

DYNES

# GLOBAL ENERGY TECHNOLOGY INNOVATOR



Part 01

# DYNESS COMPANY INTRODUCTION

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Dyness is headquartered in Suzhou, China. We have 3 domestic branch offices located in Taizhou, Xi An and Shenzhen.

**550+** Employees Globally

**3** R&D Bases      **150+** People in our R&D team

**100+** Patents and mainstream certifications (TUV, UL, CE, JET, CEC etc.)

**100+** Countries & Regions use our products      **6** Global Branches

**3GWh** Production Capacity

**500 000+** Serviced Households





## Business Panorama

DYNES

5 00,000+

Number of families served

TOP8

home energy  
global supplier

7  
Years

0  
Safety  
incidents

2+2

Domestic branch

100+

global footprint

3GWh

production capacity

6

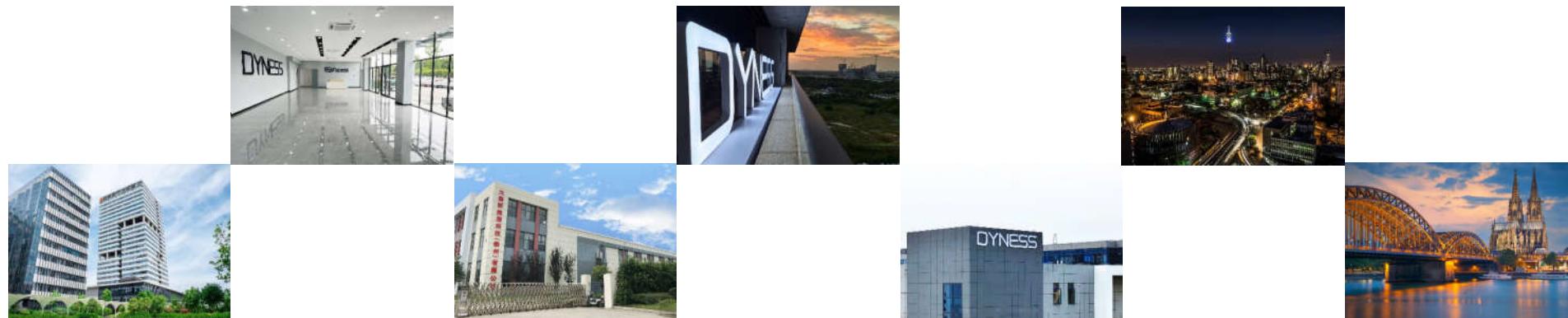
Overseas branches

Top Brands

"2023 China's Invisible Unicorn"

"Top 5 Batteries of 2023  
Manufacturing Solutions Provider"

# Development Milestones



**June**  
Xi'an company was established

**October**  
Australian branch established

**Entered the South African Market**

**March**  
Taizhou factory and R&D center were established

**September**  
Established Brazilian branch

**November**  
Established Dutch

**May**  
Established American Branch

**January**  
Global Headquarters settled in Suzhou

**June**  
Established a subsidiary in South Africa

Branches in Germany, Spain and the UK are under preparation

2017

2019

2020

2021

2022

2023

on the way



# Dyness Worldwide Locations



Dyness Taizhou



Dyness Xi'an



Dyness Suzhou



Dyness Brazil



Dyness Netherlands



Dyness America



Dyness South Africa



Dyness Australia

# Well Recognized in Overseas Markets



EUPD Research Sustainable Management GmbH congratulates

Dyness Digital Energy Technology Co., LTD.

on the Award of

Top Brand PV South Africa 2023

Category Storage

The company Dyness Digital Energy Technology Co., LTD. ranks among the top energy storage brands in South Africa according to the results of a survey carried out by EUPD Research among installers on brand awareness, customers' choice and distribution.

EUPD Research  
smart.energy.intelligence.

  
Markus A. W. Hoehner  
CEO

Top Brand PV  
South Africa

Top Photovoltaic Energy Storage Brand Award  
Professional organization certification industry leader



EUPD Research Sustainable Management GmbH congratulates

Dyness Renewable Energy Group Co. LTD

on the Award of

Top Brand PV Brazil 2022

Category Storage

The company Dyness Renewable Energy Group Co. LTD ranks among the top PV brands in Brazil according to the results of a survey carried out by EUPD Research among installers on brand awareness, customers' choice and distribution.

EUPD Research

  
Markus A. W. Hoehner  
CEO

Top Brand PV  
Brazil



EUPD Research Sustainable Management GmbH congratulates

Dyness Digital Energy Technology Co., LTD.

on the Award of

Top Brand PV Czech Republic 2023

Category Storage

The company Dyness Digital Energy Technology Co., LTD ranks among the top energy storage brands in Czech Republic according to the results of a survey carried out by EUPD Research among installers on brand awareness, customers' choice and distribution.

EUPD Research

  
Markus A. W. Hoehner  
CEO

Top Brand PV  
Czech Republic



The annual listing of 5 companies in China that are at the forefront of providing Battery Manufacturing solutions and transforming businesses



Top Battery Solutions  
Provider in China

# Market Certification Aligns with Independent Product Research and Development



100+

Technology  
patents

20+

Software  
copyrights

**Multifunctional home energy storage battery system**  
**Invention patent / utility model / Design patent**



Part 02

## DYNESS PRODUCTS OVERVIEW

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# DYNESS PRODUCTS OVERVIEW

DYNESS

## Residential

### Module Battery



DL2.5



BX51100



DL5.0C



DL5.0X

### Battery Pack



Powerbox G2



LR1.2

## Commercial & Industrial



Tower



HV4



BF100



Powerstone

### Inverter



Powerbrick



DYNE 5.0/8.0L-1P-A



Stack100



DH100F



DH200F

Part 03

# RESIDENTIAL PRODUCTS

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## DL2.5



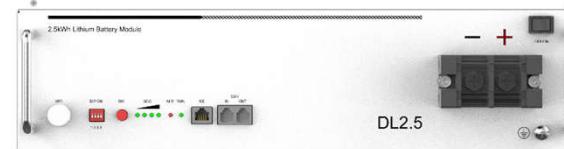
Nominal Energy **2.56kWh**

Recommended Charge/discharge current **50A**

**Max. continuous Charge/Discharge Current 75(40min)/130A(30min)**

Operating temperature: **Charge: 0~55°C**

**Discharge: -20~55°C**



### Flexible Expansion

2.56 kWh per unit  
Max. **16** in parallel

**Up to 40.96 kWh**

### Easy Installation

wall-mounted

### High Safety LFP

Cell level monitoring and  
balancing

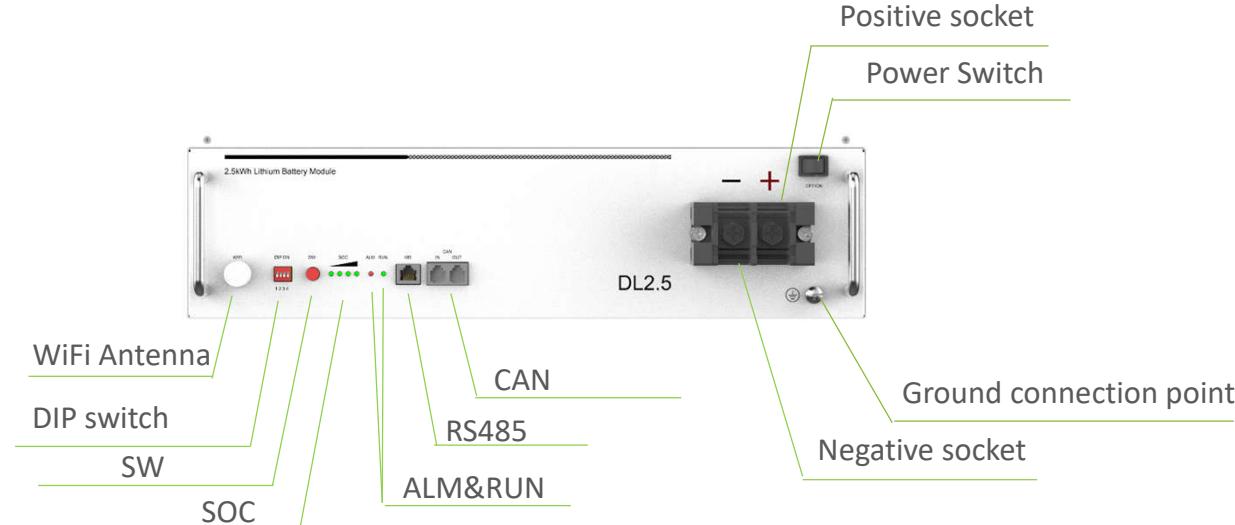
### APP Monitoring(Optional)

Real-time monitoring & Remote upgrade  
available

# RESIDENTIAL PRODUCTS

## Battery Interface

DYNESS



### Product Precautions:

1. Power switch: OFF/ON, remains 'ON' when using.
2. DIP switch : Used to match different inverters.
3. SW: When power switch is in 'ON', long pressing SW for 3s to enable the battery for switch-on or dormant state.
4. Indicated lights, including SOC lights, ALM light, RUN light, which indicate the status of the battery.
5. WiFi function is optional
6. CAN: support CAN communication. (Factory default CAN mode)





# RESIDENTIAL PRODUCTS

## Mechanical Installation

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Wall-mounted



a) Positioning& Brackets  
Fastening



b) Lock Two Screws



C) Module Mounting

# RESIDENTIAL PRODUCTS

## Electrical Installation

DYNES

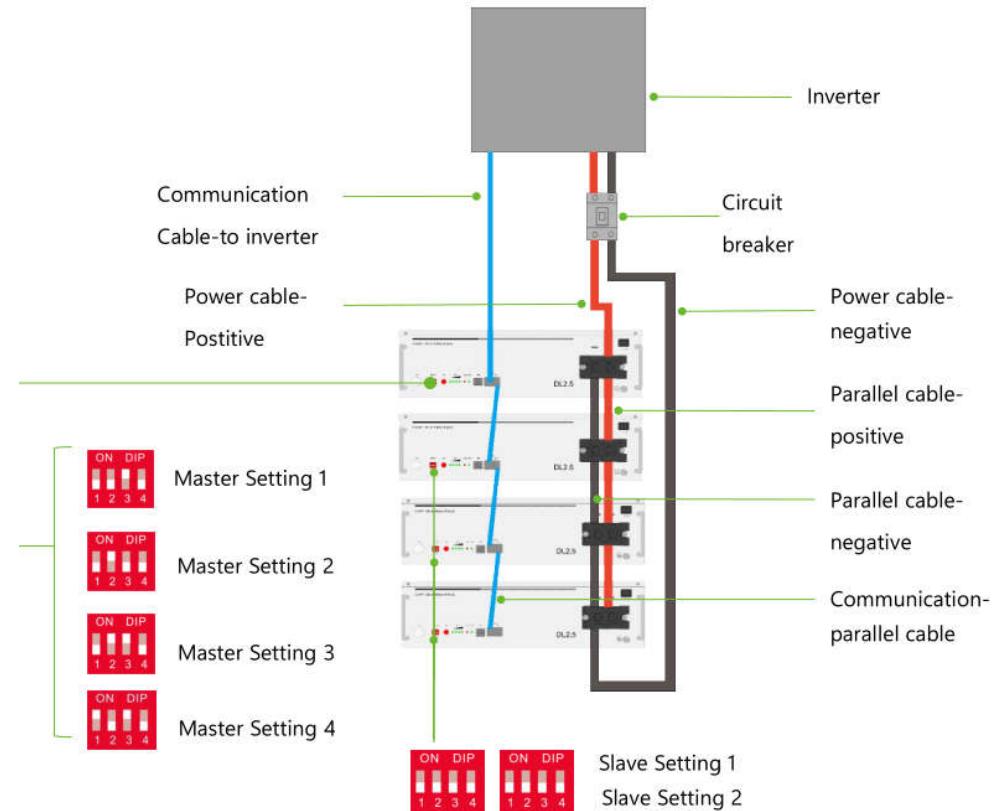
### Electrical installation

Install grounding cable → Install parallel power & com. Cables → connect power & com. cables to inverter → set DIP switch → turn on the ON/OFF switch → press SW button for 3s → turn on DC breaker → turn on PCS to set up

### Attention

It is recommended that **power of inverter : energy of battery  $\leq 1:2$**

Recommended **DoD** for LV battery module is **90%**.



Note: Power cables must be connected **diagonally** to make each module get equal current.



**Dyness**  
**DL5.0C**  
Battery Installation Video

# DL5.0C

DYNES

1C  
discharge



Nominal Energy **5.12kWh**

Recommended Charge/discharge current **50A**

**Max. Power Charge Current 75A**

**Max. Power Discharge Current 100A**

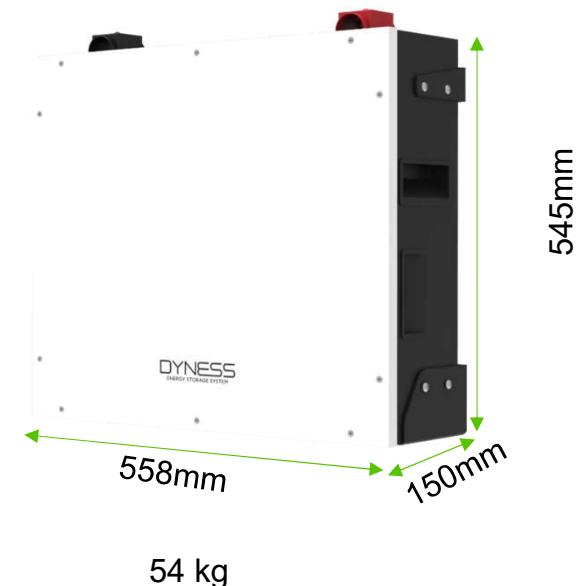
**Peak Power Charge/Discharge Current 110A (15s)**

Operating temperature: **Charge: 0~55°C**

**Discharge: -20~55°C**

Storage temperature: **-10 °C ~ +35 °C**

Relative humidity: **5% ~ 85%RH**



## APP Monitoring (optional)

Real-time monitoring & Remote upgrade available

## Flexible Expansion

5.12kWh per unit  
Max. **50** in parallel

**Up to 256 kWh**

## Various Mounting Methods

Wall-mounted or floor-standing installation and stack

## High Safety LFP

Cell level monitoring and balancing

## Wide Compatibility

Matching with leading inverters

# RESIDENTIAL PRODUCTS

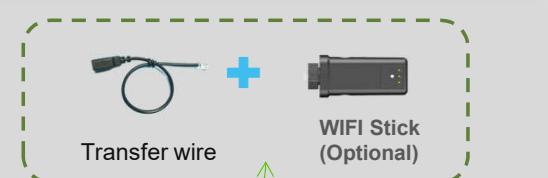
## Battery Interface

DYNES



### Product Precautions:

1. Power switch: OFF/ON, remains 'ON' when using.
2. DIP switch : Used to match different inverters.
3. SW: When power switch is in 'ON', long pressing SW for 3s to enable the battery for switch-on or dormant state.
4. Indicated lights, including SOC lights, ALM light, RUN light, which indicate the status of the battery.
5. COM: Communication cascade port, support **RS232 for remote upgrade**.
6. CAN/485: support CAN/RS485 communication. (Factory default CAN mode)



