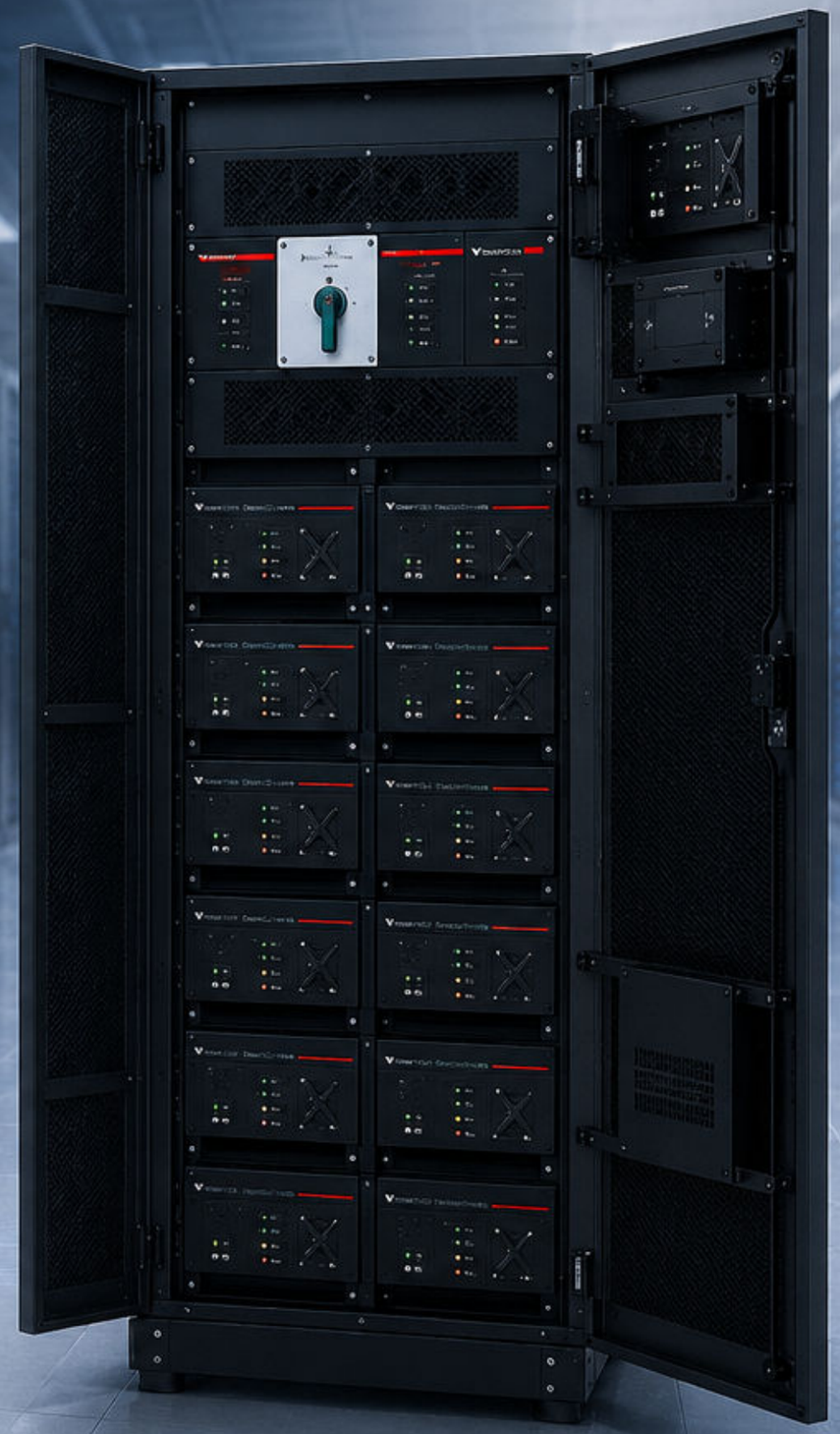
VisionCore Nexus
ENERGY PARTNERS

Powered by VISION

UPS & AIDC Battery Solutions

Qualified Supplier Product Portfolio



Prepared by
VisionCore Nexus
Energy Partners

UPS & AIDC BATTERY SOLUTIONS

Qualified Supplier Product Portfolio

SAFE
Multi-level safety protection

RELIABLE
High-rate LFP cells with long life

SMART
Cloud management & remote monitoring

GREEN
Energy saving & environment friendly

VisionCore Nexus
Powered by Vision Group

WHY THIS SOLUTION

Key Technologies Behind Vision UPS & AIDC Battery Solutions

HIGH-RATE LFP CELLS
High energy density, long cycle life, excellent discharge performance, ensuring reliable power supply.

INTEGRATED BMS
Three-level BMS architecture for accurate monitoring, intelligent protection and system optimization.

