

24 VDC POWER SUPPLY FA-24PS-90

OVERVIEW

The **Automationdirect.com** FA-24PS-90 24 VDC compact power supply accepts 95-135 or 190-264 VAC input (selectable) and provides up to 3.7 A continuous output current. It is easily installed, provides substantial protection and is low cost.

HARDWARE FEATURES

- ✓ The power supply can be flush or DIN rail mounted.
- ✓ Screw terminals eliminate the need for soldering during installation.
- ✓ The compact 4.5" by 3" foot print saves panel space.
- ✓ Only convection cooling is required for full power operation.

PROTECTION FEATURES

- ✓ **Brown-out protection** – provides temporary regulation down to 95 VAC at full load with no compromise in performance.
- ✓ **Over-voltage protection** – protects power supply from damage due to AC line surges.
- ✓ **Overload protection** – protects power supply from overload and short circuit conditions. Includes automatic recovery upon removal of the overload condition.
- ✓ **Thermal protection** – protects power supply from damage due to overheating. Thermal protection is self-resetting.
- ✓ **Overshoot protection** - no overshoot at turn-on or turn-off.

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GENERAL SPECIFICATIONS

Input Voltage Range	95-130 VAC or 190-264VAC, selectable
Input Voltage Frequency	47 to 63 Hz
Input Power	112 VA
Output Voltage	24 VDC \pm 5%
Output Current	3.7A maximum continuous, subject to derating
Output Ripple	\pm 200 mV maximum
Temperature Rating	0°C to 30°C full rated; derate current 1.1% per degree above 30°C; 60°C max.
Transient Response	Output stays within 1% for a load current change from 75% (2.8A) to either 50% (1.8A) or 100% (3.7A)
Screw terminals	Wire Size: 18-12 AWG Rec. Screw Torque: 4.4 in•lb or 0.5 Nm
Insulation Resistance	10 M Ω at 500 V minimum
Dielectric Withstand Voltage	L or N Input to Output, 500 V min. Ground Input to Output, 250 V min.

FLUSH MOUNTING

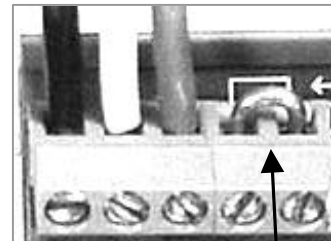
First remove the plastic case which protects the bottom of the power supply PCB. This may be done by pushing out the plastic along the 24VDC output side of the PCB with both thumbs. Then use the plastic case as a template to locate the mounting holes in the enclosure. Finally, install the plastic case to the panel with two low profile pan head screws with no washer. This will provide ample isolation clearance between the mounting hardware and the power supply circuitry. The use of socket head cap screws with washers is not recommended.

DIN RAIL MOUNTING

Two mounting brackets are provided which enable the power supply to be attached to a DIN #3 rail. The mounting brackets snap into the plastic case which protects the bottom of the power supply.

INPUT WIRING

The "L" and "N" terminals are the AC input line and neutral connection points respectively. The frame ground connection point may be used to reduce power supply noise levels or as required by any applicable codes or standards. Install an 18 -12 AWG wire jumper at 4th and 5th input screw terminals for 115VAC use. Do *not* install the jumper for 230VAC use.



Jumper installed for use with 115VAC.

OUTPUT WIRING

Optimum load regulation is provided where a single point ground is used. When loads are daisy chained, the finite wire resistance between loads will introduce voltage drops.