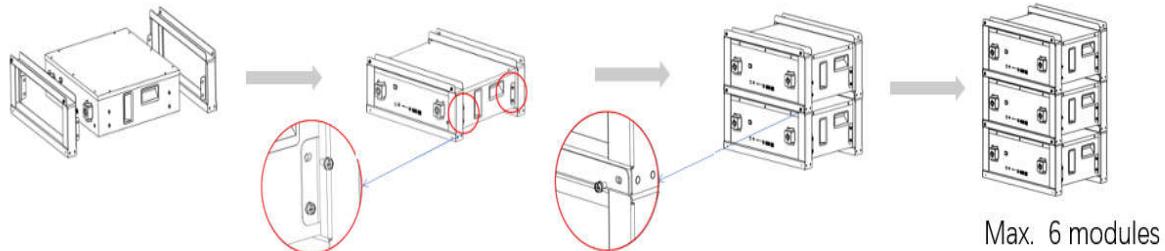


# RESIDENTIAL PRODUCTS

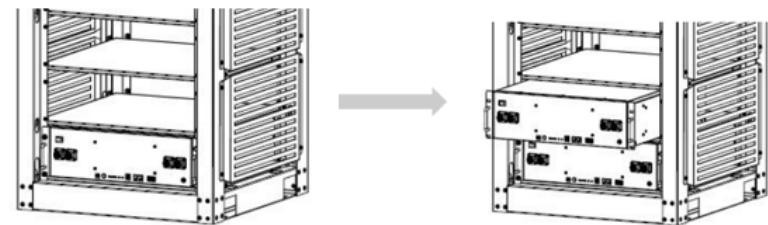
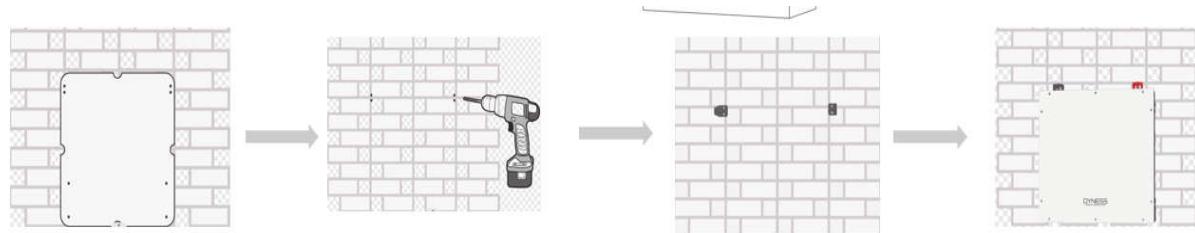
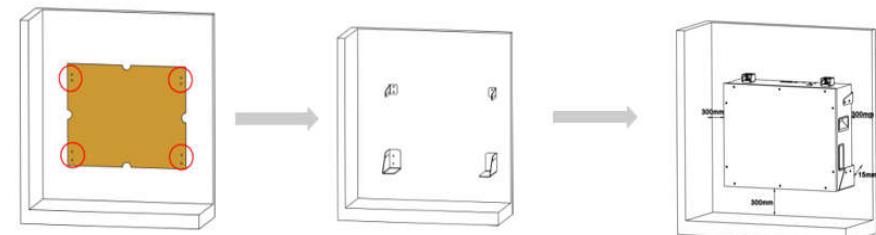
## Mechanical Installation

DYNESST

Flexible bracket



Wall-mounted



# RESIDENTIAL PRODUCTS

## Electrical Installation

DYNES

### Electrical installation

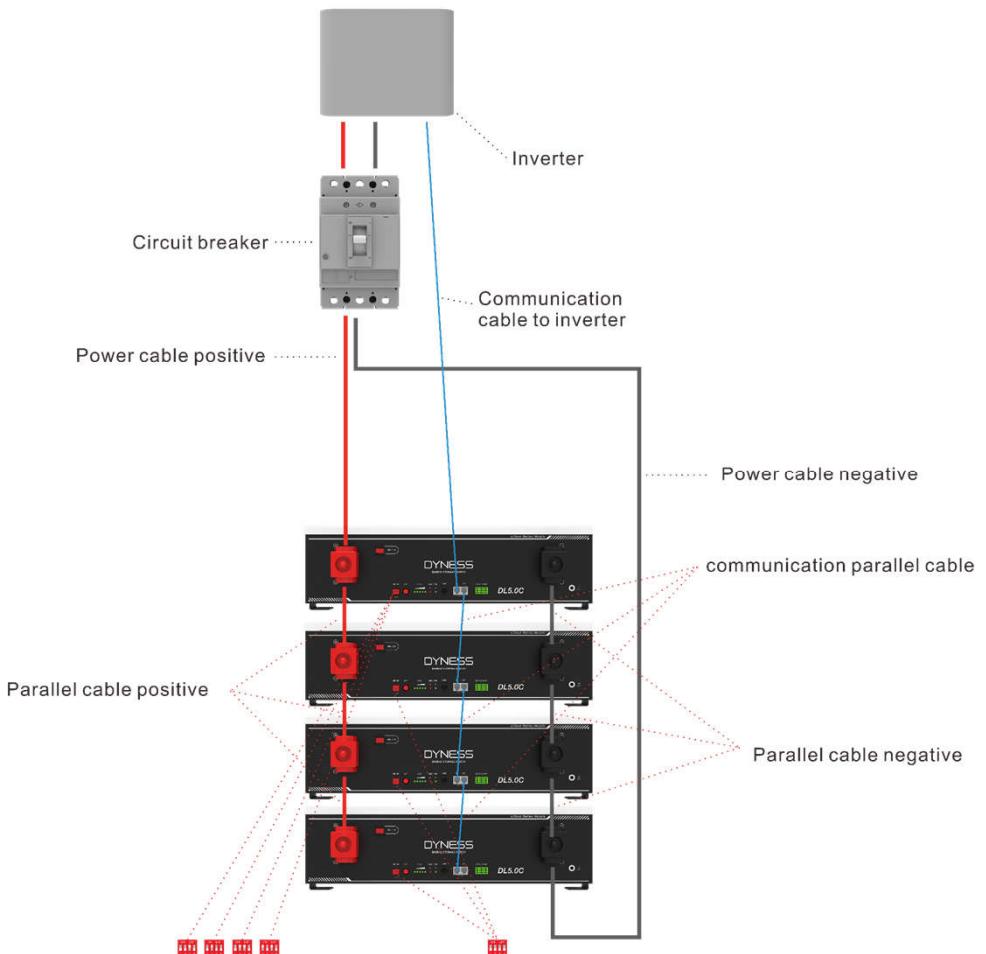
Install grounding cable → Install parallel power & com. Cables → connect power & com. cables to inverter → set DIP switch → turn on the ON/OFF switch → press SW button for 3s → turn on DC breaker → turn on PCS to set up

### Attention

It is recommended that **power of inverter : energy of battery  $\leq 1:2$**

Recommended **DoD** for LV battery module is **90%**.

**No extra communication device needed for paralleling 50 batteries.**



Note: Power cables must be connected **diagonally** to make each module get equal current.

# LR1.2

DYNES



Nominal Energy **1.28kWh**

Max. continuous Charge/Discharge Current **100/100A**

Operating temperature: **Charge: 0~55°C**

**Discharge: -20~55°C**



## Light Weight

1/3 weight of the lead-acid battery of the same capacity

## Easy Installation

12kg, easy to handle

## High Protection level

IP65

## Longer service life

3 years, ≥3000 cycles

## Deep Cycling

100%DOD

## Comparison between Dyness LR1.2 and Lead-acid

DYNES

	LR1.2	Lead-acid	Advantages of LR1.2
Weight	12kg	30kg	1/3 of lead-acid by weight
Service life	3 years	1year	longer service life
Cycle life	3000 cycles	200-500cycles	much more cycles
Price (Rand)	3500	2000	
Price per day(Rand)	3.2	5.47	LFP is 58% price per day of Lead-acid
Environment Protection	Environment friendly	Heavy metal Pollution	LFP has no heavy-metal pollution
Reliability	BMS integrated	No BMS	<ol style="list-style-type: none"> <li>1. BMS can protect battery from over charge, discharge, short-circuit, high and lower temperature.</li> <li>2. LFP can be reactivated even at 0V for multiple times</li> <li>3. IP65 for outdoors</li> <li>4. Prevent battery from charging at below 0 °C, that will protect battery better.</li> </ol>

# Comparison between Dyness LR1.2 and Other Lead-acid Alternative LFP

DYNES

Feature	LR1.2	Other Lead-acid Alternative LFP	Advantages of LR1.2
Cell	Tier 1	uncertain	Better cell quality
Inverter compatibility	Capacitive load 20mF	Capacitive load 10mF	Can work with almost all inverters below 3kW capacity due to LR1.2 withstanding larger capacitive load
Short circuit protection	Recover when load is disconnected	Component (MOS) damaged	Protect BMS from been damaged and fire accident
Low temperature protection at charge	$0 \pm 5^\circ\text{C}$	No protection	Better to ensure battery health
High temperature protection at discharge	$-20 \pm 5^\circ\text{C}$	No protection	
Cell balancing	3.35-3.7V	No balance	
Over discharge current protection	$300 \pm 50\text{A}$	$350 \pm 100\text{A}$ or no protection	
Over charge current protection	$130 \pm 20\text{A}$	$150 \pm 60\text{A}$	
Pack structure	Barely no EVA cotton filled	Lots of EVA cotton filled	

## Connection

DYNESS

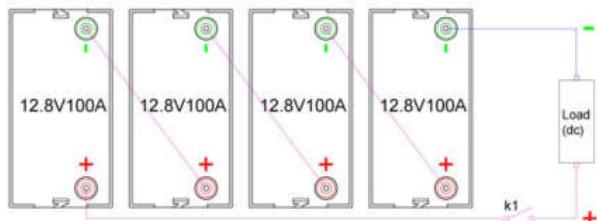


Figure 5-1 Series Application: 4S1P, 51.2V100Ah

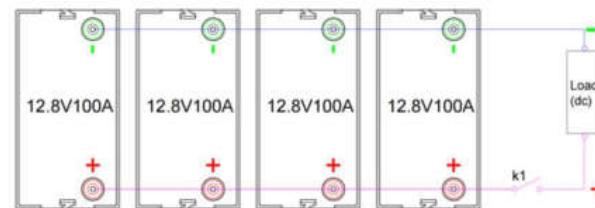


Figure 5-2 Parallel Application: 1S4P, 12.8V400Ah

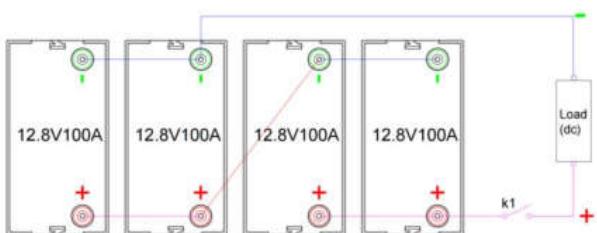


Figure 5-3 Series-parallel Applications: 2S2P, 25.6V200Ah

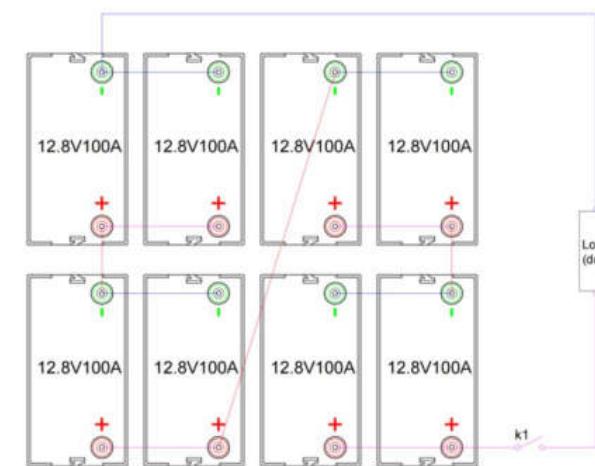


Figure 5-4 Series-parallel Applications: 4S2P, 51.2V200Ah

Max 4 units in series and parallel connection

# Comparison between Dyness and Eastman

DYNES

S.N.	Item	EM12.8-100LPH	LR1.2	Remark
1	Energy	1.28	1.28	
2	Capacity	100Ah	100Ah	
3	Max charge & discharge C-rate	1C	1C	
4	Size	330*173*216	330mm*172mm*214mm	
5	DOD	unknown	100%	
6	Cycle	unknown	≥3000 cycles	
7	Capacity expansion	unknown	4 parallel and 4 series	
8	IP	unknown	IP65	
9	Warranty	unknown	3 years	
10	Weight	12.8kg	12kg	

# Powerbox Pro

DYNESS



Nominal Energy **10.24kWh**

Recommended Charge/discharge current **100A**

**Peak Power Charge/Discharge Current 200A (15s)**

Operating temperature: **Charge: 0~55°C**

**Discharge: -20~55°C**

Storage temperature: -10 °C ~ +35 °C

Relative humidity: 5% ~ 85%RH

## APP Monitoring (Optional)

Real-time monitoring & Remote upgrade available

## IP65

High protection level  
Indoor & outdoor options

## Various Mounting Methods

Wall-mounted or floor-standing installations

## High Safety LFP

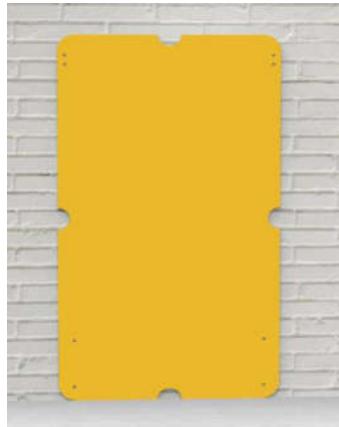
Cell level monitoring and balancing

## Flexible Expansion

Max. **5** units in parallel



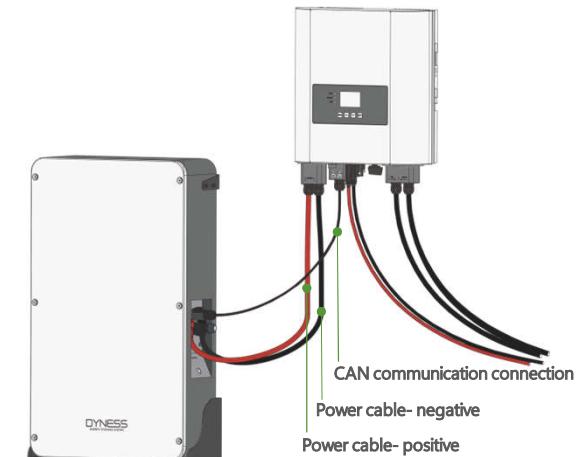
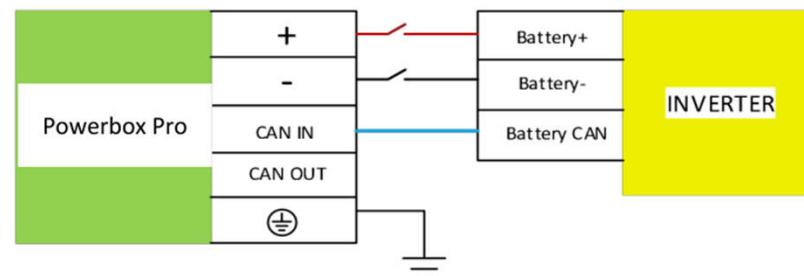
## Mechanical Installation



Floor standing

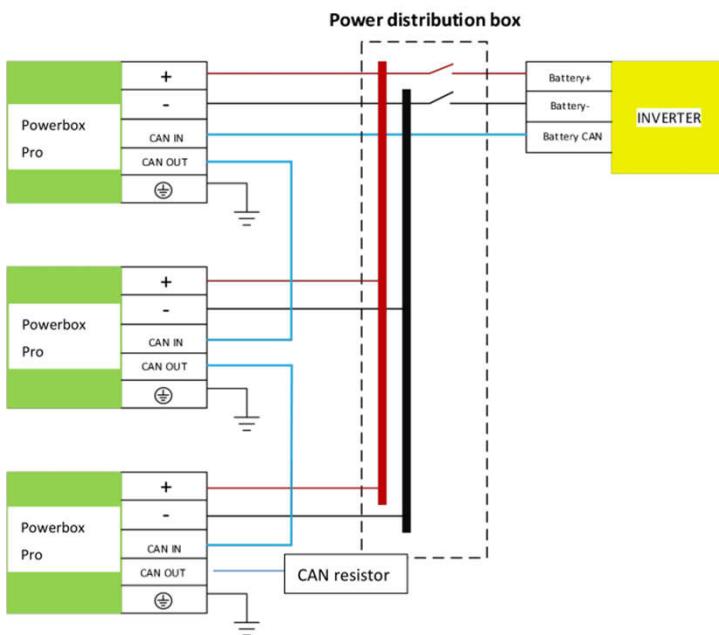


Wiring of **Powerbox Pro** when the system is used **independently**

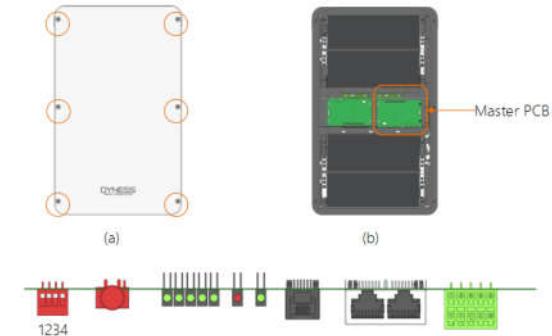


Right Interface of Powerbox Pro

## Wiring of Powerbox Pro when the system is used in parallel (MAX. 5)



When the system is used in parallel, all the cover of slave Powerbox Pro systems need to be opened and the DIP switch of the master PCB need to be changed to Slave Setting (i.e. ADD: 0000), while the master PCB of Powerbox Pro follows the Master Settings.

