



Instruction Manual

Rack PDU
XP Series

geistglobal.com



Table of Contents

Specifications	4
Overview.....	4
Environmental.....	4
Temperature	4
Humidity	4
Elevation	4
Electrical.....	4
Receptacle Ratings.....	4
EMC Verification.....	4
Installation	6
Instructions.....	6
Guidelines.....	6
Mounting	7
Optional Local Monitoring	14
Power Meter.....	14
Current Meter.....	14
Service/Tech Support	15
Service and Maintenance.....	15
More Technical Support.....	15
Revision History	15

Specifications

Overview

The XP Series products are Power Distribution Units (PDU) intended for connection to a 30 Amp AC Mains circuit.* The PDUs are designed to be powered by either a single phase or a three phase AC input circuit. Three phase units can be configured for either a delta or wye input connection. XP Series PDUs can optionally be configured with a Geist Current Meter that provides local monitoring and display of each output circuit current.

*Global Versions of the XP Series are intended to be connected to a 32 Amp AC Mains Branch Circuit

Environmental

Temperature

Operating:	10°C (50°F) min	45°C (113°F) max
Storage:	-25°C (-13°F) min	65°C (149°F) max

Humidity

Operating:	5% min 95% max	(non-condensing)
Storage:	5% min 95% max	(non-condensing)

Elevation

Operating:	0 m (0 ft) min	2000 m (6561 ft) max
Storage:	0 m (0 ft) min	15240 m (50000 ft) max

Electrical

See nameplate for unit ratings.

Receptacle Ratings

NEMA 5-15R or L5-15R	125 Volts, 15 Amp
NEMA 5-20R or L5-20R	125 Volts, 20 Amp
NEMA 6-20R or L6-20R	250 Volts, 20 Amp
IEC-320 C13	125/250 Volt, 15 Amp (per Receptacle Bank)
IEC-320 C19	125/250 Volt, 20 Amp

EMC Verification

This Class A device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Installation

Instructions

1. Using appropriate hardware, mount PDU to rack (see *Mounting* section for additional instructions).
2. Plug PDU into de-energized 30 Amp branch circuit receptacle.**
3. Connect devices into PDU's output receptacles. It is recommended that the devices are turned off until all devices are connected to PDU
4. Turn on branch circuit to energize PDU.
5. Power on devices. Sequential power up is recommended to avoid high inrush current.

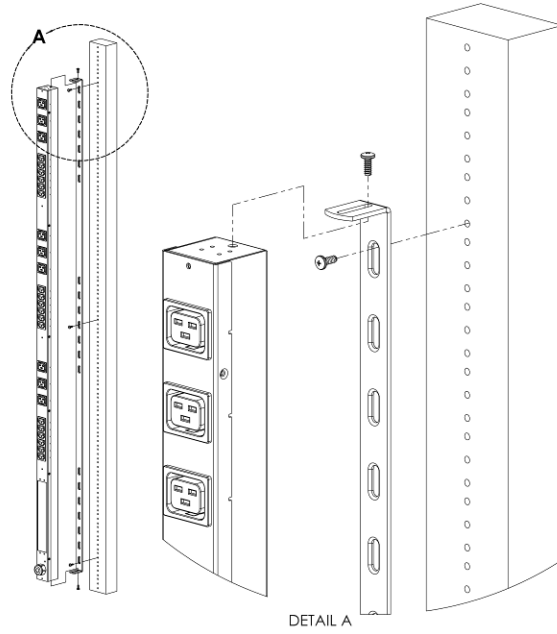
**Branch Circuit should be sized based on the PDU's nameplate electrical rating. A 24 Amp rated PDU is intended for use on a 30 Amp Branch Circuit. For Global Units a 32 Amp rated PDU is intended for use on a 32 Amp Branch Circuit.

