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Product Brochure

2025
For Global

Empowering the Safe Advancement of the New Energy Sector Through AI

BENY is a global leader in the new energy industry, renowned for its extensive experience and innovation. Initially specializing in protective PV components, BENY has successfully diversified into the EV charging and PV power generation sectors.

PVB, a sub-brand of BENY dedicated to micro power systems, is launched to enhance customer service. The company focuses on microinverters and energy storage systems, offering tailored one-stop solutions for residential, commercial and industrial applications.

By developing and providing safe and efficient solutions, the company is committed to helping customers achieve renewable energy goals and empowering the global energy transition.

20+

Million Annual
Production
Capacity

30+

Years of
Experience

100+

Countries/
Regions Covered

2 Million+

Successful
Projects

2011

BENY New
Energy Established

2015

Obtained the first UI508i
certification and a patent
for DC switches

2018

Obtained CEC certification in
Australia and became the
industry standard-bearer

2023

Achieved successful grid
connection of combiners
boxes in a 7GW PV power plant

2014

Certified with ISO9001
and ISO14000 systems

2017

Awarded as a "National
High-tech Enterprise"

2021

Received China's first UL98B
certification with BH series switches

2024

Recognized as a national-level
innovative "Little Giants" firm



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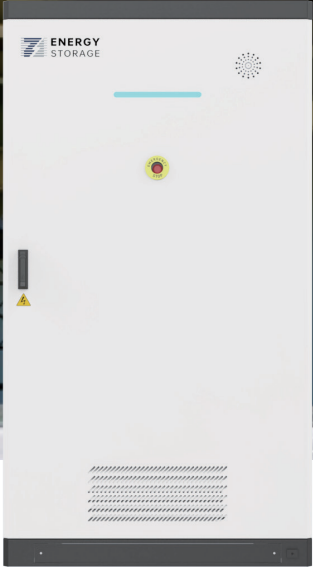
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PowerPro Air Series



This product features a prefabricated cabin design, allowing for flexible deployment and easy transportation without the need for internal wiring or debugging. It supports functions such as peak shaving, capacity expansion, emergency backup, load balancing, and multi-level parallel connection.



Standard Design

Modular "All-In-One" integrated single cabinet design for ease of transportation, convenient shipping, and straightforward maintenance.



Intelligent and Efficient

Mature energy management strategies and equipment control, intelligent operation and maintenance, remote control to maximize the product's value.



High Safety

Multi-level fire protection system, graded isolation with interlocking safeguards, ensuring the secure and stable operation of the product.



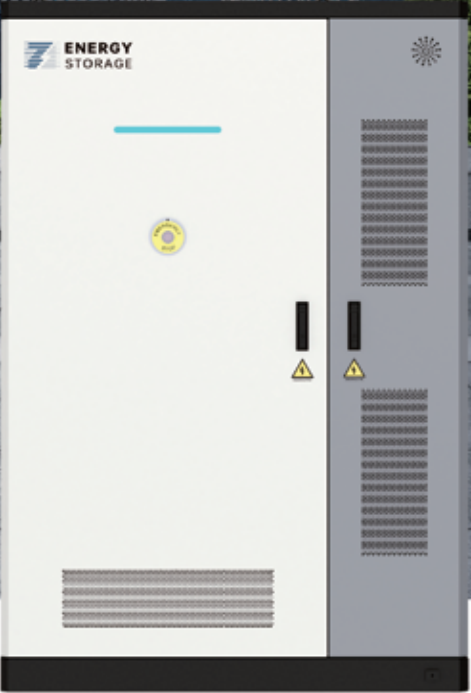
Flexible and Easy to Install

Supports multi-level parallel connection, bottom busbar design, maximizing land space utilization.

