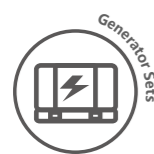


# Battery Energy Storage Systems

Commercial | Industrial | Residential

## BIGLUX INNOVATION LTD



[www.bigluxpower.com](http://www.bigluxpower.com)



# Global leader in distributed solar hybrid solutions & off-grid systems

## YOUR POWER OUR PASSION



120 Countries

Products are exported to 120 countries



52 Types

Three categories of 52 types of products



12000 Sets

Annual production capacity



50 Specialists

50 solution experts focused on different applications



107 Patenes

6 invention patents, 91 utility model patents, 8 software copyrights and 2 appearance patents.

BIGLUX develops and implements specific & inovative mobile solar power and mobile solar generator solutions for diferent commercial and industry applications. - By adopting the latest renewable energy technology, BIGLUX integrated solar and LFP battery system to develops and implements the most energy saving renewable mobile solar systems to work as solar light tower, solar CCTV tower and moble power solution for outdoor parking lot, outdoor sports, events, construction site, work site, data base\_, miitary base and emergency applications etc.

### WHAT WE HAVE

A strong expertise in SOLAR and LFP battery technologies  
An insatiable thirst for smart intelligent controlled SOLAR integrated system.  
A broad experience in SOLAR and HYBRID POWER applications  
A background of over 10 years' experience in SOLAR and HYBRID POWER  
A great heart of contribution to the most energy saving and environment friendly world.

### WHAT WE DO

1.FOR THE SOCIETY: We are trying to provide a long-term energy

saving solution,save the energy, save the world. And by supplying mobile solar energy featured with lighting, communication, and CCTV security, we can help those who experienced the earthquake or other accident to get in touch with families and friends. We can create more time for construction, mining and oil site work.

2.FOR THE INDUSTRY: We are a quaiity oriented and innovation driven company, At BIGLUX, inovation extends far beyond the new technologies, it applies in its mobile solar energy solutions. Inovation encompasses many breakthroughs thought when managing all aspects of its product design and development processes. We devoted to leading to the industry.

3.FOR OUR CUSTOMER: We aim to suply WOW factor solutions for the customer. By utizing abundant available resources namely raw materials, new technology, work force and sub assembly resources from China, BIGLUX is able to provide highly COMPETITIVE pricing compared with products of same class and technology.

4.FOR OUR STAFF: We want to build a TEAM, everyone of team can enjoy their work and lfe, and everyone's effort willturn into great achievement of the company.



# Built-in Smart EMS

Grid Forming

Grid Following



EMS

## DEDICATION Product Portfolio

( 1 ) Commercial & Industrial BESS

HBD A Series

HBD R Series

( 2 ) BCH Series BESS

& Mobile EV Charger

( 3 ) Residential BESS

HBC Series

UHOO Series

( 4 ) Battery Cluster 8 PACK



## THE FUTURE

is coming with sustainable,  
smart, stable energy

6000  
Life Cycles

EOL 80%  
Usable Energy

110%~150%  
Overload

<20MS  
Switch Mode

3000M  
Max altitude

-20~50°C  
Operating Temperature

# Commercial & Industrial BESS

## A Series All-in-one



HBD-250-400  
Rated Output Power: 250kW  
Battery Storage Capacity: 401.4kWh

### Design Standards

HBD<sup>®</sup> is a new range of secure integrated Battery Energy storage system. This mobile and modular solution includes batteries, PCS and control system; HVAC, fire protection and auxiliary components for option. It can be connected to external PV power station, AC generator and Grid power. HBD<sup>®</sup> is mainly developed for no emission and low noise, Reduce the dependence on grid, Improve power supply quality and Ensure the power consumption of emergency load.



0.2~0.5C

Discharging Rate

60~3000  
kwh/unt

Power Range

IP54

Indoors & Outdoors

**Overload coping:**  
110% long-term overload supported, 120% for 10min, 150% for 200ms



HBD-30-60  
Rated Output Power: 30kW  
Battery Storage Capacity: 61.44kWh



HBD-50-100  
Rated Output Power: 50kW  
Battery Storage Capacity: 100.35kWh



HBD-100-200  
Rated Output Power: 100kW  
Battery Storage Capacity: 200.7kWh




### Benefits

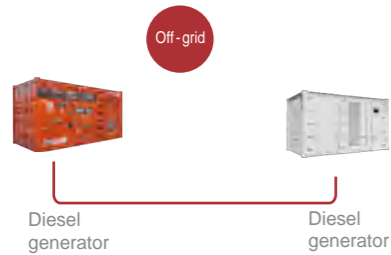
- All-in-one Integrated design, small in size, compact installation environment
- Manufacture Full process manufacturing production line, strong manufacturing and processing capabilities
- Modularity Standard modular design, add on demand/ easy for maintenance /system expansion
- Corrosion protection level: 3-year warranty for C4 coating
- Maintenance: Easy to maintain, equipped with SCADA, remote monitoring, diagnosing and upgrading supported.
- Convenient transport Lifting points and spreaders, 4 lifting points design. Forklift hole.
- Selfmade cabinets adapt to the shipping standards, maximizing space utilization, saving transport costs

# Application Scenarios

 **5 years**  
Product Warranty

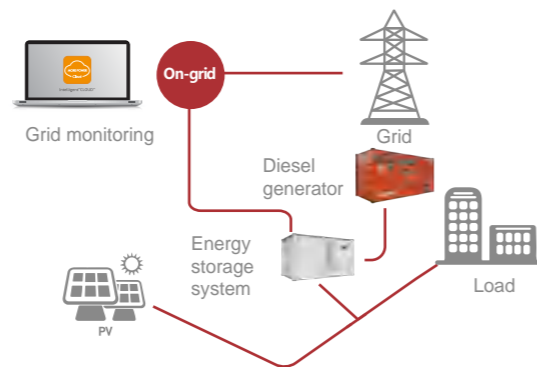
 **10 Years**  
EOL Usable energy 80%  
Performance warranty

## Peakshaving by diesel gensets



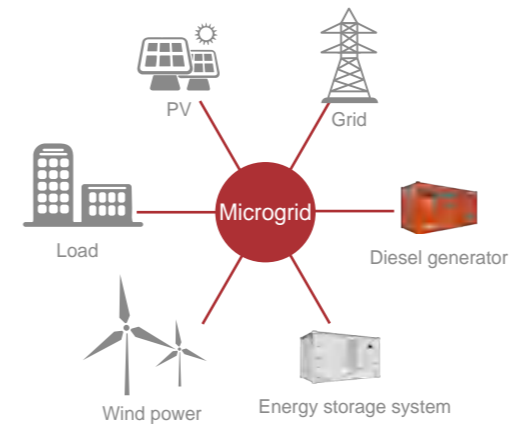
Reducing power of diesel generator, reducing carbon emissions, extending life of diesel gensets.

## Enterprise Critical Peak power management



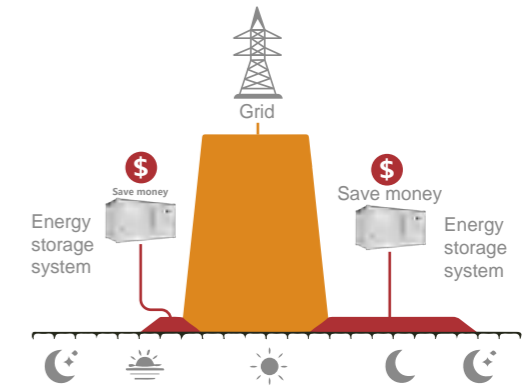
- 1、Solving the problems of seasonal or periodic overload power consumption, inefficient enterprise transformer capacity
- 2、Rapid discharge of energy storage system, relieving power supply pressure, saving investment costs for capacity expansion, reducing renovation cycle, avoiding power outages and retrofits

## Microgrid model



Wind, solar, diesel and storage microgrid system, stable off-grid power supply

## Peak-valley arbitrage



Improving renewable energy utilization, shortening pay-back cycle

# Input Energy Sources



Output  
Load



Output through copper bars, installation and debugging completed in the factory, ready - to - use load output.

**Optional quick - plug sockets**

AC Input  
Diesel generator



Smooth parellel connection with diesel gensets, extending life of diesel gensets by 3 times

AC Input  
PV



Photovoltaic AC - coupled access coming in standard, optional photovoltaic DC - coupled access

AC Input  
Grid



Charging and supplying power to the load at the same time.

AC Input  
Wind power



AC Input  
Hydrogen



## Parellel

Flexible expansion, no limit for the number of parallel connection in the on - grid mode.



Max. 6 units in in the off - grid mode.

# Product Features



## Battery

Long battery life - 6000 cycles Batteries only connected in series, high voltage and low current with high efficiency, no circulation Influence.



## High voltage system

Using smaller wires and components, reducing resistance and energy loss, more efficient than low voltage systems in storing and delivering energy. Using fewer batteries and wires, reducing material and installation costs. Compact structure, higher energy density per unit space, flexible control of the system scale. High voltage systems can be used in a wider range of equipment and applications, making them more versatile and able to adapt to changing energy needs.



## PCS

Three level topology, high operating efficiency. 110% long-term overload supported, 120% for 10min, 150% for 200ms. Equipped with off-grid V/F, P/Q output, VSG and black-start features. Supporting charge and discharge modes such as constant voltage, constant current, constant AC power, constant DC power, etc.



## Fireproof

Built-in fire protection system, subdivision design, fire resistant isolation for 1 hour.

