

# Energy Storage System Solutions

**DYNES****DYNES HEADQUARTERS**

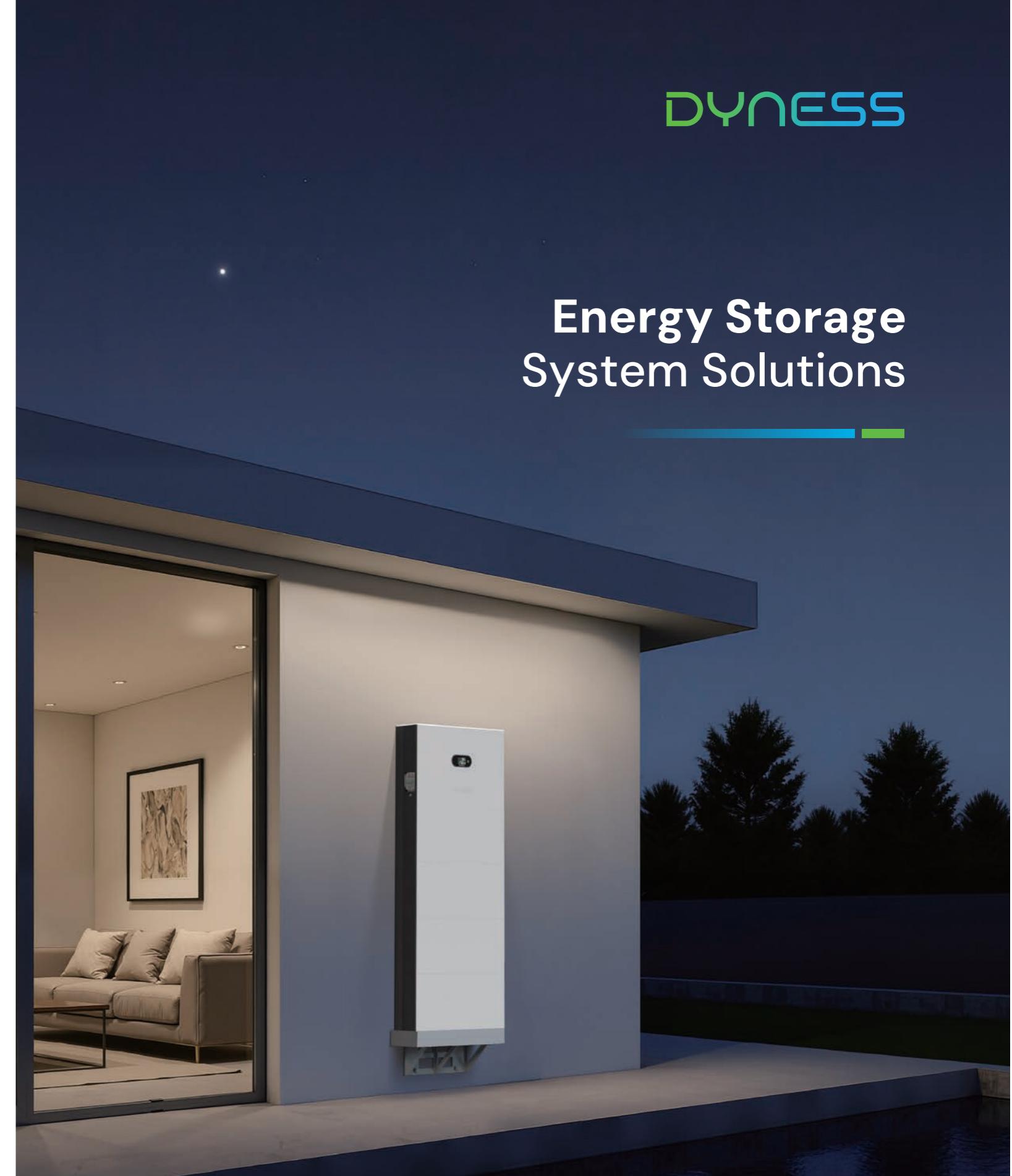
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**Australia****Discover Your Nature**

# About Dyness

Dyness, founded in 2017, is a global pioneering energy storage solutions innovator. Relying on advantageous technology and robust product R&D capabilities, Dyness has established a comprehensive product portfolio for full scenarios, including C&I and residential energy storage throughout the entire lifecycle. With its global headquarters in Suzhou, China, Dyness has provided safe, reliable, and high-quality products and services to 500,000+ users in 100+ countries and regions.