Guidelines

- If the PDU is installed in a cabinet the ambient temperature of the rack should be no greater than 45°C.
- Install the PDU such that the amount of airflow required for safe operation of equipment is not compromised.
- Mount the PDU so that a hazardous condition is not achieved due to uneven mechanical loading.
- Follow nameplate ratings when connecting equipment to the branch circuit. Take into consideration the effect that overloading of the circuits might have on over-current protection and supply wiring.
- The PDU relies on the building installation for protection from over-current conditions. A certified overcurrent protection device is required in the building installation. The overcurrent protection device should be sized according to the PDU's nameplate ratings and local/national electrical codes.
- Reliable earthing of rack-mount equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit. The PDU must be connected to an earthed socket-outlet.***
- The PDU is intended for Restricted Access Locations only and only qualified service personnel should install and access the PDU.
- For pluggable equipment, install the PDU so that the input plug or appliance coupler may be disconnected for service.
- Sequential power-up of devices powered by the PDU is recommended to avoid high inrush current.
- **Caution:** Disconnect all power cords before servicing.
- The PDU is intended for use with TN, TT, or IT power supply systems

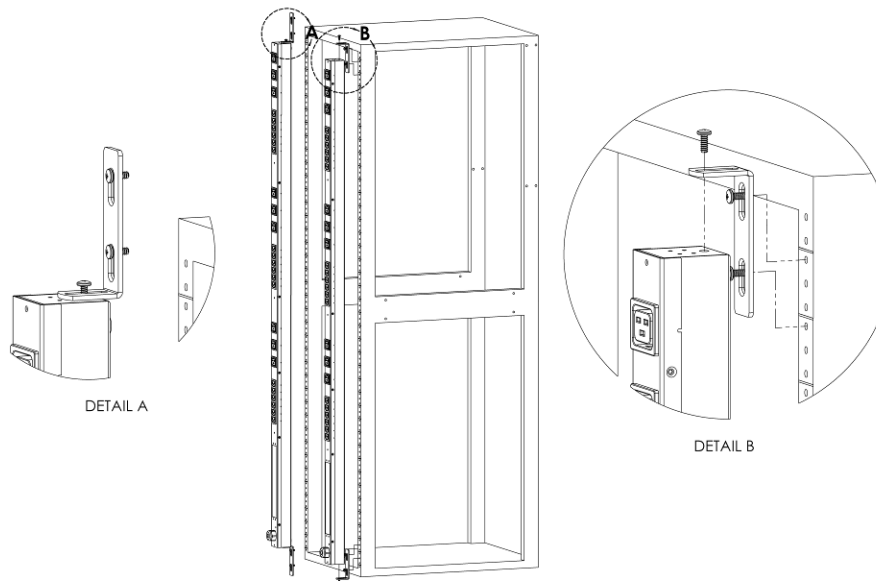
***XP Series PDUs may optionally be configured as Isolated Ground units. All Isolated Ground units will be shipped with an enclosure grounding cable. This cable must be connected between the enclosure and a reliable safety ground.

