

Ampmeter PDU, Switched PDU

Minimize network downtime with an smart PDU

High availability

Input Current monitoring of the connected equipment in the rack cabinet can significantly enhance- IT & network equipment uptime.

Each Intelligent PDU includes a digital display indicator for local, real-time reading of the aggregate current used by the connected devices.

NM (Network-Managed) versions add remote in-band or out-of-band supervision.

Setting up the alarm threshold of the PDU input current will provide a safety margin. This will dramatically reduce the risk of upstream protection tripping due to:

- ▶ Overload. For example, installation of new servers is routinely needed but they may exceed the rated power draw.
- ▶ Inrush current generated by simultaneous device start-up when installed in the same cabinet. Switched PDUs allow for sequential start-up to prevent this.

Supervision and remote maintenance

70% of locked-up server issues are solved through a power reboot. Switched PDUs can achieve this task remotely to save time and money. MGE Office Protection Systems designed the Ampmeter PDU 12 NM 2U for dual power supply devices like blade servers.

NM models provide 2 ports for connection of temperature/humidity sensors to simultaneously monitor the environment conditions at the bottom and top of the rack enclosure. Status, conditions and thresholds of NM versions can also be monitored and controlled from a web interface.

These products can also be integrated with MGE Enterprise Power Manager supervision platform or any NMS by means of their SNMP protocol.

Device	Current	Power	Status	Temperature	Humidity
Server 1	10.5	150W	OK	25°C	45%
Server 2	12.0	180W	OK	25°C	45%
Server 3	11.0	160W	OK	25°C	45%
Server 4	13.5	200W	OK	25°C	45%
Server 5	10.0	140W	OK	25°C	45%
Server 6	11.5	170W	OK	25°C	45%
Server 7	12.5	190W	OK	25°C	45%
Server 8	10.5	150W	OK	25°C	45%
Server 9	11.0	160W	OK	25°C	45%
Server 10	12.0	180W	OK	25°C	45%
Server 11	11.5	170W	OK	25°C	45%
Server 12	13.0	190W	OK	25°C	45%

Safety and reliability

Safety of the PDU remote operation is ensured by:

- ▶ Encryption and authentication (SSL/SSH).
- ▶ Different administration levels allowing to lock some strategic outlets.
- ▶ "Out-of-band" administration to manage the PDU remotely even in case of a network failure.
- ▶ Cable lock system for inlet and outlets.

Easy installation

Based on the PDU model, mounting options include horizontal (1 or 2U) or vertical.

Intelligent Power Distribution Units are ideal for:

- ▶ Data Centers
- ▶ Telecom infrastructure
- ▶ Remote server management
- ▶ Enterprise networks



Telecoms



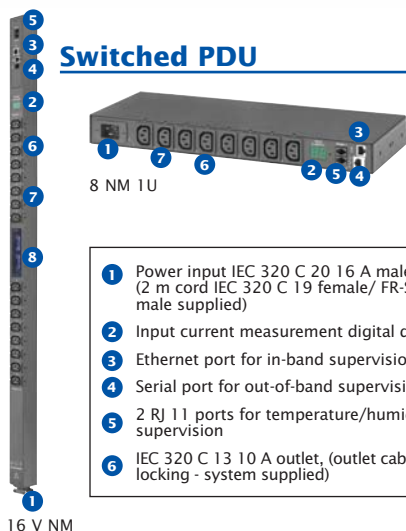
Enterprise networks

M G E

Office Protection Systems

An Eaton Brand

Ampmeter PDU, Switched PDU



Switched PDU



8 NM 1U

- | | |
|--|---|
| 1 Power input IEC 320 C 20 16 A male inlet (2 m cord IEC 320 C 19 female/ FR-Schuko male supplied) | 7 Outlet status LED |
| 2 Input current measurement digital display | 8 Fuse (1 for each 6 outlet branche) |
| 3 Ethernet port for in-band supervision | 9 Terminal block connection with strain relief coupling |
| 4 Serial port for out-of-band supervision | 10 IEC outlet C 320 C 19, 16 Amp |
| 5 2 RJ 11 ports for temperature/humidity supervision | |
| 6 IEC 320 C 13 10 A outlet, (outlet cable locking - system supplied) | |

