



Fully Digital 800 Watt Bulk Front-End Power Supply

Emerson Network Power announced a new 800 watt bulk front-end power supply that meets the 80 PLUS Gold standard for efficiency.

The DS800SL-3 power supply has an exceptionally high efficiency of 92 percent when operating at half-load from a 230 Vac input, combined with a typical power factor in excess of 0.98. It enables system designers to minimize space requirements in enterprise servers and similar space-constrained applications.

Input

- Efficiency: > 92% peak
- Hold-up Time: > 10 mSec
- Power Factor: >0.98
- Input Range: 90-264 VAC
- Frequency: 47-63 Hz

Output

- Output Rating: 12V/66.7A and 5VSB/4A; 800W continuous power
- Short Circuit: >150% of rated current
- Load Sharing: Active load sharing within 10% at full load
- Redundant Mode Operation with Built-in Oring: 10
- Output Ripple: 120mVp-p
- OCP, OVP, and OTP: Included in spec



Special Features:

- 800W output power in a slim-line outline
- 18.7 W/cu-in
- N+1 Redundant
- Hot-Swap
- Internal OR'ing
- 5.0 V housekeeping
- High efficiency (92% @ 230 VAC) 50% load
- Variable speed smart fan
- EMI Class B
- EN61000 Immunity
- PMBus



Fully Digital 800 Watt Bulk Front-End Power Supply from Emerson Network Power Features 80 PLUS Gold Standard Efficiency

Carlsbad, Calif. [5 December 2012] — A new 800 watt bulk front-end power supply from Emerson Network Power, a business of Emerson (NYSE:EMR) and the global leader in enabling *Business-Critical Continuity™*, meets the 80 PLUS Gold standard for efficiency. The **DS800SL-3** power supply has an exceptionally high efficiency of 92 percent when operating at half-load from a 230 Vac input, combined with a typical power factor in excess of 0.99.

With a high power density of 19.05 W/in³ (1.16 W/cm³) in a slim-line rack-mounting package, DS800SL-3 power supplies enable system designers to minimize space requirements in enterprise servers and similar space-constrained applications.

The new DS800SL-3 is a fully digital design; it features a built-in I2C serial bus interface and uses the industry-standard PMBus™ communications protocol. Developed primarily for systems employing distributed power architectures, the power supply has a wide input voltage range of 90 to 264 Vac and is rated for 800 watts output power. The main 12 Vdc payload output is programmable by plus/minus 10 percent, and can deliver up to 65.7 A continuously. An auxiliary 'always on' 5 Vdc output, rated at 2.4 A, is also provided for powering server management circuits. Both outputs are tightly regulated, have no minimum load requirement, and offer remote sensing – the 12 Vdc output can compensate for a load bus drop of up to 200 mV.

Opposite-end ac input and dc outputs facilitate fast replacement in the field, and the dc output card edge connector is compatible with the Intel® standard for high availability power supplies for the always-on enterprise market. The power supply features built-in Oring and active load sharing facilities, and supports hot swap operation for fault tolerant and N+1 redundancy applications, allowing as many as six power supplies to be connected in parallel. Up to four DS800SL-3 power supplies can be programmed to share current from their 12 Vdc outputs; if each power supply is delivering 40-50 percent of its rated output to the load, current will be shared to an accuracy of 5 percent, simplifying users' implementation of high availability power schemes significantly.

The power supplies have an operating temperature range of -10 to 50 degrees Celsius with no derating, and feature a built-in cooling fan with automatic speed control; forward and reversed airflow versions are available to simplify integration with the rack's cooling layout.

The power supplies are comprehensively protected against fault conditions, including input undervoltage, output short-circuit, overload and overvoltage. The power factor correction and output converter stages are both monitored for overtemperature conditions, and correct operation of the fan is also checked. DS800SL-3 power supplies have a demonstrated mean time between failure (MTBF) of 100,000 hours, running at full load and 25 degrees Celsius ambient, and are backed by a comprehensive two year warranty.

About Emerson Network Power

Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling Business-Critical Continuity™ from grid to chip for telecommunication networks, data centers, health care and industrial facilities. Emerson Network Power provides innovative solutions and expertise in areas including AC and DC power and precision cooling systems, embedded computing and power, integrated racks and enclosures, power switching and controls, infrastructure management, and connectivity. All solutions are supported globally by local Emerson Network Power service technicians. For more information on Emerson Network Power's embedded power products and services for original equipment manufacturers and system integrators visit