

# Liebert<sup>™</sup> ITA

5-40 kVA Compact, Efficient, and Reliable Power Solution





## **FEATURES**

- IGBT Based Rectifier
- Advanced DSP Based Technology
- 0.9 output power factor
- Double conversion efficiency up to 95%
- ECO mode efficiency up to 98.5%
- Input Power factor up to 0.99
- Total Current Harmonic Distortion (THDi) < 5%
- High capacity battery charger
   10-20kVA ~ 4.5kW
   30-40kVA ~ 6kW
- Dynamic Design; Rack/Tower convertible
- ITA 5-20kVA scalable up to 4 units in N+X configuration
- Integrated parallel load bus and synchronization port (LBS)
- Phase compatibility
   5/6/10kVA: 1/1 or 3/1 phase
   20kVA: 3/1 or 3/3 phase
   30-40kVA: 3/1 or 3/3 phase
- Comprehensive value added options including LPD, UPD etc
- Easy site installation and configuration

\*Available in ITA 20/30/40kVA

Liebert ITA is a full featured transformer free scalable UPS designed to offer compact, efficient and reliable power to power thirsty modern electronic gadgets. It features double conversion online design that ensure continuous high quality power even when the main AC power fails.

Utilize state of the art technology and components to withstand fluctuation of input main voltage. Extra wide input voltage and frequency range effectively reduces the discharging period of battery; thus prolong battery life.

Deliver 0.9 Power factor that can power 10-20% more load then traditional UPS, makes it suitable for latest server models. Additionally its high power density allows the rack to have a smaller footprint. Liebert ITA uses soft-wire parallel operation mode without the need for complex parallel subrack, allowing the user to save on system cost

Liebert ITA achieves up to 95% efficiency in double conversion mode and up to 98.5% in ECO mode ensuring effective load protection while reducing the total cost of ownership (TCO) and environmental impact



# Liebert<sup>®</sup> ITA<sup>™</sup> 5-40 kVA Compact, Efficient, and Reliable Power Solution

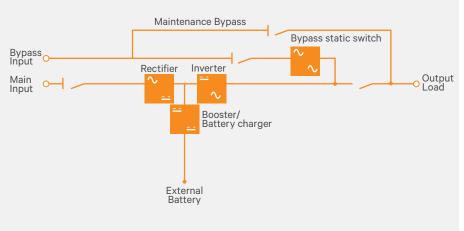


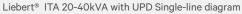


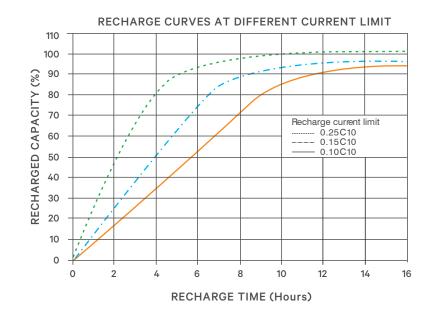
## Exemplary Charging Capacity

The powerful battery charger of the Liebert® ITA<sup>™</sup> allows the reduction in battery recharging time. Liebert® ITA<sup>™</sup> back up time can be prolong through cascaded connection or use of large capacity battery bank.

This means...it will recharge the same battery approximately **1.4 times faster** than a UPS with 3kW of charging power. **2 times faster** than an UPS with 2kW of charging power. Alternatively, it can charge a battery of 1.4 to 2 times larger capacity (Ah) in the same amount of time.



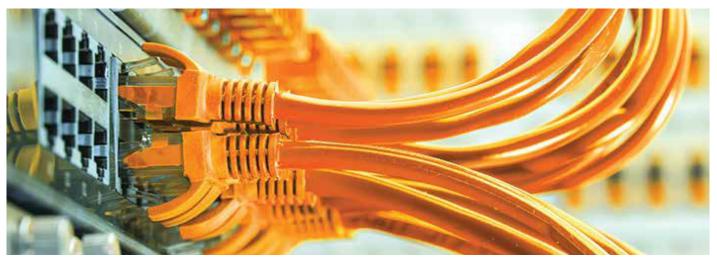




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Compact, Efficient, and Reliable Power Solution



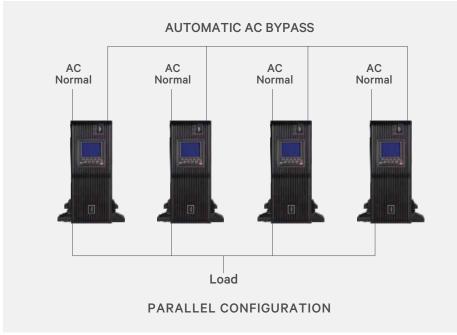


## Parallel Ready

Liebert® ITA 5-20 kVA can be connected with up to four units parallel in N+X configuration, one of which is redundant. A single unit can be upgraded to parallel operation via easy to modify software settings which allow the system to be customized for the requested configuration. 30/40 can be connected upto two units in parallel

The loop BUS connection used in paralleling the system delivers ultimate reliability and eliminates the possibility of a single point of failure, ensuring perfect load sharing and fast detection of any variation in the system status.





