

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

Not More than Three Conductors in Raceway or Cable or Earth (Directly Buried)  
 (Based on Ambient Temperature of 30° C, 86° F)

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

# Correction Factors for Ambient Temperature

Over 30° C, 86° F

For Ambient Temperatures Over 30° C, 86° F, multiply the ampacities shown above by the appropriate factor show below:

Ambient Temperature	Copper Conductors			Aluminum Conductors Copper-Clad Conductors		
21-25 C, 70-77 F	1.08	1.05	1.04	1.08	1.05	1.04
26-30 C, 78-86 F	1	1	1	1	1	1
31-35 C, 87-95 F	0.91	0.94	0.96	0.91	0.94	0.96
36-40 C, 96-104 F	0.82	0.88	0.91	0.82	0.88	0.91
41-45 C, 105-113 F	0.71	0.82	0.87	0.71	0.82	0.87
46-50 C, 114-122 F	0.58	0.75	0.82	0.58	0.75	0.82
51-55 C, 123-131 F	0.41	0.67	0.76	0.41	0.67	0.76
56-60 C, 132-140 F	-	0.58	0.71	-	0.58	0.71
61-70 C, 141-158 F	-	0.33	0.58	-	0.33	0.58
71-80 C, 159-176 F	-	-	0.41	-	-	0.41

1 The 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 aluminum and copper-clad aluminum after any correction factors for ambient temperature and number of conductors have been applied.

References: To buy NEC National Electric Code books go to World Wide Web "nfp.org"

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