At Dyness, customer satisfaction is always Dyness' top priority. Aligned with its mission to reduce the Earth's temperature, Dyness is collaborating with 90+ global brand partners to reduce the cost of renewable energy usage for users. As the pace of global energy transition accelerates, Dyness is committed to promoting sustainable development on a global scale through commercial deepening. It strives to work alongside the industry, market and society to build a low-carbon future worldwide.

- Mission

Driving digital energy development, reducing the cost of energy acquisition, and lowering Earth's temperature.

- Vision

Achieving customer priority, enabling the advancement of global sustainable pursuits, and striving to become a better version of oneself.

- Values

Be True Be Pragmatic Be Excellent Be Altruistic



# Global Footprint

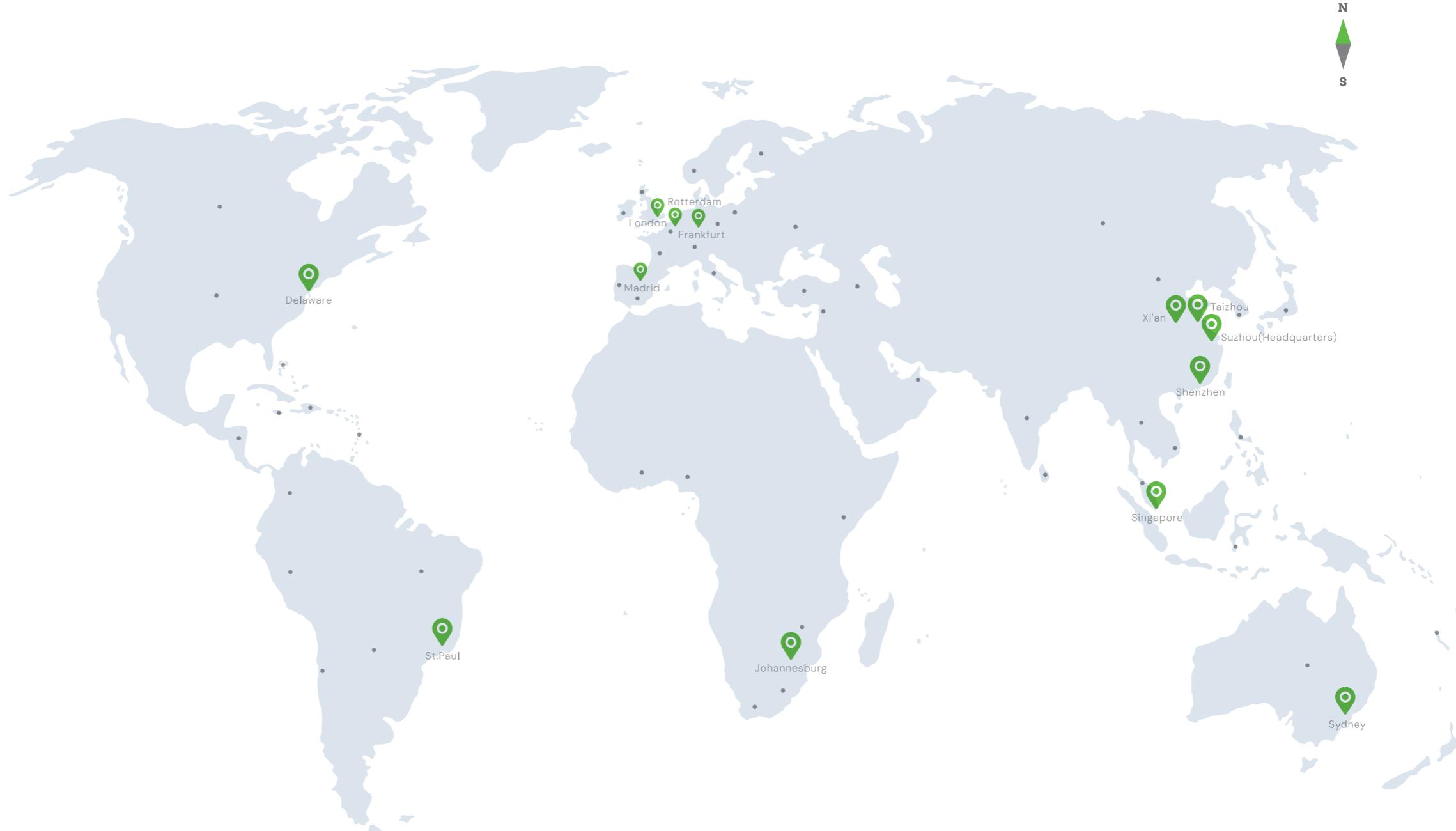
The Global Pioneering Energy Storage Solutions Innovator

