

Quick Installation Guide

IMPORTANT: Before installing, connecting to supply or operating Vertiv™ Liebert® ITA2 UPS, refer the Safety and Regulatory Statements sheet. For detailed installation, operation, maintenance, and troubleshooting information visit the ITA2 product page for the Vertiv™ Liebert® ITA2 UPS Installer/User Guide available at www.VertivCo.com or use the QR code below.



Unpacking and Inspection

Unpack and inspect the UPS and its accessories. Inspect the UPS for damage. If you find any damage, document and photograph the damages and notify the local Vertiv representative.

Selecting Power Cables

When connecting wiring, follow the local wiring regulations and take the environment situation into account.

NOTE: The conduit size and wiring method must be in accordance with all local, regional, and national codes and regulations, including NEC ANSI/NFPA 70.

The maximum current for operating modes, the recommended wire sizes, and the recommended power cables and plugs are listed in tables 1 to 3, below.

Prepare for Connections

For all configurations besides 5 kVA:

- Remove the conduit box cover to gain access to the input and output terminal blocks.
- Remove the knockout plates and attach the conduits to the rear of the conduit box.

For 5 kVA:

- 5 kVA UPS is designed with pluggable input and output interfaces. The default connection is a single input with L21-20P interface and the output is L21-20R. External connections use corresponding interfaces.

Table 1 Liebert UPS Currents and Cables — User and UPS Rectifier Input

Unit Rating	Maximum Input Current (A)	Recommended OPD	75 °C THW Copper Wire (Phase) *Number of Cable per phase:1	75 °C THW Copper Wire (Neutral) *Number of Cable:1	75 °C THW Copper Wire (Ground) *Number of Cable: 1	Recommended Torque
5 KVA	20	30 A	10 AWG	10 AWG	10 AWG	30 lb-in
8 KVA	24	30 A	8 AWG	8 AWG	10 AWG	30 lb-in
10 KVA	37	50 A	6 AWG	6 AWG	10 AWG	30 lb-in

Table 2 Liebert UPS Currents and Cables — User and UPS Bypass Input and Output

Unit Rating	Maximum Input Current (A)	Recommended OPD	75 °C THW Copper Wire (Phase)	75 °C THW Copper Wire (Neutral)	75 °C THW Copper Wire (Ground)	Recommended Torque
5 KVA	14	20 A	10 AWG	10 AWG	10 AWG	30 lb-in
8 KVA	23	30 A	10 AWG	10 AWG	10 AWG	30 lb-in
10 KVA	28	50 A	8 AWG	8 AWG	10 AWG	30 lb-in

Table 3 Ring Terminal Part Numbers

	10 AWG (5.26 mm ²)	8 AWG (8.36 mm ²)	9 AWG (13.3 mm ²)
Part Number	McMaster-Carr: 7113K462	McMaster-Carr: 7113K444	McMaster-Carr: 7113K366
	Thomas and Betts: RC10-14	Thomas and Betts: RDV717	Thomas and Betts: RE6-14
	Tyco Electronics: 1577648-1	Tyco Electronics: 132331-1	—

Single-Input Configuration Connections

1. Leave the shorting busbars in place on the UPS input terminal block. The default configuration of the product is single-input, and the L21-20P terminal has been connected.
2. Referring to the single-input wiring diagram below, connect the cables from the upstream feeder panel:
 - Phase A to L1
 - Phase B to L2
 - Phase C to L3
 - Neutral to N
 - Ground to PE (next to pA)

Dual-Input Configuration Connections

1. Remove the shorting busbars from the terminals labeled L1, L2, and L3 in the single-input wiring diagram below.
2. For rectifier input, refer to the dual-input wiring diagram below, and connect the cables from the upstream feeder panel:
 - Phase A to rA
 - Phase B to rB
 - Phase C to rC
 - Neutral to N
 - Ground to PE (next to pA)