Datasheet

Product Model	BYHV-115SAC	BYHV-230SAC	BYHV-241SAC
Battery Parameters			
Battery Type	150Ah, LFP	300Ah, LFP	314Ah, LFP
Grouping Method	1P240S(1P40S*6)	1P240S(1P24S*10)	1P240S(1P24S*10)
Rated Capacity	115.2kWh	230.4kWh	241.152kWh
Rated Voltage	768V		
Voltage Range	624V~876V		628V~855V
Rated Charge/Discharge Current	75A	150A	140A
AC Parameters (on grid)			
Rated Power	50kW	100kW	100kW
Rated Voltage	AC400V		AC380V~415V
Rated Current	75A	150A	140A
Rated Frequency	50Hz/60Hz		
Power Factor	0.99		
Output Harmonics	< 3%		
Connection Method	3W+N+PE		3P+N+PE
Isolation Method	Non-isolated		
AC Parameters (off grid)			
Rated Power	50kW	100kW	100kW
Rated Voltage	AC400V		AC380V~415V
Rated Current	75A	150A	140A
Rated Frequency	50Hz/60Hz		
Power Factor	0.99		
Output Harmonics	< 3%		
Connection Method	3W+N+PE		3P+N+PE
System Parameters			
System Energy Efficiency	≥90%		
Operating Modes	Grid-Tied/ Off-Grid		
Communication Method	CAN, 485, TCP/IP		
Protection Level	IP55		
Anti-Corrosion Level	C3		
Noise	≤65dB		
Fire Protection	Aerosol		
Operating Temperature	-20℃ ~ +55℃		-29℃ ~ +50℃
Operating Humidity	0% to 95% (no condensation)		
Altitude	≤2000m (derating above 2000m)		
Cooling Method	Intelligent Air Cooling		
Overall Dimensions (W*D*H)	1000mm*1275mm*1900mm	1130mm*1865mm*2050mm	1110mm*1750mm*2050mm
Weight	Approximately 1.4 tons	Approximately 2.6 tons	Approximately 2.4 tons
Standard	EN ICE 61000-6-2/-4:2019; EN 62477-1:2012+A11+A1+A12; EN IEC 62619: 2022; IEC 63056: 2020; IEC 60730-1 Annex H; IEC 62040-1; UN38.3; MSDS		

PowerPro Liquid Series



This product features a prefabricated cabin design, allowing for flexible deployment and easy transportation without the need for internal wiring or debugging. It supports functions such as peak shaving, capacity expansion, emergency backup, load balancing, and multi-level parallel connection.



Standard Design

Modular "All-In-One" integrated single cabinet design for ease of transportation, convenient shipping, and straightforward maintenance.



Intelligent and Efficient

Mature energy management strategies and equipment control, intelligent operation and maintenance, remote control to maximize the product's value.



High Safety

Multi-level fire protection system, graded isolation with interlocking safeguards, ensuring the secure and stable operation of the product.



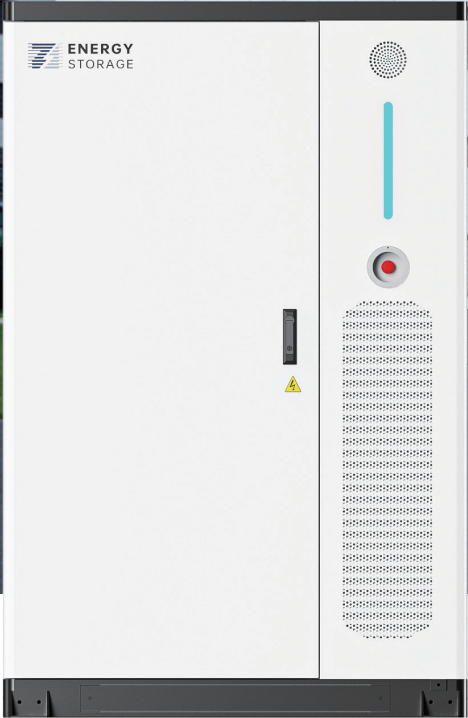
Flexible and Easy to Install

Supports multi-level parallel connection, bottom busbar design, maximizing land space utilization.

