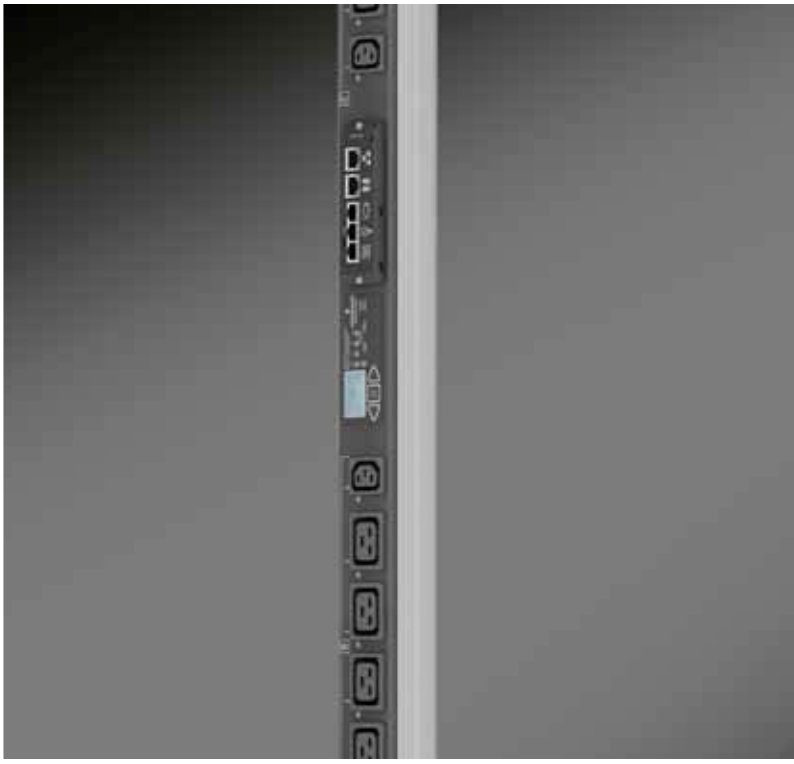
Managed Rack PDU MPH2™

More efficient – Simpler – Better



EMERSON
Network Power

MPH2™
Managed Rack PDU

The newly developed Managed Rack PDU MPH2™ is a power supply system with monitoring and control functions.

Standout features of the MPH2™ are simple integration into rack and management architectures along with the highest levels of availability and energy efficiency. The housing comprises a compact aluminum profile, allowing easy, space-saving installation in Knürr racks or in other housing systems. Depending on the model, the MPH2™ can be installed vertically or horizontally (19").

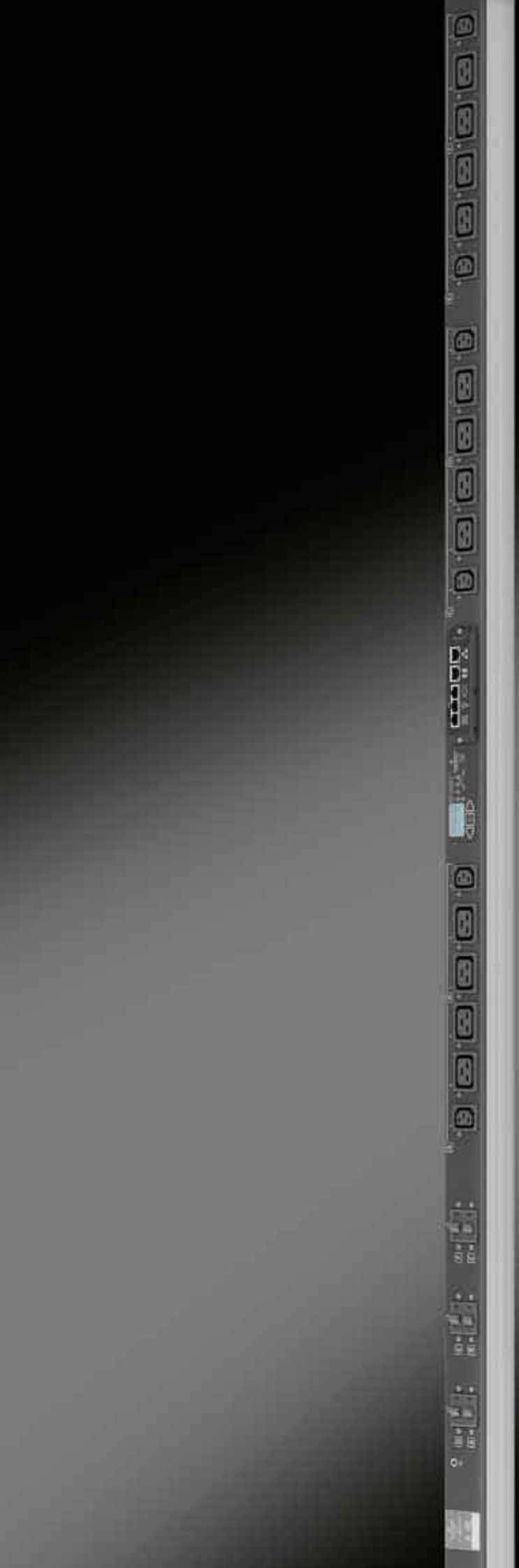
Display

Slim profile Circuit Breaker

Patented flexible power cord entry

Special features:

