

LITEON[®]

2.5kW Power Supply Unit

USER GUIDE



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Contents

Introduction.....	3
General Safety	3
Required Tools for Installation and Maintenance	3
Unpacking and Checklist.....	3
Equipment Inspection.....	4
Power Shelf and Rack Preparations.....	4
Power Supply Unit Installation and Removal	4
Power Supply Unit LED Status	6
Power Supply Unit Rear Panel	7
Warranty.....	8
Related Documentation.....	8

Introduction

The 2.5KW Power Supply Unit (PSU) efficiently supplies both main output DC power and standby DC power from either AC or DC sources. This compact, hot-swappable PSU provides 2.5kW, 12.5V / 200A for main power output and 30W, 12V / 2.5A for standby power applications. In addition, this PSU supports PMBUS1.2 with boot loader, LED status indicators, and circuit protection features.

General Safety

This user guide uses the safety conventions described below. Ensure that you follow the safety instructions in this guide and observe its directives to protect you from injury and to protect your equipment from damage.

WARNING	Indicates highly-dangerous consequences such as fire, serious injury, or death when failing to comply with the instructions.
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Caution	Indicates dangerous consequences such as moderate injury or equipment damage when failing to comply with the instructions.
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Required Tools for Installation and Maintenance

No tools are required to install or maintain the PSU.

Unpacking and Checklist

Carefully unpack the PSUs and move them to the staging area. It is recommended that you keep the packaging in case equipment needs to be returned to the supplier.

The following tools are required for unpacking.

- Box cutter or utility knife for opening cardboard packaging

To unpack items from cardboard shipping boxes:

1. If necessary, remove any shipping straps from around the box.
2. Place the box upright and cut through the tape on the top of the box.
3. Remove the item(s) from the box along with any shipping foam if necessary.
4. Remove the item(s) from any shipping foam or wrapping material.

After all items have been unpacked, verify that you have received all the items as specified by the shipping paperwork.

Equipment Inspection

After unpacking the equipment, inspect them for damage that might have resulted from shipment. Check for the items below and contact the shipper in the unlikely event that damage is found.

- Bent connectors, alignment pins, or chassis
- Any cracks or chips on plastic components
- Unusual scratches or marks
- Dents in sheet metal or panels
- Corrosion or evidence of water or chemical damage
- Indications that the device was dropped
- Loose parts inside the equipment

Power Shelf and Rack Preparations

These instructions assume that the rack and power shelf have been moved into place and are installed properly. If necessary, refer to the *Lite-On 21-inch Open Compute Project compliant Rack Assembly and User Guide*, the *Lite-On 3-Phase 10-Slot Power Supply System User Guide*, and the *Lite-On 3-Phase 10-Slot Power Supply System Startup Guide* for more information.

Power Supply Unit Installation and Removal

The Power Shelf supports up to ten hot-swappable Power Supply Units (PSUs). A PSU can be plugged into any slot in the Power Shelf and they are keyed so they cannot be inserted incorrectly.

If all 10 slots in the Power Shelf are not used, populate the appropriate slots so that each phase has an equal number of PSUs or is within 1 PSU of the max on a single phase. Cover any unused slot with a provided slot cover. Also, consider the load on the C13 receptacles when balancing phases.

As shown below, PSUs are held in place with a spring latch.



To install a Power Supply Unit:

1. Slide a PSU into an empty slot of the Power Shelf until it clicks into place. Both lights on the PSU illuminate green to indicate that it is operational. Refer to “Power Supply Unit LED Status” on page 6 for more information on the PSU LED status.



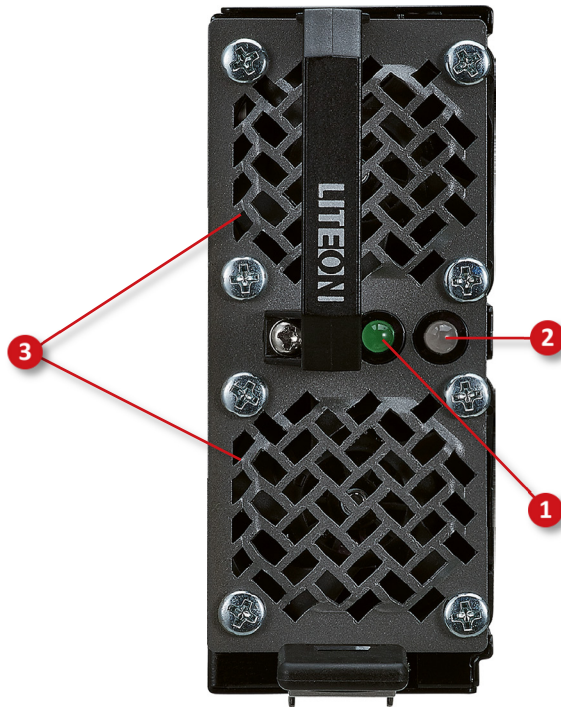
2. Slide the remaining PSUs into the empty slots in the Power Shelf until they click into place.