Datasheet

	BYHV-215SLC	BYHV-241SLC
AC Parameters		
Rated Power	100kW	
Rated Voltage	AC380V to 415V	
Rated Current	140A	
Rated Frequency	50Hz/60Hz	
Power Factor	0.99	
Output Harmonics	< 3%	
Connection Method	3P+N+PE	
Isolation Method	Non-isolated	
DC Parameters		
Product Type	BYHV-215SLC-C/BYHV-215SLC-T	BYHV-241SLC-C/BYHV-241SLC-T
Battery Capacity	280Ah, LFP	314Ah, LFP
Battery Pack Type	BYHV-PACK-1P48S-LC-C(280Ah)/ BYHV-PACK-1P48S-LC-T(280Ah) [-C is Ningde battery, -T is Lanjun battery]	BYHV-PACK-1P48S-LC-C(314Ah)/ BYHV-PACK-1P48S-LC-T(314Ah) [-C is Ningde battery, -T is Lanjun battery]
Battery Grouping Method	1P240S (1P48S*5)	
Battery Rated Capacity	215.04kWh	241.152kWh
Battery Rated Voltage	768V	
Battery Voltage Range	628V to 855V	
Rated Charge/Discharge Current	140A	
Maximum Continuous Charge/discharge Current	150A	
Cycle Life	≥8000 cycles (at 25°C, 0.5C, 80% Depth of Discharge)	
System Parameters		
System Energy Efficiency	≥92%	
Operating Modes	Grid-Tied / Off-Grid	
Communication Method	CAN, 485, TCP/IP	
Protection Level	IP55	
Anti-Corrosion Level	C3	
Noise	≤60dB	
Fire Protection	Aerosol	
Operating Temperature	-29°C to +50°C	
Operating Humidity	0% to 95% (no condensation)	
Altitude	≤2000m (derating above 2000m)	
Cooling Method	Intelligent Liquid Cooling	
Overall Dimensions (WHD)	1320mm*2050mm*1400mm	
Weight	Approximately 2.4 tons	

PowerPro Solar Series



It features an "All-in-One" design, integrating a hybrid inverter, battery, and protection systems. To better meet user demands, it features flexible deployment, intelligent power management, and efficient energy conversion, offering multiple operation modes, protection features, and wide applications.



Standard Design

Modular "All-In-One" integrated design, support for multi-stage parallel connection, integrated transport, convenient loading and easy operation and maintenance.



Intelligent Dispatch

Multiple operation modes, mature energy management strategies and equipment control, intelligent operation and maintenance, remote control to achieve maximum product value.



High Safety

Multiple protection mechanisms, such as overtemperature, overload, over-voltage, over-current, etc., to ensure the safety and stability of system operation.



Multi-mode

Support PV direct access, Diesel generator interfaces, support and off-grid automatic switching, can meet most of the application of optical storage solutions.

Datasheet

BYHV-100SAC-H			
PV Input		DC(Battery Side)	
Rated PV input power	50kW	Battery type	150Ah, LFP
MPPT voltage range	200V ~ 850V	Battery Grouping Method	1P210S (1P30S*7)
No. of MPP trackers	4	Battery Rated Voltage	672V
No. of DC inputs per MPPT	8	Battery Voltage Range	549V ~ 748V
Max. input current	30A*4	Battery Rated Capacity	100kWh
Max. short-circuit current	40A*4	Rated Charge/Discharge Current	80A
		Cycle Life	≥6000 cycles (at 25°C, 0.5C, 80% Depth of Discharge)
Grid (Grid-Tied)		Grid (Off-Grid)	
Rated power	50kW	Rated power	50kW
Max power	55kW	Max power	55kW
Rated AC voltage	3P+N+PE, 220/380V; 230/400V; 240/415V	Rated current	80A
Rated AC frequency	50/60HZ	UPS switching time	<20ms
Rated current	80A	Rated output voltage	3P+N+PE, 220/380V; 230/400V; 240/415V
Power factor	-0.8~+0.8	Rated output frequency	50/60HZ
Max. total harmonic distortion	<3% Rated output power	Peak output apparent power	60kW/60s
DCI	<0.5%In	Voltage harmonic distortion	<3% Linear load
Generator side			
Max. input apparent power	60kVA		
Max. charging power of batter	50kW		
Rated AC voltage	3P+N+PE, 220/380V; 230/400V; 240/415V		
Rated AC frequency	50/60HZ		
Max. input current	85A		
System Parameters			
System Energy Efficiency	≥92%		
Operating Modes	Grid-Tied / Off-Grid		
Communication Method	CAN, 485, TCP/IP		
Protection Level	IP55		
Anti-Corrosion Level	C3		
Noise	≤65dB		
Fire Protection	Hot Aerosol		
Operating Temperature	-29°C to +50°C		
Operating Humidity	0% to 95% (no condensation)		
Altitude	2000m		
Cooling Method	Intelligent Air Cooling		
Overall Dimensions (WHD)	1200mm*1850mm*1318mm		
Welght	Approximately 1.4 tons		

PowerMaster Air Series



With an "All-in-One" design that integrates batteries, BMS, PCS, EMS, fire protection, and air conditioning, it enables flexible deployment, fast response, high reliability, and supports peak shaving, capacity expansion, and backup power.



