POWERLOK

RACK POWER DISTRIBUTION

Rack PDU Installation & Operating Manual

Notices

3207 Rogers Road, Wake Forest, NC 27587 USA

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Introduction / About this manual

The innovative PowerLOK Rack PDU is a next-generation offering for the mission critical industry. All PowerLOK Rack PDUs are engineered, designed, tested, and manufactured in the United States. Our processes ensure that our customers' servers run reliably and efficiently in the highly competitive, 24/7 mission critical industry. PowerLOK's quick-ship program and e-commerce model make configurating, ordering and receiving Rack PDUs seamless and easy.

Safety Precautions

Specific safety precautions for this product are as follows:

- All precautions should be taken to guarantee a safe work and operational environment. General safety precautions must be observed during all aspects of operation of equipment described in this document. Failure to comply with the safety warnings, procedures, and guidelines presented in this document is in violation of the safety standards of design, manufacture, and intended use of this equipment.
- You are responsible for following the safety guidelines and warnings presented in this document for this equipment. Individuals using Gateview Rack PDUs are expected to follow all the noted warnings and safety precautions necessary for safe operation of the equipment in your environment. Gateview Technologies assumes no liability for failure to comply with these requirements.
- Rack PDUs are intended for indoor use only in a controlled environment that adhere to the operating temperatures within this manual. Any use outside of these constraints may void the warranty.
- Rack PDUs rated for 240/415VAC may be fitted with a NEMA L22-20 or L22-30 plug that is rated for a higher voltage. Caution must be taken to assure that the rating of the Rack PDU and the supply voltage match.
- **The total capacity of equipment connected to the Rack PDU CANNOT EXCEED the maximum load rating of the Rack PDU.**

DANGER

HAZARDOUS VOLTAGE, CURRENT, AND ENERGY LEVELS ARE PRESENT IN THIS PRODUCT. INTERNAL CIRCUITS CAN HAVE HAZARDOUS VOLTAGES PRESENT EVEN WITH PDU CIRCUIT BREAKERS IN THE OFF POSITION. DO NOT OPERATE THE PRODUCT WITH THE COVER REMOVED.

Professionals installing and operating Rack PDUs are advised of the following:

- Do not try to modify the Rack PDU in anyway, including the input plug, power whip and receptacles.
- Do not drill into or attempt to open any part of the Rack PDU enclosure. There are no serviceable parts inside the Rack PDU.
- Do not attempt to use the Rack PDU if any part of it is damaged.
- Rack PDUs with circuit breakers (30A rating) must be mounted vertically.
- Do not mount the Rack PDU to an unstable enclosure or surface.

Equipment grounding

To minimize electrical shock hazard, the Rack PDU chassis/enclosure is connected to the electrical earth ground pin of the Rack PDU plug. The input power cable must be plugged into an industry electrical code compatible receptacle which provides connection to the facility electrical safety ground.

