

# Liebert® ITA

True On-line Double Conversion Parallelable UPS

5kVA ■ 6kVA ■ 10kVA ■ 16kVA ■ 20kVA

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.

## 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 more than 92% 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 single-phase and 3-phase input power
- Optional strong charging capability effectively reduces battery recharging time



### 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



### 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; one year warranty for 10, 16 and 20kVA models



### 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



### The Liebert ITA Series is Ideally Suited for

- Small computer rooms requiring long backup time (>30 minutes)
- Branch offices
- Servers
- Network computers and peripherals
- Storage device
- VoIP



## Technical Specifications

| Specifications                               | 5kVA  |              | 6kVA       |  | 10kVA models -<br>not for Distribution in<br>Australia & NZ | 16kVA  | 20kVA        |  |
|--|---|--------------|------------|--|---|--|--------------|--|
| Model  | Standard  | Long back-up | Standard   | Long back-up   |   | Long back-up   | Long back-up |  |
| Part Number                                  | 01200311  | 01200343     | 01200456   | 01200461   |   | 01200758   | 01200782     |  |
| <b>Input parameters</b>                      |   |              |            |  |   |  |              |  |
| 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 55Hz  |              |            | 45Hz to 65Hz   |   | 45Hz to 70Hz   |              |  |
| Input Power Factor                           | Single-phase $\geq 0.99$ / 3-phase $\geq 0.95$  |              |            |  |   | Full Load $> 0.99$   |              |  |
| <b>Battery</b>                               |   |              |            |  |   |  |              |  |
| 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  |              |  |
| Runtime @ pf 0.9 with 1 Battery Cabinet      | Standard battery cabinet: $\leq 5$ minutes (5 / 10kVA)  |              |            |  |   | -  | -            |  |
| External Battery Cabinet                     | 02351253 (16 blocks x 12V x 7.2Ah), Min. Qty Required: ITA 5 / 10kVA - 1pc; ITA 16 / 20kVA - 2pcs |              |            |  |   |  |              |  |
| Battery Dimensions: H x W x D (mm)           | 85 (2U) x 435 x 640   |              |            |  |   |  |              |  |
| Battery Weight (kg)                          | 50  |              |            |  |   |  |              |  |
| <b>Output parameters</b>                     |   |              |            |  |   |  |              |  |
| Rated Power                                  | 5kVA / 4.5kW  |              | 6kVA/4.8kW |  | 10kVA / 9kW   | 16kVA / 14.4kW   | 20kVA / 18kW |  |
| Rated Voltage                                | 1-phase 230V  |              |            |  |   | 3-phase in / out<br>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 to 125% for 5min<br>125 to 150% for 1min<br>> 150% for 500ms |   | 105 to 125% for 5min<br>125 to 150% for 1min<br>> 150% for 200ms |              |  |
| <b>System parameters and standard</b>        |   |              |            |  |   |  |              |  |
| Conversion Type                              | On-line double conversion   |              |            |  |   |  |              |  |
| Parallel Operation                           | 3+1 parallel operation  |              |            | 1+1 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 failure)                | No transfer time, on-line operation   |              |            |  |   |  |              |  |
| Noise  | < 50dB  |              |            | < 55dB   |   | $\leq 58$ dB   |              |  |
| Language                                     | English / Chinese   |              |            |  |   |  |              |  |
| Standards / Conformity                       | AS/IEC 62040-1 (safety), AS/IEC 62040-2 (EMC class C2)  |              |            |  |   |  |              |  |
| EMC  |   |              |            |  |   |  |              |  |
| Surge Protection                             | ICE / EN 62040-2, 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   |              |            | 1 year   |   |  |              |  |
| <b>Communication and management</b>          |   |              |            |  |   |  |              |  |
| Interface Type                               | USB / Intellislot (Dry Contact / SNMP Card / Modbus Card / RS485 Card)                            |              |            |  |   |  |              |  |
| Management Software                          | SiteMonitor   |              |            |  |   |  |              |  |
| <b>Environmental parameters</b>              |   |              |            |  |   |  |              |  |
| Operating Temperature                        | 0 to 40°C   |              |            |  |   |  |              |  |
| Relative Humidity                            | 5 to 95%, non-condensing  |              |            |  |   |  |              |  |
| Altitude (m)                                 | 1500  |              |            |  |   | 2000   |              |  |

