

# LIEBERT® ITA

True On-line Double Conversion Parallelable UPS

• 5kVA - 20kVA

## FEATURES

### Best-in-class Efficiency

- Supports parallel operation up to 4 units N+X configuration
- Backup time can be prolonged through cascaded connection or use of large capacity battery bank
- Outstanding energy-saving performance with 92%-94% efficiency
- Input power factor of up to 0.99 with high electric energy utility rate
- Extra-wide input voltage / frequency range effectively reduces the discharging period of battery. Thus, prolonging battery life
- Compatible with 1-phase and 3-phase input power

### Highly Reliable

- Double-conversion online design that ensures continuous power even when the mains AC fails
- Supports N+X redundant mode up to 4 units for increased system reliability
- DSP full-digital control with high output voltage precision
- Uses state-of-the-art technology and components to withstand fluctuation of input main voltage
- Provides latest USB monitoring interface
- Optional WEB / SNMP card for remote management
- Available in standard and long backup for 4 to 8 hours runtime. External charger is also available
- Strong charging capability effectively reduces battery recharging time

### Best Total Cost

- 0.9 output power factor and can power 10-30% more load than other ordinary UPS, suitable for latest server models (0.8 output power factor for 6KVA model)
- Uses soft-wire parallel operation mode without the need for complex parallel subrack, allowing the user to save on system cost
- High system efficiency up to 94%, energy-saving and low operational cost
- High power density allows the rack to have a smaller footprint
- Standard two (2) years warranty for 5kVA and 6kVA models; 1 year warranty for 10, 16 and 20kVA models



Liebert® ITA Series is a full featured scalable UPS designed to provide long backup time for small computer rooms and network equipment. Using true on-line double conversion UPS technology, Liebert® ITA Series provides high efficiency and reliability with 0.9/0.8 output power factor that can power 10-30% more load than other ordinary UPS. This UPS offers flexibility with parallelable configuration and extended backup time with external battery cabinets.

### Efficiency and Flexibility from the Liebert® ITA UPS Family

The Liebert® ITA UPS family from Emerson Network Power provides a truly modular, highly efficient and best-in-class power protection solution for your network. Featuring true on-line double conversion technology and extended runtime across all models, the Liebert® ITA is parallelable for maximum flexibility.

- 5kVA and 6kVA
- 10kVA
- 16kVA and 20kVA

## Technical Specifications

SPECIFICATIONS	5KVA		6KVA		10KVA		16KVA	20KVA
Model	Standard	Long back-up	Standard	Long back-up	Standard	Long back-up	Long back-up	Long back-up
Part Number	01201056	01201057	01200858	01200859	01200610	01200679	01200758	01200782
Model Name	UHA1R-0050	UHA1R-0050L	UHA1R-0060	UHA1R-0060L	UHA1R-0100	UHA1R-0100L	UHA3R-0160L	UHA3R-0200L
INPUT PARAMETERS								
Rectifier Type	IGBT							
Rate Voltage	230 / 400VAC single-phase, 3-wire or 3-phase, 4-wire system						400VAC 3-phase, 4-wire system	
Input Voltage Range	Single-phase, 120VAC to 276VAC				Single-phase, 120VAC to 288VAC		3-phase, 228VAC to 478VAC	
Input Frequency Range	45Hz to 65Hz				45Hz to 65Hz		45Hz to 70Hz	
Input Power Factor	Single-phase ≥ 0.99 / 3-phase ≥ 0.95						Full Load > 0.99	
BATTERY								
Battery Type	Sealed, non-spillage, maintenance-free lead-acid battery							
Charging Capability	< 3hrs for recharging to 90% capacity (standard mode)				< 6hrs for recharging to 90% capacity (standard mode)		4.5kW, max charging power	
Full Load Runtime (min. battery cabinet/s)	Standard battery cabinet: ≤5 minutes						< 5 minutes	
External Battery Cabinet	02351253 (16 blocks x 12V x 7.2Ah), Min. Qty Required: ITA 5/6/10KVA - 1pc; ITA 16 / 20kVA - 2pcs							
Battery Dimensions: H x W x D (mm)	85 (2U) x 435 x 640							
Battery Weight (kg)	50							
OUTPUT PARAMETERS								
Rated Power	5kVA / 4.5kW		6kVA/4.8kW		10kVA / 9kW		16kVA / 14.4kW	20kVA / 18kW
Rated Voltage	Single-phase, 220/230/240VAC						3-phase in / out and 3-phase in / Single-phase out	
Voltage Stability	3%						1%	
Frequency Stability	0.25%							
Output Voltage THD	< 3% linear load, <5% non-linear load						< 2% linear load, <5% non-linear load	
Load Crest Factor	3:1 (compliant with IEC 62040-3)							
Step Load Performance	100%							
Overload Capacity Performance (% rated load)	125% for 1min				105 to125% for 5min 125 to150% for 1min > 150% for 500ms		105 to125% for 5min 125 to150% for 1min > 150% for 200ms	
SYSTEM PARAMETERS AND STANDARD								
Conversion Type	On-line double conversion							
Parallel Operation	3+1 parallel operation							
Form Factor	Tower and rack convertible, optional rail kit available							
System Efficiency	> 92%				> 92.5%		Up to 94%	
Transfer Time (power fail- ure)	No transfer time, on-line operation							
Noise	< 50dB				< 55dB		≤ 58dB	
Language	English / Chinese							
Standards / Conformity	IEC/EN62040-1-1							
EMC	IEC / EN 62040-2, IEC / EN61000-3-11,IEC / EN61000-3-12, YD / T1095-2008							
Surge Protection	IEC / EN 61000-4-5							
Protection Level	IP20							
Unit Dimensions: H x W x D (mm)	85 (2U) x 435 x 625				85 (2U) x 435 x 640		130 (3U) x 435 x 750	
Net Weight (kg)	17				20.8		35	
Warranty	2 years							
COMMUNICATION AND MANAGEMENT								
Interface Type	USB / Intellislot (Dry Contact / SNMP Card / Modbus Card / RS485 Card)							
Management Software	SiteMonitor							
ENVIRONMENTAL PARAMETERS								
Operating Temperature	0 to 40oC							
Relative Humidity	5 to 95%, non-condensing							
Altitude (m)	1500						2000	