Mounting



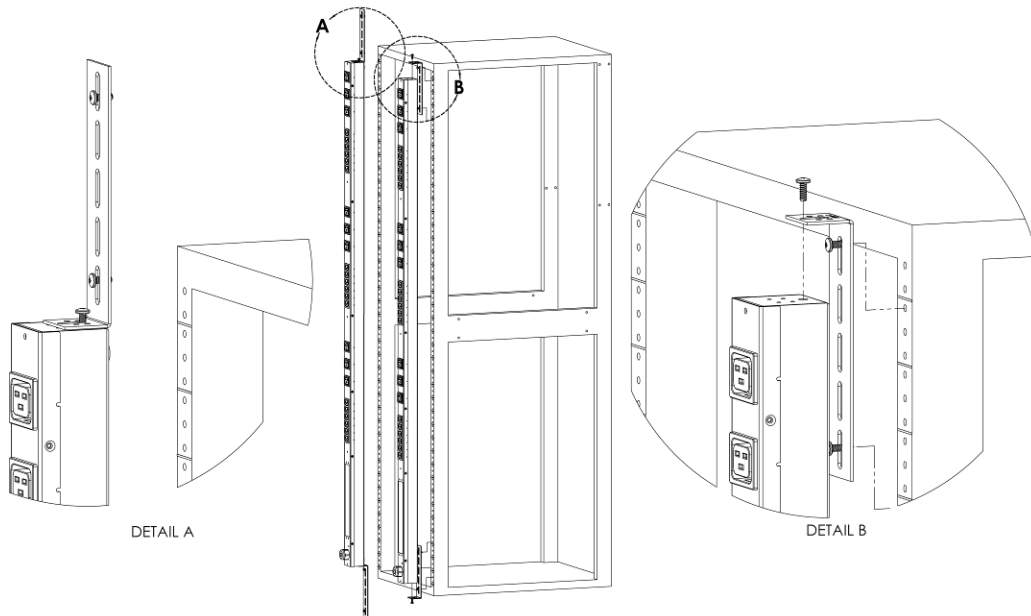
Full Length Bracket

Using the full length bracket, mount PDU to rack as shown



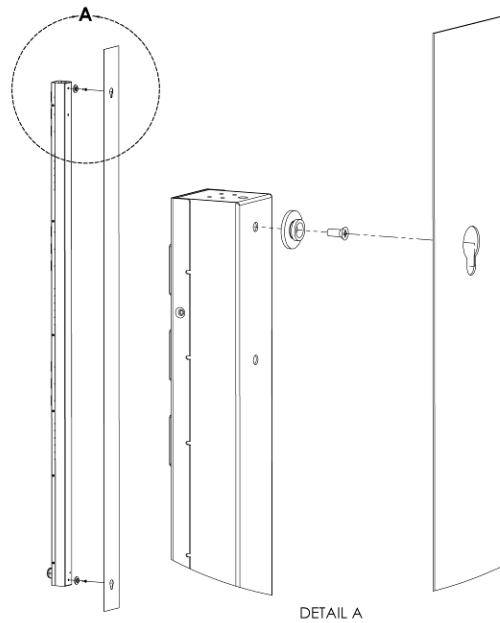
Mini "L" Brackets (SLB-4)

Using the mini “L” brackets, attach PDU to rack as shown



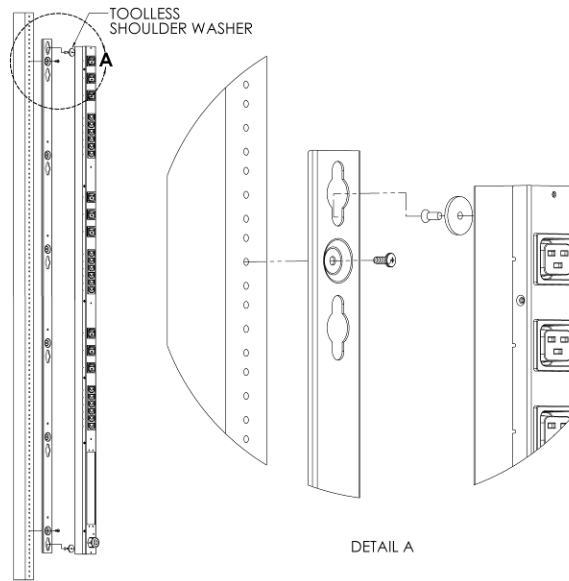
Vertical Extension Brackets (VCB-1)

Using the vertical extension brackets, attach PDU to rack as shown



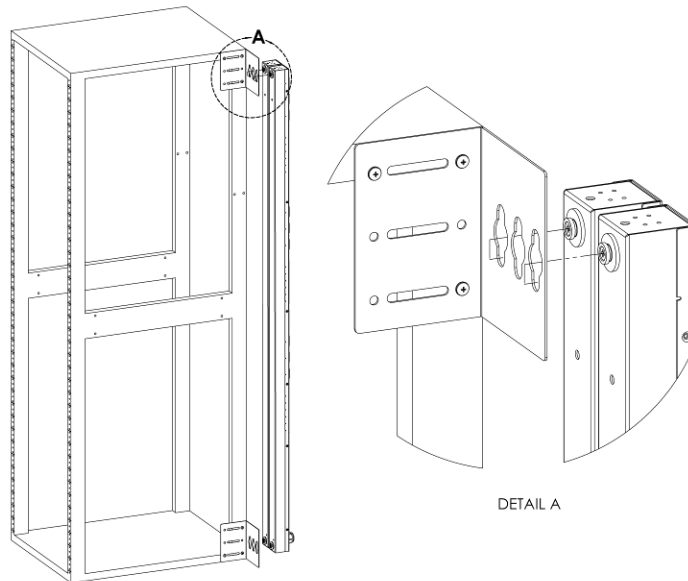
Toolless Mounting Hardware (11621)

Secure toolless mounting buttons to PDU as shown. Use toolless buttons with key-holed slots built into cabinet or with optional Geist key-holed brackets.



