

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

3. Low-Carbon & Eco-Friendly

Quiet, Clean, and Sustainable Operation

2. Drastically Reduced Energy Consumption

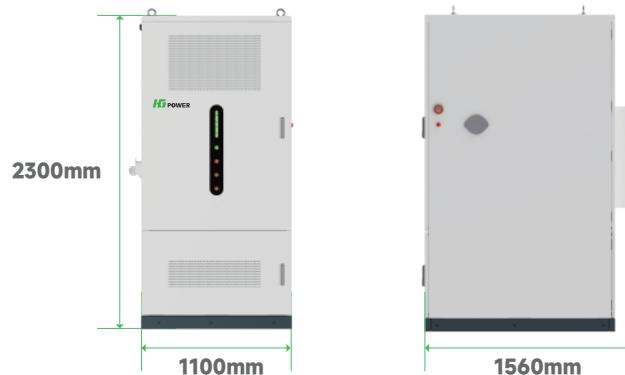
Slash Fuel Costs and Boost Generation

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°C |
| 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 |