16 V NM

Ampmeter PDU



12 NM 2U

12 V

Technical characteristics

Ampmeter PDU	12 V / 68 140	12 NM 2U / 68 152
Dynamic current measurement	digital display for local supervision	local (1 display per 2-outlet group) and remote supervision through Web browser or modem
Alarm threshold setting for input current		local setting through RJ 45 port and remote setting via Webbrowser
Humidity rate and temperature supervision		MGE sensor for PDU (option)
Input / output		
Voltage, frequency input & output / input current rating	230 V (Ph+N), 50/60 Hz / 16 A	230 V (Ph+N), 50/60 Hz / 32 A (2 x 16 A single phase input)
Inlet type	1 x IEC 320 C 20 16 A male inlet (2 m cord IEC 320 C 19 femal/ FR-Schuko male supplied). Inlet cable locking system supplied	2 x 16 A single phase input hard wired with strain relief coupling
Outlet type	12 x IEC 320 C 13, cable locking system	12 x IEC 320 C 19, cable locking system, 1 LED per outlet for local status supervision
Maximum current rating per outlet/per outlet group	10 A / 16 A max per each 6-outlet group	16 A / 16 A max per each 6-outlet group
Dimensions / Weight		
Mounting mode	rack mounting (0U), 2 removable flanges supplied	horizontal rack mounting (2U), 2 mounting brackets supplied
(H x W x D) in mm / weight in kg	794 x 45 x 57 / 5.3 kg	89 (2U) x 437 x 254 / 7.7 kg

Switched PDU	8 NM 1U / 68 130	16 V NM / 68 134
Outlet remote management via in-band and out of band supervision, power-up sequencing, dynamic current measurement of the connected equipment	remote supervision via modem or Ethernet port (Telnet/HTML/SSH/SNMP) digital display dedicated to current measurement for local supervision	
Input current alarm threshold	remote setting and local setting through RJ 45 port	
Temperature/Humidity supervision	MGE sensor for PDU (option)	
Input / output		
Voltage, frequency input & output, input current rating	230 V (Ph+N), 50/60 Hz, 16 Amp	
Inlet type	1 x IEC 320 C 20 16 A male inlet (2 m cord IEC 320 C 19 female/FR-Schuko male supplied). Inlet cable locking system supplied	
Outlet type	8 x IEC 320 C 13, 1 LED per outlet for local status supervision, cable locking system	16 x IEC 320 C 13, 1 LED per outlet for local status supervision, cable locking system
Maximum current rating per outlet/per outlet group	10 A / 16 A max per each 8-outlet group	
Dimensions / Weight		
Mounting mode	horizontal rack mounting (1U), 2 mounting brackets	vertical rack mounting, 2 removable flanges supplied with brackets
(H x W x D) in mm / weight in kg	44 x 437 x 177 mm / 3 kg	1156 x 44 x 57 mm / 3.4 kg

	MGE Sensor for PDU / 68 170	Switched PDU 8 redundant 1U / 68 132	Switched PDU 16 V redundant / 68 136
Main features	Temperature/humidity supervision, alarm threshold settings	slave expansion module for 8 NM: synchronous remote reboot and power on/off commands for dual cord servers - expansion of the Switched PDU 8 NM functions from 8 to 16 outlets	slave expansion module for 16 V NM: synchronous remote reboot and power on/off commands for dual cord servers - expansion of the Switched PDU 16 NM functions from 16 to 32 outlets
Input / output			
Port	connection to 2 RJ 11 ports of the PDU	RS 232 Link port on front face for connection to NM master models	
(H x W x D) in mm, weight in kg	3050 x 10 / 0.1 kg	44 x 437 x 177 mm / 3 kg	1156 x 44 x 57 mm / 3.4 kg

Safety standard, operating temperature, warranty CE, UL, TUV, 0°C to 50°C, 2 Years