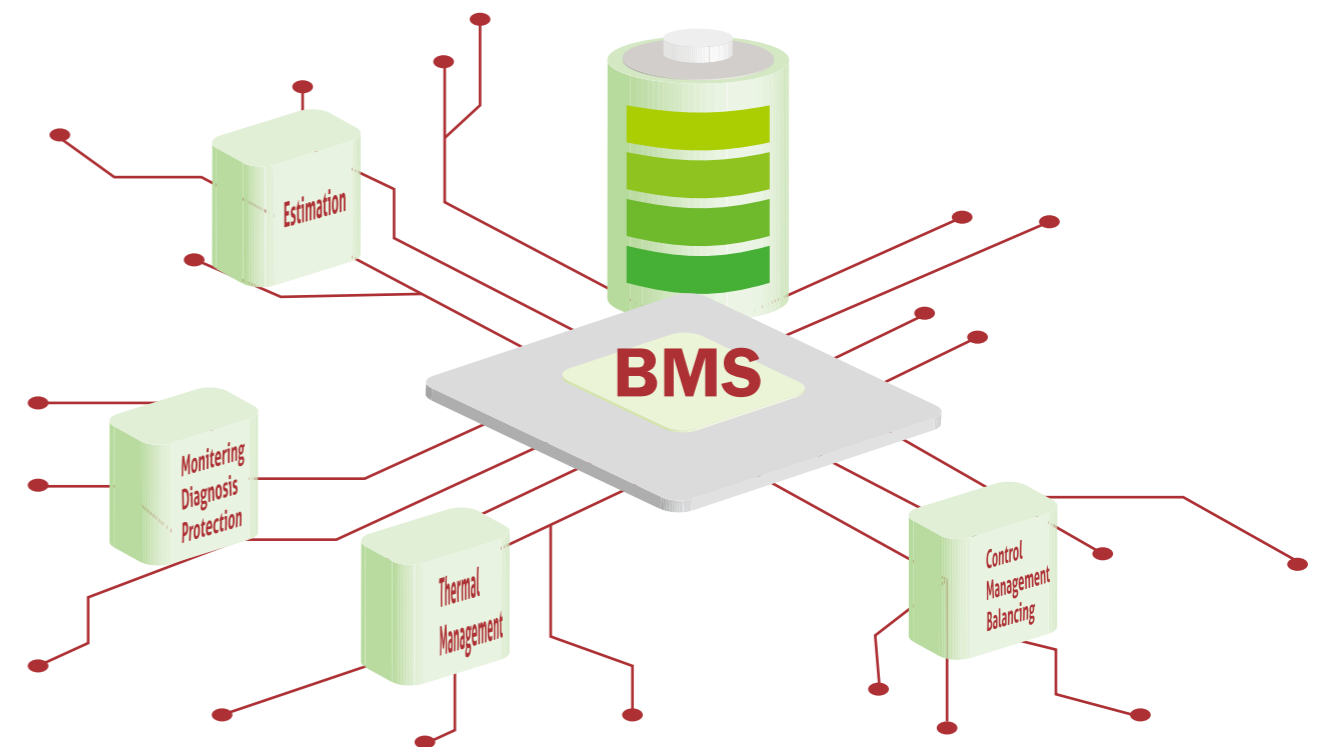


## Cooling system

Distributed air conditioning, well thermal management and thermal isolation structure design, improving consistency.

## BMS

Reliable, reputable brand, application tested Sensor with high stability



# HBD A Series Specification

Model	BL-HBD-30-60	BL-HBD-5-100	BL-HBD-100-200	BL-HBD-250-400
Rated Power(AC Output)	30kW	50kW	100kW	250kW
Rated Voltage/Phase	400Vac/3P			
Frequency	50Hz			
AC Connection	3P4W			
Battery Cluster Voltage	614.4VDC	358.4VDC	716.8VDC	716.8VDC
Battery Cluster Voltage Range	537.6-691.2VDC	313.6-403.2VDC	627.2-806.4VDC	627.2-806.4VDC
BESS Engery@25	61.44kWh	100.3kWh	200.7kWh	401.4kWh
Battery Pack Voltage	51.2VDC			
Battery Pack Capacity	100Ah	280Ah		
Pack Engery@25	5.12kWh	14.336kWh		
Pack Qty	12pcs	7pcs	14pcs	28pcs
Cycle Life@90%DOD	6000times			
PCS Model - Off - Gridr	PWS2-30P-EX		PWS1-100K-CN	PWS1-250K-H-CN
PCS Rated Power	30KW		100kW	250kW
Battery Voltage Range	150-750VDC		500-850VDC	600-900VDC
PCS Qty	1pcs	2pcs	1pcs	1pcs
Control System	Local EMS(Remote for option)			
Cooling System	HVAC			
Fire Fighting System	Aerosol (CE)			
Operating Temp	-20-50 (> 45 derating)			
Altitude	≤3000m (> 2000m derating)			
Dimensions(Lx Wx H)	1800* 1150* 1800mm	1550* 1250* 2250mm	2200* 1250* 2250mm	2950* 2250* 2250mm
The loading capacity	6units/20'GP 12units/40'GP	4units/20'GP 9units/40'GP	4units/20'GP 9units/40'GP	2units/20'GP 4units/40'GP
Weight	1.4t	2.1t	2.9t	7.4t
<b>Options</b>				
Transformer	1' Special voltage ; 2' Rated power same with PCS			


## \* HBD Container Series can be customized

Model	BL-HBD-250-500	BL-HBD-300-600	BL-HBD-400-800	BL-HBD-500-1000	BL-HBD-500-1500	BL-HBD-1000-1500	BL-HBD-1000-2000	BL-HBD-1500-2500	BL-HBD-1500-3000
Rated Power(AC Output)	250kW	300kW	400kW	500kW	500kW	1000kW	1000kW	1500kW	1500kW
Rated Voltage/Phase	400Vac/ 3P				400Vac/ 3P				
Frequency	50Hz				50Hz				
AC Connection	3P4W				3P4W				
Battery Cluster Voltage	768.0VDC	716.8VDC			768.0VDC	716.8VDC	768.0VDC		
Battery Cluster Voltage Range	672-864VDC	627.2-806.4VDC			672-864VDC	627.2-806.4VDC	672-864VDC		
BESS Engery@25	492kWh	602kWh	802.8kWh	1003.5kWh	1505.3kWh	1505.3kWh	2007kWh	2580kWh	2580kWh
Battery Pack Voltage	51.2VDC				51.2VDC				
Battery Pack Capacity	320Ah	280Ah			280Ah				
Pack Engery@25	16.384kWh	14.336kWh			14.336kWh				
Pack Qty	30pcs	42pcs	56pcs	70pcs	105pcs	105pcs	140pcs	180pcs	210pcs
Cycle Life@90%DOD	6000times				6000times				
PCS Model - Off - Gridr	PWS1-500KTL -CN-4M	PWS1-500KTL -CN-5M	PWS1-500KTL -CN-7M	PWS1-500KTL -CN	PWS1-500KTL - CN				
PCS Rated Power	250kW	300kW	400kW	500kW	500kW				
Battery Voltage Range	600-900VDC				600-900VDC				
PCS Qty	1pcs				1pcs	2pcs	2pcs	3pcs	3pcs
Control System	Local EMS(Remote for option)				Local EMS(Remote for option)				
Cooling System	HVAC				HVAC				
Fire Fighting System	Novec™ 1230				Novec™ 1230				
Operating Temp	-20-50℃ (> 45℃ derating)				-20-50℃ (> 45℃ derating)				
Altitude	≤3000m (> 2000m derating)				≤3000m (> 2000m derating)				
Dimensions(Lx Wx H)	20 GP				40'GP			40 HQ	
The loading capacity	NA				NA			NA	
Weight	12t	14t	16t	18t	25.3t	26t	30t	36t	41t
<b>Options</b>									
Transformer	1' Special voltage; 2' Rated power same with PCS								