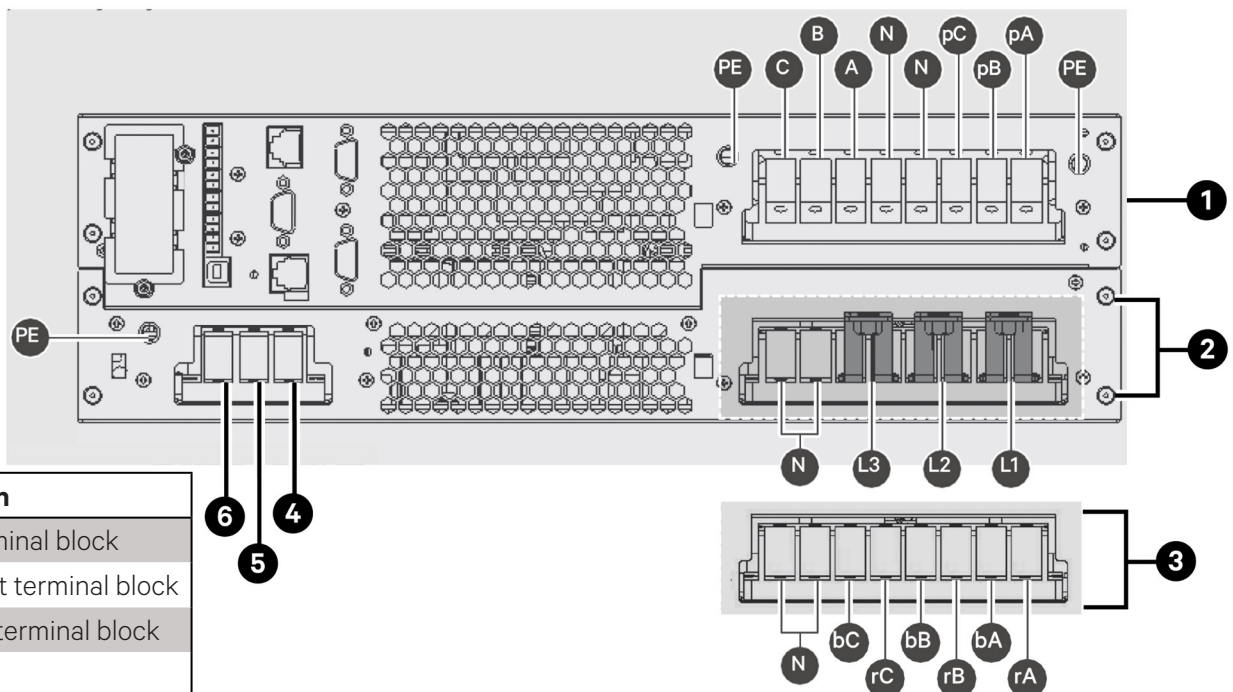
3. For Bypass input, refer to the dual-input wiring diagram below, and connect the cables from the upstream feeder panel:
 - Phase A to bA
 - Phase B to bB
 - Phase C to bC
 - Neutral to N
 - Ground to PE (next to pA)

Output Connections

NOTE: The UPS has two output terminal block sections, always on and programmable/controllable. The always on connections are listed first, and the programmable connections are listed inside parentheses.

