Vertiv™ Liebert® ITA2 UPS

1-3 kVA

Flexible power protection for
Rack or Tower Installation

Vertiv™ Liebert® ITA2 UPS | 1–3 kVA

Benefits

- True online double Conversion UPS
- Available in 1-3 kVA Capacity
- Gravity Sense LCD display
- Wide Input voltage range
- Input power factor correction
- Smart battery charger design for optimized battery performance
- Generator compatible
- SNMP, USB, and RS232 Multiple communication
- Eco Mode operation for energy saving
- Emergency power off function
- Rack-tower design for installation flexibility
- Turnkey dust-resistant design with the ability to operate under high ambient temperature of up to 50 °C
- Integrated output sockets
- Unity output power factor

The Vertiv™ Liebert® ITA2 (1-3 kVA) series is a full-featured transformer-free UPS designed to offer compact, efficient, and reliable power to modern sensitive electronic equipment.

With a unity output power factor, Vertiv™ Liebert® ITA2 (1-3 kVA) perfectly matches the needs of modern IT loads, and with its wide input voltage and frequency range, it effectively reduces the need for battery intervention, thus extending battery life. It offers best-in-class efficiency of up to 94% in double conversion mode over a wide range of load conditions, resulting in significant OPEX cost savings.

The Liebert® ITA2 (1-3 kVA) features a multi-lingual LCD user interface allowing close control and monitoring of system status and performance.

Most importantly, Liebert ITA2 (1-3 kVA) has been rigorously tested under extreme conditions like dusty environments, high altitude, very high and low ambient temperatures, and seismic conditions among others and it has come out unscathed from these tests.

These capabilities make the Liebert ITA2 an ideal choice for a wide range of commercial applications.

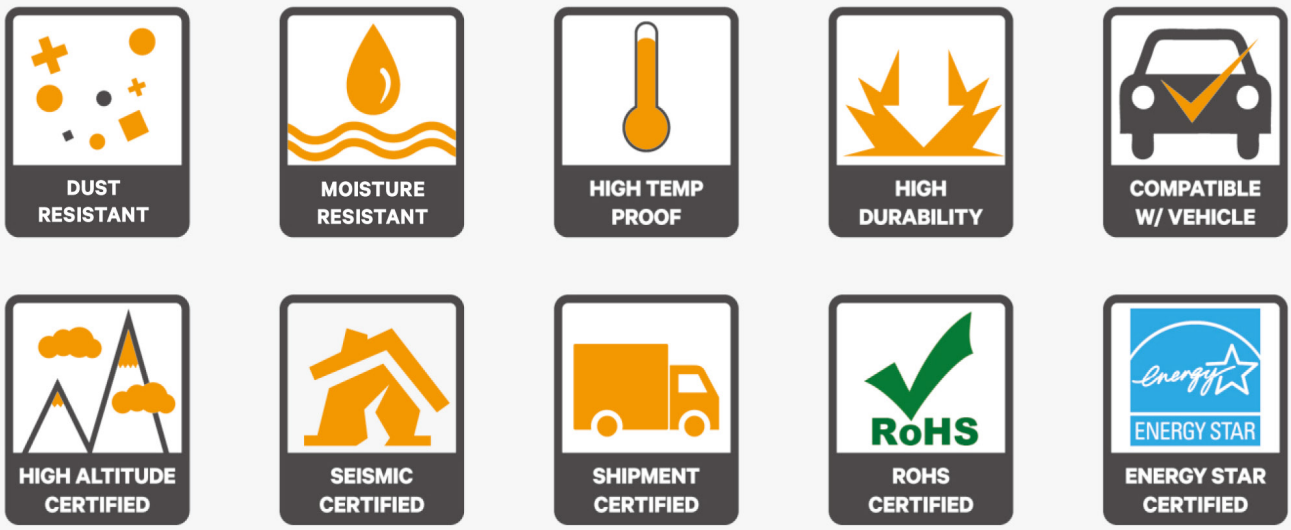
In the ECO mode, the efficiency of the Liebert ITA2 (1-3 kVA) UPS is up to 98%.

