Dyness

Discover Your Nature

DYNESS C&I

ENERGY STORAGE SOLUTIONS

Discover Your Nature

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DIRECTORY

ABOUT DYNESS

DYNESS COMMERCIAL SOLUTIONS

Dyness is located in China, owning three manufacturing centers in Taizhou and Suzhou. We have 550+employees, and a R&D team of 150+ people with more than 10 years experience in this industry, who has deep understanding for energy storage and global carbon neutrality.

Dyness owns more than 90 patents and many international certifications such as TUV, UL, CE, JET, CEC etc. Our products have been delivered to 100+ countries including Europe, America, Australia, Africa etc, serving more than 300,000 households worldwide.

Powered by cutting-edge technology and innovation, Dyness is committed to providing customers with intelligent energy solutions, maximizing the use of green energy and making positive contributions to global carbon neutrality.

- 300,000+ Served Families
- 90+ Patents
- 550+ Employess
- 100+ Global Footprints
- 150+ R&D Engineers
- 3 Production Bases

Products Overview

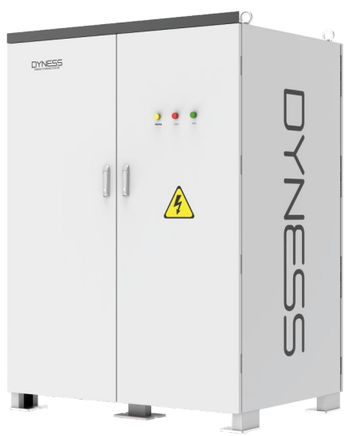
Low Voltage System

PowerRack LV1

PowerRack LV2

PowerRack LV4

High Voltage System



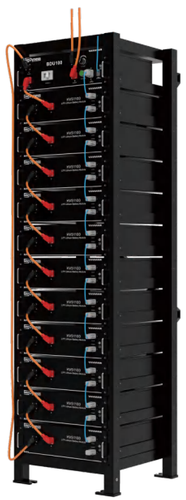
Powerstone

DH200F

High Voltage System

PowerRack HV1

PowerRack HV2



PowerRack HV4

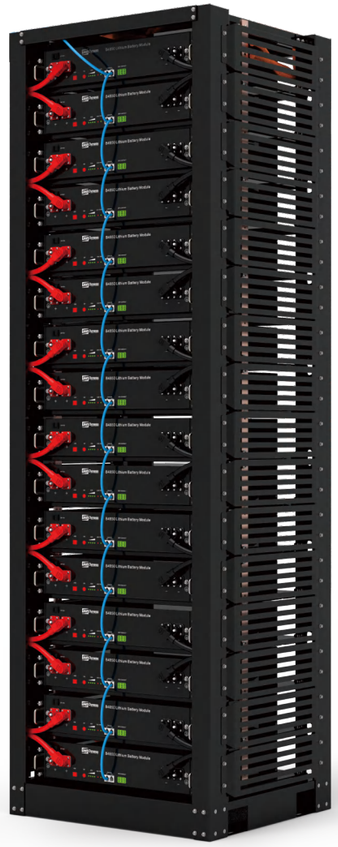
LV SERIES

FULLY CERTIFIED
48V/51.2V Battery Module

PowerRack LV1
PowerRack LV2
PowerRack LV4

Dyness PowerRack LV1

Dyness 48V PowerRack LV1 system is designed for 50Ah modules with its smart BMS, no extra communication devices are needed. The entire system is intelligently managed, keeping you powered on all the time.



Features and Advantages

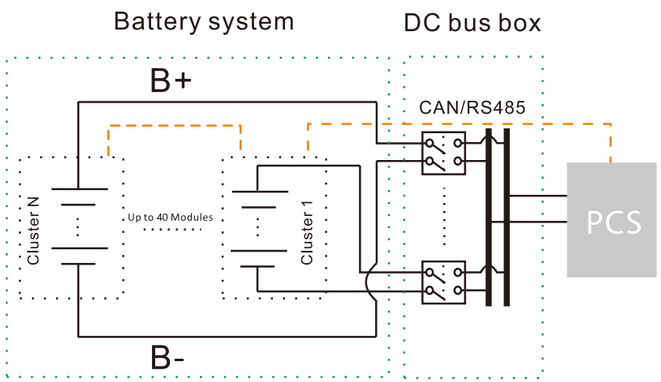
High Safety LFP
Cell level monitoring and balancing

Expandable
Capacity from 2.4 to 96kWh

Modular Design
Free parallel configuration

Wide Compatibility
Matching leading inverter brands

Wide Application
Cover all needs in commercial fields



Technical Parameters of B4850

Model	B4850
Battery Type	LiFePO4
Nominal Battery Energy	2.4kWh
Nominal Capacity	50Ah
Nominal Voltage	48V
Net Weight	22kg
Dimension(W*D*H)	480*405*90mm
Charging Temp. Range	0-55℃
Discharging Temp. Range	-10-55℃
Communication	CAN / Rs485
Cycle Life [1]	> 6000Cycles
Protection Level	IP20
Expansion	Up to 40 units in parallel
Compatible Inverters	Victron/SMA/Goodwe/Imeon/Solis/SAJ/Growatt/Luxpower /Voltronic/Deye etc.
Certification & Safety Standard	UN38.3/CE-EMC/IEC62619/IEC62040/CEC Accredited/CEI-021 /UL1973/REACH/ROHS/UKCA/GOST-R

[1]Test conditions: 0.2C Charging/Discharging, @25℃, 80% DOD

B4850 | Rack System LV1 | Up to 40 Modules

Technical Parameters

Model	PowerRack LV1	
Rack Type	PowerRack LV1-10P	PowerRack LV1-16P
Battery Module Type	B4850	B4850
Battery Module Quantity	10 units	16 units
Battery Type	LFP	LFP
Nominal Battery Energy	24kWh	38.4kWh
Nominal Capacity	500Ah	800Ah
Nominal Voltage	48V	48V
Operating Vol. Range	42-54V	42-54V
Nominal Power Output	12kW	19.2kW
Max. Power Output	24kW	38.4kW
Recommend Charging Current	250A	400A
Recommend Discharging Current	250A	400A
Net Weight	310kg	480kg
Dimension(W*D*H)	601*510*1290mm	601*510*1957mm
Module Quantity and Configuration	10 Units in parallel	16 Units in parallel

Dyness PowerRack LV2

Dyness 48V PowerRack LV2 system is designed for 50Ah modules with its smart BMS, no extra communication devices are needed. The entire system is intelligently managed, keeping you powered on all the time.

