



## Unified AWG/Metric Copper Wire Stranding

AWG / metric nominal mm <sup>2</sup>	Stranding AWG / Metric mm diameter	Approximate Diameter		Cross-Sectional Area		Weight Lbs./ 1000 ft.	DC resistance @ 20°C-Ohms/1000 ft.		DC Resistance per VDE 0295 - Ohms/km	
		Inches	mm	Circular mils	mm <sup>2</sup>		Bare or Silver Plated Copper	Tinned Copper	Bare Copper	Tinned Copper
36	7/44	0.006	0.1524	28	0.0133	0.085	446	479	1463.3	1571.5
34	7/42	0.0075	0.1905	43.75	0.0217	0.132	274	294	899.0	964.6
32	7/40	0.009	0.2286	67.27	0.0343	0.203	169.5	182	556.1	597.1
32	19/44	0.008	0.2032	76	0.0361	0.23	165.9	178.1	544.3	584.3
30	7/38	0.012	0.3048	112	0.0567	0.339	100.3	107.7	329.1	353.3
30	19/42	0.013	0.3302	118.75	0.0589	0.359	101.9	109.4	334.3	358.9
28	7/36	0.015	0.381	175	0.0889	0.55	63.55	68.22	208.5	223.8
28	19/40	0.016	0.4064	182.59	0.0931	0.59	63.06	67.69	206.9	222.1
0.1	14 x 0.10				0.1		59.4	61.0	195	200
0.1	26 x 0.07				0.1		59.4	61.0	195	200
0.1	50 x 0.05				0.1		59.4	61.0	195	200
27	7/35	0.017	0.4318	219.52	0.1113	0.632	50.44	54.15	165.5	177.7
27	65/44	0.018	0.4572	260	0.1235	0.7	49.41	53.05	162.1	174.0
0.14	18 x 0.10				0.14		42.1	43.3	138	142
0.14	36 x 0.07				0.14		42.1	43.3	138	142
0.14	72 x 0.05				0.14		42.1	43.3	138	142
26	7/34	0.019	0.4826	277.83	0.1407	0.87	39.7	42.61	130.2	139.8
26	10/36	0.02	0.508	250	0.127	0.77	44.92	48.21	147.4	158.2
26	19/38	0.02	0.508	304	0.1539	0.93	37.33	40.07	122.5	131.5
24	7/32	0.024	0.6096	448	0.2268	1.38	24.46	26.25	80.2	86.1
24	10/34	0.023	0.5842	396.9	0.201	1.22	28.06	31.12	92.1	102.1
24	19/36	0.025	0.635	475	0.2413	1.47	23.64	25.38	77.6	83.3
24	41/40	0.024	0.6096	384.4	0.2009	1.25	29.78	31.97	97.7	104.9
0.25	14 x 0.16				0.25		24.1	25.0	79	82
0.25	32 x 0.16				0.25		24.1	25.0	79	82
0.25	32 x 0.1				0.25		24.1	25.0	79	82
0.25	65 x 0.07				0.25		24.1	25.0	79	82
0.25	128 x 0.05				0.25		24.1	25.0	79	82
0.34	7 x 0.25				0.34		24.1	25.0	79	82
0.34	19 x 0.16				0.34		24.1	25.0	79	82
0.34	42 x 0.10				0.34		24.1	25.0	79	82
0.34	42 x 0.1				0.34		24.1	25.0	79	82
0.34	88 x 0.07				0.34		24.1	25.0	79	82
0.34	174 x 0.05				0.34		24.1	25.0	79	82
22	7/30	0.03	0.762	700	0.3542	2.19	15.57	16.72	51.1	54.9
22	19/34	0.032	0.8128	754.11	0.3819	2.32	14.77	16.1	48.5	52.8
22	26/36	0.029	0.7366	650	0.3302	1.97	17.44	18.72	57.2	61.4
0.5	7 x 0.30				0.5		11.0	11.2	36	36.7
0.5	16 x 0.21				0.5		11.9	12.2	39	40.1
0.5	28 x 0.16				0.5		11.9	12.2	39	40.1
0.5	64 x 0.1				0.5		11.9	12.2	39	40.1
0.5	131 x 0.07				0.5		11.9	12.2	39	40.1
0.5	256 x 0.05				0.5		11.9	12.2	39	40.1