Vertiv™ Liebert® ITA2 (1-3 kVA) UPS (Tower-mounted Type)

Vertiv™ Liebert® ITA2 (1-3 kVA) UPS (Rack-mounted Type)

Liebert® ITA2

Robust power protection solution in a compact package



Flexible Power Protection for Rack or Tower Installation

Robust Performance

- Unity Output Power Factor
- Highly-efficient delivers efficiency up to 94% in Double Conversion Mode
- Delivers efficiency up to 98% in Eco Mode
- Adopts to any harsh grid environments (100 Vac to 288 Vac)
- Perfect sinusoidal voltage waveform
- Intelligent battery management system

Highly Flexible

- Small form factor (2U) and Available in rack and tower configurations
- Built-in Ethernet port for web-page monitoring
- Gravity sense graphical LCD display
- Built-in input and output dry contacts

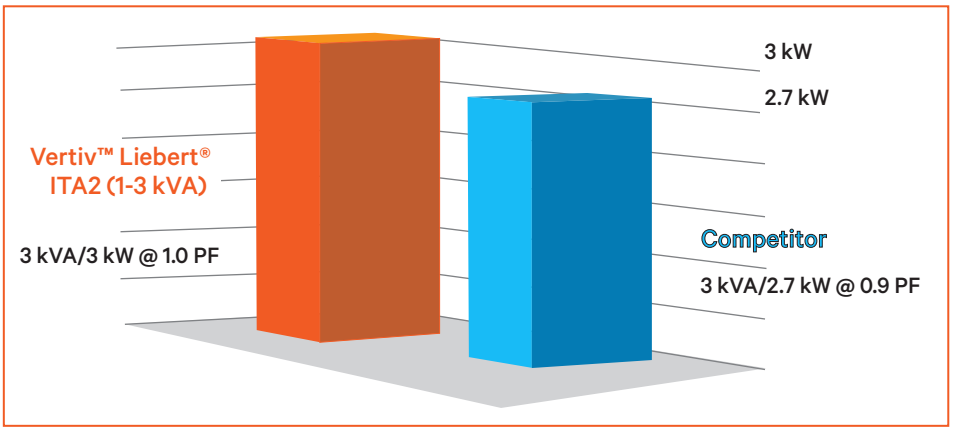
Highly Reliable

- Innovative air channel and Moisture and Dust-proof Design
- Two-way LLC circuit topology
- Operation up to 50 °C environment
- Works @ 3000 m altitude without derating
- High Input Power Factor for harsh power grid environment

Output Power Factor

The Vertiv™ Liebert® ITA2 (1-3 kVA) UPS delivers a unity output power factor, therefore, the active power is 10% higher than that of a UPS with 0.9 PF.

As a result, Liebert® ITA2 (1-3 kVA) UPS prevents the need for system oversizing while delivering the same level of power to the load.



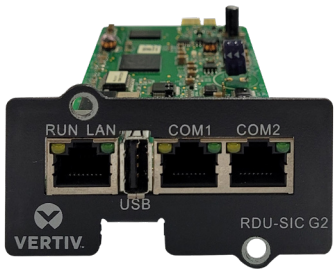
Communications Options

Communications Options	Arrangement	Function Description
Web-page monitoring/SNMP	Inbuilt through Ethernet port	The built-in Ethernet port supports the HTTP and SNMP protocol and allow users to remotely access the UPS via the IE (Google browser recommended) to monitor the UPS in real time.
Dry Contacts	Inbuilt	2 dry contacts for input signal (Battery mode shutdown, Any mode shutdown, Maintain mode) 2 dry contacts for output signal (Low battery, On bypass, On battery, UPS fault)
Advanced SNMP For Remote Alarm managements	RDU SIC G2 card (Optional)	Alarm managements can be used for advanced features such as remote alarm management, safe shutdown, email alerts, etc.
MODBUS	SIC Card (Optional)	Can be used for MODBUS RTU feature