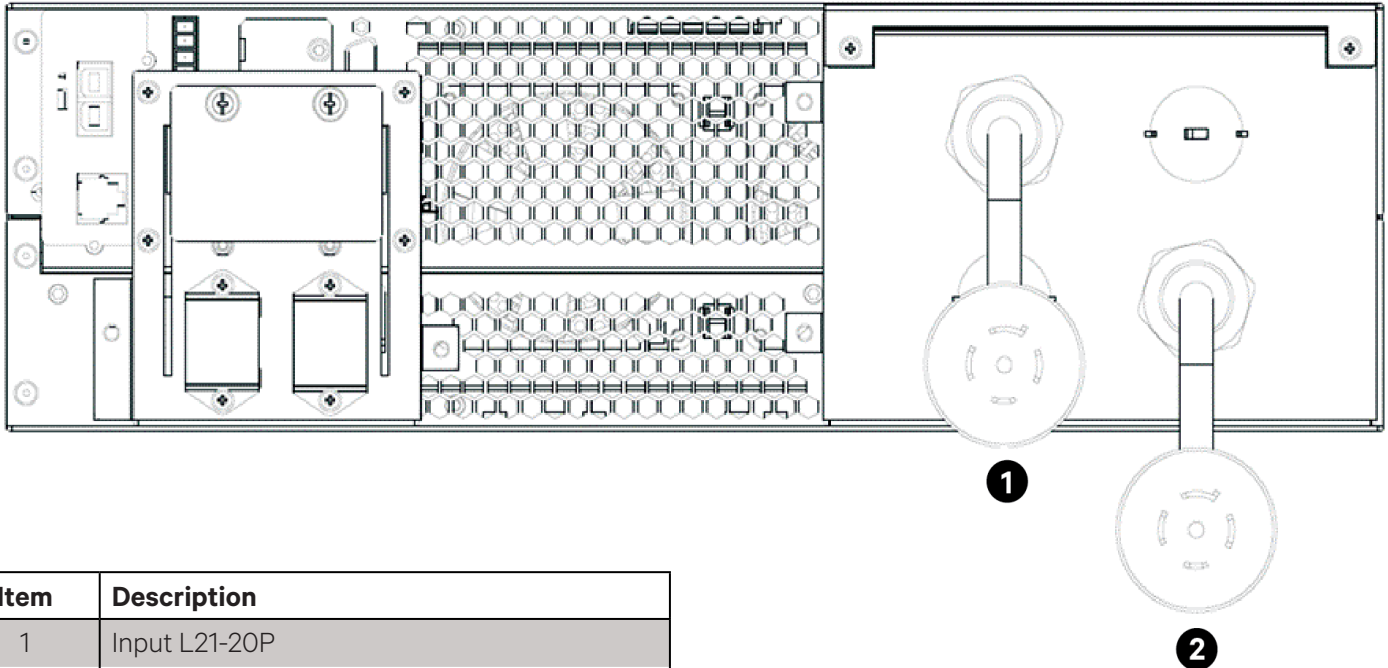
1. Referring to the dual-input wiring diagram below, connect the cables from the UPS to the downstream feeder panel on the panel board main breaker:
 - Phase A from A (pA) to Phase A on panel.
 - Phase B from B (pB) to Phase B on panel.
 - Phase C from C (pC) to Phase C on panel.
 - Neutral N (N) to the neutral bus on panel.
 - Ground from PE (stud next to C to the ground bus on panel).
2. Replace the conduit box cover and secure it.

Single-Input and Dual-Input Configuration Wiring Diagram (8kVA and 10kVA)



Item	Description
1	Output terminal block
2	Single-input terminal block
3	Dual-input terminal block
4	BAT+
5	BATN
6	BAT-

Single-Input Configuration Wiring Diagram (5kVA)



Item	Description
1	Input L21-20P
2	Output L21-20R

Powering the UPS

NOTE: Do not start the UPS until after the installation is finished, all UPS wiring is complete, and all access panels removed for installation are replaced and secured on the UPS.

1. Close the upstream feeder breaker for the UPS rectifier and, for dual-input configuration, close the upstream feeder breaker for the UPS bypass.
2. Close all downstream breakers including distribution panel main breaker and/or branch circuit breakers.
3. If you connected external battery cabinets, close the battery output breakers.
4. Referring to the illustration, Operation and Display Panel:
 - Open the maintenance bypass breaker (MBB) and secure the mechanical interlock near the breaker hand in the lower position.
 - Close the rectifier input breaker (RIB), bypass input breaker (BIB), and maintenance isolation breaker (MIB).

The UPS starts and performs boot-up system checks for 20 to 30 seconds.

5. Power-on the UPS using the Operation and Display Panel by pressing the power button until the confirmation dialog appears. Use the Up/Down arrows to select YES, then press Enter.

NOTE: During operation, the UPS may sound an alarm. You may press and hold the Esc button for 3 seconds to silence the audible alarm.

Operation and Display Panel



Item	Description	Item	Description
1	Run	5	Enter
2	Alarm	6	Down
3	Display	7	Up
4	Power	8	Escape



To contact Vertiv Technical Support: visit www.Vertiv.com

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