

Conductor Size		Allowable Amperage Temperature rating of conductor insulation						
(Circular Mils)	(AWG)	60°C 140°F	75°C 167°F	80°C 176°F	90°C 194°F	105°C 221°F	125°C 257°F	200°C 400 °F
<i>1 620</i>	18	10	10	15	20	20	25	25
<i>2 580</i>	16	15	15	20	25	25	30	35
<i>4 110</i>	14	20	20	25	30	35	40	45
<i>6 530</i>	12	25	25	35	40	45	50	55
<i>10 400</i>	10	40	40	50	55	60	70	70
<i>16 500</i>	8	55	65	70	70	80	90	100
<i>26 300</i>	6	80	95	100	100	120	125	135
<i>41 700</i>	4	105	125	130	135	160	170	180
<i>52 600</i>	3	120	145	140	155	180	195	210
<i>66 400</i>	2	140	170	175	180	210	225	240
<i>83 700</i>	1	165	195	210	210	245	265	280
<i>106 000</i>	0	195	230	245	245	285	305	325
<i>133 000</i>	0 (2/0)	225	265	285	285	330	355	370
<i>168 000</i>	000 (3/0)	260	310	330	330	385	410	430
<i>212 000</i>	0000 (4/0)	300	360	385	385	445	475	510

CONDUCTOR SIZES FOR 10% DROP IN VOLTAGE

Length of Conductor from Source of Current to Device and Back to Source

Metres	3	4.5	6	8	9	12	15	18	20	25	27	30	33	36	40	43	45	48	52
Feet	10	15	20	25	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170
Total Amps*	12 Volts – 10% Drop Wire Sizes (gage) – Based on Minimum CM Area																		
5	18	18	18	18	18	16	16	14	14	14	12	12	12	12	12	10	10	10	10
10	18	18	16	16	14	14	12	12	10	10	10	10	8	8	8	8	8	8	6
15	18	16	14	14	12	12	10	10	8	8	8	8	8	6	6	6	6	6	6
20	16	14	14	12	12	10	10	8	8	8	6	6	6	6	6	6	4	4	4
25	16	14	12	12	10	10	8	8	6	6	6	6	6	4	4	4	4	4	2
30	14	12	12	10	10	8	8	6	6	6	6	4	4	4	4	2	2	2	2
40	14	12	10	10	8	8	6	6	6	4	4	4	2	2	2	2	2	2	2
50	12	10	10	8	8	6	6	4	4	4	2	2	2	2	2	1	1	1	1
60	12	10	8	8	6	6	4	4	2	2	2	2	2	1	1	1	0	0	0
70	10	8	8	6	6	6	4	2	2	2	2	1	1	1	0	0	0	2/0	2/0
80	10	8	8	6	6	4	4	2	2	2	1	1	0	0	0	2/0	2/0	2/0	2/0
90	10	8	6	6	6	4	2	2	2	1	1	0	0	0	2/0	2/0	2/0	3/0	3/0
100	10	8	6	6	4	4	2	2	1	1	0	0	0	2/0	2/0	2/0	3/0	3/0	3/0
Total Amps*	24 Volts – 10% Drop Wire Sizes (gage) – Based on Minimum CM Area																		
5	18	18	18	18	18	18	18	18	16	16	16	16	14	14	14	14	14	14	12
10	18	18	18	18	18	16	16	14	14	14	12	12	12	12	12	10	10	10	10
15	18	18	18	16	16	14	14	12	12	12	10	10	10	10	10	8	8	8	8
20	18	18	16	16	14	14	12	12	10	10	10	10	8	8	8	8	8	8	6
25	18	16	16	14	14	12	12	10	10	10	8	8	8	8	8	6	6	6	6
30	18	16	14	14	12	12	10	10	8	8	8	8	8	6	6	6	6	6	6
40	16	14	14	12	12	10	10	8	8	8	6	6	6	6	6	6	4	4	4
50	16	14	12	12	10	10	8	8	6	6	6	6	6	4	4	4	4	4	2
60	14	12	12	10	10	8	8	6	6	6	6	4	4	4	4	2	2	2	2
70	14	12	10	10	8	8	6	6	6	6	4	4	4	2	2	2	2	2	2
80	14	12	10	10	8	8	6	6	6	4	4	4	2	2	2	2	2	2	2
90	12	10	10	8	8	6	6	6	4	4	4	2	2	2	2	2	2	1	1
100	12	10	10	8	8	6	6	4	4	4	2	2	2	2	2	1	1	1	1
Total Amps*	32 Volts – 10% Drop Wire Sizes (gage) – Based on Minimum CM Area																		
5	18	18	18	18	18	18	18	18	18	18	18	16	16	16	16	14	14	14	14
10	18	18	18	18	18	18	16	16	14	14	14	14	12	12	12	12	12	12	12
15	18	18	18	18	18	16	14	14	14	14	12	12	12	12	10	10	10	10	10
20	18	18	18	16	16	14	14	12	12	12	10	10	10	10	10	8	8	8	8
25	18	18	16	16	14	14	12	12	10	10	10	10	10	8	8	8	8	8	8
30	18	18	16	14	14	12	12	10	10	10	10	8	8	8	8	8	6	6	6
40	18	16	14	14	12	12	10	10	8	8	8	8	8	6	6	6	6	6	6
50	16	14	14	12	12	10	10	8	8	8	6	6	6	6	6	6	6	4	4
60	16	14	12	12	10	10	8	8	8	6	6	6	6	6	6	4	4	4	4
70	14	14	12	10	10	8	8	8	6	6	6	6	6	4	4	4	4	2	2
80	14	12	12	10	10	8	8	6	6	6	6	4	4	4	4	2	2	2	2
90	14	12	10	10	8	8	6	6	6	4	4	4	4	2	2	2	2	2	2
100	14	12	10	10	8	8	6	6	6	4	4	4	4	2	2	2	2	2	2

* Total current in circuit in amperes