



VIRTUE ENERGY



Whats App

Virtue Energy(ShenZhen) Co.ltd

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VIRTUE ENERGY

Virtue Energy(ShenZhen) Co.ltd

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COMPANY PROFILE

Virtue Energy (Shenzhen) Co., Ltd., founded in 2009, is a national high-tech enterprise specializing in the R&D and manufacturing of lithium battery UPS systems and energy storage solutions. With over 15 years of industry expertise, we have developed advanced intelligent power management technologies and high-power parallel systems capable of supporting configurations up to 6.4MW.

Our comprehensive product portfolio serves critical sectors including data centers, telecommunications infrastructure, medical facilities, rail transportation, and financial institutions. All products meet international quality standards including ISO9001, UN38.3, and MSDS certifications, supported by rigorous testing procedures to ensure maximum reliability.

We provide customized solutions with flexible backup time configuration, intelligent battery communication systems, and ECO energy-saving mode. Our professional services include 24/7 technical support, comprehensive after-sales service, and OEM/ODM services with brand customization options.

Backed by 300+ patents and certifications, 350+ skilled technicians, and a 50,000+ square meter production facility, Virtue Energy delivers innovative and reliable power protection solutions to clients worldwide.



300+
Patents & Certificates



350+
Technology Workers



50,000 m² +
Production Facility



Lithium UPS



02



Product Introduction

R-series lithium UPS (1~3kVA) is an online double-conversion UPS, ideal for small-scale scenarios. It eliminates grid issues, supports rack-mount installation. The compact design and high power density, along with R-series lithium battery backup, save installation space. It supports automatic start-up and is suitable for unmanned sites. Optional intelligent cards enable comprehensive UPS status monitoring.

Application

- Small and medium-sized enterprises, large enterprise branches, and bank branches with small-scale data centers.
- AC power supply for networks, communication systems, and automated control systems.
- AC power supply for precision instruments and equipments.

Features and Values

Green

- In dual conversion mode, efficiency reaches up to 95%, highly efficient and energy-saving.
- In ECO mode, efficiency reaches up to 99%, providing economic and reliable performance.

Reliability

- Ultra-wide voltage input range, easily copes with harsh electricity environments.
- Advanced DSP control technology, with self-fault diagnosis and processing capabilities.
- Independent air duct design, ensuring more reliable overall operation.
- Long-life lithium iron phosphate battery design, with a service life of up to 10 years, no need to replace batteries.

Safety

- Optimized grid adaptability, perfect compatibility with generators.
- Comprehensive warning and protection functions, automatic start-up detection, ensuring equipment safety.

Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model		R1K-Li	R1KS-Li	R2K-Li	R2KS-Li	R3K-Li	R3KS-Li
Capacity kVA/W		1kVA/900W		2kVA/1800W		3kVA/2700W	
Topology		Double Conversion Online UPS					
Phase		Single Phase Input Single Phase Output					
Mains Input	Wiring	L/N+PE					
	Rated Voltage	208/220/230/240VAC					
	Voltage Range	90~300VAC					
	Frequency Range	40Hz~70Hz					
	Input Power Factor	≥ 0.99					
AC Output	Wiring	L/N+PE					
	Output Voltage	208/220/230/240VAC					
	Voltage Regulation	±1%					
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)					
	Waveform	Sine Wave					
	Distortion (THDV%)	<2%(Linear Load)					
		<8%(None-Linear Load)					
	Over Load Capability	1Min@105%~125% Rated Load 10Sec.@125%~150% Rated Load 0.3Sec.@>150% Rated Load					
Battery & Charger	Rated Battery Voltage	48/51.2VDC(default for 16 cell of LiFePO4)					
	Battery Capacity	615WH	External Battery Depends	920WH	External Battery Depends	1250WH	External Battery Depends
	Backup Time	>30mins @ Full Load		>20mins @ Full Load		>20mins @ Full Load	
	Charging Current	4A Standard					
Physical	Chassis Style	Rack					
	Rack Dimension	1K: 438x44(1U)X400MM 1KS: 438x44(1U)X400MM		2K: 438x88(2U)X500MM 2KS:438x88(2U)X400MM		3K: 438x88(2U)X612MM 3KS:438x88(2U)X400MM	
	Weight	13.0kg	6.5kg	18.5kg	6.8kg	23.9kg	8.2kg
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Battery Charge					
	Standards Communication	1. RS232/USB Card (not HID) 2. Dry Contact interface for BMS control 3. Modbus for BMS interface					
	Optional Extension Card	4.NetWork Card: Support SNMP/TCP/IP 5.RS485-Modbus Card, LAN (TCP IP)-Modbus Card					
Operating Environment Endurance	Temperature Range	-10~50°C					
	Relative Humidity	0-98% (Non-Condensing)					
	Acoustics Noise	<55dB @ 1 Meters					



Product Introduction

R-series lithium UPS (6~10KVA) is an online double-conversion UPS, ideal for small-scale scenarios. It eliminates grid issues, supports rack-mount installation. The compact design and high power density, along with R-series lithium battery backup, save installation space. It supports automatic start-up and is suitable for unmanned sites. Optional intelligent cards enable comprehensive UPS status monitoring.

Application

- Small and medium-sized enterprises, large enterprise branches, and bank branches with small-scale data centers.
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- Advanced DSP control technology, with self-fault diagnosis and processing capabilities.
- Independent air duct design, ensuring more reliable overall operation.
- Long-life lithium iron phosphate battery design, with a service life of up to 10 years, no need to replace batteries.

Safety

- Optimized grid adaptability, perfect compatibility with generators.
- Comprehensive warning and protection functions, automatic start-up detection, ensuring equipment safety.

Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model		R6KS-Li	R10KS-Li
Capacity kVA/W		6kVA/5.4kW	10kVA/9kW
Topology		Double Conversion Online UPS	
Phase		Single Phase Input Single Phase Output	
Mains Input	Wiring	L/N+PE	
	Rated Voltage	208/220/230/240VAC	
	Voltage Range	90~300VAC	
	Frequency Range	40Hz~70Hz	
	Input Power Factor	≥ 0.99	
AC Output	Wiring	L/N+PE	
	Output Voltage	208/220/230/240VAC	
	Voltage Regulation	±1%	
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)	
	Waveform	Sine Wave	
	Distortion (THDV%)	<2%(Linear Load) <7%(None-Linear Load)	
	Over Load Capability	10Min@105%~125% Rated Load 60Sec.@125%~150% Rated Load 0.3Sec.@>150% Rated Load	
Efficiency	Mains Mode	>95%	>95%
	Battery Mode	>93%	
Battery & Charger	Charging Voltage	204.8/3.2*64VDC (Default for 64 cell of LiFePO4)	
	Battery Capacity	External Battery Depends	
	Charging Behavior & Protection	CC、CV、Floating、Turn-Off four states, Triple-loop Over-voltage Protection, Preset Over-temperature and Over-pressure switch interfaces	
	Charging Current	4A (Standard)	
Physical	Chassis Style	Rack	
	Dimension	440×88(2U)×493	
	Weight	10.8KG	11.9KG
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status	
	Standards Communication	1. RS232/USB Card (not HID) 2. Dry Contact interface for BMS control 3. Modbus for BMS interface	
	Optional Extension Card	4.NetWork Card: Support SNMP/TCP/IP 5.RS485-Modbus Card, LAN (TCP IP)-Modbus Card	
Operating Environment Endurance	Temperature Range	-10~50°C	
	Relative Humidity	0-98% (Non-Condensing)	
	Acoustics Noise	<55dB @ 1 Meters	



Product Introduction

R-series lithium UPS (10~20KVA) is an online double-conversion UPS, ideal for small-scale scenarios. It eliminates grid issues, supports rack-mount installation. The compact design and high power density, along with R-series lithium battery backup, save installation space. It supports automatic start-up and is suitable for unmanned sites. Optional intelligent cards enable comprehensive UPS status monitoring.

Application

- Small and medium-sized enterprises, large enterprise branches, and bank branches with small-scale data centers.
- AC power supply for networks, communication systems, and automated control systems.
- AC power supply for precision instruments and equipments.

Features and Values

Green

- In dual conversion mode, efficiency reaches up to 95%, highly efficient and energy-saving.
- In ECO mode, efficiency reaches up to 99%, providing economic and reliable performance.

Reliability

- Ultra-wide voltage input range, easily copes with harsh electricity environments.
- Advanced DSP control technology, with self-fault diagnosis and processing capabilities.
- Independent air duct design, ensuring more reliable overall operation.
- Long-life lithium iron phosphate battery design, with a service life of up to 10 years, no need to replace batteries.

Safety

- Optimized grid adaptability, perfect compatibility with generators.
- Comprehensive warning and protection functions, automatic start-up detection, ensuring equipment safety.

Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model	3R10KS-Li	3R15KS-Li	3R20KS-Li
Capacity kVA/kW	10kVA/9kW	15kVA/13.5kW	20kVA/18kW
Topology	Double Conversion Online UPS		
Phase	Three Phase Input Single Phase Output		
Mains Input	Wiring	L/N+PE or (L1/L2/L3/N)+PE	
	Voltage Range	Single Phase: 90~300VAC Three Phase: 150~500VAC	
	Frequency Range	40Hz~70Hz	
	Input Power Factor	≥ 0.99	
AC Output	Wiring	L/N+PE	
	Output Voltage	L-N:208/220/230/240Vac	
	Voltage Regulation	±1%	
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)	
	Waveform	Sine Wave	
	Distortion (THDV%)	<2%(Linear Load) <6%(None-Linear Load)	
	Over Load Capability	10Min@105%~125% Rated Load 30Sec.@125%~150% Rated Load 0.5Sec.@>150% Rated Load	
Efficiency	Mains Mode	>95%	
	Battery Mode	204.8VDC: >93%	
Battery & Charger	Rated Battery Voltage	204.8/3.2*64VDC (Default for 64 cell of LiFePO4)	
	Battery Capacity Backup Time	External Battery Depends	
	Charging Protection	CC, CV, Floating, Turn-Off four states, Triple-loop Over-voltage Protection	
Physical	Charging Current	4A (Standard) /8A (Optional)	
	Dimension	440x132(3U)x526MM	440x132(3U)x568MM
	Weight	14.4KG	24.3KG
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status	
	Standards Communication	1. RS232/USB Card (not HID) 2. Dry Contact interface for BMS control 3. Modbus for BMS interface	
	Optional Extension Card	4.NetWork Card: Support SNMP/TCP/IP 5.RS485-Modbus Card, LAN (TCP IP)-Modbus Card	
Operating Environment Endurance	Temperature Range	-10~55°C	
	Relative Humidity	0-98% (Non-Condensing)	
	Acoustics Noise	<55dB @ 1 Meters	

Product Introduction

The 1-3KVA Pro is a double-conversion online UPS, ideally suited for small-scale scenarios. It uses lithium iron phosphate (LiFePO4) batteries, supports long-duration power supply, and features plug-and-play functionality with no installation needed. Integrating high reliability, easy operation, and convenient maintenance, it can adapt to harsh power grid environments and provide clean, safe, and stable power for loads.

Application

- IT equipment roomss
- Small-scale smart devices
- Precision instruments
- Medical equipment

Features and Values

Green

- In dual conversion mode, efficiency reaches up to 95%, highly efficient and energy-saving.
- In ECO mode, efficiency reaches up to 99%, providing economic and reliable performance.

Reliability

- Ultra-wide voltage input range, easily copes with harsh electricity environments.
- Advanced DSP control technology, with self-fault diagnosis and processing capabilities.
- Independent air duct design, ensuring more reliable overall operation.
- Long-life lithium iron phosphate battery design, with a service life of up to 10 years, no need to replace batteries.

Safety

- Optimized grid adaptability, perfect compatibility with generators.
- Comprehensive warning and protection functions, automatic start-up detection, ensuring equipment safety.

Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model		C1K-Pro		C2K-Pro		C3K-Pro	
Capacity kVA/W		1kVA/900W		2kVA/1800W		3kVA/2700W	
Topology		Double Conversion Online UPS					
Phase		Single Phase Input Single Phase Output					
Mains Input	Wiring	L/N+PE					
	Rated Voltage	220/230/240VAC					
	Voltage Range	90~300VAC					
	Frequency Range	40Hz~70Hz					
	Input Power Factor	≥ 0.99					
AC Output	Wiring	L/N+PE					
	Output Voltage	208/220/230/240VAC					
	Voltage Regulation	±1%					
	Output Frequency	50/60±4Hz(phase-locked to follow mains) / 50/60Hz±0.1%(fixed frequency mode)					
	Waveform	Sine Wave					
	Distortion (THDV%)	<2%(Linear Load)					
		<7%(None-Linear Load)					
	Over Load Capability	1Min@105%~125% Rated Load 10s@125%~150% Rated Load 0.5s@>150% Rated Load					
Battery & Charger	Battery Voltage	6.4VDC			6.4VDC		6.4VDC
	Battery Capacity	1792WH	3584WH	5376WH	3584WH	5376WH	5376WH
	Battery Quantity	Built-in 2 Batteries	Built-in 4 Batteries	Built-in 6 Batteries	Built-in 4 Batteries	Built-in 6 Batteries	Built-in 6 Batteries
	Full Backup Time	120Minutes	240Minutes	360Minutes	120Minutes	180Minutes	120Minutes
	Charging Current	Standard 25A ;Expandable to 150A					
Physical	Rack Dimension	1K/2K/3K: W215×H512×L560 (mm)					
	Weight	28kg	38.5kg	49kg	41kg	51.5kg	52kg
HMI	Communication Port	RS232 Standard					
	Touch Display	Displays input and output voltage and current,frequency,load percentage, operating mode,machine status,lithium battery status.					
	Expansion card slot	Optional network monitoring card, support PC, cell phone remote monitoring, MODBUS, dry contact					
Operating Environment Endurance	Temperature Range	-10~45℃					
	Relative Humidity	0-98% (Non-Condensing)					
	Acoustics Noise	<50dB @ 1 Meters					



Product Introduction

C-series lithium UPS (1~3kVA) is a double-conversion online UPS, ideally suited for small-scale scenarios. It uses lithium iron phosphate (LiFePO₄) batteries, supports long-duration power supply, and features plug-and-play functionality with no installation needed. Integrating high reliability, easy operation, and convenient maintenance, it can adapt to harsh power grid environments and provide clean, safe, and stable power for loads.

Application

- Small and medium-sized enterprises, large enterprise branches, and bank branches with small-scale data centers.
- AC power supply for networks, communication systems, and automated control systems.
- AC power supply for precision instruments and equipments.

Features and Values

Green

- In dual conversion mode, efficiency reaches up to 95%, highly efficient and energy-saving.
- In ECO mode, efficiency reaches up to 99%, providing economic and reliable performance.

Reliability

- Ultra-wide voltage input range, easily copes with harsh electricity environments.
- Advanced DSP control technology, with self-fault diagnosis and processing capabilities.
- Independent air duct design, ensuring more reliable overall operation.
- Long-life lithium iron phosphate battery design, with a service life of up to 10 years, no need to replace batteries.

Safety

- Optimized grid adaptability, perfect compatibility with generators.
- Comprehensive warning and protection functions, automatic start-up detection, ensuring equipment safety.

Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model		C1K-Li	C1KS-Li	C2K-Li	C2KS-Li	C3K-Li	C3KS-Li
Capacity kVA/W		1kVA/900W		2kVA/1800W		3kVA/2700W	
Topology		Double Conversion Online UPS					
Phase		Single Phase Input Single Phase Output					
Mains Input	Wiring	L/N+PE					
	Rated Voltage	208/220/230/240VAC					
	Voltage Range	90~300VAC					
	Frequency Range	40Hz~70Hz					
	Input Power Factor	≥ 0.99					
AC Output	Wiring	L/N+PE					
	Output Voltage	208/220/230/240VAC					
	Voltage Regulation	±1%					
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)					
	Waveform	Sine Wave					
	Distortion (THDV%)	<2%(Linear Load)					
		<8%(None-Linear Load)					
	Over Load Capability	1Min@105%~125% Rated Load 10Sec.@125%~150% Rated Load 0.3Sec.@>150% Rated Load					
Battery & Charger	Rated Battery Voltage	51.2/48VDCVDC(default for 16 cell of LiFePO4)					
	Battery Capacity	615WH	External Battery Depends	920WH	External Battery Depends	1250WH	External Battery Depends
	Backup Time	>30mins @ Full Load		>20mins @ Full Load		>20mins @ Full Load	
	Charging Current	4A Standard					
Physical	Chassis Style	Tower					
	Rack Dimension	1-3K: 190x230X420MM 1-3KS:190x230X368MM					
	Weight	10.8kg	7.0kg	16.5kg	7.3kg	18.0kg	7.9kg
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Battery Charge					
	Standards Communication	1. RS232/USB Card (not HID) 2. Dry Contact interface for BMS control 3. Modbus for BMS interface					
	Optional Extension Card	4.NetWork Card: Support SNMP/TCP/IP 5.RS485-Modbus Card, LAN (TCP IP)-Modbus Card					
Operating Environment Endurance	Temperature Range	-10~50°C					
	Relative Humidity	0-98% (Non-Condensing)					
	Acoustics Noise	<55dB @ 1 Meters					



Product Introduction

C-series lithium UPS (6~10KVA) is an online double-conversion UPS, ideal for small-scale scenarios. It eliminates grid issues, supports tower-type installation (no need for matching rack infrastructure, enabling flexible placement in various indoor environments such as equipment rooms, office corners, or small server areas), and operates at up to 92% efficiency.

Application

- Small and medium-sized enterprises, large enterprise branches, and bank branches with small-scale data centers.
- AC power supply for networks, communication systems, and automated control systems.
- AC power supply for precision instruments and equipments.