# Liebert® ITA™ 5-40 kVA

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## **Communication and Option**

Liebert<sup>®</sup> ITA offers the following communication features:

#### SIC card

Network monitoring SIC card, used for remote TCP/IP Web monitoring, supporting remote shutdown. It has expanded port to get access to temperature and humidity sensor.

#### Dry Contact card

Dry contact for UPS, providing four relay signal outputs

#### Modbus card

Select it when UPS needs to communicate with the building management system

#### RS 485 card

IT helps tp connect UPS to RDU-A monitoring unit. Alternatively, it can be used to realise cascaded communication in parallel mode.

#### SiteMonitor software

Monitoring software in network version, divided as 5 nodes, 5 to 20 nodes and no restriction version

#### Rail/rack

Expansible rail, applicable to all kinds of server cabinet

#### 10A charger module

Suitable for 6 to 10kVA equipment, providing additional 10A charging current, used for quick charging of ultra-long backup time (>4h)

#### LCD panel

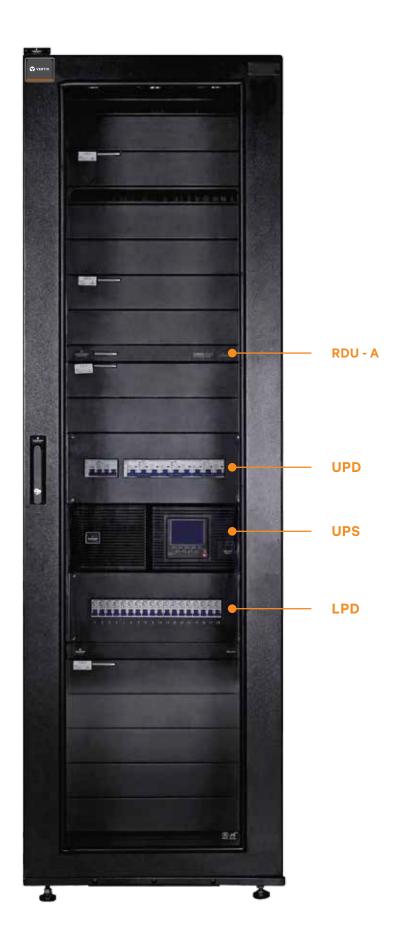
Suitable for 6 to 10kVA equipment, used for field substitution of LED panel and displaying UPS operation

#### Temperature & Humidity sensor

With LCD screen, the SIC card is needed to connect the temperature & humidity sensor

#### **Battery module**

2U, suitable for 6 to 20kVA equipment, with sixteen 12V cells





## VERTIV, LIEBERT SERVICES

#### **Industry Experience**

As long as data centers have existed, Liebert Services has been supporting data center infrastructure and providing integrated services for mission-critical environments.

#### **System Wide Expertise**

Nobody understands Liebert power equipment, precision cooling units and electrical infrastructure better than the experts at Liebert Services.

#### **Technical Expertise**

Our knowledge of systems and how they integrate into your overall facility makes us uniquely qualifed to apply the latest technology and best practices to your power, precision cooling, and battery systems.

#### **Unparalleled Responsiveness**

With Liebert Services, you have 24/7 access to a network of data center infrastructure specialists armed with the knowledge and parts to resolve your problems. Anytime. Anywhere.

#### Fast, Efficient Problem Resolution

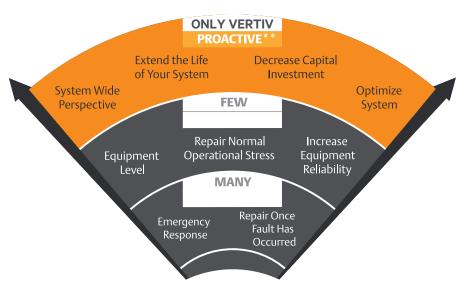
Only Liebert Services offers the right combination of industry, system, and technical expertise along with the extensive resources necessary to identify and understand any data center need and provide proactive solutions.

## SUPPORT

Maximizing the performance and effciency of your data center's uninterruptible power supply (UPS) and other power distribution systems requires they be properly maintained by factory-trained technicians.

Vertiv, Liebert<sup>®</sup> Services has the only service organization in the world that has been factory trained on Liebert power equipment and is continuously supported and updated by the engineers who built the equipment.