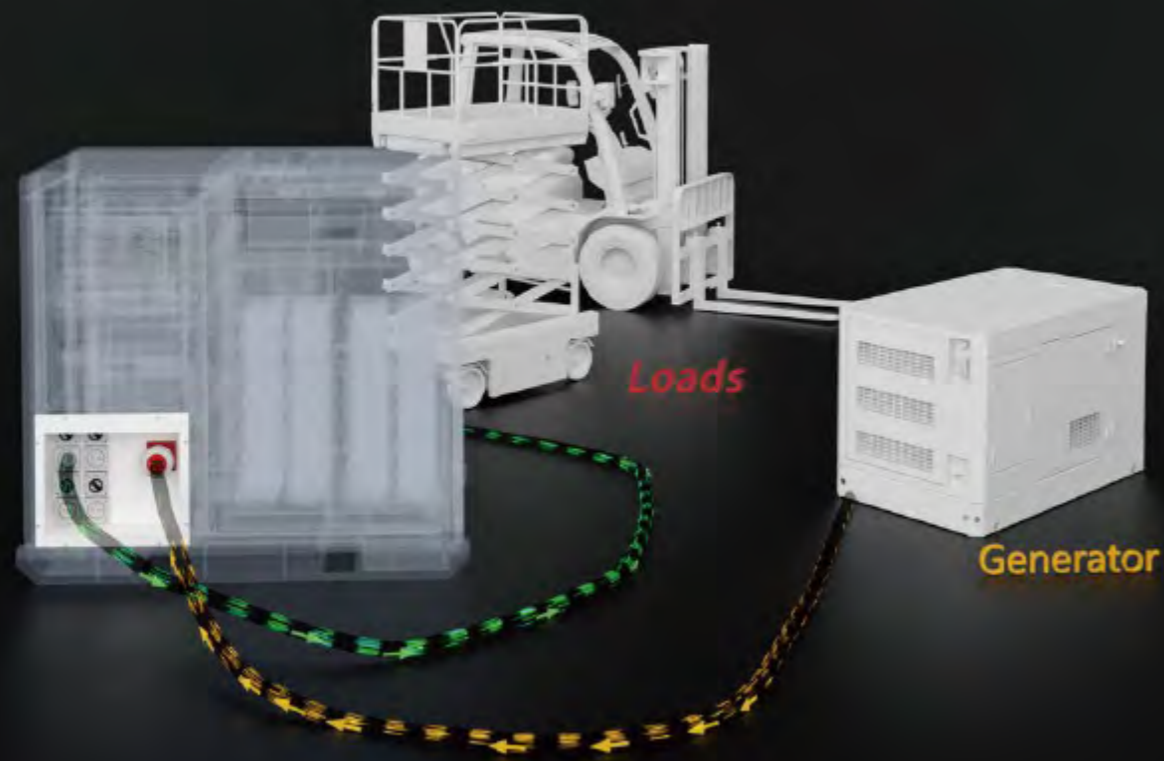


# Commercial & Industrial BESS

**R** Series  
Expert For Rental

 10 years  
System Warranty

Your Off-grid Energy Pilot



Max. 4 units in Parallel



## Applications



Municipal engineering



Construction



Mining



Events



Sports Games

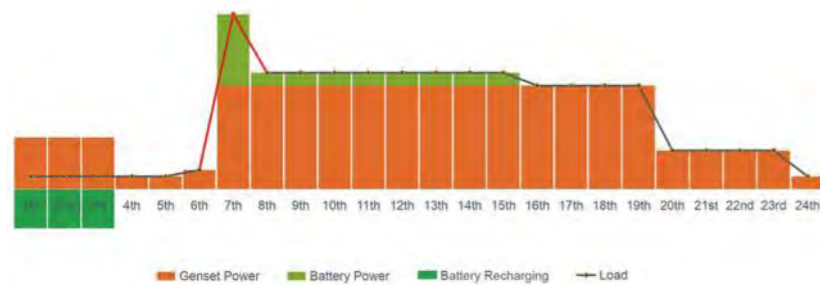


Bridges, Roads & Ports

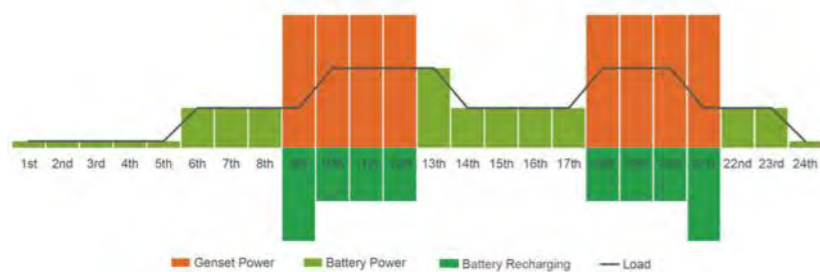
# Best Partner Of Diesel Generator

- Protect your gensets from low load operating
- Protect your gensets from impact loads
- Support your gensets to cover peak loads

## Peak Shaving Operation

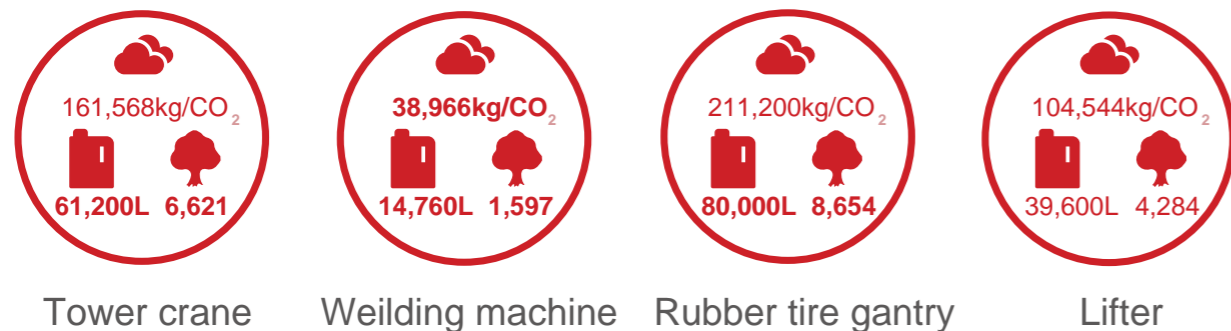


## Low load Operation

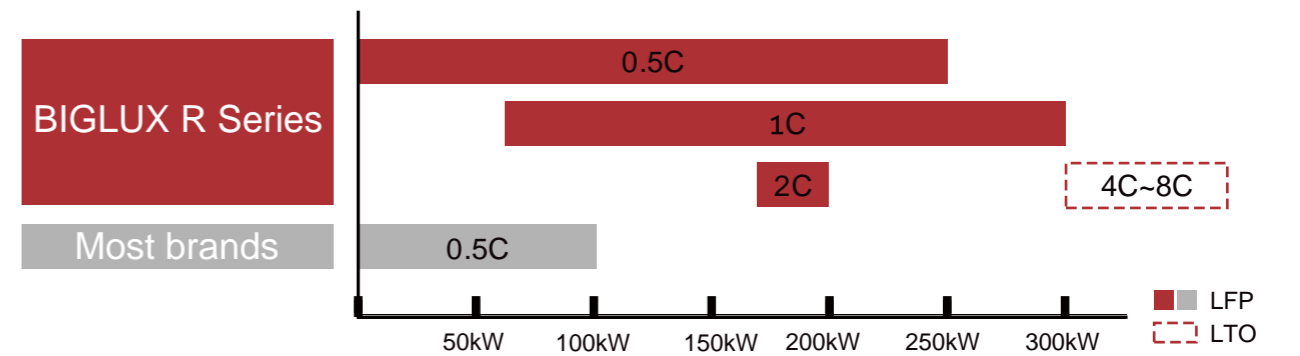


- Reduce carbon footprint
- Reduce up to 75% fuel consumption
- Reduce noises
- Proactive grid forming, lowering operating costs by 50%
- Extend the life span of your gensets by 3X

## BIGLUX BESS to help with potential annual saving



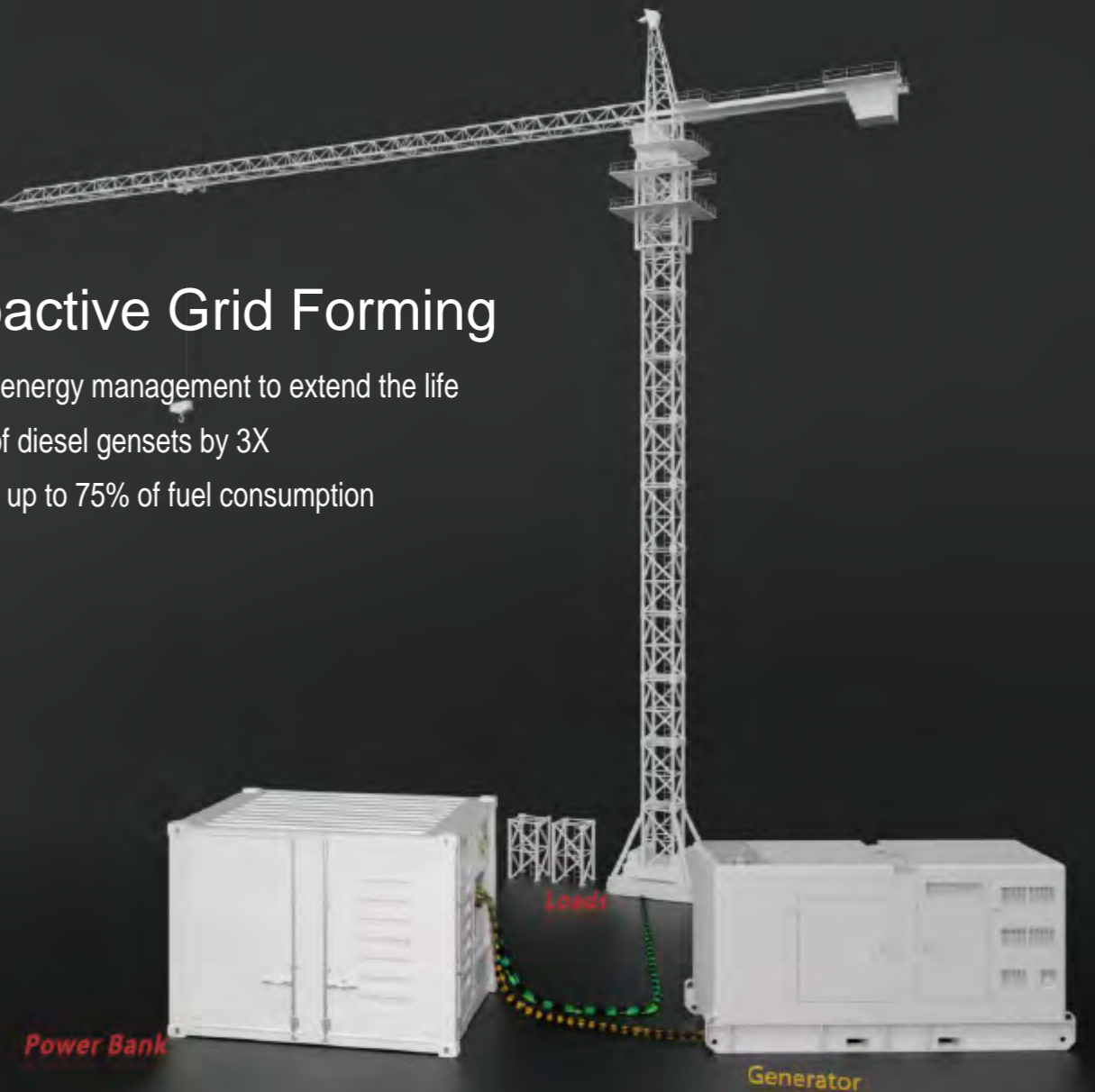
## Super Capacity, Wide Power Range



Up to 4C fast charging and discharging  
Fully charged in 15min-2h

## Proactive Grid Forming

Smart energy management to extend the life span of diesel gensets by 3X saving up to 75% of fuel consumption



