FENGRUI ENERGY

Smart Energy Solutions for Business

Energy on your terms, powered by smart storage

Energy On Your Terms

WUXI FENGRUI NEW ENERGY POWER BATTERY CO., LTD.

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Green energy, better life.

COMPANY PROFILE
ABOUT FENGRUI

Wuxi Fengrui New Energy Power Battery Co., Ltd. (FENGRUI), founded in 2022 and headquartered in Wuxi, China, is an energy storage technology enterprise that integrates R&D, manufacturing and sales across the entire value chain. Driven by technological innovation, we have established a full-scenario product portfolio that includes residential, industrial & commercial, utility-scale storage, lithium battery packs, and portable power stations. With an annual production capacity of 1GWh and a presence in over 50 global markets, we deliver efficient and reliable integrated energy solutions to customers worldwide.

The company employs nearly 200 staff members, among whom R&D and engineering technical teams account for over 30%, continuously empowering product iteration and system innovation. Covering a total plant area of more than 20,000 square meters, our facility integrates cell assembly, system integration, testing & verification as well as warehousing and logistics, laying a solid foundation for large-scale production and consistent product quality. Benefiting from our self-owned land and factory premises, we can flexibly adjust production capacity schedules, steadily improve delivery efficiency, and further strengthen our long-term service capabilities to serve global markets.

MISSION

To advance clean energy solutions, create long-term value, and grow together with our people.

VISION

To accelerate the transition to clean energy and enable a more efficient and sustainable future.

VALUES

Integrity | Pragmatism | Excellence | Collaboration

Advancing green energy innovation
Empowering customers worldwide

Safety Assured, Quality Built to Last

Stringent extreme environment endurance assessment

82-Day Full-Load Environmental Reliability Benchmark Test for Residential ESS

High Temperature

Rain Resistance Test

Freezing / Low Temperature Test

EMC Test

Environmental Reliability Test

Global Authoritative Certifications

Fully tested to CE, RoHs and other international standards, the product delivers stable and reliable performance

6000+
safety cycle verifications

500+
hours of continuous durability testing

4,000+
reliability verifications

1,200+
verification tests

72+
hours of continuous full-load operation

2–200Hz
2 hours of 3-axis continuous vibration

The product has obtained a number of international authoritative certifications including RoHs MARK, CE (LVD/EMC), UN38.3 and EU Battery Regulation, as well as test reports from CNAS/CMA accredited laboratories in China. It complies with both EU and domestic compliance standards, with traceable quality and guaranteed safety.

Testing & Certification

Tested to CE, RoHs and certified for reliable performance.

Focused on Energy Storage

Advanced Manufacturing Base

Fengrui Energy operates a state-of-the-art man-ufacturing base of over 8,000 m2, dedicated tohigh-performance energy storage production.With standardized production lines and strictquality control, the facility ensures reliable andconsistentoutput aligned withinternationalstan-dards.

Backed by an experienced team, it supportsboth customized solutions and scalable delivery,driving Fengrui Energy' s global growth.

Utility-Scale Liquid Cooling Containerized Energy Storage System

Model: LC1-1M-2170K
1MW/2.17MWh

- Ultra-Large Capacity: 2.17MWh per container
- Advanced Cooling: Liquid + forced air cooling
- High Density: 2MWh+ in 6m container. Grid Ready: Frequency/voltage regulation
- Dual Fire Suppression: Aerosol + water spray. High Protection: IP55, C4/C5 anti-corrosion

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DC Side	
Cell Type	LFP / 314Ah
Pack Configuration	48.2 kWh / 1P48S
System Configuration	2,170 kWh / 9P240S
Rated DC Voltage	768 V
DC Voltage Range	672 ~ 864 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2 °C)
AC Side	
Rated Output Power	1,000 kW
Max. Apparent Power	1,100 kVA
Rated AC Voltage	400 V
AC Voltage Range	±15%
Grid Type	3W+N+PE
Rated Frequency	50 Hz / 60 Hz
Power Factor	0.99/ -1 ~ +1
THDi	⩽ 3%
DC Ratio	＜ 0.5% Ipn
General Data	
Round Trip Efficiency	⩾ 88%
Cycle Life	⩾ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol system(pack level and container level), water spray system
Ingress Rating	IP55
Cooling	Liquid cooling+Forced air cooling
Operating Temperature	-25°C ~55°C (Derating after 45°C)
Anticorrosion Rating	C4 (C5 optional)
Humidity	5~95% RH (non-condensing)
Noise	⩽ 80 dB
Altitude	4,000m (Derating above 2,000m)
Dimensions (W*D*H)	6,058*2,438*2,591 mm
Weight	28 t
Certification	UN38.3, IEC62477-1, CE/EMC, IEC62619, IEC63056, UL9540A, IEC62933 EN50549

A pre-integrated containerized solution with up to 2.17MWh per container, featuring advanced liquid cooling and dual fire suppression. It is used for grid-side peak shaving and frequency regulation, microgrids in large industrial parks, or providing large-scale, long-duration backup for data centers.

All-in-one Liquid-cooled On/off-grid ESS Container

Model: ECO-E10FT1044LP-2
1.044 MWh

- Each battery cluster is independently managed,enhancing system reliability and stability
- The system is equipped with an integrated STS,enabling seamless on-grid and off-grid switching within 20ms.
- Highly integrated 3S system, cooling system,and fire protection system, delivering greater capacity within a smaller footprint.
- Equipped with reserved interfaces for diesel generator and PV inverter, the system supports multiple power sources, making it suitable for a wide range of application scenarios.

