



Sun™ Modular Datacenter S20 PDU and Power Strip Options Guide

This guide explains how to upgrade the standard Power Distribution Unit (PDU)/power strip configuration in the Sun Modular Datacenter S20 (Sun MD) with an optional high-power kit. Each kit expands the number of available outlets by adding additional PDUs and power strips to each rack.

Rack 1 in all Sun MDs contains the network and datacenter control equipment. Racks 2-8 accommodate the IT equipment. The options in this manual are used to upgrade the racks that hold the IT equipment.

The Sun MD is shipped with the standard power configuration (12.5 kW per IT rack) for the Power Distribution Unit (PDU) and power strips (also known as Cabinet power Distribution Units, or CDUs). The high-power configuration has 25 kW per IT rack.

Power Option Configurations

A standard Sun MD comes with eight racks installed. Each standard rack has two groups of PDU/power strip assemblies, each consisting of a master PDU and three power strips per PDU. One PDU/power strip group is wired to Panel A and one is wired to Panel B.

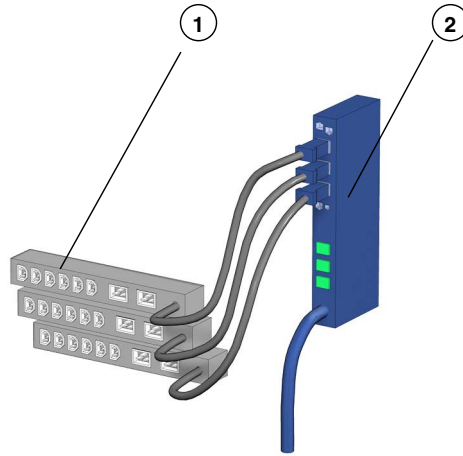


FIGURE 1 PDU/Power Strip Configuration

Figure Legend Components in the Figure

- | | |
|---|---------------------|
| 1 | Power Strips (CDUs) |
| 2 | PDU |

Each standard power strip (CDU) has six IEC C-13 outlets and two IEC C-19 outlets. The standard and high power upgrade kits contain adapter cords to enable the C-19 outlets to be used as C-13 type outlets. Using these adapter cords, the standard power upgrade provides six more power strips, for a total of 48 available power outlets. The high power upgrade adds four more power strips or 32 more outlets, for a total of 88 available power outlets.

Note – Remember that Rack 1 in all Sun MDs cannot be upgraded. Rack 1 supports only the standard configuration of two PDUs and six power strips.

The Sun MD PDU and power strip high-power upgrade options come in two types:

Option	Description	Part Number
High-power option, USA/ Japan	Two additional PDUs and four power strips (two per PDU) plus C19 adapter, 60 A, 208 Vac	X5312A-Z
High-power option, International	Two additional PDUs and four power strips (two per PDU) plus C19 adapter, 32A, 400Vac	X5313A-Z

Note – You will need one PDU/power strip kit for each rack that you want to upgrade (except Rack 1).

Unpacking the Kit



Caution – All installations and upgrades must be performed by personnel experienced or qualified to work on high voltage electrical devices. The procedures in this document are not intended to be performed by the end user.

Each PDU and power strip kit contains the following parts:

- PDU with 10-foot cord
- PDU with 15-foot cord
- PDU receptacle with 54-in. cord, locking rings, and two button mounts
- PDU receptacle with 45-in. cord, locking rings, and two button mounts
- Two receptacle mounting brackets (one left, one right)
- Two PDU clip brackets
- Two IP cables
- 10 Torx pan-head tap screws
- Two socket adapters (C-19 socket to C-13 socket)

For more information about safety procedures when working with the Sun MD, read the Safety and Standard Operating Procedure chapter in the *Sun Modular Datacenter S20 Installation Guide*.

▼ To Install the PDU/Power Strip Option

1. Install the two button mounts onto the back of each PDU receptacle and secure with the included screws.
2. Attach eight wire retaining clips to each PDU receptacle.
3. (Optional) Attach the two socket adapters to each PDU receptacle.
4. Slide the button mounts on the PDU receptacles into the U-shaped slots on the mounting brackets. One receptacle fits into the left bracket; the other fits into the right bracket.
5. Place one of the mounting brackets on the rail, approximately 1.4 in. (35 mm) above the existing installed PDU.
6. Secure the mounting bracket to the rail using the supplied screws.
7. Repeat the previous two steps to install the other mounting bracket on the opposite side of the rack.
8. Place one of the PDU clip brackets on one of the vertical rails, approximately 1/2 in. (12.7 mm) above the existing installed PDU.
9. Secure the clip bracket to the rail using the supplied screw.
10. Repeat the previous two steps to install the other clip bracket on the opposite side of the rack.
11. Attach the PDUs to the clip brackets using the supplied screws.

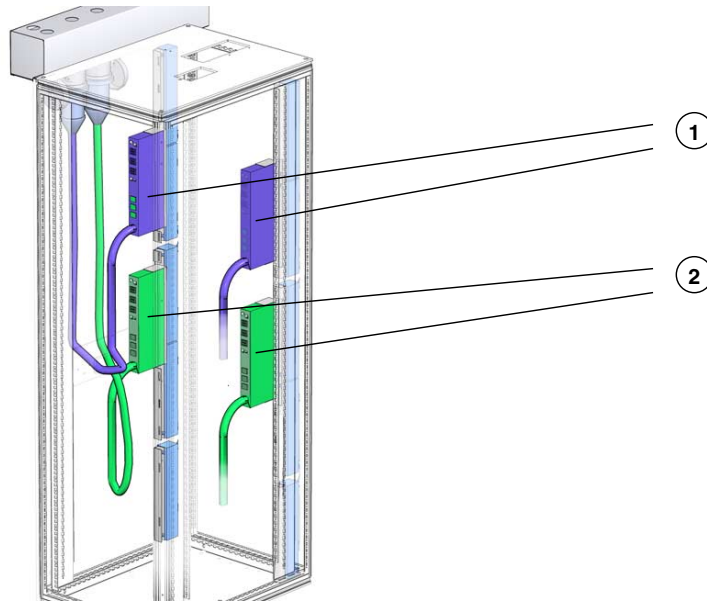


FIGURE 2 Rack with PDU Options Installed

Figure Legend Components in the Figure

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- | | |
|---|---|
| 1 | Standard PDUs installed in the rack (master PDUs) |
| 2 | Optional PDUs (slave PDUs) |
-

12. Slide the rectangular locking rings (supplied with each receptacle unit) over the connector on the receptacle unit.

Repeat the step with the other receptacle unit.

13. Route the cables from the receptacle units through the cut-out holes in the rails.

Note – Allow enough clearance between the PDUs and the internal sidewalls of the cabinet to provide unobstructed airflow.

14. Match the color of each receptacle plug to its corresponding colored PDU connection and snap into place.

15. Slide the rectangular locking ring over each connection and tighten the screws.

16. Plug the two IP cables from the two original PDUs (masters) LINK sockets to the two new PDUs (slaves) LINK sockets.

Note – The PDUs will need to be configured through the Integrated Management Server (IMS) software. For directions on PDU configuration see the *Sun Modular Datacenter S20 Service Manual*.

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17. Route the cables from the PDU to the nearest CDU using the shortest possible cables to avoid excess cabling.
 18. Repeat this procedure to install additional PDUs and power strips on the other racks in the datacenter.

Note – The Sun Modular Datacenter S20 documentation is available online through a password-protected web site. Contact your Sun Sales Representative for information about accessing the Sun MD product documentation.

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