- Extensive measurement and switching functions with high measurement accuracy of up to ± 1 % up to output port level.
- Easy integration into Trellis™ or other available DCIM systems.
- The compact design with an ultraflat circuit breaker minimizes the amount of space needed in the rack.
- Simple mounting without tools for different rack systems.
- Can also come installed in Knürr racks on delivery.
- Highest possible security and availability with an operating temperature of up to +60 °C.
- Highest level of energy efficiency with power losses of less than 5 W, even in switchable models.
- The input cable can be securely connected.
- Patented cable entry system, flexible cable routing in all directions.



INPUT POWER

- 16 to 32A (EU)
- Single phase and three phase

OUTPUT CONFIGURATIONS

- IEC-C13 and IEC-C19
- Combinations possible

MODULARITY

- Communication card
- External Display
- External Sensors

MONITORING

- Input level
- Branch level
- Output level
- Temperature and Humidity
- Door contacts and Input contacts

REMOTE SOCKET CONTROL

- Output level

Managed Rack PDU MPH2™ is used for easy monitoring and controlling of the power supply in server racks.

MPH2™
Monitoring and Control of the Systems

Benefits

Highest availability levels

- Modular communications card; can be replaced during ongoing operation. This simplifies maintenance and increases the level of availability.
- Bi-stable relays in switchable designs; the server is always supplied power, even in the event of faults.
- Software-controlled overload protection – affected outputs are switched off before the advance fuse is activated.
- Additional measurement of the neutral conductor and of the crest factor; possible faults that cause switch-off are already detected in advance.

State-of-the-art technology in many areas

- Operating temperatures of up to 60 °C allow secure operation in the warm aisle.
- A measurement accuracy of +- 1 % ensures reliable measurement results.
- Power losses of less than 5 W, even in switchable models, reduce electricity costs and minimize the thermal load.

Sector-leading management properties

- Securely integrated local display and an optional external display offering flexibility in local management.
- An onboard web interface and CLI/SSH interface, both equally suitable for Windows and Linux administration.
- A variety of authentication options and encrypted protocols ensure integration into Enterprise Security architectures.
- SNMPv3 and IPv6 support so that topical requirements, particularly from the public sector, can be satisfied.

Simple integration into ENP solutions

- Can be delivered already installed in Knürr racks to save time and costs during installation in the data center.
- Serial integration into Avocent UMG, ACS and MPU guarantees redundant management access to the MPH2™.
- Integration into ENP software solutions; the MPH2™ is therefore part of a full DCIM solution with monitoring and control functions.

MPH2™
Integration into Knürr DCM Rack

Patented rack fastening without tools

Locking of the server connecting cables

Modular Communications Card RPC-2k
Web, CLI, sensor, USB, display array interfaces

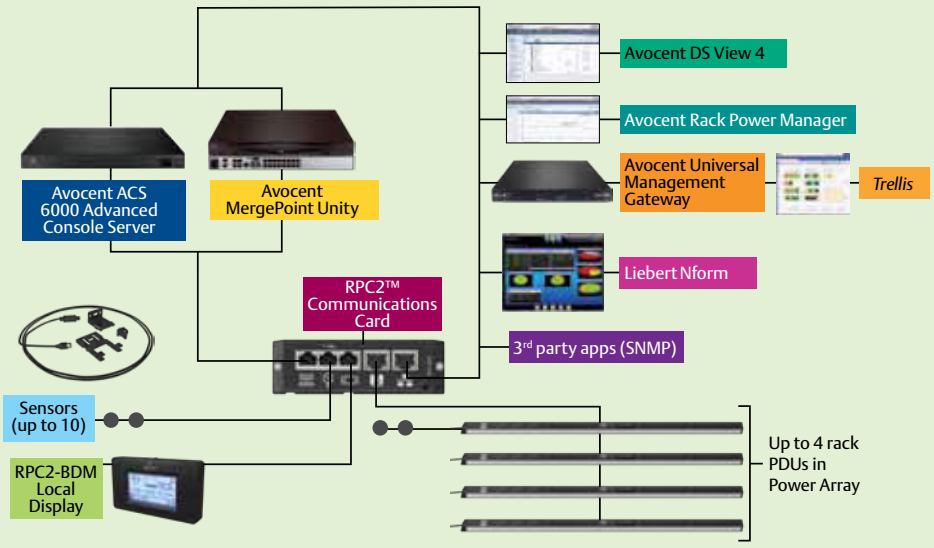
Display

Measurement per phase, group and output, switching per output

Ultraflat circuit breakers

Patented flexible cable entry

MPH2™ – Rack PDU Power Management and Monitoring Interfaces



Emerson Network Power Rack PDUs support all major industry-standard management, authentication and encryption standards and protocols, and they fully integrate into Emerson Network Power´s industry-leading KVM, serial console and infrastructure management systems. Plus, they integrate rack level power and environmental monitoring information from the PDUs with higher level data center management software provided by Emerson or third parties.

