

Table 310.15(B)(16) formerly Table 310.16

Allowable ampacities of insulated copper conductors rated up to and including 2000 Volts, 60°C through 90°C (140°F through 194°F), Not more than three current-carrying conductors in raceway, cable, or earth (directly buried), based on ambient temperature of 30°C (86°F)

Size (AWG or kcmil)	Temperature Rating of Copper Conductor					
	60°C (140°F)	75°C (167°F)		90°C (194°F)		
	Types	Types		Types		
	TW UF	RHW THHW THW THWN	XHHW USE ZW	FEP FEPB MI RHH RHW-2 SA	SIS TBS THHN THHW THW-2 THWN-2	USE-2 XHH XHHW XHHW-2 ZW-2
18 AWG	—	—	—	—	14	—
16 AWG	—	—	—	—	18	—
14 AWG*	15	20	25	25	25	35
12 AWG*	20	25	30	30	30	40
10 AWG*	30	35	40	40	40	55
8 AWG	40	50	55	55	55	80
6 AWG	55	65	75	75	75	105
4 AWG	70	85	95	95	95	140
3 AWG	85	100	115	115	115	165
2 AWG	95	115	130	130	130	190
1 AWG	110	130	145	145	145	220
1/0 AWG	125	150	170	170	170	260
2/0 AWG	145	175	195	195	195	300
3/0 AWG	165	200	225	225	225	350
4/0 AWG	195	230	260	260	260	405
250 KCMIL	215	255	290	290	290	455
300 KCMIL	240	285	320	320	320	500
350 KCMIL	260	310	350	350	350	570
400 KCMIL	280	335	380	380	380	615
500 KCMIL	320	380	430	430	430	700
600 KCMIL	350	420	475	475	475	780
700 KCMIL	385	460	520	520	520	850
750 KCMIL	400	475	535	535	535	885
800 KCMIL	410	490	555	555	555	920
900 KCMIL	435	520	585	585	585	980
1000 KCMIL	455	545	615	615	615	1055
1250 KCMIL	495	590	665	665	665	1200
1500 KCMIL	525	625	705	705	705	1325
1750 KCMIL	545	650	735	735	735	1445
2000 KCMIL	555	665	750	750	750	1560

* Unless otherwise specifically permitted elsewhere in the NEC NFPA70 Code, the overcurrent protection for conductor types marked with an asterisk shall not exceed 15A for No. 14 copper, 20A for No. 12 copper, and 30A for No. 10 copper, after any correction factors for ambient temperature and number of conductors have been applied.

310.15(B)(3)(a)

Adjustment factors for more than three current-carrying conductors in a raceway or cable. Where the number of current-carrying conductors in a raceway or cable exceeds 3, the allowable ampacities shall be reduced per table below:

Number of current-carrying conductors*	Percent of values in tables as adjusted for ambient temperature (if necessary)
4 - 6	80
7 - 9	70
10 - 20	50
21 - 30	45
31 - 40	40
41 and more	35

* Does NOT include ground

Other Helpful Resources

- [Ampacity: Choosing Cable When The Heat Is On](#)
- [Amperage Conversion Chart](#)
- [Insulation/Jacket Materials: Chemical Resistance Chart](#)
- [Insulation/Jacket Materials: Physical Properties Chart](#)
- [View these charts on our site!](#)

Table 310.15(B)(17) formerly Table 310.17

Allowable ampacities of single insulated copper conductors rated up to and including 2000 Volts in free air, based on ambient temperature of 30°C (86°F)

Size (AWG or kcmil)	Temperature Rating of Copper Conductor					
	60°C (140°F)	75°C (167°F)		90°C (194°F)		
	Types	Types		Types		
	TW UF	RHW THHW THW THWN	XHHW ZW	FEP FEPB MI RHH RHW-2 SA	SIS TBS THHN THHW THW-2 THWN-2	USE-2 XHH XHHW XHHW-2 ZW-2
18 AWG	—	—	—	—	18	—
16 AWG	—	—	—	—	24	—
14 AWG*	25	30	35	35	35	40
12 AWG*	30	35	40	40	40	55
10 AWG*	40	50	55	55	55	80
8 AWG	60	70	80	80	80	105
6 AWG	80	95	105	105	105	140
4 AWG	105	125	140	140	140	165
3 AWG	120	145	165	165	165	190
2 AWG	140	170	195	195	195	220
1 AWG	165	195	230	230	230	260
1/0 AWG	195	230	265	265	265	300
2/0 AWG	225	265	310	310	310	350
3/0 AWG	260	310	360	360	360	405
4/0 AWG	300	360	405	405	405	455
250 KCMIL	340	405	445	445	445	500
300 KCMIL	375	445	505	505	505	570
350 KCMIL	420	505	545	545	545	615
400 KCMIL	455	545	620	620	620	700
500 KCMIL	515	620	690	690	690	780
600 KCMIL	575	690	755	755	755	850
700 KCMIL	630	755	785	785	785	885
750 KCMIL	655	785	815	815	815	920
800 KCMIL	680	815	870	870	870	980
900 KCMIL	730	870	935	935	935	1055
1000 KCMIL	780	935	1065	1065	1065	1200
1250 KCMIL	890	1065	1175	1175	1175	1325
1500 KCMIL	980	1175	1280	1280	1280	1445
1750 KCMIL	1070	1280	1385	1385	1385	1560
2000 KCMIL	1155	1385	1560	1560	1560	—

Table 310.15(B)(2)(a)

Temperature Correction Factors

For ambient temperatures other than 30°C (86°F), multiply the allowable ampacities shown above by the appropriate factor shown per table below:

Ambient temperature		60°C (140°F)	75°C (167°F)	90°C (194°F)
50°F or less	10°C or less	1.29	1.20	1.15
51-59°F	11 to 15°C	1.22	1.15	1.12
60-68°F	16 to 20°C	1.15	1.11	1.08
69-77°F	21 to 25°C	1.08	1.05	1.04
78-86°F	26 to 30°C	1.00	1.00	1.00
87-95°F	31 to 35°C	0.91	0.94	0.96
96-104°F	36 to 40°C	0.82	0.88	0.91
105-113°F	41 to 45°C	0.71	0.82	0.87
114-122°F	46-50°C	0.58	0.75	0.82
123-131°F	51-55°C	0.41	0.67	0.76
132-140°F	56-60°C	-	0.58	0.71
141-149°F	61-65°C	-	0.47	0.65
150-158°F	66-70°C	-	0.33	0.58
159-167°F	71-75°C	-	-	0.50
168-176°F	76-80°C	-	-	0.41
177-185°F	81-85°C	-	-	0.29