INTELLIGENT FIRE PROTECTION
Built-in fire suppression system with early warning and multi-level protection to ensure safety.

SMART CLOUD MANAGEMENT
Remote monitoring, data analysis, predictive maintenance and efficient operation management.

SYSTEM-LEVEL SAFETY PROTECTION
Four-level safety protection design covering cell, module, rack and system levels.

TECHNOLOGY ARCHITECTURE

CELL TECHNOLOGY
↓
BATTERY MANAGEMENT SYSTEM
↓
FIRE PROTECTION
↓
CLOUD MANAGEMENT
↓
SYSTEM INTEGRATION

VisionCore Nexus Energy Partners
Qualified Supplier Portfolio

REVO Lithium Battery Solutions

The REVO series is Vision Group's independently developed line of lithium batteries, designed to be compatible with a wide range of UPS systems. These products feature Vision Group's self-developed high-rate LFP cells and BMS (Battery Management System). They also integrate a remote cloud management system and an intelligent fire protection & control module, offering high reliability, stable performance, long service life, and excellent safety.

Data Center | Financial Center | Rail Transit | Oil & Gas | Hospital | Airport

LFP cell	BMS system	Initegrated remote cloud management system	Intelligent fire protection & control module

Time Saved

- Pre-assembled cabinet delivery shortens deployment cycles.
- Accelerated project implementation ensures faster go-live.

Effort Reduced

- Modular design for easy installation and maintenance.
- BMS management system simplifies monitoring and maintenance.
- Dual-end remote monitoring provides flexible oversight.

Worry-Free Reliability

- 30 years of battery expertise with market-proven performance.
- Four-layer safety protection featuring a redundant design.
- 24/7 multi-level fire suppression for maximum safety.

First company in China to achieve system-level UL and TÜV EU CE certification.

Modular Design
It's a design focused on longevity, efficiency, and Repairability.

Cell-Level Fire Safety
Explosion-proof valves, and module-level fire containment.

Pre-Integrated Transport
Pre-assembled installation and FCL shipping cut deployment time by 60%.

Cable-Free Integration
Integrated Bus Bar (IBB) eliminates internal cabling, enhancing stability.

Intelligent Protection
Triple-layer BMS (BMU/CBMS/GBMS) monitors all components in real-time, securing critical load protection.

Performance Comparison: LFP vs. NMC & LFP vs. VRLA

Lithium Iron Phosphate (LFP) vs. Nickel-Cobalt-Manganese (NMC)

	Discharge Rate	Material Stability	Eco-Friendly	Raw Material Availability	Safety	Cost per Wh	Cycle Life
LFP	30C Up to 30C	700℃ No Oxygen decomposition	Pollution-free	Easy to obtain	★★★★★		≥4000 times 80%DOD
NMC	10C	200-300℃ Oxygen decomposition Easy to catch fire	Heavy metal	Poor availability	★★		≤2000 times 80%DOD

Lithium Iron Phosphate (LFP) vs. Valve-Regulated Lead-Acid (VRLA)

	Volume Specific Energy	Discharge Rate	Temperature Performance	Energy Consumption	Hydrogen Evolution Reaction
LFP		30C	15-35℃ A/C Free	Lower Power Consumption	No gas is produced
VRLA		6C	20-25℃ A/C Room	Requires Float Charge Power	Hydrogen evolution requires ventilation

	Maintainability	Footprint	Cycle Life	Charging Time
LFP	Intelligent Maintenance	Compact Size	≥4000 times 80%DOD	1Hs
VRLA	BMS system need to be built externally	Requires Larger Space	≤500 times 80%DOD	10Hs

Four-Level Safety Protection

1 Cell level

- High-stability LFP material with excellent high-temperature performance.
- Square aluminum casing: high energy density, simple structure.
- CID safety valve on top to prevent hazards from abnormal cells.

2 Module level

- Laser-welded connections for reliable performance.
- High-precision BMU for cell balancing and temperature control.
- Thermal design: automatic fan, airflow channels between cells for stable temperature.

3 Rack level

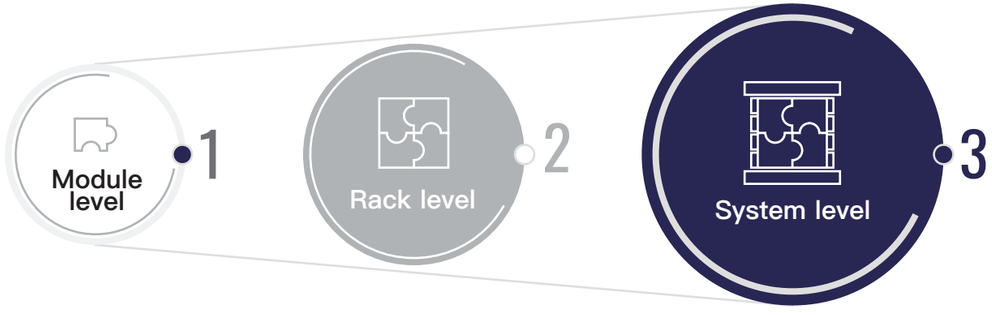
- High-precision BMS for multi-layer protection.
- Vibration-resistant cabinet ensures stability and anti-interference.
- Early fire detection; efficient extinguishing agent reduces fire damage.

