

Fusio Nex

C & I Energy Storage Integrated System
125kW/261kWh



Active Safety

- Module-level & System-level fire detection and suppression system to enhance product safety.
- Battery pack IP67 protection, system IP54 protection.



Compact & Flexible

- Integrated Design with PCS, BMS, and EMS.
- Optional MPPT and STS modules to accommodate various applications.
- Modular battery enclosure design, scalable for 2-, 4-, 6-, or 8-hour charge/discharge configurations.



Smart & Efficient

- Equipped with an Active-Balancing BMS to improve cell consistency and extend battery cycle life.
- Liquid-cooling thermal management to maintain optimal battery temperature and extend cycle life.
- Integrated on-site EMS for real-time operational monitoring.



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Fusio Nex Series

Model	BESS	Bat	PCS	STS	MPPT	UPS	Application
T	Grid-Tied ESS	v	v			v	Time-of-Use Arbitrage, Demand Response, Fast Frequency Response
B	Backup ESS	v	v	v		v	Backup Power, Critical Facility Backup
S	Off-Grid Solar+ESS	v	v		v	v	PV Self-consumption, Off-grid Operation, Islanded Operation
H	Hybrid ESS	v	v	v	v	v	Peak Shaving & Valley Filling, Smart Grid Integration, Resilient ESS

Fusio Nex-H Specification

Grid AC	
Rated Voltage	400Vac
Voltage Range	340Vac~460Vac
Voltage Configuration	3-phase 4-wire + PE (3W+N+PE)
Grid Frequency Range	50Hz/60Hz±2.5Hz
Rated Current	180A
Power Factor	0.99/-1~1

Load AC	
Rated Output Power	125kW(Grid-tied)/100kW(Off-grid)
Voltage Range	340Vac~460Vac
Frequency Range	50Hz/60Hz±2.5Hz
Rated AC Current	180A
Voltage Configuration	3-phase 4-wire + PE (3W+N+PE)
Power Factor	0.99/-1~1
Overload Capability	110% @ Ambient Temp ≤ 40°C
DC Input	600Vdc~1,000Vdc
THDi	≤3%

MPPT (DC/DC)	
Rated Power	62.5 kW × 2 sets
MPPT Inputs	4 strings × 2 sets
Max PV Current	45 A × 8 strings
PV Input Voltage Range	350Vdc~1,000Vdc
MPPT Voltage Range	150Vdc~1,000Vdc
DC/DC Voltage Range	600V~1,000V
Max DC Current	198A

STS	
Rated Voltage	400Vac
Operating Voltage Range	340Vac~460Vac
Rated Power	300kVA
Rated Current	433A
Grid-to-Off-grid Transfer Time	≤ 20mS

Battery	
Rated Energy	261kWh
Nominal Voltage	832Vdc
Voltage Range	728Vdc~936Vdc
Battery Configuration	1P260S
Maximum Charge/Discharge Power	0.5P
Max Charge/Discharge Current	180A
Self-discharge Rate	≤ 3% per month
Battery Energy Efficiency	Energy Efficiency ≥ 94%
Charging Temperature Range	0°C~+50 °C
Discharging Temperature Range	-20 °C~+50 °C
Cooling Method	Liquid Cooling
SOC Estimation Accuracy	≤5%

General Specifications	
Max Conversion Efficiency	≥ 87%
Communication Interface	RJ45
Communication Protocol	Modbus TCP, CAN bus
Operating Temperature	-30°C~60°C
Operating Humidity	0% ~95% (non-condensing)
Storage Temperature	-20°C~35°C
Protection	IP54
Corrosion Category	C5
Altitude	3,000m
Fire Protection System	Temperature, Smoke, and Combustible Gas Detection; Aerosol Fire Suppression
Electrical Cabinet Dimension	706x1,310x 2,200mm (W*D*H)
Battery Cabinet Dimensions	998x1,310x2,200mm (W*D*H)
Overall Dimensions	1,704x1,310 x 2,200mm (W*D*H)
Electrical Cabinet Weight	598 kg (T), 625 kg (B), 695 kg (S), 710 kg (H)
Battery Cabinet Weight	2,500kg
Total System Weight	3,210kg
Certification	PCS: IEC 61000, IEC 62477 BAT: IEC 62619, CNS 62619, IEC 60730-1, UN 38.3

C & I Energy Storage System Solutions

System Configuration				
PCS	BNP-125K-400-E			
Battery	314Ah 0.5P			
System Power-Capacity	125kW	125kW	125kW	125kW
Beginning of Life(BOL)	261kWh	522kWh	783kWh	1,044kWh
Full Charge/Discharge Time	2hours	4hours	6hours	8hours
Units of DC/Electrical Cabinet	1/1	2/1	3/1	4/1