Features and Values

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Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model		C6KS-Li	C10KS-Li
Capacity kVA/W		6kVA/5400W	10kVA/9000W
Topology		Double Conversion Online UPS	
Phase		Single Phase Input Single Phase Output	
Mains Input	Wiring	L/N+PE	
	Rated Voltage	208/220/230/240VAC	
	Voltage Range	90~300VAC	
	Frequency Range	40Hz~70Hz	
	Input Power Factor	≥ 0.99	
AC Output	Wiring	L/N+PE	
	Output Voltage	208/220/230/240VAC	
	Voltage Regulation	±1%	
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)	
	Waveform	Sine Wave	
	Distortion (THDV%)	<2%(Linear Load) <7%(None-Linear Load)	
	Over Load Capability	10Min@105%~125% Rated Load 60Sec.@125%~150% Rated Load 0.3Sec.@>150% Rated Load	
Efficiency	Mains Mode	>95%	>95%
	Battery Mode	>93%	
Battery & Charger	Charging Voltage	204.8/3.2*64VDC (Default for 64 cell of LiFePO4)	
	Battery Capacity	External Battery Depends	
	Charging Behavior & Protection	CC、CV、Floating、Turn-Off four states, Triple-loop Over-voltage Protection, Preset Over-temperature and Over-pressure switch interfaces	
	Charging Current	4A (Standard)	
Physical	Chassis Style	Tower	
	Dimension	190×323×370	190×340×565
	Weight	9.9KG	13.5KG
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status	
	Standards Communication	1. RS232/USB Card (not HID) 2. Dry Contact interface for BMS control 3. Modbus for BMS interface	
	Optional Extension Card	4.NetWork Card: Support SNMP/TCP/IP 5.RS485-Modbus Card, LAN (TCP IP)-Modbus Card	
Operating Environment Endurance	Temperature Range	-10~50°C	
	Relative Humidity	0-98% (Non-Condensing)	
	Acoustics Noise	<55dB @ 1 Meters	



Product Introduction

C-series lithium UPS (10~20KVA) is an online double-conversion UPS, ideal for small-scale scenarios. It eliminates grid issues, supports tower-type installation (no need for matching rack infrastructure, enabling flexible placement in various indoor environments such as equipment rooms, office corners, or small server areas), and operates at up to 92% efficiency.

Application

- Small and medium-sized enterprises, large enterprise branches, and bank branches with small-scale data centers.
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Safety

- Optimized grid adaptability, perfect compatibility with generators.
- Comprehensive warning and protection functions, automatic start-up detection, ensuring equipment safety.

Minimalist

- Automatic mains start-up, supports unmanned operation.
- Intelligent screen displays parameters, providing clear equipment status.
- Compact size, flexible installation, effectively saving installation space.
- Digital control, ultra-long endurance, supports low-current discharge.

Model	3C10KS-Li	3C15KS-Li	3C20KS-Li
Capacity kVA/kW	10kVA/9kW	15kVA/13.5kW	20kVA/18kW
Topology	Double Conversion Online UPS		
Phase	Three Phase Input Single Phase Output		
Mains Input	Wiring	L/N+PE or (L1/L2/L3/N)+PE	
	Voltage Range	Single Phase: 90~300VAC Three Phase: 150~500VAC	
	Frequency Range	40Hz~70Hz	
	Input Power Factor	≥ 0.99	
AC Output	Wiring	L/N+PE	
	Output Voltage	L-N:208/220/230/240Vac	
	Voltage Regulation	±1%	
	Output Frequency	50/60±4Hz(Sync Mode) / 50/60Hz±0.1%(Free Run)	
	Waveform	Sine Wave	
	Distortion (THDV%)	<2%(Linear Load) <6%(None-Linear Load)	
	Over Load Capability	10Min@105%~125% Rated Load 30Sec.@125%~150% Rated Load 0.5Sec.@>150% Rated Load	
Efficiency	Mains Mode	>95%	
	Battery Mode	204.8VDC: >93%	
Battery & Charger	Rated Battery Voltage	204.8/3.2*64VDC (Default for 64 cell of LiFePO4)	
	Battery Capacity Backup Time	External Battery Depends	
	Charging Protection	CC, CV, Floating, Turn-Off four states, Triple-loop Over-voltage Protection	
	Charging Current	4A (Standard) /8A (Optional)	
Physical	Rack Dimension	438x132x530MM	438x176x530MM
	Weight	14.5KG	24.5KG
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status	
	Standards Communication	1. RS232/USB Card (not HID) 2. Dry Contact interface for BMS control 3. Modbus for BMS interface	
	Optional Extension Card	4.NetWork Card: Support SNMP/TCP/IP 5.RS485-Modbus Card, LAN (TCP IP)-Modbus Card	
Operating Environment Endurance	Temperature Range	-10~55°C	
	Relative Humidity	0-98% (Non-Condensing)	
	Acoustics Noise	<55dB @ 1 Meters	

Product Introduction

Product Introduction: The 3B3 series is a high-intelligence, sine-wave, online UPS that integrates digital, informational, and network technologies. It features robust protection systems and is widely used in various power environments, ensuring safe operation of computers, communication equipment, motors, medical devices, and more, while offering comprehensive protection against power-related issues.

Application

- Medical Equipment
 - Industrial Control Systems
 - Industrial Power
 - Metallurgy and Building Materials
 - Automation Equipment
- Automotive Manufacturing
 - Transportation
 - Manufacturing Processes
 - Chemical and Glass Industries
 - Smart Devices

Features and Values

Mature Technology

- Output isolation transformer for high reliability and strong impact protection.
- Industry-proven phase-controlled rectification technology, suitable for various harsh industrial grid environments.
- Strengthened combination structure cabinet, designed for challenging industrial environments.
- Optimized circuit design, enhancing circuit integration and anti-interference capability for improved stability and performance.

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- Online upgradable and expandable, increasing the load capacity of the UPS system.
- Up to 6 units can be directly paralleled, supporting parallel connection of different models within the same series.
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- Compatible with generator operation.
- Features soft start function, reducing the impact current during system startup.performance.

