

ST255CS-2H

NEW

PowerStack Liquid Cooled C&I Energy Storage System



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 $\leq 2.5^{\circ}\text{C}$



EFFICIENT AND FLEXIBLE

- High-efficiency Power Conversion: DC/AC power converter unit 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



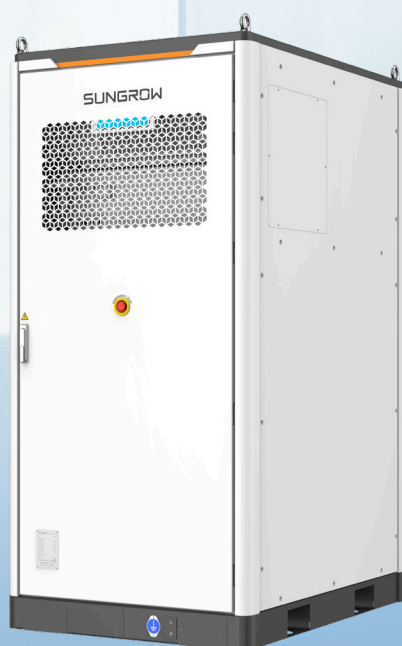
SAFE AND RELIABLE

- 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



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		ST255CS-2H
DC side		
Cell type		LFP 3.2 V / 314 Ah
System battery configuration		256S1P
Nominal capacity		257 kWh
Nominal voltage range		691.2 V ~ 934.4 V
Depth of charge and discharge		0 % ~ 100 %
AC side (On-Grid)		
Nominal power		125 kW
Nominal voltage		400 V
Access way		3P4L
Voltage range		340 V ~ 440 V
Nominal frequency		50 Hz / 60Hz
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 AC voltage		400 V
Nominal AC frequency		50 Hz / 60Hz
Max.THD of voltage		3 % (Linear load)
Unbalance load capacity		100 %
System parameter		
Dimensions (W * H * D)		1150 mm * 2450 mm * 1610 mm
Weight		≤ 3200 kg
Degree of protection		IP55
Auxiliary power supply		Internal power supply (Default) External power supply (Optional)
Anti-corrosion degree		C4 (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		≤ 65 dB @ 1 m
Fire suppression system		Combustible 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, IEC 62933, UN 38.3
Max.Parallel quantity		On-Grid: 25 pcs Off-Grid: 10 pcs