Features and Advantages

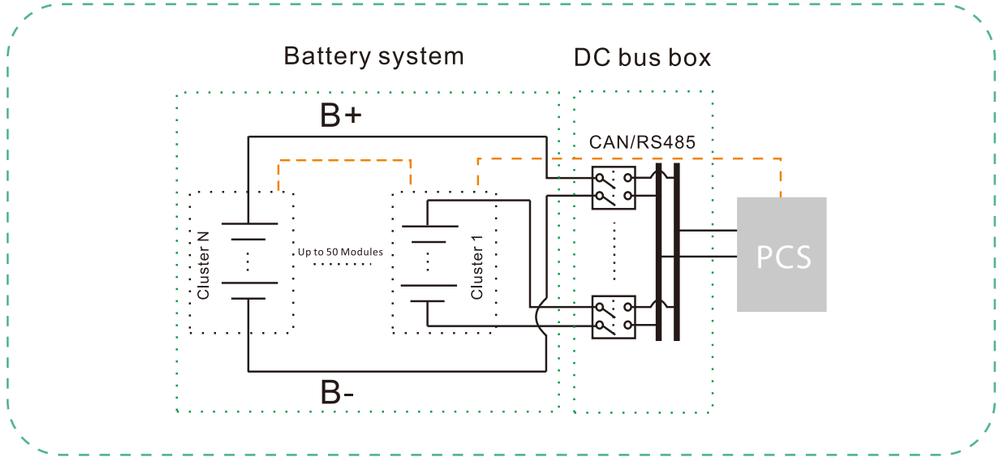
High Safety LFP
Cell level monitoring and balancing

Expandable
Capacity from 3.6 to 180kWh

Modular Design
Free parallel configuration

Wide Compatibility
Matching leading inverter brands

Wide Application
Cover all needs in commercial fields



Technical Parameters of DL3.6

Model	DL3.6
Battery Type	LiFePO4
Nominal Battery Energy	3.6kWh
Nominal Capacity	75Ah
Nominal Voltage	48V
Net Weight	32.5kg
Dimension(W*D*H)	480*405*132mm
Charging Temp. Range	0-55℃
Discharging Temp. Range	-10-55℃
Communication	CAN / RS485 / RS232
Cycle Life [1]	> 6000Cycles
Protection Level	IP20
Expansion	Up to 50 units in parallel
Compatible Inverters	Victron/SMA/Goodwe/Imeon/Solis/SAJ/Growatt/Luxpower /Voltronic/Deye etc.
Certification & Safety Standard	UN38.3/CE-EMC/IEC62619

[1]Test conditions: 0.2C Charging/Discharging, @25℃, 80% DOD

DL3.6

Rack System LV2

Up to 50 Modules

Technical Parameters

Model	PowerRack LV2	
Rack Type	PowerRack LV2-8P	PowerRack LV2-12P
Battery Module Type	DL3.6	DL3.6
Battery Module Quantity	8 units	12 units
Battery Type	LFP	LFP
Nominal Battery Energy	28.8kWh	43.2kWh
Nominal Capacity	600Ah	900Ah
Nominal Voltage	48V	48V
Operating Vol. Range	42-54V	42-54V
Nominal Power Output	14.4kW	21.6kW
Max. Power Output	28.8kW	43.2kW
Recommend Charging Current	300A	450A
Recommend Discharging Current	300A	450A
Net Weight	359kg	524kg
Dimension(W*D*H)	601*510*1393mm	601*510*2013mm
Module Quantity and Configuration	8 Units in parallel	12 Units in parallel

Dyness PowerRack LV4

Dyness 51.2V PowerRack LV4 system is designed for 100Ah modules with its smart BMS, no extra communication devices are needed. The entire system is intelligently managed, keeping you powered on all the time.

Features and Advantages

APP Monitoring
Remote upgrade available

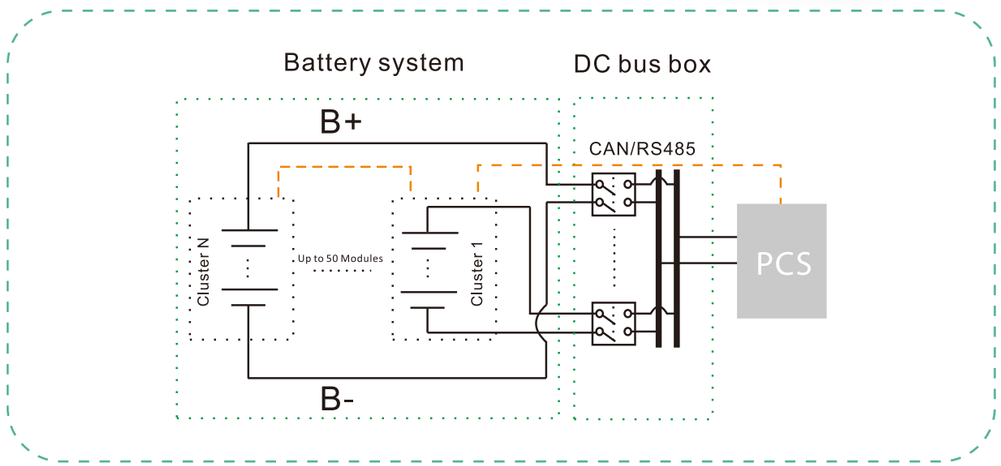
High Safety LFP
Cell level monitoring and balancing