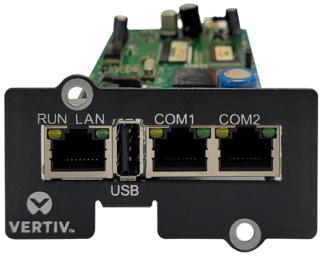
Note: For optional communication cards, the user needs to consider an external communication box. Only one card can be used at a time.

Applications

- PCs and Workstations
- Small/Medium server rooms
- Edge data center
- Network Closet
- VoIP Telecom



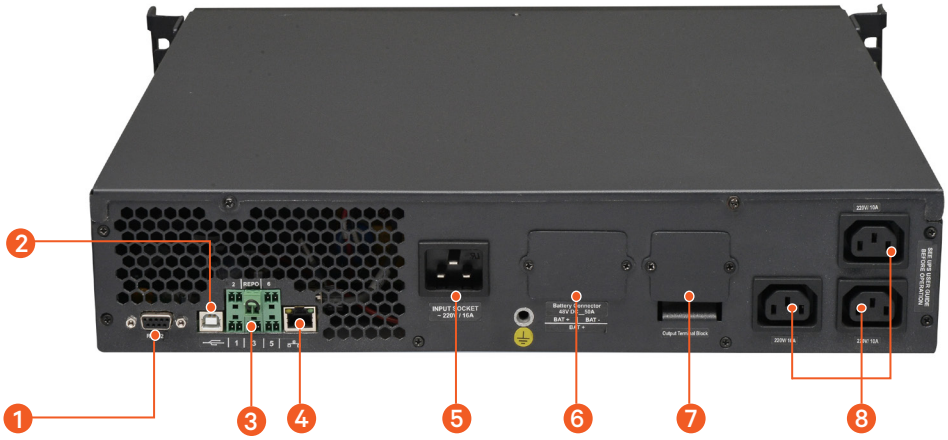
RDU SIC G2 card



SIC card

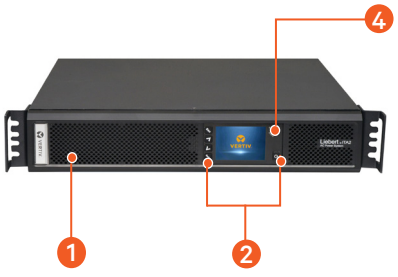
Rear view

1. DB9 Port (Intellislot)
2. USB Port
3. REPO and Dry Contacts
4. Ethernet Port
5. Input Socket
6. Battery Connector
7. Output Terminal Block
8. Output sockets



Front view

1. Ventilation Holes
2. Functional Keys
3. LCD Display Panel
4. LED Indicators



Communication Options

1. External Communication Slot/Box
2. RDU SIC Card/SIC Card

The UPS has an inbuilt Dry Contacts and Web-page monitoring function (SNMP). However, if the user needs advanced monitoring along with remote management, the RDU SIC card can be considered.
Similarly, if MODBUS is needed, the SIC card can be considered. In order to use these cards, the user will have to consider the External Communication Slot as shown. Only one card can be used at a time.

