

# Liquid Cooling C&I ESS Cabinet

Model: FRL1-125-261  
125kW/261kWh



- Top Efficiency: energy saving
- Advanced Liquid Cooling: -30~55° C, quiet
- High Density: 125kW/261kWh compact. High Voltage: 832V platform, lower loss
- Transformerless: Efficient, lightweight, low cost. High Overload: 125%/150% overload capable

## AC Side (Grid-Tied)

Rated Output Power	125kW
Max. Output Apparent Power	137.5kVA
Rated AC Voltage	400V/ 230V
Max. Output Current	200A
Rated AC Frequency	50/60Hz
Adjustable Power Factor Range	-1 ~ 1
Total Harmonic Distortion (THDi)	< 2%

## AC Side (Off-Grid)

Rated AC Output Voltage	400V/ 230V
Rated AC Frequency	50 Hz / 60 Hz
THDv	< 3% (linear load )
Unbalance Load Capacity (Off-Grid)	100%
Overloading Capability	1.25/10s, 1.5/0.1s

## Battery Parameters

Battery Type	LFP 314 Ah
Rated Energy	52.24kWh
Rated Battery Voltage	832V
PCS Voltage Range	615V~950V (3W+PE) /650V~950V (3W+N+PE)
Max. Current	203A

## System Parameters

Dimensions	L1,080×D1,586×H2400(mm)
Net Weight	2,800 kg
Operating Temperature Range	-30°C ~55°C
Relative Humidity	0~95% RH (non-condensing)
Max. Operating Altitude	4,000m (Derating above 2,000m)
Cooling Concept	Liquid Cooling
Safety Protection	Bidirectional Active Balancing, Thermal Management, Real-Time Voltage and Temperature Monitoring.
Ingress Protection	IP55
Topology	Non-isolated
Certifications	IEC62619, IEC63056, IEC61000, IEC62477-1, IEC62040, UN38.3
Communication Interfaces	ModbusRTU
Communication Protocol	RS485/CAN
Anti-corrosion Degree	C4
Configuration of Safety	Gas fire suppression + Water fire suppression
Max. Parallel Quantity (Off-Grid)	10 Units

A high-efficiency liquid-cooled storage cabinet with system efficiency  $\geq 98.5\%$  and an 832V high-voltage platform. It provides high-power-density, high-quality uninterrupted power and energy buffering for semiconductor production lines, large data centers, or electric bus swapping stations.