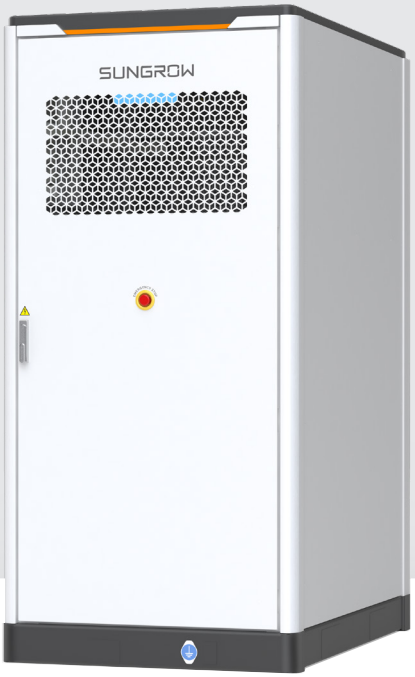
ST225kWh-110kW-2h

PowerStack Liquid Cooled C&I Energy Storage System

Preliminary



LOWER COST

- Fully integrated system design with pre-installation and pre-commissioning, to reduce commissioning work on site
- Innovative AI bionic thermal balance, 33 % reduction in all-day system heat loss
- Balanced heat dissipation by liquid cooling, the cell temperature difference ≤ 2.2 ℃

SAFETY AND RELIABLE

- Seamless switch (< 20 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 h - 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

© 2023 Sungrow Power Supply Co., Ltd. All rights reserved. Subject to change without notice. Version 2

SUNGROW
Clean power for all

Technical Data	ST225kWh-110kW-2h
DC side	
Cell type	LFP
System battery configuration	256S1P
Nominal capacity	229 kWh
Nominal voltage range	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
Frequency range	45 Hz - 55 Hz
Max.THD of current	< 3 % (at nominal power)
DC component	< 0.5 % (at nominal power)
Power factor range	1.0 leading - 1.0 lagging
AC side (off-grid) *	
Nominal voltage	400 V
Nominal frequency	50 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 humdity range	0 % - 100 % (non-condensing)
Operation temperature range	-30 ℃ - 50 ℃ (> 45 ℃ derating)
Altitude	≤ 3000 m
Temperature control method	Intelligent liquid cooling
Noise	≤ 70 dB
Fire suppression system	Flammable gas detector, Smoke detector, Heat detector, Alarm sounder, FK5112, Water pipeline (default) Aerosol (optional)
Communication interfaces	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
Transformer cabinet parameter *	
Transformer capacity	250 kVA
Primary side voltage / Secondary side voltage	400 V / 400 V (Dyn11)
Nominal frequency	50 Hz
Dimensions (W * H * D)	1200 mm * 2000 mm * 1200 mm
Weight	≤ 1500 kg
Degree of protection	IP55
Anti-corrosion degree	C3 (default) / C5 (optional)
Operation humidity range	0 % - 100 % (non-condensing)
Operation temperature range	-30 ℃ - 50 ℃ (> 45 ℃ derating)
Altitude	≤ 3000 m
Temperature control method	Air cooling

The above product parameters are for reference only and may be modified later

* A transformer cabinet is needed additionally when the system is in off-grid mode

© 2023 Sungrow Power Supply Co., Ltd. All rights reserved. Subject to change without notice. Version 2