Expandable
Capacity from 5.12 to 256kWh

Modular Design
Free parallel configuration

Wide Compatibility
Matching leading inverter brands

Wide Application
Cover all needs in commercial fields



Technical Parameters of DL5.0

Model	DL5.0
Battery Type	LiFePO4
Nominal Battery Energy	5.12kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Net Weight	44kg
Dimension(W*D*H)	481*535*140mm
Charging Temp. Range	0-55℃
Discharging Temp. Range	-10-55℃
Communication	CAN / RS485 / RS232
Cycle Life [1]	> 6000Cycles
Protection Level	IP20
Expansion	Up to 50 units in parallel
Compatible Inverters	Victron/SMA/Goodwe/Imeon/Solis/SAJ/Growatt/Luxpower /Voltronic/Deye etc.
Certification & Safety Standard	UN38.3/CE-EMC/IEC62619

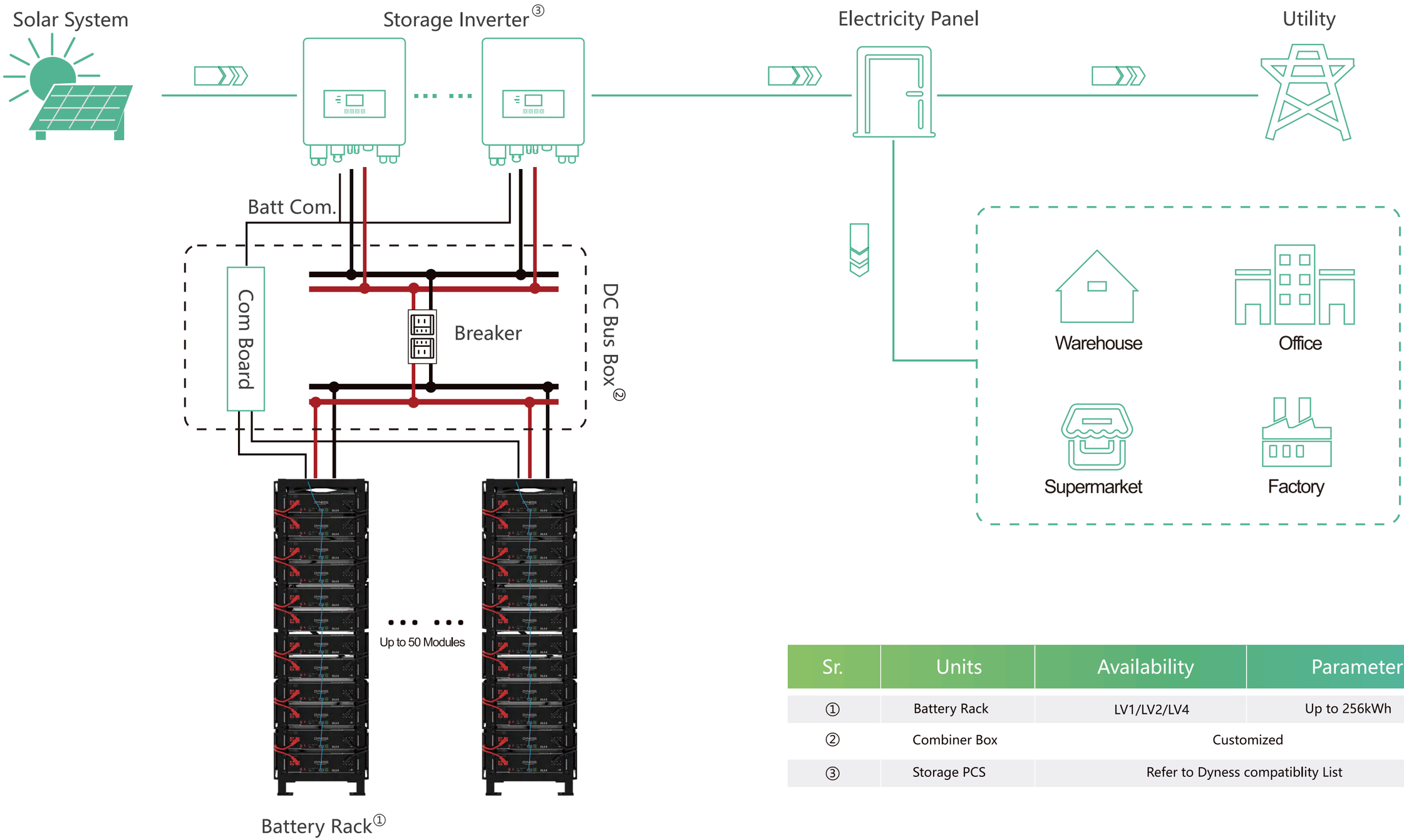
[1]Test conditions: 0.2C Charging/Discharging, @25℃, 80% DOD

DL5.0 | Rack System LV4 | Up to 50 Modules

Technical Parameters

Model	PowerRack LV4	
Rack Type	PoweRack LV4-8P	PowerRack LV4-12P
Battery Module Type	DL5.0	DL5.0
Battery Module Quantity	8 Units	12 Units
Battery Type	LiFePO4	LiFePO4
Nominal Battery Energy	40.96kWh	61.44kWh
Nominal Capacity	800Ah	1200Ah
Nominal Voltage	51.2V	51.2V
Operating Vol. Range	44.8~57.6V	44.8~57.6V
Nominal Power Output	20.48kW	30.72kW
Max. Power Output	30.72kW	46.08kW
Recommend Charging Current	400A	600A
Recommend Discharging Current	400A	600A
Net Weight	433kg	644kg
Dimension(W*D*H)	601*510*1392mm	601*510*2120mm
Module Quantity and Configuration	8 Units in parallel	12 Units in parallel

Product topology diagram



Sr.	Units	Availability	Parameters
①	Battery Rack	LV1/LV2/LV4	Up to 256kWh
②	Combiner Box	Customized	
③	Storage PCS	Refer to Dyness compatiblity List	

HV SERIES

FULLY CERTIFIED
High Voltage Battery

PowerRack HV1
PowerRack HV2
PowerRack HV4
PowerStone
DH200F

Dyness PowerRack HV1

Dyness HV1 PowerRack is designed for indoor use high voltage battery. The extendable energy design is suitable for both residential and commercial scenarios. The battery modules are specially designed for serial connection to maximize cost effectiveness.

