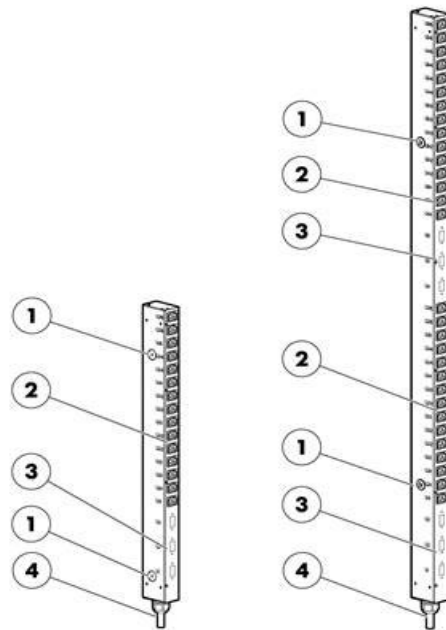


### Overview

As the quest for efficiency continues it becomes apparent that what worked in the past needs improvement. More and more data center managers are looking at alternate power plans to distribute electricity through their facility. One such strategy in North America is to minimize the inefficient and costly transformers used to convert the high 480 volt AC power coming into the building to the lower 200-240 volt power needed for IT equipment.

By bringing 480 volt power directly to the rack all transformers can be eliminated, improving efficiency by several percent. This can save hundreds of thousands of dollars in the construction or expansion of data centers while continuing to save even more in monthly operational costs.

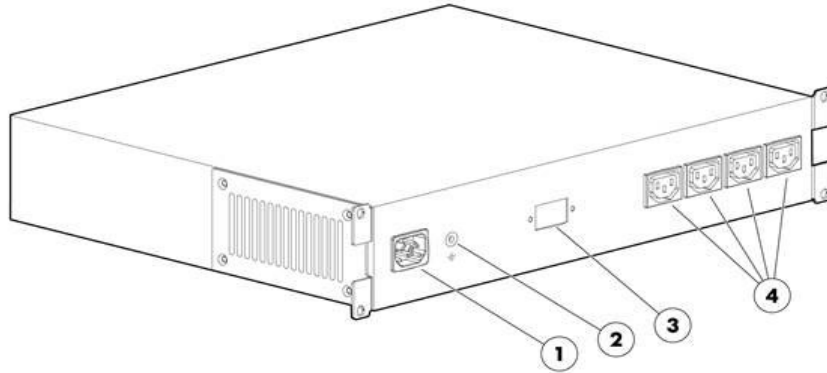
The problem is that neither today's IT equipment nor power distribution was designed to use the single phase 277 volts produced by 480 volt 3 phase distribution. The new HP 480/277 volt solutions provide the critical infrastructure at the rack to do just that.



#### 480/277 Volt PDUs

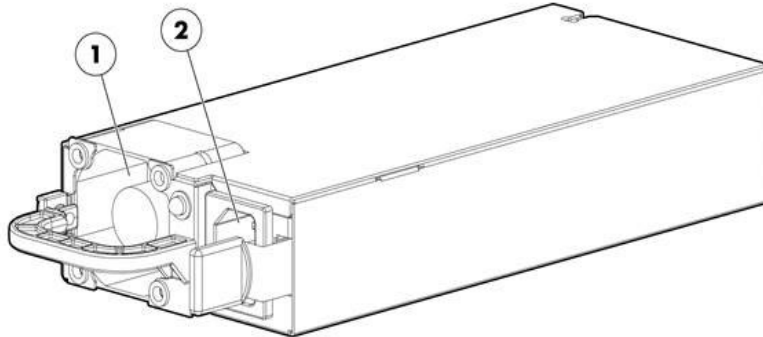
- |                             |                     |
|-----------------------------|---------------------|
| 1. Mounting buttons         | 3. Circuit breakers |
| 2. LS-26 outlet receptacles | 4. Inlet cord       |

### Overview



#### 800VA - 277V Input / 230V Output NA Rack Mount Transformer

- 1. LS-25 inlet connection
- 2. Ground bonding screw
- 3. Input circuit breaker
- 4. IEC320-C13 outlets