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		Inches	mm	Circular mils	mm <sup>2</sup>		Bare or Silver Plated Copper	Tinned Copper	Bare Copper	Tinned Copper
20	7/28	0.038	0.9652	1111	0.5628	3.49	9.81	10.42	32.2	34.2
20	10/30	0.036	0.9144	1000	0.506	3.14	11	11.81	36.1	38.7
20	19/32	0.038	0.9652	1216	0.6156	3.75	9.1	9.765	29.9	32.0
20	26/34	0.04	1.016	1031.94	0.5226	3.21	10.9	11.7	35.8	38.4
20	41/36	0.038	0.9652	1025	0.5207	3.17	11.17	11.99	36.6	39.3
0.75	7 x 0.37				0.75		7.5	7.6	24.5	24.8
0.75	24 x 0.21				0.75		7.9	8.1	26	26.7
0.75	42 x 0.16				0.75		7.9	8.1	26	26.7
0.75	96 x 0.1				0.75		7.9	8.1	26	26.7
0.75	195 x 0.07				0.75		7.9	8.1	26	26.7
0.75	384 x 0.05				0.75		7.9	8.1	26	26.7
18	7/26	0.046	1.1684	1769.6	0.896	5.04	6.165	6.55	20.2	21.5
18	16/30	0.046	1.1684	1600	0.8096	5	6.877	7.384	22.6	24.2
18	19/30	0.048	1.2192	1900	0.9614	5.9	5.791	6.218	19.0	20.4
18	41/34	0.046	1.1684	1627.29	0.8241	5.06	6.975	7.487	22.9	24.6
18	65/36	0.048	1.2192	1625	0.8225	5	7.043	7.56	23.1	24.8
1.0	7 x 0.43				1.0		5.5	5.5	18.1	18.2
1.0	32 x 0.21				1.0		5.9	6.1	19.5	20
1.0	56 x 0.16				1.0		5.9	6.1	19.5	20
1.0	128 x 0.1				1.0		5.9	6.1	19.5	20
1.0	260 x 0.07				1.0		5.9	6.1	19.5	20
1.0	512 x 0.05				1.0		5.9	6.1	19.5	20
16	7/24	0.06	1.524	2828	1.4322	8.56	3.855	4.002	12.6	13.1
16	19/29	0.054	1.3716	2426.3	1.2293	7.5	4.538	4.817	14.9	15.8
16	26/30	0.058	1.4732	2600	1.3156	8.06	4.273	4.588	14.0	15.1
16	65/34	0.059	1.4986	2579.85	1.3065	8.03	4.4	4.723	14.4	15.5
16	105/36	0.059	1.4986	2625	1.3335	8.09	4.36	4.68	14.3	15.4
1.5	7 x 0.52				1.5		3.7	4.2	12.1	13.7
1.5	30 x 0.26				1.5		4.1	4.2	13.3	13.7
1.5	84 x 0.16				1.5		4.1	4.2	13.3	13.7
1.5	192 x 0.1				1.5		4.1	4.2	13.3	13.7
1.5	392 x 0.07				1.5		4.1	4.2	13.3	13.7
1.5	768 x 0.05				1.5		4.1	4.2	13.3	13.7
14	7/22	0.073	1.8542	4480	2.2964	13.56	2.428	2.531	8.0	8.3
14	19/27	0.068	1.7272	3830.4	1.9399	11.59	2.874	3.054	9.4	10.0
14	41/30	0.07	1.778	4100	2.0746	12.4	2.735	2.937	9.0	9.6
14	105/34	0.086	2.1844	4167.5	2.1105	12.61	2.724	2.924	8.9	9.6
2.5	7 x 0.67				2.5		2.3	2.3	7.41	7.56
2.5	19 x 0.41				2.5		2.4	2.5	7.98	8.21
2.5	50 x 0.26				2.5		2.4	2.5	7.98	8.21
2.5	140 x 0.16				2.5		2.4	2.5	7.98	8.21
2.5	320 x 0.1				2.5		2.4	2.5	7.98	8.21
2.5	651 x 0.07				2.5		2.4	2.5	7.98	8.21
2.5	1280 x 0.05				2.5		2.4	2.5	7.98	8.21