- EUPD Top Brand PV (Storage)
- China TOP 500 Hidden Unicorn
- iF Design Award 2024 Winner

And more...

● Main Shipping Areas

📍 Branches



**13**

Global Branches

**2**

Production Centres

**2**

R&D Centres

**3GWh**

Annual Production Capacity

**100+**

Global Markets

**500,000+**

Users

# Residential ESS Product Overview



# C&I ESS Product Overview ➤

## Air-cooled All-in-One Cabinet



DH200F V2.0



DH200F V3.0



DH100F

## Liquid-cooled All-in-One Cabinet



DH200Y



DH800Y

## Air-cooled Battery Cabinet



Standard battery cabinet

BF100



DC battery cabinet

BF200-DC(C3)



BF200

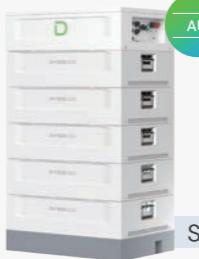


BF200-DC(C5)

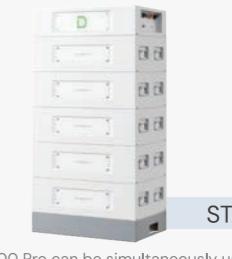
## Stackable Energy Storage Battery



STACK100 \*



STACK100 Pro \*



STACK280

\* STACK100 and STACK100 Pro can be simultaneously used in both residential and C&I ESS

Gen 1

Gen 1.1

Gen 2

Core product for the AU market

- Performance upgrade
- Fire protection optimization
- Wiring optimization

- Fire protection upgrade
- Protection upgrade
- More flexible capacity
- Wider application range

# Cygni

- High Voltage(L-N 220/230/240)
- 7.68 kWh to 15.36 kWh/Cluster
- Charge/Discharge 40A (1C)
- Battery Extendable up to 3 Clusters
- IP66



## • Plug & Play

Wiring free stack-up

## • 1C Rate

Charge / Discharge faster

## • VPP Ready

Ready for EMS/VPP integrations

## • Auto Commissioning & Examination

1-min fast commissioning

2-min automatic system diagnose

## • Battery Balance

Mixing of modules within 3 years

## • Fire Extinguisher Integrated

Bulit-in aerosol fire extinguisher

## Specification

Model	Cygni 8.0HS	Cygni 10.0HS
Solar Input	Max. PV Input Power (W)	12000
	Max. PV Input Voltage (V)	600
	MPPT Range (V)	60~550
	Nominal PV Input Voltage (V)	390
	Max. Input Current / Max. Short Current (A)	16 / 23
	No. of MPP Trackers / Strings per MPPT	3/1
AC Output (On-grid)	Nominal Power Output To Grid (VA)	8000
	Max Power From Grid (VA)	8000
	Nominal Output Voltage (V)	L-N 220/230/240
	Nominal Output Frequency (Hz)	50
	Output Power Factor	Adjustable from 0.8 leading to 0.8 lagging
	Output THD <sub>i</sub> (Nominal Power)	<3%
AC Output (Off-grid)	Nominal Output Power (VA)	8000
	Max. Output Power (VA)	9600@60s
	Nominal Output Voltage (Vac)	L-N 220/230/240
	Nominal Output Frequency (Hz)	50
	Output THD <sub>v</sub> (Linear Load)	<3%
	Backup Switch Time (ms)	<10
Inverter Efficiency	Max. Effciency	97.50%
	European Effciency	97.00%
Protection	Electrical Protections	Anti-island Protection, PV Reverse Protection ,Battery Reverse Protection, Residual Current Monitoring Unit, Over Current/Voltage Protection, AC Short Circuit Protection, PV Switch (PV II)
	DC Switch	Solar: Integrated (PV II), Battery: Integrated
	Surge Protection	DC Type II / AC Type III
	Safety Protection	Built-in aerosol fire extinguisher for each battery module
Battery	Battery Module Type	Cygni BAT-3.8 (LiFePO <sub>4</sub> )
	Expandable Quantity*	(2~4 Modules)*1/2/3
	Norminal Energy (kWh)	3.84
	Operating Voltage (V)	84 ~ 108
	Nominal Voltage (V)	96
	Max.Charge/Discharge Power (kW)	3.84 (1C / 40A)
	Recommended DOD (Depth of Discharge)	95%
	Cycle Life**	≥8000 cycles
	Topology	Non-Isolated
System	Charging / Discharging Temp.Range	0°C ~ 50°C
	Relative Humidity	0~95%
	Operating Altitude	<3000 m
	Cooling	Natural Convection
	Noise (dB)	<35
	System Weight	Inverter: 27.5kg, Battery: 40.5kg
	System Size (W*D*H mm)	Inverter / Battery module: 650*180*450/300
	Installation Methods	Wall-Mounted & Floor-standing
	Communication	RS485, Wi-Fi, Bluetooth
	User Interface	LCD; APP; Web
Certifications	Protection Level	IP66
	Certifications & Standards	UN38.3, AS/NZS 4777.2: 2020, IEC 62109-1/2, IEC62040, EN 62902:2017/A1:2021,IEC/EN 61000-6-1/3
	Country of Manufacture	China