# ALL-IN-ONE Robust Structure

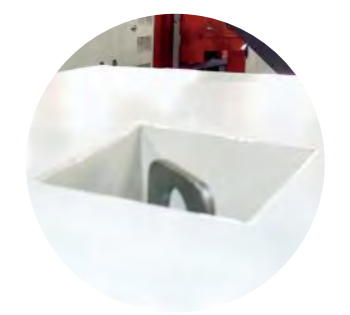
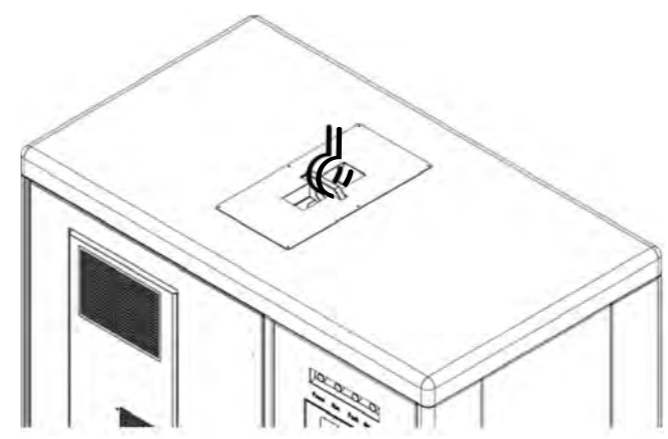
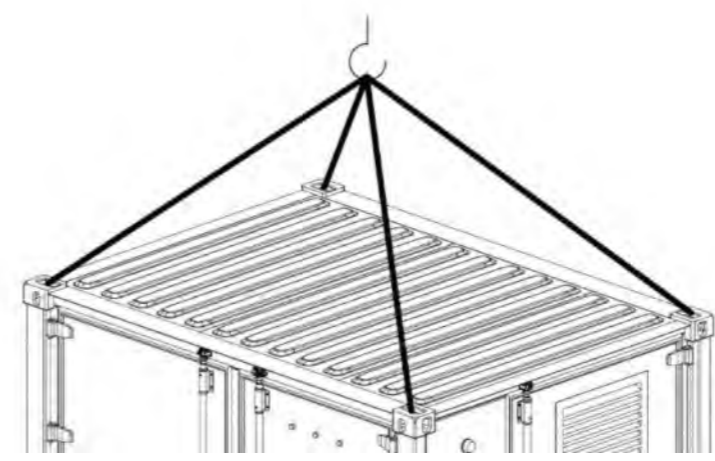


## IP54

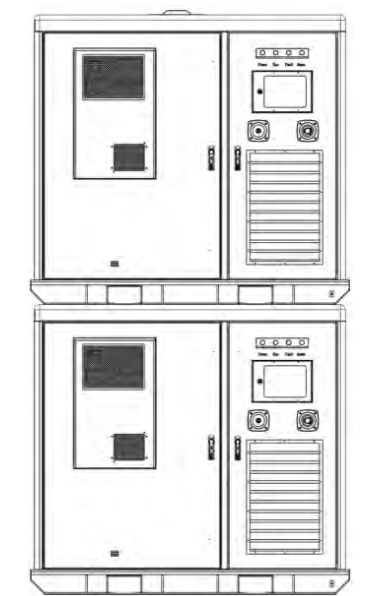
Indoors & Outdoors

- Solid structure, great durability
- Anti-collision
- Anti-corrosion
- Remote upgrading, diagnoses and maintenance
- Easy maintained HVAC systems design
- Anti-theft protections
- Wind proof
- Highly mobile

# Easy Transportation & Storage



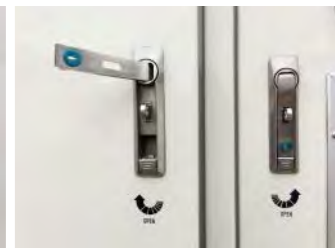
- Single lifting point
- Forklift hole and drag hole
- Stackable





# HBD R Series Specification

Model	HBD R Series							
	BL-HBD-30-60	BL-HBD-50-100	BL-HBD-100-200	BL-HBD-250-400	BL-HBD-60-60	BL-HBD-100-100	BL-HBD-300-300	BL-HBD-200-100
Rated Power(AC Output)	30kW	50kW	100kW	250kW	60kW	90kW	300kW	200kW
Rated Voltage/Phase	400Vac/3P							
Frequency	50Hz							
AC Connection	3P4W							
Battery Cluster Voltage	614.4VDC	358.4VDC	716.8VDC	716.8VDC	614.4VDC	512.0VDC	768.0VDC	768.0VDC
	537.6-691.2VDC	313.6-403.2VDC	627.2-806.4VDC	627.2-806.4VDC	537.6-691.2VDC	448-576VDC	672-864VDC	672-864VDC
BESS Engery@25	61.44kWh	100.3kWh	200.7kWh	401.4kWh	61.44kWh	102.4kWh	307.2kWh	99.84kWh
Battery Pack Voltage	51.2VDC	51.2VDC	51.2VDC	51.2VDC	51.2VDC	51.2VDC	51.2VDC	51.2VDC
Battery Pack Capacity	100Ah	280Ah	280Ah	280Ah	100Ah	100Ah	100Ah	130Ah
Pack engery@25	5.12kWh	14.336kWh	14.336kWh	14.336kWh	5.12kWh	5.12kWh	5.12kWh	6.65kWh
Pack Qty.	12pcs	7pcs	14pcs	28pcs	12pcs	20pcs	60pcs	15pcs
Cycle Life@90%DOD	6000times	6000times	6000times	6000times	6000times	6000times	6000times	6000times
PCS Model -Off- Gridr	PWS2-30P-EX	PWS2-30P-EX	PWS1-100K-CN	PWS1-250K-H-CN	PWS2-30P-EX	PWS2-30P-EX	PWS1-500KTL-CN-5M	PWS1-250K-H-CN
PCS Rated Power	30kW	30kW	100kW	250kW	30kW	30kW	300kW	200kW
Battery Voltage Range	150-750VDC	150-750VDC	500-850VDC	600-900VDC	150-750VDC	150-750VDC	600-900VDC	600-900VDC
PCS Qty.	1pcs	2pcs	1pcs	1pcs	2pcs	3pcs	1pcs	1pcs
Control System	Local EMS (Remote for option)							
Cooling System	HVAC							
Fire Fighting System	Aerosol (CE)							
PV system	AC 400V input							
Operating Temp	-20-50 (Power derated, over 45 )							
Altitude	≤ 3000m (Power derated, over 2000m)							
Dimensions(Lx Wx H)	1950*1150*1800mm	2000*1280*1800mm	2280*1280*2250mm	2950*2250*2250mm	1950*1150*2000mm	2000*1280*2000mm	3950*2250*2250mm	1150*1350*2250mm
The loading capacity	6units/20'GP 12units/40'GP	4units/20'GP 9units/40'GP	4units/20'GP 9units/40'GP	2units/20'GP 4units/40'GP	6units/20'GP 12units/40'GP	4units/20'GP 9units/40'GP	1units/20'GP 3units/40'GP	8units/20'GP 16units/40'GP
Weight	2.0t	2.3t	3.3t	7.6t	2.1t	2.45t	6.6t	2.3t
<b>Options</b>								
Transformer	1' Special voltage ; 2' Rated power same with PCS							



# High voltage BESS

## All-in-one



Why do high voltage all-in-one battery energy storage systems have more advantages over low voltage systems



### EFFICIENCY

High voltage systems are generally more efficient at storing and delivering energy than low voltage systems. This is because higher voltage systems can use smaller wires and components, resulting in less resistance and energy loss, based on  $P=V \cdot I$ , when the power is the same, the higher the voltage, the less the current ( $I$ ), less the loss of energy, and thus the wire of the machine is thinner (lighter).

### SCALABILITY

High voltage systems can be more easily scaled up or down than low voltage systems. This is because higher voltage systems require less physical space to store the same amount of energy, making them more suitable for large-scale commercial or industrial applications.

### COST

High voltage systems can be more cost-effective than low voltage systems in certain applications. This is because high voltage batteries require fewer cells and less wiring, resulting in lower material and installation costs.

