



Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

15,20kVA 208V/220V
30,40kVA 400V
Rack/Tower

Online Double-Conversion
UPS offers the highest level
of protection at the IT Edge



Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

Explore this compact, modular three-phase UPS solution designed for high density computing environments and IT Edge applications

Highly reliable, fast, and robust UPS system that provides constant, 24/7 protection for diverse applications. For three-phase critical systems 40kVA and under consider the next generation Vertiv™ Liebert® ITA2 UPS.



Best-in-class functional solution

Reliable performance and high availability are derived through a proven on-line, double conversion UPS technology.

- Cutting-edge design enables seamless integration into various ecosystems
- Compact UPS system with an intuitive control panel can be used in rack/tower form factor. Support base provides convenient and stable placement on the floor.
- Optimized modules minimize space used in the rack.
- Configuration easily extends to external batteries and the maintenance bypass cabinet
- Parallelability, redundancy and maintenance are facilitated through the use of dedicated maintenance bypass options

What's In The Box?

- UPS
- Tower Stand
- USB Cable
- Quick Installation Guide
- Safety Instructions
- Adjustable 4-Post Rack Mounting Kit
- Copper Jumpers for Single Input Configuration
- Shared Battery Connector Cable (for redundancy/paralleling UPS with VRLA Batteries)
- Vertiv™ Power Insight Management Software (free download from Vertiv.com)
- IS-Unity DP Communication Card



Dust Resistant



High Temp Proof



Shipment Certified



High Durability



High Altitude Certified



RoHS Certified



Energy Star Certified

Overview

- The Liebert ITA2 is an online UPS designed to power three-phase (in/out), 208/220V and 400V IT systems simply, reliably, and economically.
- Key Benefits
- Delivers 20kVA, 208V and 40kVA in 400V capacity.
- Capability of pairing either with Lithium Ion or VRLA external batteries.
- Scalable battery runtimes available
- Flexible placement. Use inside a rack or in a tower configuration
- Compact, high-power density solution
- **Parallelable** for maximum flexibility. Expand capacity up to 40kVA in 208V and up to 80kVA load capacity in 400V.
- Built-in redundancy capability
- Easy to install and manage
- High power factor maximizes the usable power
- Optimized maintenance bypass maintains power, even during servicing (optional)
- Ideally Suited For Powering Many IT Systems
- IT closets, servers and more
- Branch, small-midsize IT systems
- Medical/lab testing equipment
- VoIP
- ISDN & frame relay applications
- Storage systems
- Security systems
- Light industrial
- Replacement for aging UPS

Vertiv™ Liebert® ITA2 20kVA 208V and 40kVA 400V

Vertiv™ Liebert® ITA2 provides exceptional performance for edge, small, and medium data centers, along with critical infrastructure in commercial and industrial settings.



Vertiv™ Liebert® ITA2-UPS-Versatile and Supports Multiple Critical Applications

Key Applications



IT

- Servers
- Networking equipment
- Data storage



Finance

- Branch offices
- Closed-circuit televisions and data protection
- ATMs



Telecom

- 5G mobile stations
- Access and “last mile”
- Small control rooms



Industrial

- Manufacturing sites
- Control equipment and programmable logic controllers (PLCs)
- Data and networking equipment



Education

- Networking closets
- Networking equipment
- Office protection



Government

- Distributed offices
- Closed-circuit television (CCTV) and data protection
- Small server and storage rooms



Retail

- Point of sale systems
- Networking and wiring closets
- Security and voice over internet protocol (VoIP) telephony



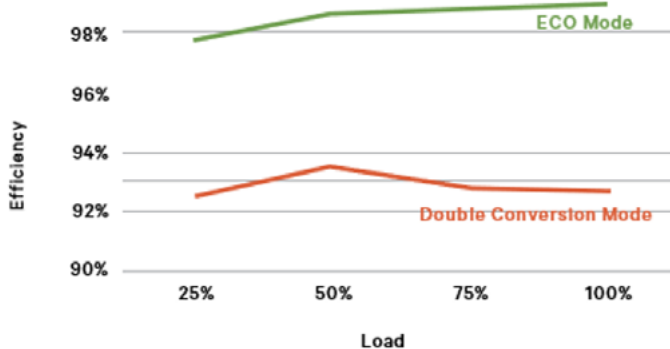
Edge

- Distributed cloud services
- Content providers
- Sensors and data stations

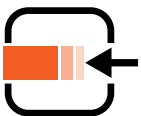
High Performance and High Availability



- **High Efficiency:** Liebert® ITA2™ offers best-in-class efficiency of up to 93.4% in double conversion mode and up to 99% in ECO mode over a wide range of load conditions, resulting in significant cost savings.
- **1.0 Output Power Factor (PF):** Ensures maximum usable power enabling you to connect more equipment saving you money and space.
- **Power Factor Correction:** prevents noise, harmonics, and distortion from being transferred to connected loads or fed back to the utility.
- **Extended Runtime:** VRLA- Up to 5 strings (10 external battery cabinets) and Li-Ion up to 8 strings (16 external battery cabinets) can be connected to Liebert® ITA2 UPS for scalable runtimes
- **Advanced Warning Status:** Receive early audible and visual alarms warning you of system status to alert you to an input voltage, output overload, low battery, or battery replacement condition.
- **Wide Input Voltage Range:** Its cutting-edge, robust component design helps it tolerate the wide input voltage and frequency fluctuations easily. Prolongs battery life by allowing the UPS to maximize the use of the utility power before transferring to battery.
- **Lightening and Surge Protection:** The transient voltage surge suppression circuitry inside the Liebert® ITA2 provides additional protection for the connected equipment.



High Reliability and Flexibility



- **Topology:** True online double conversion UPS ensures clean and consistent power.
- **Installation Flexibility:** Rack-tower design offers enhanced flexibility with a wide range of accessories for both stand-alone and rack-mount installations.
- **Compact Footprint:** High power density allows the rack to have a smaller footprint. When rack-mounted, it enables the installation up to 40kVA in just 3U of rack space, resulting in remarkable space savings.
- **Redundancy:** Supports 1+1 redundant mode up to 2 units for increased system reliability
- **Paralleling Capability:** Supports up to 2 units in parallel (2+0) for maximum load capacity and flexibility facilitated through the dedicated use of a maintenance bypass cabinet – 15/20kVA 208V power modules can be paralleled up to 30kVA/ 40kVA capacity respectively. Likewise, 30kVA /40kVA 400V power modules can be paralleled up to 60kVA/80kVA capacity respectively.
- **Extended Runtimes:** Available in standard and long backup for 4 to 8 hours of runtime.
- **Hot swappable:**
 - If a battery failure occurs, it can be hot-swapped without impacting the entire battery string, allowing for flexible battery configuration, continuous operation and maximizing battery investment.
 - It is possible to replace/configure the UNITY-DP card online, supports plug and play without requiring the UPS to shutdown
 - It is possible to replace the LCD display online provided there are no dry contacts that are being connected to it.
- **Air-Channel Design:** Robust innovative air channel design protects all of the sensitive PCB components from the heat, resulting in enhanced reliability of the overall system.

Superior Battery Technology and Flexibility



- **Hot-Swappable, User-Replaceable Batteries:** Increase product life and reliability with both VRLA and Li-ion batteries that can be easily replaced without disrupting power to connected equipment and minimize downtime.



- **Safe and Reliable:** Both VRLA and Li-ion ensure safety and reliability. Lithium-Ion (LiFePO4) battery chemistry is safest and integrated battery management system (BMS) also ensures safe and reliable operation.

- **Environmentally Friendly:** significantly reduce battery disposal and recycling with lower replacement rates. *[Refer to Vertiv™ Battery Recycling Program]*

Lithium-Ion Batteries:



- **Fewer Battery Replacements:** Lithium-Ion batteries require fewer battery replacements and last on average up to 3 times as long as traditional VRLA batteries reducing maintenance, labor, and replacement costs (lower TCO).

- **More Discharge Cycles:** Lithium-Ion batteries deliver up to 10 times more charge / discharge cycles than VRLA batteries.

- **Fast Recharge:** Lithium-Ion batteries recharge twice as fast as traditional VRLA batteries getting you back to 90% in as little as 2 hours.

- **Lighter Weight:** Lithium-Ion batteries are 45% lighter making it ideal for smaller spaces and wall-mount racks.

Enhanced Manageability



- **LCD Display:** User-friendly full-color LCD interface with gravity sensing orientation simplified installation and configuration while also providing instant at-a-glance status and insights.

- **Remote Management:**

- Vertiv™ Power Insight – Liebert® RDU101 card included for web/SNMP manageability.



- Vertiv™ Environet™ Alert - Monitors and analyzes thousands to millions of points of data of all Vertiv and 3rd party devices.

- **Remote Emergency Power Off:** Remotely shutdown the UPS during an emergency.



