

Wire Size Chart

Maximum One-way Wire Distance for a <3% Voltage Drop

12 Vdc Application Shown (For 24 Vdc Systems, Multiply distance by 2; For 48 Vdc Systems, Multiply distance by 4)

Distance in Feet (meters)

Amps	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG	3 AWG	2 AWG	1 AWG	1/0 AWG	2/0 AWG
10	8.8 ft. (2.68 m)	14 ft. (4.27 m)	22.2 ft. (6.77 m)	35.3 ft. (10.76 m)	56.1 ft. (17.10 m)	70.9 ft. (21.61 m)	89.6 ft. (27.31 m)	112.5 ft. (34.29 m)	141.7 ft. (43.19 m)	225.8 ft. (68.82 m)
12	7.3 ft. (2.23 m)	11.6 ft. (3.54 m)	18.5 ft. (5.64 m)	29.4 ft. (8.96 m)	46.7 ft. (14.23 m)	59.1 ft. (18.01 m)	74.6 ft. (22.74 m)	93.7 ft. (28.56 m)	118.1 ft. (36.00 m)	188.2 ft. (57.36 m)
14	6.3 ft. (1.92 m)	10 ft. (3.05 m)	15.9 ft. (4.85 m)	25.2 ft. (7.68 m)	40.1 ft. (12.22 m)	50.6 ft. (15.42 m)	64.0 ft. (19.51 m)	80.4 ft. (24.51 m)	101.2 ft. (30.85 m)	161.3 ft. (49.16 m)
16	5.5 ft. (1.68 m)	8.7 ft. (2.65 m)	13.9 ft. (4.24 m)	22.1 ft. (6.74 m)	35.0 ft. (10.67 m)	44.3 ft. (13.50 m)	56.0 ft. (17.07 m)	70.3 ft. (21.43 m)	88.6 ft. (27.01 m)	141.2 ft. (43.04 m)
18	4.9 ft. (1.49 m)	8.8 ft. (2.38 m)	12.4 ft. (3.78 m)	19.6 ft. (5.97 m)	31.2 ft. (9.51 m)	39.4 ft. (12.01 m)	49.8 ft. (15.18 m)	62.5 ft. (19.05 m)	78.7 ft. (23.99 m)	125.5 ft. (38.25 m)
20	4.4 ft. (1.34 m)	7 ft. (2.13 m)	11.1 ft. (3.38 m)	17.6 ft. (5.36 m)	28.0 ft. (8.53 m)	35.4 ft. (10.79 m)	44.8 ft. (13.66m)	56.2 ft. (17.13 m)	70.9 ft. (21.61 m)	112.9 ft. (34.41 m)
25		5.6 ft. (1.71 m)	8.9 ft. (2.71 m)	14.1 ft. (4.30 m)	22.4 ft. (6.83 m)	28.3 ft. (8.63 m)	35.8 ft. (10.91 m)	45.0 ft. (13.72 m)	56.7 ft. (17.28 m)	90.3 ft. (27.52 m)
30		4.7 ft. (1.43 m)	7.4 ft. (2.26 m)	11.8 ft. (3.60 m)	18.7 ft. (5.70 m)	23.6 ft. (7.19 m)	29.9 ft. (9.11 m)	37.5 ft. (11.43 m)	47.2 ft. (14.39 m)	75.3 ft. (22.95 m)
35			6.4 ft. (1.95 m)	10.1 ft. (3.08 m)	16.0 ft. (4.88 m)	20.2 ft. (6.16 m)	25.6 ft. (7.8 m)	32.1 ft. (9.78 m)	40.5 ft. (12.34 m)	64.5 ft. (19.66 m)
40			5.6 ft. (1.71 m)	8.8 ft. (2.68 m)	14.0 ft. (4.27 m)	17.7 ft. (5.39 m)	22.4 ft. (6.83 m)	28.1 ft. (8.56 m)	35.4 ft. (10.79 m)	56.5 ft. (17.22 m)
45				7.8 ft. (2.38 m)	12.5 ft. (3.81 m)	15.7 ft. (4.79 m)	19.9 ft. (6.07 m)	25.0 ft. (7.62 m)	31.5 ft. (9.60 m)	50.2 ft. (15.30 m)
50				7.1 ft. (2.16 m)	11.2 ft. (3.41 m)	14.2 ft. (4.33 m)	17.9 ft. (5.46 m)	22.5 ft. (6.86 m)	28.3 ft. (8.63 m)	45.2 ft. (13.78 m)
60				6.3 ft. (1.92 m)	9.3 ft. (1.92 m)	11.8 ft. (3.60 m)	14.9 ft. (4.54 m)	18.7 ft. (5.7 m)	23.6 ft. (7.19 m)	37.6 ft. (11.5 m)