

ST225kWh-110kW-2h

ST255CS-2H

PowerStack Liquid Cooled C&I Energy Storage System

NEW



LOWER COST

- Integrated Pre-installation: High-degree integrated system with pre-installation and pre-commissioning reduces on-site commissioning work
- AI-Controlled Heat Saving: Innovative AI-controlled thermal balance cuts down daily system heat loss by 33%
- Precise Liquid-Cooling Temperature Equalization: Liquid-cooled balanced heat dissipation keeps the cell temperature difference 2.5°C.



SAFE AND RELIABLE

- AI-Monitored Cell Health: AI monitors cell health and gives early warnings for thermal runaway
- Three-level over-current Protection: Three-level over current protection for PACK, RACK, and PCS
- Three-level fire-prevention Design: Three-level fire prevention design with accurate early warnings for thermal runaway to prevent fires



EFFICIENT AND FLEXIBLE

- High-efficiency Power Conversion: The PCS features a high efficiency of up to 98.5%
- Seamless Installation: Cabinets can be installed side by side seamlessly for a smooth appearance
- Flexible Grid Connection: Supports on-grid, off-grid, and automatic switching



SMART AND ROBUST

- Cloud-based Intelligent Monitoring: Monitor via iSolarCloud App or web cloud for real-time alarms and troubleshooting
- Wireless Intelligent Operation and Maintenance: Near-far-end wireless intelligent operation and one-key remote upgrade reduce operation and maintenance costs

Technical data	ST225kWh-110kW-2h	ST255CS-2H
DC side		
Cell type	LFP3.2 V / 280 Ah	LFP3.2 V / 314 Ah
System battery configuration	256S1P	
Nominal capacity	229 kWh	257 kWh
Nominal voltage range	691.2 V ~ 934.4 V	
AC side (on-grid)		
Nominal power	110 kW	125 kW
Nominal voltage	400 V	
Access way	3P3L	3P4L
Voltage range	340 V ~ 440 V	
Nominal frequency	50 Hz / 60 Hz	
Frequency range	45 Hz ~ 55 Hz / 55 Hz ~ 65 Hz	
Max.THD of current	< 3 % (Nominal power)	
DC component	< 0.5 % (Nominal power)	
Power factor range	1.0 leading ~ 1.0 lagging	
AC side (off-grid) *		
Nominal voltage	400 V	
Nominal frequency	50 Hz / 60 Hz	
Max.THD of voltage	< 3 % (Linear load)	
Unbalance load capacity	100 %	
System parameter		
Dimensions (W * H * D)	1150 mm * 2450 mm * 1610 mm	
Weight	≤3100 kg	≤3200 kg
Degree of protection	IP55	
Auxiliary power supply	Internal power supply (Default)	
Anti-corrosion degree	C5 (Default)	
Operation humidity range	0 % ~ 100 %	
Operation temperature range	-30 °C ~ 50 °C (> 45 °C derating)	
Max. operating altitude	3000 m	
Temperature control method	Intelligent liquid cooling	
Noise	≤ 70 dB @ 1 m	≤ 65 dB @ 1 m
Fire suppression system	Flammable gas detector, Smoke detector, Heat detector, Alarm sounder, hot aerosol fire extinguishing equipment	
Communication interface	Ethernet	
Communication protocol	Modbus TCP	
Standard	IEC 62619, IEC 63056, IEC 62040, IEC 62477, IEC 61000, UN 38.3	
ATS cabinet parameter *		
Nominal voltage	400 V	
Nominal frequency	50 Hz / 60 Hz	
Transformer capacity	250 kVA	
Dimensions (W * H * D)	1150 mm * 2450 mm * 1610 mm	
Weight	2800 kg	
Degree of protection	IP55	
Anti-corrosion degree	C5 (Default)	
Operation humidity range	0%~100%	
Operation temperature range	-30 °C ~ 50 °C (> 45 °C derating)	
Max. operating altitude	3000 m	
On/Off grid switch time	Automatic ≤ 10 ms	
Temperature control method	air cooling	
Energy Management System		
EMS	EMS300CP	
Functions	Peak shaving, Emergency backup, Peak-valley arbitrage, Demand control, Zero-export, Integrated control of PV, ESS and diesel generator, etc.	

* ATS cabinet is needed when the system is in off-grid mode.