Battery Management

- Advanced lithium battery management with temperature compensation, extending battery lifespan.
- Intelligent control of UPS charging and discharging behavior through built-in lithium battery control.
- Accurate acquisition of battery SOC and SOH through integrated data interfaces.
- Dedicated lithium battery charging control with constant current, constant voltage, boat charging, and shutdown modes.

Model		3B3 10KS-Li	3B3 15KS-Li	3B3 20KS-Li
Capacity kVA/kW		10kVA/8kW	15kVA/12kW	20kVA/16kW
Phase		Three Phase Input Three Phase Output		
Mains Input	Wiring	L1/L2/L3/N+PE		
	Rated Voltage	380/400/415Vac (L-L)		
	Voltage Range	±25%		
	Frequency Range	45Hz-65Hz		
	Input Power Factor	≥ 0.95		
AC Output	Wiring	L1/L2/L3/N+PE		
	Output Voltage	380/400/415Vac		
	Voltage Regulation	±1%		
	Output Frequency	Automatic Bypass Frequency Tracking		
	Waveform	Sine Wave		
	Distortion (THDV%)	<1%(Linear Load)		
		<5%(None-Linear Load)		
	Over Load Capability	60Min@105%~110% Rated Load 10Min@110%~125% Rated Load 1Min@125%~150% Rated Load 10Sec.@150% Rated Load		
Efficiency	Mains Mode	>91%		
	Rated Battery Voltage	Lithium battery(336~450VDC) / Lead acid battery (336~450VDC)		
	Battery Capacity Backup Time	External Battery Depends		
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load level, Operation Mode, Health Status		
	Communication Port	1. RS232 PORT 2. Network Card: Support SNMP/TCP/IP Protocol , for remote monitor the UPS via Smart Phone APP, Web Page, PC Monitor Software , Support Server / NAS Shutdown		
	BMS Port	1.Modbus 2. Control BMS (Battery Management System) Charge and Discharge Dry Contact		
	Alarm Function	Mains Power Abnormality, UPS Failure, Battery Under-voltage, Output Overload etc		
	Protect Function	Under-voltage Battery Protection, Overload Protection, Short Circuit Protection, Over-temperature Protection, Input Over/Under-voltage Protection.		
Operating Environment Endurance	Temperature Range	-10~40°C		
	Relative Humidity	0-95% (Non-Condensing)		
	Acoustics Noise	<55dB @1 Meters		
Physical	Dimension	300*600*810MM		
	Weight	91KG	112KG	120KG



Product Introduction

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Application

- Medical Equipment
 - Industrial Control Systems
 - Industrial Power
 - Metallurgy and Building Materials
 - Automation Equipment
- Automotive Manufacturing
 - Transportation
 - Manufacturing Processes
 - Chemical and Glass Industries
 - Smart Devices

Features and Values

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- Dedicated lithium battery charging control with constant current, constant voltage, boat charging, and shutdown modes.

Model		3B3 30KS-Li	3B3 40KS-Li	3B3 60KS-Li
Capacity kVA/kW		30kVA/24kW	40kVA/32kW	60kVA/48kW
Phase		Three Phase Input Three Phase Output		
Mains Input	Wiring	L1/L2/L3/N+PE		
	Rated Voltage	380/400/415Vac (L-L)		
	Voltage Range	±25%		
	Frequency Range	45Hz-65Hz		
	Input Power Factor	≥ 0.95		
AC Output	Wiring	L1/L2/L3/N+PE		
	Output Voltage	380/400/415Vac		
	Voltage Regulation	±1%		
	Output Frequency	Automatic Bypass Frequency Tracking		
	Waveform	Sine Wave		
	Distortion (THDV%)	<1%(Linear Load)		
	Over Load Capability	60Min@105%~110% Rated Load		
		10Min@110%~125 Rated Load		
		1Min@125%~150% Rated Load		
		10Sec.@150% Rated Load		
Efficiency	Mains Mode	>92%		
	Rated Battery Voltage	Lithium battery(336-450VDC) / Lead acid battery (336-450VDC)		
	Battery Capacity Backup Time	External Battery Depends		
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status		
	Communication Port	1. RS232 PORT 2. Network Card: Support SNMP/TCP/IP Protocol , for remote monitor the UPS via Smart Phone APP, Web page, PC Monitor Software , Support Server / NAS Shutdown		
	BMS Port	1.Modbus 2. Control BMS (Battery Management System) Charge and Discharge Dry Contact		
	Alarm Function	Mains Power Abnormality, UPS Failure, Battery Under-voltage, Output Overload etc		
	Protect Function	Under-voltage Battery Protection, Overload Protection, Short Circuit Protection, Over-temperature Protection, Input Over/Under-voltage Protection.		
Operating Environment Endurance	Temperature Range	-10~40℃		
	Relative Humidity	0-95% (Non-Condensing)		
	Acoustics Noise	<55dB @ 1 Meters		
Physical	Dimension	400*750*1010	400*750*1010	450*830*1160
	Weight	190KG	208KG	267KG



Features and Values

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Redundant Design

- Online upgradable and expandable, increasing the load capacity of the UPS system.
- Up to 6 units can be directly paralleled, supporting parallel connection of different models within the same series.
- Equipped with LBS synchronization function, enabling synchronization of two independent UPS current loads.
- Compatible with generator operation.
- Features soft start function, reducing the impact current during system startup performance.

