

50KW/110KWh PV-diesel-storage hybrid system



Improve Energy Efficiency and Power Output

Features & Characteristics

- An intelligent dispatch strategy with PV priority, storage regulation, and diesel backup.
- Fully sealed and isolated electrical system. Independent cooling ducts for PCS, PV modules, and STS. Equipped with air conditioning tailored to the application scenario, ensuring high protection, maintenance-free operation, and long service life.
- Capable of sustaining prolonged high-power output and operating reliably in extreme weather conditions, including high temperatures and humidity.
- High expandability and compatibility, supporting the integration of charging guns or recharging sockets.
- Enhanced safety features, with the unit equipped with a Novec 1230 fire suppression system and smoke/heat detectors.
- The energy storage system features seamless switching functionality, ensuring no power interruption on the load side after the diesel generator is shut down.
- Communication capability between the energy storage system and diesel generator enables control over the generator's startup/shutdown and power adjustment.

Application Scenarios



Infrastructure
Construction



Energy Mining



Remote Villages
Islands



Military
Theater Operations



Emergency
Backup Power



Commercial
Activities

Product Advantages



1. Multi-Energy Complementarity
Storage + PV + Diesel Generator + Grid Charging

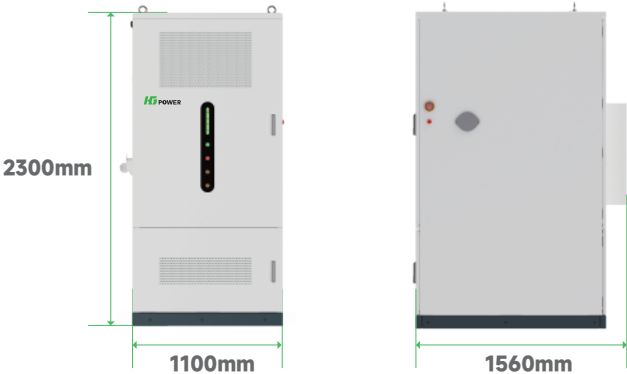
2. Drastically Reduced Energy Consumption
Slash Fuel Costs and Boost Generation

3. Low-Carbon & Eco-Friendly
Quiet, Clean, and Sustainable Operation

4. High System Stability
Uninterrupted and Resilient Power

Core Parameters

Capacity	110kWh
Battery Voltage Range	308-401.5Vdc
Charging Power of GB Standard Port	50kW
Generator Input Power	50kW
PV Input Power	50kW
Maximum Output Power to Load	100kW
Generator Input Voltage	400±15%VAC
PV Input Voltage	300~700Vdc
Output Voltage to Load	400±15%VAC
Operating Frequency	50Hz
Charge C-rate	0.5C
Discharge C-rate	0.5C
Depth of Discharge (DOD)	≤95%
Nominal Voltage	3.2V
Cell Configuration	1P22S
Pack Voltage Pack	70.4V



PACK Weight	150kg
Cycle Life	>6000time
Operating Temperature	-20~50℃
Noise Level	<65db
Ingress Protection (IP) Rating	IP54
Cell Chemistry	3.2V/314Ah
Nominal Energy	22.1kwh
Overall Dimensions	1560*1100*2300(mm)
Total Weight	2t