



— POWERING RELIABILITY. EMPOWERING FUTURE. —

A HEIZKA BRAND

UNINTERRUPTIBLE POWER SUPPLY · LITHIUM-ION

# L-Series

## Lithium Tower UPS

3 kVA · 3 kW · 1-Phase In / 1-Phase Out · Tower · LiFePO4 Battery

**3 kVA**

**3 kW**

**C3K-Li**

Tower · Output PF 1.0

**Online Double**  
Conversion — VFI

**LiFePO4 Battery**  
>2,000-Cycle Life

**3× Backup Time**  
vs. Lead-Acid

**Input PF ≥ 0.99**  
Active PFC

LiFePO4 Lithium battery — up to 3× backup time vs. lead-acid UPS.

High-frequency online double conversion — DSP digital control.

Wide input range 90~300 VAC, frequency 40~70 Hz — generator compatible.

Dry contact & MODBUS (RS485) interface for BMS integration.

### DESIGNED FOR

- Data Centers & IT Infrastructure
- Telecommunications Networks
- Medical & Healthcare Facilities
- Financial & Banking Systems
- Industrial Control Systems
- Small Server & Network Rooms

### KEY CERTIFICATIONS

CE · IEC 62040-1/2

RoHS · ISO 9001

### BRAND OWNERSHIP

Voltrix is an UPS brand  
owned by Heizka.



## VOLTRIX BY HEIZKA — COMPANY & BRAND OVERVIEW

Heizka is a global power solutions company specialising in the development and distribution of industrial-grade Uninterruptible Power Supply systems across Asia-Pacific, EMEA and the Americas. With a strong focus on product quality, technical reliability and after-sales support, Heizka serves clients in data centres, telecommunications, healthcare, finance and critical infrastructure sectors worldwide.

**Voltrix** is Heizka's flagship UPS brand — a curated portfolio of high-performance, globally certified power protection products. Every Voltrix product is engineered to international standards (IEC, CE, RoHS), backed by Heizka's worldwide service and distribution network, and supported by 24/7 technical assistance.

- Global distribution network across 30+ countries
- ISO 9001:2015 certified manufacturing
- 24/7 technical support & after-sales service
- Full range coverage: 1 kVA to 800 kVA
- CE · IEC 62040 · RoHS · ISO 9001 certified products
- Lithium & VRLA battery technology across the range

## L-SERIES LITHIUM UPS — PRODUCT FAMILY

The Voltrix **L-Series** is a range of **high-frequency online double-conversion (VFI)** single-phase UPS systems, available in both Tower and Rack-mount form factors, spanning **1 kVA to 10 kVA** across five power ratings. Built on **LiFePO<sub>4</sub> Lithium-ion battery technology**, the L-Series delivers up to **3× the backup time** of a comparable lead-acid UPS at a fraction of the weight and footprint, with a battery service life exceeding **2,000 charge/discharge cycles**.

DSP digital signal processor control, active input power factor correction (PFC ≥ 0.99), and an ultra-wide input voltage window (90–300 VAC) make the L-Series fully compatible with generator sets and unstable grid environments. Dry contact and MODBUS (RS485) interfaces provide direct integration with the battery management system (BMS), while a 4-state Lithium charger (CC / CV / Floating / Turn-off) can be customised to match specific battery pack requirements.

## L-SERIES — MODEL QUICK REFERENCE

| VOLTRIX MODEL | APPARENT POWER | ACTIVE POWER | OUTPUT PF | BATTERY TYPE                               | PART NUMBER |
|---------------|----------------|--------------|-----------|--------------------------------------------|-------------|
| C3K-Li        | 3 kVA          | 3 kW         | 1.0       | LiFePO <sub>4</sub> , 16-cell, >2,000 cyc. | VTX-C3K-Li  |