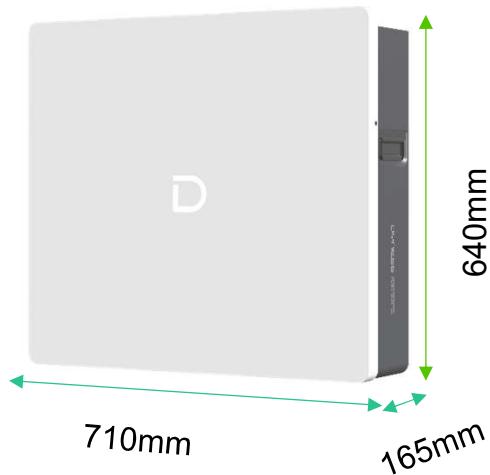




# RESIDENTIAL PRODUCTS

## Powerbox G2

DYNES



95kg without Glass front  
98kg with Glass front

### Features

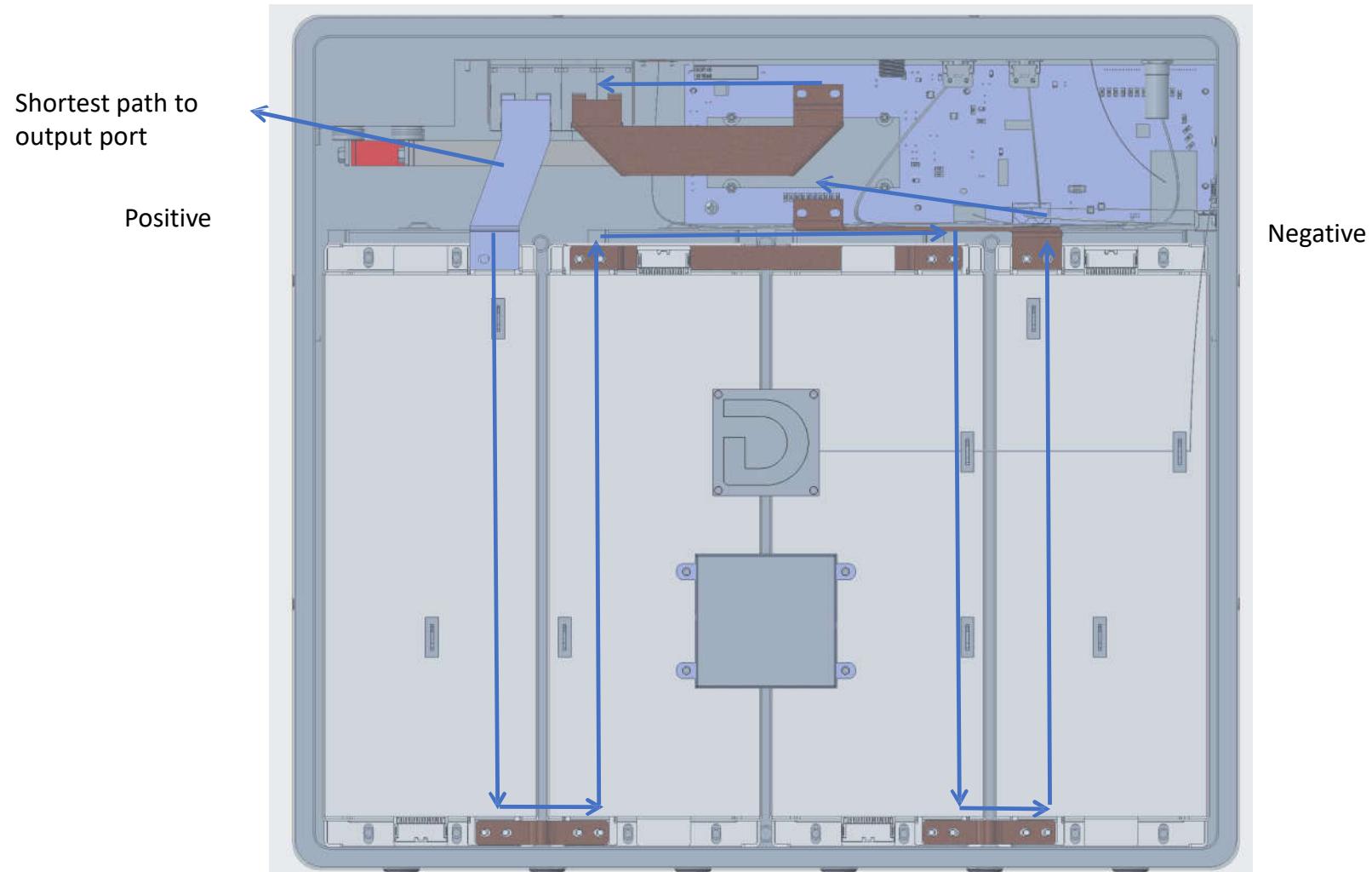
- Max 50 units in parallel, 10.24~512 kWh expansion
- Active fire suppression: [Built-in aerosol fire extinguisher](#)
- [Built-in WiFi module](#), remote App monitoring and upgrade
- [8000 Cycles / 10 Years](#)
- 1C discharge rate, 10.24kW
- [LED is programmable](#) to show charging/discharging/alarm,etc.
- One click to upgrade all battery packs
- Master and slave auto recognized
- Breatheable valve
- Tier 1 battery cell, BYD EVE

### Specifications

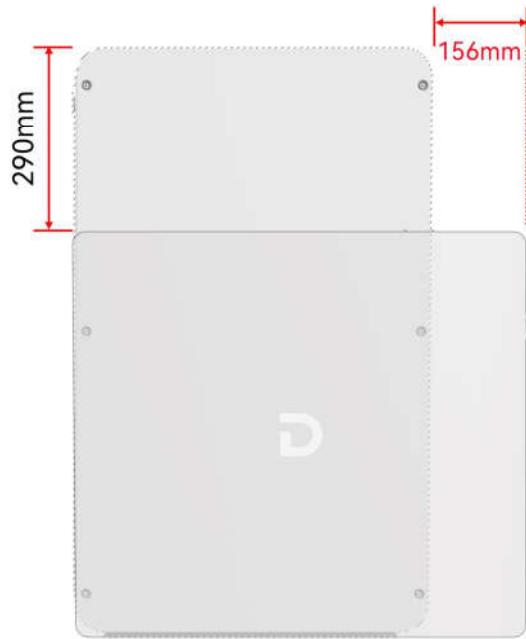
Battery Energy	10.24kWh
Nominal Voltage	51.2V
Battery Capacity	<a href="#">200Ah</a>
Maximum continuous discharge current	<a href="#">200A</a>
Mounting	Wall-Mounted & Floor-standing
DOD	<a href="#">95%</a>
IP level	<a href="#">IP65</a>
weight	95kg
Working temperature:	-20~+55°C
Dimension(W*H*D)	710*165*640mm
Certifications	UN38.3/IEC62619/IEC62040/CEC/CE RED

# Why is Powerbox G2 designed to be square

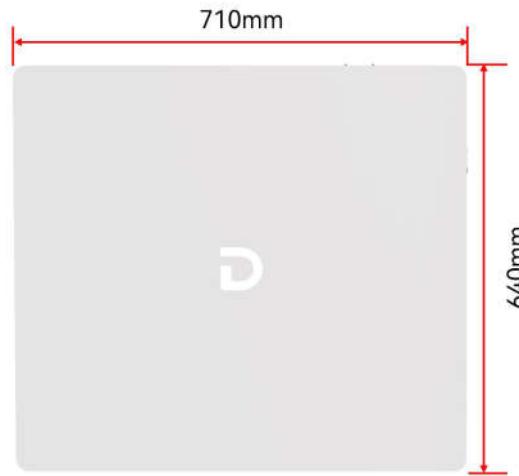
- ◆ Bus bar is as shortest as possible to reduce cost, lower internal impedance so as to reduce heat generation;
- ◆ Easier for assembly



# Lighter, thinner, smaller



PowerBox

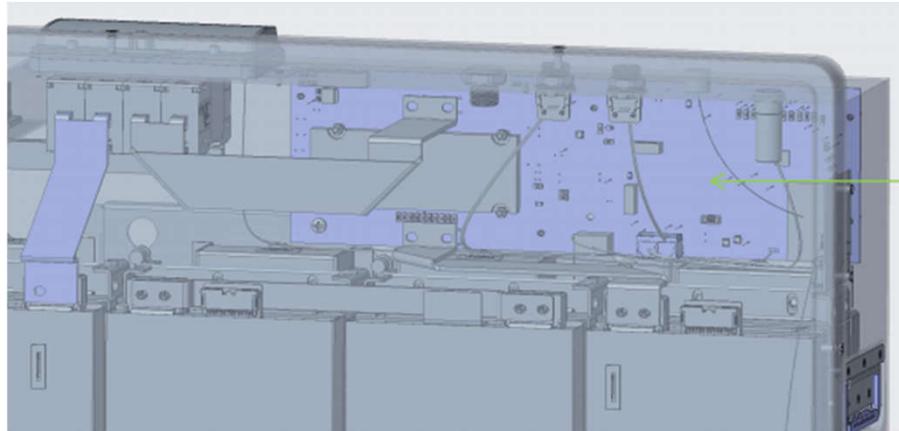


PowerBox G2

PowerBox

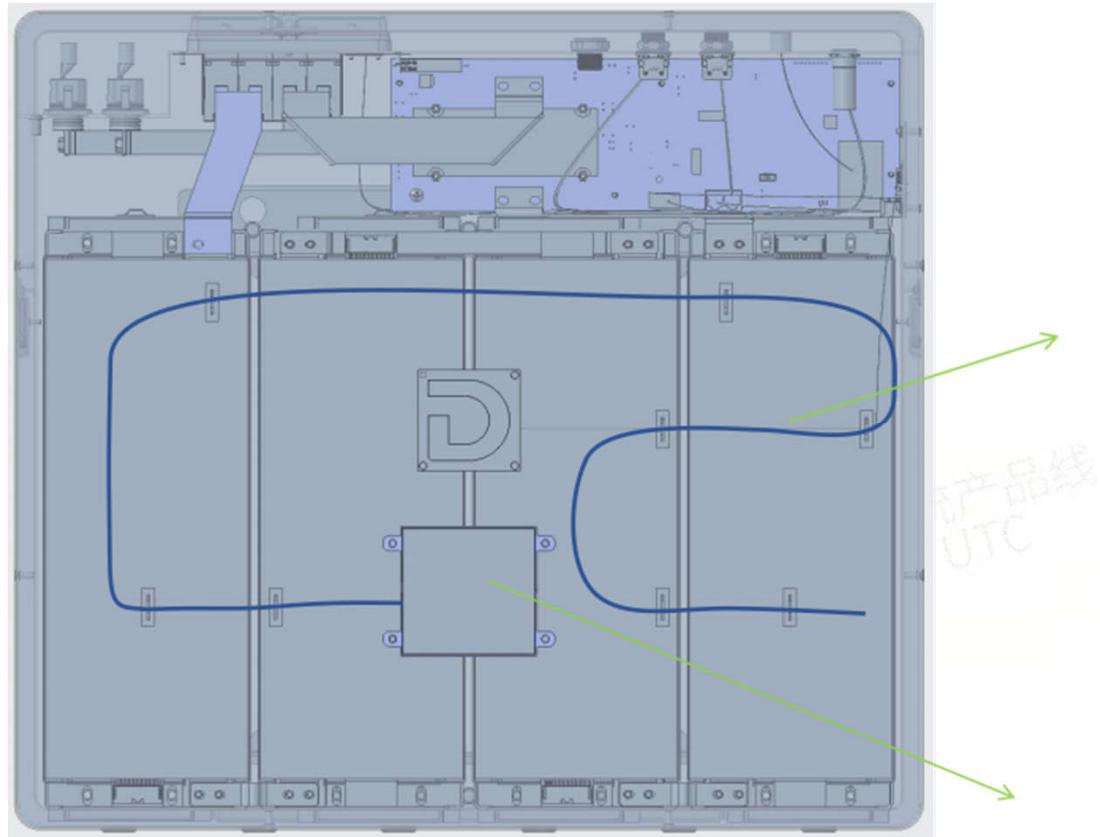
# New upgrade——Powerful performance

DYNESS



- ✓ Brand all-new high-power integrated BMS
- ✓ Built-in Wi-Fi module
- ✓ Supports up to 200A continuous current
- ✓ Design of the shortest power line path

## New upgrade——Aerosol fire suppression system



Temperature or fire  
sensor

Aerosol Fire Extinguisher Unit

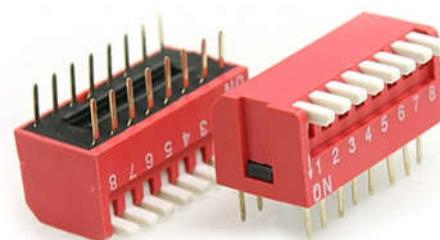
# New upgrade—Effortless Communication Settings

## One-click OTA upgrade



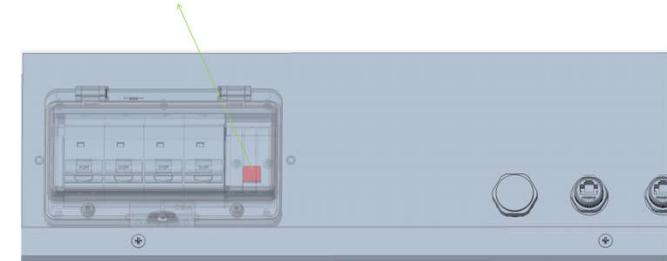
With one-click OTA upgrades, when multiple units are paralleled, there's no need to individually upgrade each unit. Simply upgrade one battery, and the rest will automatically update via parallel communication lines. Easy and convenient operation

## Master-slave and automatic recognition



Automatic master-slave recognition in multi-unit parallel connection designates the battery connected to the inverter as the master unit. Simplify your setup—no more dip switches required!

## Built-in CAN/485 Communication Switch

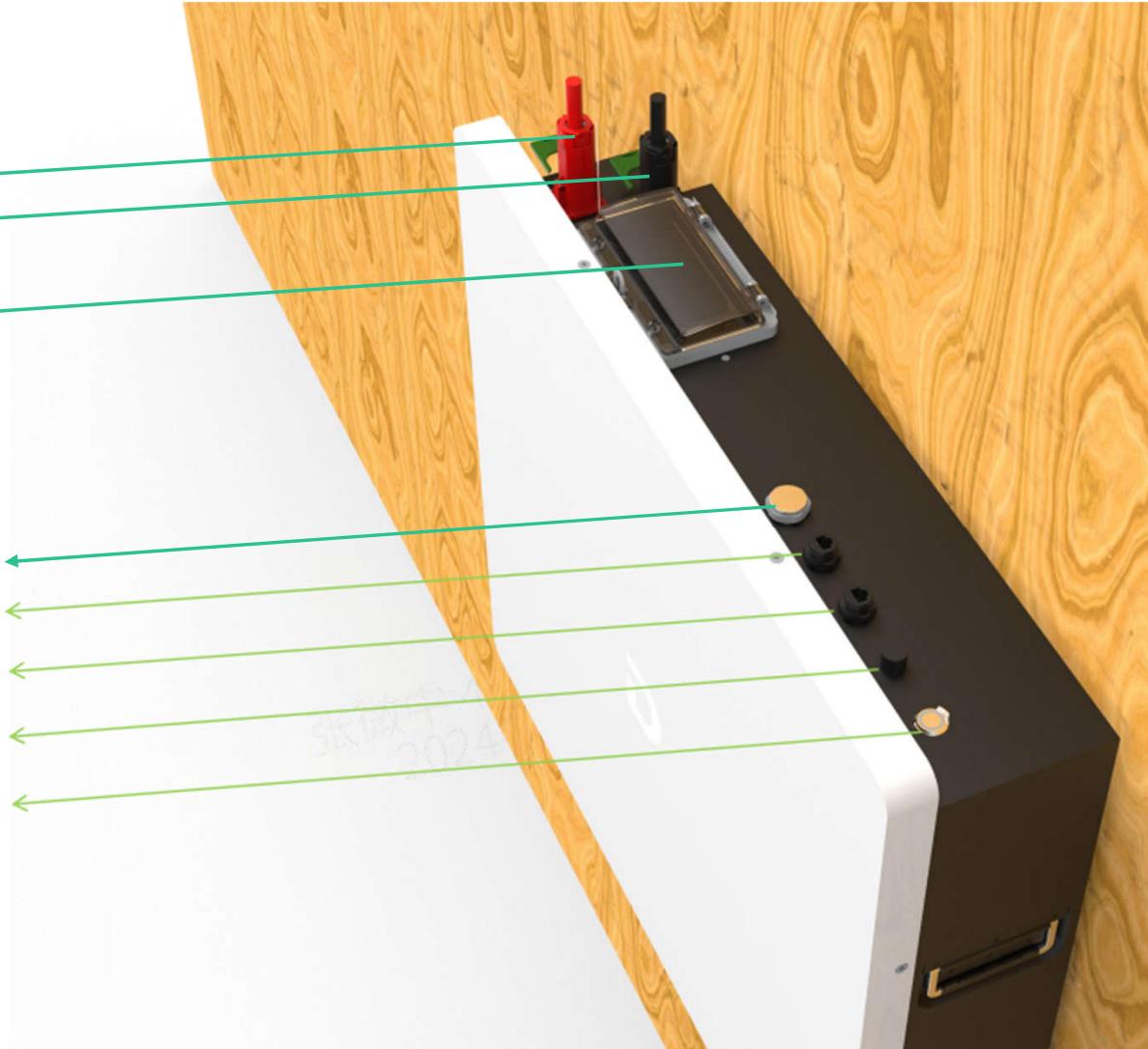


The CAN/485 communication switch is now integrated into the waterproof cover of the circuit breaker for easy access. Seamlessly switch between CAN and 485 communication protocols without the hassle of opening the front panel.

