



# Liebert® MicroPOD™ 230V

Installer/User Guide

### **Technical Support Site**

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures. Visit <https://www.VertivCo.com/en-us/support/> for additional assistance.

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## 1 IMPORTANT SAFETY INSTRUCTIONS



**WARNING!** Do not attempt to service this product yourself. Opening or removing the cover may expose you to dangerous voltages, even when the AC cord is disconnected from the electrical outlet. Refer all servicing to qualified service personnel.

### SAVE THESE INSTRUCTIONS

This manual contains important instructions that should be followed during installation and operation of the Liebert MicroPOD.

This product is not intended for use with life support or other U.S. FDA designated “critical” devices.

Read all safety and operating instructions before operating the Liebert MicroPOD and the connected UPS system. Adhere to all warnings on the unit and in this manual. Follow all operating and user instructions.

Turn the UPS off and unplug the Liebert MicroPOD before cleaning. Use only a soft cloth, never liquid or aerosol cleaners.

The UPS and Liebert MicroPOD are designed for data processing equipment. Do not plug laser printers or appliances, such as hair dryers, heaters, vacuum cleaners or electric drills, into the UPS output receptacles.



**WARNING!** Do not modify the cables in any way. Consult your local Vertiv representative if the AC cords do not match the mains receptacle. The Liebert MicroPOD must be grounded at all times while in use. Turn Off the UPS before unplugging Liebert MicroPOD.

The UPS and the Liebert MicroPOD are equipped with grounded plugs (plug types vary depending on model). Do not defeat the safety purpose of this plug. If unable to fully insert the plug into the designated receptacle, contact a qualified electrician or your local dealer or Vertiv representative for assistance.

Route power supply cords so they are not walked on or pinched in anyway.



**CAUTION:** Risk of electric shock, do not remove cover, no user serviceable parts inside. Refer servicing to qualified service personnel.



**CAUTION:** This device receives power from multiple sources. Before servicing this device, remove all connections. Before servicing the UPS, follow “Maintenance of UPS” instructions in the user manual for your UPS.






**CAUTION:** For use in a controlled environment. Refer to manual specifications for environmental conditions.



**WARNING!** When the Liebert MicroPOD is in mains position (maintenance bypass mode), the power to the connected load is not filtered or conditioned by the UPS.

## 2 GLOSSARY OF SYMBOLS

Table 2.1 Symbols

	Indicates AC Input.
	Indicates AC Output.
	Consult the manual for additional information.
MAINS	MAINS lamp indicates local power is available and the load may be transferred to bypass the UPS.
UPS	UPS lamp indicates UPS power is available and the load may be transferred to the UPS to provide computer-grade power to the load.

### 3 INTRODUCTION AND SYSTEM DESCRIPTION

The Liebert MicroPOD provides maintenance bypass capability as well as power output distribution. The Liebert MicroPOD can be used on UPSs in either rack mount or tower configuration.

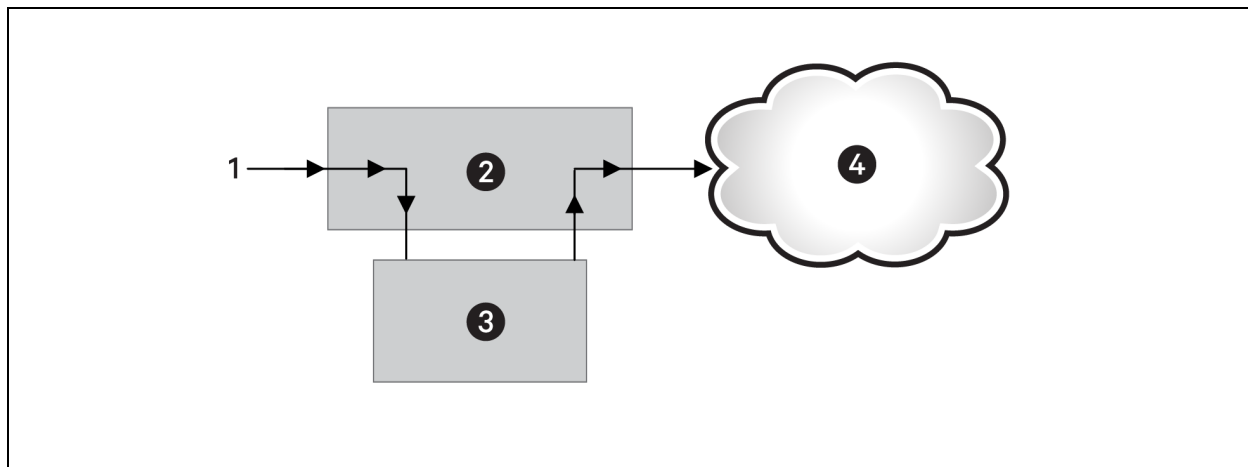
The Liebert MicroPOD provides an isolated path of power for your UPS system for preventive maintenance or service.

