



# HSM Wire International, Inc.

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[www.hsmwire.com](http://www.hsmwire.com)

## Recommended Operating Frequency 60 Hz to 1 KHz

AWG	Cir Mil Area	No. of Strands	Strand AWG	Outer Insulation	**NOM. O.D.	*NOM. Lbs/MFT	D.C. Res. Ohms/MFT
24	476	3	28	--	.027	1.49	22.5
22	794	5	28	--	.035	2.48	13.5
20	1,112	7	28	--	.044	3.47	9.62
18	1,588	10	28	--	.054	5.20	6.74
16	2,700	17	28	SN	.065	8.69	3.96
14	4,129	26	28	SN	.080	13.3	2.59
12	6,670	42	28	SN	.110	21.3	1.60
10	10,480	66	28	SN	.141	34.5	1.05
8	16,674	105	28	SN	.176	54.9	.657
6	26,202	165	28	SN	.235	86.2	.418
4	42,240	266	28	DN	.285	141	.259
2	66,696	420	28	DN	.431	228	.168
1/0	105,602	665	28	SNB	.537	366	.106
2/0	133,392	840	28	SNB	.657	480	.084
3/0	171,504	1,080	28	SNB	.787	634	.065
4/0	217,238	1,368	28	SNB	.941	828	.051

## Recommended Operating Frequency 1 KHz to 10 KHz

26	300	3	30	--	.024	0.95	35.8
24	500	5	30	--	.031	1.58	21.5
22	700	7	30	--	.036	2.22	15.4
20	1,100	11	30	--	.042	3.58	9.76
18	1,700	17	30	SN	.055	5.50	6.32
16	2,600	26	30	SN	.064	8.38	4.13
14	4,200	42	30	SN	.087	13.5	2.56
12	6,500	65	30	SN	.108	21.4	1.69
10	11,000	110	30	SN	.149	36.3	1.00
8	16,800	168	30	--	.182	54.6	.655
7	25,900	259	30	--	.237	84.1	.425
6	26,600	266	30	--	.235	86.4	.413
4	41,300	413	30	--	.300	134	.266
3	52,500	525	30	--	.345	171	.209
2	66,500	665	30	--	.380	216	.165
2	80,500	805	30	DN	.421	267	.136
1/0	125,000	1,250	30	SNB	.539	435	.090
2/0	135,000	1,350	30	SNB	.667	486	.083
3/0	195,000	1,950	30	SNB	.794	697	.057
4/0	252,000	2,520	30	SNB	.981	916	.045

**Recommended Operating Frequency 10 KHz to 20 KHz**

<b>AWG</b>	<b>Cir Mil Area</b>	<b>No. of Strands</b>	<b>Strand AWG</b>	<b>Outer Insulation</b>	<b>NOM. O.D.</b>	<b>NOM. Lbs/MFT</b>	<b>D.C. Res. Ohms/MFT</b>
26	303	6	33	SN	.025	1.01	35.8
24	403	8	33	--	.028	1.27	26.9
22	655	13	33	SN	.035	2.15	16.6
20	1,059	21	33	SN	.044	3.44	10.3
18	1,613	32	33	SN	.054	5.22	6.71
16	2,672	53	33	SN	.068	8.60	4.05
14	5,041	100	33	SN	.094	16.6	2.20
12	7,562	150	33	SN	.118	24.9	1.47
10	10,586	210	33	SN	.142	34.8	1.05
8	16,585	329	33	DN	.185	55.4	.669
6	26,465	525	33	DN	.250	90.6	.430
4	42,849	850	33	DN	.292	146	.265
2	66,541	1,320	33	SNB	.484	244	.171
1	90,738	1,800	33	SNB	.558	334	.127
1/0	105,861	2,100	33	SNB	.600	383	.107
2/0	136,107	2,700	33	SNB	.675	496	.084
3/0	169,377	3,360	33	SNB	.850	651	.067
4/0	211,172	4,200	33	SNB	.987	841	.054
--	299,435	5,940	33	PVC	1.29	1255	.038
--	512,972	10,176	33	PVC	1.80	2283	.022
--	725,904	14,400	33	PVC	2.42	3550	.016