\* Each string can connect 2 to 4 modules in series, and each system can support up to 3 strings in parallel. The number of modules per string must be equal  
\*\* Test conditions: 0.2C Charging& Discharging. @25°C, 95% DOD, 70%EOL

# Powerbox G2

- Low-Voltage (51.2V)
- 10.24kWh/200Ah
- Up to 50 Units in Parallel
- IP65

# DC-Volt

- Output Voltage: 400V
- Output Current: 14.8/29.6A
- Output Power: 5.9/11.8kW
- IP66



## • 1C-Rate

Max 1C discharge rate

## • Long Lifespan

Cell-level battery passive balancing to decrease the Bucket Effect and prolong the battery cycle life

## • Flexible Expansion

Compatible with the combination of new and old battery

## Specification

Model	Powerbox G2	Powerbox G2+ DC-Volt 6.0K	Powerbox G2+ DC-Volt 12.0K
Battery Type	LiFePO <sub>4</sub>	LiFePO <sub>4</sub>	LiFePO <sub>4</sub>
Nominal Battery Energy	10.24kWh	10.24kWh	10.24kWh
Usable Energy	9.728kWh	9.728kWh	9.728kWh
Nominal Capacity	200Ah	200Ah	200Ah
Nominal Voltage	51.2V	400V(Output)	380~500V
Operating Voltage	44.8~57.6V	380~500V	380~500V
Nominal Charge / Discharge Power	5.12kW	/	/
Max Discharge Power	10.24kW	6.0kW	10.24kW *
Nominal Output Power(W)	/	5900	11800
Recomended Charge / Discharge C Rate	0.5C	0.5C	0.5C
Max Discharge C Rate	1C	0.6C	1C
Recommended Charge/Discharge Current	100A	/	/
Max Discharge Current	200A	14.8A	29.6A
Peak Discharge Current	300A (2mins, 25°C)	150%Pn@10s	150%Pn@10s
Recommended Depth of Discharge (DOD)	95%	95%	95%
Net Weight	99.7kg	99.7kg+16.5kg	99.7kg+18kg
Dimension[W/D/H] (mm)	Powerbox G2: 710/175/646	DC-Volt: 475/175/646	
Operating Temp. Range	-20°C~55°C	DC-Volt: -25~50°C	
Communication	CAN/RS485	BMS: CAN; EMS: RS485; E-Stop: YES (1*DI)	
Cycle Life **	≥8000 cycles	≥8000 cycles	
Protection Level	IP65	DC-Volt: IP66	
Color	White	White	
Communication	WIFI+APP,LED	WIFI+APP,LED&LCD	
Expansion	Up to 50 units in parallel	Max. 2 DC-Volt in parallel	
Safety Protection	Built-in aerosol fire extinguisher	DC-Volt: Over Current/Voltage Protection; Rapid Shutdown	
Certification & Safety Standard	Powerbox G2: UN38.3/CE-EMC/IEC62619 /IEC62040/CE-RED/ CEC/CEI O-21;	DC-Volt: IEC61000-6-1/IEC61000-6-3/IEC62477-1: 2012	
Compatible Inverters	SMA/Victron Energy/Ingeteam/Solis/ GoodWe/Growatt/ Solplanet/Luxpower/DEYE/ Apsystem etc.	Solis/ GoodWe/Solinteg	
Country of Manufacture		China	