# Battery Interface Introduction

DYNES

- Battery output positive socket
- Battery output negative socket
- Circuit breaker waterproof cover
- Built-in DIP switch
- Waterproof breathable valve
- CAN IN
- CAN OUT
- WIFI concealed antenna
- Power on button



# Hidden wall mounting bracket

## Friendly installation in 3 steps

1

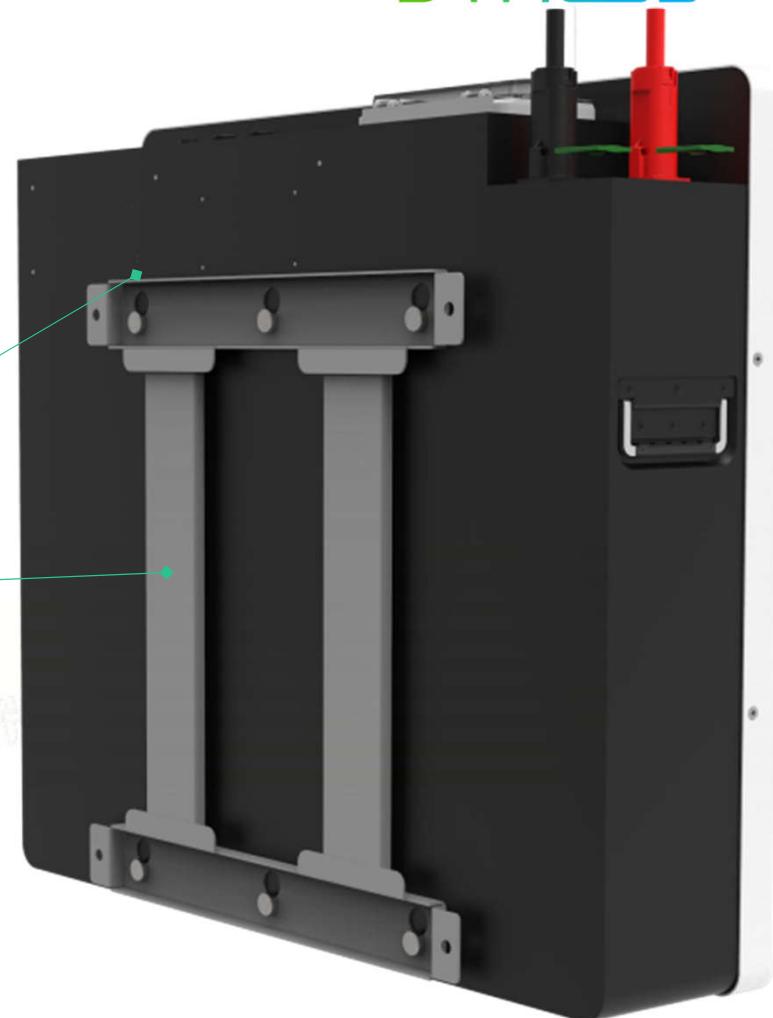
6 screws are fixed into the back of the cabinet

2

The wall bracket is fixed to the wall with expansion screws

3

When wall-mounted, the screws are inserted into the round hole slot of the wall-mounting bracket to fix it.



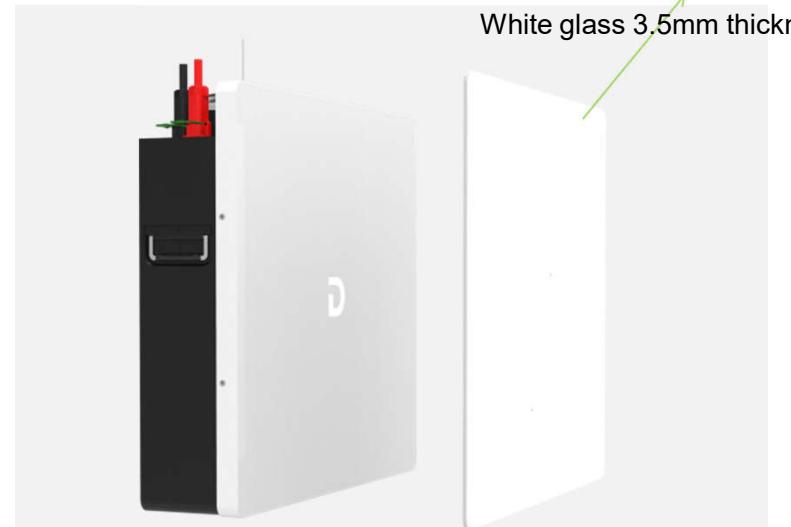
# Explore More Custom Design

DYNESS

LED lighting display with programmable  
customized display effects



Optional Tesla Powerwall 3 same white glass  
panel





## RESIDENTIAL PRODUCTS

### PowerBrick



Floor standing with wheel  
(optional) for easy transport



DYNESS

### Features

- Max 50 units in parallel, 14.3~715 kWh expansion
- 10 years warranty , 8000 cycles
- LED is programmable to show charging/discharging/alarm,etc.
- Built-in WiFi module, Smart monitoring optimizes the battery system.
- With a maximum discharge power of 0.7C ,10.24KW
- Optional built-in aerosol fire extinguisher

### Specifications

Battery Energy	14.3kWh
Nominal Voltage	51.2V
Battery Capacity	280Ah
Maximum continuous current	200A
Mounting	Wall-Mounted & Floor-standing with wheel(optional)
DOD	95%
IP level	IP20
weight	115kg
Working temperature:	-20~+55°C
Dimension(W*H*D)	429*228*822mm
Certifications	UN38.3/CE

## Smaller and lighter

Weight: 115KG;



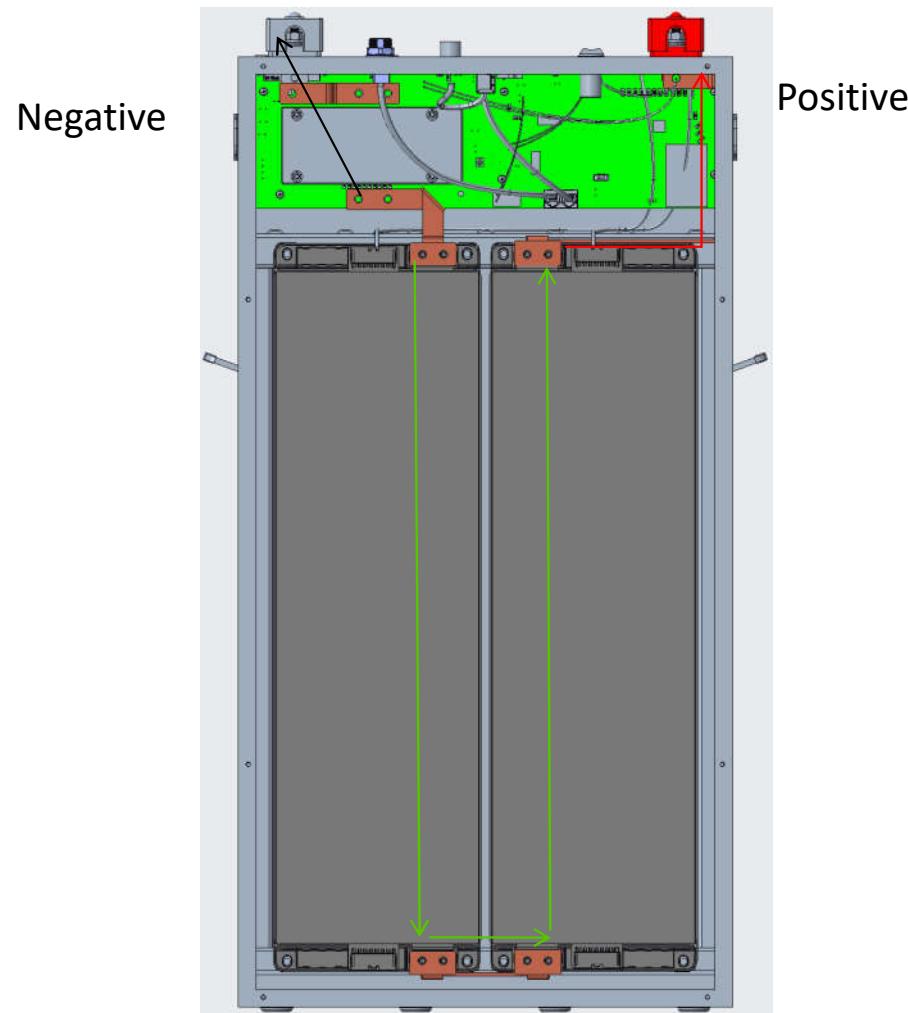
**Size is 40%**  
**Weight is lighter by 39%**

Weight: 154KG



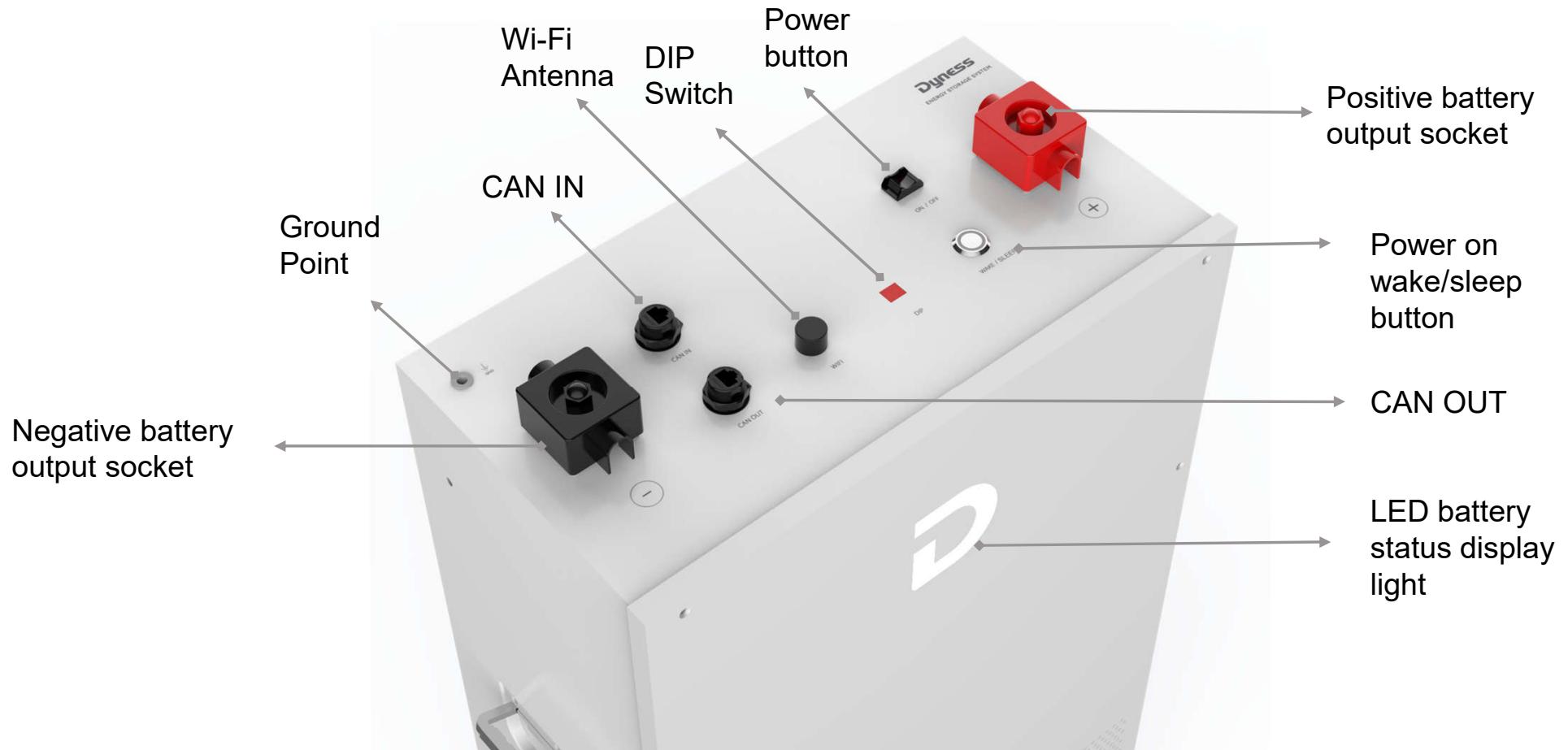
## Shortest Copper Bus Bar Length

- ◆ Bus bar is as shortest as possible to reduce cost, lower internal impedance so as to reduce heat generation;
- ◆ Easier for assembly

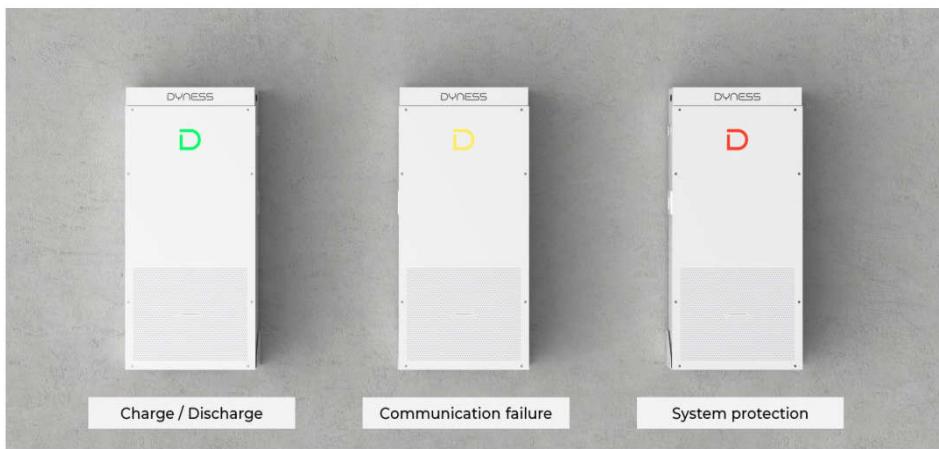


# Battery interface introduction

DYNESS

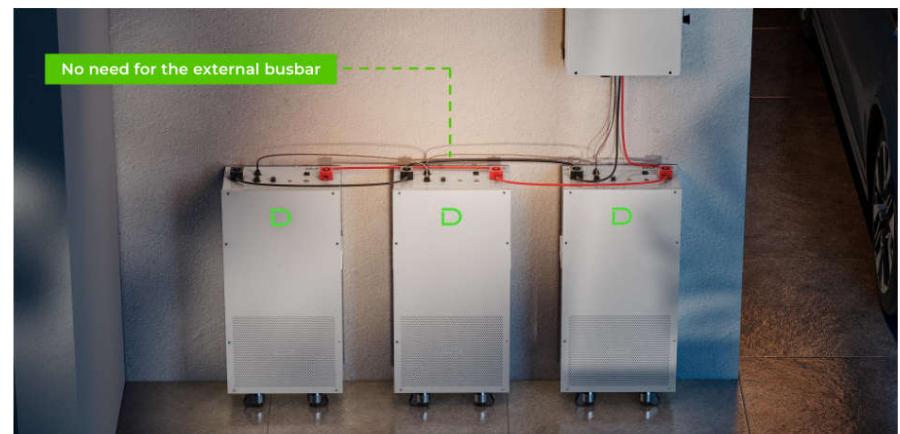


Discover different battery status through lights



LED color is programmable to show charging/discharging/alarm,etc.

