

## Avocent Data Sheet

# Avocent Power Management 10/20 Series Distribution Units (PM 10/20 PDUs)

## Integrated Remote Power Management and Distribution for Use in Branch and Remote Offices



Avocent PM 10 Horizontal PDU

Avocent PM PDUs enable remote power control and system management of IT assets in branch and remote offices. When used in conjunction with Avocent ACS advanced console servers, MergePoint Unity® KVM over IP and serial console switches or DSR® KVM over IP switch appliances, the Avocent PM PDUs offer quick problem resolution through an integrated management interface. With one or more outlets positively associated with a particular device, users may control power “in line” through a user-defined “hot key” or by using an intuitive Web browser-based graphical user interface (GUI). In addition, a special command set facilitates scripting.

### NEMA Models

Avocent NEMA PM PDU models are equipped with 5-15R power outlets and fixed power cables. These units are available in 15A, 20A and 30A capacities with optional twist-lock input plugs. Each model includes two RS-232 ports: one for management and the second for daisy-chain expansion. Daisy chaining allows an operator to control up to 128 power outlets as a single device. The NEMA models are designed to operate in 100-125 VAC environments.

### IEC Models

Avocent IEC PM PDU models are equipped with IEC320-C13 power outlets and either IEC320 modular inlets or fixed power cables. These units are available in 10A, 15A, 16A, 20A, 30A and 32A capacities. Each model includes two RS-232 ports: one for management and the second for daisy-chain expansion. Daisy chaining allows an operator to control up to 128 power outlets as a single device. The IEC models are designed to operate in 100-240 VAC environments.

An LED display shows the real-time, true RMS current draw. Each PM PDU may be configured to sound an alarm during an overcurrent condition, and if it is connected to an Avocent ACS console server, the PDU may also send notifications via e-mail messages, Short Message Service (SMS) pager messages and SNMP traps.

