

ST225kWh-110kW-2h

PowerStack Liquid Cooled C&I Energy Storage System

NEW



LOWER COST

- Fully integrated system design with pre-installation and pre-commissioning, to reduce commissioning work on site
- Innovative AI controlled thermal balance, 33% reduction in all-day system heat loss
- Balanced heat dissipation by liquid cooling, the cell temperature difference $\leq 2.2^{\circ}\text{C}$



SAFE AND RELIABLE

- Seamless switch ($<20\text{ms}$) to provide continuous power supply for off-grid operation
- AI monitoring of cell health with early warning, to manage thermal runaway
- PACK, RACK, PCS three-level overcurrent protection
- Three-level fire safety design and accurate early warning of thermal runaway, to prevent fire event



EFFICIENT AND FLEXIBLE

- High-efficiency PCS with max. efficiency 98.6 %
- Seamless side by side parallel connection
- Supporting 2 / 4 h system.



SMART AND ROBUST

- iSolarCloud App or Web cloud monitoring, to provide real-time alarm and troubleshooting solution
- Near-distal intelligent wireless operation and one-key remote upgrade, to reduce labour O&M cost

Technical data	ST225kWh-110kW-2h
DC side	
Cell type	LFP
System battery configuration	3.2 V / 280 Ah
Nominal capacity	256S1P
Nominal voltage range	229 kWh
	691.2 V - 934.4 V
AC side (on-grid)	
Nominal power	110 kW
Nominal voltage	400 V
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
Degree of protection	IP55
Auxiliary power supply	Internal power supply (Default) External power supply (Optional)
Anti-corrosion degree	C3 (Default) C5 (Optional)
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
Fire suppression system	Default: Flammable gas detector, Smoke detector, Heat detector, Alarm sounder, FK5112, Sprinkler Optional: Aerosol
Communication interface	Ethernet
Communication protocol	Modbus TCP
Standard	IEC 62619, IEC 63056, IEC 62040, IEC 62477, IEC 61000, UN 38.3, NRS 097-2-1
Max.Parallel quantity (off-grid)	10
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	C3 (Default) C5 (Optional)
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 ≤ 20 ms
Temperature control method	Air cooling

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