4 System level

- FUSE in main circuit for short-circuit protection.
- Full system insulation for added safety.

*The system adopts the scheme of first series and then parallel, and the safety protection is divided into 4 levels, which are cell level, module level, rack level and system level.

3 Levels of Management



*There are 3 levels of management, namely module level, rack level and system level.

Battery Management System (BMS)

The BMS includes three levels—BMU, CBMS, and GBMS—providing point-to-point cell management and protection to ensure system safety and reliability. It offers essential protections against overcharge, over-discharge, overheating, and imbalance, while advanced SOC and SOH monitoring enable full lifecycle management of both the system and individual cells.

01 BMU

BMU: BMS is the most basic management unit of the system, which is integrated with the cell in the lithium battery module. Responsible for collecting the voltage, temperature and other data of each cell. Equipped with equalization module, according to the situation of each cell, turn on the equalization function in the charging process to improve the consistency of the system and ensure the smooth operation of the system. Equipped with a temperature control system, when there is a high temperature, BMU control to open the fan, the module for heat dissipation.

02 CBMS

CBMS: CBMS is Rack BMS, integrated management devices, such as DC circuit breaker, relay, hall element, diode, pre-charge resistance, etc. Integrated management system, real-time analysis and processing of BMU transmitted data, and generate real-time status report, feedback to the system BMS. CBMS adopts AC and DC power supply modes. When AC input is normal, AC power supply is preferred. After AC power is off, it can be directly switched to DC power supply without switching time.

03 GBMS

GBMS: GBMS is system BMS. Responsible for organizing the uploaded data of each CBMS in the system, analyzing them in real time, generating the system operation status report, and displaying it on the display screen through the communication line. Information is exchanged with UPS through dry contact and communication protocol (CANBUS or MODBUS).

Intelligent Fire Protection System

Novec 1230 Fire Suppressant — Effective fire suppression

Built-in Module + Cabinet Protection — Dual-layer safety

Thermal Activation — No external power required

24/7 Online Monitoring — Complete coverage, no blind spots

Smart Cloud Management System

Historical data can be accessed anytime

- Supports monitoring and management via mobile APP or PC
- Role-based access control
- Predictive operation and maintenance
- Closed-loop O&M management

Cell

The REVO series features a range of high-rate LFP cells—including 1C, 6C, and 10C models—with capacities such as 50Ah and 100Ah. These cells are independently developed and manufactured by Vision Group, ensuring excellent consistency, a long cycle life, and exceptional high-rate discharge performance. Advanced technology and strict quality control guarantee both safety and reliability. Depending on the depth of discharge (DOD) and cell type, the cycle life ranges from 1,000 to 5,000 cycles.

Long cycle life

Excellent discharge performance

High safety performance

High-Rate LFP Cells
Self-developed $LiFePO_4$ cells deliver high-power output with inherent safety.

Exceptional Uniformity
Precise tolerance control ensures cell-to-cell consistency for long-term UPS reliability.

Extended Cycle Life
The cycle life ranges from 1000 to 5,000 cycles, depending on the cell model.

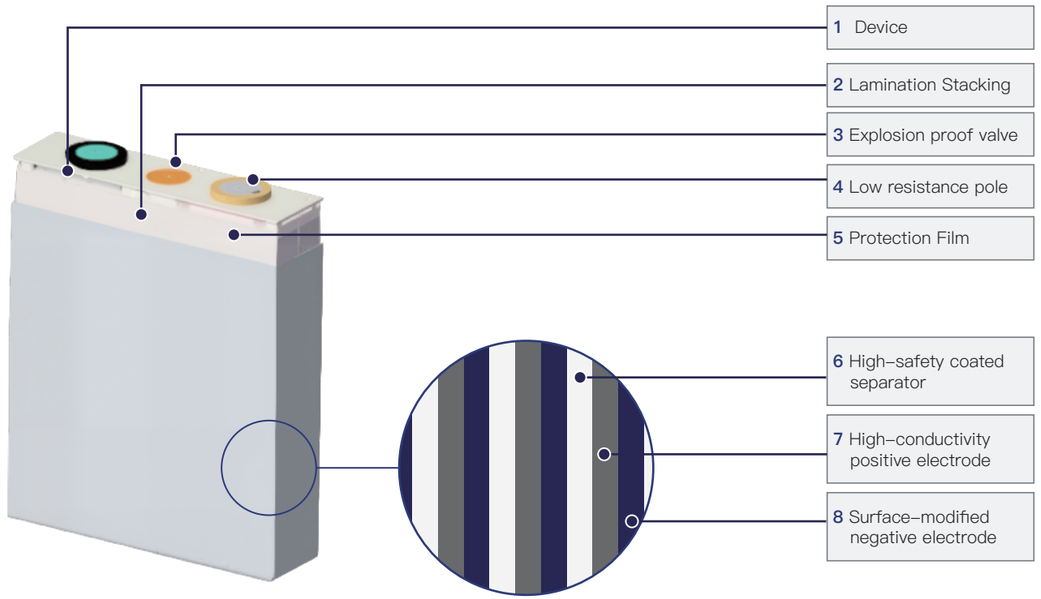
High Discharge Capability
Up to 10C instantaneous discharge (model-dependent) for seamless UPS transfer.