\* Test conditions: 0.2C Charging&Discharging. @25°C, 95% DOD, 70%EOL

\*\*DC-Volt-12K max output power 12kWdc working with multiple Powerbox G2 batteries

# DL5.0

- Low-Voltage (51.2V)
- 5.12kWh/100Ah
- Max 1C Discharge Rate
- Up to 50 Units in Parallel



## • Easy Installation

Compatible with 19-inch cabinet and flexible rack

## • Battery Equalization

Cell-level battery passive balancing prevents SOC jumps and extends battery life

## • 1C Rate

High discharge power for consumption on off-grid site

## Specification

Model	DL5.0
Battery Type	LiFePO <sub>4</sub>
Nominal Battery Energy	5.12kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Operating Voltage	44.8~57.6V
Recomended Charge / Discharge C Rate	0.5C
Recommended Charge/ Discharge Current	50A
Max. Charge Current	75A
Max.Continuous Discharge Current	100A(1C)
Peak Discharge Current	110A(15s)
Depth of Discharge (DOD)	90%
Net Weight	44kg
Dimension[W/D/H]	481/535/140mm
Charging Temp. Range	0~55°C
Discharging Temp. Range	-20~55°C
Communication	CAN/RS485/RS232
WIFI Module	Optional
Cycle Life	≥6000 Cycles
Protection Level	IP20
Expansion	Up to 50 units in parallel
Certification & Safety Standard	UN38.3/CE-EMC/IEC62619/IEC62040/RoHS
Compatible Inverters	SMA/Schneider/Victron Energy/Ingeteam/Solis/GoodWe/Growatt/Solplanet/Luxpower/DEYE/Apsystem etc.
Country of Manufacture	China

\* Test conditions: 0.2C Charging& Discharging, @25°C, 90% DOD

# STACK100 & STACK100 Pro

- High Voltage(150V ~ 750V)
- 5.12kWh / Module, 76.8kWh / Stack
- Parallel up to 920kWh
- Charge/Discharge 100A (1C)
- IP20 (STACK100) / IP66(STACK100 Pro)



## • Plug & Play

Wiring-free stack-up

## • 1C Rate

Charge / Discharge faster

## • Flexible Layout

Customized stack height design

## • Cell Temperature management

Cell temperature difference 3°C

## • Passive Cell Balance

Cell voltage difference 10mV

## Specification

Model	STACK100	STACK100 Pro
Battery Type		LiFePO <sub>4</sub>
Module Voltage/Capacity		51.2V/100Ah
Module Count per Stack		3~15 Modules
Cluster Count per System		Max 12 clusters in Parallel
System Energy Range		15.36~76.8kWh
Operating Voltage		134~864V
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%	100%
Communication		CAN/RS485
Cycle Life <sup>[1]</sup>		≥8000 cycles
Charging Temp. Range		0°C~55°C/-20°C~55°C (with heating function)
Discharging Temp. Range		-20~55°C
Single Module Weight	47kg	55kg
Single Cluster Dimension[W*D*H] (mm) <sup>[2]</sup>	590*390*(233+133*n)	657*460* (292+191*n)
Protection Level	IP20	IP66
Safety Protection	Aerosol fire extinguisher	Aerosol fire extinguisher, Temperature sensor, Pressure Relief Valve, Aerogel pad between battery cells <sup>[3]</sup> , Fireproof protection for the module <sup>[3]</sup>
Installation method		stackable, plug and play
User Interface		Built-in WIFI module + APP, LED
Cooling method	Fan cooling	Natural cooling
Battery Module Name	S51100	S51100 pro
Certification & Safety Standard	CE-EMC/CE-RED/62619/63056/62477/62040/UN38.3/VED2510/CEI 0-21/CEI 0-16	CE-EMC/CE-RED/62619/63056/62477/62040/UN38.3/VED2510 (In process)
Compatible Inverters		Solis/Goodwe/Deye/Solplanet/Solinteg/Hoymiles and etc.
Country of Manufacture		China

[1] Test conditions:

STACK100: 0.2C Charging & Discharging, @25°C, 95% DOD, 70%EOL

STACK100 Pro: 100%(DOD), 0.2C rate Charge & Discharge at 25°C, at the beginning of life

[2] "n" stands for the number of battery modules

[3] Aerogel pad between battery cells and Fireproof protection for the module are optional

# BF100

BF100 is a DC battery cabinet designed for outdoor installation. With an air-cooling system, it can deliver AC output when matched with a third-party inverter, making it ideal for small-scale commercial and industrial scenarios.