#### 3.1 System Description

The Liebert MicroPOD has two modes of operation: **UPS** (UPS available) and **MAINS** (maintenance bypass).

- In **UPS mode**, the power is routed through the UPS system delivering conditioned power to the load, as shown in Figure 3.1 below.

**Figure 3.1 UPS mode of operation**



**Table 3.1 UPS Mode Description**

ITEM	DESCRIPTION
1	Utility
2	POD
3	UPS
4	Connected Load

- In **Mains mode**, power is routed around (bypassing) the UPS system (see Figure 3.2 on the next page). Mains power is supplied directly to the load through the Liebert MicroPOD.

**NOTE: Battery backup and conditioned power are NOT available during the Mains mode of operation.**



Figure 3.2 Mains/Maintenance Bypass mode

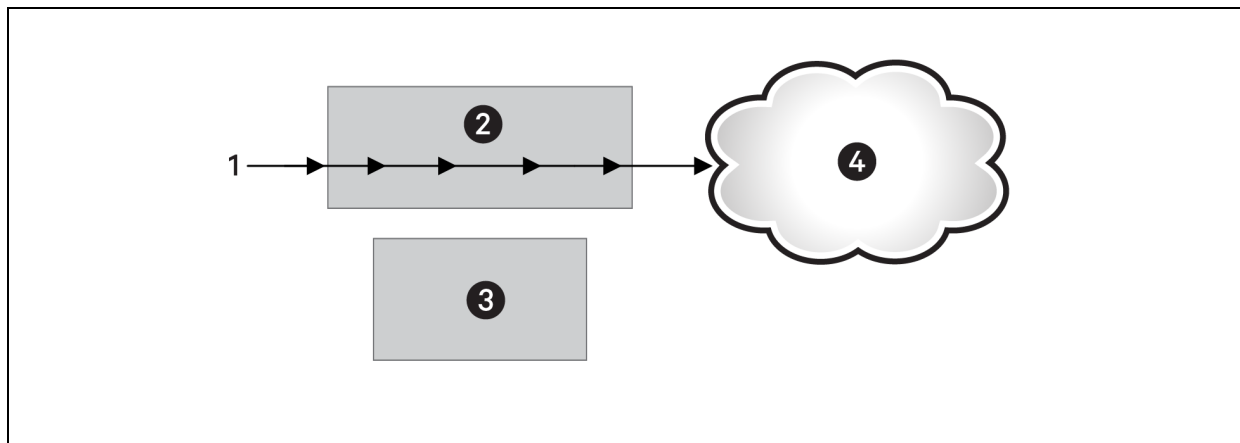


Table 3.2 Mains Mode Description

ITEM	DESCRIPTION
1	Utility
2	POD
3	UPS
4	Connected Load

- The UPS may be turned off and removed without affecting the load. See Figure 3.3 on the facing page.