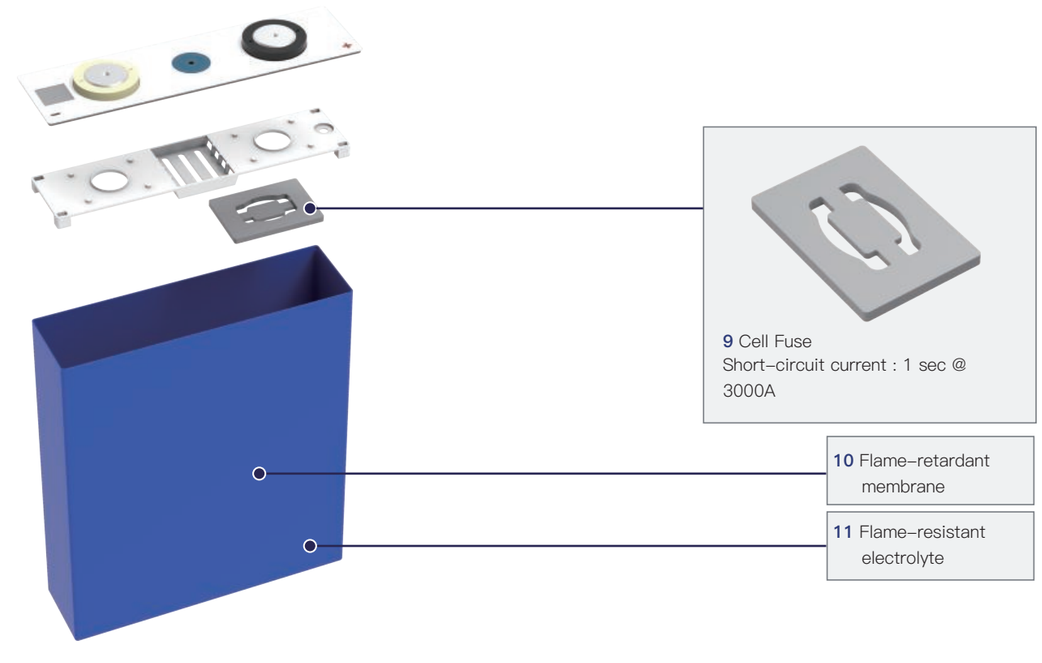
Multi-Layer Safety
Explosion-proof + fire-resistant design prevents thermal runaway.

Optimized Stability
Balances long cycle life, high discharge capability, and safety performance for critical UPS applications.

Nominal Capacity (Ah)	Type	Shape	Dimensions (mm)			Weight (g)	Nominal Voltage (V)	Rated Discharge Rate
			W	D	H			
50	LFP	Prismatic	36	130	160	1530	3.2	10C
50	LFP	Prismatic	36	130	160	1530	3.2	6C
60	LFP	Prismatic	36.5	130	160	1510	3.2	6C
60	LFP	Prismatic	36.5	130	160	1600	3.2	10C
100	LFP	Prismatic	36	130	200	1980	3.2	1C

Over 10 Layers of Safety Protection at Cell Level





Three-Phase Series

REVO 2.5

The REVO series is a lithium battery system solution independently developed by Vision Group for compatibility with various UPS types. It employs self-developed high-rate $LiFePO_4$ battery cells and BMS management system, integrating remote cloud management system and built-in module-level fire protection. The system offers safety, reliability, eco-friendliness, high efficiency, simplicity, and flexibility, along with a compact footprint and long cycle life.

Data Center **Financial Center** **Rail Transit** **Oil & Gas**

Effortless Deployment

Modular design with pre-assembled shipping enables tool-free installation.

