

Liebert ITA Series 6 / 10 / 20 kVA

True Online Double Conversion UPS System

AC Power Systems
for Business-Critical Continuity™



Applicable loads

Equipment with extremely high requirement on voltage precision including server, storage, network equipment, ATM, VoIP, communication equipment, automation equipment, precision equipment, medical diagnosis equipment.

Applications

Small and medium-sized data/communication equipment room, network room, business operating room, lab, instrument room, control room, office space, charging center, precision control room, process control center.



Product features

- ☑ Ultra high power density
- ☑ Extra wide input voltage/frequency range, adaptable to bad mains environment
- ☑ Up to 0.9 output power factor, supporting the electrical features of the latest server
- ☑ Efficiency of the system up to 92%~94%
- ☑ Compatible with three-phase and single-phase, suitable for different applications
- ☑ Rack-mount/tower installation compatible
- ☑ Support parallel expanded operation
- ☑ Provide rich rack options, easy for integration of switching/monitoring within the rack
- ☑ Can be connected to Emerson Optimize IT monitoring system smoothly



Perfect energy saving and environmental friendly features

- 0.99 high input power factor improves the utility rate of electrical energy
- Up to 94% system efficiency has remarkable energy-saving performance
- Comply with EU RoHS directives

Product positioning of Liebert ITA Series UPS?

- Liebert ITA Series UPS is applicable to server room, etc., to protect key equipment including servers and network communication
- Fully support Emerson Optimize IT integrated solution
- Black body design reflects the harmonious matching with the server and cabinet

How can Liebert ITA Series UPS ensure high reliable power supply?

- Double-conversion online design, no interruption when AC mains fail
- Support N+X redundant mode and realize highly increased system reliability
- DSP full-digital control with high output voltage precision
- Use the latest IGBT components to withstand big fluctuation of input mains voltage
- Standard input anti-surge circuit with strong mains surge resistance

How can Liebert ITA Series UPS protect the environment?

- Good energy-saving performance with an overall efficiency of over 94%
- Input power factor is up to 0.99 with high electric energy utility rate
- Comply with EU RoHS directives and the materials/manufacturing processes are free of poisonous substances
- Adjustable speed intelligent fan with automatic speed adaptation effectively saves energy and reduces noise
- Provide ECO operation mode with efficiency up to 98% and remarkable energy-saving performance

How can Liebert ITA Series UPS save money for you?

- Up to 0.9 output power factor, capable of powering more loads
- Support parallel expanded operation, without the need of complex parallel subrack
- High system efficiency, power saving and low operational cost
- High power density realizes smaller footprint of rack

How can Liebert ITA Series UPS realize convenient maintenance?

- Provide ultra-large LCD and LED display, so all kinds of operation data/system status/historical information is visible
- Angle of the display panel can be adjusted freely according to different ways of installation, convenient and directly visible

How can Liebert ITA Series UPS improve the reliability of solution?

- Be compatible with three-single/single-single (6/10kVA) and three-single/three-three (16/20kVA) design and applicable to all kinds of applications
- Support parallel operation, so the system capacity can be flexibly expanded
- Backup time can be prolonged through cascaded connection

How can Liebert ITA Series UPS meet various monitoring requirements?

- Provide USB monitoring interface
- Provide SIC card that can acquire environmental data and support auto-shutdown function of the server
- Host computer software supports various operating systems such as Windows/ Linux/ HP-UX/Sun Solaris/IBM AIX
- Compatible with Emerson monitoring platform of SiteMonitor and supporting Web monitoring
- Provide Mib database so the UPS can be connected to all kinds of NMS systems

How Liebert ITA Series UPS protects and prolongs the battery life?

- Extra-wide input voltage/frequency range effectively reduces the discharging times of the battery and prolongs the battery life
- Temperature compensation function reduces influence of ambient temperature on the battery life
- Extra strong charging capability effectively reduces the battery re-charging time
- The number of battery sets can be arranged flexibly, facilitating utilization of the battery system (20kVA)
- Support common batteries (20kAV) and save battery investment