Figure 3.3 Liebert MicroPOD connections

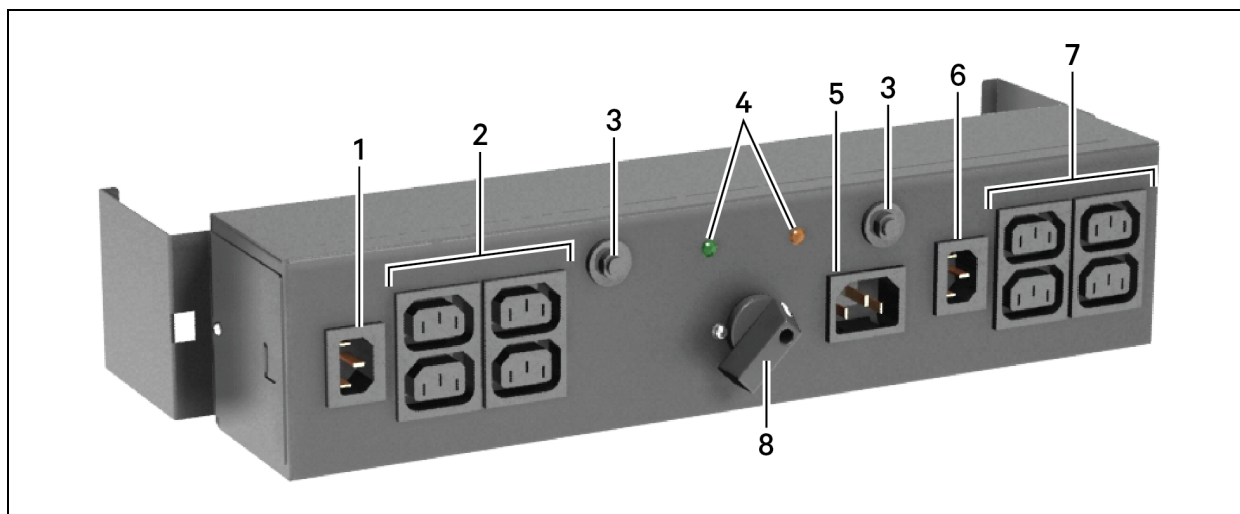


Table 3.3 MicroPOD Connections Descriptions

ITEM	DESCRIPTION
1	UPS Input - Connect to load receptacle on rear of UPS
2	Connect Loads
3	Output Circuit Breaker
4	Power Indicator Lamps
5	Connect UPS Input Cord
6	Utility Input - Connect to Mains Wall Receptacle
7	Connect Loads
8	Rotary Switch

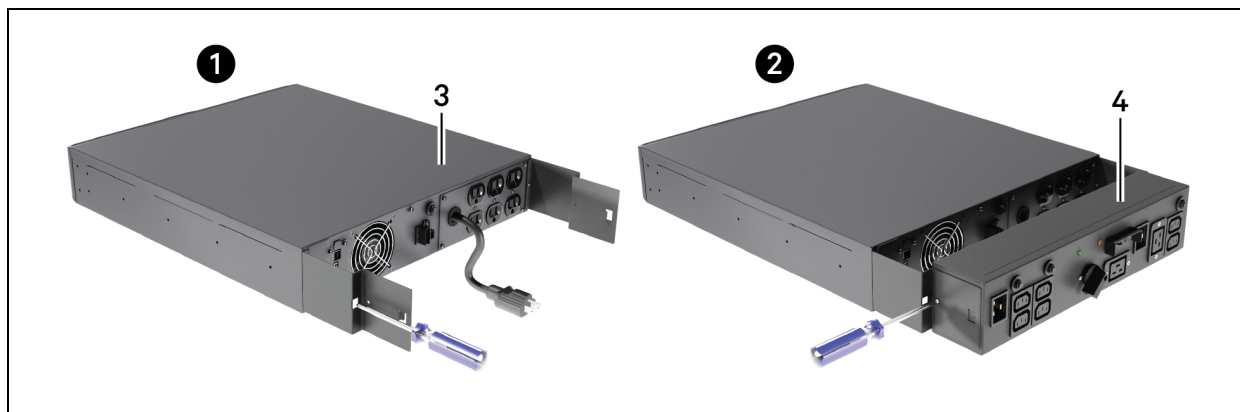
## 4 INSTALLATION

### 4.1 Installation on a Liebert GXT UPS

**NOTE:** This manual provides instructions for the Liebert MicroPOD only. Refer to your UPS manual for UPS operation and installation instructions.

