

# MPH2™ Managed Rack PDU: Advanced Monitoring And Control Support

MPH2 is the most intelligent, high-availability line of managed rack PDUs. It offers remote monitoring and control capabilities and environmental sensing options, with multiple power input selections, output configurations, and form factors.

Models in 0U, 1U, and 2U form factors are available in the following versions:

- Outlet Level Metered and Switched
- Outlet Level Metered
- Rack PDU Metered and Outlet Switched
- Rack PDU Metered



## MPH2 Benefits

- **Monitors electrical and environmental parameters** with user-configurable threshold and alarm tools
- **Controls and manages individual receptacles** and/or groups of loads and devices
- **Allows you to predict failing conditions** before they occur to proactively manage mission critical devices for maximum uptime
- **Energy and power metering** to optimize the data center power and cooling infrastructure
- **Lowest power consumption** of all switched rack PDU designs ensures lower operating costs
- **Up to four MPH2 rack PDUs may be interconnected** as a Rack PDU Array™, consolidating user IP connections and device monitoring

## Designed for Critical Environments

- **Industry leading operating temperature** — up to 60° C / 140° F to support increasingly hot exhaust-side environments
- **Bi-stable relays ensure power distribution** continues in the event that intelligence is compromised
- **Accurate power metering** of +/-1% voltage and current for assured oversight
- **Energy and power metering** down to the individual receptacle
- **Comprehensive alarming including notification** of overloaded branch circuits
- **Environmental sensing** with threshold and alarm set-points
- **Notification** on the loss or removal of individual rack equipment loads

## MPH2 Savings for a Typical Data Center

|   | Typical 24 Outlet Rack PDU | MPH2 |
|---|----------------------------|------|
| Rack PDU power consumption (Watts)                            | 23                         | 7.5  |
| Rack PDU annual energy consumption (kWh) —24x7x365            | 202                        | 66   |
| Overall contribution to datacenter energy consumption (kWh)*  | 383                        | 125  |
| Cost of energy consumption (based on average cost of 10¢/kWh) | \$38                       | \$13 |
| Annual savings per pdu with MPH2                              |                            | \$26 |

|   |                |
|---|----------------|
| <b>Annual savings per rack with MPH2</b>              | <b>\$52</b>    |
| <b>Annual savings within the datacenter with MPH2</b> | <b>\$5,160</b> |

Based on a comparison of switched rack PDU models for a typical 100 rack data center with a PUE of 1.9.