Safe and reliable

IP55 protection grade design, cluster level aerosol layout, BMS and AC/DC multi-layer protection Settings to ensure the safe operation of the system;



Cost optimization

Small size, light weight, save floor space and installation costs, can be pre-installed whole system transportation, long life, low failure rate. low operation and maintenance costs;



Efficient and convenient

Batteries, PCS, etc, all adopt modular design for easy installation and transportation, and can remotely guide configuration, equipment management, data analysis, fault prediction, etc.



Rich scene

Application strategies can be customized in different environments to meet product requirements;

Datasheet

Type designation	BYHV-1000SA	BYHV-1000SAC-1H
Battery Data		
Cell type	LFP 3.2V / 280Ah	
Battery configuration	(1P16*15)×5	
Battery capacity	1075.5kWh	
Battery current	655A	1310A
Battery voltage range	624V~876V	
AC Output (On-grid)		
Nominal AC power	500kW	1MW
Nominal AC voltage	400Vac 3P4W+PE/3P3W-PE	
Max. output current	794A	1588A
THDi	<3% (at rated power)	
Grid frequency range	50Hz/60Hz (settable)	
AC voltage range	-15%~10% (settable)	
Power factor	>0.99 (at rated power)	
AC Output (Off-grid)		
Rated AC output voltage	400Vac	
Voltage accuracy	1%	
Max. output current	794A	1588A
THDi	<3% (linear load)	
Rated output frequency	50Hz /60Hz	
Overload capability	110% overload	
System parameter		
Isolation method	Isolation Transformer(option)	/
Automatic and off-grid	Support(option)	/
Dimension (W*H*D)	6058*2591*2438	
Weight	16000Kg	16200Kg
IP grade	IP55	
Anti-corrosion degree	C3(Support C5)	
Operating temperature	-30 to 55°C(>45°C derating)	
Operating humidity	0 ~ 95%(non-condensing)	
Working altitude	3000m	
Temperature control	Intelligent air cooling	
Fire suppression system	NFPA 69 explosion prevention and Aerosol	
communication protocol	Modbus TCP, MQTT	
Standard	IEC 62477, IEC 61000-6-2, IEC 61000-6-4, IEC 62619, EN 50549-1, NC RfG, EN 50549, VDE-AR-N4110,UN 38.3/UN 3536	

PowerMaster Liquid Series



With an "All-in-One" design that integrates batteries, BMS, PCS, EMS, fire protection, and air conditioning, it enables flexible deployment, fast response, high reliability, and supports peak shaving, capacity expansion, and backup power.

Datasheet

Type designation	BYHV-3440BLC	BYHV-4000BLC	BYHV-5000BLC
Battery Data			
Cell type	LFP 3.2V / 280Ah	LFP 3.2V / 306Ah	LFP 3.2V / 314Ah
Battery configuration	(1P48S*8)×10	(1P52S*8)×10	(1P52S*8)×12
Battery capacity	3440.6kWh	4073.4kWh	5016kWh
Battery current	1400A	1530A	1884A
Nominal Voltage	1228.8V	1331.2V	1331.2V
Battery voltage range	1075.2V~1382.4V	1123.2V~1497.6V	1123.2V~1497.6V
System parameter			
Dimension (W*H*D)	6058*2591*2438	6058*2591*2438	6058*2896*2438
Weight	33600Kg	37200kg	42000Kg
IP grade	IP55		
Anti-corrosion degree	C3[Support C5]		
Operating temperature	-30 to 55°C(>45°C derating)		
Operating humidity	0 ~ 95%(non-condensing)		
Working altitude	3000m		
Temperature control	Intelligent liquid cooling		
Fire suppression system	NFPA 69 explosion prevention and Aerosol		
communication protocol	Modbus TCP, MQTT		
Standard	IEC 62477, IEC 61000-6-2, IEC 61000-6-4, IEC 62619, UN 38.3/UN 3536		



