

VOLTDROPCALC - VOLTAGE DROP DISTANCE CHARTS

Max one-way distance (feet) for copper at a 3% voltage drop - NEC Ch.9 Tbl.8 resistance - voldropcalc.com

120 V circuits (3% = 3.6 V)

Size \ Amps	15 A	20 A	30 A	40 A	50 A	60 A	80 A	100 A
14 AWG	39	-	-	-	-	-	-	-
12 AWG	62	47	-	-	-	-	-	-
10 AWG	99	74	50	-	-	-	-	-
8 AWG	157	118	79	59	47	-	-	-
6 AWG	244	183	122	92	73	61	-	-
4 AWG	390	292	195	146	117	97	73	-
3 AWG	490	367	245	184	147	122	92	73
2 AWG	619	464	309	232	186	155	116	93
1 AWG	779	584	390	292	234	195	146	117
1/0 AWG	984	738	492	369	295	246	184	148
2/0 AWG	1241	931	620	465	372	310	233	186
3/0 AWG	1567	1175	783	587	470	392	294	235
4/0 AWG	1974	1480	987	740	592	493	370	296

240 V circuits (3% = 7.2 V)

Size \ Amps	15 A	20 A	30 A	40 A	50 A	60 A	80 A	100 A
14 AWG	78	-	-	-	-	-	-	-
12 AWG	124	93	-	-	-	-	-	-
10 AWG	198	149	99	-	-	-	-	-
8 AWG	314	236	157	118	94	-	-	-
6 AWG	489	367	244	183	147	122	-	-
4 AWG	779	584	390	292	234	195	146	-
3 AWG	980	735	490	367	294	245	184	147
2 AWG	1237	928	619	464	371	309	232	186
1 AWG	1558	1169	779	584	468	390	292	234
1/0 AWG	1967	1475	984	738	590	492	369	295
2/0 AWG	2482	1861	1241	931	745	620	465	372
3/0 AWG	3133	2350	1567	1175	940	783	587	470
4/0 AWG	3947	2961	1974	1480	1184	987	740	592

Dash = below 75 C ampacity for that load. For 5% budget multiply distances by 1.67; aluminum divide by ~1.61; three-phase multiply by 1.155. Estimates for planning - verify with a licensed electrician and local code. (c) voldropcalc.com