Infrastructure Management

Avocent Rack Power Manager software

- Centralized configuration, event logging and management of all Rack PDU´s
- Centralized permissioning and remote authentication leveraging Active Directory, LDAP, Radios, Kerberos etc.
- Grouping capabilities for power control or for power consumption reports
- Canned and custom power consumption reports with scheduling option

Secure Web/SNMP Interfaces

- User configured alarm thresholds
- High alarm warning:: low alarm
- Receptable state and sequencing configuration
- Electrical metering
- Rack PDU Array – Device consolidation use a single IP for up to four rack PDUs, with MPX and MPH2 PDUs on the same private network
- PDU Explorer – Intuitive hierarchical interface
- View PDU status by strip or receptacle
- Device Explorer – Browsing by user defined device name

Liebert SiteScan Web

- Centralized monitoring software
- Provides real-time monitoring and control

Liebert Nform IT Based Centralized Monitoring Software

- Trending of power
- Receptacle group control

Monitoring anywhere you need it

From the individual receptacle of each discrete device to the complete rack PDU, monitoring is available to meet user needs. Displays are designed for easy user location to fit changing site needs.

Display and sensors are designed for easy mounting on the rack. A single display can manage up to four MPX™ or MPH2™ systems and associated monitoring accessories.

Optional Hardware

RPC2-BDM Local Display Module

- Electrical and environmental parameters
- One RPC2-BDM supports up to 4 PDUs on array
- PDU explorer
- Device Explorer

Liebert SN Family Of Rack Sensors

- Modular and integrated systems
- Temerature, humidity and contact probes
- Auto-config – no set-up required

MPH2™
Equipment models in Europe

Data sheet MPH2™ EMEA	MPH2™ B	MPH2™ C	MPH2™ M	MPH2™ R
Function	Unit Metered	Unit Metered Outlet Switched	Outlet Metered	Unit Metered Outlet Switched
Form Factor	0U,1U			
Mounting	Preinstalled Toolless brackets Universal Mounting bracket Ability to ship PDU preinstalled in Emerson Racks			
Input Power Options	230V 1-ph 16A/32A 230/400V 3-ph 16A/32A			
Input Wiring Options	3m pluggable power cord / hardwired			
Max. Capacity	22,2kW			
Outlet options	IEC320 C13, C19, Locking capability on all outlets			
Maximum Outlets	Strip Metered: 42 Outlet Metered and / or Switched: 24			
Metering Levels	Input, Phase, Branch	Input, Phase, Branch	Input, Phase, Branch Outlet	Input, Phase, Branch Outlet
Parameters Measured	Volts, Current, kW, kVA, Power Factor, Crest Factor, Frequency			
Metering Accuracy	+/-1 %			
Switching Capability	N/A	On, Off, Recycle, Lock, Unlock, Outlet Grouping Capability	N/A	On, Off, Recycle, Lock, Unlock, Outlet Grouping Capability
Modularity	Communication Card RPC2k			
Local Management	Local Display, Optional Remote Display			
Remote Management	Onboard Web Interface; CLI; SNMP; SSH; Telnet Integration with Avocent ACS, UMG&MPU; Integration with DSView; Rack Power Manager, NformTM&TrellisTM			
SNMP version support	v1,v2 and v3			
Authentication	Local; Remote: Active Directory, LDAP, TACACS, Radius, Kerberos			
Encryption	MD5, AES, DES			
Operating Temp. Range	0°C to 60°C			
Storage Temp. Range	-25°C to 85°C			
Relative Humidity	5 % to 95 %			
Overcurrent Protection	Software Electronic Overcurrent Protection 100 % Rated 20A Branch Overcurrent Protection - Hydraulic Magnetic Circuit Breakers			
Idle Power Consumption	3W-5W			
0U units Width x Depth	56 mm x 50 mm			
0U units Length	916,5 mm / 1004mm / 1736,5 mm / 1826,5 mm			
Product Compliance	CE, RoHS, REACH, WEEE, EMC, LVD			
Agenncy Approvals	BV-BG, CB			

About Emerson Network Power

Emerson Network Power, a business of Emerson (NYSE:EMR), delivers software, hardware and services that maximize availability, capacity and efficiency for data centers, healthcare providers and industrial facilities. A trusted industry leader in smart infrastructure technologies, Emerson Network Power provides innovative data-center infrastructure management solutions that bridge the gap between IT and facility management and deliver efficiency and uncompromised availability regardless of capacity demands. Our solutions are supported around the world by local Emerson Network Power service technicians. Learn more about Emerson Network Power products and services at:

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