Up to **50** units in parallel, **14.3KWh--716.8KWh** Capacity

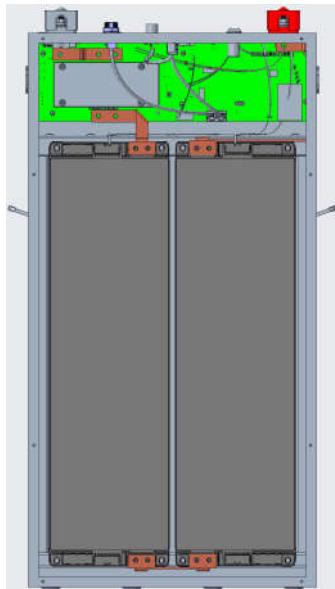


Up to **50** units in parallel

# Less

DYNESS

**Less** copper bar length



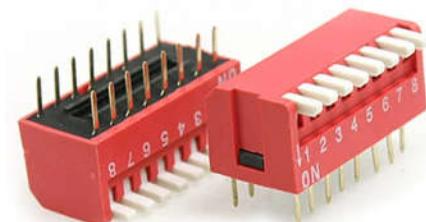
Reduced system impedance,  
increased system efficiency, and  
decreased heat generation

**Less** manual updates



With one-click OTA upgrades, when multiple units are paralleled, there's no need to individually upgrade each unit. Simply upgrade one battery, and the rest will automatically update via parallel communication lines. Easy and convenient operation

**Less** hassle, no dip switches  
needed!

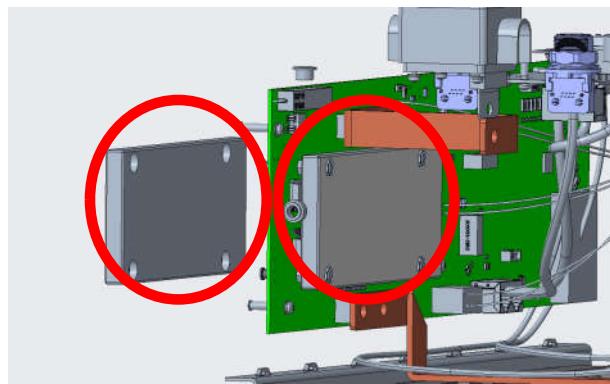


Automatic master-slave recognition in multi-unit parallel connection designates the battery connected to the inverter as the master unit. Simplify your setup—no more dip switches required!

# More

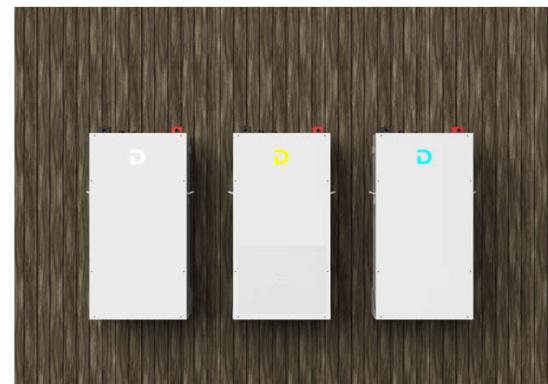
DYNESS

## More Durable



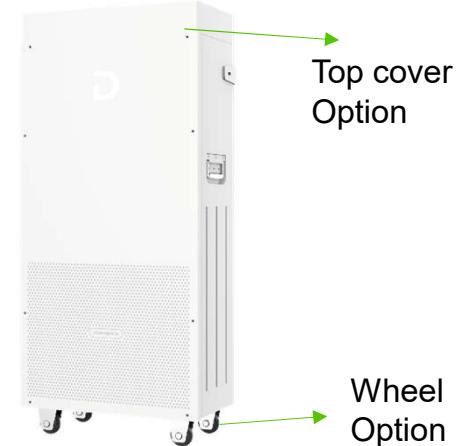
Dual-sided aluminum plate ensures stable and durable operation

## More Interaction



LED display with customizable effects for personalized viewing.

## More customized Design



Optional top cover and wheels

# Friendly to Installers

DYNESS

The bracket and wall are fixed with expansion screws



The battery is lifted onto the bracket, the upper mounting lugs are fixed with screws, and the bottom is limited by the convex bump.

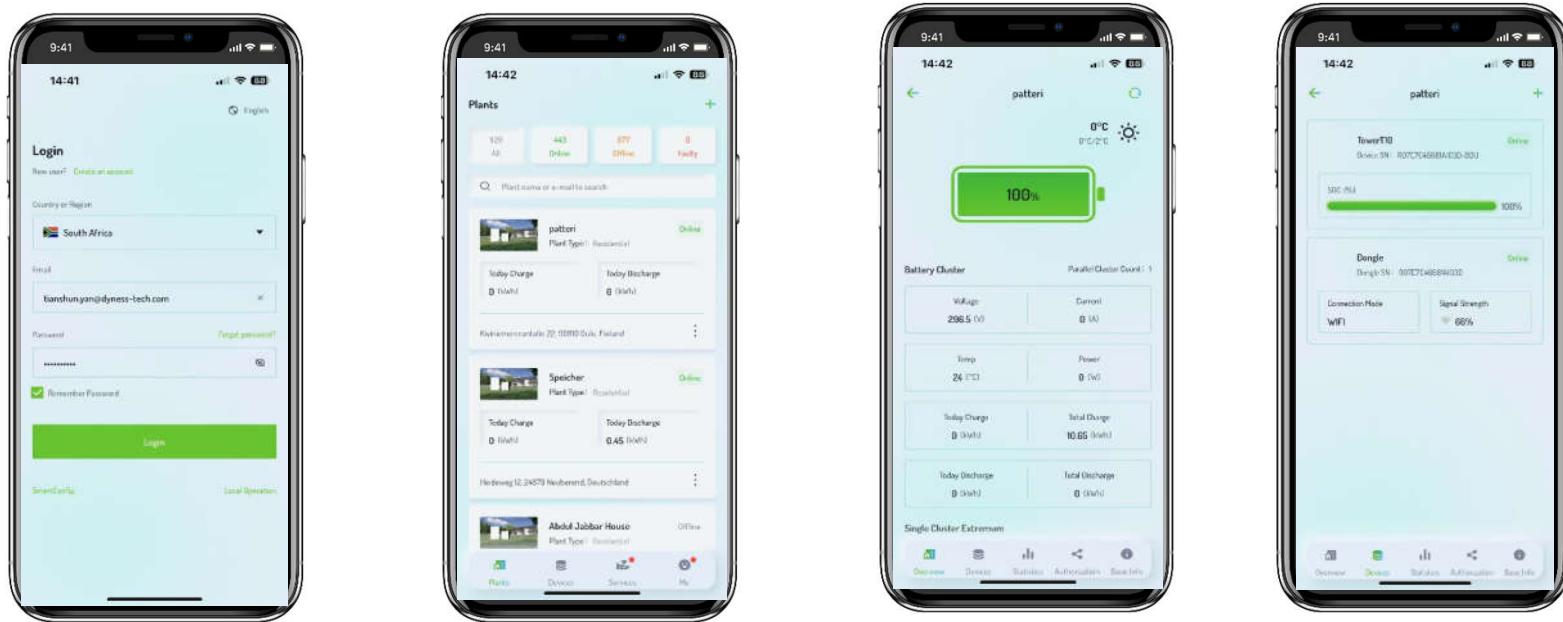


The convex bump at the bottom of the battery shell snaps into the round groove of the bracket

# RESIDENTIAL PRODUCTS

## WIFI Monitoring

DYNES

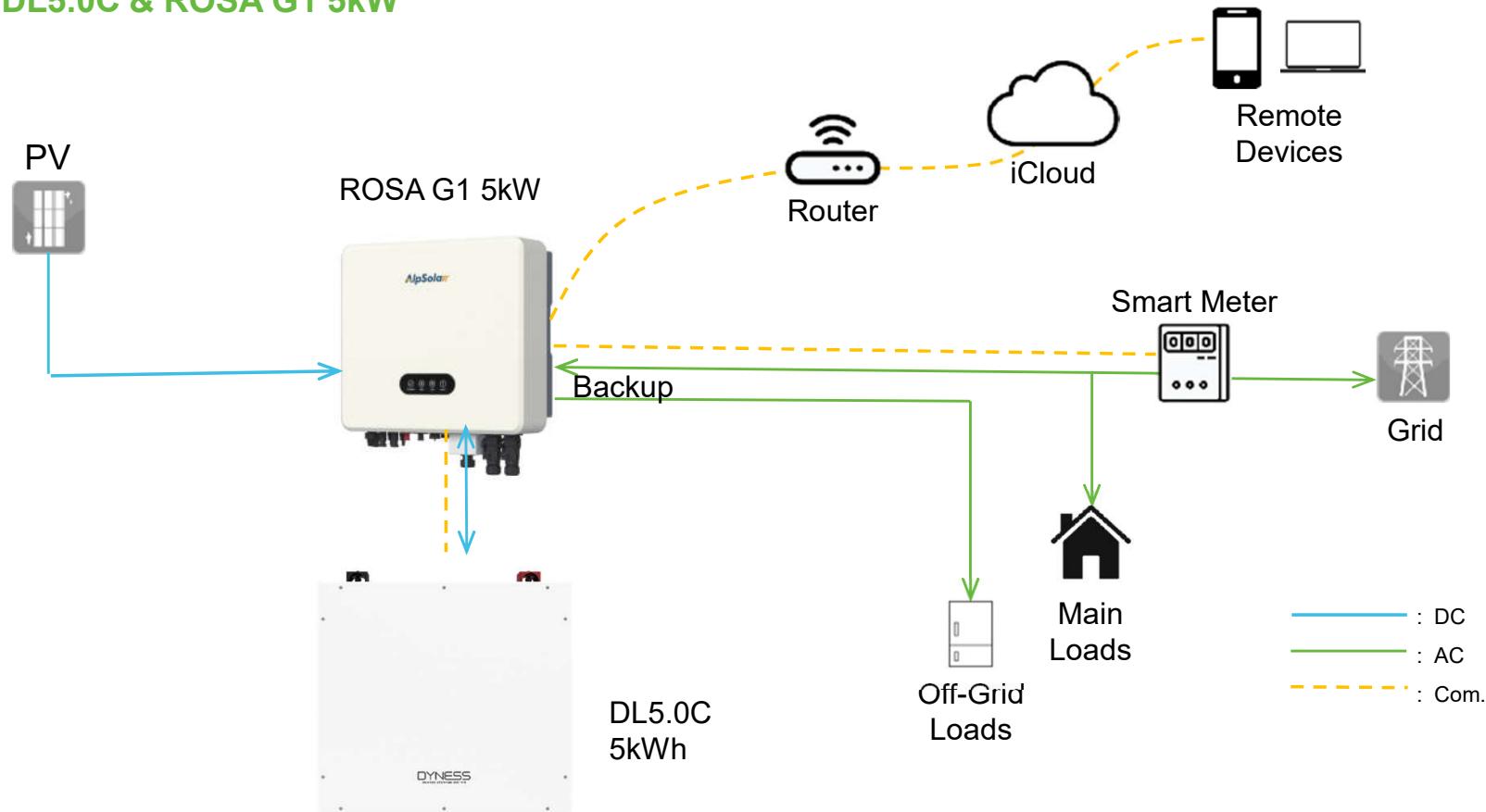


Customer can view Dyness battery status such as voltage, current, temperature, etc. via Dyness App.

# Energy Storage Solution

DYNESS DL5.0C & ROSA G1 5kW

DYNESS



Part 04

# C&I PRODUCTS

»»»





# STACK100



**DYNESS**

Model	STACK100
Battery Type	LiFePO4
Module Voltage/Capacity	51.2V/100Ah
System Modules Serial Number	3~15
System Energy Range	15.36-76.8kWh
Operating Voltage	134-876V
Recommended Charge/Discharge Current	50A (0.5C)
Max. Charge/Discharge Current	100A (1C)
Peak Discharge Current (2min 25°C)	125A(1.25C)
Depth of Discharge	95%
Communication	CAN/RS485
Cycle Life	6000 cycles / 10 Years
Signal Module Weight	47Kg
Max. Single Cluster Dimension[W*D*H]	591*390*1700mm - 11 module
Charging Temp. Range	0 ~ 55°C
Discharging Temp. Range	-20 ~ 55°C
Protection Level	IP20
Fire Protection System	Aerosol fire extinguisher
Installation method	Stack type
Cooling method	Forced wind cooling
WIFI Module	Built-in WIFI module; APP OTA Function
Certification & Safety Standard	CE-EMC/CE-RED/62619/63056/62477/62040 /UN38.3
Compatible Inverters	Deye/Goodwe/Solis/SAJ/Sinexcel/Hoymiles/Gro-watt/Ecatus/Sermatec/ATESS/Sunways etc.

# STACK100



## Easy installation and maintenance

Plug and play in connector,  
IP20 Indoor installation. **Easy to replace BMS**

## Flexible space layout

Each cluster from **3 units** to **15 units**,  
adding new modules within **3 years**

## Flexible Expansion

Expandable to a maximum of **957.6kWh**  
in parallel, **no need 2<sup>nd</sup> -level BMS control**

## High Performance

**1C** charging & discharging  
Tier 1 battery cell, built-in air-cooling system

Storage temperature: 5 °C ~ +45 °C

Relative humidity: 0-85%RH



## Safety

Each PACK has an independent **Aerosol** fire extinguishing device



# STACK100

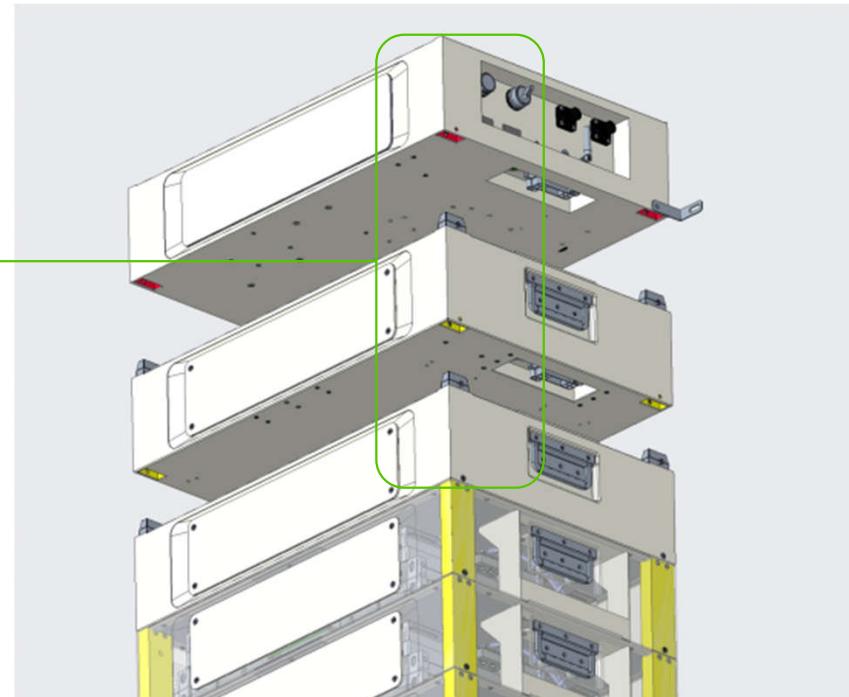
Rackless stackable design with integrated support by steel frame

DYNES



The integrated steel skeleton inside the module housing improves the load-bearing capacity;