Vertiv™ Liebert® ITA2 MPL UPS with Lithium-Ion provides the highest level of power protection for your business-critical IT applications.

Small Three Phase UPS with High Performance Online Power Protection

The Liebert® ITA2 MPL double conversion online UPS with Lithium-Ion batteries provides both the highest level of power conditioning and battery backup for business-critical IT equipment such as business network gear and servers ensuring your mission-critical applications are protected in the event of an unanticipated loss of power or an unprecedented power surge.

The Liebert® ITA2 MPL UPS with Lithium-Ion protects against the widest range of power fluctuations and automatically switches to battery backup when power loss is detected. With a 1.0 power factor (PF) and no transfer time to operation on battery, you can ensure your most critical assets are protected.

Protects Against



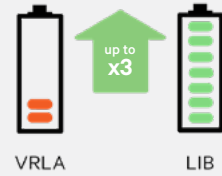
The rack/tower convertible design of the Liebert ITA2 UPS with lithium batteries makes it ideal for edge or distributed IT applications where floor space is at a premium. It is a true low-maintenance, set-it and forget-it solution ideal for remote locations with limited onsite technical resources.

Vertiv Liebert ITA2-MPL UPS with Lithium-Ion Overview

- Lithium batteries are compatible only with 15/20 kVA 208V in a rack/tower convertible form factor.
- Lithium options are not available for 30kVA/40kVA 400V units.
- ITA2-MPL offers 1U & 2U lithium-ion battery cabinets
- Standard 5-year warranty on lithium batteries provides peace of mind that your investment is protected against potentially costly equipment failures
- Achieve the lowest total cost of ownership over the lifetime of the UPS with fewer battery replacements and up to 10 years of useable life
- Hot-swappable, user-replaceable batteries increase the useable life of the UPS by allowing you to easily replace the batteries without disrupting power to connected equipment
- 2 Battery cabinets are required to establish the battery string (DC bus). 1 string of 2U lithium-ion batteries can give up to 7 mins of runtime for a 15kVA UPS and up to 1.5 mins of runtime for a 20kVA UPS at full load .
- Lithium-ion battery technology offers better performance in high temperature environments (50°C) supports up to 10 times more discharge cycles, and delivers faster recharge times compared to VRLA batteries

Why should you choose Lithium-Ion Technology?

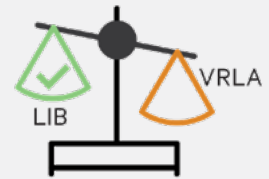
Longer Life



Lowest TCO



Small and Lighter



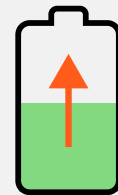
Longer Runtime



Environmentally Friendly

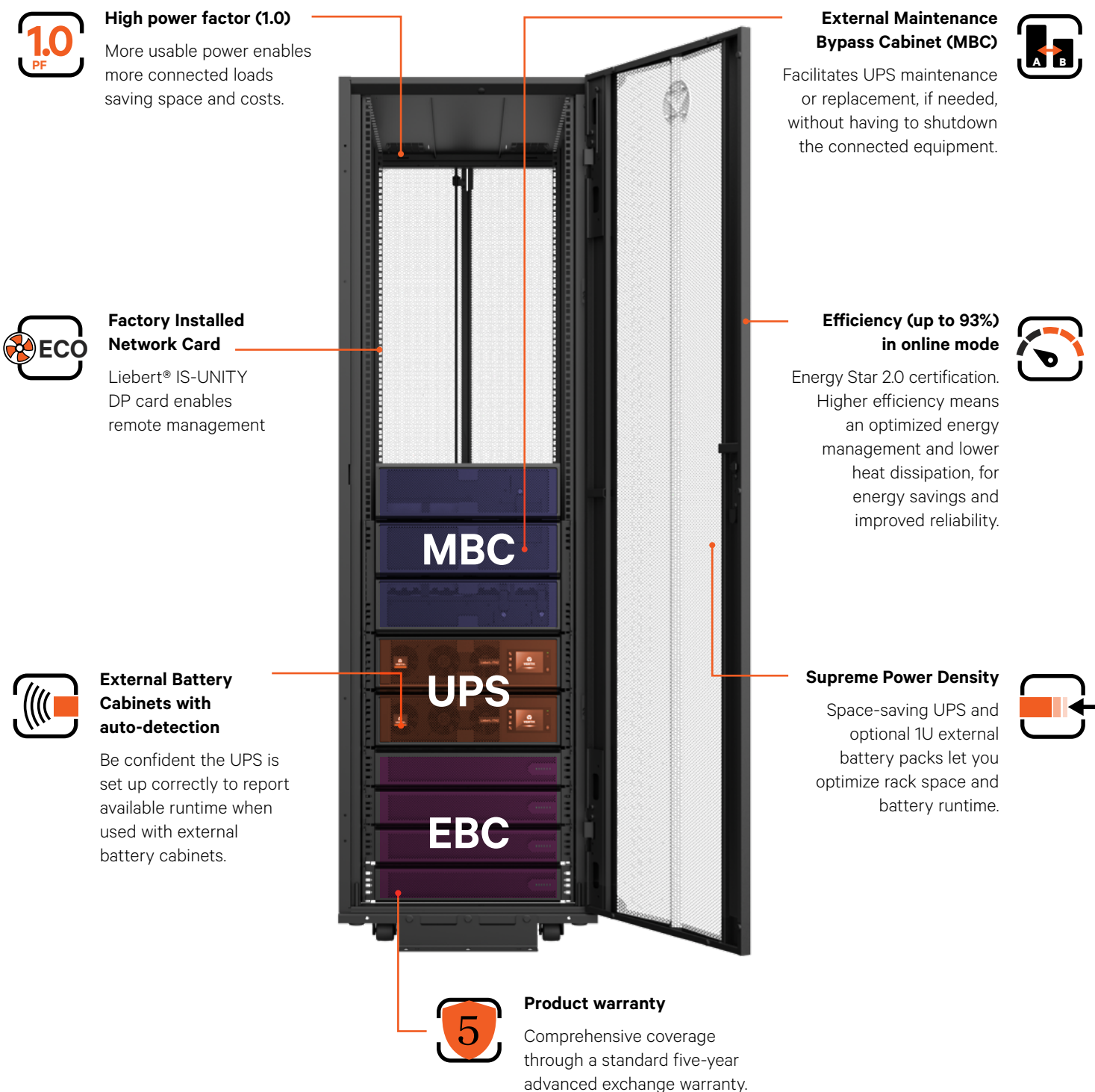


Fast Battery Recharge



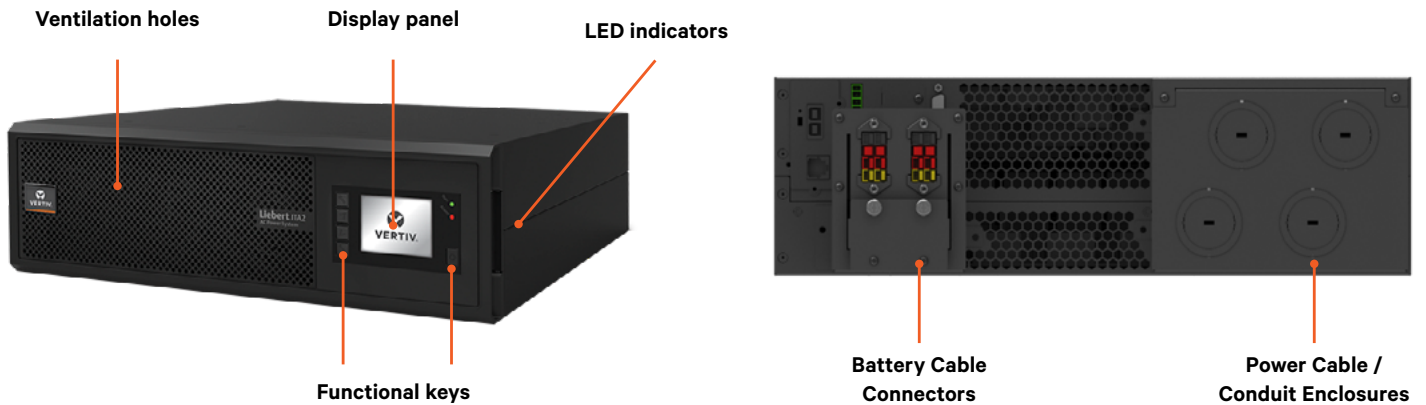
Vertiv™ Liebert® ITA2 Power Module, External Batteries and External Maintenance Bypass Features

Each Liebert® ITA2 UPS (8&10kVA) can be used with an external maintenance bypass with power distribution options. This enables UPS service or removal without disrupting power to the connected equipment.