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		Inches	mm	Circular mils	mm <sup>2</sup>		Bare or Silver Plated Copper	Tinned Copper	Bare Copper	Tinned Copper
12	7/20	0.096	2.4384	7168	3.6302	21.69	1.516	1.574	5.0	5.2
12	19/25	0.09	2.286	6087.6	3.0837	18.43	1.806	1.916	5.9	6.3
12	65/30	0.102	2.5908	6500	3.289	19.66	1.725	1.853	5.7	6.1
12	165/34	0.095	2.413	6548.9	3.3165	19.82	1.75	1.878	5.7	6.2
10	37/26	0.11	2.794	9353.6	4.736	28.31	1.189	1.263	3.9	4.1
10	49/27	0.116	2.9464	9878.4	5.0029	28.89	1.136	1.207	3.7	4.0
10	105/30	0.12	3.048	10530	5.313	31.76	1.068	1.147	3.5	3.8
8	49/25	0.147	3.7338	15699.6	7.9527	47.53	0.714	0.757	2.3	2.5
8	133/29	0.166	4.2164	16984.1	8.6051	51.42	0.661	0.701	2.2	2.3
8	655/36	0.147	3.7338	16625	8.3185	49.58	0.706	0.757	2.3	2.5
6	133/27	0.206	5.2324	26812.8	13.5793	81.14	0.418	0.445	1.4	1.5
6	266/30	0.21	5.334	25900	13.4596	78.35	0.426	0.457	1.4	1.5
6	1050/36	0.184	4.6736	26250	13.335	79.47	0.44	0.472	1.4	1.5
4	133/25	0.257	6.5278	42613	21.5859	129.01	0.263	0.279	0.9	0.9
4	259/28	0.261	6.629	41388	20.966	158.02	0.217	0.231	0.7	0.8
4	1666/36	0.29	7.366	41650	21.099	126.1	0.277	0.298	0.9	1.0
2	133/23	0.328	8.331	67763	34.327	205.62	0.164	0.171	0.5	0.6
2	259/26	0.325	8.255	65811	33.338	198.14	0.173	0.184	0.6	0.6
2	665/30	0.335	8.509	66832	33.856	201.16	0.17	0.183	0.6	0.6
2	2646/36	0.379	9.626	66150	33.51	200.28	0.175	0.187	0.6	0.6
1	19/.0664	0.328	8.3312	82983.6	42.47		0.134	0.137	0.4	0.4
1	836/30	0.377	9.5758	84015	42.562	247.1	0.135	0.171	0.4	0.6
1	2107/34	0.375	9.525	83753	42.428	253.29	0.137	0.147	0.4	0.5
1/0	133/21	0.464	11.786	107743	54.581	327.05	0.104	0.108	0.3	0.4
1/0	259/24	0.422	10.668	104636	53.007	316.76	0.108	0.112	0.4	0.4
2/0	133/20	0.5	12.7	135926	68.858	412.17	0.0821	0.0853	0.3	0.3
2/0	259/23	0.473	12.014	131960	66.849	400.41	0.0855	0.0888	0.3	0.3
2/0	1330/30	0.406	10.3124	133300	67.298		0.0851	0.0914	0.3	0.3
3/0	259/22	0.509	12.928	166381	84.286	501.7	0.0682	0.0711	0.2	0.2
3/0	427/24	0.538	13.665	167401	87.802	522.2	0.0657	0.0682	0.2	0.2
4/0	259/21	0.606	15.392	209815	106.289	638.88	0.0537	0.0558	0.2	0.2
4/0	427/23	0.605	15.367	212342	107.569	660.01	0.0519	0.0539	0.2	0.2
4/0	2107/30	0.608	15.4432	211468	106.6142		0.0537	0.0577	0.2	0.2

Please note: This table is presented for reference only. The data presented is based on industry average sizes. Not all stranding combinations are readily available. Please consult with Northwire to determine your exact stranding needs.