### FLEXIBILITY

High voltage systems can be used with a wider range of equipment and applications than low voltage systems, making them more versatile and adaptable to changing energy needs.

Smaller wires

Fewer cells

More compact

Less wiring

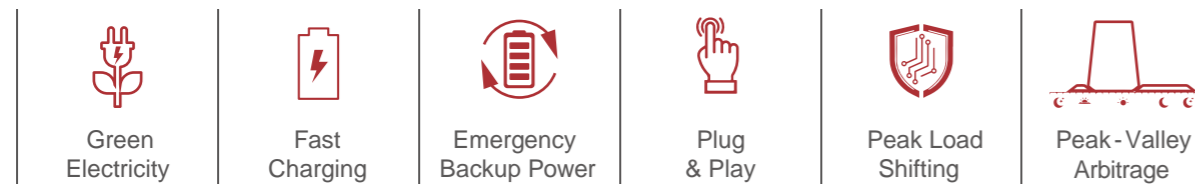
Lower costs

More versatile

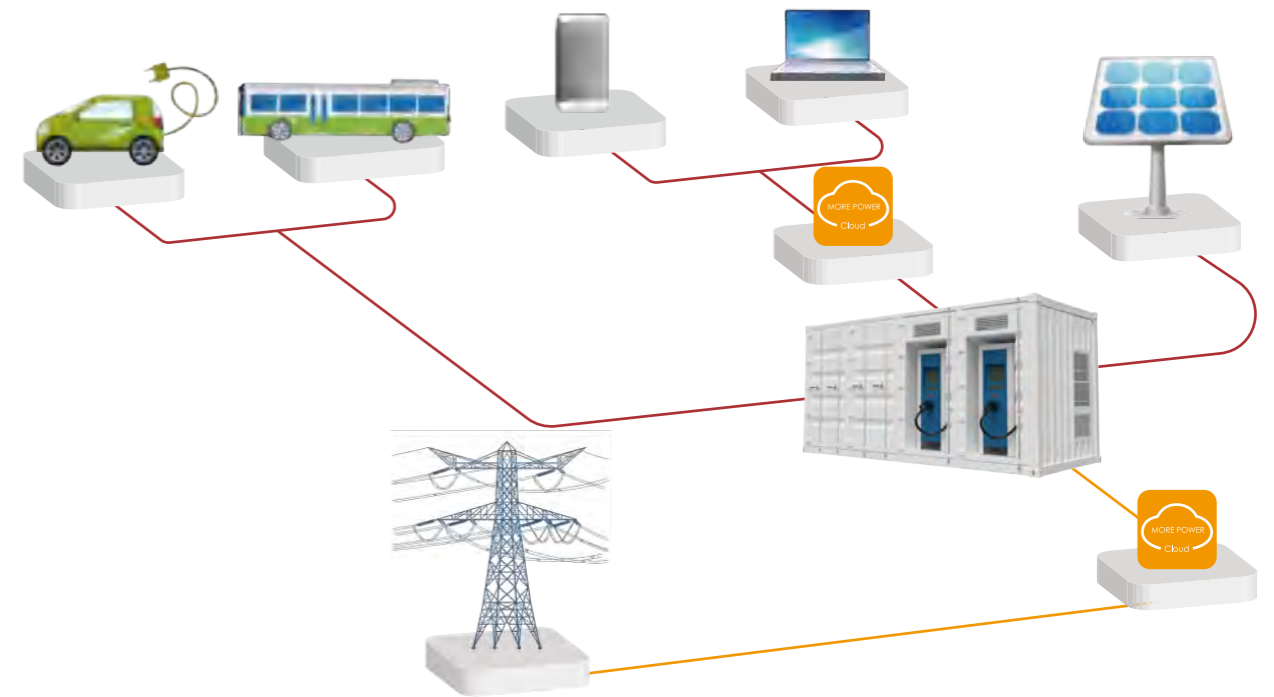
# BCH Series BESS & Mobile EV Charger



## Product Advantages



- The use of solar energy storage green electricity for charging or backup power supply.
- DC high voltage charging, saving charging time.
- In addition to charging, can be used as a backup power supply.
- Storage and charge integrated design, no installation, plug & play.
- The whole system reliability protection strategy design to ensure the security of system operation.
- The use of peak and valley difference charging, saving charging costs.



## Specification

Model	BL - BCH - 300 - 600	BL - BCH - 500 - 1000
Rated Power(AC Output)	300 kW	500 kW
Rated Voltage/Phase	400/230 Vac / 3P	
Frequency	50/60 Hz	
Battery Voltage	716.8 VDC	
Engery Capacity@25	602 kWh	1003.5 kWh
Pack Capacity@25	14.336 kWh	14.336 kWh
Pack Qty	42 pcs	70 pcs
Cycle Life@90%DOD	6000 times	6000 times
PCS Rated Power	300 kW	500 kW
Transformer	Included	Included
Levels of EV Charging	Level 3	Level 3
EV Charger Qty	60kW x 2	60kW x 4
Plug & Play	400 A Single Pole Camlocks In/Out 2 x 50A 125/ 250V CS6369 Receptacles	
Control System	EMS	
Cooling System	HVAC	
Fire Fighting System	Aerosol (CE)	
Operating Temp	- 20 ~ 50 (> 45 derating )	
Altitude	≤3000 m (> 2000m derating )	
Estimated Dimensions(Lx Wx H)	20HC	20HC
Estimated Weight	14 ton	18 ton

# Case Study



## Micro Grid Hybrid Power Plants Project

Site location: Kenya

Sites: Qty. 4

Total Power Installation: 6MW

Each Site: Diesel Generators 2 units of 500kw 8 2 units of 250kw

### Diesel Generators

Each site equipped with totally 4 units of diesel generators (2 units of 500kw and 2 units of 250kw) as backup power, to coordinate with PV panels and BESS. All sites connect with SCADA, realizing real energy management, and ensuring maximum fuel efficiency of the diesel generators while supporting the loads. Excitation after closing, ensuring fast response of backup power during power shortages.

### Battery Energy Storage Systems

Each Site: 21MWh BESS, 80%DOD, 6000 lifecycles.  
Redundant design. DC coupled.  
Functions: PO VF, VSG, Balck Start, Grid-forming.

### SCADA

Each site can run the SCADA independently and communicate with Master system in real time. StarLink for communication backup.  
Realtime data and remote control. Weather forecasting for emergency response.  
Smart maintenance management with alarms and records. 10-years data tracking. Reports can be generated to support on-site spare parts management,

### PV Panels

Each Site: > 1MWc PV power



## BESS for Long-term Rental

Site location: Chile

Total battery capacity installation: 2MWh

Application: Long-term Rental

# Residential BESS

## HBC Series

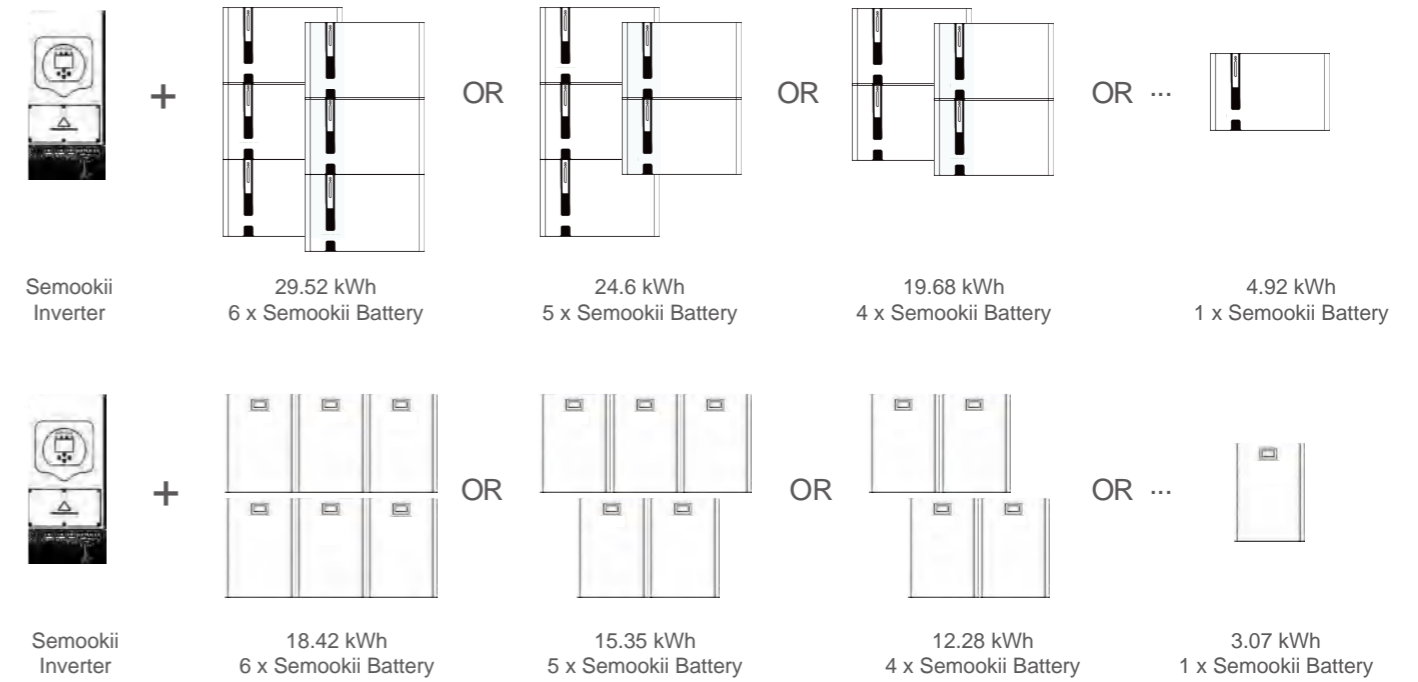
LiFePO4 BESS  
3 ~ 30kWh

\$ SAVING  
70%



## Modular Design Reduces Operating Costs

Semookii HBC BESS features a module design that allows customers to expand storage system capacity as the power needs evolve.



