

# MODEL Q-2 & Q-4

## TWO AND FOUR CHANNEL POWER SUPPLIES



- Provides two or four unregulated 24 VDC outputs rated at 300 mA
- Four input voltage configurations:
  - ◆ 120 VAC / 50 Hz
  - ◆ 120 VAC / 60 Hz
  - ◆ 240 VAC / 50 Hz
  - ◆ 240 VAC / 60 Hz
- Outputs can be paralleled for increased current capacity
- Power switch controls input line voltage
- Each output is indicated by a super-bright LED
- Fits all standard sized card racks

### Ordering Information

Model Q-X (XXXX-XXXX)

↑      ↑      ↑  
2 or 4: 2 = Two outputs, 4 = Four outputs  
120V or 240V: 120V = 120 VAC input voltage, 240V = 240 VAC input voltage  
50Hz or 60Hz: 50Hz = 50 Hz input voltage frequency, 60Hz = 60 Hz input voltage frequency

### Overview

The Model Q-2 and Model Q-4 power supplies transform 120 / 240 VAC, 50 / 60 Hz input power into unregulated 24 VDC. Each output is rated for 300 mA of load current and can be paralleled (via the rack wiring) for increased current capacity. The Model Q-2 has two outputs, the Model Q-4 has four outputs. The Model Q-2 and Model Q-4 are available in four input voltage configurations: 120 VAC / 50 Hz, 120 VAC / 60 Hz, 240 VAC / 50 Hz, and 240 VAC / 60 Hz. When ordering, be certain that the power supply input voltage and frequency match the card rack input voltage and frequency configuration.



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# MODEL Q-2 & Q-4 SPECIFICATIONS

This is a Performance Specification. It is not intended to be used as Operating Instructions.

**General Description** The Model Q-2 and Model Q-4 power supplies transform 120 / 240 VAC, 50 / 60 Hz input power into unregulated 24 VDC. The Model Q-2 has two outputs, the Model Q-4 has four outputs. Each output is rated for 300 mA of load current and can be paralleled (via the rack wiring) for increased current capability. The Model Q-2 and Model Q-4 are available in four input voltage configurations; 120 VAC / 50 Hz, 120 VAC / 60 Hz, 240 VAC / 50 Hz, and 240 VAC / 60 Hz.

**Detector Channel Capacity** The Model Q-2 can provide power for up to eight (8) detector channels. The Model Q-4 can provide power for up to sixteen (16) detector channels. Detector channel capacity ratings are per NEMA TS 1 / TS 2 standards.

**Output Indicators** Each output circuit has a high intensity, red light emitting diode (LED) that provides an indication of the output status. The indicators are illuminated when the circuit output voltage is greater than or equal to 20.0 ±0.2 VDC and are extinguished when the circuit output voltage is less than 20.0 ±0.2 VDC.

**Power Switch** A power switch mounted on the front panel controls the input line voltage.

**Fuse Protection** Each output circuit is protected by a 0.375 Amp fuse mounted in a PC board mounted fuse holder. The Model Q-2 has two (2) fuses, the Model Q-4 has four (4) fuses.

**Circuit Board** Printed circuit boards are 0.062 inch thick FR4 material with 2 oz. copper on both sides and plated through holes. Circuit boards and components are conformal coated with polyurethane.

**Connector** 2 x 22 contact edge card connector with 0.156 inch (0.396 cm) contact centers. Key slots located between pins B/2 & C/3, E/5 & F/6, and M/11 & N/12. (See **Pin Assignments** table.)

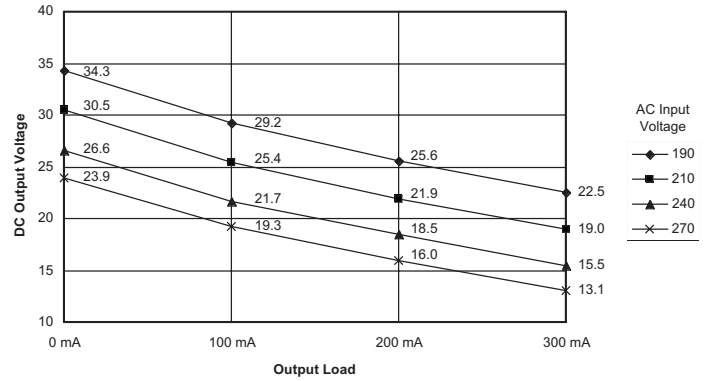
**Operating Temperature** -40° F to +180° F (-40° C to +82° C).

