.74	2.305	6466.93	3.421	0.0012595731	0.001826381	24.1	0.7290	1.0570	0.02490	**25.5**			0.041722	0.041734885	11
12	80.81	2.052	5128.48	3.046	**0.0015883**	0.002303035	19.1	0.5781	0.8382	**0.01975**	**21.5**	30	40	0.0330869	0.033125	12
13	71.96	1.828	4067.10	2.713	0.0020027933	0.0029040502	15.1	0.4585	0.6648	0.01566	**18.0**			0.0262393	0.02629133	13
14	64.08	1.628	3225.35	2.416	0.0025254852	0.0036619536	12.0	0.3636	0.5272	0.01242	**15.2**	25	35	0.0208087	0.020867442	14
15	57.07	1.450	2557.77	2.151	0.0031846405	0.0046177288	9.51	0.2883	0.4181	0.00985	**12.7**			0.0165017	0.0165625	15
16	50.82	1.291	2028.43	1.916	0.0040156993	0.0058227639	7.55	0.2286	0.3315	0.00781	**10.7**	18	24	0.0130866	0.013145665	16
17	45.26	1.150	1608.65	1.706	0.0050635952	0.007342213	5.98	0.1813	0.2629	0.00619	**8.99**			0.0103784	0.010433721	17
18	40.30	1.024	1275.69	1.519	0.0063852412	0.0092585997	4.75	0.1438	0.2085	0.00491	**7.56**	13	18	0.0082302	0.00828125	18
19	35.89	0.912	1011.67	1.353	0.0080516259	0.0116748575	3.76	0.1140	0.1654	0.00390	**6.35**			0.0065269	0.006572832	19
20	31.96	0.812	802.29	1.205	0.0101528924	0.014721694	2.98	0.0904	0.1311	0.00309	**5.34**	9	12.5	0.0051761	0.005216861	20
21	28.46	0.723	636.24	1.073	0.0128026442	0.018563834	2.37	0.0717	0.1040	0.00245	**4.48**			0.0041048	0.004140625	21
22	25.35	0.644	504.56	0.956	0.0161440183	0.0234088266	1.88	0.0569	0.0825	0.00194	**3.77**			0.0032552	0.003286416	22
23	22.57	0.573	400.16	0.851	0.0203559052	0.0295160626	1.49	0.0451	0.0654	0.00154	**3.17**			0.0025817	0.00260843	23
24	20.10	0.511	317.34	0.758	0.0256681859	0.0372188696	1.18	0.0358	0.0519	0.00122	**2.66**			0.0020474	0.002070313	24
25	17.90	0.455	251.65	0.675	0.0323686392	0.0469345268	0.936	0.0284	0.0411	0.00097	**2.24**			0.0016235	0.001643208	25
26	16.00	0.406	201.06	0.603	0.0405126394	0.0587433271	0.748	0.0227	0.0329	0.00077	**1.89**			0.0012972	0.001304215	26
27	14.20	0.361	158.37	0.535	0.0514344162	0.0745799034	0.589	0.0179	0.0259	0.00061	**1.58**			0.0010217	0.001035156	27
28	12.50	0.318	122.72	0.471	0.0663759083	0.0962450671	0.457	0.0138	0.0201	0.00047	**1.31**			0.0007917	0.000821604	28
29	11.30	0.287	100.29	0.426	0.0812219882	0.1177718829	0.373	0.0113	0.0164	0.00039	**1.12**			0.000647	0.000652108	29
30	10.00	0.254	78.54	0.377	0.1037123567	0.1503829173	0.292	0.0089	0.0128	0.00030	**0.934**			0.0005067	0.000517578	30
31	8.90	0.226	62.21	0.336	0.1309334134	0.1898534494	0.231	0.0070	0.0102	0.00024	**0.784**			0.0004014	0.000410802	31
32	8.00	0.203	50.27	0.302	0.1620505574	0.2349733083	0.187	0.0057	0.0082	0.00019	**0.668**			0.0003243	0.000326054	32
33	7.10	0.180	39.59	0.268	0.2057376646	0.2983196137	0.147	0.0045	0.0065	0.00015	**0.559**			0.0002554	0.000258789	33
34	6.30	0.160	31.17	0.238	0.2613060135	0.3788937195	0.116	0.0035	0.0051	0.00012	**0.467**			0.0002011	0.000205401	34
35	5.60	0.142	24.63	0.211	0.3307154233	0.4795373638	0.092	0.0028	0.0040	0.00009	**0.391**			0.0001589	0.000163027	35
36	5.00	0.127	19.64	0.188	0.414849427	0.6015316691	0.073	0.0022	0.0032	0.00008	**0.330**			0.0001267	0.000129395	36
37	4.50	0.114	15.90	0.170	0.5121597864	0.7426316903	0.059	0.0018	0.0026	0.00006	**0.282**			0.0001026	0.000102701	37
38	4.00	0.102	12.57	0.151	0.6482022297	0.939893233	0.047	0.0014	0.0021	0.00005	**0.236**			8.11E-005	8.15134E-005	38
39	3.50	0.089	9.62	0.132	0.8466314837	1.2276156513	0.036	0.0011	0.0016	0.00004	**0.193**			6.21E-005	6.46973E-005	39
40	3.10	0.079	7.55	0.117	1.0792128694	1.5648586606	0.028	0.0009	0.0012	0.00003	**0.161**			4.87E-005	5.13503E-005	40
42															3.23486E-005	
44															2.03784E-005	
46							0.0070193554								1.28376E-005	