#### 1200W Common Slot 277VA Power Supply

- 1. Power supply fan
- 2. LS-25 power connector

### Models

<b>480/277 Volt Basic Power Distribution Units</b>	HP 13.2kVA 480 Volt Three Phase 15 Outlet NA Basic Power Distribution	H3X07A
	HP 19.9kVA 480 Volt Three Phase 30 Outlet NA Basic Power Distribution	H3X08A
<b>HP Rack Mount Transformer</b>	HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer	H3X09A
<b>HP Common Slot Power Supply</b>	HP 1200W Common Slot 277VAC Hot Plug Power Supply <b>NOTE:</b> <a href="http://www.hp.com/go/proliant/powersupply">www.hp.com/go/proliant/powersupply</a>	717359-B21

### Standard Features

#### Key Features

- 13.2kVA and 19.9kVA PDU models
  - 15 Outlet half height and 30 outlet full height models
  - Industry standard button and keyhole mounting is compatible with HP Intelligent Series Racks and many third party racks.
  - New LS-26 outlet receptacles specifically for 277 volt applications
  - Outlets face the rear of the rack for easy access and improved maintenance zone clearance
  - Waterproof IEC309 pin and sleeve input for safety
- 2U Rack mount transformer
  - LS-25 inlet connection for use with HP 480/277 Volt PDUs
  - Converts 277 volt to 230 volt for non- 277 volt compatible equipment in the same rack
  - 800VA / 720W output is great for top of rack switches
  - 2 transformers can be mounted back to back to save U space in the rack
  - Uses 4 standard C13 outlets
- 277V Common Slot Power Supply
  - Common Slot design for compatibility
  - 1200W hot pluggable power supply
  - 94% efficient

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#### Easy Installation and compatibility

Standard button and keyhole mounting provides simple drop in installation in HP Intelligent Series Rack and many third party racks.

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#### Warranty Upgrade Options

HP Basic PDUs are backed by a limited 3-year warranty. HP Basic PDUs automatically assume the Care Pack coverage level of any covered ProLiant server in the same rack.

### Service and Support

#### Service and Support

##### **HP Technology Services**

HP Technology Services offers you consultants and support experts to solve your most complex infrastructure problems. We help keep your business running, boost availability and avoid downtime.

##### **Protect your business beyond warranty with HP Care Pack Services**

When you buy HP Options, it's also a good time to think about what level of service you may need. HP Care Pack services provide total care and support expertise with committed response choices designed to meet your IT and business need.

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#### **Recommended HP Care Pack Services for optimal satisfaction with your HP product**

##### **Recommended Services**

##### **3-Year HP 24x7 4 hour Response, Hardware Support Onsite Service**

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

##### **HP ProLiant Server Hardware Installation**

Provides for the basic hardware installation of HP branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN>

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#### **Related HP Care Pack Services to enhance your HP product experience**

##### **Related Services**

##### **3-Year HP 6 hour Hardware Support Onsite Call-to-Repair Service**

Provides an IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 hours of the initial service request to the HP Global Solution Center

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EN>

##### **HP Proactive Select Service**

Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months. <http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN>

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#### **Insight Remote Support**

Delivers secure remote monitoring and support for HP servers and storage, 24x7 at no additional cost. Available as part of HP Warranty, Care Pack and Service Contract offers.

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#### **Parts and materials**

HP will provide HP-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements. Supplies and consumable parts will not be provided as part of this service; standard warranty terms and conditions apply. Parts and components that have exceeded their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual or the technical product data sheet will not be provided, repaired or replaced as part of this service.

### Service and Support

**Coverage**

For ProLiant servers and storage systems, this service covers HP-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22" and tower UPS products; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HP due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by HP as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.

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**For more information**

To learn more on services for HP ESSN Options, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: <http://www.hp.com/services/proliant> or [www.hp.com/services/bladesystem](http://www.hp.com/services/bladesystem)

### Related Options

#### 277 Volt jumper cords

HP LS-26 to LS-25 277 Volt 15Amp AC 0.76m Jumper Cord

TK801A

HP LS-26 to LS-25 277 Volt 15Amp AC 1.37M Jumper Cord

TK802A

**NOTE:** 277 volt jumper cords can be used to connect the HP 800VA - 277V Input / 230V Output NA Rack Mount Transformer to HP 4800/277 Volt Basic PDUs.