- **Flexible Expansion**

Single unit capacity options of 86/100kWh, supports DC expansion

- **Ultra-long Lifespan**

LFP battery, 8000+ cycles, supports up to 10 years of extended warranty for batteries.

- **Simple O&M**

Modular design, side outlet mode.

- **Safe & Reliable**

Three-level fire detection + active exhaust + passive explosion-proof design.

## Specification

Model	BF100-C80	BF100-C100
<b>Battery</b>		
Battery Type	LiFePO <sub>4</sub>	
Battery Capacity	280Ah	
Rated Current	140A	
Max. Current	160A	
PACK Configuration	1P16S*6	1P16S*7
Voltage Range	278.4~345.6Vdc	324.8~403.2Vdc
Nominal Capacity	86kWh	100kWh
<b>System</b>		
Weight	1100±100kg	1200±100kg
Dimension (W/D/H)	725/1200/2260mm	
Max. Efficiency	≥94%	
Air Conditioner Power	2kW (Cooling), 1kW (Heating)	
Temperature	-20~50°C (Derating above 45°C)	
Humidity	0~95%RH (Non-condensing)	
Ingress Protection	IP55	
Anti-corrosion Grade	C3 (Optional C4)	
Cooling Method	Air-cooling	
Noise	≤65dB	
Display	Touch screen	
Elevation	3000m (Derating above 2000m)	
Fire Protection	Aerosol, Multi-sensor/Water ingress detector, Explosion-proof ventilation	
Communication	Ethernet/4G/RS485	
Certification	CE, LVD, UN38.3	
Depth of Discharge	95%	
Cycle Life*	≥8000 cycles/10 years	
Compatible Inverters	Solis/SOSEN/SOLINTEG/Megarevo	

\* Operating conditions: 0.2C Charging & Discharging, @25°C, 95% DOD

# DH100F

DH100F features an integrated multi-functional design that supports PV access and on-grid to off-grid switching. The single cabinet capacity of 71/86/100kWh optional, allowing for customization based on electricity consumption needs.



- **Flexible Expansion**

Single cabinet capacity of 71/86/100kWh optional, supports both on-grid and off-grid AC parallel operation.

- **Simple O&M**

Modular design, rear outlet and lower outlet mode.

- **Safe & Reliable**

Three-level fire detection + active exhaust + passive explosion-proof design.

- **Full-scenario**

Supporting PV access, on-grid to off-grid switching.

## Specification

Model	DH100F-C70	DH100F-C80	DH100F-C100
<b>Battery</b>			
Battery Type			LiFePO <sub>4</sub>
Battery Capacity		280Ah	
Rated Current		140A	
Max. Current		160A	
PACK Configuration	1P16S*5	1P16S*6	1P16S*7
Voltage Range	232~288Vdc	278.4~345.6Vdc	324.8~403.2Vdc
Nominal Capacity	71kWh	86kWh	100kWh
<b>On-grid AC Side</b>			
Rated Power	35kW	40kW	50kW
AC Maximum Current	60A	74A	86A
AC Rated Voltage		400Vac	
Wiring Method		3P4L+PE	
Frequency		50Hz/60Hz	
Power Factor		0.8 (Leading)~0.8 (Lagging)	
THDi		<5% (Rated power)	
<b>Off-grid AC Side</b>			
Rated Power	35kVA	40kVA	50kVA
AC Maximum Current	60A	74A	86A
AC Rated Voltage		400Vac	
Wiring Method		3P4L+PE	
Frequency		50Hz/60Hz	
Unbalanced Load		100%	
THDv		<3% (Liner load)	
<b>Photovoltaic (Optional)</b>			
Max. Input Power	25kW*2	30kW*2	35kW*2
Max. Input Current		80A*2	
Short-circuit Current		100A	
Max. Voltage		1000Vdc	
Input Voltage Range	300~1000Vdc	350~1000Vdc	400~1000Vdc
Start-up Voltage	375Vdc	440Vdc	500Vdc
MPPT Path			2
<b>System</b>			
Weight	1500±100kg	1600±100kg	1700±100kg
Dimension (W*D*H)		1200*1205*2260mm	
Max. Efficiency		84%	
Air Conditioner Power		2kW (Cooling), 1kW (Heating)	
Operating Temperature		-20~50°C (Derating above 45°C)	
Operating Humidity		0~95%RH (Non-condensing)	
Ingress protection		IP55	
Anti-corrosion Grade		C3	
Cooling Method		Air cooling	
Noise		≤70dB	
Elevation		3000m (Derating above 2000m)	
Display		Touch screen	
Fire Protection		Aerosol, Multi-sensor/Water ingress detector, Explosion-proof ventilation	
Communication		Ethernet/4G/RS485	
Certification		CE, LVD, UN38.3	