Scalable Architecture

Tiered architecture (L2/L3) supports parallel connection and future expansion.

Series Connection

Wide voltage range: 51.2V×n (5≤n≤14).

Parallel Operation

Adapts to diverse power demands and applica-tions.

High-Rate Discharge

≥95% efficiency at 10C discharge.

Long Service Life

15-year design lifespan.

Four-Tier Safety

Multi-layer protection ensures system integrity.

Extended Cycling

2,500+ cycles (1C chg/dis) | 2,000+ cycles (4C dis/0.5C chg).

Full-Spectrum Management

Real-time 100% cell/component monitoring.

Intelligent Fire Suppression

Fire extinguishing devices are equipped at the module level.
Providing 24/7 all-weather fire detection and suppression.

*Cloud Management (Optional): Proactive monitoring, remote control, AI-driven maintenance, multi-user access.

Three-Phase Series/Module Level

Utilizing a universal 19-inch cabinet design, it seamlessly integrates into standardized infrastructures of modern data rooms.

Standard 19"cabinet body design

Easy to maintain

7*24 h real-timemonitoring

Module Model	Capacity / Configuration	Cell Capacity	Cell Series/ Parallel	Dimensions (mm)			Weight (kg)	Rated Energy (kWh)
				W	D	H		
TPH20	51.2V50AH	50AH	1P16S	442	600	127	40	2.56
TP10	51.2V50AH	50AH	1P16S	442	700	106	36	2.56
TP20	51.2V100AH	50AH	2P16S	442	800	149	67.5	5.12
TPL5	51.2V100AH	100AH	1P16S	442	690	108	45	5.12
TPL10	51.2V200AH	100AH	2P16S	442	800	149	91.2	10.24

Three-Phase Series/Rack Level

Unified Modularity

Function-optimized layout with aesthetic cohesion.

System Status Visualization

Real-time monitoring interface.

Cabinet Status Visualization

LED indicators for instant status recognition.

Pre-Integrated Core

FCL-shipped for accelerated deployment.

Rack Model	Capacity Configuration	Module Model	Number of Modules	Dimensions (mm)			Weight (kg)	Rated Energy (kWh)
				W	D	H		
TPH160	409.6V 50AH	TPH20	8	600	1000	2000	520	20.48
TPH200	512V 50AH	TPH20	10	600	1000	2000	600	25.6
TPH240	614.4V 50AH	TPH20	12	600	1000	2000	680	30.72
TP80	409.6V 50AH	TP10	8	600	1000	2000	480	20.48
TP100	512V 50AH	TP10	10	600	1000	2000	550	25.60
TP120	614.4V 50AH	TP10	12	600	1000	2000	620	30.72
TP140	716.8 V50AH	TP10	14	600	1000	2300	690	35.84
TP160	409.6V 100AH	TP20	8	600	1000	2000	760	40.96
TP200	512V 100AH	TP20	10	600	1000	2000	900	51.20
TP240	614.4V 100AH	TP20	12	600	1000	2300	1040	61.44
TPL40A	409.6V 100AH	TPL5	8	600	1000	2000	570	40.96
TPL50A	512V 100AH	TPL5	10	600	1000	2000	650	51.20
TPL60A	614.4V 100AH	TPL5	12	600	1000	2000	750	61.44
TPL80	409.6V 200AH	TPL20	8	600	1000	2000	840	81.92
TPL100	512V 200AH	TPL20	10	600	1000	2000	1000	102.4
TPL120	614.4V 200AH	TPL20	12	600	1000	2300	1300	122.8
SPL20	204.8V 60AH	SPL5	4	600	1000	1200	214	12.28
SPL40	409.6V 60AH	SPL5	8	600	1000	1500	338	24.57
SPL50	512V 60AH	SPL5	10	600	1000	1500	488	30.72

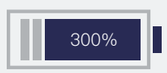
*Supports 6 to 14 battery modules with a nominal voltage range of 307.2 to 716.8V

Three-Phase Series
REVO 2.5 Pro

The REVO 2.5PRO is a purpose-built $LiFePO_4$ battery backup system for UPS applications by Vision Group, supporting 10-60 minute runtime scenarios through cutting-edge high-rate cells, advanced BMS, cloud management interfaces, and module-level fire protection.

Data Center | Financial Center | Rail Transit | Oil & Gas

Energy density



Energy density is **300%** higher than lead-acid batteries.

Weight

Weight is **30%** lower than lead-acid batteries.

Cycles

Cycle count is **500%** that of lead-acid batteries.

Lead | Lithium

Industry-Leading Power Density

High-Rate Cells
Proprietary 6C cells deliver 50% higher rate, supporting up to 396kW per cabinet.

Space-Optimized
Solid copper busbars enable ultra-compact integration, saving 40-50% space vs competitors.