## KEY PRODUCT FEATURES

- |                                                                        |                                                                              |
|------------------------------------------------------------------------|------------------------------------------------------------------------------|
| • High frequency on-line double conversion, DSP control                | • Active input power factor correction ≥ 0.99                                |
| • LiFePO <sub>4</sub> battery — long lifecycle, more than 2,000 cycles | • Up to 3× backup time vs. comparable lead-acid UPS                          |
| • Generator compatible — Cold start & ECO operation mode               | • Wide input 90~300 VAC, frequency 40~70 Hz                                  |
| • 50/60 Hz auto-sensing & frequency converter mode                     | • Dry contact interface for BMS dominant control                             |
| • Incorporated MODBUS (RS485) interface with BMS                       | • 4-state Lithium charger: CC / CV / Floating / Turn-off, customisable logic |

## TECHNICAL SPECIFICATIONS — L-SERIES 3 KVA

1-Phase In / 1-Phase Out | Output PF 1.0 | LiFePO<sub>4</sub> Lithium Battery | Online Double Conversion (VFI)

| SPECIFICATION             |                                                          | C3K-Li 3 kVA / 3 kW |
|---------------------------|----------------------------------------------------------|---------------------|
| AC INPUT                  |                                                          |                     |
| Wiring                    | L/N + PE                                                 |                     |
| Rated Voltage             | 208/220/230/240 VAC                                      |                     |
| Voltage Range             | 90 ~ 300 VAC                                             |                     |
| Frequency Range           | 40 Hz ~ 70 Hz                                            |                     |
| Input Power Factor        | ≥ 0.99                                                   |                     |
| AC OUTPUT                 |                                                          |                     |
| Wiring                    | L/N + PE                                                 |                     |
| Output Voltage            | 208/220/230/240 VAC                                      |                     |
| Voltage Regulation        | ± 1%                                                     |                     |
| Output Frequency          | 50/60 Hz ±4 Hz (Sync) 50/60 Hz ±0.1 (Free run)           |                     |
| Waveform                  | Pure Sine Wave                                           |                     |
| THDv (Lin. / Non-lin.)    | < 2% / < 8%                                              |                     |
| Overload Capability       | 100~105%: continuous 105~130%: 60 sec                    |                     |
|                           | 130~150%: 10 sec >150%: 0.3 sec                          |                     |
| EFFICIENCY                |                                                          |                     |
| Line Mode                 | 92%                                                      |                     |
| Battery Mode              | 89%                                                      |                     |
| LITHIUM BATTERY & CHARGER |                                                          |                     |
| Rated Battery Voltage     | 51.2 / 48 VDC (16-cell LiFePO <sub>4</sub> )             |                     |
| Battery Capacity          | 1,229 Wh                                                 |                     |
| Backup Time               | > 20 min @ Full Load                                     |                     |
| Charging Current          | 4A / 8A / 12A / 16A                                      |                     |
| Charging Voltage          | 56.8 V (default, 16-cell) Customisable on request        |                     |
| Charger Behaviour         | CC · CV · Floating · Turn-off (4-state)                  |                     |
| Protection                | 3 over-voltage loop, over-temp / over-pressure interface |                     |
| PHYSICAL                  |                                                          |                     |
| Tower Dim. W×D×H (mm)     | 190×415×323 (Std) 190×368×323 (Ext. Bat.)                |                     |
| Tower Net Weight (kg)     | 20.4 / 9.3                                               |                     |

## COMMUNICATION & INTERFACE OPTIONS

All L-Series models share identical communication interfaces

| INTERFACE / FEATURE     | SPECIFICATION                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------|
| HMI — LED Display       | Mains / battery status, load level, battery level, operation mode                                  |
| HMI — LCD + LED         | Input mains voltage, frequency, load level, operation mode, health status                          |
| Standard Comm. Port     | RS232 port                                                                                         |
| Optional — USB Port     | USB port (1 kVA – 3 kVA models)                                                                    |
| Optional — Network Card | SNMP / TCP-IP — remote monitoring via smartphone app, web page, PC software, server / NAS shutdown |
| Optional — Dry Contact  | Dry contact interface for BMS dominant control                                                     |
| Optional — MODBUS Card  | MODBUS (RS485) interface for BMS integration                                                       |
| Alarm Function          | AC/DC input abnormal · overload condition · inverter fault                                         |
| Protection Function     | Input/output over- or under-voltage · overload · over-temperature · short circuit                  |

