

**Approximate voltage drop for various extension cord gauges, lengths, and amps**  
 (% drop from 120V in parentheses)

Cord Length, feet	Current flowing through cord			
	10A	15A	20A	30A
<b>Cord Size = #16 gauge wire</b>				
10	1.0 V (0.8%)			
20	2.0 V (1.7%)			
30	2.9 V (2.4%)			
40	3.9 V (3.3%)			
50	4.9 V (4.1%)			
100	9.8 V (8.2%)			
<b>Cord Size = #14 gauge wire</b>				
10	0.6 V (0.5%)	0.9 V (0.8%)		
20	1.2 V (1.0%)	1.8 V (1.5%)		
30	1.8 V (1.5%)	2.7 V (2.3%)		
40	2.4 V (2.0%)	3.6 V (3.0%)		
50	3.0 V (2.5%)	4.6 V (3.8%)		
100	6.1 V (5.1%)	9.1 V (7.6%)		
<b>Cord Size = #12 gauge wire</b>				
10	0.4 V (0.3%)	0.6 V (0.5%)	0.8 V (1.7%)	
20	0.8 V (0.7%)	1.1 V (0.9%)	1.5 V (1.3%)	
30	1.1 V (0.9%)	1.7 V (1.4%)	2.3 V (1.9%)	
40	1.5 V (1.3%)	2.3 V (1.9%)	3.1 V (2.6%)	
50	1.9 V (1.6%)	2.9 V (2.4%)	3.8 V (3.2%)	
100	3.8 V (3.2%)	5.7 V (4.8%)	7.7 V (6.4%)	
<b>Cord Size = #10 gauge wire</b>				
10	0.2 V (0.2%)	0.4 V (0.3%)	0.5 V (0.4%)	0.7 V (0.6%)
20	0.5 V (0.4%)	0.7 V (0.6%)	1.0 V (0.8%)	1.4 V (1.2%)
30	0.7 V (0.6%)	1.1 V (0.9%)	1.4 V (1.2%)	2.2 V (1.8%)
40	1.0 V (0.8%)	1.4 V (1.2%)	1.9 V (1.6%)	2.9 V (2.4%)
50	1.2 V (1.0%)	1.8 V (1.5%)	2.4 V (2.0%)	3.6 V (3.0%)
100	2.4 V (2.0%)	3.6 V (3.0%)	4.8 V (4.0%)	7.2 V (6.0%)

Note 1 Numbers are rounded to the nearest 0.1V and 0.1%.

Note 2 Voltage drops shown are the same for any single-phase supply voltage. Voltage drop depends only on amps.

Note 3 Values are approximate, as they are affected by factors such as temperature.

Note 4 For a given cord size and amps, voltage drop is uniform over a length of cord, so for example, a 40 ft cord has twice the voltage drop as a 20 ft cord. That means the numbers in the voltage drop columns can be added together. For example, the voltage drop for a 70 ft cord can be found by adding together the voltage drops for a 30 ft cord and a 40 ft cord.