Reduced TCO
Lowers total cost of ownership by >30%.

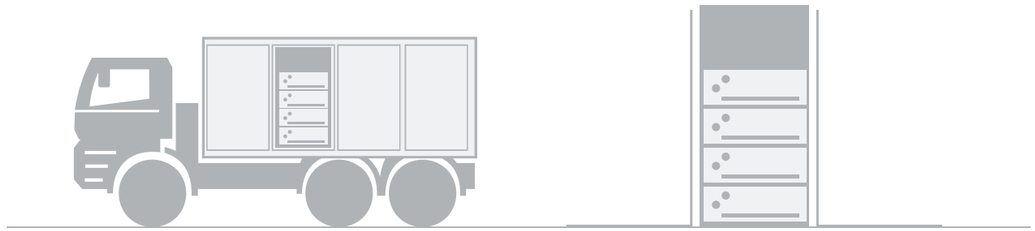
Simplified Maintenance
Modular design enables 5-minute servicing by trained technicians.

10.1" Color Touchscreen
Real-time visualization, fault diagnosis, event logs, and efficient inspection.

Cloud Management
Cell short-circuit alerts, temp/gas (CO) monitoring, mobile/PC access, AI-driven maintenance.

Installation

Prefabricated transportation makes on-site installation more convenient, shortens on-site delivery cycles, and saves 70% of installation time.



Certifications

UN38.3、EU, US Battery Directive
Module:UL9540A、IEC62619、CE-EMC
System:UL9540A、UL1973、CE-EMC、CE-LVD(EN62477+62040)、CB+IEC62619、IEC60068、GBT36276、34131、ROHS2.0

Cabinet Model	Capacity Configuration	Module Model	Number of Modules	Dimensions (mm)			Weight (kg)	Rated Energy (kWh)
				W	D	H		
TP160 PRO	409.6V120Ah	TP20PRO	8	800	750	2000	1016	49.15
TP180 PRO	460.8V120Ah	TP20PRO	9	800	750	2000	1078	55.296
TP200 PRO	512V120Ah	TP20PRO	10	800	750	2000	1146	61.44
TP220 PRO	563.2V120Ah	TP20PRO	11	800	750	2000	1211	67.5
TP240 PRO	614.4V120Ah	TP20PRO	12	800	750	2000	1276	73.7
TP280 PRO	716.8V120Ah	TP20PRO	14	800	750	2000	1406	86

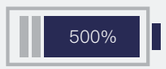
Three-Phase Series
REVO 3.0

Born for Computing Power

TPX600 is a LFP battery backup system developed by VISION specifically for UPS, making megawatt level applications simpler. Features high power density, redundant safety, plug-and-play installation, maintenance-free operation, and remote monitoring.

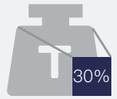
Computing Center | Data Center | Financial Center | Rail Transit | Oil & Gas

Energy density



Energy density is **500%** higher than lead-acid batteries.

Weight



Weight is **30%** lower than lead-acid batteries.

Cycles

Cycle count is **500%** that of lead-acid batteries.

Lead | Lithium

Always Safe, Always On

High-Rate Cells
Proprietary 10C cells deliver 60% higher rate, supporting up to 600kW per cabinet.
Twice the power density of competing products.

Space-Optimized
Solid copper busbars enable ultra-compact integration, saving 40-50% space vs competitors.

Reduced TCO
Lowers total cost of ownership by >30%.

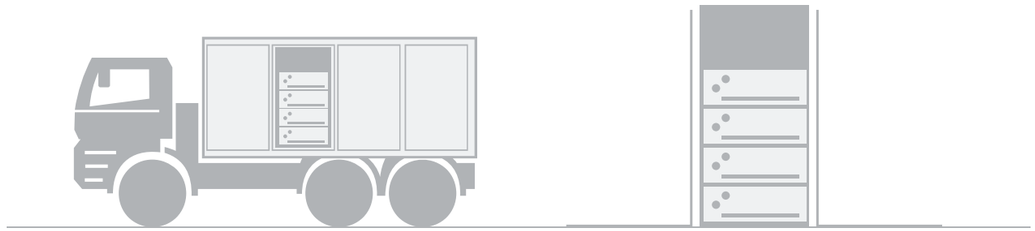
Simplified Maintenance
Modular design enables 5-minute servicing by trained technicians.

10.1" Color Touchscreen
Real-time visualization, fault diagnosis, event logs, and efficient inspection.

Cloud Management
Cell short-circuit alerts, temp/gas (CO) monitoring, mobile/PC access, AI-driven maintenance.

Installation

Prefabricated transportation makes on-site installation more convenient, shortens on-site delivery cycles, and saves 70% of installation time.



