C&I ESS

CFE-125H2-PV-STS

Application Scenarios

Suitable for sites with high power capacity demands, such as large - scale commercial and industrial enterprises, data centers, factories, and mobile energy storage supply.

High Power · High Energy Density

Integrated design with 125 kW / 261 kWh, occupying only 1.35m². System efficiency >88%, supports multi-unit parallel expansion. Meets the energy demands of large - scale commercial and industrial scenarios.

PV-Storage Integration · Dual MPPT

Built-in dual 63 kW MPPT channels (total power 126 kW), weighted efficiency 99%. Enables intelligent energy flow control among PV, storage, load, and grid. Supports flexible AC / DC coupling and retrofit upgrades.

Uninterrupted · Highly Reliable Power Supply

Integrated STS (Static Transfer Switch) enables seamless grid-connected / off-grid seamless grid - connected / off - grid switching in <20 ms. Ensures continuous power supply for critical loads, with 110% continuous overload capacity and 120% short-term output capability.

Intelligent Management · Cloud Collaboration

Two-layer BMS for precise cell management. Built-in BMS with local + cloud system. Enables real-time monitoring, energy dispatch, and remote diagnostics. Supports Modbus TCP / RTU (where applicable) and integrates with mainstream SCADA platforms.

Safety First · Liquid Cooling Protection

Utilizes LFP cells (3.2 V 314 Ah), >8,000 cycles. Equipped with liquid cooling system, dual airflow isolation, and multiple electrical protections. Comprehensive protection against overcurrent, short circuits, and arc faults.

Outdoor-Rated Design · Global Compatibility

Rated IP54 + C4, operational temperature range -20 to 55°C. Factory-integrated, plug-and-play. Complies with IEC international standards, adaptable to global grid environments.

Model	CFE 125H2-PV-STS
Battery Parameter	
Battery Type	LFP (3.2 V 314 Ah)
Battery System Configuration	1P260S
Battery System Capacity	261.24 kWh
Battery Voltage Range	728 – 949 V
Battery Cycle Life	8000 Cycles
AC On-Grid	
The Rated Output	125 kW
Overload Capacity	110% of rated output (long-term operation) ; 120% of rated output (duration ≤1 minute)
Rated Voltage	AC 400 V
Rated Output Current	180 A
AC Access Mode	Three-phase four-wire
Isolation Method	Non-isolated
Grid Voltage Range	380 V (-20 to 15%)
Grid Frequency Range	50 Hz / 60 Hz±2.5 Hz
Total Harmonic Distortion	≤3% (Full Load)
Power Factor	-0.99 – 0.99
DC Component	≤0.5%
Charge / Discharge Conversion Time	<100ms
MPPT Parameters	
MPPT Rated Power	126 kW
Number of MPPT Trackers	Two MPPT trackers, 2 × 63 kW
MPPT Efficiency	99%
PV Input Voltage Range	394 – 680 V
Maximum Operating Current	160 A
AC Off - Grid Parameters	
AC Off - grid Voltage	AC 400 V
AC Voltage Range	AC 400 V ± 3%
AC Off-grid Frequency	50 Hz / 60 Hz
Off-grid Output THDU	≤3% (linear load)
Unbalanced Load Capacity	100%
System Parameter	
System Efficiency	>88%
Size (W × D × H)	1,010 × 1,350 × 2,450 mm
Weight	2.7 T
Operating Temperature	-20 to 55 ℃
Environment Humidity	0 – 95% RH (non-condensing)
Work Altitude	<3000 m
Protection Level	IP54
Corrosion Protection Level	C4
Transport	UN38.3 (tested); UN3480 as applicable
Certificates	CE / IEC61000
Cooling Method	Liquid cooling
Fire Suppression System	Aerosol-based fire suppression

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