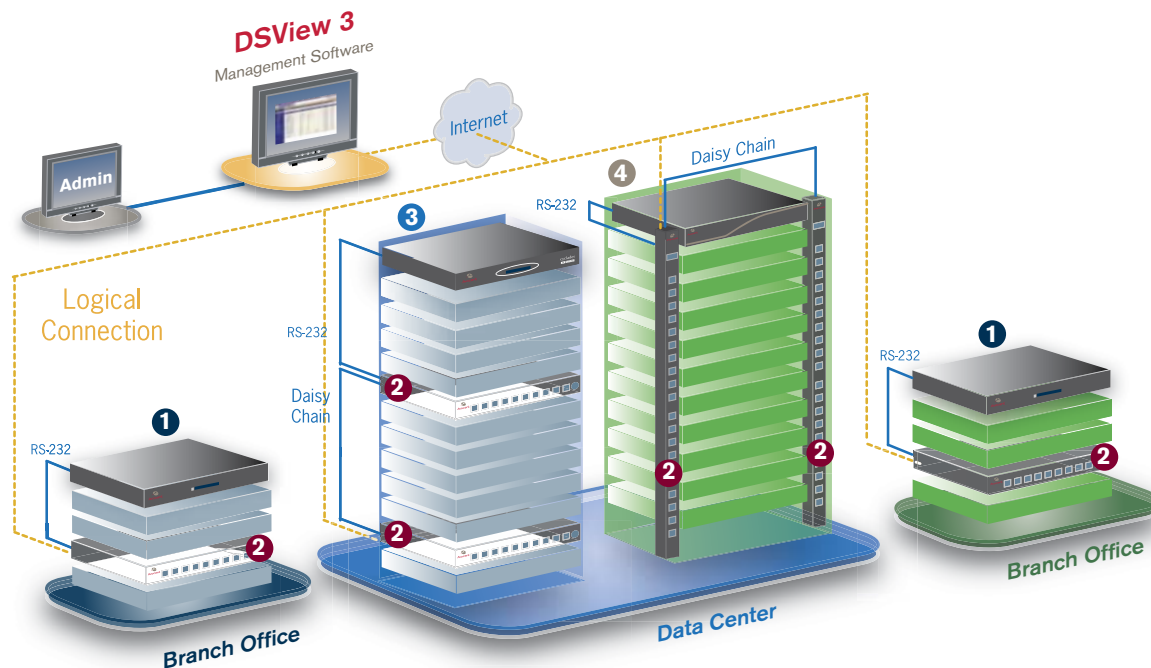
## Quick Facts

- Power control over remote IT assets from anywhere on earth
- Seamless integration with other Avocent appliances and with the DSView® 3 management software
- Proactive fault management and isolation
- Fault notifications via e-mail, SMS page and SNMP traps

## Benefits

- Restore practically any IT asset without dispatching service personnel
- Virtually eliminate power control errors during crisis situations
- Improve administrative efficiency with integrated control functions
- Proactively identify and manage problems to improve mean time between failure (MTBF)
- Reduce risk, reduce mean time to repair (MTTR)
- Conserve valuable IP addresses and switch ports

## Typical PM Appliance Configuration



- 1 MergePoint Unity**  
KVM and Serial over IP  
Serial Console Appliance
- 2 Avocent PM**  
PDUs
- 3 Avocent ACS**  
Advanced Console Server
- 4 DSR**  
KVM over IP  
Appliance

## Features

### Connectivity

- RS-232 serial port for configuration and management
- Second RS-232 serial port for control-level daisy chaining (up to 128 outlets)
- Full RS-232 signal support allows dial-in access via modem

### Administration

- Name assignment per PDU (up to 8 characters)
- Name assignment per outlet (up to 16 characters)
- Local authentication support (up to 8 users)
- Per-outlet access control lists

### Management

- Independent control of power outlets (power on/off, cycle)
- Virtual lock per outlet (on or off states)
- Sequential power up with user-defined inter-outlet delays
- Global, true RMS current monitoring per PDU
- Two-digit 7-segment LED current display
- On/off status LED per outlet
- User-defined overcurrent threshold with alarm
- Built-in visual and audible alarms
- Built-in ambient temperature sensor

### Form Factors

- Industry's highest outlet density (up to 10 outlets per 1U)
- Horizontal (1U) and vertical (0U) models address a wide variety of applications

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### Integration Features\*

- Integrated power management through console and KVM sessions
- CLI, menu and GUI interfaces
- Multi-outlet grouping for devices with redundant power supplies
- RADIUS, TACACS+, Kerberos, LDAP and Active Directory server-based, authentication with local fallback
- Token-based strong authentication (RSA SecurID)
- Event logging via syslog
- Fault notification via e-mail, SMS page, SNMP trap
- SNMP integration with enterprise systems

\* Features available when product is used in conjunction with Avocent ACS console servers, DSR and MergePoint Unity switches or DSView 3 management software (not included).

## IEC Models' Specifications

### Power

#### PM 10i-10A PDU

100–240 VAC, 10 A, IEC 320-C14 inlet  
10 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 10i-15A\* PDU

100–240 VAC, 15 A, IEC 320-C14 inlet  
15 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 10i-16A PDU

100–240 VAC, 16 A, IEC 320-C20 inlet  
16 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 10i-20A,\* PM 20i-20A\* PDUs

100–240 VAC, 20 A, IEC 320-C20 inlet  
20 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 10i-L30A,\* PM 20i-L30A\* PDUs

100–240 VAC, 30 A, NEMA L6-30P twist-lock plug  
30 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 10i-32A, PM 20i-32A PDUs

100–240 VAC, 32 A, IEC 309 plug  
32 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 10i-32Au, PM 20i-32Au PDUs

100–240 VAC, 32 A, unterminated cable  
32 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