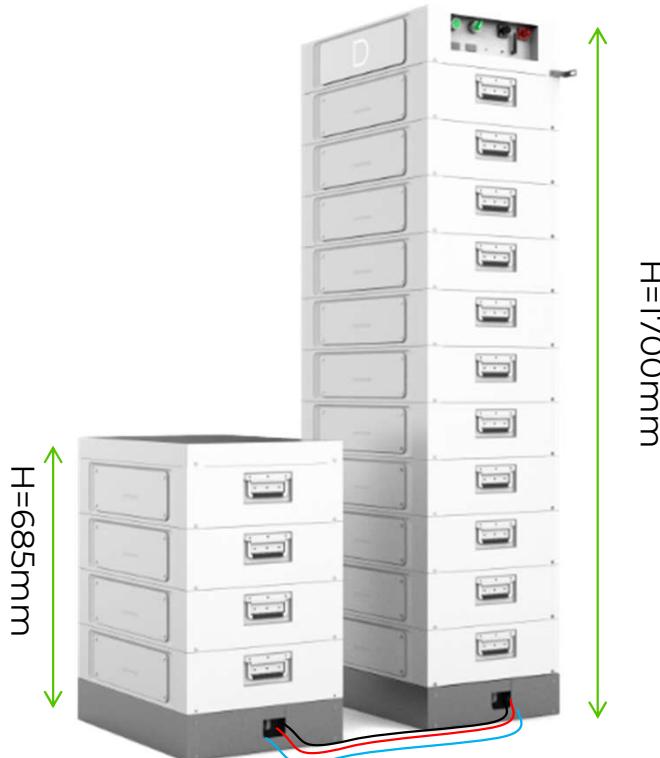
Modular design for easy transportation/Installation



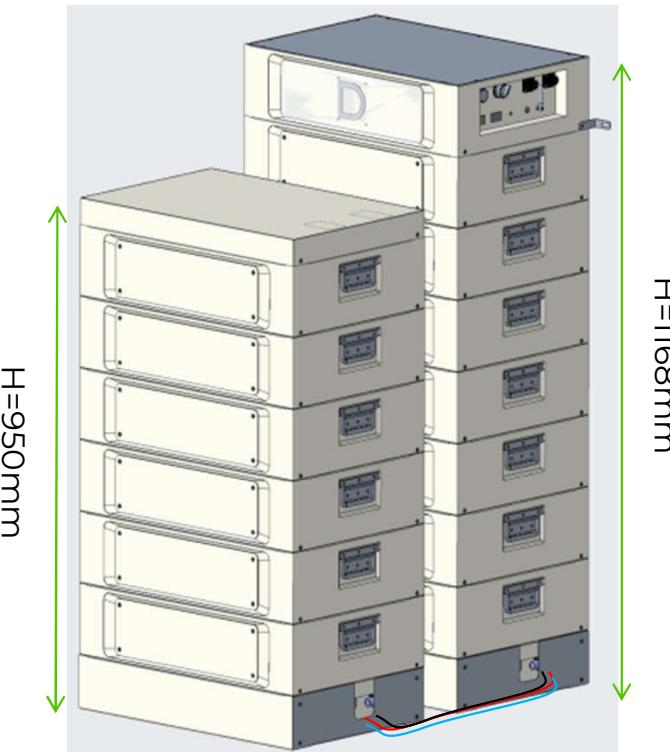
# STACK100

Flexible space layout ability

DYNESS



Option1: 15 modules in series(4+11), 76.8KWh

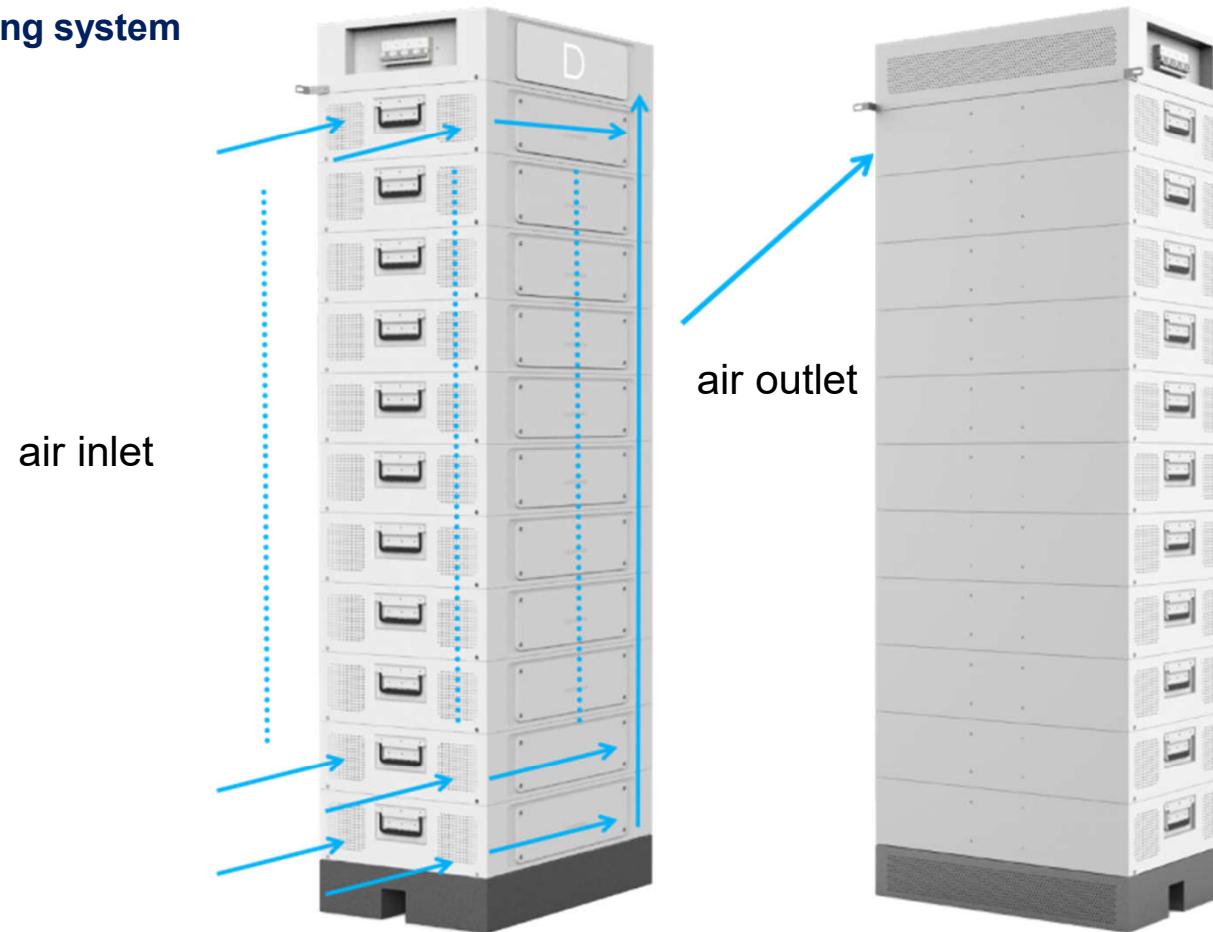


Option2: 13 modules in series(6+7), 66.56KWh

# STACK100

Built-in air-cooling system

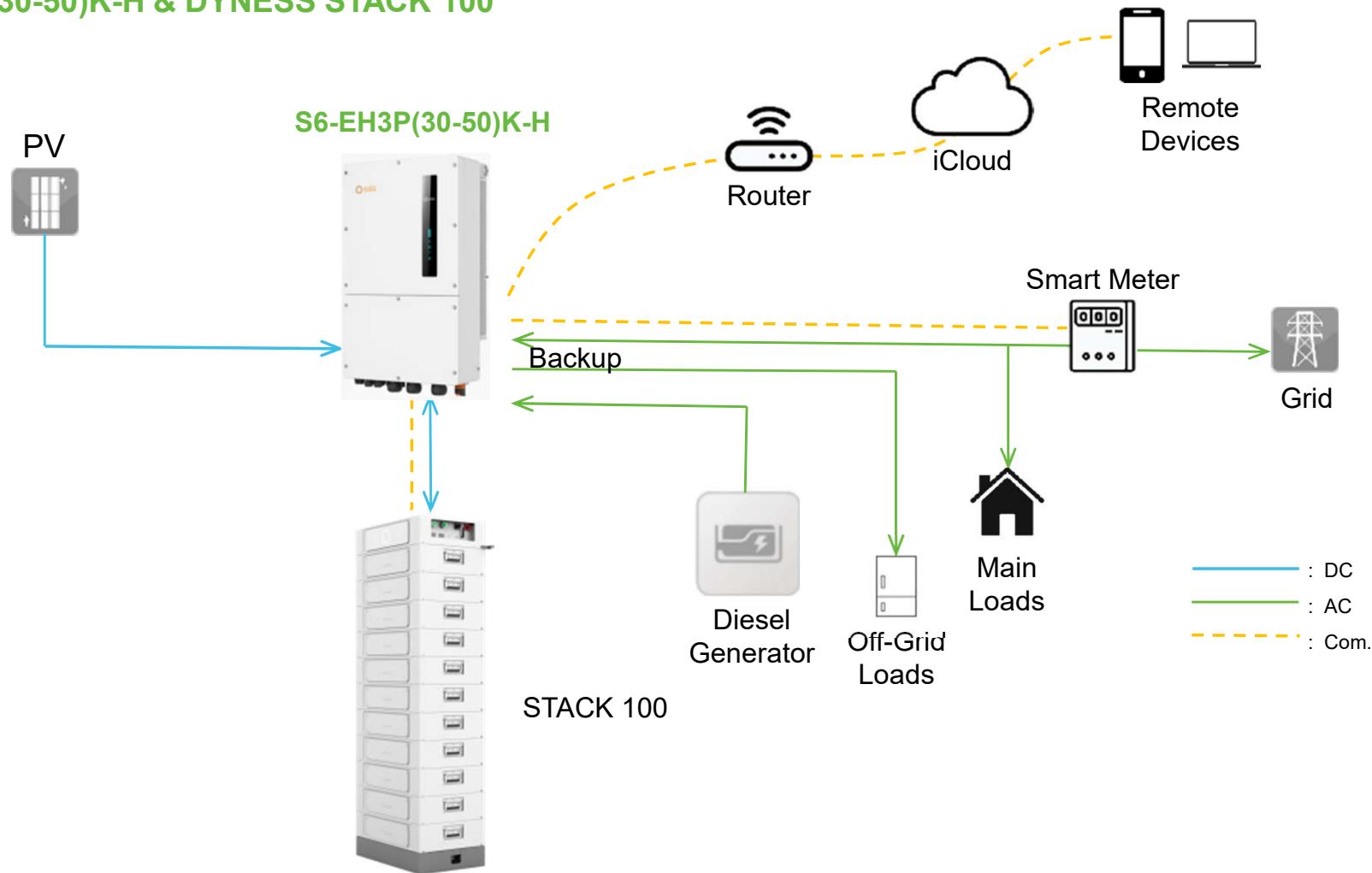
DYNES



# Energy Storage Solution

S6-EH3P(30-50)K-H & DYNESS STACK 100

DYNESS



# PowerRack -HV4 (High-Voltage)

548\*568\*1412/2012 mm



4-11 Modules in series

Two Rack options: **7s** or **11s**

Max. **12** Clusters in parallel



**High Safety**  
LFP & smart BMS



**Voltage Range**  
179~876V



**High Voltage**  
High system Efficiency



**Expandable**  
Max 76.8kWh per cluster

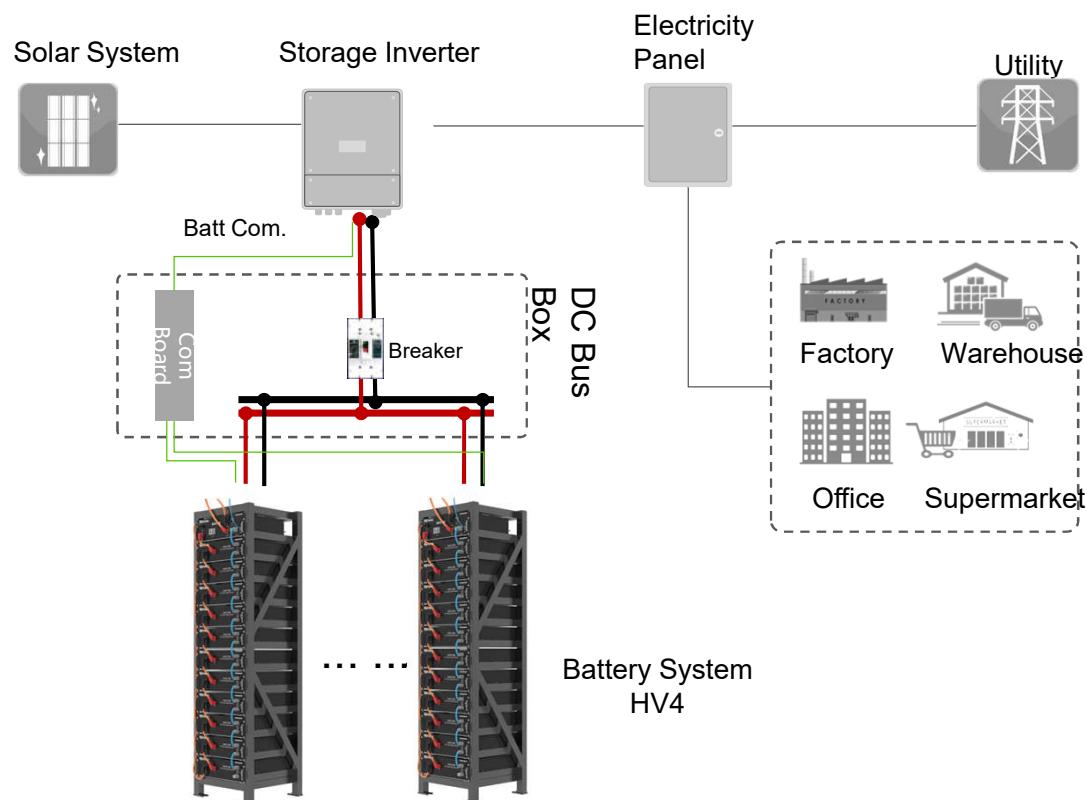


Model	Rack System HV4	
Rack Type	PowerRackHV4-7s	PowerRackHV4-11s
Battery Module Type	HV51100	HV51100
Battery Module Quantity	7units	11units
Nominal Battery Energy	35.84kWh	56.32kWh
Nominal Capacity	100Ah	100Ah
Nominal Voltage	358.4V	563.2V
Operating Vol. Range	313.6-403.2V	492.8-633.6V
Nominal Power 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(WDH)	548*568*1412mm	548*568*2012mm
Rack System Control unit Type	BDU100	BDU100
Module Quantity and Configuration	7 Units in series	11 Units in series

Storage temperature: 5 °C ~ +45 °C

Relative humidity: 5%-85% RH

# PowerRack -HV4 (High-Voltage)



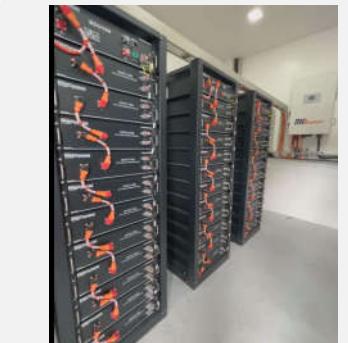
Rack Name	PowerRack HV4
Applicable Module	HV51100
Combiner Box & Related Cables	Customized
Secondary Host	Integrated in Combiner Box
Rack Bracket	Customized
Max. number of batteries per rack	11
Max. number of clusters in parallel	12
Max. System Capacity / kWh	676

# Project Cases

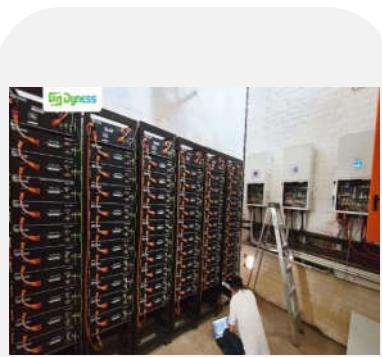
DYNES



HV4, Netherlands, Europe  
Back-up power



HV4, Philippines, Southeast Asia  
Back-up power



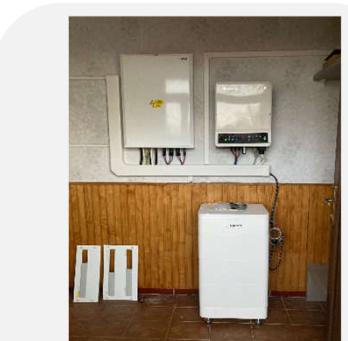
HV4, South Africa, Johannesburg  
Self-use & Back-up power



DL5.0C, Manila, the Philippines  
Backup power



HV4, Philippines, Southeast Asia  
Back-up power



Tower, Nuremberg, Germany  
Self-use



DL5.0C, Manila, the Philippines  
Backup power



DL5.0C, Manila, the Philippines  
Backup power



DH100F



## All-in-one PV+ESS

Operation temperature: -20 °C ~ +60 °C

Storage temperature: -20 °C ~ +45 °C

Relative humidity: 0-95%RH

DYNESS

C&I Storage System

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

## Product features

### Full-scenario

All-in-one multifunctional integration, supporting PV and generator access, grid-to-off-grid switching.

