



## Wire Ampacity

1  
Application  
Data

**Table 1—Ampacities of Insulated Conductors (From NEC Table 310-16)①**

Size	Copper Conductors			Aluminum Conductors Copper-Clad Aluminum Conductors			Size
	60°C (140°F)	75°C (167°F)	90°C (194°F)	60°C (140°F)	75°C (167°F)	90°C (194°F)	
AWG Kcmil	Types <sup>②</sup>  TW UF	Types <sup>②</sup> FEPW RH RHW THW THWN XHHW USE ZW	Types TA, TBS SA SIS FEP, <sup>②</sup> FEPB, <sup>②</sup> RHH, <sup>②</sup> THHN, <sup>②</sup> THHW, <sup>②</sup> XHHW <sup>②</sup>	Types <sup>②</sup>  TW UF	Types <sup>②</sup> RH RHW THHW THW THWN XHHW USE	Types TA, TBS, SA, SIS, THHN, <sup>②</sup> THHW, <sup>②</sup> THW-2, THWN-2, RHH, <sup>②</sup> RHW-2 USE-2 XHH, XHHW XHHW-2, ZW-2	AWG Kcmil
18 16 14 12 10 8	— — 20 <sup>②</sup> 25 <sup>②</sup> 30 40	— — 20 <sup>②</sup> 25 <sup>②</sup> 35 <sup>②</sup> 50	14 18 25 <sup>②</sup> 30 <sup>②</sup> 40 <sup>②</sup> 55	— — — 20 <sup>②</sup> 25 30	— — — 20 <sup>②</sup> 30 <sup>②</sup> 40	— — — 25 <sup>②</sup> 35 <sup>②</sup> 45	— — — 12 10 8
6 4 3 2 1	55 70 85 95 110	65 85 100 115 130	75 95 110 130 150	40 55 65 75 85	50 65 75 90 100	60 75 85 100 115	6 4 3 2 1
1/0 2/0 3/0 4/0	125 145 165 195	150 175 200 230	170 195 225 260	100 115 130 150	120 135 155 180	135 150 175 205	1/0 2/0 3/0 4/0
250 300 350 400 500	215 240 260 280 320	255 285 310 335 380	290 320 350 380 430	170 190 210 225 260	205 230 250 270 310	230 255 280 305 350	250 300 350 400 500
600 700 750 800 900	355 385 400 410 435	420 460 475 490 520	475 520 535 555 585	285 310 320 330 355	340 375 385 395 425	385 420 435 450 480	600 700 750 800 900
1000 1250 1500 1750 2000	455 495 520 545 560	545 590 625 650 665	615 665 705 735 750	375 405 435 455 470	445 485 520 545 560	500 545 585 615 630	1000 1250 1500 1750 2000

**Table 2—Correction Factors for Ambient Temperature Over 30°C, 86°F**

Ambient Temperature °C	For Ambient temperatures over 30°C (86°F), multiply the ampacities shown above by the appropriate factor shown below.								Ambient Temperature °F
21–25	1.08	1.05	1.04	1.04	1.08	1.05	1.04	1.04	70–77
26–30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	79–86
31–35	0.91	0.94	0.95	0.96	0.91	0.94	0.95	0.96	88–95
36–40	0.82	0.88	0.90	0.91	0.82	0.88	0.90	0.91	97–104
41–45	0.71	0.82	0.85	0.87	0.71	0.82	0.85	0.87	106–113
46–50	0.58	0.75	0.80	0.82	0.58	0.75	0.80	0.82	115–122
51–55	0.41	0.67	0.74	0.76	0.41	0.67	0.74	0.76	124–131
56–60	—	0.58	0.67	0.71	—	0.58	0.67	0.71	133–140
61–70	—	0.33	0.52	0.58	—	0.33	0.52	0.58	142–158
71–80	—	—	0.30	0.41	—	—	0.30	0.41	160–176

①Not more than three conductors in raceway, cable or earth (directly buried). Based on ambient temperature of 30°C (86°F).

②The load current rating and the overcurrent protection for conductor types shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG, and 30 amperes for 10 AWG copper; or 15 amperes for 12 AWG and 25 amperes for 10 AWG aluminum and copper-clad aluminum after any correction factors for ambient temperature and number of conductors have been applied.

③Unless otherwise specifically permitted elsewhere in this Code, the overcurrent protection for conductor types marked with a ③ shall not exceed 15 amperes for No. 14, 20 amperes for No. 12, and 30 amperes for No. 10 copper; or 15 amperes for No. 12 and 25 amperes for No. 10 aluminum and copper-clad aluminum after any correction factors for ambient temperature and number of conductors have been applied.