



Hewlett Packard  
Enterprise

# HPE A58x0AF

## 650W AC (JC680A) & 650W DC (JC681A)

### Power Supplies User Guide



5998-1605s

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# Power supply overview

## Functions

HPE A58x0AF 650W AC power supply (JC680A), referred to as 650W AC power supply hereafter, is a power supply with AC input and DC output, and HPE A58x0AF 650W DC power supply (JC681A), referred to as 650W DC power supply hereafter, is a power supply with DC input and DC output. They can provide up to 650 W of output. They deliver the following features:

**Table 1 Features of the JC680A and JC681A power supplies**

Feature	Description
Protection function	Protection for over-current input, under-voltage input, over-voltage output, output short circuit, and overheat.
Support for redundancy	The power supplies can work in 1+1 redundant mode, and support load sharing.
Support for hot swapping	You can plug or unplug a power supply when the switch is operating properly.

## Technical specifications

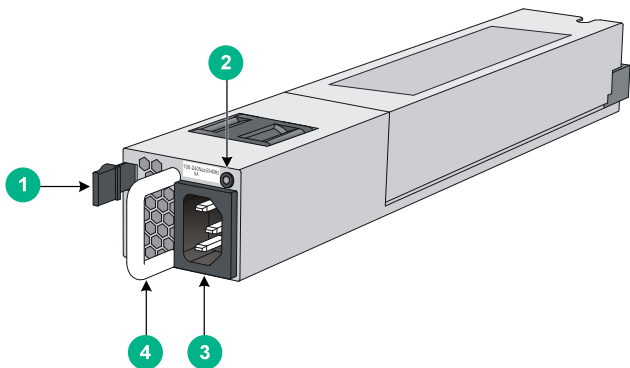
**Table 2 Technical specifications for the JC680A and JC681A power supplies**

Item	Specifications
Rated input voltage	<ul style="list-style-type: none"><li>650W AC power supply: 100 VAC to 240 VAC; 50 or 60 Hz</li><li>650W DC power supply: -40 VDC to -60 VDC</li></ul>

Item	Specifications
Rated output voltage range	12 V/5 V
Maximum output current	52.9 A (12 V)/3 A (5V)
Maximum output power	650 W
Dimensions (H x W x D)	40.2 x 50.5 x 300 mm (1.58 x 1.99 x 11.81 in)
Operating temperature	650W AC power supply: -5°C to 50°C (23°F to 122°F) 650W DC power supply: -5°C to 45°C (23°F to 113°F)
Relative humidity	5% to 95%

# Appearance

Figure 1 650W AC power supply appearance



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(1) Latch

(2) Status LED

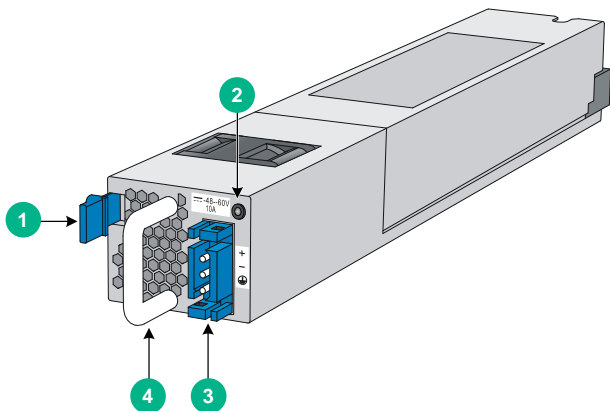
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(3) AC power receptacle

(4) Handle

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**Figure 2 650W DC power supply appearance**



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(1) Latch

(2) Status LED

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(3) DC power receptacle

(4) Handle

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## LEDs

A 650W AC/650W DC power supply has a status LED on its front panel. The following table lists the LED status and description.

**Table 3 LED descriptions**

LED status	Description
Steady green	The power supply operates properly, and is in the active state.

<b>LED status</b>	<b>Description</b>
Blinking green	The power supply operates properly, and is in the standby state.
Steady red	The power supply has failed or entered the protected state.
Red/Green blinking alternatively	The power supply alarms. The power supply encounters exceptional power output problems, for example, over-voltage output, under-voltage output, over-current output, over-load, and over-heat, but does not enter the protected state.
Blinking red	The power supply has no power input. The switch has two power supplies. If one has power input, but the other does not, the status LED of the power supply that has no power input blinks red.
Off	The power supplies have no power input.



# Installing and removing a power supply

## Safety recommendations

To avoid possible bodily injury and power supply and device damage, follow these safety recommendations:

- When installing and removing a power supply, always wear an ESD-preventive wrist strap and make sure it makes good skin contact.
- Before installing the power supply, to avoid power supply and device damage, make sure that the voltage of the power source is the same as the rated voltage of the power supply, and the output voltage of the power supply is the same as the voltage required by the device.
- To avoid bodily injury, do not touch any cords or terminals of the power supply.
- Do not place the power supply in a wet area, and prevent liquid from flowing into the power supply.
- To avoid power supply damage, do not open the power supply. When the internal circuits or components of the power supply fail, contact the maintainer for examining and repairing.