## Runtime (in minutes)

5000 / 6000VA						
No. of battery modules	4800W (6kVA only)	3800W	2800W	1800W	1300W	1000W
1	4.2m	6.7m	11.7m	25m	45.8m	1h7m
2	9.2m	13.3m	23.3m	50m	1h32m	2h13m
3	20m	28.3m	43.3m	1h26m	2h30m	1h1m
4	30m	38.3m	1h7m	2h5m	3h11m	5h16m
5	35m	43.3m	1h15m	2h20m	3h43m	5h55m
6	40m	55m	1h26m	2h45m	4h40m	6h21m
7	44m	58.3m	1h32m	3h4m	4h43m	6h40m
8	58m	83.3m	1h57m	3h16m	4h51m	7h5m
9	1h10m	1h32m	2h13m	3h45m	5h41m	8h11m
10	1h23m	1.57m	2h30m	4h18m	6h31m	9h27m

10000VA						
No. of battery modules	9000W	7000W	5000W	3000W	2000W	1400W
2	5.5m	8m	14m	30m	55m	1h20m
3	12m	17m	26m	52min	1h30m	2h25m
4	18m	23m	40m	1h15m	1h50m	3h10m
5	21m	26m	45m	1h25m	2h14m	3h33m
6	24m	33m	52m	1h43m	2h48m	3h49m
7	26m	35m	55m	1h50m	2h50m	4h
8	35m	50m	1h10	1h59m	2h55m	4h15m
9	42m	55m	1h20m	2h15m	3h25m	4h55m
10	50m	1h7m	1h30m	2h35m	3h55m	5h40m

16000VA / 20000VA (Requires adding battery cabinets in pairs)												
No. of battery modules	18kW	14.4kW	13.5kW	10.8kW	9kW	7.2kW	5.4kW	4.5kW	3.6kW	3kW	1.8kW	1.5kW
4	5m	8m	9m	13m	16m	25m	38m	50m	1h	1h25m	2h30m	3h
6	10m	15m	16m	25m	30m	45m	1h	1h25m	1h48m	2h10m	4h	4h53m
8	17m	25m	27m	35m	50m	1h	1h36m	1h54m	2h30m	3h	5h40m	7h
10	25m	33m	38m	50m	1h	1h30m	2h	2h30m	3h10m	4h	7h17m	8h21m



