

# American Wire Gauge -- IEC 60228 Wire Size

AWG / kcmil	Area Circ Mils	Amps TW/UF (60C)	Amps THHW (75C)	Amps THHN (90C)	mm2
18	1,620	--	--		0.8
16	2,580	--	--		1.3
14*	4,110	20 (15)	20 (15)	25 (20)	2.1
12*	6,530	25 (20)	25 (20)	30 (20)	3.3
10*	10,380	30	35 (30)	40 (30)	5.3
8	16,510	40	50	55	8.4
6	26,240	55	65	75	13.3
4	41,740	70	85	95	21.1
3	52,620	85	100	110	26.7
2	66,360	95	115	130	33.6
1	83,690	110	130	150	42.4
1/0	105,600	125	150	170	53.5
2/0	133,100	145	175	195	67.4
3/0	167,800	165	200	225	85.0
4/0	211,600	195	230	260	107.2
250	250,000	215	255	290	126.7
300	300,000	240	285	320	152.0
350	350,000	260	310	350	177.3
400	400,000	280	335	380	202.7
500	500,000	320	380	430	253.4
600	600,000	355	420	475	304.0
700	700,000	385	460	520	354.7
750	750,000	400	475	535	380.0
800	800,000	410	490	555	405.4
900	900,000	435	520	585	456.0
1000	1,000,000	455	545	615	506.7

IEC mm2	Area Circ Mils	Amps Free Air, 70C PVC	Amps in wall, 70C PVC
0.5	987	--	--
0.75	1,481	--	--
1.5	2,961	17.5	13
2.5	4,935	24	17.5
4	7,896	32	23
6	11,844	41	29
10	19,740	57	39
16	31,584	76	52
25	49,350	96	68
35	69,090	119	83
50	98,700	144	99
70	138,180	184	125
95	187,530	223	150
120	236,880	259	172
150	296,100	299	196
185	365,190	341	223
240	473,760	403	261
300	592,200	464	298

(table A.52.4 of IEC 60364-5-52)  
Fig. G20, <http://tinyurl.com/2u3pzqd>

\* Maximum overcurrent protection for # 14 = 15A, # 12 = 20A, # 10 = 30A

NEC 2007, Chap 9, Table 8, via Ugly's Electrical Ref 2008, pp71, 73

## Short-time Withstand Rating

Copper conductors and bolted connections withstand rating: (NEC 250-94, 250-95)

1 Ampere for 5 seconds per:

30 circular mils (bare wire)

42.25 circular mils (75°C insulated wire)

## Conversions

kcmil = Square Inches x 1273

kcmil = Square Millimeters x 1.974

mm2 = kcmil x 0.5067

2007 Erico Cadweld Catalog, Technical Information (page B-4)