1. Unpack the Liebert MicroPOD carefully, noting the packing method. Retain the box and packing material for possible future shipments.
2. Inspect the Liebert MicroPOD for freight damage. Report any damage to the carrier and your local dealer or Liebert representative.
3. Verify that the Liebert MicroPOD input cord, UPS input cord and receptacle for the UPS have the same type of configuration.
4. If you already have a UPS installed, turn off all connected loads and unplug them from the UPS. Turn off the UPS and disconnect the input cord.
5. Attach the two Liebert MicroPOD securing brackets (optional for Liebert GXT series UPS) to the rear of the UPS (see top of Figure 4.1 below). You will need a long M3 Phillips head screwdriver for this procedure (the torque is 7 in-lb, or 0.79 Nm). The Liebert MicroPOD brackets have a hole to allow the screwdriver to reach the screw.
6. Next attach the Liebert MicroPOD to the securing brackets (see Figure 4.1 below). The Liebert MicroPOD can be installed to face one of three different directions utilizing the same mounting procedures.

**Figure 4.1 Attaching Liebert MicroPOD to the UPS with securing brackets**



**Table 4.1 Attaching Liebert MicroPOD to UPS with Securing Brackets Descriptions**

ITEM	DESCRIPTION
1	Step 5 - Attach bracket to rear of UPS
2	Step 6 - Attach Liebert® MicroPOD to brackets
3	UPS
4	Liebert® MicroPOD

## 4.2 Rack Mount Installation

1. Rack mount installation of the Liebert MicroPOD is possible with the use of the rack mounting brackets (shipped with the Liebert MicroPOD). See Figure 5.1 below.
2. The rack mount brackets allow you to rack mount the Liebert MicroPOD in a 19" enclosure.
3. The Liebert MicroPOD can be mounted to face one of four directions depending on your application, utilizing the rack mount brackets provided.
4. Determine the desired position and direction for the Liebert MicroPOD, face it in that direction, then attach the brackets to the Liebert MicroPOD with the screws provided.
5. Consult your rack/enclosure manufacturer's recommendations for specific rack mounting hardware that will be required.
6. The holes on the rack mount bracket are notched for easy installation. Tighten the Liebert MicroPOD securely to the rails and then follow the startup directions for the Liebert MicroPOD in [Installation on a Liebert GXT UPS](#) on page 7.

**Figure 5.1** Liebert MicroPOD mounting bracket location



**CAUTION:** Before installing, open all branch rated circuit breakers at the nearest disconnect, turn UPS off and disconnect all cords to and from the UPS.

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## 5 STARTUP PROCEDURE



**CAUTION:** This UPS must be installed by properly trained and qualified personnel and wired in accordance with local, national and regional electrical codes.



**CAUTION:** The mains input supply to the Liebert MicroPOD must be protected by a branch rated circuit breaker. The UPS output must also be protected with a circuit breaker connected to the load, rated to carry the input current and be capable of breaking the maximum expected short circuit current of this branch circuit. The breaker is to be mounted within 6 feet (1.8m) of the Liebert MicroPOD and be readily accessible to the operator.

### 5.1 Pluggable Connections

1. Make sure the Liebert Micro POD rotary switch is in the MAINS position. Plug the Liebert MicroPOD input cord (labeled *MAINS*) into the mains outlet (wall receptacle).



**WARNING!** The MicroPOD is now electrically live. The Mains lamp (amber) should be illuminated.

2. Plug the 10-foot long (3m) UPS input cord (factory-provided) into the receptacle on top of the Liebert MicroPOD (labeled: *CONNECT UPS LINE CORD HERE*).