### Ultimate security

Aerosol fire suppression with three-level detections

### Flexible expansion

71~100kwh capacity available for single unit; Reserved DC expansion interface; Support AC expansion;

### Highly efficient and low-cost

280Ah LFP battey with high energy density. EMS Intelligent control; Modular design, backwards output method, reduce infrastructure cost.

# Product Parameters

## DH100F



100kWh + 50kW PCS per cabinet

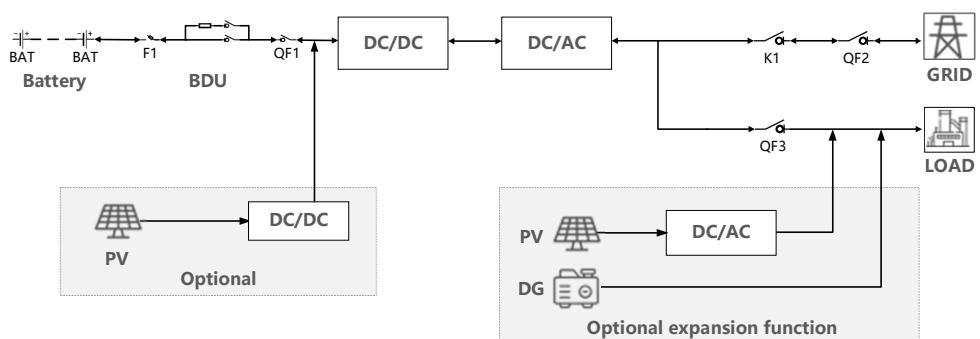
Supports Expanded Capacity

Air Conditioning cooling

Communication:Ethernet/RS485/CAN/USB

IP55 Protection Degree

High Safety, Smart Control



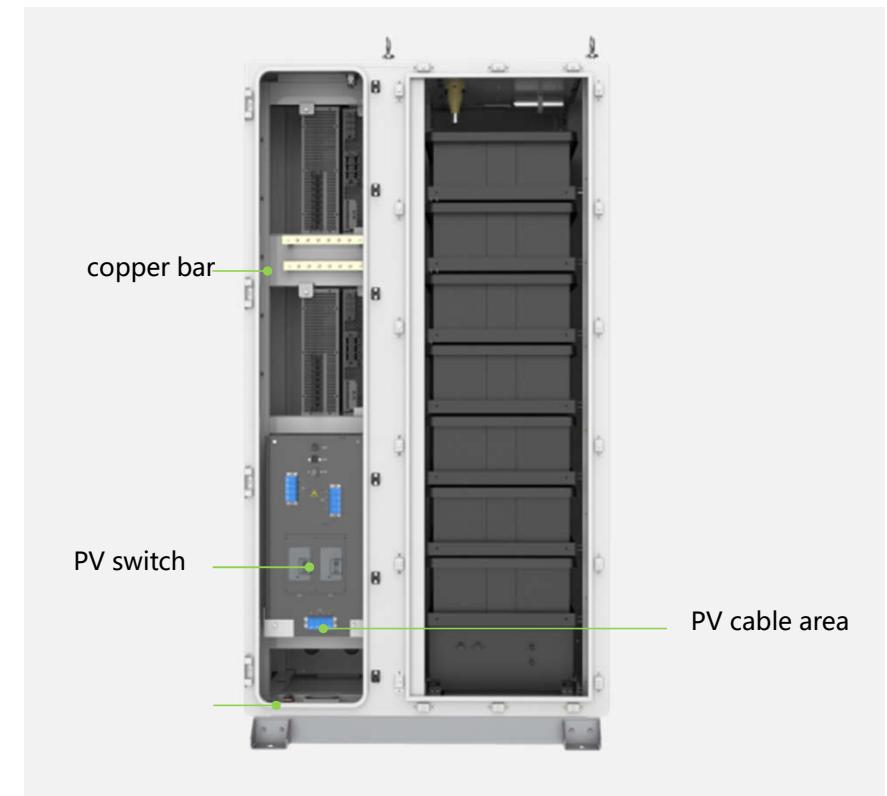
Model	DH100F-71kWh	DH100F-86kWh	DH100F-100kWh		
<b>Battery system specification parameters:</b>					
Battery type		LFP (280Ah)			
Pack configuration		1P16S			
Rated current		140A (0.5C)			
Max. current		160A			
PACKquantities	5Pack	6Pack	7Pack		
System capacity	71kwh	86kwh	100kwh		
<b>AC specification parameters (on-grid):</b>					
Rated power	35kW	43kW	50kW		
AC rated current	51A	62A	72A		
AC rated voltage		230/400V			
Wiring method		3P4L+PE			
Frequency		50Hz/60Hz			
<b>AC specification parameters (off-grid):</b>					
Rated power	35kVA	43kVA	50kVA		
Max. AC current	51A	62A	72A		
AC rated voltage		230/400V			
Wiring method		3P4L+PE			
Frequency		50Hz/60Hz			
Unbalanced load carrying		100%			
<b>PV access</b>					
Max. input power	25kW *2	30kW *2	35kW *2		
Max. current		80A			
Max. short-circuit current		150A			
Start-up voltage	310V	370V	430V		
Input voltage		300~1000V			
MPPT paths		2			
<b>System specification:</b>					
Dimension (W*D*H)	1200*1180*2258 mm (TBD, lifting ring not included)				
Weight	Approx. 1500kg(TBD)				
Temperature	-20~50°C (derating above 45°C)				
Humidity	0~95% ( no condensing)				
Ingress protection	IP55				
Anti-corrosion grade	C3				
Noise	≤70dB (TBD)				
Elevation	3000m (Derating above 2000m)				
Cooling method	Air cooling				
EMScommunications	Ethernet/RS485/CAN/USB				

## Product Structure

1. front-back wind tunnel, less noise
2. cable outlet: bottom/backward, reduce infrastructure cost with no need to install concrete base
3. backward cable output module, backward maintenance solution



FRONT



BACK



DYNES

# DH200F

## C&I Storage System

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

 Overall solar+storage solution

 All-in-one design concept

 High-level safety design

 Convenient outdoor setup

 Allow flexible system design

 Capacity expandable to megawatts

# COMMERCIAL & INDUSTRIAL PRODUCTS

## DH200F

DYNES

The cabinet supports outdoor use, integrated inside with battery modules, storage PCS, air conditioner and fire extinguisher.



**15** Modules in one cabinet  
Independent packaging

Operation temperature: -20 °C ~ +50 °C  
Storage temperature: -20 °C ~ +45 °C  
Relative humidity: 0-95%RH

### Technical parameters of DH200F

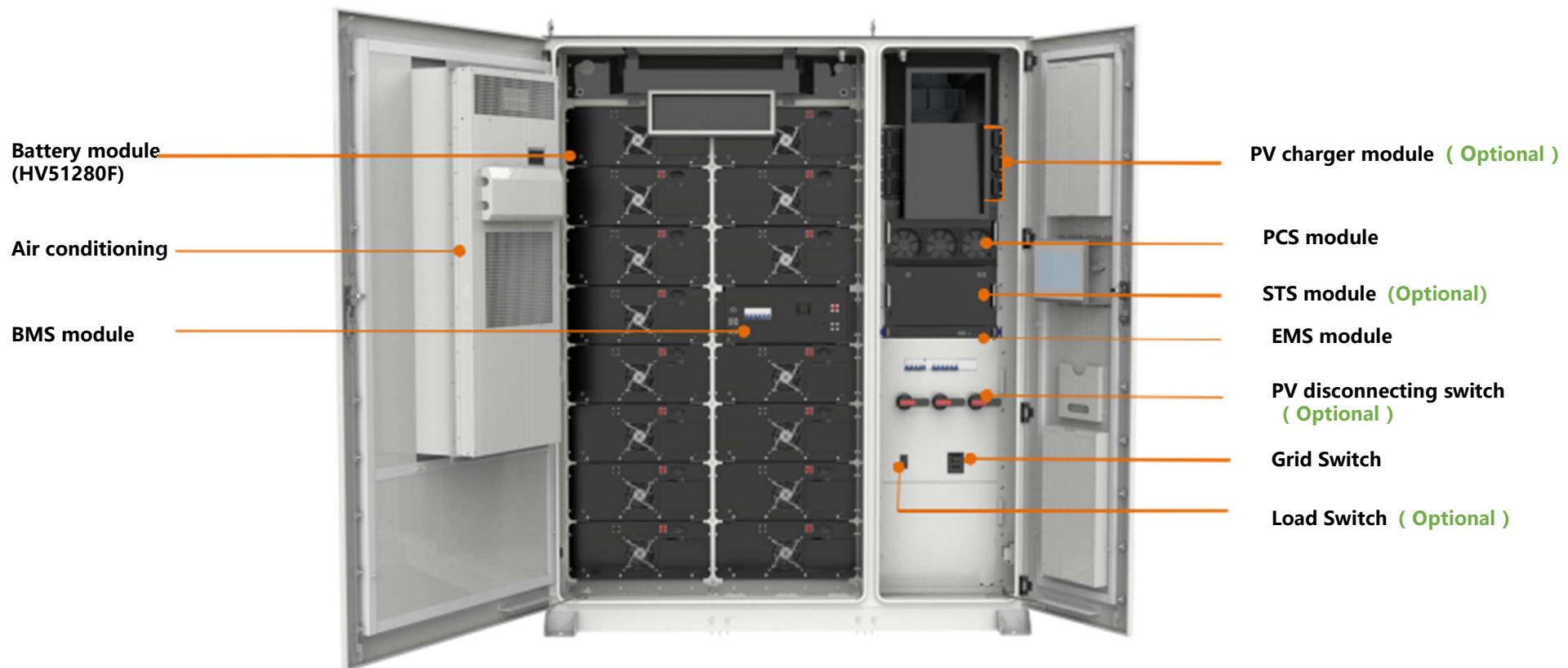
Battery Specifications	
Battery Module Type	HV51280F
Cell Capacity	280Ah
Battery Voltage Range	672~864V
Nominal Current	140A (0.5C)
System Storage Power	215kWh
AC Specifications (on-grid)	
Nominal Power	100kW
AC Nominal Voltage	400V
Wiring	3P4L+PE
Nominal Frequency	50Hz
AC Maximum Current	158A
AC Specifications (off-grid)	
Nominal Power	100kW
AC Nominal Voltage	400V
Wiring	3P4L+PE
Nominal Frequency	50Hz
AC Maximum Current	158A
Unbalanced Load Capacity	100%
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
System Round-trip Efficiency	91% (TBD)
Operation Temperature	-20~55°C
Operation Humidity	0~95%
Protection Level	IP55
Anti-corrosion Level	C3
Noise Level	≤75dB
Altitude	≤3000m
Cooling System	Fan Cooling
Communication	Ethernet /RS485/CAN/USB
Certification	CE/CQC



# COMMERCIAL & INDUSTRIAL PRODUCTS

## DH200F

DYNES

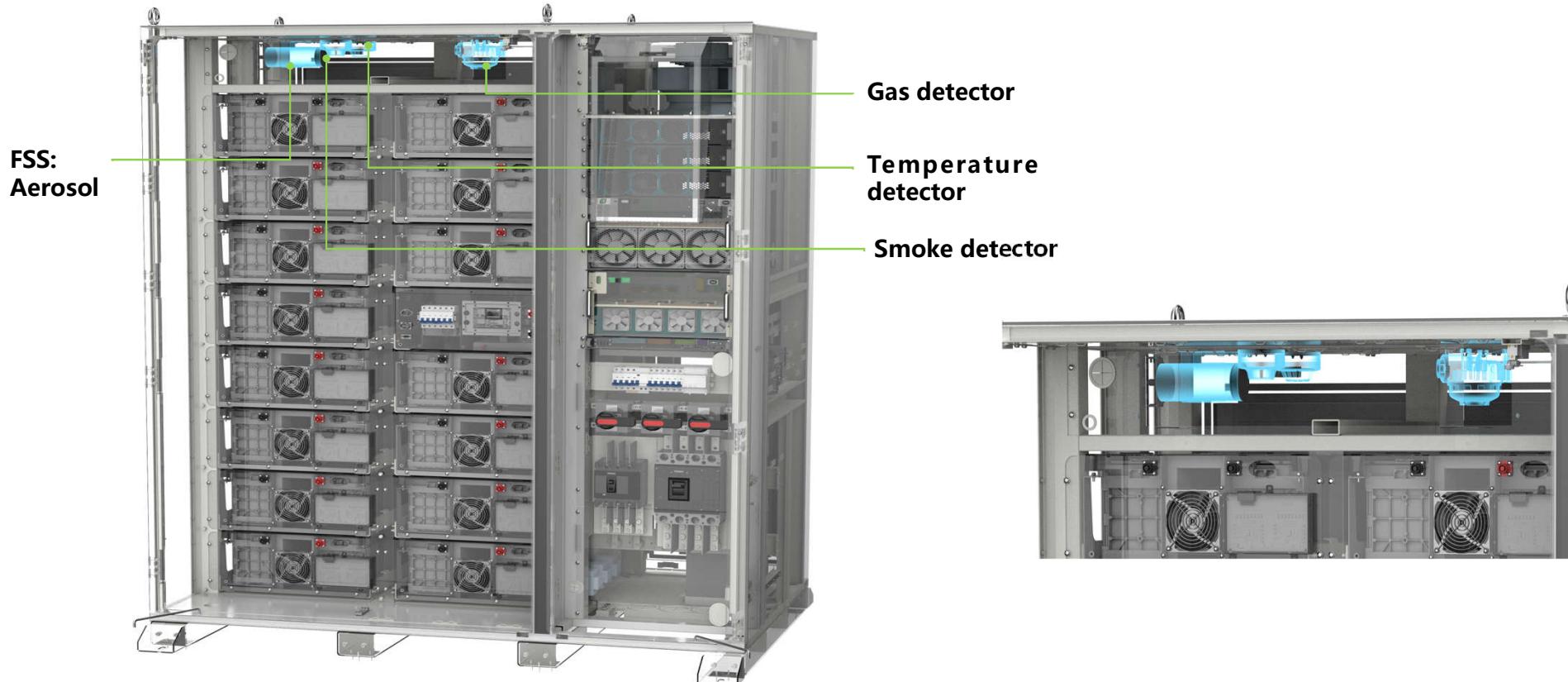




COMMERCIAL & INDUSTRIAL PRODUCT

## DH200F: ALL-IN-ONE SYSTEM

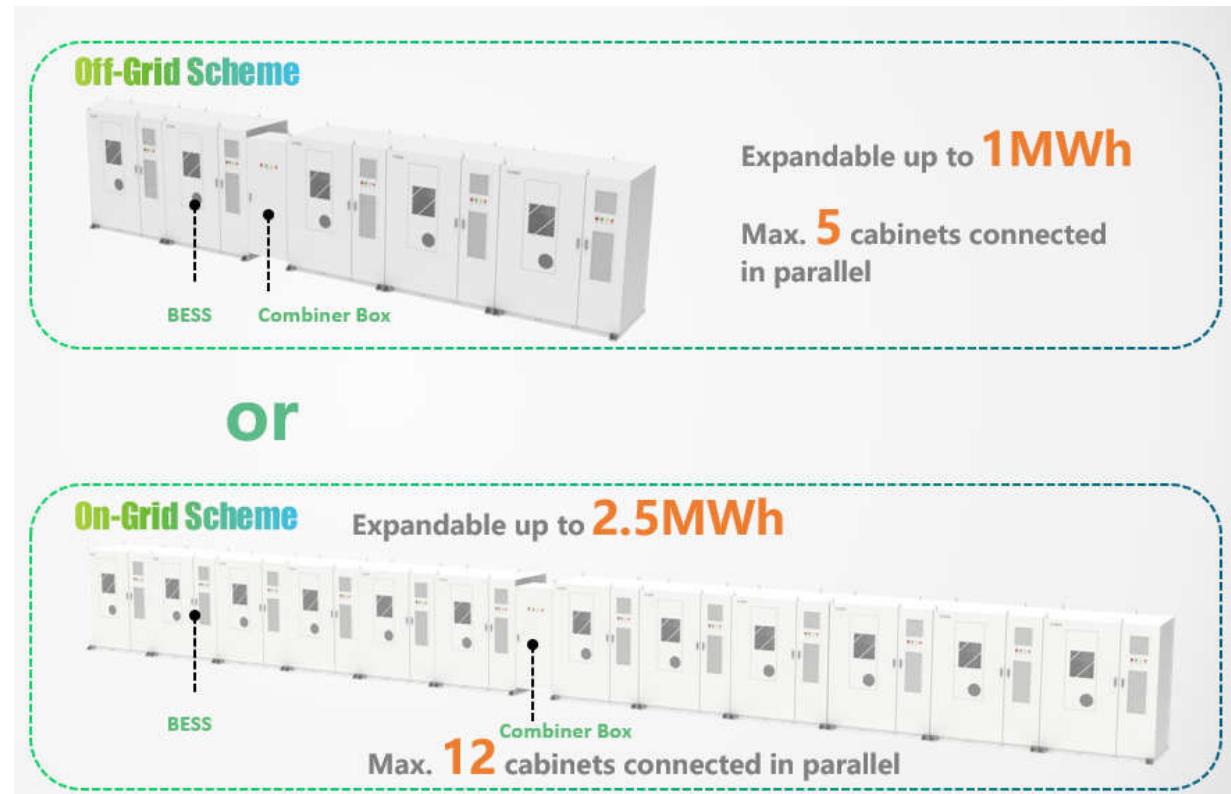
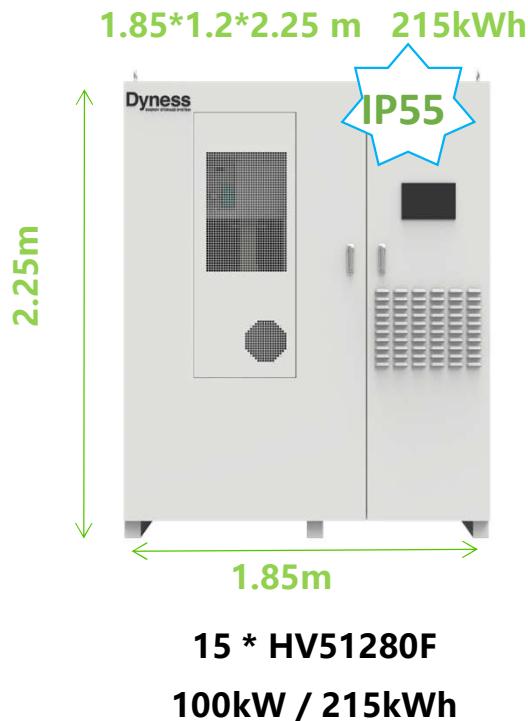
DYNESST





