

November 1999 Data Sheet 11.10

Description

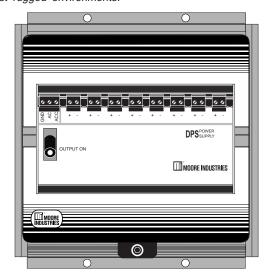
Moore Industries' DPS series of DIN power supplies provide a 24Vdc (or 42Vdc for 240 mA) output voltage at either 240mA or 1200mA output current. Ideal for powering 2-wire transmitters and data communication modules, the DPS 240 can be used to power a maximum of twelve 4-20mA loops, while the DPS 1200 can power a maximum of sixty 4-20mA loops.

DPS power supplies are designed with continuous short circuit and short term (i.e., <15 sec.) overload protection. Offering input/output isolation, convection cooling, and a derated circuit design, the DPS 1200mA units automatically compensate for extremely wide input voltage variations while maintaining a constant output voltage.

Each DPS unit is enclosed in a DIN housing and is ideally suited for high density installations. Any number of the DPS power supplies, along with any other type of DIN-housed instruments, can be snapped on a rail, and the rail can be mounted anywhere—on a wall, in a rack, or in a field-mount enclosure, such as the Moore Industries' *R-BOX*.

Designed to meet NEMA 4X and IP66 ratings, the *R-BOX* is resistant to ultraviolet rays and chemicals. Its high impact structure protects your DPS and other instruments even in harsh field conditions. With a variety of sizes to choose from, we can provide an *R-BOX* to protect most any process instrument.

Figure 1. Available in a variety of widths, Moore Industries' R-BOX is designed to protect your DIN-rail units in even the most rugged environments.





Moore Industries' DPS Series of DIN rail-mounted power supplies are typically used for powering process signal transmitters and data communications modules.

Features

- Isolated output voltage. Each DPS unit provides complete isolation between the input and output terminals and the unit case, thereby assuring that power supply fluctuation from line power will not affect instrument accuracy.
- Compact/efficient design. Compact, DIN-style housing, designed especially for industrial environments, allows any number of instruments to be mounted on a single rail. Depending on the output capabilities selected, a single DPS power supply can power up to 12 (DPS 240) or 60 (DPS 1200) process loops.
- Many different uses. Although primarily used with loop-powered transmitters, the DPS power supply is also ideally suited for use with data communication modules, such as Moore Industries' CCS® Cable Concentrator System®.

Certifications (DPS 1200)



CSA, General Locations

Specifications

Front Panel Voltage Adjust Control: Adjustments Adjustable multiturn potentiometer (240mA)

Voltage On Indicator: Red LED turns off for 240mA or 1200mA on fault condition (i.e., short circuit,

overload, etc.) +T/-T: Input and output signal terminals for connecting calibration test equipment (i.e., voltmeter, multimeter, etc.) (240mA

only)

Performance Efficiency: 70% typical, rated at full-load. Output regulation:

240mA: 0.5%, maximum,

Performance low line to high line; (continued)

1200mA: 1%, maximum, low line to high line Load: 240mA: 1%

maximum, no load to full load; 1200mA 1% maximum (±40% change from 60% of rated load) Ripple: 240mA: 50mV, peak-to-peak, maximum 1200mA: 100mV, maximum (100kHz); 200mV,

maximum (10mHz) Hold-up Time:

1200mA: 20ms, minimum

Ambient Range: 240mA: Temperature

0°C to +70°C (+32°F to +158°F) Ambient 1200mA: 0°C to +50°C

Temperature (+32°F to +122°F) (continued) Effect: 240mA: ±0.03%

per °C, maximum 1200mA: ±0.05% per °C

maximum

Isolation 1100 Vrms between case,

input, and output

Frequency Switching Frequency:

240mA: Linear 1200mA: > 20kHz Input Frequency: 240mA: 48 to 62Hz 1200mA: 47 to 450Hz

Weight 240mA: 2.0lbs (908grams)

1200mA: 2.5lbs (1.14kg)

Ordering Information

	Unit	Output Voltage	Output Current	Power	Options	Housing
Ī	DPS	Model 240mA: 24DC or 42DC Model 1200mA: 24DC (adjustable ±10% internal to unit)	240MA 1200MA maximum at 50°C	117AC 220AC 240AC 90-260AC*	-RTB (240mA only) Provides quick disconnect terminal blocks to facilitate wiring changes; no tools needed to remove wiring (standard on DPS1200)	DIN DIN-style rail-mount housing

To order, specify: Unit / Output Voltage / Output Current / Power / Options [Housing] Model Number Example: DPS / 24DC / 1200MA / 117AC [DIN]

* DPS 1200 only

Figure 2. DPS 240 Mounting Dimensions

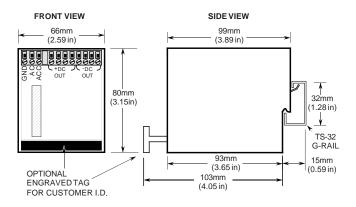
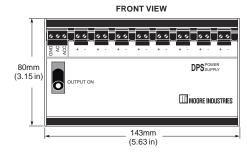
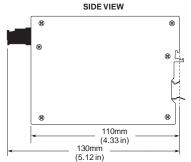


Figure 3. DPS 1200 Mounting Dimensions





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