**Recommended Operating Frequency 20 KHz to 50 KHz**

30	100	4	36	--	.015	.319	109.6
28	175	7	36	--	.019	.559	62.7
26	250	10	36	SN	.023	.846	43.9
24	400	16	36	SN	.028	1.34	27.4
22	675	27	36	SN	.036	2.24	16.3
20	1,025	41	36	SN	.0435	3.37	10.7
18	1,625	65	36	SN	.058	5.46	6.91
16	2,625	105	36	SN	.072	8.78	4.28
14	4,125	165	36	SN	.092	13.8	2.72
12	6,625	265	36	SN	.111	22.1	1.70
10	10,500	420	36	DN	.149	36.4	1.10
8	16,500	660	36	DN	.186	57.2	.697
6	26,250	1,050	36	DN	.234	90.7	.438
4	45,000	1,800	36	DN	.305	155	.255
2	66,500	2,660	36	DN	.370	228	.173
1	84,000	3,360	36	SNB	.548	318	.140
1/0	108,000	4,320	36	SNB	.655	420	.109
2/0	135,000	5,400	36	SNB	.728	522	.087
3/0	171,000	6,840	36	SNB	.870	682	.069
4/0	211,500	8,460	36	SNB	.962	840	.055

**Recommended Operating Frequency 50 KHz to 100 KHz**

<b>AWG</b>	<b>Cir Mil Area</b>	<b>No. of Strands</b>	<b>Strand AWG</b>	<b>Outer Insulation</b>	<b>NOM O.D.</b>	<b>NOM Lbs/MFT</b>	<b>D.C. Res. Ohms/MFT</b>
<b>30</b>	112	7	38	SN	.016	.382	98.9
<b>28</b>	160	10	38	SN	.019	.538	69.3
<b>26</b>	256	16	38	SN	.023	.849	43.3
<b>24</b>	400	25	38	SN	.028	1.31	27.7
<b>22</b>	640	40	38	SN	.035	2.08	17.4
<b>20</b>	1,056	66	38	SN	.045	3.50	10.8
<b>18</b>	1,600	100	38	SN	.057	5.27	7.10
<b>16</b>	2,592	162	38	SN	.073	8.50	4.38
<b>14</b>	4,160	260	38	SN	.090	13.6	2.73
<b>12</b>	6,720	420	38	SN	.116	22.5	1.73
<b>10</b>	10,560	660	38	DN	.150	35.9	1.11
<b>8</b>	16,800	1,050	38	DN	.189	57.0	.692
<b>6</b>	26,400	1,650	38	DN	.236	89.4	.440
<b>4</b>	42,000	2,625	38	DN	.296	146	.283
<b>2</b>	66,240	4,140	38	SNB	.494	247	.180
<b>1</b>	84,000	5,250	38	SNB	.551	311	.141
<b>1/0</b>	105,600	6,600	38	SNB	.613	389	.112
<b>2/0</b>	136,000	8,500	38	SNB	.749	522	.087
<b>3/0</b>	168,000	10,500	38	SNB	.828	642	.070
<b>4/0</b>	211,200	13,200	38	SNB	.966	824	.056

**Recommended Operating Frequency 100 KHz to 200 KHz**

<b>34</b>	38.4	4	40	SN	.010	.127	292.4
<b>32</b>	67.3	7	40	SN	.013	.222	167.1
<b>30</b>	106	11	40	SN	.017	.380	106.3
<b>28</b>	163	17	40	SN	.019	.578	68.8
<b>26</b>	260	27	40	SN	.023	.905	43.3
<b>24</b>	404	42	40	SN	.029	1.40	27.9
<b>22</b>	634	66	40	SN	.040	2.23	18.2
<b>20</b>	1,036	108	40	SN	.046	3.62	11.1
<b>18</b>	1,634	170	40	SN	.056	5.67	7.05
<b>16</b>	2,595	270	40	SN	.069	9.18	4.55
<b>14</b>	4,180	435	40	SN	.089	14.8	2.83
<b>12</b>	6,727	700	40	SN	.118	23.7	1.76
<b>10</b>	10,571	1,100	40	SN	.152	37.3	1.12
<b>8</b>	17,298	1,800	40	DN	.236	66.6	.700
<b>6</b>	26,812	2,790	40	DN	.293	103	.451
<b>4</b>	42,813	4,455	40	SNB	.431	176	.282
<b>2</b>	69,192	7,200	40	SNB	.572	290	.174
<b>1/0</b>	105,710	11,000	40	SNB	.668	428	.114

Information to be used as a guideline only.