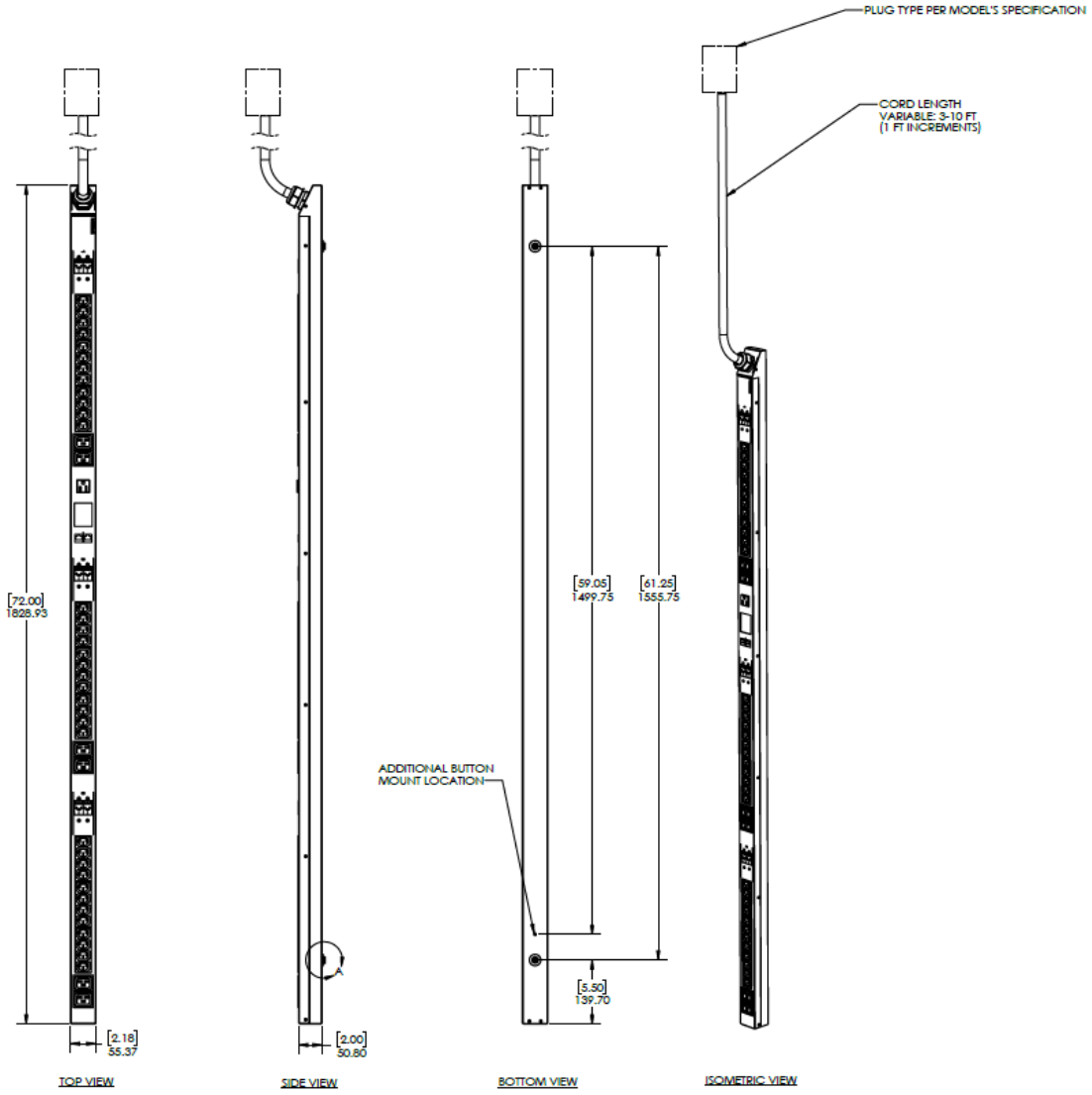
Product Specifications

The following section gives the mechanical and electrical specifications of the Rack PDU.

Mechanical Specifications

Chassis dimensions (inches)

Length	Width	Depth
72.0”	2.18”	2.0”
82.0”	2.18”	2.0”



Electrical Specifications

Electrical Ratings	Operating Temperature
20A 208V 3-Wire	0°C - 50°C (32°F - 122°F)
30A 208V 3-Wire*	
20A 120V/208V 5-Wire	
20A 240V/415V 5-Wire	
30A 120V/208V 5-Wire*	
30A 240V/415V 5-Wire*	

*Rack PDUs rated 30A line current contain 20A circuit breakers for load protection. The circuit breakers are UL-489 Listed and rated 10kAIC. Per the National Electrical Code (NEC) and Canadian Electrical Code (CEC) requirements, when in service, the line current of 20A rated Rack PDUs is to be limited to 16A. The line current of 30A rated Rack PDUs is to be limited to 24A.