## Tools

When installing and removing a power supply and power cords, you must wear an ESD-preventive wrist strap. Prepare it yourself.

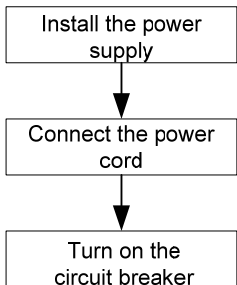
## Installing and removing a power supply

The installing and removing procedures of the 650W AC power supply are similar to the 650W DC power supply. This section takes the 650W AC power supply for example.

### Installing the power supply

To avoid bodily injury or device damage, follow the procedure in [Figure 3](#) when installing the power supply.

**Figure 3 Power supply installation procedure**

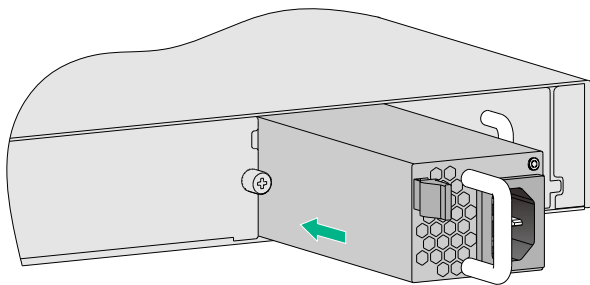


Follow these steps to install the power supply:

1. Put on the ESD-preventive wrist strap, making sure that the strap makes good skin contact and is well grounded.
2. Unpack the power supply. Make sure that the power supply is of the required model.

3. As shown in [Figure 4](#), make sure that the power supply is placed in a correct vertical direction. The power supply and the power supply slot are designed for avoiding upside down installation. If the vertical direction of the power supply is incorrect, you cannot insert the power supply completely into the slot. Holding the handle of the power supply with one hand and supporting the bottom of the power supply with the other, slide the power supply along the guide rails into the slot. When the power supply is completely inserted into the slot, you can hear that the latch of the power supply clicks into the slot.

**Figure 4 Install the power supply**



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**⚠ CAUTION:**

- When you insert the power supply into the slot, you can do that through slight inertia so that the back end of the power supply can have a good touch with the backplane.
  - To avoid damaging or bending the terminals of the power supply, if the insertion direction is improper during the installation, you must pull the power supply out, adjust the direction, and insert it again.
  - Save the blank panel and the packaging box and packaging bag of the power supply for future use.
- 

## Connecting the power cord

### Connecting the AC power cord

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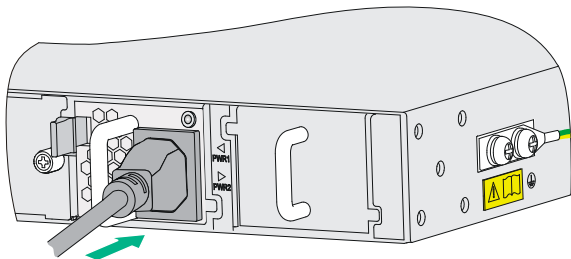
**⚠ WARNING!**

- Make sure that each power cord has a separate circuit breaker.
  - Turn off the circuit breaker before connecting the power cord.
- 

To connect the AC power cord:

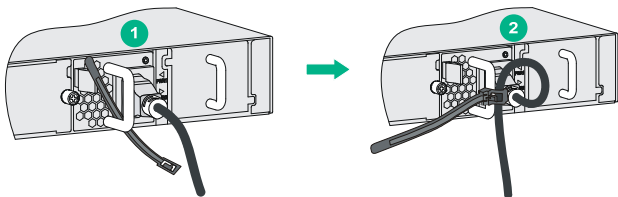
1. As shown in [Figure 5](#), plug the female connector end of the AC power cord into the AC power receptacle on the switch.

**Figure 5 Connect the AC power cord**



2. As shown in [Figure 6](#), use the cable tie to secure the power cord to the handle of the power supply.

**Figure 6 Fix the AC power cord**



3. Plug the other end of the AC power cord into the socket strip of the power source, and turn on the circuit breaker of the power source.
4. Check the LED on the power supply. If the LED is steady green or blinking green, the power cord is correctly connected. If the LED is off or red, check the installation conditions, troubleshoot the problems, and try again until the LED is normal.