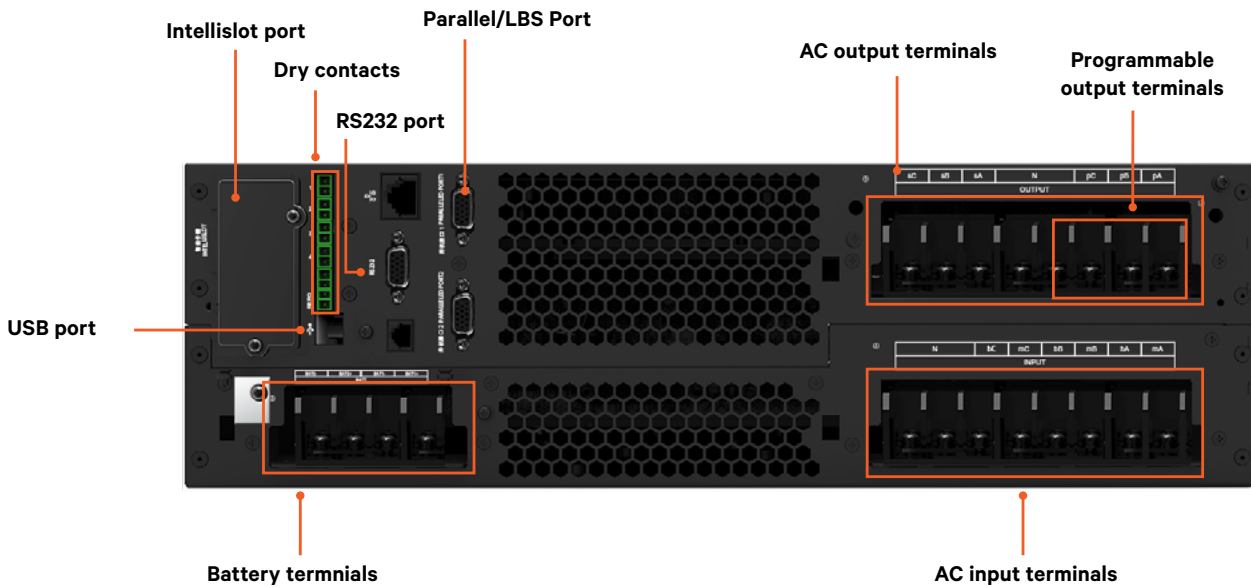


Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

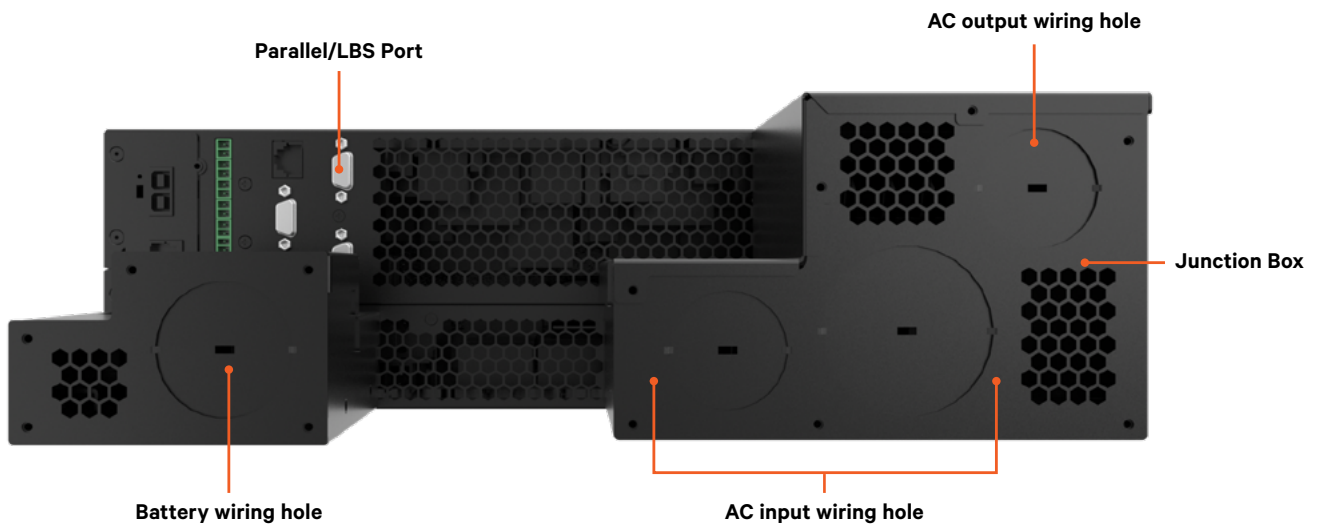
Vertiv™ Liebert® ITA2 Display and Connections



Rear View of the ITA2 UPS 15 and 20kVA 208V



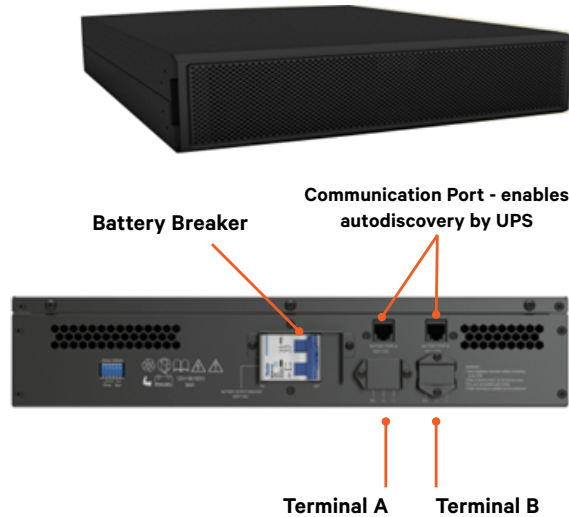
Rear View of the ITA2 UPS 30 and 40kVA 400V



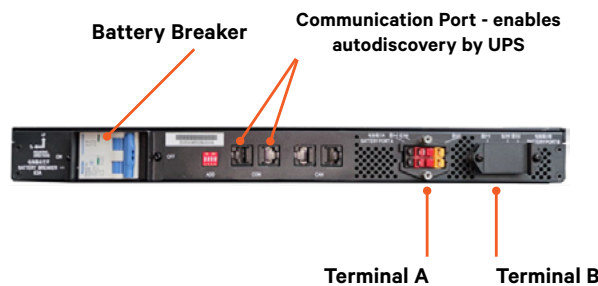
Vertiv™ Liebert® ITA2 External Battery Cabinet Options

[Liebert® ITA2 UPS does not contain internal/replacement battery kits]

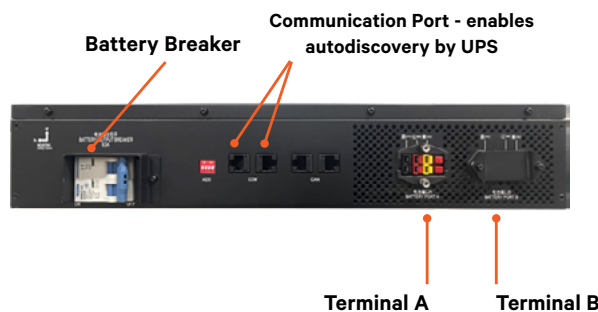
External Battery Cabinet: VRLA (2U)



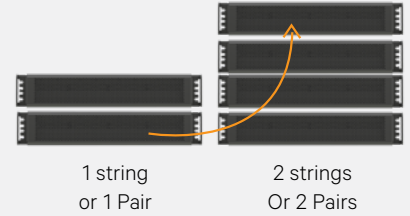
External Battery Cabinet: Li-Ion (1U)



External Battery Cabinet: Li-Ion (2U)



Scalable Backup Run Time



All Liebert® ITA2 EBC's come in strings/pairs.

Note:

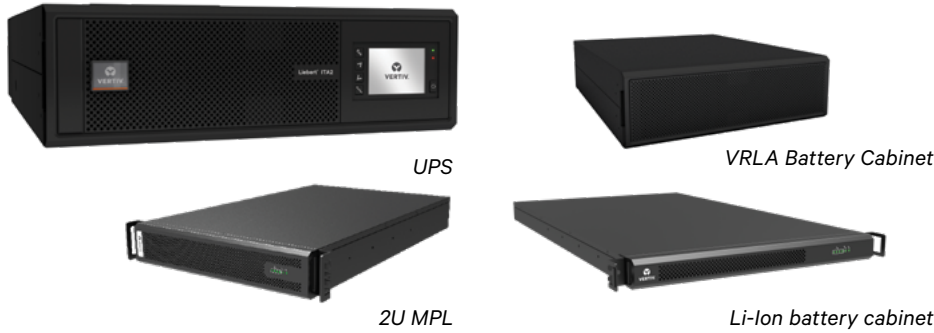
- For both VRLA and Li-Ion, each string consists of 2 external battery cabinets.
- The string is split to reduce the weight of each component and for ease of installation.
- For VRLA: Each cabinet is 2U in height
- For Li-ion: There are 1U and 2U battery cabinet options

For 15/20kVA 208V and 30/40kVA 400V UPS :To guarantee back up time, Vertiv™ recommends configuring at least "2 Strings" of VRLA external battery cabinets and "1 String" of Lithium-Ion battery cabinets.

