

500kW/1MWh All-in-one On/off-grid Energy Storage System

HEA-500-1044-10FT



HA-500-1044-10FT

Engineered for commercial and industrial energy demands, the HEX-1044-10FT is a fully integrated 10-ft containerized energy storage system featuring a 400V rated AC output. Integrated static transfer switch (STS) hardware empowers the unit with outstanding off-grid load bearing performance, alongside glitch-free transition between grid-connected and off-grid modes in under 20ms. Specialized connection ports for diesel generators and photovoltaic inverters are pre-installed to realize coordinated power supply from multiple energy sources.

Plug&Play Design

- **10-ft Container** Saves installation space
- **Integrated System** Higher capacity with compact footprint
- **Higher Capacity** Delivers more energy in a smaller footprint

Flexible Switching

- **Built-in STS** Enables seamless power transfer
- **20ms Switching** Fast transition between power modes
- **Reliable Backup** Keeps critical loads running

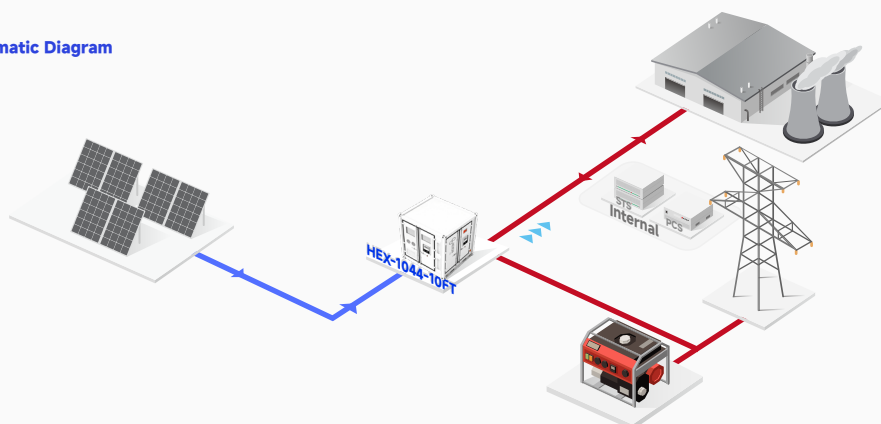
String-Based Architecture

- **Independent Management** Separate management for every battery string
- **Higher Reliability** Reduces fault propagation

Multiple Power Sources

- **PV Compatible** Works with solar systems
- **Generator Ready** Supports diesel generator integration
- **Flexible Deployment** Adapts to various applications

System Schematic Diagram



Model	
Battery Side	
Cell Type	LFP / 314 Ah
Pack Configuration	52.2 kWh / 1P52S
System Configuration	1044 kWh / 4P260S
Rated DC Voltage	832 V
DC Voltage Range	728 ~ 936 V
Max. Charge/Discharge Rate	0.5 P
Max. Depth Of Discharge	100% (25 ± 2 °C)
Grid Side	
Rated Output Power	500 kW
Max. Apparent Power	550 kVA
Rated AC Voltage	400 V
AC Voltage Range	± 15%
Grid Type	3W+N+PE
Rated Frequency	50 Hz / 60 Hz
On/O-Grid Switching Time	<20 ms
Power Factor	0.99/ -1 ~ +1
THDi	≤ 3%
DC Ratio	< 0.5% I _{pn}
Backup Side	
Max. PV Inverter Input Current	800 A
Max. Diesel Generator Input Current	800 A
Max. Backup Load Port Current	800 A
Recommended Max. Backup Load Power*	350 kW (70% of Rated Output Power)
General	
Cycle Life	≥ 8,000 cycles
Communication	Modbus TCP/IP
Fire Suppression System	Aerosol system(pack level and container level), water spray system
IP Rating	IP54
Cooling Method	Liquid cooling+Forced air cooling
Operating Temperature	-25°C~55°C(Derating after 45°C)
Anticorrosion Rating	C4 (C5 optional)
Humidity	5~95% RH (non-condensing)
Noise	≤ 80 dB
Altitude	3000m (Derating above 2000m)
Dimensions (W×D×H)	2991×2438×2591 mm
Weight	14 t
Certification	UN38 .3, IEC62477-1, CE/EMC, IEC62619, IEC63056, UL9540A, EN50549

*Note: The value indicated herein is a recommended reference based on PF=0.7. When the load involves motors or other types of impact loads, it is recommended to equip the system with a soft starter. Please contact Hexon Energy for further technical support prior to order placement.