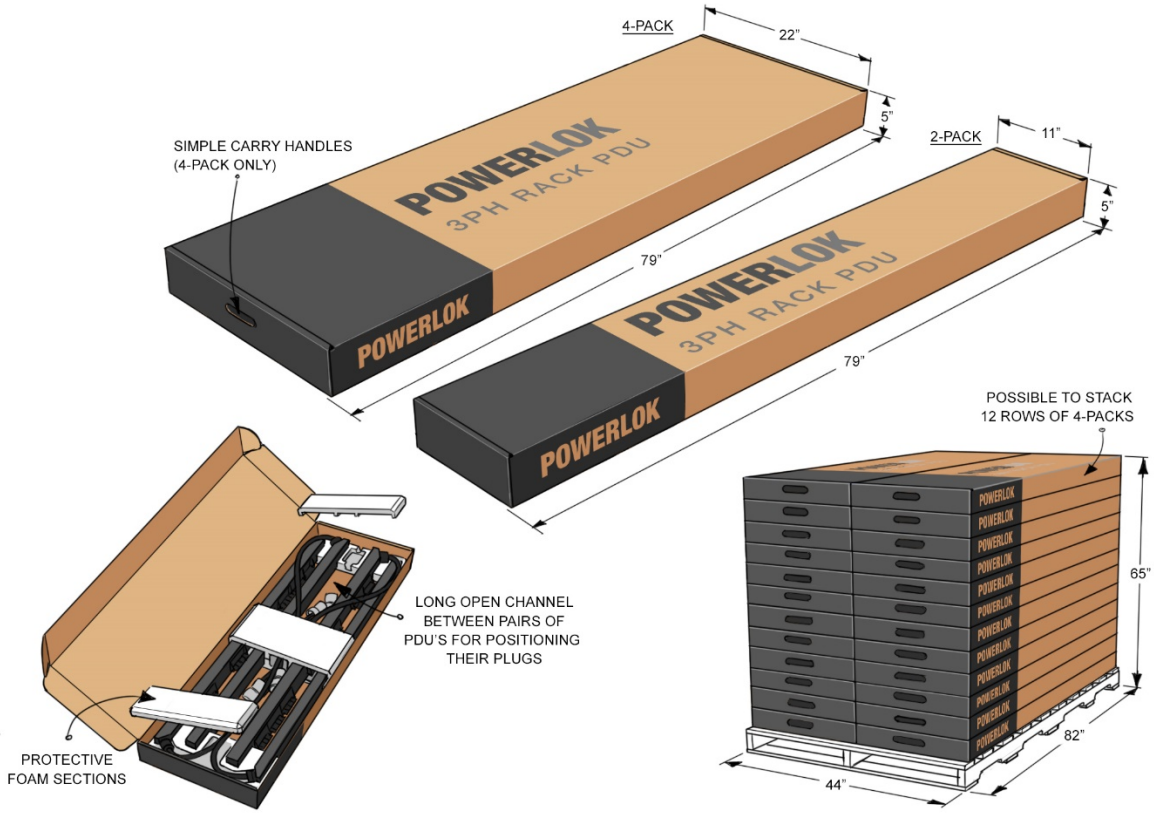
Power Whip Specifications

Current Rating	Gauge	Wire	Whip Lengths (feet)
20A	12	3	3’ – 10’
30A	10	3	3’ – 10’
20A	12	5	3’ – 10’
30A	10	5	3’ – 10’

Packaging

Rack PDUs are shipped in molded 1.8 EPS foam and 200 double-wall corrugated for the cartons.

Rack PDU Package	Dimensions	Ship Weight (lbs)	Lifting Handles	Maximum Rack PDUs per pallet	Maximum height per pallet (44” x 82”)
2-pack	79” x 11” x 5”	34	No	N/A	N/A
4-pack	79” x 22” x 5”	68	Yes	96	65” (12 levels)



Regulatory Compliance

Product Safety

Rack PDUs have been safety tested and certified to the following standards:

- USA UL 60950-1: 2nd edition October 2014
- CAN/CSA 22.2 No. 60950-1
- Canada ICES-003 (A) / NMB-003 (A)
- FCC Part 15 Class A compliant
- RoHS compliant

USA Notification

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

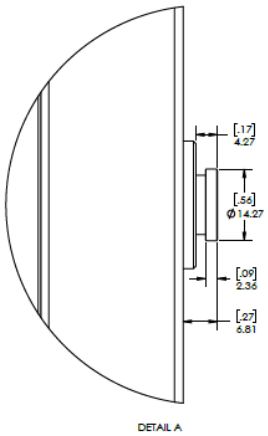
Canadian Notification

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Installation

Installation of Rack PDUs into a server rack is performed by using the buttons attached to the back of the Rack PDU. These buttons mate with keyhole slots located in the server rack. Alternately, the Rack PDU mounted buttons may be removed (attached with #6 thread forming screws) and a customer supplied bracket designed for Rack PDU mounting may be attached. The attachment screw should not penetrate the Rack PDU chassis more than 0.125".