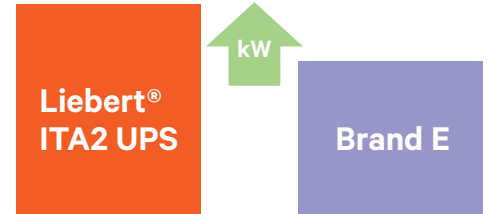
Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

More of What You Need: High Power Density

The Vertiv™ Liebert® ITA2 is designed with a high power factor in a small footprint. This increased power density maximizes the usable power to meet the needs of advanced IT operations.



Get Up to 10% More Power

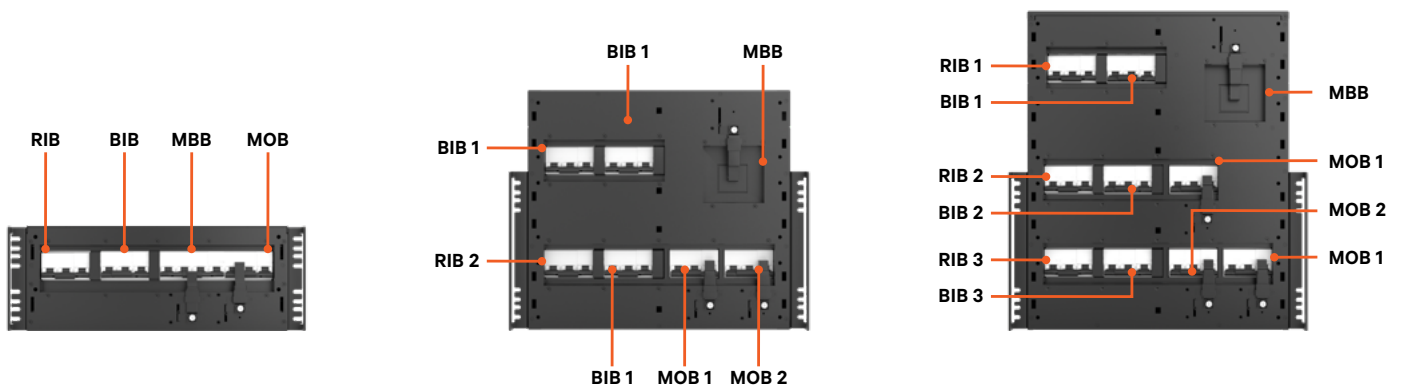


Maintenance Bypass Cabinet Enables Availability and Flexibility

Utilize the optimized maintenance bypass option to enhance availability and keep your critical systems running during routine service or replacement. A maintenance bypass interlock ensures proper bypass operation

The optional maintenance bypass cabinet, available for a single UPS operation at 15/20kVA @ 208V or 30/40kVA @ 400V, comes in a compact 4U size.

To enhance capacity and redundancy, the intelligent paralleling function in Liebert® ITA2 is activated by utilizing specialized Maintenance Bypass cabinets, which come in 9U and 12U sizes. 9U Maintenance bypass cabinet is dedicated to achieve (1+1) redundancy or (2+0) paralleling capability in a two UPS configuration. Likewise, a 12U MBC is dedicated to achieve (2+1) paralleling for capacity and back-up/redundancy in a three UPS configuration.



Front view (panel off) offers easy access to breakers; RIB- Rectifier Input Breaker; BIB-Bypass Input Breaker; MBB- Maintenance Bypass Breaker; MOB-Main Output Breaker



4U MBC



9U MBC



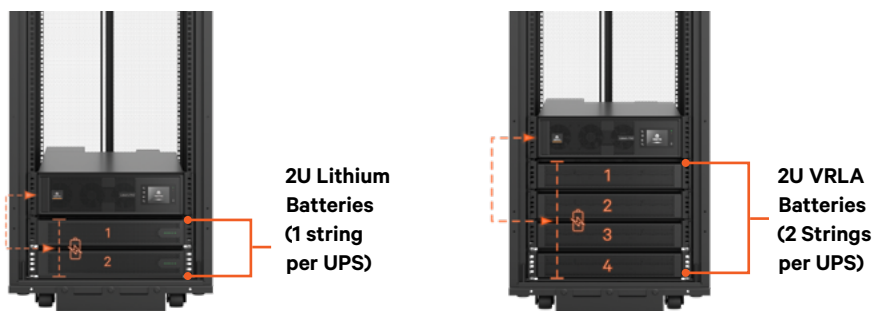
12U MBC

Vertiv™ Liebert® ITA2 UPS and Maintenance Bypass - Configurations

Single UPS configuration

For single UPS configuration with either of these ratings 15/20kVA 208V or 30/40kVA 400V, to guarantee the back up time the Liebert® ITA2 would require either 1 string of Lithium-Ion external batteries or 2 strings of VRLA batteries.

Optional maintenance bypass cabinet (MBC), utilizing 4U of rack space is available for single UPS configurations.



Optional 4U MBC for Single UPS Configuration

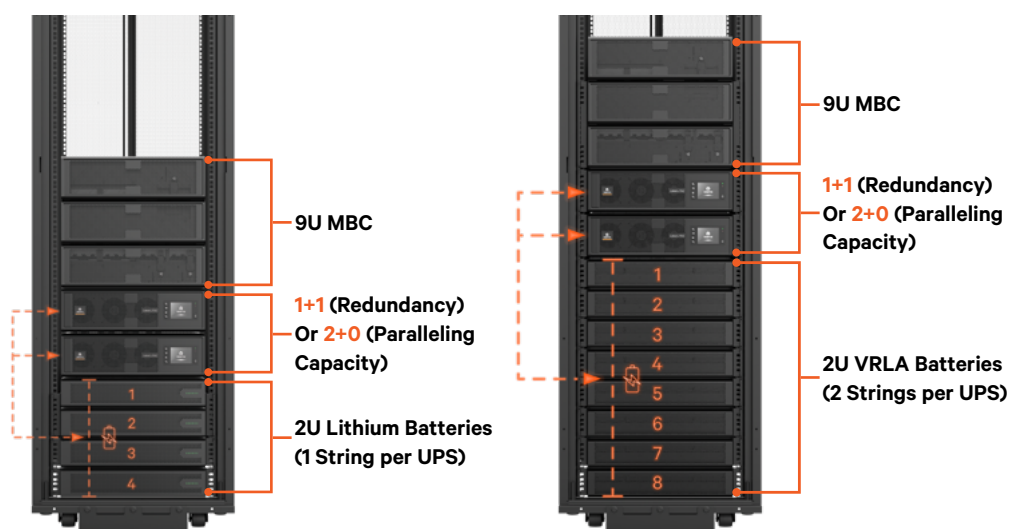


Two ups configuration (1+1) or (2+0)

Dedicated use of a maintenance bypass cabinet (MBC), occupying 9U of rack space is utilized to achieve redundancy/paralleling capability.

For redundancy, the Liebert® ITA2 15/20kVA, 208V and 30/40kVA 400V can connect up to two units with one module utilized for 1+1 redundancy.

For increased capacity, the Liebert® ITA2 comes with an integrated intelligent paralleling function. The Liebert® ITA2 has the ability to manage the active UPS modules supporting the critical load to maximize the total system efficiency. The Liebert® ITA2 15/20kVA 208V allows you to connect two units in parallel to double the capacity to 30/40kVA @208V. Similarly, the 30/40kVA 400V model can also be connected in pairs to reach a capacity of 60/80kVA @400V.



