

# 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 100Ah
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