## ENVIRONMENTAL SPECIFICATIONS

Common across the full L-Series range

| PARAMETER             | SPECIFICATION             |
|-----------------------|---------------------------|
| Operating Temperature | -10°C to +40°C            |
| Relative Humidity     | 0–98% RH (Non-condensing) |
| Acoustic Noise        | < 55 dB(A) @ 1 metre      |

## MODEL SELECTION & ORDERING INFORMATION

Contact your Voltrix / Heizka regional representative for pricing and lead times

| VOLTRIX MODEL | APPARENT POWER | ACTIVE POWER | OUTPUT PF | BATTERY TYPE                               | PART NUMBER |
|---------------|----------------|--------------|-----------|--------------------------------------------|-------------|
| C3K-Li        | 3 kVA          | 3 kW         | 1.0       | LiFePO <sub>4</sub> , 16-cell, >2,000 cyc. | VTX-C3K-Li  |

## OPTIONAL ACCESSORIES

| PART NUMBER     | DESCRIPTION                                                                  | COMPATIBLE MODELS |
|-----------------|------------------------------------------------------------------------------|-------------------|
| VTX-CARD-NET    | Network monitoring card — SNMP/TCP-IP, smartphone app, web page, PC software | All L-Series      |
| VTX-CARD-DRY    | Dry contact interface — BMS dominant control                                 | All L-Series      |
| VTX-CARD-MODBUS | MODBUS (RS485) interface card — BMS integration                              | All L-Series      |
| VTX-BAT-LFP     | Additional LiFePO <sub>4</sub> battery module — extended runtime             | All L-Series      |

## WHY LIFEPO<sub>4</sub> LITHIUM BATTERY TECHNOLOGY?

| 3× Backup Time                                                                                                                   | >2,000-Cycle Life                                                                                                   | Lightweight & Compact                                                                                                          | Smart BMS Integration                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| LiFePO <sub>4</sub> batteries deliver up to 3× the backup time of a comparable lead-acid UPS within the same physical footprint. | Rated for more than 2,000 charge/discharge cycles — far exceeding the typical 300–500 cycle life of VRLA batteries. | Significantly lighter than equivalent VRLA capacity, easing installation and reducing structural load on server room flooring. | Dry contact and MODBUS (RS485) interfaces enable direct BMS dominant control with a customisable 4-state Lithium charger. |

## CERTIFICATIONS & QUALITY COMPLIANCE

All Voltrix L-Series products are designed and manufactured under **ISO 9001:2015** quality management systems and carry: **CE** (EU Declaration of Conformity), **IEC/EN 62040-1** (UPS Safety), **IEC/EN 62040-2** (UPS EMC — Class C2), and **RoHS 2011/65/EU**.

## WARRANTY & GLOBAL SUPPORT

| COVERAGE                             | TERMS & CONDITIONS                                                                      |
|--------------------------------------|-----------------------------------------------------------------------------------------|
| UPS System Warranty                  | 2 years from date of purchase — parts and labour, return-to-base service                |
| LiFePO <sub>4</sub> Battery Warranty | 2 years or 2,000 full charge-discharge cycles, whichever occurs first                   |
| Technical Support                    | 24/7 dedicated hotline and email — response within 4 hours                              |
| Global Service Network               | Regional service centres across Asia-Pacific, EMEA, and the Americas                    |
| Documentation                        | Installation manual, commissioning guide, and monitoring software guide with every unit |

*Specifications subject to change without notice. Battery cycle life and backup time are indicative and may vary with operating temperature, load profile and discharge history. Voltrix is a registered brand of Heizka. All trademarks are property of their respective owners.*