## Runtime (in minutes)

| 5000 / 6000VA                |                      |       |       |       |       |       |       |
|------------------------------|----------------------|-------|-------|-------|-------|-------|-------|
| Load (# of battery cabinets) | 4800W<br>(6kVA only) | 4500W | 3500W | 2500W | 1500W | 1000W | 700W  |
| 1                            | 4.2min               | 5min  | 8min  | 14min | 30min | 55min | 1h20m |
| 2                            | 9.2min               | 11min | 16min | 28min | 60min | 1h50m | 2h40m |
| 3                            | 20min                | 24min | 34min | 52min | 1h44m | 3h    | 4h50m |
| 4                            | 30min                | 36min | 46min | 1h20m | 2h30m | 3h50m | 6h20m |
| 5                            | 35min                | 42min | 52min | 1h30m | 2h34m | 4h28m | 7h6m  |
| 6                            | 40min                | 48min | 1h6m  | 1h44m | 3h26m | 5h36m | 7h38m |
| 7                            | 44min                | 52min | 1h10m | 1h50m | 3h40m | 5h40m | 8h    |
| 8                            | 58min                | 1h10m | 1h40m | 2h20m | 3h55m | 5h50m | 8h30m |

Note: Battery cabinet=U16-07C1

| 10kVA models -<br>not for Distribution in<br>Australia & NZ | 9000W  | 7000W | 5000W | 3000W | 2000W | 1400W |
|---|--------|-------|-------|-------|-------|-------|
|   | 5.5min | 8min  | 14min | 30min | 55min | 1h20m |
| 3   | 12min  | 17min | 26min | 52min | 1h30m | 2h25m |
| 4   | 18min  | 23min | 40min | 1h15m | 1h50m | 3h10m |
| 5   | 21min  | 26min | 45min | 1h25m | 2h14m | 3h33m |
| 6   | 24min  | 33min | 52min | 1h43m | 2h48m | 3h49m |
| 7   | 26min  | 35min | 55min | 1h50m | 2h50m | 4h    |
| 8   | 35min  | 50min | 1h10m | 1h59m | 2h55m | 4h15m |

Note: Battery cabinet=U16-07C1



| 16000VA / 20000VA (Requires adding battery cabinets in pairs) |        |        |        |        |       |       |       |       |       |       |       |       |
|---|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Load (# of battery cabinets)                                  | 18kW   | 14.4kW | 13.5kW | 10.8kW | 9kW   | 7.2kW | 5.4kW | 4.5kW | 3.6kW | 3kW   | 1.8kW | 1.5kW |
| 2   | < 5min | < 5min | < 5min | < 5min | 5min  | 8min  | 13min | 17min | 25min | 30min | 1h    | 1h25m |
| 4   | 5min   | 8min   | 9min   | 13min  | 16min | 25min | 38min | 50min | 1h    | 1h25m | 2h30m | 3h    |
| 6   | 10min  | 15min  | 16min  | 25min  | 30min | 45min | 1h    | 1h25m | 1h48m | 2h10m | 4h    | 4h53m |
| 8   | 17min  | 25min  | 27min  | 38min  | 50min | 1h    | 1h36m | 1h54m | 2h30m | 3h    | 5h40m | 7h    |
| 10  | 25min  | 33min  | 38min  | 50min  | 1h    | 1h30m | 2h    | 2h30m | 3h10m | 4h    | 7h17m | 8h21m |