## Customizable Options For Bigger Markets

Semookii offers a variety of series of up-market residential battery energy storage systems and customized solutions for customers all around the world, helping to reduce carbon footprint and realize energy independence.





# HBC® Battery Energy Storage Solutions

Only ONE out of ten residents who have installed rooftop solar systems has introduced energy storage systems to their homes, according to BDEW, Bundesverband der Energie- und Wasserwirtschaft.

Against the steep rise in household electricity bills, Semookii HBC BESS makes a convincing case for the complementary nature between solar power and energy storage systems.

By storing the excess electricity produced by solar panels, homeowners will increase solar self-consumption and load-shifting, lower electricity expenses by about 70%, and it's carbon-free!

It includes self-developed LiFePO4 batteries with high-density cells and an EMS-integrated inverter. External PV power is recommended and AC generator is optional.



**Max. 1100°C Fireproof Insulation**  
Incorporates high-temperature insulation materials ensuring fire resistance.

**Modular Design, Easy Installation**  
Modular design simplifies the assembly process and reduces skilled labor and installation costs.

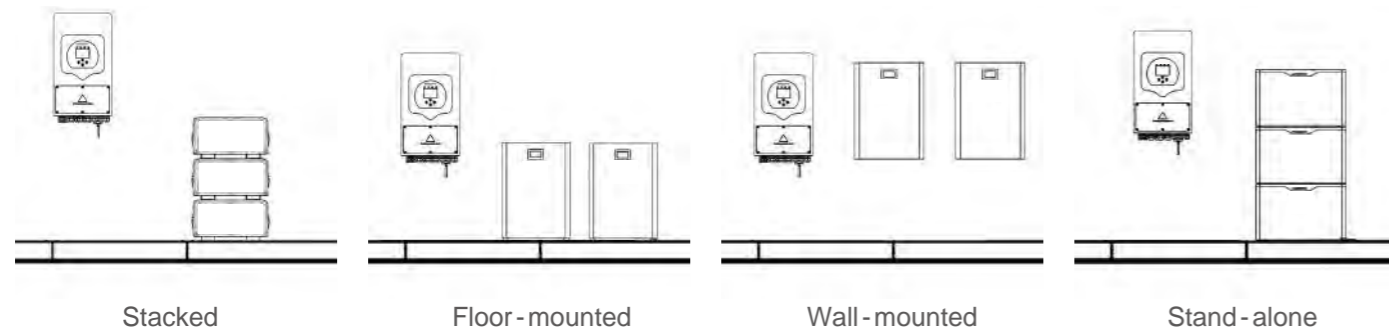
**EV Charging 8 Battery Health Monitoring**  
Charge electric vehicles and check the health of EV batteries at the same time.

**DC/AC Coupled**  
Perfectly fits in both PV+battery installation and adding to existing rooftop solar system.

**Hybrid Energy Sources**  
Compatible with Solar panels, gensets and the utility grid.

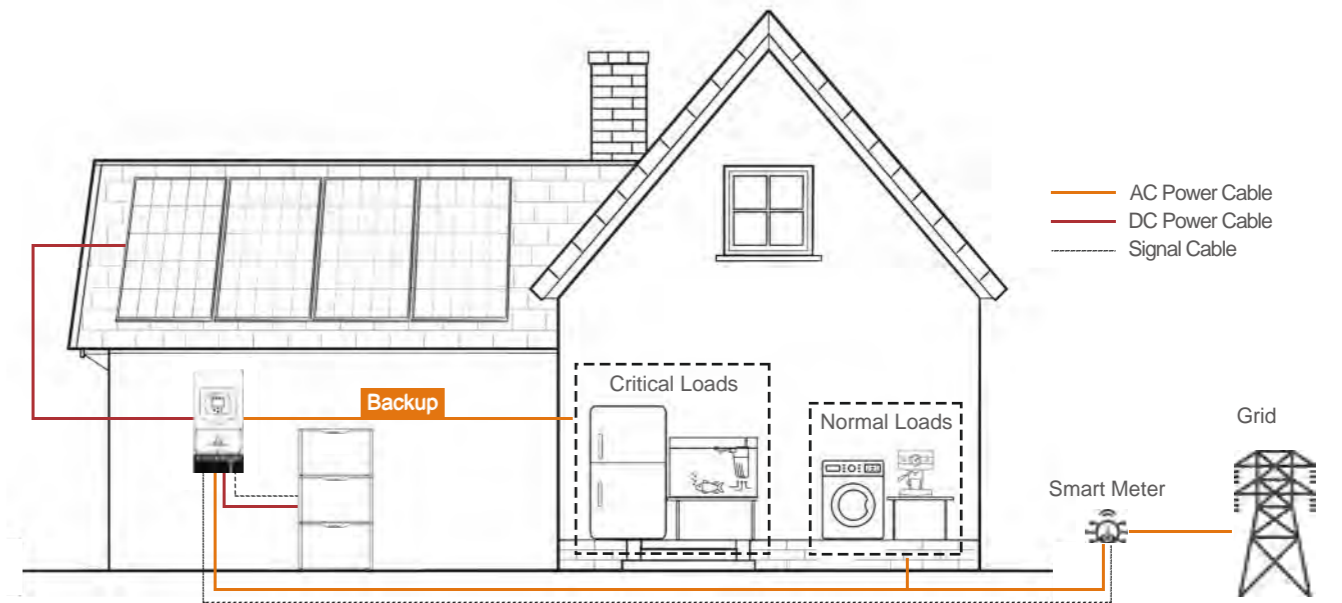
**Backup Power**  
Ensure power resilience and provide uninterrupted power within 4ms during power outages.

## Flexible Mounting For Diverse Installation Requirements

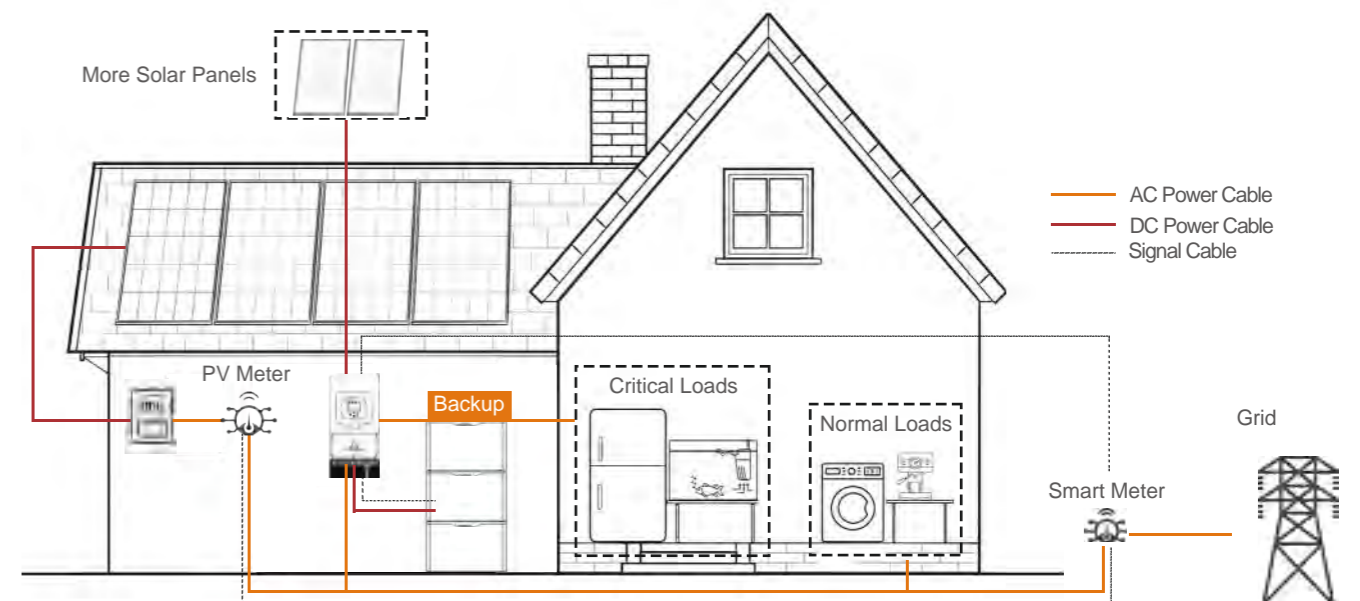


# How Does HBC® BESS Power Your Home

## DC Coupled Solution



## AC/ Hybrid Coupled Solution



## HBC Series Specification

Inverter			
Model	BL-MIV-3AS	BL-MIV-5AS	BL-MIV-10A
Rated Voltage*	230V	230V	400/230V
Rated Frequency	50/60Hz	50/60Hz	50/60Hz
Phase	Single-Phase	Single-Phase	Three-Phase
Max. PV Input Power	3900 W	6500 W	13000 W
Max. PV Input Voltage	500 V	500 V	800 V
Number of MPPT / Strings per MPPT	1/1	2/1+1	2/2+1
MPPT Voltage Range	150 ~ 425 V	150 ~ 425 V	200 ~ 650 V
Start Up DC Voltage	125 V	125 V	160 V
Max. PV Input Current	13 A	13 + 13 A	26 + 13 A
Max. PV Short-circuit Current	17 A	17 + 17 A	34 + 17 A
Max. Charging/Discharging Current	70 A	120 A	210 A
Dimension (W x H x D)	330 x 433 x 248 mm	330 x 580 x 232 mm	422 x 702 x 281 mm
Weight	11.4 kg	20.5 kg	33.6 kg
Ingress Rating	IP65	IP65	IP65
Safety / EMC	IEC62109-1/-2, EN61000-6-1/-2/-3/-4		
Grid Regulation	EN50549, AS4777.2, VDE0126, IEC61727, VDEN4105, G99, NBT32004, CEI0-21, NRS097, NBR16149/16150, RD1699, TOR Erzeuger Typ A, OVE-Richtlinie R25		
Warranty	5Years	5Years	5Years