## Connecting the DC power cord

### ⚠ CAUTION:

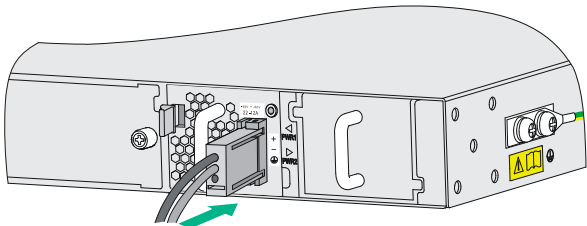
The power cord color code scheme in [Figure 7](#) is for illustration only. The cable delivered for your country or region might use a different color scheme. When you connect the power cord, always identify the polarity symbol on its wires.

To connect the DC power cord:

1. As shown in [Figure 7](#), insert the connector of the DC power cord into the DC power receptacle of the switch.

The connector of the DC power cord and the DC power receptacle are designed for avoiding upside down installation. Make sure that the vertical direction of the connector is correct.

### Figure 7 Connect the DC power cord



2. Use the cable tie to secure the power cord to the handle of the power supply. For more information, see [2](#) on page [10](#).
3. Connect the other ends of the wires to the DC power source wiring terminals, with the negative wire (– or L–) to the negative

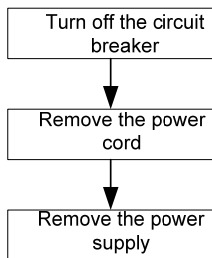
terminal block (-) and the positive wire (+ or **M/N**) to the positive terminal block (+).

4. Check the LED on the power supply. If the LED is steady green or blinking green, the power cord is correctly connected. If the LED is off or red, check the installation conditions, troubleshoot the problems, and try again until the LED is normal.

## Removing the power supply

To avoid bodily injury or device damage, follow the procedure in [Figure 8](#) when removing the power supply.

**Figure 8 Power supply removing procedure**

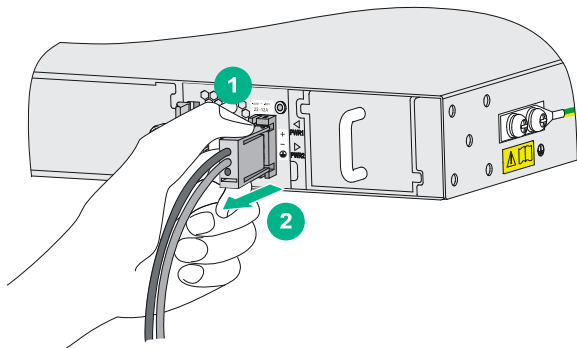


To remove the power supply:

1. Turn off the circuit breaker.
2. Put on the ESD-preventive wrist strap, making sure that the strap makes good skin contact and is well grounded.
3. Loosen the cable tie, and take off the power cord.

When removing a DC power cord, squeeze the tabs on the power cord connector with your thumb and forefinger and then pull the connector out.

## Figure 9 Remove the power cord connector



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(1) Squeeze the tabs on the power cord connector

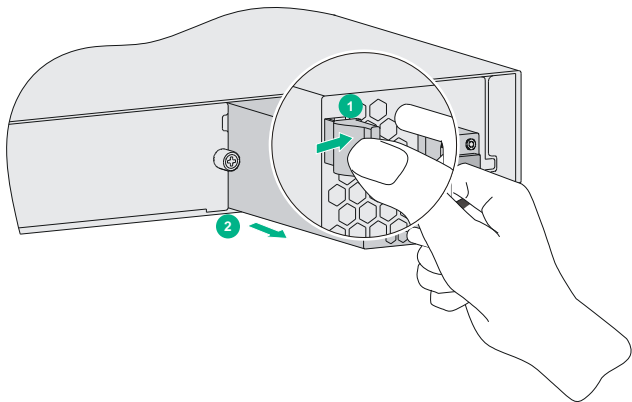
(2) Pull the connector out

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4. As shown in [Figure 10](#), grasp the handle of the power supply with one hand, use the thumb to press the latch towards the handle, and pull the power supply at the same time. After pulling the power supply part-way out, hold the bottom of the power supply with the other hand, and pull the power supply slowly along the guide rails out of the slot.



**Figure 10 Remove the power supply**



5. Put the removed power supply on an antistatic mat or into the initial package.

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**NOTE:**

If you do not insert another power supply into the slot after removing the power supply, install the blank panel to the power supply slot to prevent dust from entering the chassis.

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# Document conventions and icons

## Conventions

This section describes the conventions used in the documentation.

### Port numbering in examples

The port numbers in this document are for illustration only and might be unavailable on your device.

### Command conventions



Convention	Description
<b>Boldface</b>	<b>Bold</b> text represents commands and keywords that you enter literally as shown.
<i>Italic</i>	<i>Italic</i> text represents arguments that you replace with actual values.
[ ]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x   y   ... }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[ x   y   ... ]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x   y   ... } *	Asterisk marked braces enclose a set of required syntax choices separated by vertical bars, from which you select at least one.