# DH200Y

DH200Y is the first high-security, high-energy density, DC1000V liquid-cooled all-in-one energy storage system designed for on-grid projects. Single cabinet capacity of 232kWh, maximum support for 10 units in parallel. With a 9% increase in energy density and a 10% reduction in floor space.



## • Flexible Expansion

Maximum support for 10 units in AC parallel, expandable to 2.3MWh; reserved DC expansion port.

## • Ultra Safe

Three-level fire detection + active exhaust + passive explosion-proof design. PACK+PCS IP65,C3/C5 anti-corrosion grade optional.

## • Economical

Occupies an area of 1.58m<sup>2</sup>, energy density up to 147kWh/m<sup>2</sup>.

## • Smart Temperature Control

PACK smart liquid cooling+PCS smart air cooling, cluster-level temperature difference≤ 3°C.

## Specification

Model	DH200Y
Battery	
Battery Type	LiFePO <sub>4</sub>
Battery Capacity	280Ah
PACK Configuration	1P52S*5
Rated Current	140A
Max. Current	160A
Voltage Range	754~936Vdc
Nominal Capacity	232kWh
On-grid AC Side	
Rated Power	100kW
AC Maximum Current	145A
AC Rated Voltage	400Vac
Wiring Method	3P4L+PE
Frequency	50Hz
Power Factor	1(Leading)~1(Lagging)
THDi	≤3% (Rated power)
Max. Number Of Parallel Expansions	10
System	
Weight	2600±100kg
Dimension (W*D*H)	1055*1475*2400mm
Max. Efficiency	90%
Liquid-cooling Power	2.5kW (Cooling), 2kW (Heating)
Operating Temperature	-20~50°C (Derating above 45°C)
Operating Humidity	0~95%RH (Non-condensing)
Ingress Protection	IP55
Anti-corrosion Grade	C3(Optional C5)
Cooling Method	PACK Liquid-cooling + PCS Air-cooling
Noise	≤75dB
Elevation	3000m (Derating above 2000m)
Display	Touch screen
Fire Protection	Aerosol, Multi-sensor/Water ingress detector, Explosion-proof ventilation
Communication	Ethernet/4G/RS485
Certification	CQC, CE, TUV, LVD, UN38.3

## Application Cases

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Dyness has provided safe, reliable, and high-quality products and services to over 500,000 users



# Residential Application Cases



- **Australia** Powerbox G2



- **Australia** Powerbox G2



- **Australia** Powerbox Pro



- **Australia** Powerbox Pro



- **Australia** Cygni



- **Australia** Powerbox G2

# C&I Application Cases



• China DH200Y



• The Netherlands DH100F



• Hungary DH200Y



• Thailand STACK100



• Bulgaria DH200F



• Vietnam BF100

# After-sales Service

Online + offline comprehensive operation and maintenance service system

 1300 396 377

 AUservice@dyness-tech.com



## Offline

8 Supporting Languages  
13 Service Centers  
Worldwide Service Locations



## Online

Sophisticated Online Service Platform  
200+ Online Service Engineers



## Professional

Localized technical support and  
customized service solutions.



## Efficient

After-sales service response time is  
less than 1 hour.



## Responsible

Customer centricity and 98%  
customer satisfaction