### Model Matrix

#### 480/277 Volt Basic PDUs

	<b>13.2kVA 480/277V PDU</b>	<b>19.9kVA 480/277V PDU</b>
<b>Part Number</b>	H3X07A	H3X08A
<b>Input Voltage</b>	480 volt, 30 amp, 3 phase, 5 wire (WYE)	
<b>Input Connection</b>	96 inches (243.8 cm) with attached IEC 530P7	96 inches (243.8 cm) with attached IEC 530P7
<b>Facility power connection</b>	IEC 309 480 volt, 30 amp, 3 phase, 5 wire (IEC 530C7)	IEC 309 480 volt, 30 amp, 3 phase, 5 wire (IEC 530C7)
<b>Output Receptacles</b>	15 x Rong Feng 203-P-HP (LS-26)	15 x Rong Feng 203-P-HP (LS-26)
<b>Current (max)</b>	27.72 amps across all three phases	41.57 amps across all three phases
<b>Frequency (Hertz)</b>	50-60Hz	50-60Hz
<b>Load Capacity (VA)</b>	13301 (@480V)	19952 (@480V)
<b>Output Circuit Breakers</b>	3 X 20A	6 X 20A

#### 277 Volt Rack Mount Transformer

	<b>800VA 277V / 230V Rack Mount Transformer</b>
<b>Part Number</b>	H3X09A
<b>Input Voltage</b>	277 volt line -neutral
<b>Input Connection</b>	Rong Feng 203-HP (LS-25)
<b>Facility power connection</b>	230 volt single phase
<b>Output Receptacles</b>	4 x IEC309-C13
<b>Current (max)</b>	800VA
<b>Frequency (Hertz)</b>	720 watts
<b>Load Capacity (VA)</b>	60Hz
<b>Output Circuit Breakers</b>	1 X 4A

#### 277 Volt Common Slot Power Supply

	<b>1200W Common Slot 277VAC Hot Plug Power Supply</b>
<b>Part Number</b>	703247-101
<b>Input Voltage</b>	200-277 volt line to neutral
<b>Frequency (Hertz)</b>	50-60hz
<b>Input Connection</b>	Rong Feng 203-HP (LS-25)
<b>Output Wattage (max)</b>	1200 watts
<b>Efficiency</b>	94% at 50% load
<b>Power Factor</b>	.999

**NOTE:** For more information on all HP Common Slot power supplies got to [www.hp.com/go/proliant/powersupply](http://www.hp.com/go/proliant/powersupply)

**NOTE:** Please refer to the Power Cord Matrix for more information on power cords/cable part numbers, input/output descriptions: <http://www.hp.com/go/powercordmatrix>.

**Disclaimer:** HP makes no recommendations regarding power connector manufactures. The model numbers listed in the above tables are strictly for the purpose of providing examples. Please consult a licensed professional to determine the best connector or receptacle for your specific needs.



### Technical Specifications

#### 480/277 Volt Basic PDUs

<b>Operating Temperature</b>	50° to 122° F (10° to 50° C)
<b>Operating Relative Humidity (%)</b>	10% to 90%
<b>Operating Elevation</b>	0 to 10,000 ft (0 to 3048 m)
<b>Storage Temperature</b>	-4° to 140° F (-20° to 60° C)
<b>Storage Relative Humidity (%)</b>	5% to 95%
<b>Storage Elevation</b>	0 to 30,000 ft (0 to 9144 m)
<b>Input Plug Length</b>	96 inches (243.8 cm)
<b>Conformance Standards</b>	UL, CUL
<b>Mechanical Dimensions (WxHxD), 15 outlet model</b>	1.98 x 32.4 x 3.15 in ( 5.03 x 82.3 x 8 cm)
<b>Unit Weight, 15 outlet model</b>	20 lb (9.07 kg)
<b>Mechanical Dimensions (WxHxD), 30 outlet model</b>	1.98 x 62.9 x 3.15 in ( 5.03 x 159.7 x 8 cm)
<b>Unit Weight, 30 outlet model</b>	40 lb (18.14kg)

#### 277 Volt Rack Mount Transformer

<b>Operating Temperature</b>	32° to 131° F (0° to 55° C)
<b>Input connection</b>	Rong Feng 203-HP (LS-25)
<b>Conformance Standards</b>	UL, CUL
<b>Mechanical Dimensions (WxHxD), 30 outlet model</b>	17.3x 3.2 x 14.36 in ( 439.5 x 81.28 x 364.8cm)
<b>Unit Weight, 30 outlet model</b>	66lb (27.22kg)

<b>Environment-friendly Products and Approach</b>	<b>End-of-life Management and Recycling</b>	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> . To recycle your product, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
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The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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