**WARNING!** The UPS system is now electrically live.

3. Plug the 6-foot long (1.8m) UPS system output cord (factory-provided ) into the receptacle on top of the Liebert MicroPOD (labeled: *UPS*).
4. Plug in all loads to the output distribution receptacles, distributing them evenly on the Liebert MicroPOD. The Liebert MicroPOD is powering the equipment in Mains mode.
5. Turn ON the loads following the manufacturer's instructions; ensure all are operating according to specification.
6. Start the UPS according to its user manual.
7. Verify that the UPS lamp (green) on the Liebert MicroPOD is illuminated. If so, transfer the rotary switch from MAINS to UPS. The load is now being supplied with conditioned power through the UPS.
8. Before any operation or procedure, always verify that both the UPS lamp (green) and the Mains lamp (amber) are illuminated before changing the rotary switch.

## 6 INDICATOR LAMPS

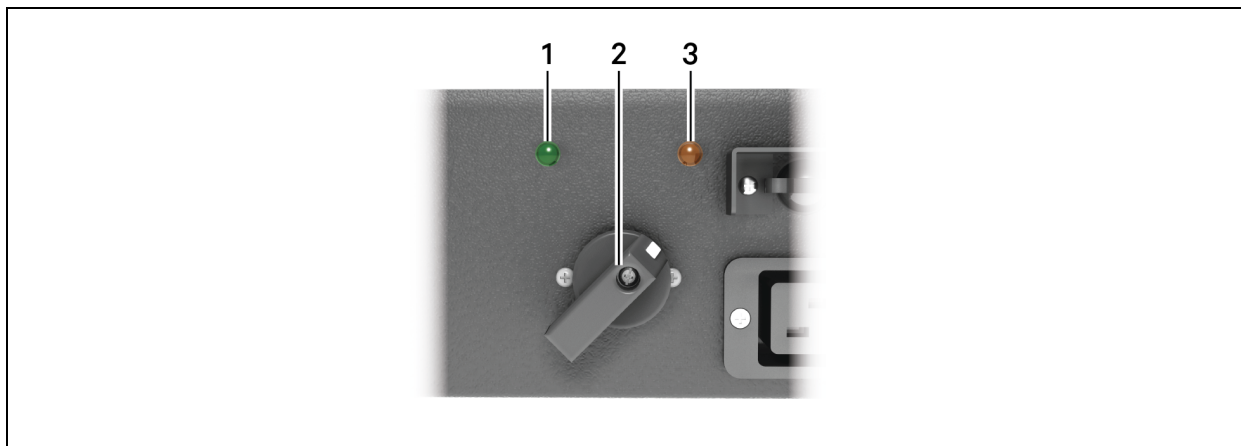
### 6.1 Mains Indicator Lamp

This amber lamp is illuminated when mains power is present (see Figure 7.1 below). It signals that loads can be transferred to maintenance bypass (Mains mode) operation via the rotary switch. If mains power is not present, this lamp will be off and the UPS will supply battery backup power to connected loads.

### 6.2 UPS Indicator Lamp

This green lamp is illuminated when output power is available from the UPS (see Figure 7.1 below). It signals that it is safe to transfer connected loads from mains power back to UPS output power.

**Figure 7.1** Indicator lamps on Liebert MicroPOD



**Table 7.1** Indicator Lamp Descriptions

ITEM	DESCRIPTION
1	Green lamp: Output Power Available from UPS
2	Rotary Switch
3	Amber Lamp: Mains Power Present

## 7 OPERATION

### 7.1 Transfer to Maintenance Bypass

To transfer to maintenance bypass (mains) from UPS, use the following steps:

1. Ensure the Mains lamp (amber) is illuminated. If the lamp is not illuminated, refer to [Troubleshooting](#) on page 15.
2. Transfer the rotary switch from UPS to MAINS, provided the Mains lamp is illuminated on the Liebert MicroPOD.
3. Turn the UPS off.
4. Disconnect the two cables connecting the UPS to the Liebert MicroPOD.
5. The UPS is prepared for servicing.