#### PM 20i-16A PDU

100–240 VAC, 16 A, IEC 320-C20 inlet  
16 A max. branch circuit rating (10 A max. per IEC 320-C13 outlet)

### Interfaces

2 RJ-45 RS-232 serial ports (9,600 8-N-1)  
10 or 20 IEC 320-C13 outlets

### Recommended Operating Temperature

50°F to 104°F (10°C to 40°C)

### Maximum Operating Temperature

122°F (50°C)

### Storage Temperature

–40°F to 185°F (–40°C to 85°C)

### Humidity

5% to 95% non-condensing

### Dimensions (W x D x H)

#### PM 10i-10A, -15A, -16A, -20A PDUs

17 x 8 x 1.75 in. (43.18 x 20.32 x 4.45 cm)

#### PM 10i-L30A, -32A, -32Au PDUs

17 x 12 x 1.75 in. (43.18 x 30.48 x 4.45 cm)

#### PM 20i-16A, -20A, -L30A, -32A, -32Au PDUs

2 x 2.8 x 66 in. (5.08 x 7.11 x 167.64 cm)

### Weight

#### PM 10i PDU

11.1 lbs. (5.0 kg)

#### PM 20i PDU

14.1 lbs. (6.4 kg)

*\*Units are certified to 80% of max. current rating.*

*†International models.*

## INPUTS



### NEMA L6-30P

on fixed 8-foot power cord



### Unterminated

on fixed 8-foot power cord



### IEC 309

on fixed 8-foot power cord



### IEC 320-C14

modular inlet



### IEC 320-C20

modular inlet

## OUTLETS



### IEC 320-C13

modular

## ORDERING DETAILS FOR IEC PM PDU APPLIANCES

PART #	PDU	DESCRIPTION
ATP3110	PM 10i-10A	10 outlets, 10 A max. branch, IEC 320-C14
ATP3115-001	PM 10i-15A	10 outlets, 15 A max. branch, IEC 320-C14
ATP3116	PM 10i-16A	10 outlets, 16 A max. branch, IEC 320-C20
ATP3120-001	PM 10i-20A	10 outlets, 20 A max. branch, IEC 320-C20
ATP3231-001	PM 10i-L30A	10 outlets, 30 A max. branch, NEMA L6-30P
ATP3230	PM 10i-32A	10 outlets, 32 A max. branch, IEC 309
ATP3232	PM 10i-32A	10 outlets, 32 A max. branch, unterminated
ATP2116	PM 20i-16A	20 outlets, 16 A max. branch, IEC 320-C20
ATP2120-001	PM 20i-20A	20 outlets, 20 A max. branch, IEC 320-C20
ATP3130-001	PM 20i-L30A	20 outlets, 30 A max. branch, NEMA L6-30P
ATP2132	PM 20i-32A	20 outlets, 32 A max. branch, IEC 309
ATP2131	PM 20i-32Au	20 outlets, 32 A max. branch, unterminated

*For country-specific availability, please contact an Avocent sales representative.*

## ORDERING DETAILS FOR CABLES AND ACCESSORIES

PART #	TYPE	DESCRIPTION
CAB0055	PM 10i PDU, 10 A power cable	8 ft., IEC320-C13 to AS3112, AUS & NZ
CAB0087	PM 10i PDU, 10 A power cable	8 ft., IEC320-C13 to CEE 7/7 Schuko,
CAB0088	PM 10i PDU, 10 A power cable	8 ft., IEC320-C13 to BS1363, UK &
CAB0089	PM 10i PDU, 10 A power cable	8 ft., IEC320-C13 to NEMA 5-15P, USA
CAB0191	PM 10i PDU, 15 A power cable	8 ft., IEC320-C13 to NEMA 6-15P, USA
CAB0192	PM 10i PDU, PM 20i, 16 A power cable	8 ft., IEC320-C19 to AS3112,
CAB0193	PM 10i PDU, PM 20i, 16 A power cable	8 ft., IEC320-C19 to CEE 7/7
CAB0194	PM 10i PDU, PM 20i, 16 A power cable	8 ft., IEC320-C19 to BS1363,
CAB0195	PM 10i PDU, PM 20i, 20 A US power cable	8 ft., IEC320-C19 to NEMA
CAB0197	PM 10i PDU, PM 20i, 20 A US power cable	8 ft., IEC320-C19 to NEMA
CAB0198	PM 10i PDU, PM 20i, 20 A US power cable	8 ft., IEC320-C19 to NEMA