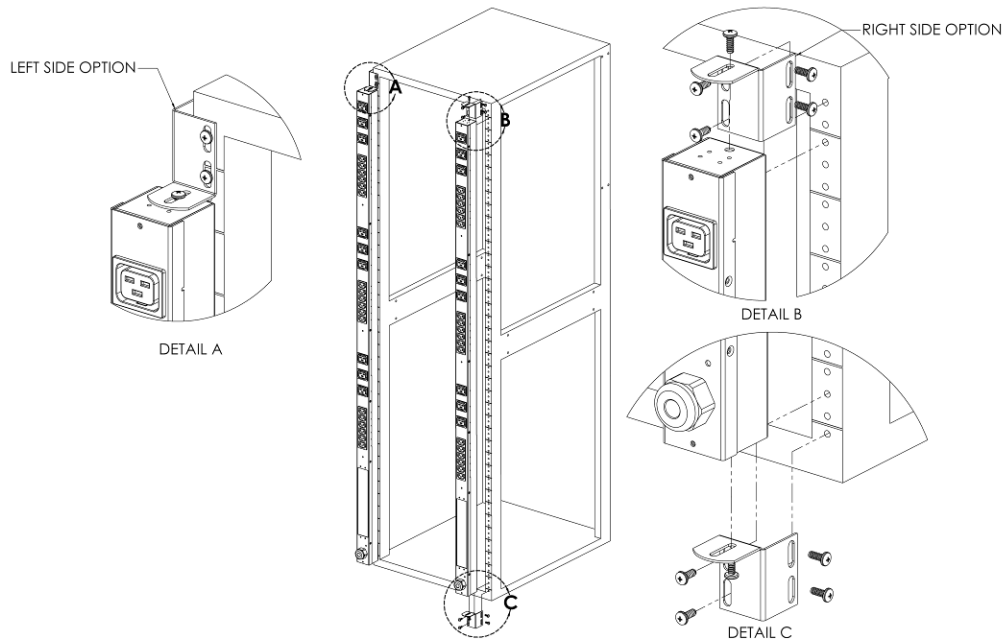
Toolless Full Length Bracket (TLFL)

Using full length toolless bracket and toolless mounting buttons, attach PDU to rack as shown



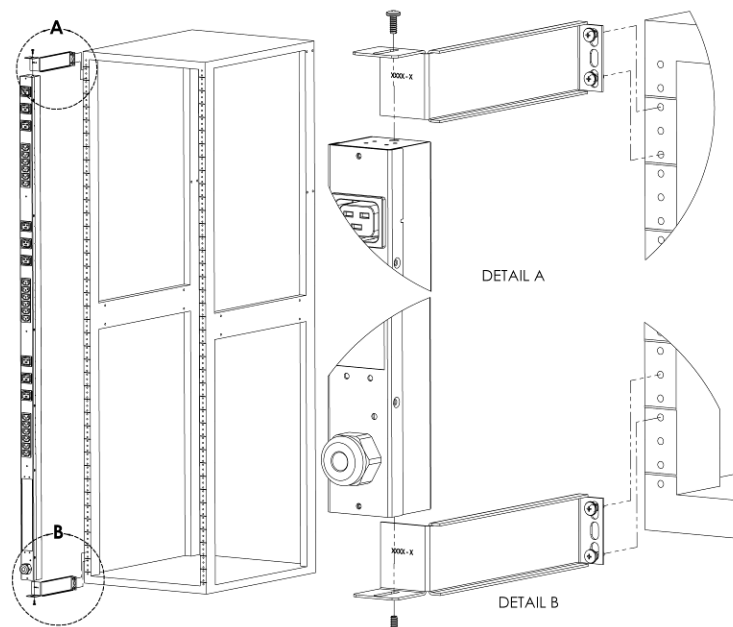
Single Side Mount 2 Unit Brackets (TSMX2)