Features and Advantages

Voltage Range
168~876V

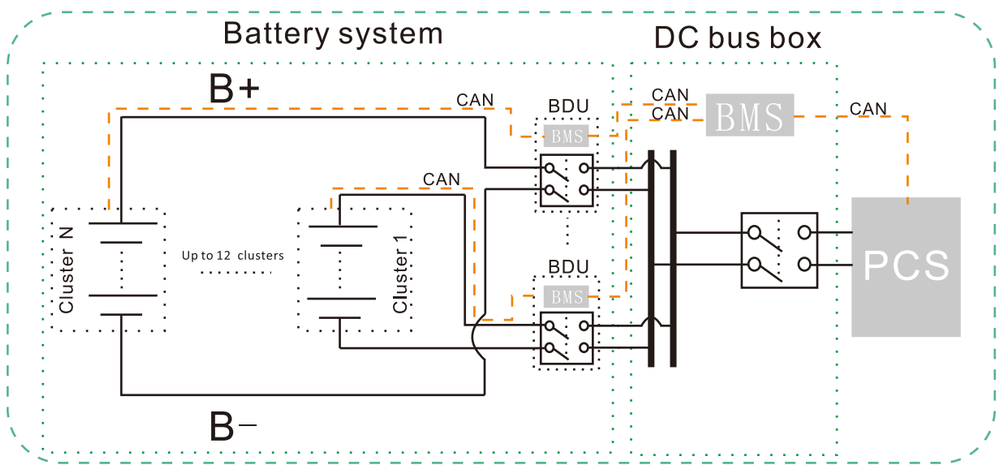
High Safety LFP
LFP & smart BMS

Expandable
Capacity up to 38.4kWh per cluster

Tailor-made Cabinet
Suitable for multi-module installation

High Voltage
High system efficiency

Wide Application
Cover all needs in commercial fields



Technical Parameters of HV4850

Model	HV4850
Battery Type	LiFePO4
Nominal Battery Energy	2.4kWh
Nominal Capacity	50Ah
Nominal Voltage	48V
Net Weight	23kg
Dimension(W*D*H)	481*410*89mm
Charging Temp. Range	0-55℃
Discharging Temp. Range	-10-55℃
Communication	CAN
Cycle Life [1]	> 6000Cycles
Protection Level	IP20
Expansion	Up to 16 units in series
Compatible Inverters	Goodwe/Solis/SAJ/Sinexcel/Hoymiles/Growatt/Ecatus/Sermatec /ATESS/Sunways etc.
Certification & Safety Standard	UN38.3/CE-EMC

[1]Test conditions: 0.2C Charging/Discharging, @25℃, 80% DOD

HV4850

Rack System HV1

n×Rack System HV1(n≤12)

Technical Parameters

Model	PowerRack HV1	
Rack Type	PowerRack HV1-9s	PowerRack HV1-15s
Battery Module Type	HV4850	HV4850
Battery Module Quantity	9 units	15 units
Nominal Battery Energy	21.6kWh	36kWh
Nominal Capacity	50Ah	50Ah
Nominal Voltage	432V	720V
Operating Vol. Range	378-486V	630-810V
Nominal Power Output	12.96kW	21.6kW
Max. Power Output	21.6kW	36kW
Recommend Charging Current	25A	25A
Recommend Discharging Current	25A	25A
Net Weight	277.5kg	444.5kg
Dimension(W*D*H)	601*510*1250mm	601*510*1917mm
Rack System Control unit Type [1]	BDU50	BDU50
Module Quantity and Configuration	9 Units in series	15 Units in series

[1]HV4850 battery module need to be used with BDU50 control unit

Dyness PowerRack HV2

Dyness high voltage PowerRack HV2 system is equipped with an intelligent battery control unit in each battery cluster, ensuring high-safety and high-efficiency system operation.
The entire system is intelligently managed. Keep you powered on all the time, cut the charges now.

