

# 100/120kWh Air-cooled Hybrid DC Cabinet

HD-100/120-E  
(Hybrid Inverter Optional)



## HD-100/120-E

Developed with integrated energy storage and digital monitoring technologies, the HEX-HY-100/120kWh series serves as a complete PV-ESS integrated solution. Housed in a single compact cabinet are core modules including lithium battery packs, HVAC thermal control units, fire suppression systems (FSS) and EMS. The streamlined structure shortens on-site installation time and supports flexible capacity expansion to meet varied demand. When coupled with a hybrid inverter, the system features diverse operating modes and fully configurable energy management strategies.

## Comprehensive Safety & Heat Resistance

- **High Outdoor Grade** IP55 dustproof & waterproof
- **Balanced Cooling** Optimized ventilation, temp gap  $\leq 6^{\circ}\text{C}$
- **Stable Operation** Reliable performance under high temperature

## High Efficiency & Cost Saving

- **High Energy Utilization** Up to 90% RTE, 100% DOD
- **Self-developed Integration** LFP 314Ah 3S all-in-one system
- **Wide Compatibility** Supports PV & most hybrid inverters

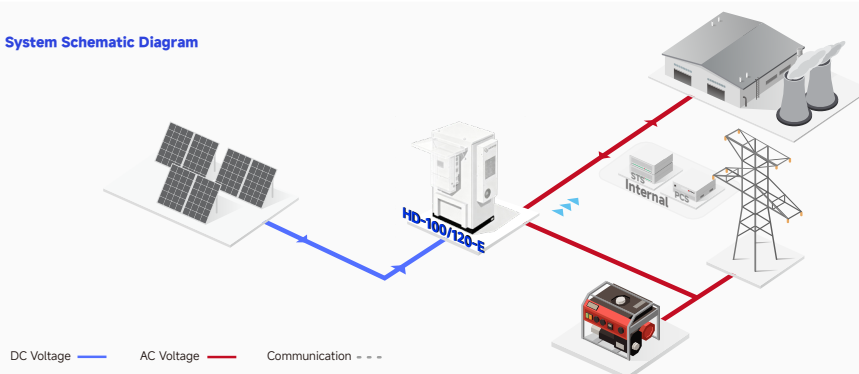
## Simple Dual-mode O&M

- **Cloud Diagnosis** Fast fault detection in real time
- **Dual Control** Local onsite & cloud remote monitoring
- **Low Labor Cost** Reduce frequent field inspection

## Compact & Flexible Deployment

- **Small Footprint** Only  $0.96\text{m}^2$ , easy transport & install
- **Wide Compatibility** Fits mainstream 30–50kW hybrid inverters
- **Modular Scalability** Parallel design for on-demand expansion

System Schematic Diagram



| Model                      | HD-100-E                                                   | HD-120-E              |
|----------------------------|------------------------------------------------------------|-----------------------|
| Battery Cabinet            |                                                            |                       |
| Cell Type                  | LFP / 314Ah                                                | LFP / 314Ah           |
| Pack Configuration         | 20.096 kWh / 1P20S                                         | 20.096 kWh / 1P20S    |
| System Configuration       | 100.48 kWh /1P100S                                         | 120.576 kWh / 1P120S  |
| Rated DC Voltage           | 320 V                                                      | 384 V                 |
| DC Voltage Range           | 280 ~ 360 V                                                | 336 ~ 432 V           |
| Max. Charge/Discharge Rate | 0.5 P                                                      | 0.5 P                 |
| Max. Depth of Discharge    | 100% (25 ±2°C)                                             | 100% (25 ±2°C)        |
| Cycle Life                 | ≥ 8,000 cycles                                             | ≥ 8,000 cycles        |
| PV Input(Hybrid Inverter)  |                                                            |                       |
| Max. input power           | 60kW、80kW、100kW                                            | 60kW、80kW、100kW、100kW |
| PV Votage Range            | 150 ~ 850V                                                 | 150 ~ 850V            |
| MPPT                       | 3、4                                                        | 3、4                   |
| Max. input Current         | 40A3、40A4                                                  | 40A3、40A4             |
| AC Side(Hybrid Inverter)   |                                                            |                       |
| Rated Output Power         | 30kW、40kW、50kW                                             | 30kW、40kW、50kW、60kW   |
| Rated AC Voltage           | 400V                                                       | 400V                  |
| AC Voltage Range           | ±15%                                                       | ±15%                  |
| Grid Type                  | 3W+N+PE                                                    | 3W+N+PE               |
| Rated Frequency            | 50Hz/60Hz                                                  | 50Hz/60Hz             |
| Power Factor               | 0.99 / -0.8 ~ +0.8                                         | 0.99 / -0.8 ~ +0.8    |
| THDi                       | ≤3%                                                        | ≤3%                   |
| DC Ratio                   | <0.5% lpn                                                  | <0.5% lpn             |
| System Parameters          |                                                            |                       |
| Max. Round Trip Efficiency | 90%                                                        |                       |
| Communication              | Modbus TCP/IP                                              |                       |
| Fire Suppression System    | Aerosol                                                    |                       |
| IP Rating                  | IP55                                                       |                       |
| Cooling Method             | Air cooling                                                |                       |
| Operating Temperature      | -25°C~55°C (Derating after 45°C)                           |                       |
| Anticorrosion Rating       | C4 (C5 optional)                                           |                       |
| Humidity                   | 0~95% RH (non-condensing)                                  |                       |
| Altitude                   | 3000m (Derating above 2000m)                               |                       |
| Dimensions (W×D×H)         | 800×1200×2100 mm                                           |                       |
| Weight                     | 1200 kg                                                    |                       |
| Safety/EMC                 | UN38.3, IEC62619, IEC63056, IEC62477-1, IEC61000-6-2/4     |                       |
| Grid codeE                 | EN50549-1/-10, EN50549-2/-10, G99, VDE4105, NRS097, C10/11 |                       |