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- Advanced lithium battery management with temperature compensation, extending battery lifespan.
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Application

- Medical Equipment
- Industrial Control Systems
- Industrial Power
- Metallurgy and Building Materials
- Automation Equipment
- Automotive Manufacturing
- Transportation
- Manufacturing Processes
- Chemical and Glass Industries
- Smart Devices

Model	3B3 80KS-Li	3B3 100KS-Li	3B3 120KS-Li
Capacity kVA/kW	80kVA/64kW	100kVA/80kW	120kVA/96kW
Phase	Three Phase Input Three Phase Output		
Mains Input	Wiring	L1/L2/L3/N+PE	
	Rated Voltage	380/400/415Vac (L-L)	
	Voltage Range	±25%	
	Frequency Range	45Hz-65Hz	
	Input Power Factor	≥ 0.96	
AC Output	Wiring	L1/L2/L3/N+PE	
	Output Voltage	380/400/415Vac	
	Voltage Regulation	±1%	
	Output Frequency	Automatic Bypass Frequency Tracking	
	Waveform	Sine Wave	
	Distortion (THDV%)	<1%(Linear Load)	
		<5%(None-Linear Load)	
	Over Load Capability	60Min@105%~110% Rated Load	
		10Min@110%~125% Rated Load	
		1Min@125%~150% Rated Load	
		10Sec.@150% Rated Load	
Efficiency	Mains Mode	>95%	
	Rated Battery Voltage	Lithium battery(336-450VDC) / Lead acid battery (336-450VDC)	
	Battery Capacity Backup Time	External Battery Depends	
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status	
	Communication Port	1. RS232 PORT 2. Network Card: Support SNMP/TCP/IP Protocol , for remote monitor the UPS via Smart Phone APP, Web page, PC Monitor Software, Support Server / NAS Shutdown	
	BMS Port	1.Modbus 2. Control BMS (Battery Management System) Charge and Discharge Dry Contact	
	Alarm Function	Mains Power Abnormality, UPS Failure, Battery Under-voltage, Output Overload etc	
	Protect Function	Under-voltage Battery Protection, Overload Protection, Short Circuit Protection, Over-temperature Protection, Input over/Under-voltage Protection.	
	Temperature Range	-10~40℃	
Operating Environment Endurance	Relative Humidity	0-95% (Non-Condensing)	
	Acoustics Noise	<60dB @ 1 Meters	
Physical	Dimension	450*830*1160	700*800*1500
	Weight	310KG	460KG



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Model		3B3 160KS-Li	3B3 200KS-Li	3B3 250KS-Li	3B3 300KS-Li	3B3 400KS-Li
Capacity kVA/kW		160kVA/128kW	200kVA/160kW	250kVA/200kW	300kVA/240kW	400kVA/320kW
Phase		Three Phase Input Three Phase Output				
Mains Input	Wiring	L1/L2/L3/N+PE				
	Rated Voltage	380/400/415Vac (L-L)				
	Voltage Range	±25%				
	Frequency Range	45Hz-65Hz				
	Input Power Factor	≥ 0.95				
AC Output	Wiring	L1/L2/L3/N+PE				
	Output Voltage	380/400/415Vac				
	Voltage Regulation	±1%				
	Output Frequency	Automatic Bypass Frequency Tracking				
	Waveform	Sine Wave				
	Distortion	<1%(Linear Load)				
	(THDV%)	<5%(None-Linear Load)				
	Over Load Capability	60Min@105%~110% Rated Load 10Min@110%~125% Rated Load 1Min@125%~150% Rated Load 10Sec.@150% Rated Load				
	Mains Mode	>92%		≥ 95%		
Efficiency	Rated Battery Voltage	Lithium battery(336-450VDC) / Lead acid battery (336-450VDC)				
	Battery Capacity Backup Time	External Battery Depends				
	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status				
HMI	Communication Port	1. RS232 PORT 2. Network Card: Support SNMPTCP/IP Protocol , for remote monitor the UPS via Smart Phone APP, Web page, PC Monitor Software, Support Server / NAS Shutdown				
	BMS Port	1.Modbus 2. Control BMS (Battery Management System) charge and discharge dry contact				
	Alarm Function	Mains Power Abnormality, UPS Failure, Battery Under-voltage, Output Overload etc				
	Protect Function	Under-voltage Battery Protection, Overload Protection, Short Circuit Protection, Over-Temperature Protection, Input Over/Under-voltage Protection.				
Operating Environment Endurance	Temperature Range	-10~40℃				
	Relative Humidity	0-95% (Non-Condensing)				
	Acoustics Noise	<65dB @ 1 meters		<70dB @ 1 meters		<75dB @ 1 Meters
Physical	Dimension	700*800*1700		1035*840*1800		1200*1000*1800
	Weight	630KG	720KG	920KG	1220KG	1920KG



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Battery Management

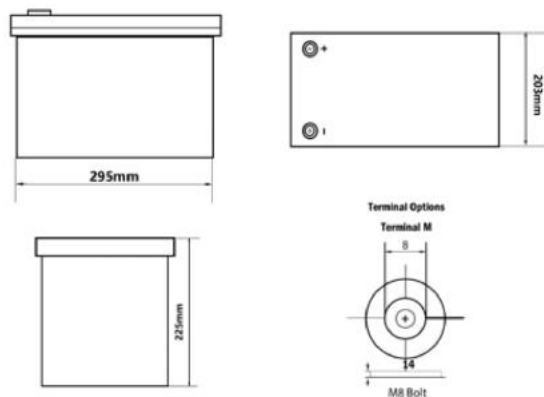
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Model		3B3 500KS-Li	3B3 600KS-Li	3B3 800KS-Li
Capacity kVA/kW		500kVA/400kW	600kVA/480kW	800kVA/640kW
Phase		Three Phase Input Three Phase Output		
Mains Input	Wiring	L1/L2/L3/N+PE		
	Rated Voltage	380/400/415Vac (L-L)		
	Voltage Range	±25%		
	Frequency Range	45Hz-65Hz		
	Input Power Factor	≥ 0.95		
AC Output	Wiring	L1/L2/L3/N+PE		
	Output Voltage	380/400/415Vac		
	Voltage Regulation	±1%		
	Output Frequency	Automatic Bypass Frequency Tracking		
	Waveform	Sine Wave		
	Distortion (THDV%)	<1%(Linear Load) <5%(None-Linear Load)		
	Over Load Capability	60Min@105%~110% Rated Load 10Min@110%~125% Rated Load 1Min@125%~150% Rated Load 0.5Sec.@150% Rated Load		
	Mains Mode	>92%	>92%	≥ 95%
Efficiency	Rated Battery Voltage	480VDC	480VDC	768VDC
	Battery Capacity Backup Time	External Battery Depends		
HMI	LCD Display with LED Indicator	Input/Output Voltage, Frequency, Load Level, Operation Mode, Health Status		
	Communication Port	1. RS232 PORT 2. Network Card: Support SNMP/TCP/IP Protocol, for remote monitor the UPS via Smart Phone APP, Web page, PC Monitor Software, Support Server / NAS Shutdown		
	BMS Port	1.Modbus 2. Control BMS (Battery Management System) charge and discharge dry contact		
	Alarm Function	Mains Power Abnormality, UPS Failure, Battery Under-voltage, Output Overload etc		
	Protect Function	Under-voltage Battery Protection, Overload Protection, Short Circuit Protection, Over-Temperature Protection, Input Over/Under-voltage Protection.		
Operating Environment Endurance	Temperature Range	-10~40℃		
	Relative Humidity	0-95% (Non-Condensing)		
	Acoustics Noise	<65dB @ 1 meters		
Physical	Dimension	1800*1000*1900	2580*1000*1900	2800*1200*1950
	Weight	/		