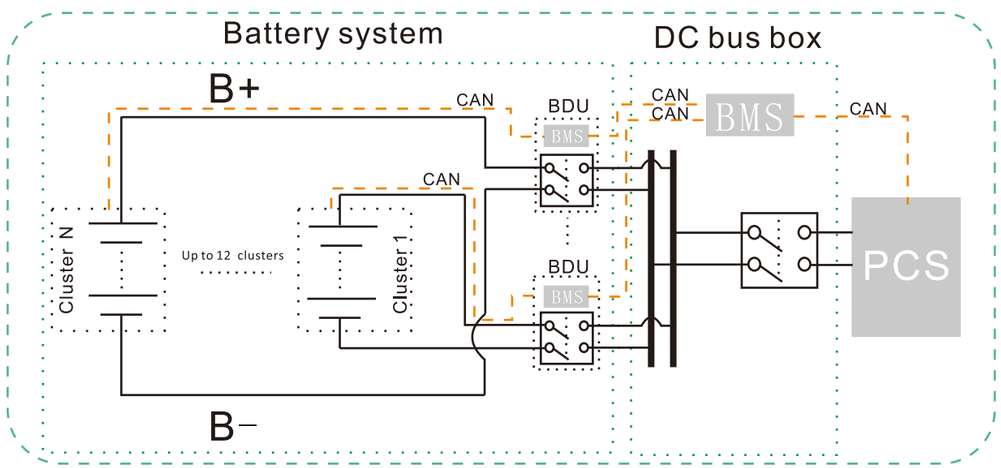
Features and Advantages

High Safety LFP
LFP & smart BMS

Tailor-made Cabinet
Suitable for multi-module installation

High Voltage
High system effeiciency

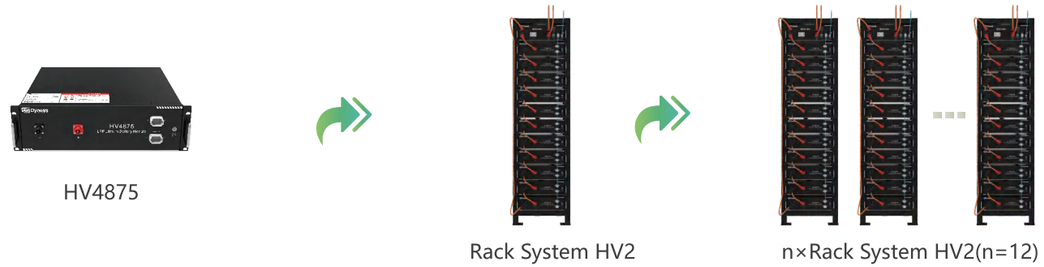
Wide Application
Cover all needs in commercial fields



Technical Parameters of HV4875

Model	HV4875
Battery Type	LiFePO4
Nominal Battery Energy	3.6kWh
Nominal Capacity	75Ah
Nominal Voltage	48V
Net Weight	31.5kg
Dimension(W*D*H)	481*410*133mm
Charging Temp. Range	0-55℃
Discharging Temp. Range	-10-55℃
Communication	CAN
Cycle Life [1]	> 6000Cycles
Protection Level	IP20
Expansion	Up to 16 units in series
Compatible Inverters	Goodwe/Solis/SAJ/Sinexcel/Hoymiles/Growatt/Ecatus/Sermatec /ATESS/Sunways etc.
Certification & Safety Standard	UN38.3/UL1642(Battery Cell)

[1]Test conditions: 0.2C Charging/Discharging, @25℃, 80% DOD



Technical Parameters

Model	PowerRack HV2	
Rack Type	PowerRack HV2-7s	PowerRack HV2-11s
Battery Module Type	HV4875	HV4875
Battery Module Quantity	7 units	11 units
Nominal Battery Energy	25.2kWh	39.6kWh
Nominal Capacity	75Ah	75Ah
Nominal Voltage	336V	528V
Operating Vol. Range	294-378V	462-594V
Nominal Power Output	15.12kW	23.76kW
Max. Power Output	25.2kW	39.6kW
Recommend Charging Current	37.5A	37.5A
Recommend Discharging Current	37.5A	37.5A
Net Weight	295.5kg	446.7kg
Dimension(W*D*H)	601*510*1393mm	601*510*2013mm
Rack System Control unit Type [1]	BDU100	BDU100
Module Quantity and Configuration	7 Units in series	11 Units in series

[1]HV4875 battery module need to be used with BDU100 control unit

Dyness PowerRack HV4

Dyness PowerRack HV4 system is also designed for indoor use high-voltage systems, with a larger capacity of each module to fit medium C&I scenarios, to increase solar self-consumption, provide backup power or peak-shavings, etc.

Features and Advantages

Voltage Range
179~876V

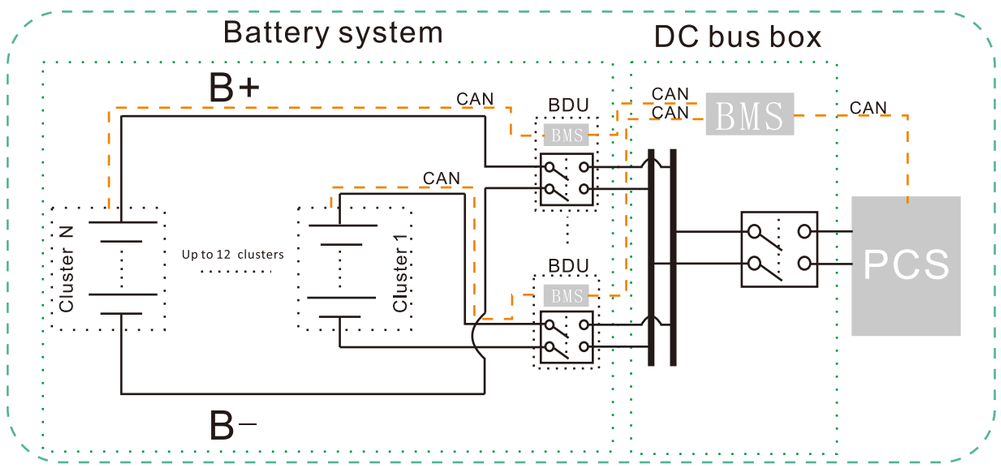
High Safety LFP
LFP & smart BMS

Expandable
Capacity up to 76.8kWh per cluster

Tailor-made Cabinet
Suitable for multi-module installation

High Voltage
High system effeiciency

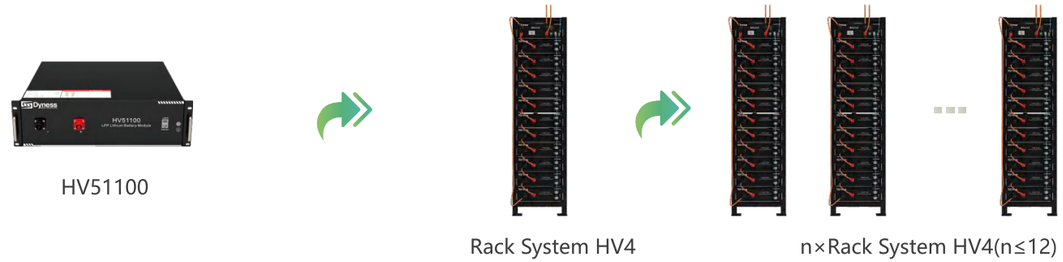
Wide Application
Cover all needs in commercial fields



