Matrox® NRG
Redundant Power Supply Unit

Matrox NRG is a multi-output redundant power supply that comes pre-installed on a rackmount shelf. It includes two hot swappable power supply modules offering uninterrupted operation in case of a power module failure as well as a redundant power input in case a circuit breaker trips. Further the NRG RPSU features IP connectivity for status monitoring and output power control.

Key Features

- Pre-installed on a 1U rackmount shelf.
- Standard 1 RU, ½ rack width form factor.
- Includes two redundant power modules (300W each).
- Hot swappable.
- Power up to five (5) appliances simultaneously.
- GPIO port to signal error condition.
- 10/100Base-T for remote monitoring and controlling via management software or web browser.
- Recessed rocker switch to turn the device on and off.
- Device status LEDs.

Compatible Matrox Products

- Maevex 6100 Series video encoders and decoders
- Maevex 6020 Remote Recorder
- Monarch EDGE, Monarch HDX, and Monarch LCS video encoders and decoders
- Extio 3 Series IP KVM appliances
- QuadHead2Go multi-monitor controller appliances

Full redundancy for up to 5 devices

Matrox NRG includes two field replaceable redundant power supply modules of 300W each. If one of the power supply modules fails, the output load will be completely supported by the second power module. The modules deliver hot-swap functionality, so you can replace an individual power module without interrupting the 12 volt outputs of the NRG. Automatic load balancing ensures even usage of both power supplies and extends the life of each.

Device monitoring and control

Monitor the status and control the outputs of the power supply unit remotely over IP. Through a convenient password protected and HTTPS encrypted web interface, you can turn individual 12V outputs on and off and monitor the status of each power supply module. An independent GPIO can also be used to monitor power module failures. The device also features LEDs that provide status of each 12V output and AC input.

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Technical Specifications

Product

Part number
- NRG-5-1DB
- NRG-5-2DB

Form factor
- Rack mountable: 2 NRG units = 1U (horizontal)

Connectivity

Network connector
- 1x RJ45 with status LED indicators

GPIO
- GPIO output port to signal error condition

Network

Network standard
- 10/100 Base-T Ethernet

IP addressing
- IPv4, DHCP (default), and static IP

Command and control
- HTTPS over TCP
- Web-based interface compatible with most browsers (including mobile devices)
- REST-based API for easy integration*

Power inputs (per NRG unit)

Number of AC inputs
- 2

Input voltage
- 100-240V a.c.

Input frequency range
- 50-60 Hz

Input current
- 5A @ 115V a.c. or 2.5A @ 230V a.c.

Power outputs (per NRG unit)

Number of DC outputs
- 5

Output connector type
- DIN4 female connector

Output voltage
- 12V

Maximum current per output
- Output 1: 3A
- Outputs 2-5: 5A

* Available in future release.

Physical

Overall dimensions (LxWxH)
- 1 RU (19 x 11.45 x 1.75 inches) (48.3cm x 29.1cm x 4.4cm)

Dimensions of NRG unit on tray
- 8.5 x 9.6 x 1.7 inches (21.6cm x 24.4cm x 4.3cm)

Weight
- Single unit: 6.17 lbs (2800 g)
- With packaging: 9.47 lbs (4300 g)
- Dual unit: 10.58 lbs (4800 g)
- With packaging: 14.33 lbs (6500 g)

Capacity

Number of devices powered per NRG unit
- Extio 3 Series = 4
- Maevex 6100 Series = 4
- Maevex 6020 = 4
- Monarch EDGE Series = 4
- Monarch HDX & LCS = 5
- QuadHead2Go Series = 5

Product SKUs, Accessories, and Kit Contents

NRG-5-1DB
- Rack tray with one (1) pre-installed NRG RPSU
- One 6 foot, double ended DIN4 cable
- 4 x M3 device mounting screws
- 4 x Tray mounting screws

NRG-5-2DB
- Rack tray with two (2) pre-installed NRG RPSU
- Two 6 foot, double ended DIN4 cables
- 4 x Tray mounting screws

NRG-5-PM
- Spare or replacement power module

CAB-DIN4-6FT-4
- Kit of four (4) 6-foot cables with DIN4 locking connector to connect Matrox appliances to 12v RPSU outputs

Environmental

Operational Environments
- Temperature: 0 to 50 C (-4 to 176 F)
- Humidity: 20 to 80% (non-condensing)
- Atmospheric pressure: 660hPa (3,000 meters / 9,842 feet) to 1013hPa (0 meters / 0 feet)

Non-Operational/Transportation
- Temperature: -20 to 80 C (32 to 122 F)
- Humidity: 10 to 90% (non-condensing)
- Atmospheric Pressure: 192hPa (12,000 meters / 39,370 feet)

Power Consumption
- 300W max

General

Emissions
- FCC part 15 class A, CISPR 32 (EN 55032) class A, ICES-003 class A

Harmonic current
- IEC/EN 61000-3-2
- Immunity
- CISPR 35 (EN55035)

Safety approvals
- CAN/CSA C22.2 No. 62368-1-14; UL 62368-1 (2014), IEC 62368-1 (Ed. 2.0)

Warranty
- 2 years

Single Density Unit (NRG-5-1DB)

Dual Density Unit (NRG-5-2DB)

Back of unit

Matrox NRG single-density and dual-density power supply units are permanently installed on the rackmount shelf. The NRG units can't be removed or uninstalled from the rackmount shelf.

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