**Weight** Model Q-2: 1.50 lb (0.68 kg).

Model Q-4: 2.65 lb (1.20 kg).

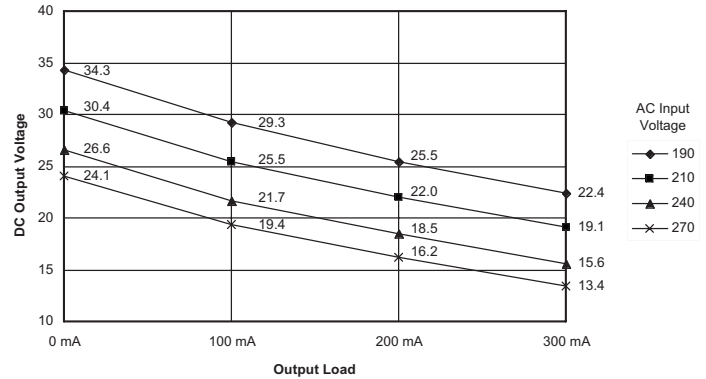
**Size** 4.50 inches (11.43 cm) high x 2.00 inches (5.08 cm) wide x 6.88 inches (17.48 cm) deep (including connector, excluding handle). Handle adds 1.00 inches (2.54 cm.) to depth measurement.

## 240 VAC / 50 Hz



NOTE: DC Output Voltage / Output Load Current shown for single output.

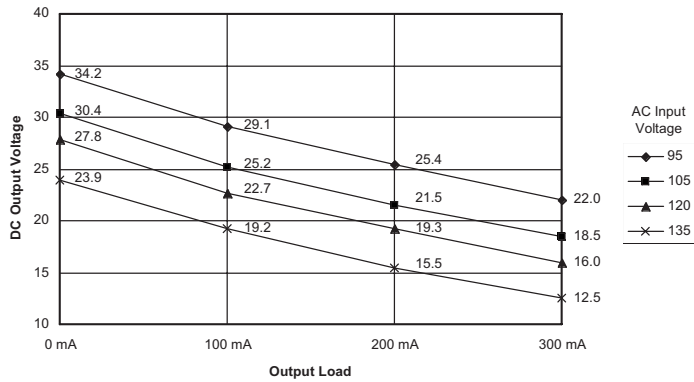
## 240 VAC / 60 Hz



NOTE: DC Output Voltage / Output Load Current shown for single output.

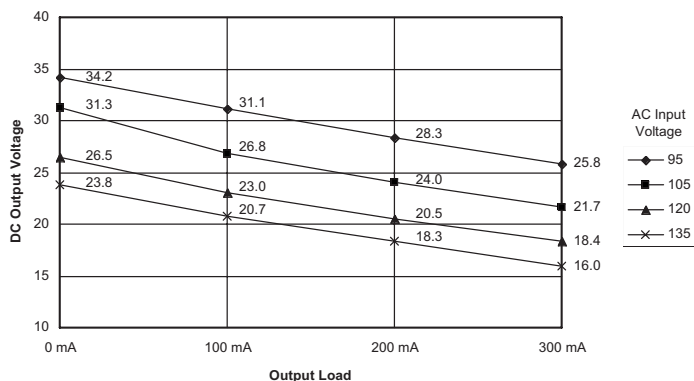
## DC Output Voltage and Output Load Current

### 120 VAC / 50 Hz



NOTE: DC Output Voltage / Output Load Current shown for single output.

### 120 VAC / 60 Hz



NOTE: DC Output Voltage / Output Load Current shown for single output.

## Pin Assignments

Pin	Function	
	Model Q-2	Model Q-4
1 & A	DC Common	DC Common
2 & B	Output 1 (+24 VDC)	Output 1 (+24 VDC)
3 & C	Output 2 (+24 VDC)	Output 2 (+24 VDC)
4 & D	No Connection	No Connection
5 & E	No Connection	No Connection
6 & F	No Connection	No Connection
7 & H	No Connection	No Connection
8 & J	No Connection	No Connection
9 & K	No Connection	No Connection
10 & L	Chassis Ground	Chassis Ground
11 & M	AC Neutral	AC Neutral
12 & N	AC Line	AC Line
13 & P	No Connection	No Connection
14 & R	No Connection	No Connection
15 & S	No Connection	No Connection
16 & T	No Connection	No Connection
17 & U	No Connection	Output 3 (+24 VDC)
18 & V	No Connection	Output 4 (+24 VDC)
19 & W	No Connection	No Connection
20 & X	No Connection	No Connection
21 & Y	No Connection	No Connection
22 & Z	No Connection	No Connection