Copper Hook-Up Wire Ampacity by Insulation Temperature Rating

Remington Industries

Single Conductor Ampacity

AWG	Insulation Temperature Rating					
	80°C	90°C	105°C	125°C	150°C	200°C
0000 (4/0)	370	405	446	481	529	629
000 (3/0)	315	350	380	410	451	546
00 (2/0)	270	300	329	355	390	467
0 (1/0)	230	260	286	309	339	399
1	200	220	247	266	293	344
2	170	190	215	232	255	293
3	145	165	180	194	214	252
4	125	140	160	172	190	220
6	95	105	121	131	155	165
8	65	80	90	97	106	124
10	47	55	67	72	80	90
12	36	40	51	55	60	68
14	27	35	39	42	46	54
16	19	24	26	28	31	35
18	15	18	20	22	24	28
20	10	13	14	15	18	21
22	8.0	10	11	12	14	16
24	5.0	5.5	6.2	6.7	7.7	8.7
26	4.0	4.0	4.6	5.0	5.7	6.4
28	3.0	3.0	3.4	3.7	4.3	4.8
30	2.0	2.2	2.5	2.8	3.2	3.6
32	1.0	1.7	1.9	2.1	2.4	2.7
34	0.87	1.2	1.4	1.5	1.8	2.0
36	0.63	0.91	1.0	1.1	1.3	1.5
38	0.47	0.68	0.77	0.84	0.98	1.1
40	0.33	0.49	0.55	0.60	0.71	0.78

The current values (in amps) in this table are maximum ampacities for a **single conductor** in **free air**, with an **ambient temperature of 30°C (86°F)**. Multiply ampacities by the **Correction Factors by Ambient Temperature** table below to adjust for different ambient temperatures.

Two- or Three-Conductor Ampacity

AWG	Insulation Temperature Rating				
	90°C	105°C	125°C	150°C	200°C
0000 (4/0)	260	301	325	332	346
000 (3/0)	225	263	284	288	297
00 (2/0)	195	229	247	251	260
0 (1/0)	170	193	208	215	229
1	150	168	181	186	197
2	130	143	154	160	171
3	110	129	139	143	152
4	95	109	118	120	125
6	75	81	87	96	110
8	55	64	69	76	83
10	40	46	50	55	60
12	30	36	39	43	45
14	25	29	31	34	36
16	18	19	20	22	25
18	14	15	16	17	20
20	8	9	10	13	15
22	6	7	8	9	10

The current values (in amps) in this table are maximum ampacities for **2 or 3 conductors** together in a **raceway, conduit, or cable**, with an **ambient temperature of 30°C (86°F)**. Multiply ampacities by the **Correction Factors by Number of Conductors** and the **Correction Factors by Ambient Temp.** tables below to adjust for different numbers of conductors & ambient temperatures, respectively.

Correction Factors by Number of Conductors

4 to 6:	0.80	21 to 30:	0.45
7 to 9:	0.70	31 to 40:	0.40
10 to 20:	0.50	41 and above:	0.35

Correction Factors by Ambient Temperature

Ambient Temp. (°C)	Insulation Temperature Rating				
	90°C	105°C	125°C	150°C	200°C
31 - 35	0.96	1.00	1.00	1.00	1.00
36 - 40	0.91	1.00	1.00	1.00	1.00
41 - 45	0.87	0.93	0.94	0.95	0.97
46 - 50	0.82	0.93	0.94	0.95	0.97
51 - 55	0.76	0.85	0.87	0.90	0.94
56 - 60	0.71	0.85	0.87	0.90	0.94
61 - 70	0.58	0.76	0.80	0.85	0.90
71 - 80	0.41	0.65	0.73	0.80	0.87
81 - 90	—	0.53	0.64	0.74	0.83
91 - 100	—	0.38	0.54	0.67	0.79
101 - 120	—	—	0.24	0.52	0.71
121 - 140	—	—	—	0.30	0.61
141 - 160	—	—	—	—	0.50
161 - 180	—	—	—	—	0.35

Hook Up Wire Reference

Wire Type (Click to View)	Temperature Rating	Voltage Rating	Application
UL1007	105°C (221°F)	300 V	Electronics
UL1015	105°C (221°F)	600 V	Electronics
MIL-W-16878/1	105°C (221°F)	600 V	Electronics
PTFE	200°C (392°F)	600 V	Electronics
THHN	90°C (194°F) Dry	600 V	Construction
GPT	85°C (185°F)	60 V	Automotive
GXL	125°C (257°F)	60 V	Automotive
SXL	125°C (257°F)	60 V	Automotive
TXL	125°C (257°F)	60 V	Automotive
GPTM	80°C (176°F) Wet	60 V	Marine

This data is for reference only. When applicable, please consult your local electrical code to determine what wire constructions, temperatures, voltages, and current levels are legal.