5kVA, 6kVA & 10kVA model



16kVA & 20kVA model

## Product List

PART NUMBER	DESCRIPTION
<b>LIEBERT® ITA 5/6KVA 3X1 OR 1X1</b> (ON-LINE DOUBLE CONVERSION PARALLELABLE UPS)	
01201056	Liebert® ITA 5KVA/4.5KW UPS 230V/400V LCD standard model (no internal battery)
01201057	Liebert® ITA 5KVA/4.5KW UPS 230V/400V LCD long backup model (no internal battery)
01200858	Liebert® ITA 6KVA/4.8KW UPS 230V/400V LCD standard model (no internal battery)
01200859	Liebert® ITA 6KVA/4.8KW UPS 230V/400V LCD long backup model (no internal battery)
02352998	Battery Sharing Module for ITA 5/6KVA Long backup model
02352301	Single unit PDU for Liebert® ITA (8x C13 + 1 x C19), 2U
02351240	1+1 1PH Parallel POD for Liebert® ITA 5/6KVA (8x C13 + 2 x C19), 2U
02351241	3+1 1PH Parallel POD for Liebert® ITA 5/6KVA (16x C13 + 3 x C19), 4U
02351254	3+1 3PH Parallel POD for Liebert® ITA 5/6KVA (16x C13 + 3 x C19), 4U
04118941	Parallel communication cable kit for Liebert® ITA 5/6/10KVA, 2pcs required for 1+1, 3pcs for 2+1, and 3pcs for 3+1
04117133	Battery connection cable for Liebert® 5/6KVA LB model to p/n: 02351253 external battery cabinet
<b>LIEBERT® ITA 10KVA 3X1 OR 1X1</b> (ON-LINE DOUBLE CONVERSION PARALLELABLE PF0.9 UPS) (1 YEAR WARRANTY)	
01200610	Liebert® ITA 10KVA/9KW UPS 230V/400V LCD standard model (no internal battery)
01200679	Liebert® ITA 10KVA/9KW UPS 230V/400V LCD long backup model (no internal battery)
02352999	Battery Sharing Module for ITA 10KVA Long backup model
02352236	1+1 1PH Input Parallel POD for Liebert® ITA 10KVA (8x C13 + 4 x C19), 3U
02352237	1+1 3PH input Parallel POD for Liebert® ITA 10KVA (4x C13 + 4 x C19), 3U
02352301	Single unit PDU for Liebert® ITA (8x C13 + 1 x C19), 2U
04118941	Parallel communication cable kit for Liebert® ITA 5/6/10KVA, 2pcs required for 1+1, 3pcs for 2+1, and 3pcs for 3+1
04118942	Battery connection cable for Liebert® 10KVA LB model to p/n: 02351253 external battery cabinet
<b>LIEBERT® ITA 16/20KVA 3X3 OR 3X1</b> (ON-LINE DOUBLE CONVERSION PARALLELABLE PF0.9 UPS) (1 YEAR WARRANTY)	
01200758	Liebert® ITA 16KVA/14.4KW UPS 400V LCD long backup model (no internal battery)
01200782	Liebert® ITA 20KVA/18KW UPS 400V LCD long backup model (no internal battery)
02352814	Liebert® ITA 16/20KVA Service Bypass Panel, 3U
02352303	Liebert® ITA 16/20KVA 1+1 Parallel Service Bypass Panel, 6U
09060271	Bypass feedback block option for ITA 16/20KVA, 3pc required
04118928	Parallel cable kit for ITA 16/20KVA, 2pcs required for 1+1, 3pcs for 2+1, and 3pcs for 3+1
04118929	LBS cable kit for ITA 16/20KVA
04116598	Battery connection cable for Liebert® 16/20KVA to p/n: 02351253 external battery cabinet

Note: Liebert® ITA does not include internal battery

## Liebert® ITA Accessories (for all Liebert® ITA models)

PART NUMBER	DESCRIPTION
02351253	External battery cabinet for Liebert® ITA, 2U
02351879	10Amp External Battery Charger for Liebert® ITA, 2U
02351817	SIC card for SNMP/WEB Management for Liebert® ITA
02311646	RDU-SIC card for SNMP/WEB Management w/Environmental and PDU Management
02311720	Temperature/Humidity sensor for RDU-SIC card
02311725	Temperature sensor for RDU-SIC card
02354061	Adjustable rail kit for Liebert® ITA
02351874	Dry Contact Card for Liebert® ITA
02350376	MODBUS card for Liebert® ITA
02351786	RS-RS232 to RS-485 Kit for Liebert® ITA