

# 24 Volt AC Voltage Drop Table (Dual Power Camera + RVM)

Clinton Electronics dual-voltage cameras (DC12V/AC24V) with Rated Voltage Monitoring (RVM) have the unique feature of converting 24 Volt AC power into 10-29 Volt DC power at the camera. This conversion makes it possible to have longer power runs when using 24 Volt AC power.

Conversion to DC12V at camera: measured AC24V power x 1.414, - 4 Volts (loss in conversion)  
 ex: 21.6 Volts AC = approx 26.54 Volts DC after conversion

Results are an estimation based on normal conditions. The actual voltage drop can vary depending on the condition of the wire, the conduit being used, the temperature, the connector, the frequency etc.

Current Draw	Wire Length (feet)	Converted Voltage at Camera	Converted Voltage at Camera	Converted Voltage at Camera
		22 AWG	18 AWG	16 AWG
100 mA	100	23.68	23.87	23.92
	250	23.19	23.68	23.8
	500	22.39	23.36	23.6
	1,000	20.78	22.73	23.2
	1,500	19.17	22.09	22.8
250 mA	100	28.79	29.48	29.65
	250	27.09	28.80	29.22
	500	24.23	27.68	28.52
	1,000	18.53	25.42	27.10
	1,500	12.85	23.17	25.67
500 mA	100	27.65	29.03	29.37
	250	24.23	27.68	28.52
	500	18.53	25.42	27.10
	1,000	7.15	20.92	24.26
	1,500	-	16.41	21.43
750 mA	100	26.51	28.57	29.08
	250	21.39	26.55	27.81
	500	12.85	23.17	25.67
	1,000	-	16.41	21.43
	1,500	-	9.65	17.18
1 Amp	100	25.38	28.14	28.80
	250	18.53	25.42	27.10
	500	7.15	20.92	24.26
	1,000	-	11.90	18.59
	1,500	-	2.78	12.93

Camera will not function. Use larger gauge wire and/or shorter length of wire.


\* If over 29 Volts it's recommended to use a smaller gauge of wire and/or a longer length of wire.


# 12 Volt DC Voltage Drop Table

The Industry standard for voltage drop is 10%, (1.2 volts). This would be 10.8 volts at a 12VDC camera.

Results are an estimation based on normal conditions. The actual voltage drop can vary depending on the condition of the wire, the conduit being used, the temperature, the connector, the frequency etc.

Current Draw	Cable Length (feet)	Voltage at Camera	Voltage at Camera	Voltage at Camera
		22 AWG	18 AWG	16 AWG
100 mA	100	11.7	11.87	11.92
	300	11.12	11.61	11.76
	500	10.53	11.36	11.6
	1,000	9.06	10.71	11.2
	1,500	7.6	10.08	10.8
250 mA	100	11.26	11.68	11.8
	300	9.8	11.04	11.4
	500	8.32	10.4	11
	1,000	4.65	8.8	10
500 mA	100	10.53	11.36	11.6
	200	9.06	10.7	11.2
	300	7.6	10.08	10.8
	500	4.65	8.8	10
750 mA	100	9.8	11.04	11.4
	200	7.6	10.08	10.8
	300	5.38	9.12	10.2
	500	0.98	7.19	9
1 Amp	100	9.06	10.7	11.2
	200	6.12	9.44	10.4
	300	3.18	8.16	9.6
	500	0	5.6	8

 Below 10% voltage drop industry standard. Not recommended. The camera will still work, but it will be underpowered, putting it under unnecessary stress and decreasing its lifespan.


 Substantially below 10% voltage drop industry standard. Camera will not function.


# 24 Volt AC Voltage Drop Table

The Industry standard for voltage drop is 10%, (2.4 volts). This would be 21.6 volts at a 24VAC camera.

Results are an estimation based on normal conditions. The actual voltage drop can vary depending on the condition of the wire, the conduit being used, the temperature, the connector, the frequency etc.

Current Draw	Cable Length (feet)	Voltage at Camera	Voltage at Camera	Voltage at Camera
		22 AWG	18 AWG	16 AWG
100 mA	100	23.7	23.87	23.92
	300	23.12	23.61	23.76
	500	22.53	23.36	23.6
	1,000	21.06	22.72	23.2
	1,500	19.59	22.08	22.8
250 mA	100	23.26	23.68	23.8
	300	21.79	23.04	23.4
	500	20.32	22.4	23
	1,000	16.65	20.8	22
500 mA	100	22.53	23.36	23.6
	200	21.06	22.72	23.2
	300	19.59	22.08	22.8
	500	16.65	20.8	22
750 mA	100	21.79	23.04	23.4
	200	19.59	22.05	22.8
	300	17.38	21.12	22.2
	500	12.97	19.2	21
1 Amp	100	21.06	22.72	23.2
	200	18.12	21.43	22.4
	300	15.18	20.16	21.6
	500	9.3	17.6	20

 Below 10% voltage drop industry standard. Not recommended. The camera will still work, but it will be underpowered, putting it under unnecessary stress and decreasing its lifespan.

 Substantially below 10% voltage drop industry standard. Camera will not function.