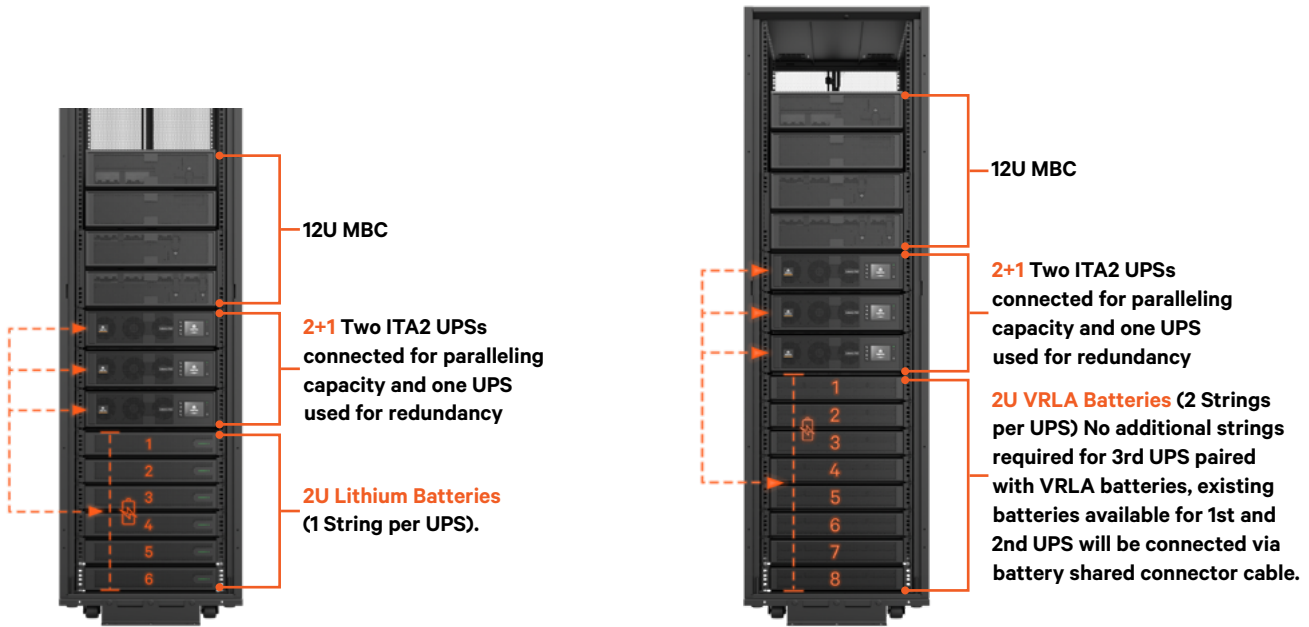
9U MBC for Two UPS Configuration (N+1) or (2+0)



Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

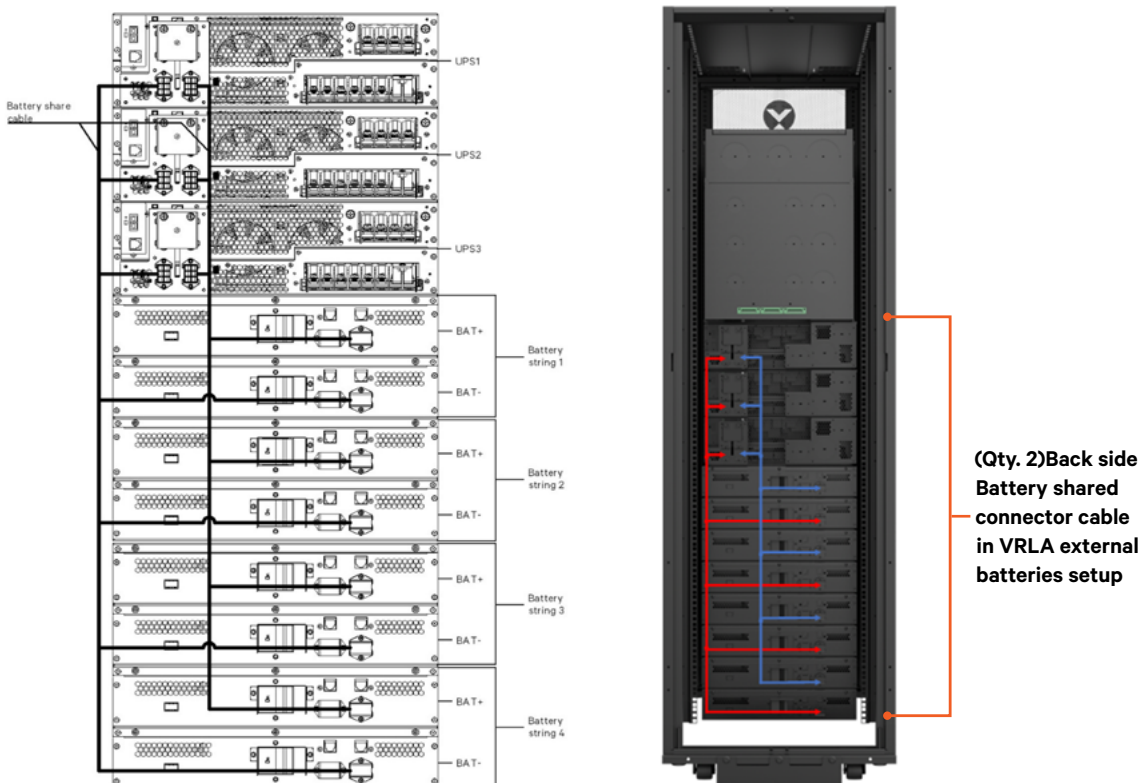
Three UPS Configuration- (2+1)

For increased capacity and redundancy, the 15/20kVA 208V Liebert® ITA2 can connect three UPS units for a capacity up to 40kVA 208V and one redundant (2+1). Similarly, 30/40kVA 400V ITA2, can connect three UPS units for a capacity up to 80kVA 400V and one redundant (2+1).



Backside- Shared Battery Connector Cable

In a three-UPS with VRLA battery configuration, the third UPS used for redundancy purposes does not require additional battery strings. This is made possible by a shared battery connector cable that can be used to connect the third UPS to the existing battery strings of the first and second UPSs. This setup allows for deployment in a standard 42U rack [The shared battery connector cable is included in the 2+1 configuration.]



Vertiv™ Liebert® ITA2 UPS and Maintenance Bypass - Bundled SKU's

[Available only through Broadline Distribution]

ITA2 Bundled SKUs with only **2U Lithium-Ion Batteries** (Only available for 208V units) for single UPS configurations.
 [1 string/pair of lithium batteries per UPS]



Single UPS Configuration

Total Rack Space Required (UPS+ Li-Ion Batteries)
 = 3U + 4U = 7U

Two UPS: 1+1 Configuration for Redundancy SKU's

Total Rack Space Required (UPS+MBC+VRLA Batteries)
 = 6U + 9U + 8U= 23U

Three UPS: 2 + 1 Configuration for paralleling & redundancy

Total Rack Space Required (UPS+MBC+VRLA Batteries)
 = 9U + 12U + 12U = 33U

One Module is used for redundancy or backup purpose

Two Modules used for paralleling/capacity increase and One module for redundancy/backup

15kVA 208V	ITA2LI-15KRT208V7UN
20kVA 208V	ITA2LI-20KRT208V7UN

15kVA 208V	ITA2LI-15KRT208V23URN
20kVA 208V	ITA2LI-20KRT208V23URN

30kVA 208V	ITA2LI-30KRT208V33UPRN
40kVA 208V	ITA2LI-40KRT208V33UPRN

Optional MBC SKU: ITA2-40KMBC40
Total Rack Space required with Optional MBC: 3U + 4U + 4U= 11U

Two UPS: 2 + 0 Configuration for paralleling or capacity increase SKUs

Two Modules used for paralleling/capacity increase

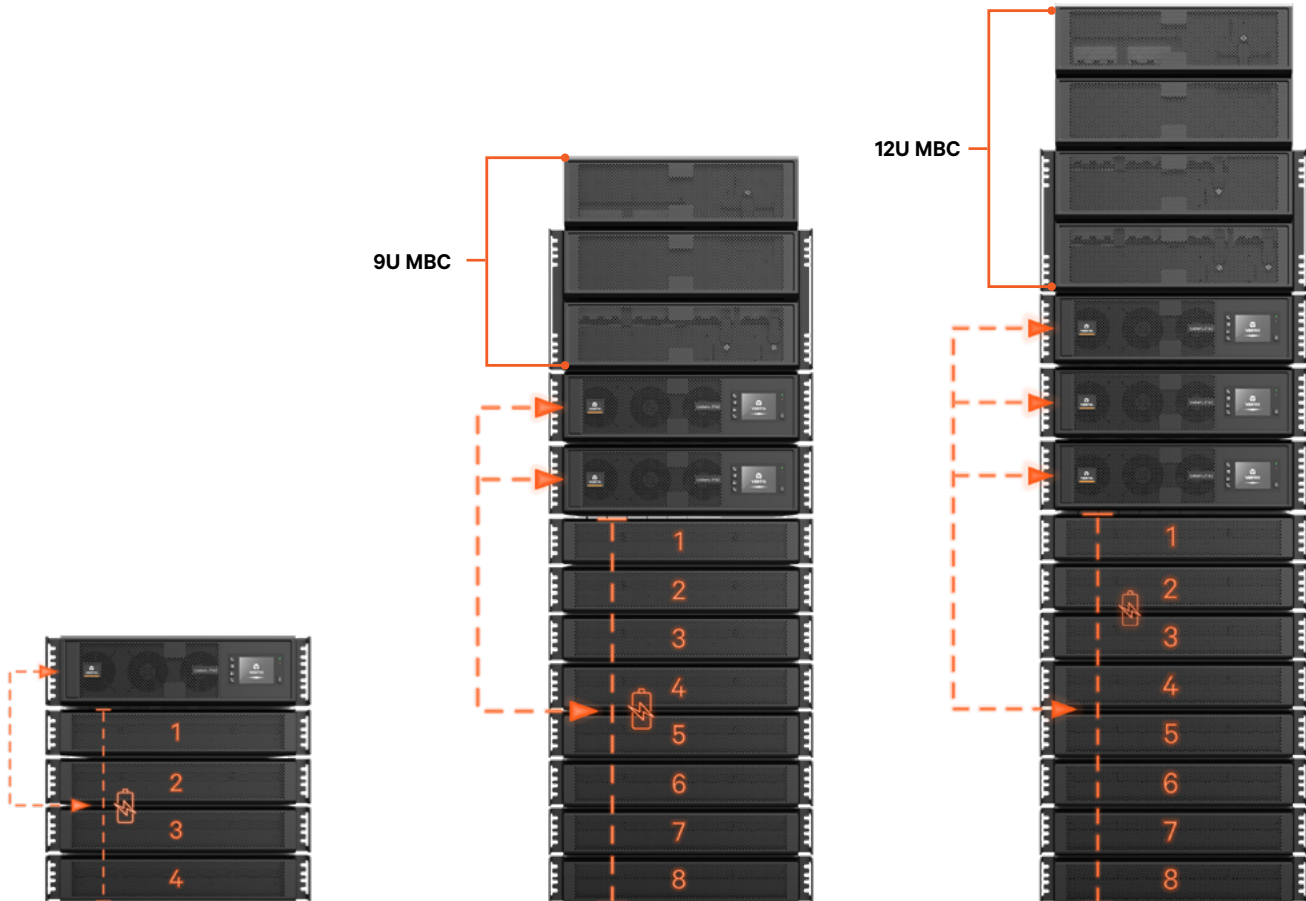
30kVA 208V	ITA2LI-30KRT208V23UPN
40kVA 208V	ITA2LI-40KRT208V23UPN

Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

Vertiv™ Liebert® ITA2 UPS and Maintenance Bypass - Bundled SKU's

[Available only through Broadline Distribution]

ITA2 bundled SKUs with only **2U VRLA Batteries** (Available for both 208V and 400V units) [2 strings/pairs of VRLA batteries per UPS]



Single UPS Configuration

Total Rack Space Required (UPS+VRLA Batteries)
= 3U+8U=11U

Two UPS: 1+1 Configuration for Redundancy SKUs

Total Rack Space Required (UPS+MBC+VRLA Batteries)
= 6U + 9U + 16U = 31U

One Module is used for redundancy or backup purpose

Three UPS: 2 + 1 Configuration for paralleling & redundancy

Total Rack Space Required (UPS+MBC+VRLA Batteries)
= 9U + 12U + 16U = 37U

Two Modules used for paralleling/capacity increase and One module for redundancy/backup

15kVA 208V	ITA2-15KRT208V11UN	15kVA 208V	ITA2-15KRT208V31URN	30kVA 208V	ITA2-30KRT208V37UPRN
20kVA 208V	ITA2-20KRT208V11UN	20kVA 208V	ITA2-20KRT208V31URN	40kVA 208V	ITA2-40KRT208V37UPRN
30kVA 400V	ITA2-30KRT400V11UN	30kVA 400V	ITA2-30KRT400V31URN	60kVA 400V	ITA2-60KRT400V37UPRN
40kVA 400V	ITA2-40KRT400V11UN	40kVA 400V	ITA2-40KRT400V31URN	80kVA 400V	ITA2-80KRT208V37UPRN

Optional MBC SKU: ITA2-40KMBC40
Total Rack Space required with Optional MBC:
3U + 8U + 4U = 15U

Two UPS: 2 + 0 Configuration for paralleling or capacity increase SKUs

Two Modules used for paralleling/capacity increase

30kVA 208V	ITA2-30KRT208V31UPN
40kVA 208V	ITA2-40KRT208V31UPN
60kVA 400V	ITA2-60KRT400V31UPN
80kVA 400V	ITA2-80KRT208V31UPN

Vertiv™ Liebert® ITA2 UPS Bundled SKUs –Wire Sizing Guide

ITA2 UPS Ratings	Corresponding Bundle SKUs Configurations		Recommended Wire Size (L/N/G)	Recommended Breaker Size	Recommended Lugs	Number of Wires	
15 (208V)	Lithium-Ion	Single UPS	ITA2LI-15KRT208V7UN	L: 2AWG N: 2AWG G: 6AWG	75A	L: McMaster-Carr-6926K54 N: McMaster-Carr-6926K54 G: McMaster-Carr-7113K366	5
		Two UPS (1+1)	ITA2LI-15KRT208V23URN				
		Two UPS (2+0)	ITA2LI-30KRT208V23UPN				
		Three UPS (2+1)	ITA2LI-30KRT208V33UPRN				
	VRLA	Single UPS	ITA2-15KRT208V11UN				
		Two UPS (1+1)	ITA2-15KRT208V31URN				
		Two UPS (2+0)	ITA2-30KRT208V31UPN				
		Three UPS (2+1)	ITA2-30KRT208V37UPRN				
20(208V)	Lithium-Ion	Single UPS	ITA2LI-20KRT208V7UN	L: 2AWG N: 2AWG G: 6AWG	100A	L: McMaster-Carr-6926K54 N: McMaster-Carr-6926K54 G: McMaster-Carr-7113K366	5
		Two UPS (1+1)	ITA2LI-20KRT208V23URN				
		Two UPS (2+0)	ITA2LI-40KRT208V23UPN				
		Three UPS (2+1)	ITA2LI-40KRT208V33UPRN				
	VRLA	Single UPS	ITA2-20KRT208V11UN				
		Two UPS (1+1)	ITA2-20KRT208V31URN				
		Two UPS (2+0)	ITA2-40KRT208V31UPN				
		Three UPS (2+1)	ITA2-40KRT208V37UPRN				
30 (400V)	VRLA	Single UPS	ITA2-30KRT400V7UN	L: 2AWG N: 2AWG G: 6AWG	75A	L: McMaster-Carr-6926K54 N: McMaster-Carr-6926K54 G: McMaster-Carr-7113K366	5
		Two UPS (1+1)	ITA2-30KRT400V31URN				
		Two UPS (2+0)	ITA2-60KRT400V31UPN				
		Three UPS (2+1)	ITA2-60KRT400V37UPRN				
40 (400V)	VRLA	Single UPS	ITA2-40KRT400V11UN	L: 2AWG N: 2AWG G: 6AWG	100A	L: McMaster-Carr-6926K54 N: McMaster-Carr-6926K54 G: McMaster-Carr-7113K366	5
		Two UPS (1+1)	ITA2-40KRT400V31URN				
		Two UPS (2+0)	ITA2-80KRT208V31UPN				
		Three UPS (2+1)	ITA2-80KRT208V37UPRN				

Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

Vertiv™ Liebert® ITA2 UPS

2U VRLA Battery Run Time Charts (15 and 20kVA 208V)

For VRLA batteries, it is recommended to use 2 strings per ITA2 UPS to get significant amount of runtime.

UPS Model	Battery String Qty.	Load Level									
		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
		15kW	13.5kW	12kW	10.5kW	9kW	7.5kW	6kW	4.5kW	3kW	1.5kW
15kVA 208V VRLA	2	9	10.0	11.5	14	18	23	31	45	72	157
	3	15	17.5	21	25	31	40	52	72	112	251
	4	23	26.5	31.0	37	45	56	72	99	160	345
	5	31	36.0	42	49	59	72	93	129	207	439
	6	40	45	52	61	72	88	112	159	252	523

UPS Model	Battery String Qty.	Load Level									
		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
		20kW	18kW	16kW	14kW	12kW	10kW	8kW	6kW	4kW	2kW
20kVA 208V VRLA	2	6	6.5	7.5	10	12	15	21	31	52	111
	3	10	11.5	14	17	21	27	37	52	82	182
	4	15	17.5	21.0	26	31	40	52	72	112	253
	5	21	24.5	29	34	42	52	67	93	148	324
	6	27	32	37	43	52	64	82	113	184	395

2U VRLA Battery Run Time Charts (30 and 40kVA 400V)

UPS Model	Battery String Qty.	Load Level									
		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
		30kVA	27kVA	24kVA	21kVA	18kVA	15kVA	12kVA	9kVA	6kVA	3kVA
30kVA 400V VRLA	2	3	4	4	5	7	9	12	18	31	72
	3	6	7	8	10	12	15	21	31	52	112
	4	9	10	12	14	18	23	31	45	72	160
	5	12	14	16	20	25	31	42	59	93	207
	6	15	18	21	26	32	40	52	72	113	255
	7	19	22	26	32	38	48	62	86	137	303
	8	23	27	32	37	45	56	72	100	161	351
	9	27	32	37	43	52	64	83	113	185	398
	10	32	36	42	49	59	72	93	129	209	446