**NEMA Models' Specifications**

Power\*

**PM 10-15A PDU**

100–125 VAC, 15 A, NEMA 5-15P plug  
 15 A max. branch circuit rating  
 15 A max. per NEMA 5-15R outlet

**PM 10-20A, PM20-20A PDUs**

100–125 VAC, 20 A, NEMA 5-20P plug  
 20 A max. branch circuit rating  
 15 A max. per NEMA 5-15R outlet

**PM 10-L20A, PM20-L20A PDUs**

100–125 VAC, 20 A, NEMA L5-20P twist-lock plug  
 20 A max. branch circuit rating  
 15 A max. per NEMA 5-15R outlet

**PM 10-L30A, PM20-L30A PDUs**

100–125 VAC, 30 A, NEMA L5-30P twist-lock plug  
 30 A max. branch circuit rating  
 15 A max. per NEMA 5-15R outlet

100–125 VAC, 30 A, NEMA L5-30P twist-lock plug  
 30 A max. branch circuit rating  
 15 A max. per NEMA 5-15R outlet

Interfaces

2 RJ-45 RS-232 serial ports (9,600 B-N-1)  
 10 or 20 NEMA 5-15R outlets

Recommended Operating Temperature  
 50°F to 104°F (10°C to 40°C)

Maximum Operating Temperature  
 122°F (50°C)

Storage Temperature  
 –40°F to 185°F (–40°C to 85°C)

Humidity  
 5% to 95% non-condensing

Dimensions (W x D x H)  
**PM 10-15A, -20A, -L20A PDUs**  
 17 x 8.25 x 1.75 in. (43.18 x 20.96 x 4.45 cm)

**PM 10-L30A PDUs**  
 17 x 8.5 x 1.75 in. (43.18 x 21.59 x 4.45 cm)

**PM 20-20A, -L20A, -L30A PDUs**  
 1.8 x 2.2 x 66 in. (4.57 x 5.56 x 167.64 cm)

Weight  
**PM 10 PDU**  
 8.8 lbs. (4.0 kg)  
**PM 20 PDU**  
 12.4 lbs. (5.6 kg)

\*Units are certified to 80% of max. current rating.

INPUTS



NEMA 5-15P  
 on fixed 12-foot power cord



NEMA 5-20P  
 on fixed 12-foot power cord



NEMA L5-20P  
 on fixed 12-foot power cord



NEMA L5-30P  
 on fixed 8-foot power cord

**ORDERING DETAILS FOR NEMA PM APPLIANCES**

PART #	PDU	DESCRIPTION
ATP3015-001	PM 10-15A	10 outlets, 15 A max. branch, NEMA 5-15P
ATP3020-001	PM 10-20A	10 outlets, 20 A max. branch, NEMA 5-20P
ATP3025-001	PM 10-L20A	10 outlets, 20 A max. branch, NEMA L5-20P
ATP3036-001	PM 10-L30A	10 outlets, 30 A max. branch, NEMA L5-30P
ATP2020-001	PM 20-20A	20 outlets, 20 A max. branch, NEMA 5-20P
ATP2025-001	PM 20-L20A	20 outlets, 20 A max. branch, NEMA L5-20P
ATP2035-001	PM 20-L30A	20 outlets, 30 A max. branch, NEMA L5-30P

OUTLETS



NEMA 5-15R