\* per Energy Logic calculations

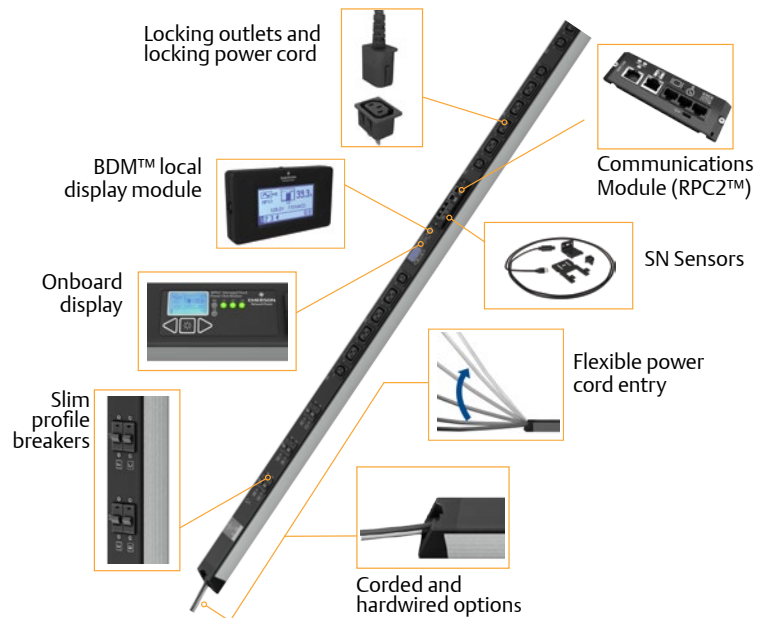
Also available  
in 1U and 2U models



# MPH2™ Managed Rack PDU: Advanced Monitoring And Control Support

| MPH2™                                     |   |
|---|---|
| <b>Mounting</b>                           | Preinstalled Toolless brackets<br>Universal Mounting bracket<br>Optional pre-installation in Emerson and other vendor racks             |
| <b>Input Power Options North America</b>  | 100 - 120V 1-ph 15A/20A/30A<br>200 - 240V 1-ph 20/30A<br>200 - 240V 3-ph 20/30/50/60A<br>208/120V 3-ph 20/30A<br>415V/240V 3-ph 20A/30A |
| <b>Input Power Options International</b>  | 230V 1-ph 16A/32A<br>230/400V 3-ph 16A/32A/63A  |
| <b>Input Wiring Options</b>               | 10 ft. pluggable power cord or Hardwired  |
| <b>Max. Capacity North America</b>        | 17.2 kW   |
| <b>Max. Capacity International</b>        | 22.2 kW   |
| <b>Outlet Options</b>                     | NEMA 5-20; Locking IEC 320C13 and C19   |
| <b>Maximum Outlets</b>                    | Strip Metered: 42<br>Outlet Metered and / or Switched: 24   |
| <b>Maximum Operating Temp. Range</b>      | 0°C to 60°C<br>(32°F to 140°F)  |
| <b>Storage Temperature Range</b>          | -25°C to 85°C (-13°F to 185°F)  |
| <b>Relative Humidity</b>                  | 5% to 95%   |
| <b>Overcurrent Protection</b>             | Software Electronic Overcurrent Protection<br>100% Rated 20A Branch Overcurrent Protection - Hydraulic Magnetic Circuit Breakers        |
| <b>Idle Power Consumption</b>             | 3W - 5W   |
| <b>0U Units Width x Depth</b>             | 0U Low profile: 56mm x 5mm (2.2in x 1.96in)<br>0U Standard: 56mm x 70mm (2.2in x 2.7in)   |
| <b>0U units Length</b>                    | 916 mm / 1004 mm /<br>1737 mm / 1827 mm<br>(36 in) / (39.5 in) / (68.4 in) / (72 in)  |
| <b>1U/2U Units Width x Height x Depth</b> | 1U: 482.6mm x 44mm x 250mm<br>(19in x 1.73in x 9.84in)<br>2U: 482.6mm x 88mm x 250mm<br>(19in x 3.46in x 9.84in)                        |
| <b>Standard Warranty</b>                  | 2 years; Extended Warranties Available  |
| <b>Agency Approvals</b>                   | UL, CSA, CE, RoHS, REACH, FCC Class A, CB, WEEE, ISTA   |

|                             |  |
|-----------------------------|--|
| <b>Metering Levels</b>      | Aggregate, Branch, Phase, Outlet   |
| <b>Parameters Measured</b>  | Volts, Current, kW, KVA, kWh, Power Factor, Crest Factor, Frequency  |
| <b>Metering Accuracy</b>    | +/-1%  |
| <b>Switching Capability</b> | On, Off, Recycle, Lock, Unlock, Outlet Grouping Capability   |
| <b>Modularity</b>           | RPC2 communications module   |
| <b>Local Management</b>     | Onboard Display, Optional Local Display  |
| <b>Remote Management</b>    | Onboard Web Interface; CLI; SNMP; SSH; Telnet<br>Integration with Avocent® ACS, Avocent Universal Management Gateway & Avocent MergePoint™ Unity<br>Integration with DSView®, Rack Power Manager, Nform™ and the Trellis™ platform |
| <b>SNMP version support</b> | v1, v2 and v3  |
| <b>Authentication</b>       | Local<br>Remote: Active Directory, LDAP, TACACS, Radius, Kerberos  |
| <b>Encryption</b>           | MD5, AES, DES  |



## Seamless DCIM Manageability and Integration

**DCIM**

- Avocent® Universal Management Gateway
- Trellis™ Platform

**Critical Equipment Monitoring Solutions**

- Liebert® Nform™
- Liebert SiteScan®
- 3rd party apps (SNMP)

**Out of Band Access and Control Solutions**

- Avocent Advanced Console Server
- Avocent MergePoint® Unity
- Avocent DSView4.5™

**Centralized PDU Management**

- Rack Power Manager

**RPC2™ Communications Module**

**Command Line Interface**

**Web User Interface**

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