

MODEL Q-24

CARD RACK POWER SUPPLY OPERATING INSTRUCTIONS



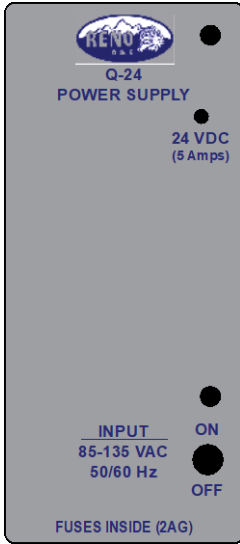
I General

The Model Q-24 power supply transforms 85 to 135 VAC, 50/60 Hz input power into regulated 24 VDC output. The Model Q-24 provides a single fused output voltage (24 VDC). The output is connected to eight (8) pins on the edge card connector (see **Connector / Pin Assignments**). All eight output pins are fused through a single 5 Amp fast blow 2AG fuse.

⚠ *Verify rack wiring before applying power.*

⚠ *Turn the power switch OFF before inserting or removing the power supply module.*

II Indicators and Controls



24 VDC LED Output Indicator


Illuminated

Output Voltage $\geq 21.6 \pm 0.2$ VDC


Extinguished

Output Voltage $< 21.6 \pm 0.2$ VDC

120 VAC Power Switch



CAUTION
RISK OF ELECTRICAL SHOCK



ALERT: When input power is applied, un-insulated voltages of sufficient magnitude to constitute a risk of electrical shock are present on the printed circuit board. Refer servicing to qualified service personnel.

III Protective Features

The Model Q-24 AC input is protected with a 2 Amp (slow blow) fuse. The DC power output is protected with a 5 Amp (fast blow) fuse. The two 2AG fuses are located on the PC board.

	Fuse Rating
Input	2AG, 250V, 2A, Slow Blow
Output	2AG, 125V, 5A, Fast Blow

IV Special Features

The Model Q-24 power supply incorporates power factor correction (≥ 0.95) and low harmonic distortion.

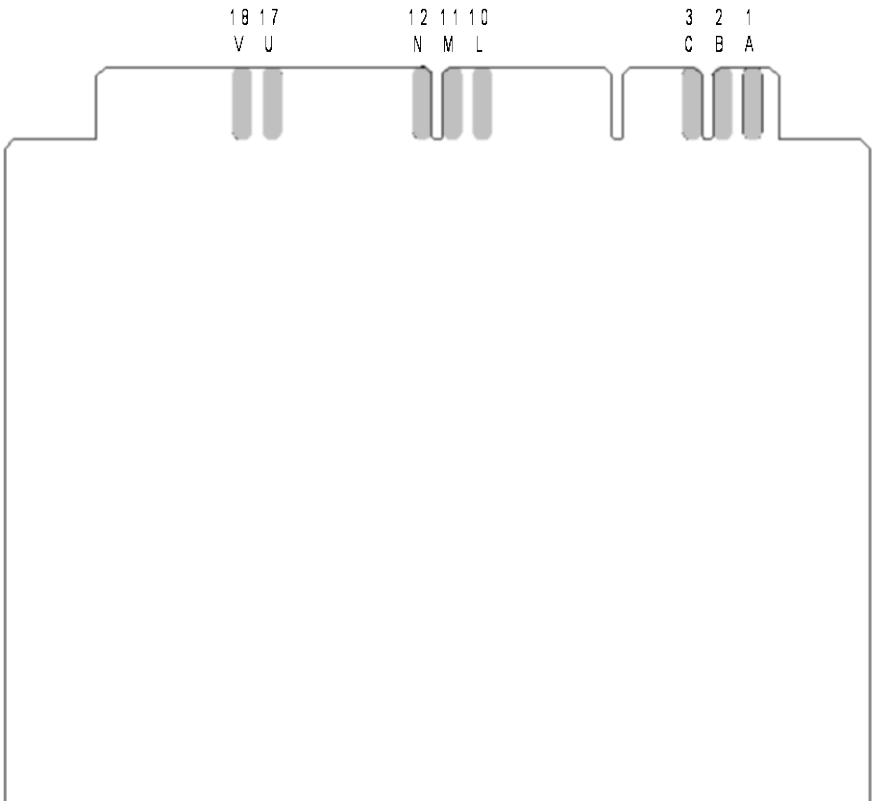
V Connector / Pin Assignments

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

Pin Assignments:

Pin	Function
1 / A	Output (DC Common)
2 / B	Output (+24 VDC)
3 / C	Output (+24 VDC)
10 / L	Chassis Ground
11 / M	AC Neutral
12 / N	AC Line
17 / U	Output (+24 VDC)
18 / V	Output (+24 VDC)

NOTE: All other pins have no contact pads.



Specifications

Electrical:

Input Line Voltage: 85 VAC to 135 VAC

Input Line Frequency: 47 to 63 Hz

Power Factor: > 0.95

Output Voltage: 24 VDC $\pm 2\%$

Output Ripple Voltage: < 80 mVp-p

Maximum Output Current: 5 Amps

Load Regulation: $\leq \pm 2\%$

Line Regulation: $\leq \pm 0.1\%$

Minimum Efficiency: >76%

Physical:

Weight: 0.862 lb

Size: 4.50" high x 2.00" wide x 6.88" deep (not including front handle).

Handle adds 1.00 inch to depth measurement.

Operating Temperature: -40°F to +180°

PC Board: Printed circuit board is 0.062 inch thick FR4 material with 2 oz. copper on both sides with plated through holes