Convention	Description
[ x   y   ... ] *	Asterisk marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.

## GUI conventions







Convention	Description
<b>Boldface</b>	Window names, button names, field names, and menu items are in Boldface. For example, the <b>New User</b> window appears; click <b>OK</b> .
>	Multi-level menus are separated by angle brackets. For example, <b>File &gt; Create &gt; Folder</b> .







## Symbols

Convention	Description
 <b>WARNING!</b>	An alert that calls attention to important information that if not understood or followed can result in personal injury.
 <b>CAUTION:</b>	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.

Convention	Description
 <b>IMPORTANT:</b>	An alert that calls attention to essential information.
<b>NOTE:</b>	An alert that contains additional or supplementary information.
 <b>TIP:</b>	An alert that provides helpful information.

## Network topology icons

Convention	Description
	Represents a generic network device, such as a router, switch, or firewall.
	Represents a routing-capable device, such as a router or Layer 3 switch.
	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.
	Represents an access controller, a unified wired-WLAN module, or the access controller engine on a unified wired-WLAN switch.
	Represents an access point.
	Represents a wireless terminator unit.

Convention	Description
	<p>Represents a wireless terminator.</p>
	<p>Represents a mesh access point.</p>
	<p>Represents omnidirectional signals.</p>
	<p>Represents directional signals.</p>
	<p>Represents a security product, such as a firewall, UTM, multiservice security gateway, or load balancing device.</p>
	<p>Represents a security card, such as a firewall, load balancing, NetStream, SSL VPN, IPS, or ACG card.</p>

# Support and other resources

## Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:  
[www.hpe.com/assistance](http://www.hpe.com/assistance)
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:  
[www.hpe.com/support/hpesc](http://www.hpe.com/support/hpesc)

### Information to collect

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

## Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.
- To download product updates, go to either of the following:

- Hewlett Packard Enterprise Support Center **Get connected with updates** page:  
[www.hpe.com/support/e-updates](http://www.hpe.com/support/e-updates)
  - Software Depot website:  
[www.hpe.com/support/softwaredepot](http://www.hpe.com/support/softwaredepot)
  - To view and update your entitlements, and to link your contracts, Care Packs, and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:  
[www.hpe.com/support/AccessToSupportMaterials](http://www.hpe.com/support/AccessToSupportMaterials)
- 



**IMPORTANT:**

Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HP Passport set up with relevant entitlements.

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## Websites

Website	Link
<b>Networking websites</b>	
Hewlett Packard Enterprise Information Library for Networking	<a href="http://www.hpe.com/networking/resourcefinder">www.hpe.com/networking/resourcefinder</a>
Hewlett Packard Enterprise Networking website	<a href="http://www.hpe.com/info/networking">www.hpe.com/info/networking</a>
Hewlett Packard Enterprise My Networking website	<a href="http://www.hpe.com/networking/support">www.hpe.com/networking/support</a>

Website	Link
Hewlett Packard Enterprise My Networking Portal	<a href="http://www.hpe.com/networking/mynetworking">www.hpe.com/networking/mynetworking</a>
Hewlett Packard Enterprise Networking Warranty	<a href="http://www.hpe.com/networking/warranty">www.hpe.com/networking/warranty</a>
<b>General websites</b>	
Hewlett Packard Enterprise Information Library	<a href="http://www.hpe.com/info/enterprise/docs">www.hpe.com/info/enterprise/docs</a>
Hewlett Packard Enterprise Support Center	<a href="http://www.hpe.com/support/hpesc">www.hpe.com/support/hpesc</a>
Hewlett Packard Enterprise Support Services Central	<a href="http://ssc.hpe.com/portal/site/ssc/">ssc.hpe.com/portal/site/ssc/</a>
Contact Hewlett Packard Enterprise Worldwide	<a href="http://www.hpe.com/assistance">www.hpe.com/assistance</a>
Subscription Service/Support Alerts	<a href="http://www.hpe.com/support/e-updates">www.hpe.com/support/e-updates</a>
Software Depot	<a href="http://www.hpe.com/support/softwaredepot">www.hpe.com/support/softwaredepot</a>
Customer Self Repair (not applicable to all devices)	<a href="http://www.hpe.com/support/selfrepair">www.hpe.com/support/selfrepair</a>
Insight Remote Support (not applicable to all devices)	<a href="http://www.hpe.com/info/insightremotesupport/docs">www.hpe.com/info/insightremotesupport/docs</a>



## Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website:

[www.hpe.com/support/selfrepair](http://www.hpe.com/support/selfrepair)

## Remote support

Remote support is available with supported devices as part of your warranty, Care Pack Service, or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

For more information and device support details, go to the following website:

[www.hpe.com/info/insightremotesupport/docs](http://www.hpe.com/info/insightremotesupport/docs)

## Documentation feedback

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