Technical Specifications

Model	Vertiv™ Liebert® ITA2 (1 kVA)	Vertiv™ Liebert® ITA2 (2 kVA)	Vertiv™ Liebert® ITA2 (3 kVA)
Rating	1 kVA	2 kVA	3 kVA
System Parameter			
Technology	IGBT based Double conversion PWM based online UPS		
Installation Mode	Rack/Tower		
Rated Voltage	220 Vac		
Input			
Volatge Range	176 Vac to 288 Vac at full load; 100 Vac to 176 Vac linear increasing; 100 Vac at half load		
Rated Frequency	50 Hz		
Frequency Range	40 Hz to 70 Hz		
Power Factor	≥ 0.99 at full load; ≥ 0.97 at half load; ≥ 0.94 at 30% load		
Output			
Rated Power	1000 VA/1000 W	2000 VA/2000 W	3000 VA/3000 W
Voltage	220 Vac/230 Vac/240 Vac, 220 Vac by default		
Frequency Synchronization Range	Rated frequency ±3 Hz; Configurable range: ±0.5 Hz to ±5 Hz		
Frequency Track Rate	Default: 0.5 Hz/s; Configurable range: 0.2 Hz/s; 0.5 Hz/s; 1 Hz/s (single UPS)		
Rated Power Factor	Unity		
Crest Factor	3 : 1		
Voltage Harmonic Distortion	< 1% (linear load), < 3%(Non-Linear Load)		
Overload Capacity on Normal Mode	105% to 125% for 10 min; 125% to 150% for 1 min; above 150% for 200 ms		
Overload Capacity on Battery Mode	105% to 125% for 1 min; above 125% for 200 ms		
Efficiency			
ECO Mode	98%		
Mains Efficiency	92%	93%	94%
Battery			
Type	Sealed, lead-acid, maintenance-free battery		
Cell No.	3	4	6
Rated Voltage	36 Vdc	48 Vdc	72 Vdc
Battery Ah rating	9 Ah for standard backup, > 7 Ah for long backup	9 Ah for Standard backup, > 8 Ah for Long Backup	9 Ah for Standard backup, > 8 Ah for Long backup
Charge Current	8 A (Long back-up), 2 A (Standard back-up)		
Transfer Time			
Mains - Battery	0 ms		
Inverter-Bypass	Synchronous transfer: less than 1 ms		
Noise			
Acoustic Noise Level	< 50 db		

Model	Vertiv™ Liebert® ITA2 (1 kVA)	Vertiv™ Liebert® ITA2 (2 kVA)	Vertiv™ Liebert® ITA2 (3 kVA)
Panel Display Mode			
Display Type	Colorful Gravity Sense LCD display		
Environmental Parameter			
Operating Temperature	0 °C to 50 °C, Linearly Derates to 90% and 80% capacity at 40 °C and 50 °C respectively		
Storage Temperature	-20 °C to +60 °C (battery excluded); -15° C to +40°C (battery included)		
Relative Humidity	5% RH to 95% RH, non-condensing		
Altitude	≤3000 m; derating when higher than 3000 m		
Mechanical parameter			
W × D × H	430 × 400 × 85 mm	430 × 470 × 85 mm	430 × 540 × 85 mm
Weight	15.6 Kg Standard Backup, 7.1 Kg Long Backup	19.9 Kg Standard Backup, 8.6 Kg Long Backup	26.7 Kg Standard Backup, 10 Kg Long Backup
Ventilation	Forced-air cooled		
Ingress Protection Level	IP20		
Cable Entry	Rear		
Network Management			
Intelligent Card Port	Optional. Can be used for connecting RDU SIC card/SIC card		
USB Port	Built-in		
Ethernet Port	Built-in. Supports HTTP and SNMP protocol		
Dry Contacts	Built-in		
MODBUS	Optional through SIC card		
Complying Standards and Certifications			
Safety (CE)	IEC/EN 62040-1:2008+A1:2013		
Electromagnetic Compatibility (EMC)	Conducted Emission:IEC/EN 62040-2 C2, Harmonic current:IEC/EN 61000-3-2		
Surge Protection	IEC/EN 61000-4-5		
RoHS	Yes		
ENERGY STAR certified	2011/65/EU uninterruptible power supplies version 1.0 program requirements/ENERGY STAR UPS version 1.0 test method guidance		
BIS Certification	Yes		

Note: The specifications are subject to change without any prior notice.

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