



— POWERING RELIABILITY. EMPOWERING FUTURE. —

A HEIZKA BRAND

UNINTERRUPTIBLE POWER SUPPLY · LITHIUM-ION

L-Series

Lithium Rack UPS

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

3 kVA

3 kW

R3K-Li

Rack · 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 **LiFePO₄ 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
R3K-Li	3 kVA	3 kW	1.0	LiFePO ₄ , 16-cell, >2,000 cyc.	VTX-R3K-Li

KEY PRODUCT FEATURES

• High frequency on-line double conversion, DSP control	• Active input power factor correction ≥ 0.99
• LiFePO ₄ 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 | LiFePO₄ Lithium Battery | Online Double Conversion (VFI)

SPECIFICATION		R3K-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 ₄)	
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		
Rack Dim. W×H×D (mm)	440×612×88 (2U)	
Rack Net Weight (kg)	20.9 / 8.9	

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
R3K-Li	3 kVA	3 kW	1.0	LiFePO ₄ , 16-cell, >2,000 cyc.	VTX-R3K-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 ₄ battery module — extended runtime	All L-Series

WHY LIFEPO₄ LITHIUM BATTERY TECHNOLOGY?

3× Backup Time	>2,000-Cycle Life	Lightweight & Compact	Smart BMS Integration
LiFePO ₄ 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 ₄ 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.