Certifications

CE UL IEC UN38.3 CB GB/T36276 GB/T34131 RoHS 2.0

UN38.3、EU, US Battery Directive
Module:UL9540A、IEC62619、CE-EMC
System:UL9540A、UL1973、CE-EMC、CE-LVD(EN62477+62040)、CB+IEC62619、IEC60068、GBT36276、34131、ROHS2.0

Cabinet Model	Capacity Configuration	Module Model	Number of Modules	Dimensions (mm)			Weight (kg)	Rated Energy (kWh)
				W	D	H		
TPX400	409.6V120Ah	TPX50	8	800	750	2000	1028	49.152
TPX450	460.8V120Ah	TPX50	9	800	750	2000	1096	55.296
TPX500	512V120Ah	TPX50	10	800	750	2000	1163	61.44
TPX550	563.2V120Ah	TPX50	11	800	750	2000	1220	67.58
TPX600	614.4V120Ah	TPX50	12	800	750	2000	1300	73.7

10 fold
Redundant
Safety Design

1
Module Fuse

2
Explosion-proof valve

3
Flame-retardant separator

4
Flame-resistant electrolyte

5
Module insulation design

6
Leakage prevention design

7
Leakage protection

8
System fuse

9
Circuit breaker (CB)

10
Module fire protection、Rack fire protection

Single-Phase Series

The REVO single-phase UPS lithium battery system by Vision Group is specifically designed for medium and small-power critical loads. Integrating high-safety LFP ($LiFePO_4$) battery cells with intelligent management technology, it is suitable for mission-critical applications requiring high reliability, such as data centers, financial institutions, and rail transportation.

Data Center | Financial Center | Rail Transit | Oil & Gas

Compact Integration

Modular structure with internal/external compat-ibility.

Scalable Expansion

Two/three-tiered architecture supports parallel connection and future scaling.

Multiple Network Protocol

Canbus, Modbus, RS485 communication protocols supported.

Intelligent Control

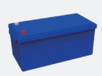
Integrates a high-precision Battery Management System(BMS) with an internal cell balancing function,supporting a maximum balancing current of 100mA

High Discharge Efficiency
98% efficiency

Extended Cycling
4000+ cycles at 80% DoD (1C discharge / 1C charge).

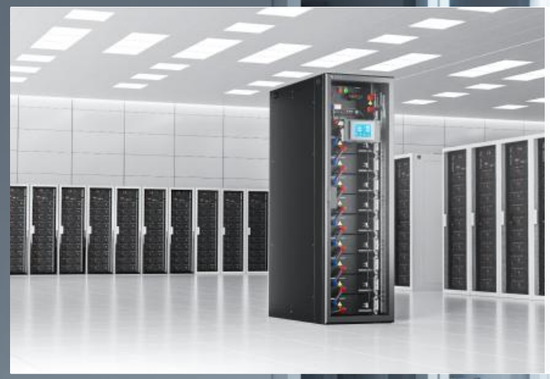
Long Service Life
15-year design lifespan.

Broad Compatibility
Compatible with small-to-medium UPS units and inverters.

Product appearance	Model	Capacity Configuration	Cell Configuration	Series/ Parallels	Dimensions(mm)			Weight (kg)	Rated Energy (kWh)
					W	D	H		
	SP12-9	12.8V9AH	12.8V9AH	4S1P	152	65	98	1.25	0.115
	SP12-100	12.8V100AH	3.2V100AH	4S1P	330	171	220	10.5	1.28
	SP12-200	12.8V200AH	3.2V100AH	4S2P	522	238	223	21	2.56

Product appearance	Model	Capacity Configuration	Cell Configuration	Series/ Parallels	Dimensions(mm)			Weight (kg)	Rated Energy (kWh)
					W	D	H		
	SP36-50	38.4V50AH	3.2V50AH	12S1P	442	350	189	28	1.92
	SP36-100	38.4V100AH	3.2V100AH	12S1P	442	420	177	34	3.84
	SP36-200	38.4V200AH	3.2V100AH	12S2P	440	610	174	62	7.68
	SP48-50	48V50AH	3.2V50AH	15S1P	442	470	149	34	2.4
	SP48-100	48V100AH	3.2V100AH	15S1P	442	470	149	41	4.8
	SP51.2-50	51.2V50AH	3.2V50AH	16S1P	442	500	177	38	2.56
	SP51.2-100	51.2V100AH	3.2V100AH	16S1P	442	500	177	44	5.12
	SP51.2-200	51.2V200AH	3.2V100AH	16S2P	442	900	149	80	10.24
	SP72-50	72V50Ah	3.2V50AH	23S1P	440	650	174	50	3.68
	SP72-100	72V100Ah	3.2V100AH	23S1P	440	650	174	60	7.36
	SP192-9	192V9Ah	12.8V9AH	15S1P	442	800	149	40	1.72
	SP192-28	192V28Ah	3.2V6AH	60S5P	440	700	174	68	5.37