6kVA



10kVA

Technical specifications

Capacity	6kVA		10kVA		20kVA
	Standard model	Long delay model	Standard model	Long delay model	Long delay model
Model	UHA1R-0050	UHA1R-0050L	UHA1R-0100	UHA1R-0100L	UHA3R-0200L
Input parameters					
Rectifier type	IGBT rectifier				
Rated voltage	220/380Vac single-phase three-wire/three-phase four-wire		220/380Vac single-phase three-wire/three-phase four-wire		380Vac, three-phase four-wire
Input voltage range	single-phase 120Vac-276Vac		single-phase 120Vac-288Vac		three-phase 228Vac-478Vac
Input frequency range	45Hz~55Hz		45Hz~65Hz		40Hz~70Hz
Input power factor	>=0.99 for Single-phase/>=0.95 for three-phase				>0.99 at full load
Battery					
Battery type	Lead-acid maintenance-free battery				
Charging capability	<3h for 90% re-charging of standard model		<6h for 90% re-charging of standard model		Max. charging power 4.5KW
Battery backup time of standard model	> 5 minutes				
No. of Battery	16		16		30 - 36 (Selected on site)
Output parameters					
Rated power	6kVA/4.8KW		10kVA/9KW		20kVA/18KW
Rated voltage	Single-phase 220Vac				Three-phase 380Vac, single-phase 220Vac
Voltage precision	3%				1%
Frequency precision	0.25%				
Output voltage THD	<3% for linear load, <5% for non-linear load				<2% for linear load, <5% for non-linear load
Load crest factor	3:1 (comply with IEC 62040-3)				
Step load performance	100%				
Output mode	Terminal strip				
Overload performance (% of the rated load)	1min for 125% of the rated load	105%~125% 5mins, 125%~150% 1min, 500ms for over 150%		105%~125% 5mins, 125%~150% 1min, 200ms for over 150%	
System parameters and standard					
Conversion type	Online double conversion				
Parallel mode	3+1		1+1		3+1
Installation mode	Rack-mount/tower compatible				
System efficiency	>92%		>92.5%		Up to 94%
Switching time	0 ms				
Noise	<50dB		<55dB		≤58dB
Language	Chinese and English				
LCD display	Yes (optional)				Yes (standard)
Safety	IEC/EN62040-1-1				
Electromagnetic compatibility	IEC/EN 62040-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008				
Surge protection	IEC/EN 62040-2, meeting IEC/EN61000-4-5				
Protection level	IP20				
Dimensions (mm)	430× 625× 85 2U, 4U including battery	430× 625× 85	435× 640× 85 2U, 6U including battery	435× 640× 85	435× 750× 130 (3U)
Net weight(Kg)	17 (without battery)	17.8	20.8 (without battery)	21.5	35
Communication and management					
Interface type	USB/intelligent slot (dry contact card/SIC card/ Modbus card/RS485 card)				
Management software	SiteMonitor				
Environmental parameters					
Operating temperature	0 - 40 °C				
Relative humidity	5-95% without condensation				
Max. altitude	<1500m (when the altitude exceeds 1500m, derating is required according to GB/T3859.2)			<2000m (when the altitude exceeds 2000m, derating is required according to GB/T3859.2)	

List of optional parts

Name of optional part	Remark	
Battery module	2U, suitable for 6 to 20kVA equipment, with sixteen 12V cells	
Optional communication parts	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 and three discrete inputs
	Modbus card	Modbus component for UPS, used for access to BMS building monitoring system
	RS485 card	485 card, used for connection between UPS and RDU-A IDC room intelligent monitoring unit or cascading communication of parallel system
Rail/rack	Expandable rail, applicable to all kinds of server cabinet, load capacity 50Kg	
Parallel cable component	Parallel communication cable component (required for parallel system)	
10A charger module	Suitable for 6 to 10kVA equipment, providing additional 10A charging current and used for quick charging for ultra-long backup time (>4h)	
LCD panel	Suitable for 6 to 10kVA equipment, used for field substitution of LED panel and displaying UPS operation status in both Chinese and English	
Temperature sensor	Temperature sensor with LCD display, can be connected to a SIC card	
Temperature and humidity sensor	Temperature and humidity sensor with LCD display, can be connected to a SIC card	
SiteMonitor software	Monitoring software in network version, divided as 5 nodes, 5 to 20 nodes and no restriction version	



10 kVA



20 kVA

Emerson Network Power

The global leader in enabling
Business-Critical Continuity™

- AC Power
- Embedded Computing
- Outside Plant
- Racks and Integrated Cabinets
- Connectivity
- Embedded Power
- Power Switching & Controls
- Services
- DC Power
- Monitoring
- Precision Cooling
- Surge Protection

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For disposal of Batteries Please visit the below link:
<http://www.cpcb.nic.in/divisions/headoffice/hwmd/lead.pdf>

Note: Specifications & Features may vary based on the condition.

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