Using single side mount 2 unit brackets and toolless mounting buttons, attach PDU to rack as shown



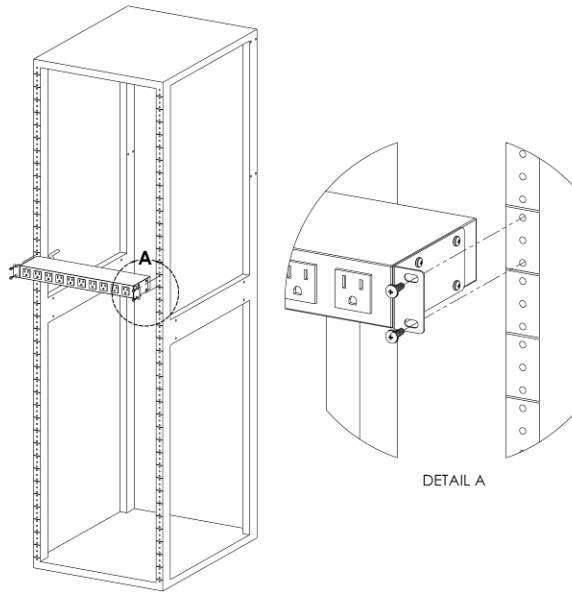
Offset/Side Mount Brackets (EZB-1)

Using the offset/side mount brackets, attach PDU to rack as shown.



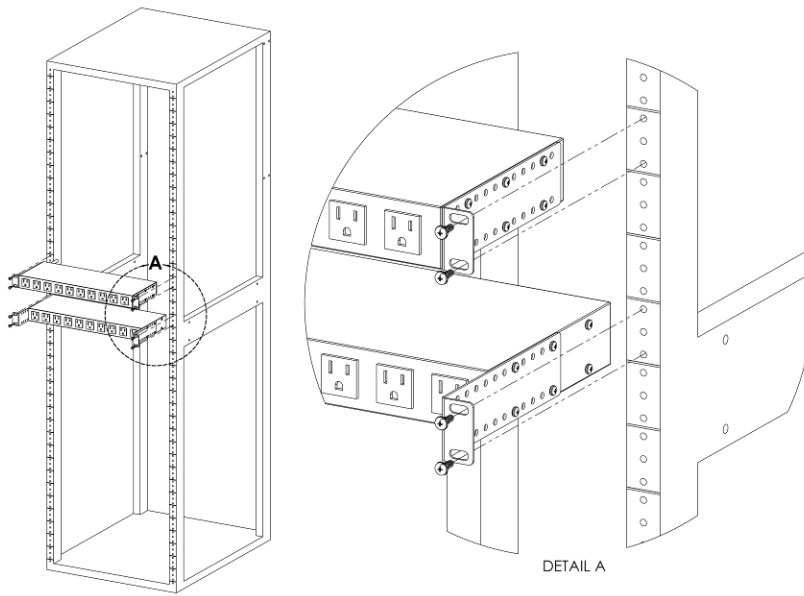
7" Extension Brackets (XB-7)

Using the 7" extension brackets, attach PDU to rack as shown



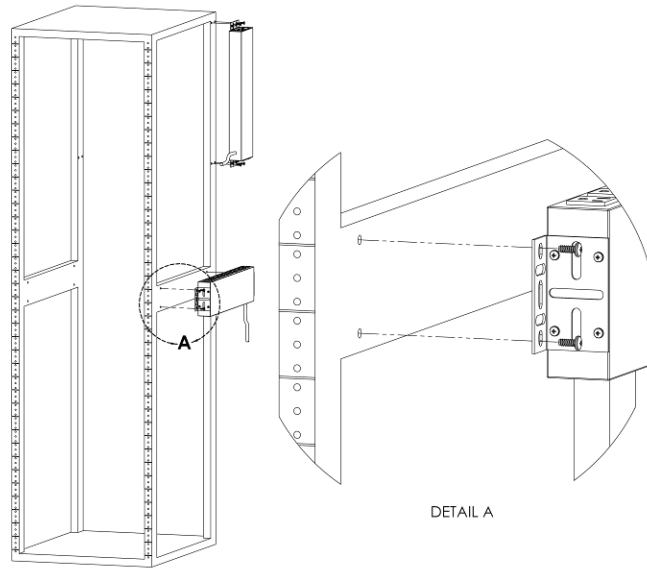
Flush Mount Brackets (FM)

