



860kWh - Modular BESS

Flexible, Scalable & Reliable Energy Block



SYSTEM INTEGRATION

Pre-installed and pre-commissioned modular design to reduce on-site work.

Optional STS, PCS, and MPPT configurations according to system variant.

THERMAL MANAGEMENT

Liquid cooling system with cell temperature difference ≤ 2.5 °C.

Optimized thermal balance for reduced heat loss and stable performance.

SAFETY AND RELIABILITY

Three-level protection: PACK, RACK, and System.

Fire prevention design with early thermal detection and protection functions.

PERFORMANCE AND EFFICIENCY

High-efficiency PCS up to 98.5% (if equipped).

Supports seamless on-grid and off-grid operation.

MONITORING AND CONTROL

Remote monitoring and control via cloud platform or mobile application.

Easy maintenance with real-time alarms and remote upgrade.

FLEXIBILITY AND SCALABILITY

Modular architecture for parallel expansion.

Customizable configurations for various commercial and industrial needs.

Technical data			ZRUT860 - XXX - YYY	
DC side				
Cell type		LFP 3.2 V / 350 Ah		
System battery configuration		384S2P		
Rated capacity		860 kWh (*)		
Rated voltage range		1075 V ~ 1382 V		
AC side				
Rated voltage		690 V	800 V	
Voltage deviation		-15%~+10%		
AC Output type		3W+PE		
Rated output power	225kW	450kW	250kW	500kW
Max. output power	240kVA	480kVA	275kVA	550kVA
Max. Current	201A	402A	198A	396A
Rated grid frequency		50/60Hz		
Power factor		0.99		
Power factor range		-1 lagging ~ +1 leading		
Current distortion rate		< 3% (@rated power)		
Overload capacity		110% long term		
Max. Efficiency		≥98%		
System parameter				
Dimensions (W * D * H)		1294 mm * 2250 mm * 2200 mm		
Weight		6900 kg		
Degree of protection		IP54		
Anti-corrosion degree		C5 (Optional) C3 (Default)		
Operation humidity range		0 % ~ 100 %		
Operation temperature range		-20 ~ 50 (> 45 derating)		
Max. operating altitude		3000 m		
Temperature control method		Intelligent liquid cooling		
Noise		≤ 70 dB (A) @ 1m		
Fire suppression system		Flammable gas detector, Smoke-Heat detector, Alarm sounder, Aerosol, Sprinkler, Ventilation system		
Communication interface		Ethernet		
Communication protocol		Modbus TCP		
Standard		IEC 62619, IEC 63056, IEC 62040, IEC 62477, UN 38.3		
Max.Parallel quantity		6		

Fully Integrated All-in-One Design

Battery system, PCS (inverter), and control infrastructure integrated into a single cabinet.

Built-in PCS with Direct Grid Connection

Available in 690 VAC and 800 VAC configurations for flexible grid compatibility.

Centralized Liquid Cooling Architecture

Optimized thermal management with external chiller integration.

Smart BMS & EMS Integration

Seamless SCADA/EMS communication via Modbus TCP.

Modular & Scalable Architecture

860 kWh per unit

Advanced 3-Level Safety Architecture (Pack-Rack-System)

Multi-layer protection against thermal runaway.

Compact, High Energy Density Design

860 kWh in a single cabinet footprint

Plug & Play Deployment Concept

Factory pre-installed and pre-commissioned system

Logistics-Optimized Form Factor

Designed to fit 4 units into a standard 20-ft container

