

PV-Storage-Genset Microgrid All-in-One Integrated Unit

HEXSTS125-225kWh-400-A



Outdoor Integrated Design

Fully Integrated System: MPPT controllers are directly mounted onto PV mounting structures, eliminating separate enclosures.

Environmental Resilience: Outdoor-rated protection (IP65), operational in temperatures from -25°C to 60°C.

Easy Installation: Integrated mounting reduces cabling, cutting installation costs by 30%.



Precise DC-Side Monitoring & Control

String Voltage/Current Monitoring: Module-level fault identification, isolating abnormal strings within 15 minutes.

Real-Time Generation Power: Limited power regulation, flexible output control to meet grid dispatch requirements.

Equipment Operating Status: Predictive maintenance with fault warnings based on temperature/impedance changes.



Dual-Line Converged Communication

Power Transmission: DC cables handle energy transfer with >97% conversion efficiency.

Data Exchange: Big data analysis of module performance, remote parameter configuration & firmware updates, second-level response to grid dispatch commands.



System-Level Safety Protection

Electrical Safety: DC-side insulation monitoring + reverse power flow protection.

Communication Security: RS485 opto-isolation + encrypted data transmission.

Operational Safety: Automatic isolation of faulty strings without impacting overall system operation.

Model		HEXSTS125-225kWh-400-A
DC Battery		
Cell type	LFP 314 Ah	
Battery Pack capacity and configuration	16.077kWh/1P16S	
Battery capacity /Pack quantity	225kWh/ 14	
Battery voltage range	627V - 806V	
Rated charge/discharge rate and current	0.5C, 157A	
Cycle index	8000cls (0.5P, 25±2 ° C, @70%SOH)	
Number of temperature monitorings	112	
PV DC Side		
Maximum Input Power	200V	
Maximum Input Power	320V	
Voltage Range/System Bus Voltage	650V~800V	
Input Switch	Two 250A/1000Vdc/2P, one PV MPPT controllers can be connected	
AC side(Grid-connected)		
AC rated power	125kW	
AC maximum power	137.5kW	
Rated Current	180A	
THDi	<3%	
DC component	< 0.5% LPN	
System Voltage Configuration	3W+N+PE	
Voltage range	360VAC~440VAC	
Frequency range	45-55Hz/55-65Hz	
Power factor	-1~1	
AC side (Off-grid)		
Rated Output Power	125kW	
Maximum Single-phase Output Power	60kW	
Rated Output Voltage	400V	
Rated Output Frequency	50/60 Hz	
THDu	<3%	
Overload Capability	110% overload for 10 min	
Distribution and switching time		
Bypass Maintenance Switch	250A/400Vac	
Load Switch	250A/400Vac	
Grid Switch	400A/400Vac	
STS Switch	289A/200kW	
Switching Time	<20ms	
System		
Factory SOC Set Value	30%-50%	
Maximum System Efficiency	≥90%	
Operating Temperature	-30-55°C (Derating use over 40 °C)	
Relative Humidity	0 ~ 95% RH,non-condensing	
Dimensions	1600×1050×2050mm	
Weight	2400kG	
IP Grade	Complete machine (IP54)	
Noise	<70dB	
Networking Methods	4G / Wifi / Ethernet	
Fire Protection	Aerosol	
Display Screen	LCD Touch Screen	
Diesel generator connection		
Grid feedback input	220Vac	
Diesel engine drive output	Dry node	
Other parameters		
Related Certificates of Integrated Machine	CE/UN38.3/MSDS/Sea and Land Transportation Certificate/Dangerous Goods Identification Report	