## 8 SPECIFICATIONS

Table 9.1

### Specifications—Liebert MicroPOD units

MODEL#	POWER DISTRIBUTION BOX MODEL #		
	MP2-210K	MP2-220L	PD5-20AC20
USED W/ LIEBERTGXT RATING, VA		3000	3000
Dimensions, W x D x H, in (mm)			
Unit	15.51 x 3.03 x 3.46 (394 x 77 x 88)		
Shipping	18.5 x 8.27 x 6.49 (470 x 210 x 165)		
Weight, lb (kg)			
Unit	4.4 (2.0)		
Shipping	6.2 (2.8)	6.6 (3.0)	
Electrical Specifications			
AC Input	EN60320/C14 receptacle	EN60320/C20 receptacle	EN60320/C20
Connection to UPS Input	EN60320/C13 receptacle	EN60320/C19 receptacle	EN60320/C19
Connection to UPS Output	EN60320/C14 receptacle	EN60320/C20 receptacle	EN60320/C20
Output Receptacles/ Protection	(4) EN60320/C13 with 10A circuit breaker (4) EN60320/C13 with 10A circuit breaker	(2) EN60320/C13 with 10A circuit breaker (2) EN60320/C13 with 10A circuit breaker (2) EN60320/C13 with 10A circuit breaker (1) EN60320/C19 with 16A circuit breaker	(2) EN60320/C13 with 10A circuit breaker (2) EN60320/C13 with 10A circuit breaker (2) EN60320/C13 with 10A circuit breaker (1) EN60320/C19 with 20A circuit breaker

Table 9.2

General characteristics—Liebert MicroPOD units, pluggable and hardwire

UNIT	DESCRIPTION
Transfer Time (to and from maintenance bypass)	< 6 milliseconds
Operating Ambient Temperature	32°F to 104°F (0°C to +40°C)
Storage Ambient Temperature	-4°F to 140°F (-20°C to +60°C)
Humidity	0 to 95% non-condensing
Agency/Standards	UL 1778, c-UL, ISTA Procedure 1A

This Liebert MicroPOD is intended for use with a UPS meeting all the following requirements:

- UPS input cord is compatible with the rating and type of receptacle on the Liebert MicroPOD labeled *CONNECT UPS LINE CORD HERE*.
- UPS output cord is compatible with the rating and type of receptacle on the Liebert MicroPOD labeled *UPS*.
- Available mains receptacle is compatible with the Liebert MicroPOD input power connector labeled *MAINS*.

## 9 TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Mains lamp (amber) not illuminated.	Mains not present.	Call qualified service personnel to restore power to receptacle.
	Liebert MicroPOD input cord not connected to mains.	Refer to Liebert MicroPOD installation instructions in this manual: <ul style="list-style-type: none"> <li>• <a href="#">Installation on a Liebert GXT UPS</a> on page 7 and</li> <li>• <a href="#">Rack Mount Installation</a> on page 8.</li> </ul>
UPS Available lamp (green) not illuminated.	UPS output power not present.	Turn on UPS. Refer to UPS user manual.
	UPS input and/or output cord not connected to Liebert MicroPOD.	Refer to Liebert MicroPOD installation instructions in this manual: <ul style="list-style-type: none"> <li>• <a href="#">Installation on a Liebert GXT UPS</a> on page 7 and</li> <li>• <a href="#">Rack Mount Installation</a> on page 8.</li> </ul>
Liebert MicroPOD will not start some / all connected loads.	Liebert MicroPOD output circuit breaker has tripped.	Reset Liebert MicroPOD circuit protectors.
Liebert MicroPOD circuit protectors trip after resetting.	Overcurrent on Liebert MicroPOD receptacle.	Recalculate load requirements, distribute load among other Liebert MicroPOD receptacles.

### 9.1 Product Warranty Registration

To register for warranty protection, visit the Quick Links section of the Vertiv™ site at:

<http://www.VertivCo.com>

Click on Product Warranty Registration and complete the form.

If you have any questions, contact Vertiv™ Channel Support at:

North America: 800-222-5877

Outside North America: 00-800-1155-4499

E-mail: [liebert.upstech@VertivCo.com](mailto:liebert.upstech@VertivCo.com)