Model	BL-MIV-3BS	BL-MIV-5BS
Rated Voltage*	230 V	230 V
Rated Frequency	50 / 60 Hz	50 / 60 Hz
Phase	Single-Phase	Single-Phase
Max. PV Input Power	4500 W	4500 W
Max. PV Input Voltage	550 V	550 V
Number of MPPT / Strings per MPPT	2/1+1	2/1+1
MPPT Voltage Range	90 ~ 500 V	150 ~ 500 V
Start Up DC Voltage	100 V	100 V
Max. PV Input Current	18.5 + 18.5 A	18.5 + 18.5 A
Max. PV Short-circuit Current	26 + 26 A	26 + 26 A
Max. Charging/Discharging Current	80 A	80 A
Dimension (W x H x D)	513 x 370 x 192 mm	513 x 370 x 192 mm
Weight	17 kg	17 kg
Ingress Rating	IP65	IP65
Safety / EMC	IEC62109-1/-2, EN61000-6-1/-2/-3/-4	
Grid Regulation	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777.2, VDE-AR-N4105, VDE0126	
Warranty	5 Years	5 Years

LFP Battery			
Module Model	BL-MF5160C	BL-MF51100C	BL-MF51100P
Cell Chemistry	LFP (LiFePO4)	LFP (LiFePO4)	LFP (LiFePO4)
Module Capacity	3.07 kWh	4.92 kWh	4.92 kWh
Module Nominal Voltage	51.2 V	51.2 V	51.2 V
Max. Modules in Parallel	6	6	6
Capacity Range @90% DOD	3.07 ~ 18.43 kWh	4.92 ~ 29.49 kWh	4.92 ~ 29.49 kWh
Usable Capacity Range	2.8 ~ 16.6 kWh	4.42 ~ 26.54 kWh	4.42 ~ 26.54 kWh
Max. Charging/Discharging Current	60 A (1C)	100 A (1C)	100 A (1C)
Cycle Life	6000	6000	10000
Dimension (W x H x D)	628 x 440 x 151 mm	628 x 440 x 216 mm	710 x 440 x 184 mm
Weight	40 kg	56 kg	55 kg
Operating Temperature Range	-10 °C ~ 50 °C	-10 °C ~ 50 °C	-10 °C ~ 50 °C
Ingress Rating	IP20	IP20	IP65
Transportation Certification	UN38.3	UN38.3	UN38.3
Safety	CE, IEC 62619 (Cell), IEC 62619 (Pack)	CE, IEC 62619 (Cell), IEC 62619 (Pack)	CE, IEC 62619 (Cell), IEC 62619 (Pack)
Warranty	2 Years	2 Years	5 Year Product Warranty 10 Year Performance Warranty

EV Charging	
Rated Input Voltage*	AC 220V or AC 380V
Rated Output Voltage*	AC 220V or AC 380V
Output Current	16A, 32A, 63A
Interface	GB/T 20234.1-2015, IEC 62192-2 AC Type 2
Dimension (W x H x D)	Wall-mounted 300 x 190 x 450mm Stand-alone 400 x 200 x 1325mm
Ingress Rating	IP54
Communication	Ethernet; 4G (optional)
Compliance Standards	GB/T 18487, GB/T 20234, GB/T 28569, NB/T 33002, NB/T 33008, IEC/EN 61851

Rated voltage can be configured according to customer requirements.  
The communication of Semookii Inverters is Wi-Fi, 4G is optional.

# Residential BESS

## UHOO Series



### Product Introduction

UHOO, a hybrid all in one BESS, compatible with high voltage LFP battery system, can achieve the best function to maximize clean solar power usage for your home.

### Convenient

Heat stimulation for the best layout

### Quiet

Less than 25 db, no noise pollution

### Flexible

IP65 up to 6kW, 5/10kWh optional

### Adaptative

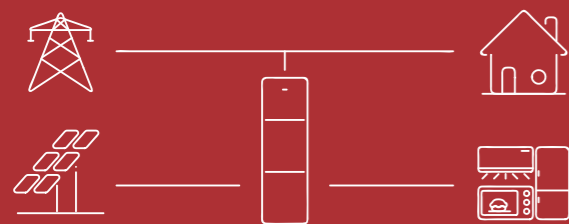
Self-power, backup, and load shifting modes

### Independent

No additional modules and inverters are required

### Smart

Support VPP and AIOT



UHOO will store photovoltaic or grid energy. If there is not enough solar energy to support consumption, the battery will be discharged by UHOO to meet the power demand. Autonomous strategy.

### UHOO Series Specification

Model	BL-UHOO-3.6-5 BL-UHOO-3.6-10	BL-UHOO-4.6-5 BL-UHOO-4.6-10	BL-UHOO-5-5 BL-UHOO-5-10	BL-UHOO-6-5 BL-UHOO-6-10
<b>PV Input</b>				
Absolute max Voltage(d.c.V)	600			
MPPT Voltage Range(d.c.V)	100...550			
Max. DC Input Power(W)	4800	6200	6650	8000
Start-up Voltage(d.c.V)	90			
Rated Operating Voltage(d.c.V)	360			
Max. Input Current(d.c.A)	12.5/12.5			
Max. inverter backfeed current to array (d.c.A)	0			
Isc PV(d.c.A)	18/18			
NO of MPPT Trackers	2			
NO of Strings per MPPT Tracker	1			
<b>Battery Model</b>				
Battery Capacity	BL-MF20425 LiFePO45.12kWh		BL-MF40925 LiFePO410.24kWh	
Nominal Battery Voltage(d.c.V)	204.8		409.6	
Battery Voltage Range(d.c.V)	160...227.2		320...454.4	
Max.Charge/Discharge Current(d.c.A)	25/25		320...454.4	
Cycling times	6500			
<b>AC Input/Output</b>				
Rated output Power(W)	3600	4600	5000	6000
Rated Apparent Power to Grid (VA)	3600	4600	5000	6000
Max. Apparent Power to Grid (VA)	3600	4600	5000	6000
Max. Apparent Power from Grid (VA)	7200	9200	10000	12000
Rated Voltage(a.c.V)	220/230/240			
Rated Frequency (Hz)	50/60			
Rated AC Current to Grid (a.c.V)	15.6	20	21.7	26.1
Max.output current(a.c.A)	17.2	22	23.9	28.7
Max. Current from Grid (a.c.A)	31.2	40	43.4	52.2
Inrush current (a.c.A)	16 a.c.A(peak),11.3 us (duration)			
Max.output fault current(a.c.A)	57(peak),40(rms)			
AC output Maximum output overcurrent protection (a.c.A)	40			
AC input power factor	-0.8...+0.8			
AC output power factor	1 (-0.8...+0.8...adjustable)			
THDi	<3%			
<b>EPS Output (With Battery)</b>				
Max. Output Power(W)	3600	4600	5000	6000
Rated Apparent Power (VA)	4320	5520	6000	7200
Max. Apparent Power(VA)	4320	5520	6000	7200
Rated Voltage(a.c.V)	230(±2%)			
Nominal Frequency(Hz)	50/60(±2%)			
Max. Output Current(a.c.A)	18.8	24	26.1	31.3
Inrush current(a.c.A)	16 a.c.A (peak), 11.3 us (duration)			
Max.output fault current(a.c.A)	57(peak),40 (rms)			
EPS output Maximum output overcurrent protection (a.c.A)	40			
Switch time (ms)	<10			
THDv @ Linear Load(%)	<2			
Power Factor	-0.8...+0.8			
<b>Efficiency</b>				
PV Max. Efficiency(%)	97.6			
PV Europe Efficiency(%)	97			
PV Max. MPPT Efficiency (%)	99.9			
Battery Charge by PV Max. Efficiency (%)	98			
Battery Discharge Efficiency(%)	96.7			
<b>Protection</b>				
Over/Under voltage protection	Yes			
DC isolation protection	Yes			
DC injection monitoring	Yes			
Residual current detection	Yes			
Anti-islanding protection	Yes			
Over load protection	Yes			
Battery Input reverse polarity protection	Yes			
PV reverse polarity protection	Yes			
Surge protection	Yes			
Over heat protection	Yes			
<b>GeneralData</b>				
Dimension(W/D/H)(mm)	BL-MF20425 550*233*1125		BL-MF40925 550*233*1750	
Dimension of Packing (W/D/H)(mm)	655*302*1390		655*302*2085	
Net weight (kg)	68		115	
Gross weight (kg)	78		130	
Operation Temp( )	-10...+55			
Relative Humidity (%)	0...95			
Altitude(m)	3000			
Ingress Protection	IP65			
Cooling	Natural			
Inverter Topology	Non-isolated			
Over voltage category	III (AC), II (DC)			
Protective class	Class I			
Active anti-islanding method	frequency shift			
Human Interface	LED/APP			
BMS Communication Interface	RS485/CAN			
Meter Communication Interface	RS485			
Noise Emission (dB)	<25			
Standby Power Consumption (W)	<5			
<b>Safety and Approvals</b>				
Safety	IEC62040.1:2019 IEC 62109-18-2 IEC62619 UN38.3 IEC60730-1			
EMC	EN IEC 61000-6-2:2019 EN IEC 61000-6-3:2020			
Country	S/NZS 4777.2:2020 VDE-AR-N 4105:2018-11 MEA:2015 PEA:2016 EN 50549-2:2019 EN 50549-1+Poland deviation G99/1-6:2021 RD1699+UNE Distribution Code VDE0126+UTE C10/11: 2021			

Text and images correspond to the current state of technology at the time of printing. Subject to modifications. All information without guarantee in spite of careful editing - liability excluded.