Technical Parameters of HV51100

Model	HV51100
Battery Type	LiFePO4
Nominal Battery Energy	5.12kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Net Weight	43.5kg
Dimension(W*D*H)	481*535*140mm
Charging Temp. Range	0-55℃
Discharging Temp. Range	-10-55℃
Communication	CAN
Cycle Life [1]	>6000 Cycles
Protection Level	IP20
Expansion	Up to 15 units in series
Compatible Inverters	Goodwe/Solis/SAJ/Sinexcel/Hoymiles/Growatt/Ecatus/Sermatec /ATESS/Sunways etc.
Certification & Safety Standard	UN38.3/CE- EMC

[1]Test conditions: 0.2C Charging/Discharging, @25℃, 80% DOD



HV51100

Rack System HV4

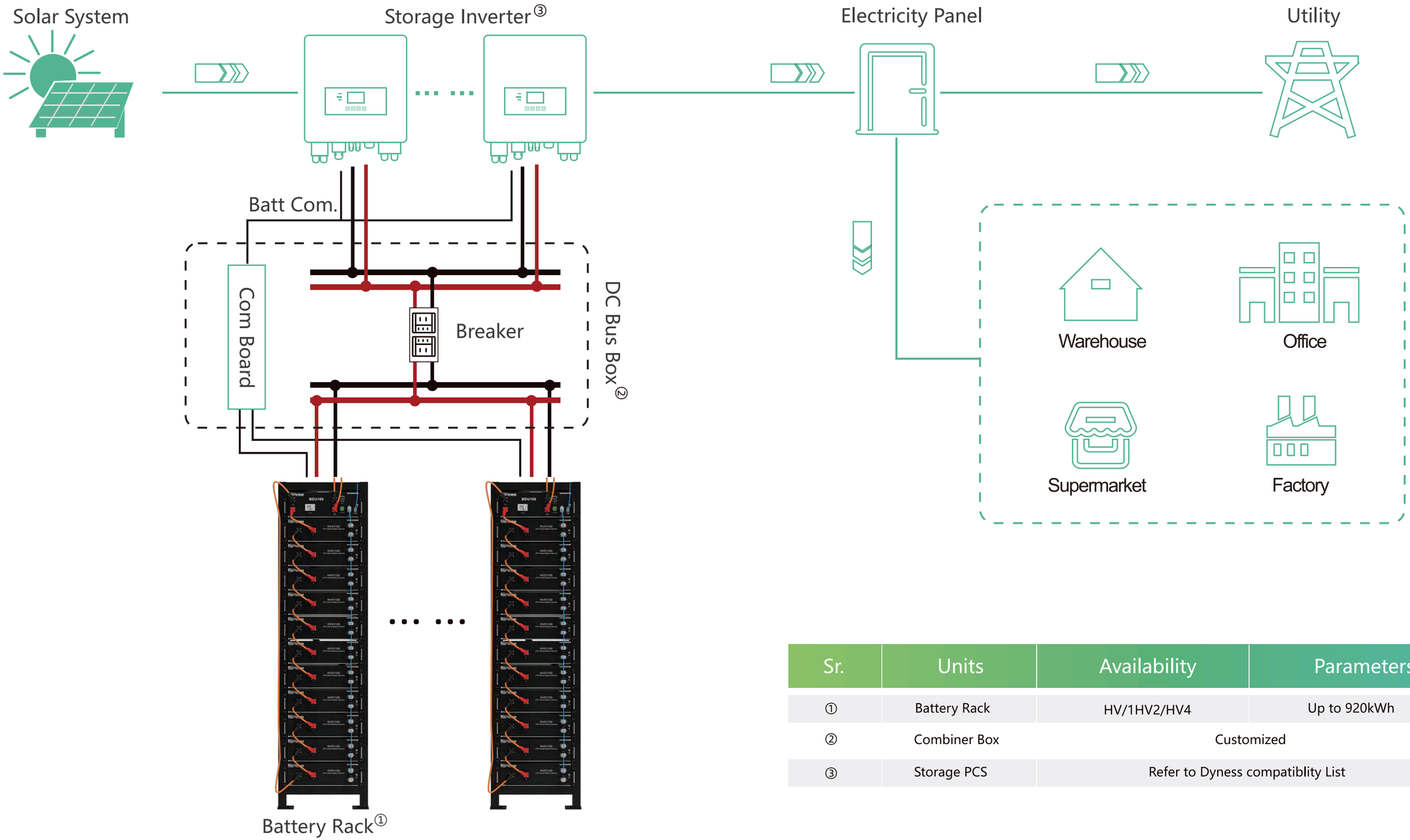
n×Rack System HV4(n≤12)

Technical Parameters

Model	PowerRack HV4	
Rack Type	PowerRackHV4-7s	PowerRack HV411s
Battery Module Type	HV51100	HV51100
Battery Module Quantity	7 units	11 units
Nominal Battery Energy	35.84kWh	56.32kWh
Nominal Capacity	100Ah	100Ah
Nominal Voltage	358.4V	563.2V
Operating Vol. Range	313.6-403.2V	492.8-633.6V
Nominal Power Output	21.5kW	33.79kW
Max. Power Output	35.84kW	56.32kW
Recommend Charging Current	50A	50A
Recommend Discharging Current	50A	50A
Net Weight	397.5kg	646.5kg
Dimension(W*D*H)	548*568*1412mm	548*568*2012mm
Rack System Control unit Type [1]	BDU100	BDU100
Module Quantity and Configuration	7 Units in series	11 Units in series