Using flush mount brackets, attach PDU to rack as shown



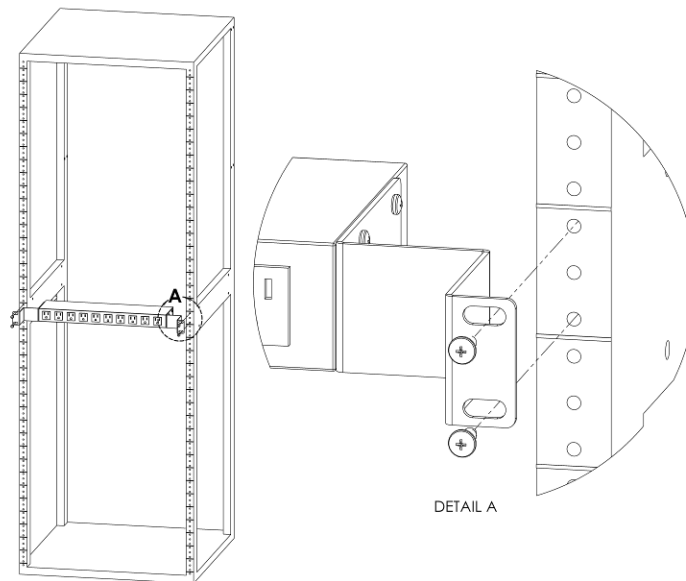
Adjustable Mount Brackets (AM)

Using adjustable mount brackets, attach PDU to rack as shown



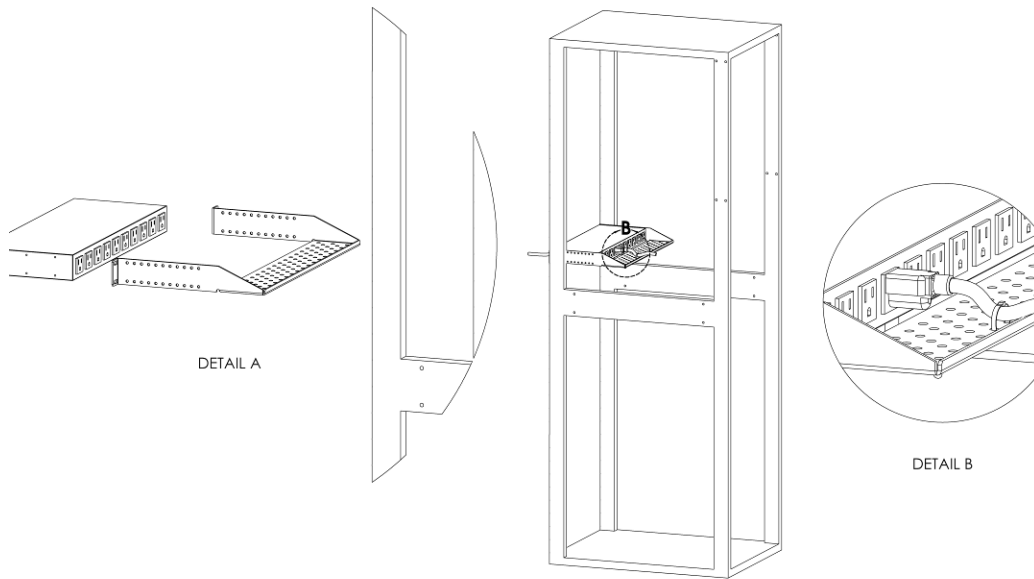
Panel Mount Brackets (PM)