# Battery Cluster & PACK



## Battery Pack for OEM / ODM



### BMS Function:

Overcurrent, Overvoltage, Overcharge, Over Discharge, High Temperature, Short Circuit, SOC Estimation, Equalizing

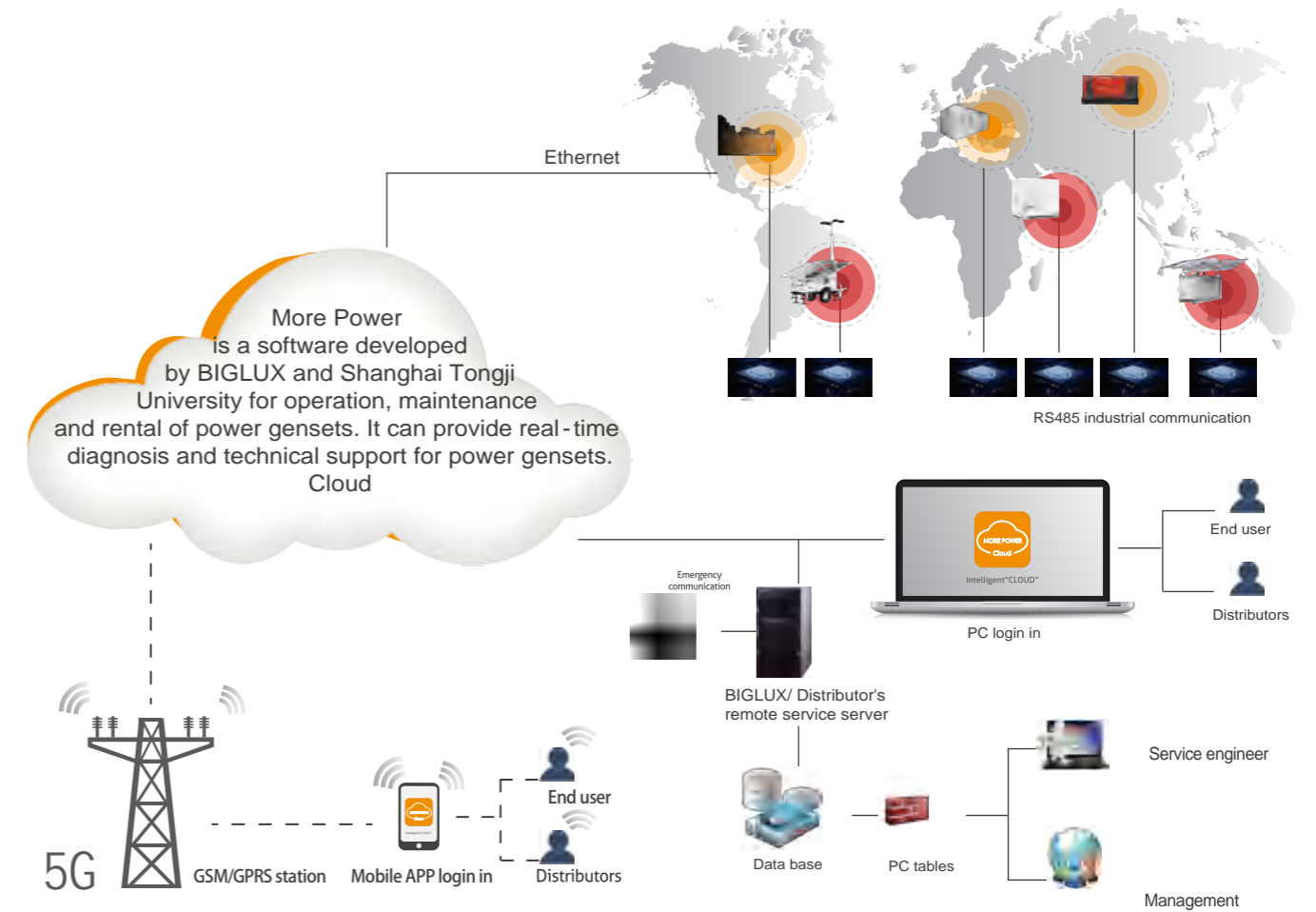


## Specification

Battery Cluster Model	BL-MF313280A	BL-MF627280A	BL-MF358280A	BL-MF358280B	BL-MF716282A	BL-MF716282B	BL-MF768280A	BL-MF614100A
Pack Model	MF44280HVS	MF44280HVS	MF51280HVS	MF51280HV2	MF51280HVS	MF51280HV2	MF51280HVS /MF51280HVS	MF51100HVS
Pack Qty	7	14	7	7	4	14	15	12
Combination Type	1P98S	1P196S	1P112S	1P112S	1P112S	1P224S	1P240S	1P192S
Pack Energy	87.878kwh	175.616kwh	100.352kwh	100.352kwh	200.704kwh	200.704kwh	215.04kwh	61.44kwh
Rated Voltage	313.6V	627.2V	358.4V	358.4V	716.8V	716.8V	768V	614.4V
Voltage Range	274.4V -352.8V	548.8V -705.6V	313.6V -403.2V	313.6V -403.2V	627.2V -806.4V	627.2V -806.4V	672V -864V	537.6V -691.2V
High voltage system Model	HVB-B10250-B01	HVB-B10250-B01	HVB-B10250-B01	HVB-B10250-A01	HVB-B10250-B01	HVB-B10250-A01	HVB-B10250-B01	HVB-B10250-B01
Dimensions (Lx W x H)	1975*520*810mm	1975*990*810mm	1975*520*810mm	1975*520*810mm	1975*990*810mm	1975*990*810mm	1975*990*810mm	1490*1010*460mm
Weight	830kg	1620kg	920kg	920kg	1800kg	1800kg	1900kg	720kg

Pack Model	BL-MF44280HVS	BL-MF44280HVS	BL-MF51100HVS	BL-MF51100HV2	BL-MF51100HVS	BL-MF51100LV1	BL-MF51100LVS	BL-MF51280HVS	BL-MF51280LVS	BL-MF51130HVS
Rated Capacity	280Ah		100Ah		56kg		113.9kg		120kg	62kg
Nominal Voltage	44.8V		51.2V		56kg		748*482.6*226.5		830*495*230	795*482.6*133.5
Energy	12.54kWh		5.12kWh		56kg		14.336kWh		6.656kWh	
Voltage Range	39.2-50.4V		44.8V-57.6V		56kg		44.8V-57.6V		44.8V-57.6V	
Continuous Charging Current	140V		50V		56kg		140A		43.4A@25±2	
Continuous Charging Current	140V		100A		56kg		140A		175.6A@25±2	
Continuous Discharging Current	140V		50A		56kg		140A		130A@25±2	
Maximum Continuous Discharging Current	140V		50A		56kg		140A		260A@25±2	
Battery weight	100.8kg		59kg		52kg		52.2kg		56kg	56kg
Dimension(L*W*H)mm	670*482.6*226.5		615*420*133		405*482.6*226.5		482*470*221.5		748*482.6*226.5	830*495*230
Communication Mode	iosSPI		RS485, CAN		iosSPI		iosSPI		iosSPI	
Cycle Life @0.5C 25±2 90%DOD	≥26000 times or ≥5 years		≥5000 times or ≥5 years		≥4000 times or ≥5 years		≥6000 times or ≥5 years		≥6000 times or ≥5 years	
Operating Temperature	Charge	-20-60	-20-55	-20-65	-20-55	-20-60	-20-50	-20-55	-20-50	
	Discharge	-20-60	-20-55	-20-65	-20-55	-20-60	-20-55	-20-55	-20-60	
	Storage	-20-45	-20-60	-20-45	-20-55	-20-45	-20-60	-20-60	-20-60	

## Internet Intelligent "More Power" Remote Service System



- Integrating RS485、
- Ethernet、
- EtherCAT、
- CAN communication ports

BIGLUX Cooperated with Tongli University and developed "More Power" cloud system which focused on the power solution systems health management for operation, maintenance and rental.

Smart could platform on PC/ Mobile APP, real-time monitoring, unattended, automatic warning, storing data for benefit analysis.

Easy to maintain, equipped with SCADA, remote monitoring, diagnosing and upgrading supported.

More Power can provide real-time diagnosis and timely technical support for customers in different countries and different industries.