Case Study



Data Center in Spain

Battery Type	120*TP200
Runtime	15MIN
Start Date	2024.10
Project Features	• 10+ years of service life • 60% less space, 70% lighter than lead-acid • Smart multi-level management and security • Cloud-based predictive maintenance • Easy expansion with parallel connection

Data Center in Malaysia

Battery Type	448*TP200
Runtime	10MIN
Start Date	2023.12
Project Features	• 10+ years of service life • 60% less space, 70% lighter than lead-acid • Smart multi-level management and security • Cloud-based predictive maintenance • Easy expansion with parallel connection

Data Center in Malaysia

Battery Type	396*TP240
Runtime	10MIN
Start Date	2024.10
Project Features	• 10+ years of service life • 60% less space, 70% lighter than lead-acid • Smart multi-level management and security • Cloud-based predictive maintenance • Easy expansion with parallel connection

Data Center in the Philippines

Battery Type	439*TP200
Runtime	10MIN
Start Date	2024.12
Project Features	• 10+ years of service life • 60% less space, 70% lighter than lead-acid • Smart multi-level management and security • Cloud-based predictive maintenance • Easy expansion with parallel connection

UPS Backup Power Project for IDC in HongKong

Battery Type	REVO TP200
Runtime	8 MIN EOL
Start Date	2023.12
Project Features	• 10+ years of service life • 60% less space, 70% lighter than lead-acid • Smart multi-level management and security • Cloud-based predictive maintenance • Easy expansion with parallel connection

Experimental Centers in an International UPS Manufacturer

Battery Type	REVO TPH200
Runtime	1000KW 5min
Start Date	2019.12
Project Features	• 10+ years of service life • 60% less space, 70% lighter than lead-acid • Smart multi-level management and security • Cloud-based predictive maintenance • Easy expansion with parallel connection

Case Study

Data Center in Brazil

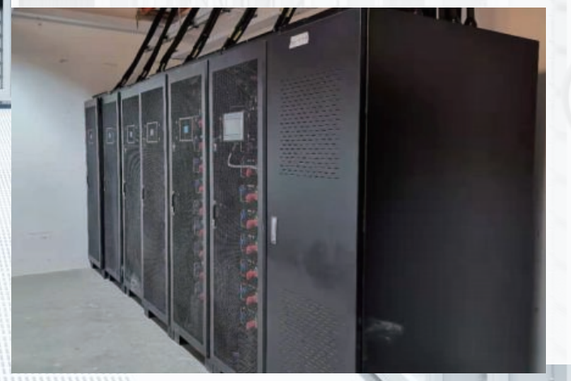
Battery Type	REVO TP200
Runtime	1200 KW 10min
Start Date	2021.01
Project Features	Backup power support, communi cation between the battery system and the UPS, intelligent charge management, integrated cloud management platform, and intelligent SOC control

Data Center in Singapore

Battery Type	REVO TP240
Runtime	10min
Start Date	2021.10
Project Features	Backup power support, communication between the battery system and the UPS, intelligent charge management, integrated cloud management platform, and intelligent SOC control

Data Center in Brazil

Battery Type	REVO TP200
Runtime	10min
Start Date	2021.09
Project Features	Backup power support, communication between the battery system and the UPS, intelligent charge management, integrated cloud management platform, and intelligent SOC control



Data Center in Singapore

Battery Type	REVO TP200
Runtime	1200KVA 10min
Start Date	2020.12
Project Features	Backup power support, communication between the battery system and the UPS, intelligent charge management, integrated cloud management platform, and intelligent SOC control

Data Center in Poland

Battery Type	REVO TP200
Runtime	10min
Start Date	2021.05
Project Features	Backup power support, communication between the battery system and the UPS, intelligent charge management, integrated cloud management platform, and intelligent SOC control

Data Center of GDS

Battery Type	REVO TP200
Runtime	15min
Start Date	2021.08
Project Features	Backup power support, communication between the battery system and the UPS, intelligent charge management, integrated cloud management platform, and intelligent SOC control

QUALIFIED SUPPLIER STATEMENT

VisionCore Supplier Qualification Program

- Corporate Review
- Technical & R&D Evaluation
- Manufacturing Capability Review
- Quality & After-Sales System Review

Prepared by VisionCore Nexus
This portfolio is presented as part of the VisionCore Qualified Supplier Program.

VisionCore Nexus evaluates suppliers through a structured qualification framework covering corporate background, technical capability, manufacturing capability, and quality systems.

All product specifications, certifications, performance data, project references, and technical descriptions contained in this portfolio remain the responsibility of the original supplier.