Safe and reliable

IP55 protection grade design, cluster level aerosol layout, BMS and AC/DC multi-layer protection Settings to ensure the safe operation of the system;



Cost optimization

Small size, light weight, save floor space and installation costs, can be pre-installed whole system transportation, long life, low failure rate. low operation and maintenance costs;



Efficient and convenient

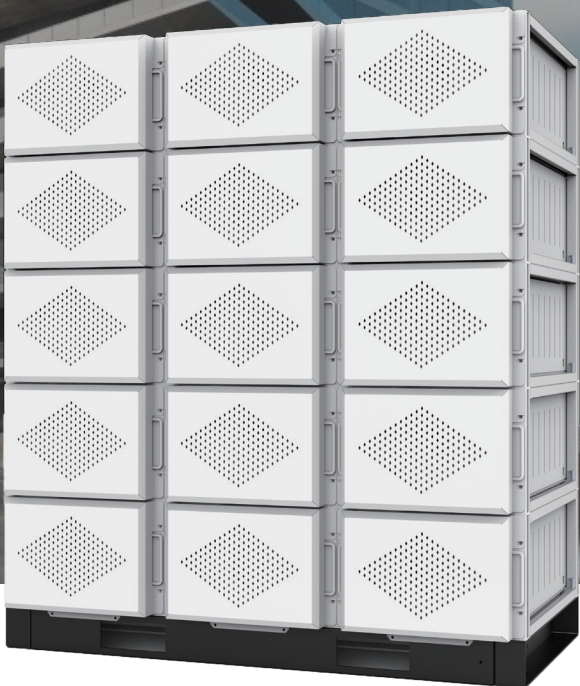
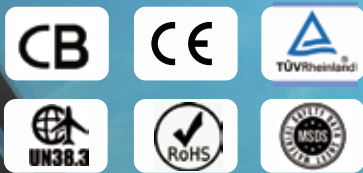
Batteries, PCS, etc, all adopt modular design for easy installation and transportation, and can remotely guide configuration, equipment management, data analysis, fault prediction, etc.



Rich scene

Application strategies can be customized in different environments to meet product requirements;

Rack Energy Storage Cabinet Series



It adopts modular design concept, which combines the functions of energy storage battery, BMS and fire protection with super high integration, and can store and release a large amount of electric energy, providing stable and reliable power supply for power grid and load. If it is combined with hybrid inverter and photovoltaic panel, a complete photovoltaic power generation system can be constructed, which is suitable for various scenarios.

Anticorrosion excellence

The highest grade anticorrosion design is adopted to ensure that the equipment can still operate stably in the harsh environment.

Safety protection

Implement all-round fire safety protection measures to ensure the safety of personnel and equipment.

Strong compatibility

It can be seamlessly connected with hybrid inverter and photovoltaic module, and can be used in combination with photovoltaic system efficiently.

Run persistently and reduce cost

Choose high life cell, with excellent durability, can be used no less than 8000 times, to meet the long-term operation needs.

Datasheet

	BYHV-157BAC-R	BYHV-241BAC-R
DC Parameters		
Battery type	280Ah, LFP battery	314Ah, LFP battery
Battery group mode	1P176S (1P16S*11)	1P240S (1P16S*15)
Battery rated power	157.696kWh	241.152kWh
Battery rated voltage	563V	768V
Battery voltage range	492V~642V	628V~855V
Rated charge and discharge current	140A	157A
Cycle index	8000 times (25°C,0.5C, 80% DOD)	8000 times (25°C,0.5C, 80% DOD)
System Parameter		
System energy efficiency	≥95%	
Communication mode	CAN, 485, TCP/IP	
Levels of protection	IP20	
Anti-corrosion grade	C3	
Noise	≤65dB	
Extinguishing and protection	Aerosol	
Ambient temperature	-29°C~+50°C	
Ambient humidity	95% (no condensation)	
Above sea level	2000m (drop over 2000m)	
Cooling-down method	Forced air cooling	
Overall dimensions (W*D*H)	1518mm*832mm*1265mm	1588mm*853mm*1913mm
Weight	About 1.46t	About 1.5t