COMMERCIAL & INDUSTRIAL PRODUCTS

## DH200F: ALL-IN-ONE SYSTEM



Supports outdoor use, integrated with battery modules, 100kW PCS, air conditioner, FSS(fire suppression system), MPPT modules(optional), supports multi-communication:Ethernet/RS485/CAN/USB



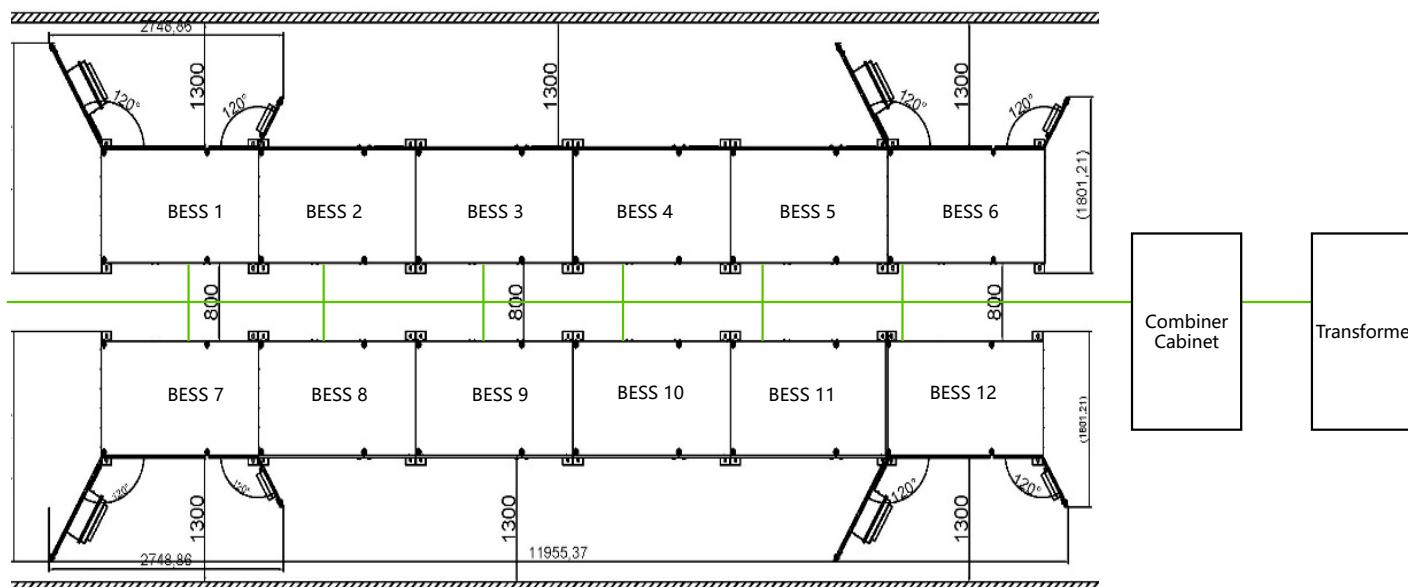
COMMERCIAL & INDUSTRIAL PRODUCTS

DYNESS

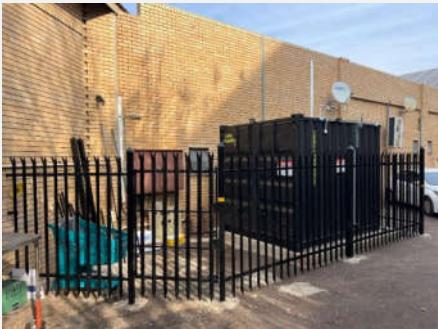
## DH200F: ALL-IN-ONE SYSTEM

**Easy Installation:** Standard cabinet-type All-in-one design,easier wiring,less installation costs

**Flexible Expansion:** Supports expansion from KWh level to MWh level



# Dyness Battery Cases Globally



Centurion, south Africa  
Self-use & Back-up power



Henan, China  
Peak-valley arbitrage



Shenzhen, China  
Peak-valley arbitrage,  
capacity expansion



Rotterdam, Netherlands  
Capacity expansion

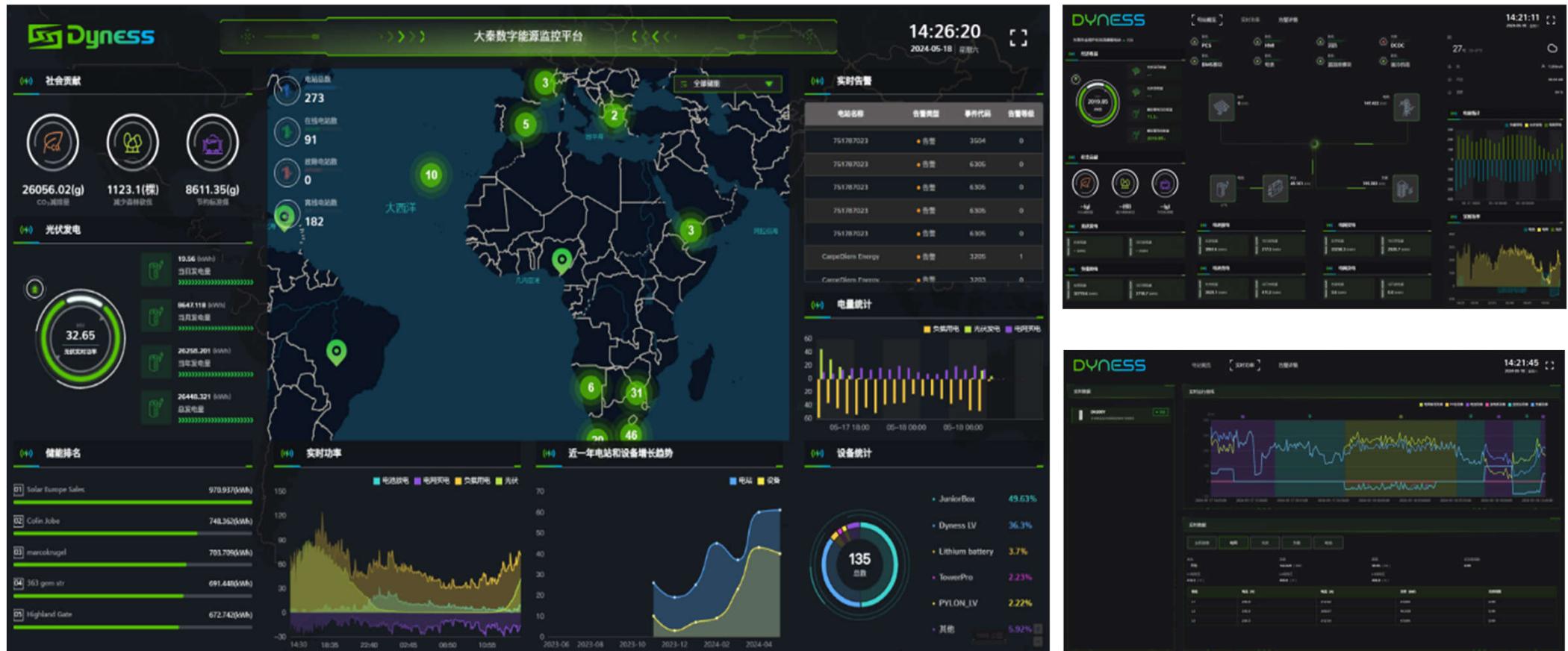


Hungary, Europe  
Self-use & peak-shaving



Spain, Europe  
Self-use

# Dyness Self-developed Cloud Platform



Part 05

# COMPETITOR COMPARISION

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# Comparison between Dyness and Felicity LV Batteries

DYNESSE

## LPBF48250-P

MODEL	LPBF48250	LPBF48300
Usable Capacity	12.5KWh	15KWh
Nominal Voltage		51.2V
Voltage Range		48-57.6V
Recommend Charge & Discharge Current		≤120A
MAX. Charge & Discharge Current		200A@15S
Recommend Output Power		≤ 6000W
MAX. Output Power		10000W@120S
DOD		>95%
Scalability		Up to 6 units in parallel
Communication		CAN&RS485
Ingress Protection		IP21
Cycle Life		≥6000@25°C , 80%DOD
Working Temperature Range		Discharge: -20°C to + 65°C, Charge: + 0°C to + 55°C
Net Weight(KG)		154KG
Gross Weight(KG)		177KG
Product Dimension(MM)		615*350*955MM
Package Dimension(MM)		715*450*1115MM

## PowerBrick

14.3KWh

- Recommend 140A
- Continuous 200A, **10.24KW**
- Recommend 7.1kW
- Continuous **10.24KW**
- Max 50 units in parallel
- 8000 cycles, tie 1 cell CALB
- 115kg; lighter **by 39kg**
- 429\*228\*822; **40% size**
- **10 years** warranty vs 3-5 years warranty

# Comparison between Dyness and Deye LV Batteries

DYNESS



Powerbrick



RW-F10.2

## Advantages of Dyness Powerbrick

1. Built-in WiFi module to support remote monitoring and upgrade function
2. It only needs to connect and upgrade one battery and others will follow for OTA upgrade
3. Master and slave will automatically configure without settings
4. Max 50 units in parallel VS Deye 32 units
5. Optional built-in aerosol fire extinguisher
6. Tier 1 battery cells CALB
7. 8000 cycles , 95%DoD VS Deye 6000 cycles, 90%DOD
8. 14.3kWh and cost-effective
9. working with leading inverters

# Comparison between Dyness and Deye HV Batteries

DYNESS



Stack100



BOS-G

## Advantages of Dyness Stack100

1. Stackable rack will **save transport and material cost**
2. Stackable rack has **no external wiring**, just plug and play, saving installation time and cost
3. Stackable is more **flexible** in battery configuration
4. Internal **fan cooling duct** will make sure even heat dissipation, better battery performance, and 10 years warranty
5. Built-in **aerosol** fire extinguisher
6. Maintenance plate is in front of battery module, **easy for maintain or replace BMS**
7. **Built-in WiFi module** will let customer monitor battery status at cell level via Dyness app and easier for after-sales maintenance
8. LED color on BDU can be **programmable** to show battery working status

Part 06

# COMPATIBILITY

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# Compatibility List

DYNESS



**Ingeteam**



**SUNGROW**  
Clean power for all



**GOODWE**



LV Compatibility list.pdf



HV compatibility.pdf

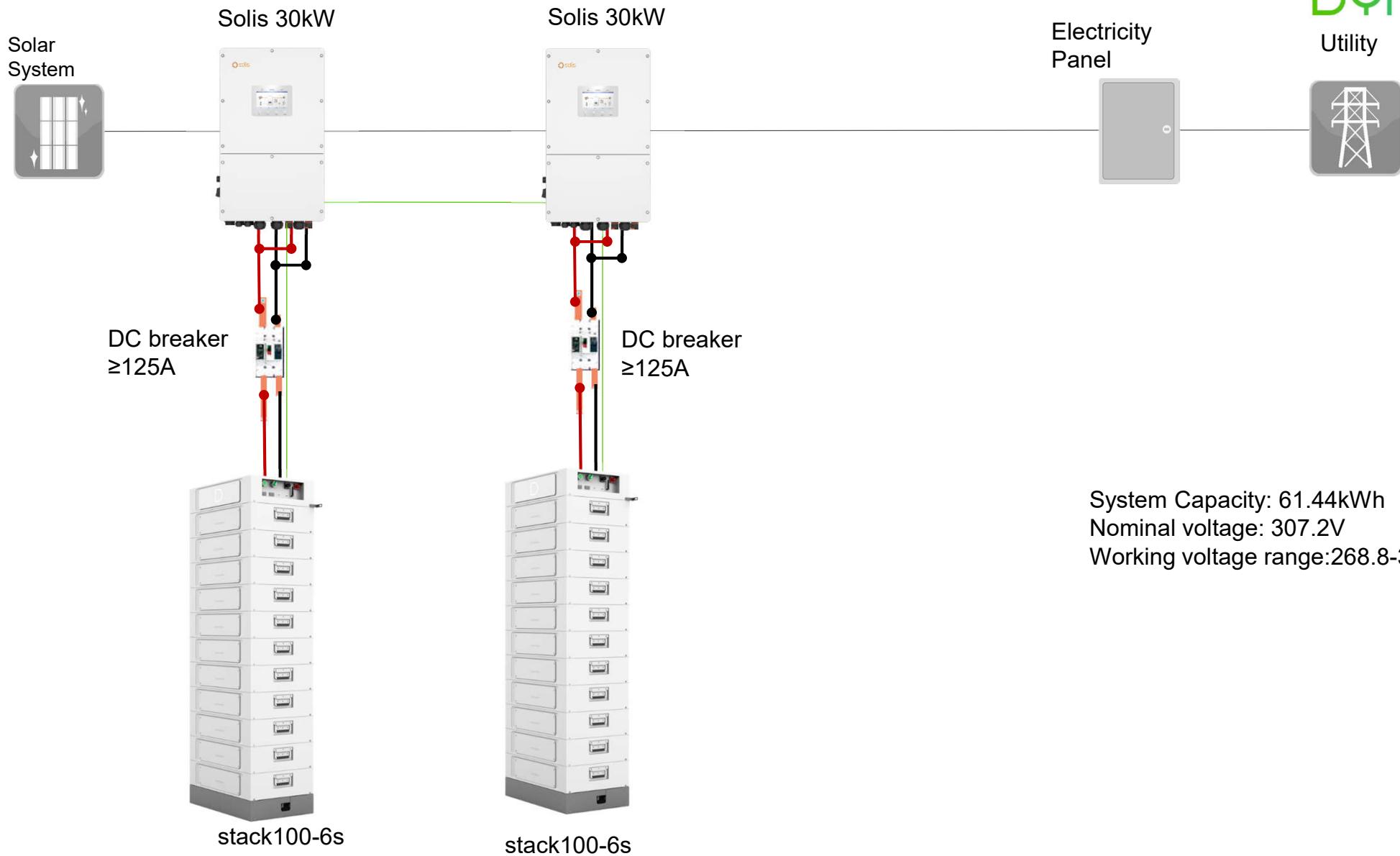


**GROWATT**

**Deye**

...





**DYNES**

Utility



DYNES

THANKS!

Dyness

[www.dyness.cn](http://www.dyness.cn)