## Metric Standard Stranding

cross-section mm <sup>2</sup>	single strand per VDE 0295 *	multi-strand per VDE 0295 *	alternate multi-strand per VDE 0295 *	fine stranded per VDE 0295 *	extra-fine stranded per VDE 0295 *	super-fine stranded per VDE 0295 *		
		class 2		class 5	class 6			
0.05								25 x 0.05
0.08								41 x 0.05
0.1				14 x 0.10			26 x 0.07	50 x 0.05
0.14					18 x 0.10	18 x 0.1	36 x 0.07	72 x 0.05
0.25				14 x 0.16	32 x 0.16	32 x 0.1	65 x 0.07	128 x 0.05
0.34			7 x 0.25	19 x 0.16	42 x 0.10	42 x 0.1	88 x 0.07	174 x 0.05
0.38			7 x 0.27	12 x 0.21	21 x 0.16	48 x 0.1	100 x 0.07	194 x 0.05
0.5	1 x 0.80	7 x 0.30	7 x 0.30	16 x 0.21	28 x 0.16	64 x 0.1	131 x 0.07	256 x 0.05
0.75	1 x 1.00	7 x 0.37	7 x 0.37	24 x 0.21	42 x 0.16	96 x 0.1	195 x 0.07	384 x 0.05
1	1 x 1.13	7 x 0.43	7 x 0.43	32 x 0.21	56 x 0.16	128 x 0.1	260 x 0.07	512 x 0.05
1.5	1 x 1.38	7 x 0.52	7 x 0.52	30 x 0.26	84 x 0.16	192 x 0.1	392 x 0.07	768 x 0.05
2.5	1 x 1.78	7 x 0.67	19 x 0.41	50 x 0.26	140 x 0.16	320 x 0.1	651 x 0.07	1280 x 0.05
4	1 x 2.26	7 x 0.85	19 x 0.52	56 x 0.31	224 x 0.16	512 x 0.1	1040 x 0.07	
6	1 x 2.77	7 x 1.05	19 x 0.64	84 x 0.31	192 x 0.21	768 x 0.1	1560 x 0.07	
10	1 x 3.75	7 x 1.35	49 x 0.51	80 x 0.41	320 x 0.21	1280 x 0.1	2600 x 0.07	
16		7 x 1.70	49 x 0.65	128 x 0.41	512 x 0.21	2048 x 0.1		
25		7 x 2.13	84 x 0.62	200 x 0.41	800 x 0.21	3200 x 0.1		
35		7 x 2.52	133 x 0.58	280 x 0.41	1120 x 0.21			
50		19 x 1.83	133 x 0.69	400 x 0.41	705 x 0.31			
70		19 x 2.17	189 x 0.69	356 x 0.51	990 x 0.31			
95		19 x 2.52	259 x 0.69	485 x 0.51	1340 x 0.31			
120		37 x 2.03	336 x 0.67	614 x 0.51	1690 x 0.31			
150		37 x 2.27	392 x 0.69	765 x 0.51	2123 x 0.31			
185		37 x 2.52	494 x 0.69	944 x 0.51	1470 x 0.41			
240		61 x 2.24	627 x 0.70	1225 x 0.51	1905 x 0.41			
300		61 x 2.50	790 x 0.70	1530 x 0.51	2385 x 0.41			
400		61 x 2.89		2035 x 0.511				
500		61 x 3.23		1768 x 0.51				

- \*Notes:
- stranding = strand count x wire size diameter mm
  - strand count for fine-stranded and finer is nominal and may vary - nominal size is determined by DC resistance
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