Our Customer Engineers have a better knowledge of how to maintain Liebert equipment and integrate it into the overall data center infrastructure support strategy than any service provider.



#### The Vertiv Difference

Many Services organizations can perform basic repair activities and main tain equipment at the some level of competency ,but Vertiv services can take your critical maintenance to the next level - proactive maintenence that can significantly extend the life of you power systems Powered by LIFE®.Technology Remote diagnostic system





### Liebert® ITA Technical Specification

Capacity	5 kVA	6 kVA	10 kVA	20 kVA	30 kVA	40 kVA
Input Parameters						
Rectier Type			IGBT Rectifie	r		
Rated Voltage	220/380Vac single-phase three-wire/ three-phase four wire 380Vac, three-phase four wire					
Input voltage range	Single-phase 120Vac-276Vac/ Three-phase 228Vac-478Vac		Single-phase 120Vac-288Vac / Three-phase 228Vac-478Vac	Three-phase 228Vac-478Vac	Three-phase 305Vac-477Vac	
Input Freq Range	45 Hz - 55 Hz		45 Hz - 65 Hz	40 Hz	- 70 Hz	
Input Power Factor	0	.95 for Three Phase ,	>=0.99 for single Phase	>0.99 at	>0.99 at Full Load	
Battery	1					
Battery Type			Lead Acid Maintena	nce Free		
Charging Capability	<3 Hr of recharging	of Standard Model	<6 Hr of recharging of Standard Model	Max Charging Power 4.5kW	Max Charging Power 6kW	
No of Battery	16 Nos of Battery			30 - 40 (Selected on Site)		
Output Parameters	<u> </u>			<u></u>		
Rated Power (kVA/kW)	5kVA/4.5kW	6kVA/4.8kW	10kVA/9kW	20kVA/18kW	30kVA/27kW	40kVA/36kV
Rated Voltage	Single Phase 230 /220 Vac Three Phase 380/400/415 Vac and Single Phase 230/220 Vac Three Phase			Three Phase 38	0/400/415 Vac	
Voltage Precision	3%			1%		
Frequency Precision	0.25%					
Output Voltage THD	<3% for Linear Load and <5% for Non Linear Load <2% for Linear Load and <5% for Non Linear Load					Load
Load Crest Factor	3:1 Comply with IEC 62040-3					
Step Load Performance	100%					
Output Mode	Terminal Strip					
Overload Performance (% of Rated Load)	105%-125%; 1min 105%-125%; 5 Mins, 125%-150%; 1Min 105%-125%; 5 Mins, 125%-150%; 1Min					
System parameters and S	tandards					
Conversion Type			Online Double Con	version		
Parallel Mode	3+1 1+1					
Installation Mode	Rack/Tower Convertible					
System Efficiency @100%	Up to 91%		Up to 93%	Up to 94%	Up to 95%	
Noise (dB)	<50	)dB	< 55dB	<58dB		
LCD Display	Yes (Optional) Yes (Standard)					
Safety			IEC/EN62040-	1-1		
Electromagnetic Compatibility	IEC/EN62040-1-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008					
1	IEC/EN62040-2, meeting IEC/EN61000-4-5					
			IP 20			
Surge Protection Protection Level	430x6	25x85	IP 20 435x640x85	435x750x130(3U)	484.6x80	)0x176
Surge Protection Protection Level Dimension (mm)		25x85 7.8		435x750x130(3U) 35		00×176
Surge Protection Protection Level Dimension (mm) Net Weight (kg)			435x640x85			
Surge Protection Protection Level Dimension (mm) Net Weight (kg) Communication Option			435x640x85	35		
Surge Protection Protection Level Dimension (mm) Net Weight (kg) Communication Option Interface Type			435x640x85 21.5	35 Modbus Card/ RS 485 Card)		
Surge Protection Protection Level Dimension (mm) Net Weight (kg) Communication Option Interface Type	11		435x640x85 21.5 USB/Intelligent Slot (Dry Contact Card/	35 Modbus Card/ RS 485 Card)		
Surge Protection Protection Level Dimension (mm) Net Weight (kg) Communication Option Interface Type Management Software	11		435x640x85 21.5 USB/Intelligent Slot (Dry Contact Card/	35 Modbus Card/ RS 485 Card)		
Surge Protection Protection Level Dimension (mm) Net Weight (kg) Communication Option Interface Type Management Software Environmental Parameter	11		435x640x85 21.5 USB/Intelligent Slot (Dry Contact Card/ Site Monitor	35 Modbus Card/ RS 485 Card)		

\*Specifications are subject to change without any prior notification



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