Using panel mount brackets, attach PDU to rack as shown



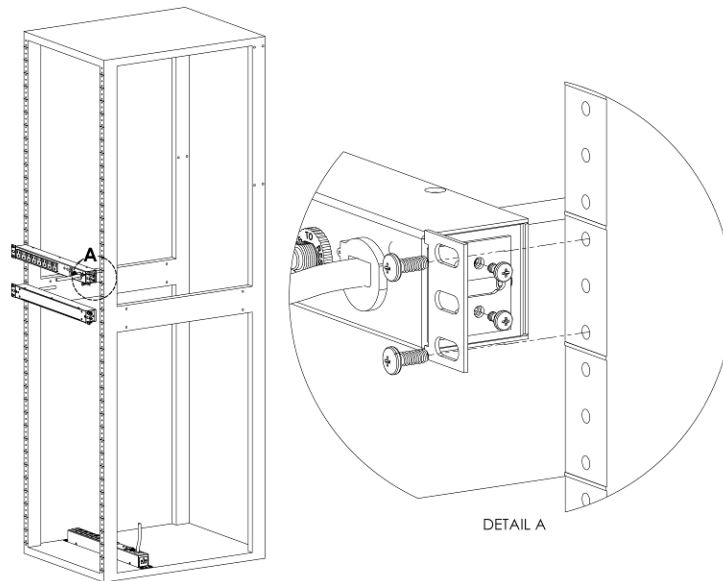
23" Conversion Mounting Brackets (23-RM)

Using conversion mounting brackets, attach 19" PDU to 23" rack as shown



Cable Mount Bracket (CMB-1)

Attach cable mount bracket to PDU as shown; use tie-wraps to secure cords to bracket



19" Horizontal/Panel Mount Brackets (7938)

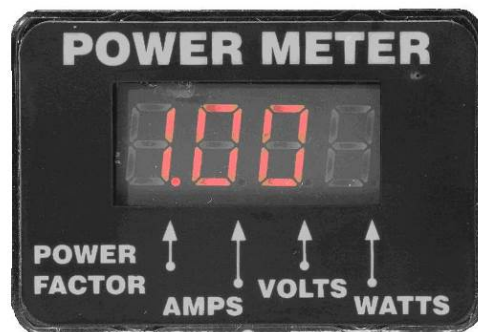
Using the 19" horizontal/panel mount brackets, attach PDU to rack as shown

Optional Local Monitoring

Power Meter

The Geist PM-1 power meter is a low-power, high accuracy meter capable of measuring true RMS Current, Voltage, Power, and Power Factor. These values are individually shown on an easy to read, 4-digit LED Display, which continuously scrolls through the four different measured values. Each one of these displayed parameters is defined below. The Power Meter will automatically begin cycling through the displayed values when the PDU is connected to AC Mains power.

- Current: PDU output current draw measured in true RMS Amps
- Voltage: PDU output voltage measured in true RMS Voltage
- Power: PDU output power measured in Watts – referred to as real or active power
- Power Factor: Ration of real PDU output power to apparent PDU output power****



Power Meter Display

****Real power is the power in a circuit that is transformed from electric to non-electric energy, while apparent power is the total power supplied to the circuit.

Current Meter

The Geist CM-1 current meter is a low-power, high accuracy meter capable of measuring true RMS Current. The value of current is continuously shown on an easy to read, 4-digit LED Display. The Current Meter will automatically begin to display value of output current when the PDU is connected to AC Mains power.



Current Meter Display

Service/Tech Support

Service and Maintenance

No service or maintenance is required. Do not attempt to open the PDU or you may void the warranty. No serviceable parts inside. It is recommended that power be removed from the unit before installing or removing any equipment.

More Technical Support

<http://geistglobal.com>

Americas

- 1 888 630 4445

Europe and Middle East

- From within the UK 0845 026 3853
- From abroad +44 845 026 3853

Asia

- English +1 888 630 4445 (US number)
- Chinese +86 755 8663 9505

Email: support@geistglobal.com or contact your distributor
 Technical Support Form: <http://www.geistglobal.com/Tech-Support>

Revision History

Revision	Date	Notes	Approved By
1.0	5/20/2010	Original Published Version	BP
1.1	7/1/2010	Minor Text Edits	BP
1.2	1/24/11	Added Satellite Current Monitoring	SC & BP
1.3	3/12/12	Add Packet Power	CG
1.4	6/22/2012	Changed Logo and Web Address	SR
2.0	7/29/2014	Changed Company Name	QN
3.0	5/30/2017	Remove Current Monitor and CM-3	GY



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