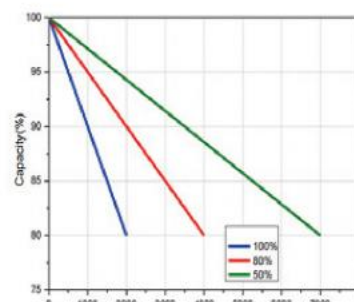


LiFePO₄ Battery Pack System

03



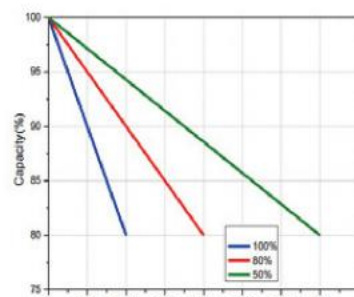
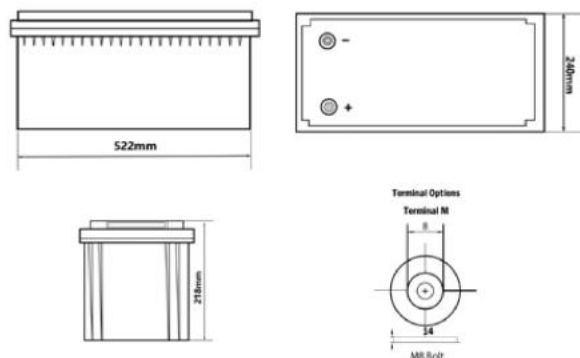
Physical Dimensions



Discharge Characteristics

Electrical Characteristics	Nominal Voltage	12.8V
	Rated Capacity	100AH
	Series X Parallel Maximum	1S X 4P or 4S X 1P
	Protection	Over charge Over discharge Over current Over temp. Short circuit Balance
	Cycle Life	≥ 4000 cycles at 0.5C 80% DOD
	Monthly Self Discharge	Less than 2%
	Efficiency of Charge	100% @ 0.5C (when used with proper LiFePO4 charger)
Charge	Efficiency of Discharge	96 ~ 99% @ 1C
	Charge Voltage	14.4 ± 0.2V
	Standard Charge Current	50A
Discharge	Max. Charge Current	100A
	Std. Discharge Current	50A
	Max. Continuous Current	100A
	Discharge Cut-off Voltage	10.8V
Environmental	Charge Temperature	0° C to 45° C
	Discharge Temperature	-20° C to 60° C
	Storage Temperature	-20° C to 45° C
Mechanical	Cell Material	LiFePO4
	Case / IP Class	Plastic / IP65
	Dimensions (mm)	L295*W203*H225
	Approx. Weight (kg)	10.20
	Terminal Type	M8

*Warranty: 3 years



Electrical Characteristics	Nominal Voltage	25.6V
	Rated Capacity	100AH
	Series X Parallel Maximum	1S X 4P or 2S X 1P
	Protection	Over charge Over discharge Over current Over temp. Short circuit Balance
	Cycle Life	≥ 4000 cycles at 0.5C 80% DOD
	Monthly Self Discharge	Less than 2%
	Efficiency of Charge	100% @ 0.5C (when used with proper LiFePO4 charger)
Charge	Efficiency of Discharge	96 ~ 99% @ 1C
	Charge Voltage	29 ± 0.2V
	Standard Charge Current	50A
Discharge	Max. Charge Current	100A
	Std. Discharge Current	50A
	Max. Continuous Current	100A
	Discharge Cut-off Voltage	21.6V
Environmental	Charge Temperature	0° C to 45° C
	Discharge Temperature	-20° C to 60° C
	Storage Temperature	-20° C to 45° C
Mechanical	Cell Material	LiFePO4
	Case / IP Class	Plastic / IP65
	Dimensions (mm)	L522*W240*H218
	Approx. Weight (kg)	22.60
	Terminal Type	M8

*Warranty: 3 years

R 51.2V



Product Introduction

The product is a newly developed intelligent energy storage module by Virtue Energy. With a rated voltage of 51.2 V and a capacity of 50Ah,100Ah,150Ah,200Ah, this module represents a cutting-edge solution in the field of energy storage. Its innovative design and advanced features make it a standout choice for various applications.

Product Features

- Long Lifespan, supports up to 6000 Cycles @ 0.5C Charge/1C Discharge, 100% DOD, 80% EOL, 35° C.
- Easy Maintenance, supports Mixing of New and Old Batteries.