[1]HV51100 battery module need to be used with BDU100 control unit

Product topology diagram



Sr.	Units	Availability	Parameters
①	Battery Rack	HV/1HV2/HV4	Up to 920kWh
②	Combiner Box	Customized	
③	Storage PCS	Refer to Dyness compatiblity List	

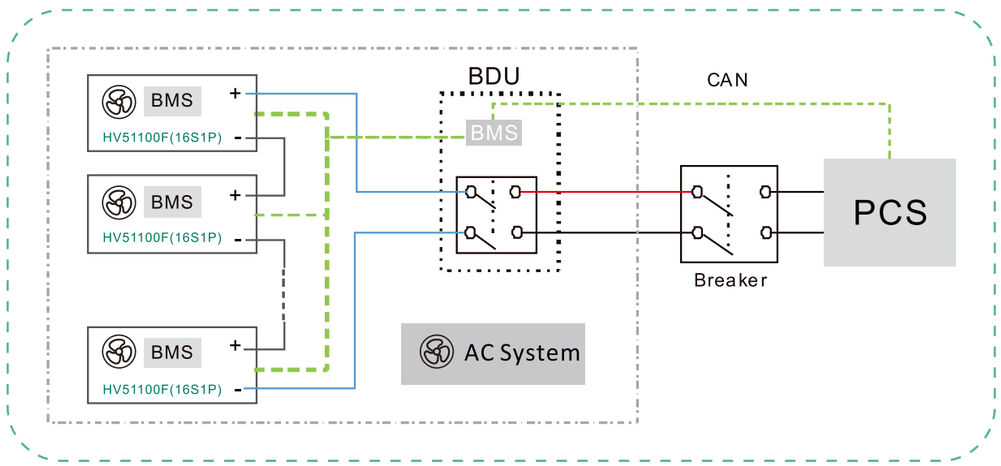
Dyness PowerStone

PowerStone is a newly designed battery system, with 1C charge rate and allows outdoor use. The integrated smart BMS system is widely compatible with branded PCS and integrated FANs & air conditioner provide better temperature control, thus making sure of the safe operation of the whole battery system.

NEW

Features and Advantages

- 1C charge & discharge rate
- Extendable up to 1MWh
- Outdoor use
- Modular design



Technical Parameters of PowerStone

Model	PowerStone-15s
Battey Type	Li-ion(LFP)
Nominal Battery System Energy	76.8kWh
Nominal Battery System Voltage	768Vdc
Battery System Working Voltage Range	672~864Vdc
Battery System Weight	1450kg
Battery Cabinet Dimension(W*D*H)	1315*1010*1880mm
Battery Module Type	HV51100F
Battery Module Number	15pcs
Expansion	Max.12 cabinets connected in parallel
Recommended C Rate	1
Max.Depth of Discharge	100%
Battery System Protection Level	IP55
Anticorrosion Grade	C5
Altitude	≤2000m
Communication	CAN/RS485
Installation Environment	Outdoor
Cooling Method	Air conditioning cooling
Wiring	Cables enter and exit at the bottom of the cabinet
Humidity range	5%~85%RH(No condensation)
Complance	UN38.3/IEC62619/IEC63056/IEC62477/CE-EMC
Battery Module Specifications	
Battery Type	Li-ion(LFP)
Nominal Battery Module Voltage	512 Vdc
Nominal Battery Module Capacity	100Ah
Nominal Battery Module Energy	5.12kWh
Recommended Charge/Discharge Current	100A
Max. Continuous Charge/Discharge Current	100A
Battery Module Weight	47kg
Dimension(W*D*H)	548*554*152.8mm
Battery Module Protection Level	IP20
Cooling Method	Fan cooling
Charging Temp. Range	0~55℃
Discharging Temp. Range	-10~55℃
BDU Specifications	
BDU model	BDU-100
Max. Continuous Charge/Discharge Current	100A
Max. Continuous Charge/Discharge Power	100kW
Battery System Protection Level	IP20
Dimension(W*D*H)	560*510*155.5 mm
Weight	13kg

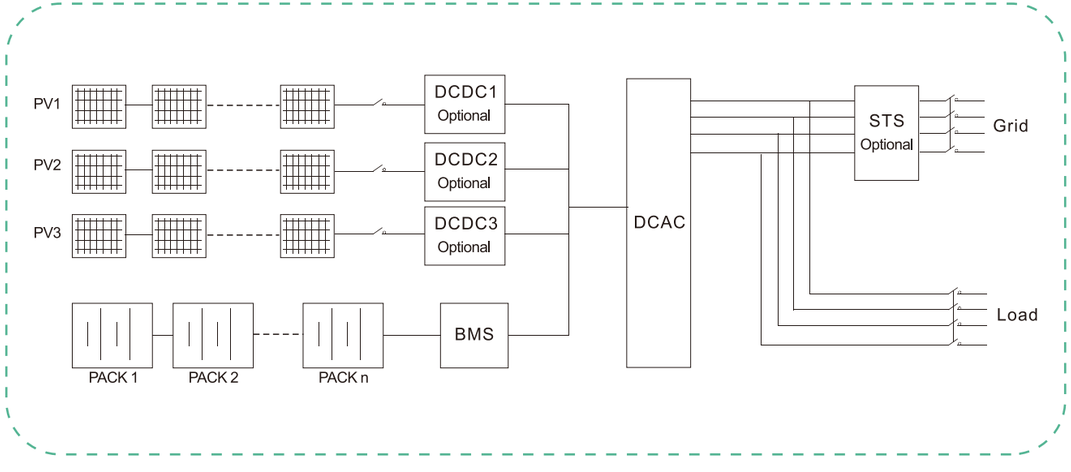
[1]Applicable condition. Details refer to Dyness Limited Warranty Letter for PowerStone.