UPS Model	Battery String Qty.	Load Level									
		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
		40kW	36kW	32kW	28kW	24kW	20kW	16kW	12kW	8kW	4kW
40kVA 400V VRLA	2	1.5	2	2.5	3	4	5.5	7.5	11.5	21	51.5
	3	3.5	4	5	6	7.5	10	14	21	36.5	81.5
	4	5.5	6.5	7.5	9.5	11.5	15	21	31	52	112
	5	7.5	9	10.5	13	16	21	28.5	41.5	67	148
	6	10	11.5	14	17	21	27	36.5	52	82	184
	7	12.5	14.5	17.5	21	26	33.5	44.5	62	97.5	220
	8	15	18	21	25.5	31.5	39.5	52	72	113	256
	9	18	21	25	30	36.5	46	59.5	82.5	131	292
	10	21	24.5	28.5	34.5	41.5	52	67	92.5	149	328

2U Lithium Ion Battery Run Time Charts (15 and 20kVA 208V)

For lithium-ion batteries, it is recommended to use only 1 string per ITA2 UPS to get significant amount of runtime

UPS Model	Battery String Qty.	Load Level									
		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
		15kW	13.5kW	12kW	10.5kW	9kW	7.5 kW	6kW	4.5kW	3kW	1.5kW
15kVA (2U)Lithium-Ion	1	7	8	9	10	12	14	19	21	36	86
	2	15	16	18	21	25	30	39	51	78	173
	3	22	25	28	32	38	47	59	81	120	260
	4	30	34	38	43	52	63	79	109	161	345
	5	38	43	48	55	66	78	99	137	202	430
	6	47	52	59	67	80	93	119	165	243	515
	7	56	62	70	79	94	109	139	193	284	600
	8	65	72	80	91	108	125	159	221	325	685

UPS Model	Battery String Qty.	Load Level									
		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
		20kW	18kW	16kW	14kW	12kW	10kW	8kW	6kW	4kW	2kW
20kVA (2U) Lithium-Ion	1	10	11	14	16	18	23	28	38	59	111
	2	22	25	28	32	39	46	58	78	121	224
	3	34	38	44	50	59	72	89	120	182	337
	4	47	52	58	67	79	97	120	161	242	447
	5	59	66	72	84	99	122	151	202	302	557
	6	71	80	86	101	119	147	182	243	362	667
	7	83	94	100	118	139	172	213	284	422	777
	8	95	108	114	135	159	197	244	325	482	887

Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

Vertiv™ Liebert® ITA2 UPS Specifications

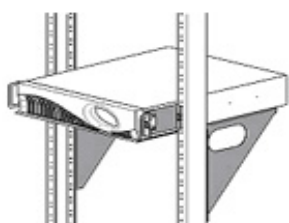
ITEM	15 kVA 208V	20kVA 208V	40kVA 400V
Part Number			
Input 3 Phase	Rated Voltage	208/220VAC, 3-Phase, 4W+Gnd	
	Voltage Range, VAC	96-156V with full load	
		70-96V linear decrease	
		70V with half load	
	Rated Frequency	50/60Hz	
	Frequency Range	40Hz-70Hz	
Power Factor	≥0.99, at full load; ≥0.98, at half load		
Rated Power	15 kVA/15kW	20kVA/20kW	40kVA/40kW
Voltage	208/120VAC or 220/127VAC (3 Phase, 4W + Gnd)		230VAC, 3-Phase, 4W+Gnd
Frequency Synchronization Range	Rated frequency ± 3Hz. Configurable range: ±0.5 Hz~±5Hz		
Frequency Track Rate	0.5Hz/s. Configurable range: 0.2/0.5/1Hz/s (single UPS), 0.2Hz/s (parallel system)		
Rated Power Factor	1		
Crest Factor	3:3		
Output 3 Phase	Voltage Harmonic Distortion	< 2% (linear load); < 5% (non-linear load)	
	Dynamic Response Recovery Time	40ms	
	Overload Capacity	At 25°C: 105% ~ 125%, 10min; 125% ~ 150%, 1min; 150%-200%,5s; >200%, 200ms	
	Bypass Voltage	Upper Limit: +10%, +15%, +20%; Default +10%	
		Lower Limit: -10%, -20%, -30%, -40%; Default -10%	
	AC-AC Efficiency	Up to 93%	
Battery	Type	Sealed, Lead-Acid, Maintenance-Free & LFP Lithium Ion	Sealed, Lead-Acid, Maintenance-Free
	Cell No.	24, 32; Default 32	24, 26, 28, 30, 32, 34, 36, 38, 40; Default 32
	Rated Voltage	384VDC	
	Maximum Charge Current, A	13	
Transfer Time	Utility to Battery	0	
	Inverter to Bypass	Synchronous Transfer: ≤0ms Asynchronous Transfer: ≤20ms (40ms, 60ms, 80ms, 100ms and 120ms are available)	
Noise	<63		
Panel Display Mode	Color LCD		
Safety	UL/CSA		
	UL&cUL (UL 1778 5th Edition, CSA No.22.2 107.3)		
EMC	Conducted & Radiated Emissions	FCC Part 15, Class A	
Surge Protection	ANSI C62.41 Category A		
Protection Level	IP20		
Ambient Condition	Operating Temperature	32 ~ 122°F (0 ~ 50°C), automatic derating to 80% above 104°F (40°C)	
	Storage Temperature	No Battery: -40 ~ 158°F (-40 ~ +70°C); With Battery: -13 ~ 131°F (-25 ~ +55°C)	
	Relative Humidity	5% RH ~ 95% RH, non-condensing	
	Altitude, ft. (m)	Sea Level to 10,000 ft. (3000m) without derating	
Dimensions, W x D x H, in. (mm)	UPS	16.9 x 25.8 x 5.1 (430 x 656 x 130)	
	VRLA Battery Cabinet - ITA2-BCI0020K02 (Quantity of 2)	16.9 x 29.6 x 3.3 (430 x 751 x 85) per cabinet	
	2U Li-Ion Battery Cabinet ITA2-BCI0020KL2 (Quantity of 2)	Net: 16.9 x 26.77 x 3.35 (430x680x85) per cabinet	
	Single MBC	16.9 x 28.7 x 6.8 (430 x 730 x 173)	
	2+0 Parallel MBC	16.9 x 32.0x 15.5 (430 x 814 x 393)	
	2+1 Parallel MBC	16.9 x 32.0x 20.6 (430 x 814 x 523)	
Weight, lb. (kg)	UPS	Net: 66.1 (30) Shipping: 88.2 (42)	
	VRLA Battery Cabinet	Net: 115 (52.2) each Shipping: 306.4 (139)	
	2U Li-Ion Battery Cabinet	Net: 70.5 (32) Shipping: 229.3 (104)	
	Single MBC	Net: 52.2 (23.7) Shipping: 79.4 (36)	
	2+0 Parallel MBC	Net: 91.9 (41.7) Shipping: 136.7(62)	
	2+1 Parallel MBC	Net: 116.8 (53.0) Shipping: 175.1 (79.0)	

Available Accessories for the Vertiv™ Liebert® ITA2 UPS

External Battery Cabinets [Liebert® ITA2 UPS does not contain Internal/Replacement Battery Kits]

UPS	External battery cabinets	Internal / Replacement Battery Kits
ITA2-15KRT208C	ITA2-BCI0020K02 (Qty. of 2) VRLA	N/A
	ITA2-BCI0020KL12(Qty. of 2) For (2U) Li-Ion	
ITA2-20KRT208C	ITA2-BCI0020K02 (Qty. of 2) VRLA	N/A
	ITA2-BCI0020KL12(Qty. of 2) For (2U) Li-ion	
ITA2-30KRT400C	ITA2-BCI0020K02 (Qty. of 2) VRLA	N/A
	ITA2-BCI0020KL12(Qty. of 2) For (2U) Li-ion	
ITA2-40KRT400C	ITA2-BCI0020K02 (Qty. of 2) VRLA	N/A
	ITA2-BCI0020KL12(Qty. of 2) For (2U) Li-ion	

*EBCs are hot-swappable, user-replaceable to allow for the full EBC to be replaced, as needed. Up to 5 pairs/strings of VRLA EBCs can be used per UPS and up to 8 pairs/strings of Li-Ion EBC's can be used per UPS.



Center mounting
(RS600 & RS800)



Flush mounting
(RS500 & RS700)



Fixed Rail Kits for all Liebert® ITA2
Rack-Tower Models (ITA2-RMKIT)

Rack Mounting Kit Options

Application	Model Supported	Style	Model	Description
2 Post Rack (One shelf required for each cabinet in the system)	Liebert® ITA2 UPS (8kVA and 10kVA)	Shelf	RS500	Flush-mount shelf for 19" rack wide
		Shelf	RS600	Center-mount shelf for 19" rack wide
		Shelf	RS700	Flush-mount shelf for 23" rack wide
		Shelf	RS800	Center-mount shelf for 23" rack wide
4 Post, Fixed Mounting Rails (Included as standard with Liebert® ITA2 UPS and EBC models)	Liebert® ITA2 UPS (8kVA and 10kVA)	Bracket	ITA2-RMKIT	Rail kits are adjustable from 17.5" – 32.5" and includes hardware for mounting fixed rails to rack assembly

Note: RS600 and RS800 kits include adapter brackets for mounting the Liebert® ITA2 Models.