To remove a Power Supply Unit:

- Lift the spring latch on the front of a PSU, pull the handle, and slide the PSU out from the Power Shelf.

Power Supply Unit LED Status

Under normal operating conditions, both indicator lights LED 1 and LED 2 illuminate solid green; the table below shows other LED combinations and status.

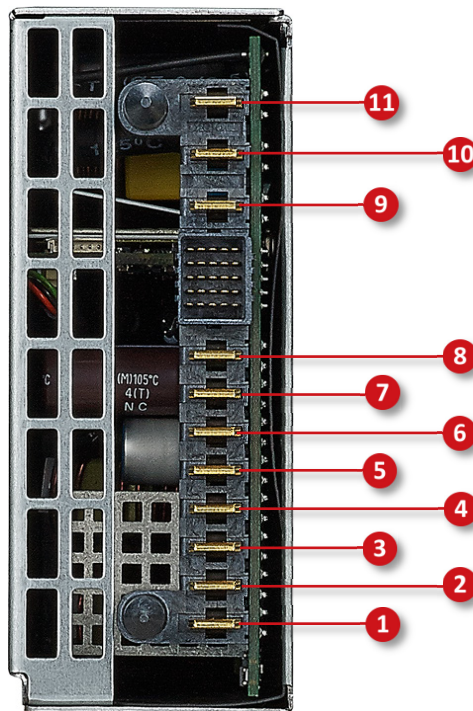


1	LED 1 indicator	Input power LED indicator
2	LED 2 indicator	Output power LED indicator
3	Fans	Cooling fans

Status	LED 1 (Input) Green Color	LED 2 (Output) Bicolor
AC_LOSS	Off	Off
Vin_OV_Fault	Off	Off
Vin_UV_Fault	Off	Off
AC_Normal	Solid Green	Solid Green
ALL_Normal	Solid Green	Solid Green
Vout_OV_Warning	Solid Green	Blink Green
Vout_UV_Warning	Solid Green	Blink Green
Iout_OC_Warning	Solid Green	Blink Green
OT1_Warning	Solid Green	Blink Green
OT2_Warning	Solid Green	Blink Green
OT3_Warning	Solid Green	Blink Green
PSON	Solid Green	Blink Yellow
FAN_LOCK	Solid Green	Solid Yellow
Vout_OV_Fault	Solid Green	Solid Yellow

Status	LED 1 (Input) Green Color	LED 2 (Output) Bicolor
lout_OC_Fault	Solid Green	Solid Yellow
OTP_Fault	Solid Green	Solid Yellow
Vout_UV_Fault	Solid Green	Solid Yellow
LATCH_SD	Solid Green	Solid Yellow
SCP_Fault	Solid Green	Solid Yellow
STB_UV_Fault	Solid Green	Solid Yellow
STB_OV_Fault	Solid Green	Solid Yellow
STB_OCP_Fault	Solid Green	Solid Yellow
STB_OTP_Fault	Solid Green	Solid Yellow

Power Supply Unit Rear Panel



1	+12.5V Output	Positive output voltage
2	+12.5V Output	Positive output voltage
3	+12.5V Output	Positive output voltage
4	+12.5V Output	Positive output voltage
5	GND	Negative output voltage
6	GND	Negative output voltage
7	GND	Negative output voltage
8	GND	Negative output voltage
9	FG	Frame GND
10	Input voltage Neutral	AC input voltage
11	Input voltage Line	AC input voltage

Warranty

If you experience any problems with your Lite-On equipment, contact Lite-On Power Systems Solutions at 1-469-331-9838.

Related Documentation

For information about the 22.5kW Power Shelf, refer to the *Lite-On 22.5kW Power Shelf Datasheet*.

For information about the 2.5kW Power Supply Unit, refer to the *Lite-On 2.5kW Power Supply Unit Datasheet*.

For instructions on initial startup of the 3-Phase 22.5kW Power Supply System, refer to the *Lite-On 3-Phase 22.5kW Power Supply System Startup Guide*.

For more information related to the Lite-On Power Systems, visit the Lite-On Power Systems Solutions web site at: <http://www.liteon-pss.com>.



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