Technical Parameters

Parameters	Item Series	R51.2V Series			
	Cell Battery	LiFePO4			
	Nominal Voltage	51.2V DC			
	Rated Capacity	50AH	100AH	150AH	200AH
	Rated Charging Voltage	51.2V DC			
	Max Charge Current	25A	50A	50A	100A
	Maximum Discharge Power	2.56KW	5.12KW	7.68KW	10KW
	Output Voltage Range	43.2-58.4V DC			
	Cycle Life	3000times @ 0.5C charge/1C discharge, 100% DOD, 80% EOL, 35°C			
	Rated Energy Capacity	2.56KWh	5.12Wh	7.68Wh	10KWh
	Weight	≤ 25KG	≤ 41KG	≤ 65KG	≤ 90KG
	Width×Depth×Height(mm)	133mm	133mm	177mm	310mm
	Communication Port	CAN, RS485, Dry Contact			
	Install Method	19 inch Rack-Mount Installation			
	Protect Function	Over-temperature Protection Over-current Protection Overcharge Protection Over-discharge Protection Short Circuit Protection etc.			
	Design Life	10 Years			
	Work Temperature	-20 ~ 55°C			
	Storage Temperature	0 ~ 60°C			
	Transportation Temperature	-40 ~ 60°C			
	Relative Humidity	0% ~ 95%			

R 102.4/204.8/409.6V



Product Introduction

The product is a newly developed intelligent energy storage module by Virtue Energy. With a rated voltage of 204.8 V,the capacity of 27 Ah and 54 Ah, this module represents a cutting-edge solution in the field of energy storage. Its innovative design and advanced features make it a standout choice for various applications.

Product Features

- Long Lifespan, supports up to 5000 Cycles @ 0.5C Charge/1C Discharge, 100% DOD, 80% EOL, 35° C.
- Easy Maintenance, supports Mixing of New and Old Batteries.

Technical Parameters

Parameters	Rated Capacity	27Ah					54Ah
	Cell Battery	LiFePO4					
	Nominal Voltage	409.6VDC	±204.8VDC	204.8VDC	±102.4VDC	102.4VDC	102.4VDC
	Discharge Rated	4					2
	Charge Rated	1					
	Max Charge Current	27A					54A
	Maximum Capacity	10.24KW		5.12KW		2.56KW	2.56KW
	Output Power	40.96KW		29.48KW		10.24KW	
	Cycle Life	5000Times @50%Discharge depth					
	Cabinet Type	Rack-mounted(optional tower installation)					
	Width×Depth×Height(mm)	440×680×175×2		440×680×175			
	Weight(kg)	60*2		60		40	60
	Communication Port	CAN, RS485, Dry Contact					
	Color	RAL 9004					
	Protect Function	Over-temperature Protection Over-current Protection Overcharge Protection Over-discharge Protection Short Circuit Protection etc.					
	Design Life	10 Years					
	Work Temperature	-20 ~ 55℃					
	Storage Temperature	0 ~ 60℃					
	Transportation Temperature	-40 ~ 60℃					
	Relative Humidity	0% ~ 95%					

R 409.6V



Product Introduction

The product is a newly developed intelligent energy storage module by Virtue Energy. With a rated voltage of 409.6v, the capacity of 100Ah, this module represents a cutting-edge solution in the field of energy storage. Its innovative design and advanced features make it a standout choice for various applications.

Product Features

- Long Lifespan, supports up to 6000 Cycles @ 0.5C Charge/1C Discharge, 100% DOD, 80% EOL, 35° C.
- Easy Maintenance, supports Mixing of New and Old Batteries.

Technical Parameters

Parameters	Item Series	R409.6V
	Cell Battery	LiFePO4
	Nominal Voltage	409.6V DC
	Rated Capacity	100AH
	Rated Charging Voltage	460.8V DC
	Max Charge Current	50A
	Maximum Discharge Power	40.96KW
	Output Voltage Range	358.4V DC-460.8V DC
	Cycle Life	6000times @ 0.5C charge/1C discharge, 100% DOD, 80% EOL, 35°C
	Rated Energy Capacity	40.96KWh
	Weight	≤ 180KG
	Width×Depth×Height(mm)	≤ 35U
	Communication Port	CAN, RS485, Dry Contact
	Install Method	19 inch Rack-Mount Installation
	Protect Function	Over-temperature Protection Over-current Protection Over-charge Protection Over-discharge Protection Short Circuit Protection etc.
	Design Life	10 Years
	Work Temperature	-20 ~ 50°C
	Storage Temperature	0 ~ 60°C
	Transportation Temperature	-40 ~ 60°C
	Relative Humidity	0% ~ 95%

R 480V-N



Product Introduction

The product is a newly developed intelligent energy storage module by Virtue Energy. With a rated voltage of 480v, the capacity of 912Ah and 1216Ah, this module represents a cutting-edge solution in the field of energy storage. Its innovative design and advanced features make it a standout choice for various applications.

Product Features

- Long Lifespan, supports up to 6000 Cycles @ 0.5C Charge/1C Discharge, 100% DOD, 80% EOL, 35° C.
- Easy Maintenance, supports Mixing of New and Old Batteries.

Technical Parameters

Parameters	Item Series	R480V-NSeries	
	Cell Battery	LiFePO4	
	Nominal Voltage	±240V DC	
	Rated Capacity	912AH	1216AH
	Rated Charging Voltage	270V DC	
	Max Charge Current	450A	600A
	Maximum Discharge Power	525KW	700KW
	Output Voltage Range	435V DC-540V DC	
	Cycle Life	6000Times @ 0.5C Charge/1C Discharge, 100% DOD, 80% EOL, 35°C	
	Rated Energy Capacity	437.76kWh	583.68kWh
	Weight	3600KG	4800KG
	Width×Depth×Height(mm)	Support customize	Support customize
	Communication Port	CAN, RS485, Dry Contact	
	Install Method	19 inch Rack-Mount Installation	
	Protect Function	Over-temperature Protection Over-current Protection Over-charge Protection Over-discharge Protection Short Circuit Protection etc.	
	Design Life	10 Years	
	Work Temperature	0 ~ 50°C	
	Storage Temperature	0 ~ 60°C	
	Transportation Temperature	-40 ~ 60°C	
	Relative Humidity	0% ~ 95%	



04 Factory Advantages

▶ 20 Engineers

To support and solve LifePo4 battery solutions.

▶ 3 Factories

Own 3 domestic lithium battery pack production factories

▶ 350 + Staff

Can promise your lithium products on-time delivery

▶ 15 Years

Custom lithium battery pack manufacturer

▶ 4 R&D Centers

Custom lithium battery pack manufacturer