Network communications and environmental sensors (standard on Liebert® ITA2 8000 and 10000VA models)

Network Communications	IS-Unity DP	Intellislot™ web card for SNMP and web management. Supports environmental sensors.
	IS-RELAY	Intellislot™ Interface Kit for Relay Contacts
Environmental Sensors (Compatible with optional Liebert® network card IS-UNITY DP)	SN-Z01	Integrated cable with single temperature sensor
	SN-Z02	Integrated cable with three temperature sensors
	SN-Z03	Integrated cable with three temperature and one humidity sensors
	SN-T	Modular with single temperature sensor
	SN-TH	Modular with single temperature and single humidity sensor
	SN-2D	Modular with two door contact inputs
	SN-3C	Modular with three dry contact inputs
	SN-L20	Modular leak zone sensor with 20-foot cable
UPS manageability options	Vertiv™ Power Insight Software Management	Vertiv™ Power Insight is a complimentary web-based software designed to monitor up to 100 Vertiv™ UPSs and Vertiv™ rPDUs

Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

Intelligent Communications

The Vertiv™ Liebert® ITA2 offers an intuitive control panel, network connectivity communications card and optional software monitoring, all designed to ensure visibility, control and peace of mind for manned or unmanned locations. You can even monitor key environmental and room conditions.

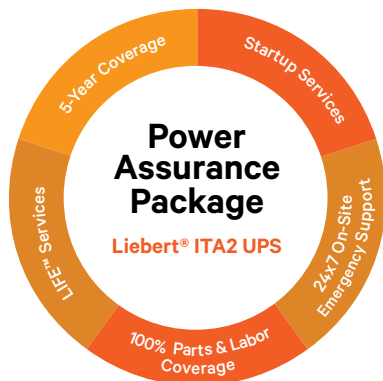
Vertiv™ Power Insight

Vertiv Power Insight is an application that can monitor your Vertiv™ Liebert® UPS systems and provide real-time trending for critical UPS performance management. In the event of a need to shutdown the UPS, the software ensures a graceful shutdown routine so no damage occurs to the data or systems.



Service and Support

We get you started and keep you going. Only Vertiv Services can provide the degree of support required to ensure the availability needed for critical systems. Several programs are available to meet the needs of your operation.



Vertiv™ Liebert®
Power Assurance Package

The Power Assurance Package from Vertiv Services gives you a trusted partner and a complete, worry-free power protection solution to assure uptime at your small or remote IT sites.



Vertiv™ LIFE™ Services

Vertiv™ LIFE™ Services provides secure, remote monitoring by experts to provide early detection and response.

Technical Support / Service

Website: www.Vertiv.com | **Monitoring:** Liebert.Monitoring@Vertiv.com | 800-222-5877 | Outside North America: +00800-1155-4499 | **Three-Phase UPS & Power Systems** 800-543-2378 | Outside North America: 614-841-6598

This UPS can monitor:



- Capacity
- Temperature
- Humidity
- Access
- Leaks

IS-Unity card - Supports remote and local environmental monitoring. Compatible with Vertiv™ Environet™ Alert and Vertiv™ Power Insight. Connect to IT networks and building management systems (BACNET/MODBUS).

Vertiv also has a full line of racks and rack PDUs.



Liebert® ITA2 UPS- Services

Power Assurance Package

Bundled Start-up Service AND 5-Year On-site Emergency Response	Standard	With LIFE™ Services	With Removal	With LIFE™ and Removal
Equipment Model / Type	Part Number	Part Number	Part Number	Part Number
Liebert® ITA2 5-40 KVA	PAPITA-5-40K	PAPITA-5-40KLF	PAPITA-5-40KRMV	PAPITA-5-40KRLF
External Battery Cabinets-VRLA (192V)	PAPITA-BATT	N/A	PAPITA-BATTRMV	N/A
External Battery Cabinets-Lithium Ion (192V)	PAPITA-LI192VBATT	N/A	PAPITA-LI192VBATTRMV	N/A

Power Startup Services

Startup Service Only (7x24)	Standard	With Removal
Equipment Model / Type	Part Number	Part Number
Liebert® ITA2 5-40 KVA	SUITA-5-40U7	N/A
External Battery Cabinets-VRLA (192V)	SUITA-EXTBTCBU7	N/A
External Battery Cabinets-Lithium Ion (192V)	SUITA-EXTBTCBU7	N/A
Liebert® ITA2 5-40 KVA Maintenance Bypass Cabinet (MBC)	SUITA2-5-40UM	N/A

Startup Service Only Mon-Fri (8x5)	Standard	With Removal
Equipment Model / Type	Part Number	Part Number
Liebert® ITA2 5-40 KVA	SUITA-5-40MF85	N/A
External Battery Cabinets-VRLA (192V)	SUITA-EBC-MF85	N/A
External Battery Cabinets-Lithium Ion (192V)	SUITA-EBC-MF85	N/A
Liebert® ITA2 8-10 KVA Maintenance Bypass Cabinet (MBC)	SUITA-MBC-MF85	N/A

Power Emergency Services

5-Year On-site Emergency Coverage - Only	Standard	With LIFE™ Services
Equipment Model / Type	Part Number	Part Number
Liebert® ITA2 5-40 KVA	PEPITA-5-40K5YR	PEPITA-5K40KLF
External Battery Cabinets-VRLA (192V)	PEPITA-BATT5YR	N/A
External Battery Cabinets-Lithium Ion (192V)	PEPITA-LI192VBATT5YR	N/A

Liebert® ITA2 Extended Warranty (5-40kVA)

	Additional 1 Year	Additional 3 Years
Equipment Model/Type	Warranty Part Number	Warranty Part Number
Liebert® ITA2 5-40 KVA	1WEITA2-40K208	3WEITA2-40K208
External Battery Cabinets-VRLA (192V)	1WEITA2-EBC	3WEITA2-EBC
External Battery Cabinets-Lithium Ion (192V)	N/A	N/A
Liebert® ITA2 5-40 KVA Maintenance Bypass Cabinet (MBC)	1WEITA2-MBC	3WEITA2-MBC

Vertiv™ Liebert® ITA2 Three Phase UPS with Battery Flexibility (VRLA/Li-ion)

Vertiv™ Liebert® ITA2 UPS 5-40kVA Service Contracts

Service Contracts	PM Only 8x5	PM Only 24x7	Basic 1PM24x7	Essential 1PM8X5	Preferred 1PM24X7
Equipment Model / Type	Part Number	Part Number	Part Number	Part Number	Part Number
Liebert® ITA2 5-40kVA	MUITA2-40K1PM85	MUITA2-40K1PM24	MUITA2-40KBA0	MUITA2-40KES1	MUITA2-40KPR1

Labor Warranty Supplement (AC Power Equipment Labor Warranty)

1WARACPLAB-B

Service Contracts	PM Only 8x5	PM Only 24x7	Basic	Essential	Preferred
On-Site Service:					
• Includes 1 Preventive Maintenance Service, scheduled by the customer between 8am-5pm, Monday-Friday (excluding national holidays)	✓			✓	
• Includes 1 Preventive Maintenance Service, scheduled by the customer at the customer's convenience 24x7 (excluding national holidays).		✓			✓
• Includes a Performance Evaluation inspection performed immediately after the completion of an emergency visit.			✓		
Customer Support:					
Includes access to the Customer Resolution Center (1-800-543-2378) and the Vertiv Customer Services Network Online Internet portal.	✓	✓	✓	✓	✓
Service Professional:					
Performed by Vertiv factory-trained and authorized technician equipped with Vertiv Proprietary tools and software. Vertiv CE's and Vertiv Partners are the only approved OEM service providers for Vertiv products.	✓	✓	✓	✓	✓
Response Time:					
Guaranteed 4-hour on-site emergency response, 7 days/week, 24 hours/day, within 150 miles of a Vertiv's Service City.			✓	✓	✓
Parts:					
Includes parts coverage.			✓	✓	✓
Labor and Travel:					
Includes 100% labor and travel coverage 7 days/week, 24 hours/day, within the 48 contiguous states and Hawaii.			✓	✓	✓
Internal Battery Coverage:					
Includes parts, labor, disposal and battery jars as required - up to 1 string of battery jars per year, not accumulated over contract term				✓	✓
Battery Recycling:					
Includes battery recycling as required, with documentation meeting EPA requirements				✓	✓



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