DH200F

All-in-one integrated system design inside the Cabinet to fulfill C&I scenarios.

Features and Advantages

- Overall solar+storage solution
- All-in-one design concept
- High-level safety design
- Convenient outdoor setup
- Allow flexible system design
- Capacity expandable to megawatts



Technical Parameters of DH200F

Battery Specifications	
Battery Module Type	HV51280F
Cell Capacity	280Ah
Battery Voltage Range	672~864V
Nominal Current	140A (0.5C)
System Storage Power	215kWh
AC Specifications (on-grid)	
Nominal Power	100kW
AC Nominal Voltage	400V
Wiring	3P4L+PE
Nominal Frequency	50Hz
AC Maximum Current	158A
Max.number of BESS in parallel	12
AC Specifications (off-grid)	
Nominal Power	100kW
AC Nominal Voltage	400V
Wiring	3P4L+PE
Nominal Frequency	50Hz
AC Maximum Current	158A
Unbalanced Load Capacity	100%
On-grid Switching to Off-grid Time	< 20ms
Off-grid Switching to On-grid Time	< 20ms
Max.number of BESS in parallel	5
Photovoltaic Input	
MPPT Voltage Range	200-670V
MPPT channels	Up to three
Input Power	Single channel 50kW
System Specifications	
Dimensions (W*D*H)	1850*1200*2250mm
Weight	≈3300kg
Air Conditioner Power	3kW (Cooling capacity)
Operation Temperature	-20~50℃
Operation Humidity	0~95%(Non-condensing)
Protection Level	IP55
Anti-corrosion Level	C3
Noise Level	≤75dB
Altitude	≤3000m(Derating is required for higher than 2000m)
Cooling System	Fan Cooling
Display	Touch screen (optional)
Firefighting	Aerosol/Heptafluoropropane (FM-200)/Perfluoro
EMS External Communication	Ethernet
Certification	CE/CQC

Typical Application Scenarios

High Energy Consumption Industry + Energy Storage

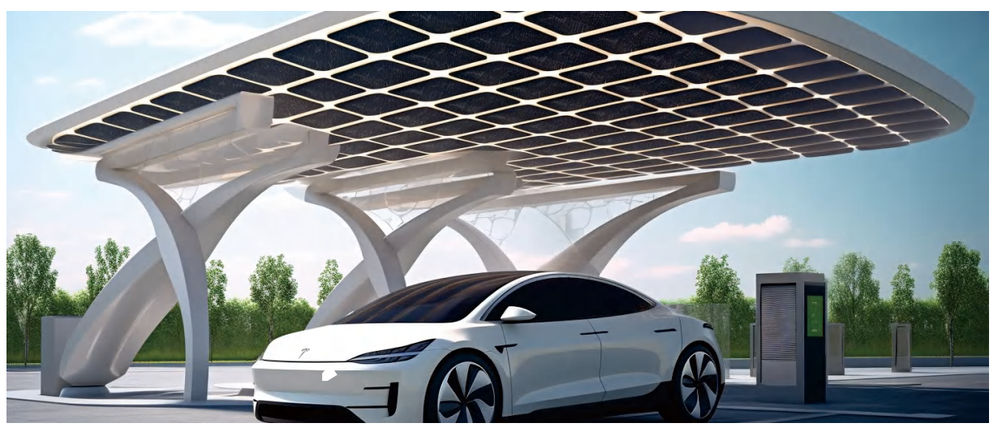
The two high-energy enterprises generally use a lot of electricity and operate 24 hours a day, with high energy consumption and high basic electricity bills. The energy storage system can reduce electricity bills through local peak-to-valley price differences, reduce peak power, and reduce capacity fees to reduce the electricity price expenditure of high-energy-consuming enterprise users. At the same time, it can effectively reduce the cost of capacity expansion in response to the needs of enterprises for later expansion.

Data Center + Energy Storage Project

The energy storage system connected to the data center can enhance the power supply reliability of the data center and prevent data loss caused by accidental power outages. The energy storage system enhances the economics of data center power operation through mechanisms such as peak shaving and capacity deployment, low carbon and energy saving.

Photovoltaic Storage Charging Station

In the era of expensive gas and rising oil prices, new energy vehicles have become the choice of many car owners. In the booming development of new energy vehicles, the construction of charging infrastructure is also gradually accelerating, and new energy vehicle charging stations, as energy supply facilities to maintain the operation of new energy vehicles, can be said to be riding the wave of the trend. Under the background of carbon neutrality, the supercharging station covering "photovoltaic + energy storage + charging" is favored by local governments. On the one hand, the addition of energy storage can help PV solve part of the redundancy of power generation and grid connection problems in the application process, and on the other hand, it can play a combination of advantages to driving the multi-directional development of PV, energy storage and charging pile.



Rural Grid Renovation + Energy Storage

The line is long and the voltage loss is large, which makes the electricity unable to work normally.
User shock load, affecting the stability of the agricultural network;
High harmonic pollution of the grid and easy aging of electrical appliances affect the safety of use;
The demand brought by the development trend of the power grid;
The terminal data monitoring energy storage system in the smart grid can solve the problems of weak grid terminal and capacity demand of the grid terminal.

Zero-carbon Smart Park + Energy Storage

The factory area is large, and there are many equipment such as cabinets and computer rooms. Therefore, the electricity consumption has the characteristics of large power consumption, high load for a long time, and high energy consumption of equipment. The high price difference, which is suitable for energy storage projects. peak valley arbitrage

Energy Storage + Microgrid

Microgrid, also known as distributed energy islanding system, combines generators, loads, energy storage devices and control devices systematically to form a single controllable unit that supplies electricity and heat to customers at the same time. Microgrid + energy storage is suitable for remote areas with electricity, some of which are not covered by large grids, such as islands and remote mountainous areas.