5kVA / 6kVA



10kVA models -  
not for Distribution in  
Australia & NZ



16 / 20kVA

## Product List

| Part Number | Description  |
|-------------|--|
| 01200580    | Liebert ITA 5kVA / 4.5kW UPS 230V / 400V <i>standard model - no internal battery</i>                     |
| 01200582    | Liebert ITA 5kVA / 4.5kW UPS 230V / 400V <i>long backup model - no internal battery</i>                  |
| 01200456    | Liebert ITA 6kVA / 4.8kW UPS 230V / 400V <i>standard model - no internal battery</i>                     |
| 01200461    | Liebert ITA 6kVA / 4.8kW UPS 230V / 400V <i>long backup model - no internal battery</i>                  |
| 02351252    | LCD option for Liebert ITA 5kVA  |
| 02351549    | LCD option for Liebert ITA 6kVA  |
| 02352301    | Single unit PDU for Liebert ITA (8 x C13 + 1 x C19), 2U  |
| 02351240    | 1 + 1 1PH Parallel POD for Liebert ITA 5 / 6kVA (8 x C13 + 2 x C19), Support 6kVA N+1 Redundancy, 2U     |
| 02351241    | 3 + 1 1PH Parallel POD for Liebert ITA 5 / 6kVA (16 x C13 + 3 x C19), Support 18kVA N+1 Redundancy, 4U   |
| 02351254    | 3 + 1 3PH Parallel POD for Liebert ITA 5 / 6kVA (16 x C13 + 3 x C19), Support 18kVA N+1 Redundancy, 4U   |
| 04118403    | 1 + 1 parallel communication cable kit for Liebert ITA   |
| 04118404    | 2 + 1 parallel communication cable kit for Liebert ITA   |
| 04118405    | 3 + 1 parallel communication cable kit for Liebert ITA   |
| 01200775    | Liebert ITA 10kVA / 9kW UPS 230V / 400V <i>standard model - no internal battery</i>                      |
| 01200770    | Liebert ITA 10kVA / 9kW UPS 230V / 400V <i>long backup model - no internal battery</i>                   |
| 02352238    | LCD option for Liebert ITA 10kVA   |
| 02352236    | 1 + 1 1PH Input Parallel POD for Liebert ITA 10kVA (8 x C13 + 4 x C19), Support 10kVA N+1 Redundancy, 3U |
| 02352237    | 1 + 1 3PH input Parallel POD for Liebert ITA 10kVA (4 x C13 + 4 x C19), Support 10kVA N+1 Redundancy, 3U |
| 01200758    | Liebert ITA 16kVA / 14.4kW UPS 400V LCD <i>long backup model - no internal battery</i>                   |
| 01200782    | Liebert ITA 20kVA / 18kW UPS 400V LCD <i>long backup model - no internal battery</i>                     |
| 02352814    | Liebert ITA 16 / 20kVA Service Bypass Panel, 3U  |
| 02352303    | Liebert ITA 16 / 20kVA 1+1 Parallel Service Bypass Panel, Support 20kVA N+1 Redundancy, 6U               |
| 09060271    | Bypass feedback block option for ITA 16 / 20kVA, 3 pieces required                                       |
| 04118928    | Parallel cable kit for ITA 16 / 20kVA  |
| 04118929    | LBS cable kit for ITA 16 / 20kVA   |

Note: Liebert ITA does not include internal battery

## Liebert ITA Options

| 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 |
| 02354061    | Adjustable rail kit for Liebert ITA                |
| 02351874    | Dry Contact Card for Liebert ITA                   |
| 02350376    | MODBUS card for Liebert ITA                        |

## Emerson Network Power Asia

### Australia

T: 1800-065345  
F: 61-2-97438737

### Indonesia

T: 62-21-2513003  
F: 62-21-2510622

### Japan

T: 81-3-54038594  
F: 81-3-54032924

### Korea

T: 82-2-34831500  
F: 82-2-5927883

### Malaysia

T: 603-78845000  
F: 603-78845188

### New Zealand

T: 64-3-3392060  
F: 64-3-3392063

### Pakistan

T: 92-42-36622526 to 28  
F: 92-42-36622530

### Philippines

T: 63-2-6876615  
F: 63-2-6203693

### Singapore

T: 65-64672211  
F: 65-64670130

### Thailand

T: 66-2-6178260  
F: 66-2-6178277 to 78

### Vietnam

T: 84-4-37628908  
F: 84-4-37628909

10kVA models -  
not for Distribution in  
Australia & NZ

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AP11DPG-LITAV9-BR ENPAU TSG 2012 0604