

Hybrid Energy Storage



Mobile Hybrid Energy Storage Systems: Portable Power with Renewable Energy.

In situations where energy resources are limited or environmental conditions hinder energy production and access, the ability to generate, store, and transport energy has become a vital necessity. Sustainable solutions are gaining significant importance for ensuring energy supply security.

Our mobile hybrid energy storage containers generate, store, and provide energy to users through solar panels and wind turbines. These systems can deliver uninterrupted power under various climate conditions, either connected to the grid or off-grid.

Hybrid containers provide reliable energy, especially for hospitals, temporary shelters, and communication infrastructures that require rapid intervention in disaster areas. Additionally, they stand out for their quick setup and portability in sectors that need constant access to energy, such as agricultural irrigation projects, construction sites, remote settlements, and military facilities.

These flexible and independent solutions enable critical operations to continue seamlessly under all conditions due to their rapid installation and deployment. Our hybrid containers offer secure energy across a wide range of applications, contributing to building a sustainable energy future.

Applications

- Emergency Management
- Sustainable Energy
- Advanced Energy Management
- Reliable and Safe Technology
- Off-Grid and On-Grid Applications
- Scalable Production and Storage Capacity
- Long Lifespan
- Easy Installation
- Online Monitoring

Mobile Hybrid Energy Storage



Basic Properties	PHBRT-100	PHBRT-W-100	PHBRT-W-200	PHBRT-W-300
Battery Type	LiFePO ₄ - Prismatic			
Used Battery Rack	PBH-512100			
# of Battery Racks	2	2	4	6
Nominal Voltage	512V	512V	512V	768V
Nominal Output Voltage	400 Vac	400 Vac	400 Vac	400 Vac
Nominal Energy Capacity	102.4kWh	102.4kWh	204.8 kWh	307.2 kWh
Operating Voltage Range	440V-568V	440V-568V	440V-568V	660V-852V
Max. Charge Voltage	568V	568V	568V	852V
Cycle Life (*)	≥6000 cycles			
Normal Operating Temperature	25°C			
Operational Temperature	-15~40°C			
Storage Temperature (**)	-20~50°C			
Residual Capacity Loss	Per month ≤ 3% (25°C)			
Functional Properties				
Communication	RS485, Ethernet, Can Bus			
Cooling	Air Cooling			
BMS Protections	UV,OV,OC,UT,OT,SC			
LED Indicators	Alarm, Run, SOC			
Circuit Breaker	Integrated to Master BMS of Each Cluster			
Diesel Generator (Optional)	16 kVA			
PV Module Power	545			
PV Module Quantity	16			
Total PV Module Power	8.72 kWp			
Wind Power	—	2 kW- 5kW		
Hybrid Inverter Power	50 kW		100 kW	
Physical Properties				
Protection Level	IP54			
Open & Close Dimensions (WxDxH)	6058x2438x2896 mm / 6058x15000x2896 mm			

(*) Test Conditions: 25°C, 70% SOH
 (**) Performance may vary in different conditions

Hybrid Inverters



PV	PHYB-5K	PHYB-10K-3P
Max. PV Power	9000W	15000W
Max. PV Voltage	550V	1000V
MPPT Max. Input Current	15A/15A	20A/30A
MPPT Short Circuit	20A/20A	30A/40A
MPPT Voltage Range	70V-500V	160V-950V
# of MPPT Trackers	2	2
String per MPP Tracker	1	1+2
Grid Interface		
Nominal AC Output Power	5000W	10000W
Max. AC Output Apparent Power	5500VA	1100VA
Max. AC Output Power (PF=1)	5500W	11000W
Nominal AC Voltage	220V	380V/400V/415V
AC Voltage Range	150V-300V (Adjustable)	277V-520V (Adjustable)
Max. AC Output Current	25A	3*16.7A
Nominal Grid Frequency	50Hz/60Hz	50Hz/60Hz
Grid Connection	Single phase	Three phase
Power Factor	>0.99 @rated power (0.8 Lead-0.8 Lag)	>0.99 @rated power (0.8 Lead-0.8 Lag)
Battery Interface		
Compatible Battery Type	Lithium-ion/Lead-acid	Lithium-ion/Lead-acid
Battery Voltage Range	40V-60V	120V-600V
Max. Charge/Discharge Power	5000W/5000W	15000W/10500W
Max. Charge/Discharge Current	120A/120A	50A/50A
Backup Interface		
Nominal Output Voltage	230V	380V/400V/415V
Nominal Output Frequency	50Hz/60Hz	50Hz/60Hz
Nominal Output Power	5000W	10000W
Nominal Output Current	21.7A	3*15.2A
General		
Protection Level	IP65	IP65
Operating Temperature Range	-25°C~60°C	-25°C~45°C
Cooling	Natural Cooling	Natural Cooling
Dimensions (W*H*D)	515x485x175 mm	530x550x212 mm
Weight	25Kg	32Kg
Comication Interface	RS485/CAN (for BMS) RS485, USB, RS485(Meter) Wifi opt.	RS485/CAN (for BMS) RS485, USB, RS485(Meter) Wifi opt.