**Recommended Operating Frequency 200 KHz to 350 KHz**

<b>AWG</b>	<b>Cir Mil Area</b>	<b>No. of Strands</b>	<b>Strand AWG</b>	<b>Outer Insulation</b>	<b>NOM O.D.</b>	<b>NOM Lbs/MFT</b>	<b>D.C. Res. Ohms/MFT</b>
36	25.0	4	42	SN	.006	.079	457
34	43.8	7	42	SN	.011	.157	261.2
32	62.5	10	42	SN	.012	.220	182.8
30	100	16	42	SN	.016	.345	114.3
28	163	26	42	SN	.018	.551	70.3
26	250	40	42	SN	.023	.836	45.7
24	413	66	42	SN	.028	1.40	28.4
22	656	105	42	SN	.034	2.21	17.8
20	1,031	165	42	SN	.046	3.45	11.4
18	1,688	270	42	SN	.058	5.74	7.11
16	2,625	420	42	SN	.072	8.88	4.57
14	4,125	660	42	SN	.087	13.9	2.91
12	6,563	1,050	42	DN	.119	22.4	1.83
10	10,687	1,710	42	DN	.185	40.3	1.15
8	16,875	2,700	42	DN	.231	63.0	.729
6	26,250	4,200	42	DN	.287	97.1	.468
4	42,188	6,750	42	SNB	.434	167	.291
2	67,500	10,800	42	SNB	.561	272	.182

**Recommended Operating Frequency 350 KHz to 850 KHz**

38	16	4	44	SN	.005	.050	729.1
36	28	7	44	SN	.007	.102	416.6
34	40	10	44	SN	.010	.143	291.7
32	64	16	44	SN	.012	.223	182.3
30	100	25	44	SN	.015	.341	116.7
28	160	40	44	SN	.018	.537	72.9
26	264	66	44	SN	.023	.898	45.3
24	420	105	44	SN	.029	1.41	28.5
22	640	160	44	SN	.035	2.13	18.7
20	1,020	255	44	SN	.046	3.37	11.7
18	1,620	405	44	SN	.055	5.45	7.56
16	2,600	650	44	SN	.073	8.71	4.72
14	4,200	1,050	44	SN	.091	14.0	2.92
12	6,600	1,650	44	DN	.117	22.8	1.91
10	10,500	2,625	44	DN	.146	36.4	1.20
8	16,800	4,200	44	DN	.226	62.0	.747

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**Recommended Operating Frequency 850 KHz to 1.4 MHz**

<b>AWG</b>	<b>Cir Mil Area</b>	<b>No. of Strands</b>	<b>Strand AWG</b>	<b>Outer Insulation</b>	<b>NOM O.D.</b>	<b>NOM Lbs/MFT</b>	<b>D.C. Res. Ohms/MFT</b>
38	17.3	7	46	SN	.0075	.054	658.9
36	24.7	10	46	SN	.0085	.092	461.2
34	39.5	16	46	SN	.011	.142	288.3
32	64.2	26	46	SN	.014	.225	177.4
30	101	41	46	SN	.0155	.348	112.5
28	163	66	46	SN	.019	.567	71.6
26	259	105	46	SN	.023	.889	45.1
24	408	165	46	SN	.028	1.38	28.7
22	667	270	46	SN	.039	2.29	18.0
20	1,038	420	46	SN	.044	3.54	11.6
18	1,630	660	46	SN	.056	5.53	7.34
16	2,593	1,050	46	SN	.072	8.75	4.61
14	4,261	1,725	46	DN	.095	14.9	2.88
12	6,669	2,700	46	DN	.118	23.2	1.84
10	10,745	4,350	46	DN	.191	40.5	1.14

**Recommended Operating Frequency 1.4 MHz to 2.8 MHz**

42	7.7	5	48	SN	.0060	.024	1478.9
40	10.8	7	48	SN	.0065	.044	1056.3
38	18.5	12	48	SN	.009	.072	616.2
36	27.7	18	48	SN	.0092	.104	410.8
34	40	26	48	SN	.010	.147	284.4
32	69.3	45	48	SN	.013	.247	164.3
30	102	66	48	SN	.018	.367	114.8
28	162	105	48	SN	.019	.573	72.2
26	277	180	48	SN	.0245	.966	42.1
24	462	300	48	SN	.031	1.63	25.9
22	647	420	48	SN	.038	2.26	18.5
20	1,040	675	48	SN	.057	3.61	11.5
18	1,694	1,100	48	SN	.062	5.85	7.06
16	2,657	1,725	48	SN	.075	9.35	4.62
14	4,158	2,700	48	SN	.089	14.6	2.95
12	6,930	4,500	48	DN	.159	26.9	1.77

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**\* lbs/mft = lbs / 1000 ft.**

**\*\*The O.D's could vary based on the insulation or extrusion type applied to the Litz bundles.**