Mounting Button Drawing



Optional Equipment

The following features are *optional* and need to be specifically ordered.

Power Monitoring

Local touchscreen display and/or ethernet communication ports.

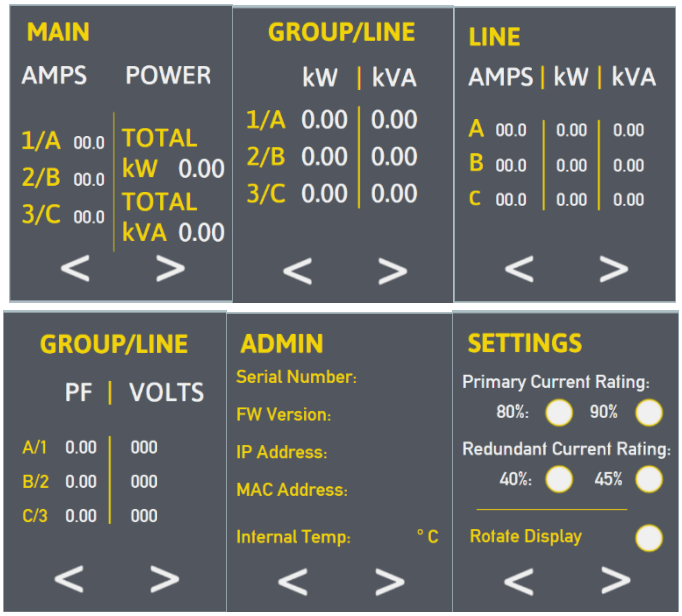
Power monitoring:

1. Ethernet communication only
2. Local touchscreen display and Ethernet communication

Monitoring accuracy:

- Voltage: ± 0.5% at nominal
- Current: ± 1.0% of measurement from 250 mA – 1A
- Current: ± 0.5% of measurement from 1A – 30A

The LCD display is a touchscreen that can rotate 180 degrees. The illustration below shows a 30A/208V Rack PDU example:



Ethernet Communication

The Rack PDU is equipped with two RJ45 10/100Base-T Ethernet ports to attach to an existing local area network (TCP/IP v4). This connection allows access to the Rack PDU via a web browser or SNMP client.

The Rack PDU supports three methods of assigning the IP address, default gateway and subnet mask.

Addressing mode	Description	Comment
Linked local	IPv4 link-local addresses are assigned to address block 169.254.0.0 - 169.254.255.255	This addressing mode supports attaching a host PC/laptop directly to the Rack PDU without requiring a switch, router or DHCP server.
DHCP	The Rack PDU network configuration information is provided by the DHCP server.	The local touchscreen display will publish the IP address assigned to the Rack PDU by the DHCP server.
Static IP	**Default PDU network configuration** **IP address:** 192.168.1.254 **Subnet Mask:** 255.255.255.0 **Gateway:** 192.168.1.1	The static IP information can be changed using a web browser.

TechPower/convenience outlets

TechPower are 120V 5-15R receptacles located in the Rack PDU; either one or two receptacles can be ordered. TechPower is only available on 120V / 208V Rack PDUs.

Limited Warranty

Warranty Replacement Procedure: All product warranty procedures are conditional upon the warranty information set forth in Gateview Technologies Terms and Conditions for a term of three (3) years from the shipment of the product. Gateview Technologies will provide a replacement product if it is defective in accordance with the following: This warranty does not apply to normal wear and tear or damage resulting from damage, misuse, abuse, or neglect. No service or maintenance is required and there are no serviceable parts inside of the product. Do not attempt to open the Rack PDU or the customer will void the warranty.

The customer should ensure prior to use whether this product is suitable, adequate, or safe for the use intended. Since individual applications are subject to great variation, Gateview Technologies makes no representation or warranty as to the suitability or fitness of these products for any specific application and Gateview Technologies is not responsible for equipment damaged by incorrect communication on the part of the customer between the customer and Gateview Technologies.

The customer will incur the cost of shipping the defective product to Gateview Technologies, and, if a replacement is necessary, Gateview Technologies will reimburse the customer for shipping and subsequently ship a replacement product within fourteen (14) days of receipt of the defective product. If replacement of the product is not necessary, Gateview Technologies reserves the right to deny reimbursement for the shipping of the product returned from the customer.