

Wire Gauge versus Voltage Loss Table

Wire Gauge (AWG)	Length (Feet)	Resistance (Ohms)	Voltage Loss / Voltage Available (AC) One Load = 24 VAC, 96 Ohms, 250 mA				
			One Load	Two Loads	Three Loads	Four Loads	Five Loads
10	1000	0.999	250 mV / 23.8 V	500 mV / 23.5 V	750 mV / 23.3 V	1.0V / 23.0 V	1.2 V / 22.8 V
	2500	2.497	625 mV / 23.4 V	1.2 V / 22.8 V	1.9 V / 22.1 V	2.5 V / 21.5 V	3.1 V / 20.9 V
	5000	4.994	1.2 V / 22.8 V	2.5 V / 21.5 V	3.7 V / 20.3 V	5.0 V / 19.0 V	6.2 V / 17.8 V
12	1000	1.590	398 mV / 23.6 V	795 mV / 23.2 V	1.2 V / 22.8 V	1.6 V / 22.4 V	2.0 V / 22.0 V
	2500	3.975	994 mV / 23.0 V	2.0 V / 22.0 V	3.0 V / 21.0 V	4.0 V / 20.0 V	5.0 V / 19.0 V
	5000	7.950	2.0 V / 22.0 V	4.0 V / 20.0 V	6.0 V / 18.0 V	8.0 V / 16.0 V	10.0 V / 14.0 V
14	1000	2.520	630 mV / 23.4 V	1.3 V / 22.7 V	1.9 V / 22.1 V	2.5 V / 21.5 V	3.2 V / 20.8 V
	2500	6.300	1.6 V / 22.4 V	3.2 V / 20.8 V	4.7 V / 19.3 V	6.3 V / 17.7 V	7.9 V / 16.1 V
	5000	12.600	3.2 V / 20.8 V	6.3 V / 17.7 V	9.5 V / 14.5 V	12.6 V / 11.4 V	15.8 V / 8.2 V
16	1000	4.020	1.0 V / 23.0 V	2.0 V / 22.0 V	3.0 V / 21.0 V	4.0 V / 20.0 V	5.0 V / 19.0 V
	2500	10.050	2.5 V / 21.5 V	5.0 V / 19.0 V	7.5 V / 16.5 V	10.0 V / 14.0 V	12.6 V / 11.4 V
	5000	20.100	5.0 V / 19.0 V	10.0 V / 20.8 V	15.1 V / 8.9 V	20.1 V / 3.9 V	25.1 V / 0.0 V
18	1000	6.390	1.6 V / 22.4 V	3.2 V / 20.8 V	4.8 V / 19.2 V	6.4 V / 17.6 V	8.0 V / 16.0 V
	2500	15.980	4.0 V / 20.0 V	8.0 V / 16.0 V	12.0 V / 12.0 V	16.0 V / 8.0 V	20.0 V / 4.0 V
	5000	31.950	8.0 V / 16.0 V	16.0 V / 8.0 V	24.0 V / 0.0 V	32.0 V / 0.0 V	40.0 V / 0.0 V