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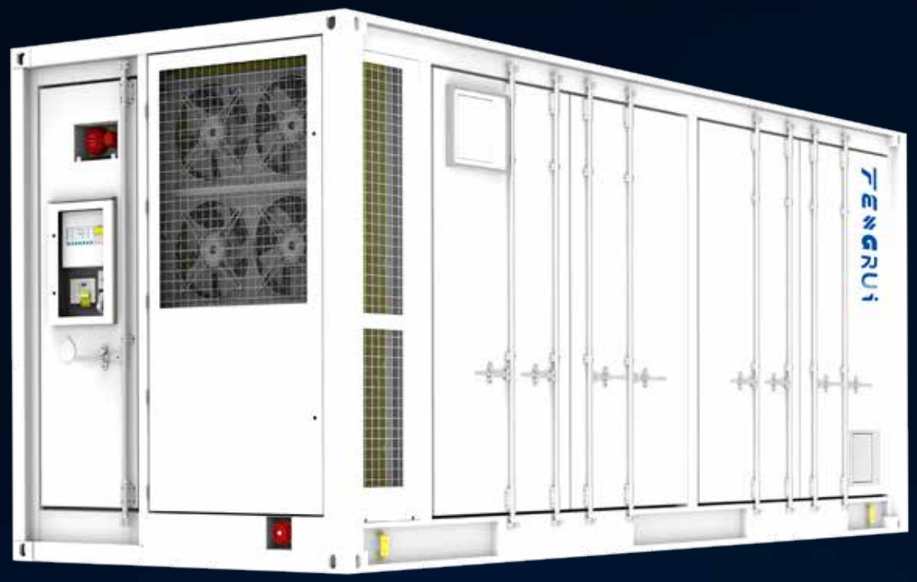
Battery Side	
Cell Type	LFP / 314 Ah
Pack Configuration	52.2 kWh / 1P52S
System Configuration	1044 kWh / 4P260S
Rated DC Voltage	832 V
DC Voltage Range	728 ~ 936 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2 °C)
Grid Side	
Rated Output Power	500 kW
Max. Apparent Power	550 kVA
Rated AC Voltage	400 V
AC Voltage Range	±15%
Grid Type	3W+N+PE
Rated Frequency	50 Hz / 60 Hz
On/off-grid Switching Time	<20 ms
Power Factor	0.99/ -1 ~ +1
THDi	⩽ 3%
DC Ratio	＜ 0.5% Ipn
Backup Side	
Max. PV Inverter Input Current	800 A
Max. Diesel Generator Input Current	800 A
Max. Backup Load Port Current	800 A
Recommended Max. Backup Load Power*	350 kW (70% of Rated Output Power)
General	
Cycle Life	⩾ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol system(pack level and container level), water spray system
Ingress Rating	IP54
Cooling	Liquid cooling+Forced air cooling
Operating Temperature	-25°C ~55°C (Derating after 45°C)
Anticorrosion Rating	C4 (C5 optional)
Humidity	5~95% RH (non-condensing)
Noise	⩽ 80 dB
Altitude	3000m (Derating above 2000m)
Dimensions (W*D*H)	2991*2438*2591 mm
Weight	14 t
Certification	UN38.3, IEC62477-1, CE/EMC, IEC62619, IEC63056, UL9540A, EN50549

Note: The value indicated herein is a recommended reference based on PF=0.7. When the load involves motors or other types of impact loads, it is recommended to equip the system with a soft starter. Please contact FENGRUI for further technical support prior to order placement.

Liquid-cooled
Battery Container

Model: ECO-B20FT5015LP
5.015MWh



Item	
Cell Type	LFP314 Ah
Pack Configuration	104.5kWh / 1P104S
System Configuration	5.015MWh / 12P416S
Rated DC Voltage	1331.2 V
DC Voltage Range	1165 ~ 1498 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth of Discharge	100% (25 ± 2 °C)
Cycle Life	⩾ 8,000 cycles
Fire Suppression System	Aerosol system(pack level and container level), water spray system
Ingress Rating	IP55
Cooling	Liquid cooling+Forced air cooling
Operating Temperature	-25°C ~55°C (Derating after 45°C)
Anticorrosion Rating	C4 (C5 optional)
Humidity	0~95% RH (non-condensing)
Altitude	4000m
Dimensions (W*D*H)	6,058*2,438*2,896 mm
Weight	45 t
Certification	IEC62477, IEC61000, IEC62619, IEC63056, UL9540A, UN3536

・Minimized fan usage significantly reduces operating noise compared to air-cooled solutions.

・Enhanced cell temperature consistency extends battery life, increases safety, and improves return on investment.

・A variable-frequency compressor adapts to temperature conditions, reducing the system's power consumption.

・The liquid cooling system maintains cell temperature differences below 3°C , improving voltage consistency and overall performance.

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The 20-ft liquid-cooled ESS container integrates PACK, EMS, BMS, HVAC, and fire suppression system (FSS) into a single container. Designed for demanding applications, the 20-ft liquid-cooled ESS container is suitable for power generation, grid, and commercial & industrial (C&I) ESS scenarios that require high power and flexible capacity