

POWERING YOUR LIFE

Web : www.deyeess.com

Add : Ningbo Deye ESS Technology Co., Ltd
No.568, South Rixian Road, Binhai Economic Development Zone.
Cixi, Ningbo, Zhejiang, P.R.China

Note : The technical data mentioned may be updated or revised due to product development.The data in this brochure is subject to change without notice.The latest datasheet and catalog can be acquired via sales@deye.com.cn

Version No.: Deye ESS Brochure_Global_20260921



Deye New Energy
LinkedIn



Deye New Energy
Facebook



Deye New Energy
YouTube



Deye ESS
Facebook



Deye ESS
YouTube



Deye ESS
Instagram

DEYE ENERGY STORAGE
PRODUCT CATALOG
(GLOBAL)



Stock Code: 605117.SH



WORLD LEADING

ENERGY STORAGE SYSTEM
SOLUTIONS PROVIDER

01

COMPANY PROFILE



LEADING PROVIDER OF ENERGY STORAGE SYSTEM SOLUTIONS

DEYE TECHNOLOGY CO., LTD.

Deye Technology Co., Ltd. is a comprehensive tech manufacturing enterprise, integrating R&D, design, production, sales, and service. It operates modern intelligent production facilities in Ningbo, Jiaxing, and other locations, spanning over 1000,000 square meters with complete production and testing equipment. Listed on the Shanghai Stock Exchange in April 2021.

1000000 m²

Total Area

10000 +

Employees

2021

Listed on SSE

4

CORE INDUSTRY CHAINS



High-Efficiency Inverter Solution



All-Scenario Humidity Solution



Solar HVAC Solution



Smart Energy Storage Solution

DEVELOPMENT HISTORY



2023

Intelligent Energy

Deye established Deye Cloud and energy storage R&D center in Shanghai.

2020

Energy Storage

Deye has been offering low-voltage, high-voltage batteries, and All-in-One ESS that work seamlessly with Deye's storage inverters.

2007

Heat-exchange Field

Expanded into heat-exchange technologies and became a key supplier to Midea.

2025

USD 1.4B New Energy Milestone

The new energy business surpassed USD 1.4 billion in revenue.

2024

Group Revenue Hits 1.5B USD

Diversified in inverters and energy storage, leading the global market share.

2021

Listed on SSE

In April, Deye listed on the main board of the Shanghai Stock Exchange.

2016

Photovoltaic Inverter

Deye's residential and C&I inverters have been rapidly evolving to provide customized solutions.

2000

Environmental Appliances

Deye's dehumidifiers have been leading sales on Tmall and JD.com for years.

1990

Mold Injection

Deye originated in manufacturing injection molded parts, molds, and sheet metal.

OUR FACTORY

50B Annual Planned Output
Before 2030

Ningbo Beilun Headquarters

130,000 sqm



Ningbo Cixi Longshan Base

180,000 sqm



Shanghai Innovation Center

7,000 sqm



Haiyan Base

200,000 sqm



Ningbo Cixi Latest Base

179,195 sqm



Ningbo Beilun 246 Base

100,000 sqm



Ningbo Beilun 246 Phase II Base

40,713 sqm



Malaysia Johor Base

133,546 sqm

ULTIMATE SAFETY

LEADING PROVIDER OF ENERGY STORAGE
SYSTEM SOLUTIONS



CONTINUOUS INNOVATION

Deye is committed to continuous innovation with significant R&D capabilities in Shanghai and Ningbo, employing over 500 top-tier researchers and thousands of technical staff.



6GWH+

Capacity 2025



180,000+

Sqm



600,000+

Packs Capacity



300+

R&D Engineers

GLOBAL CERTIFICATIONS

Ensure compliance with regional standards



GLOBAL LAYOUT





22
Overseas Service
Centers



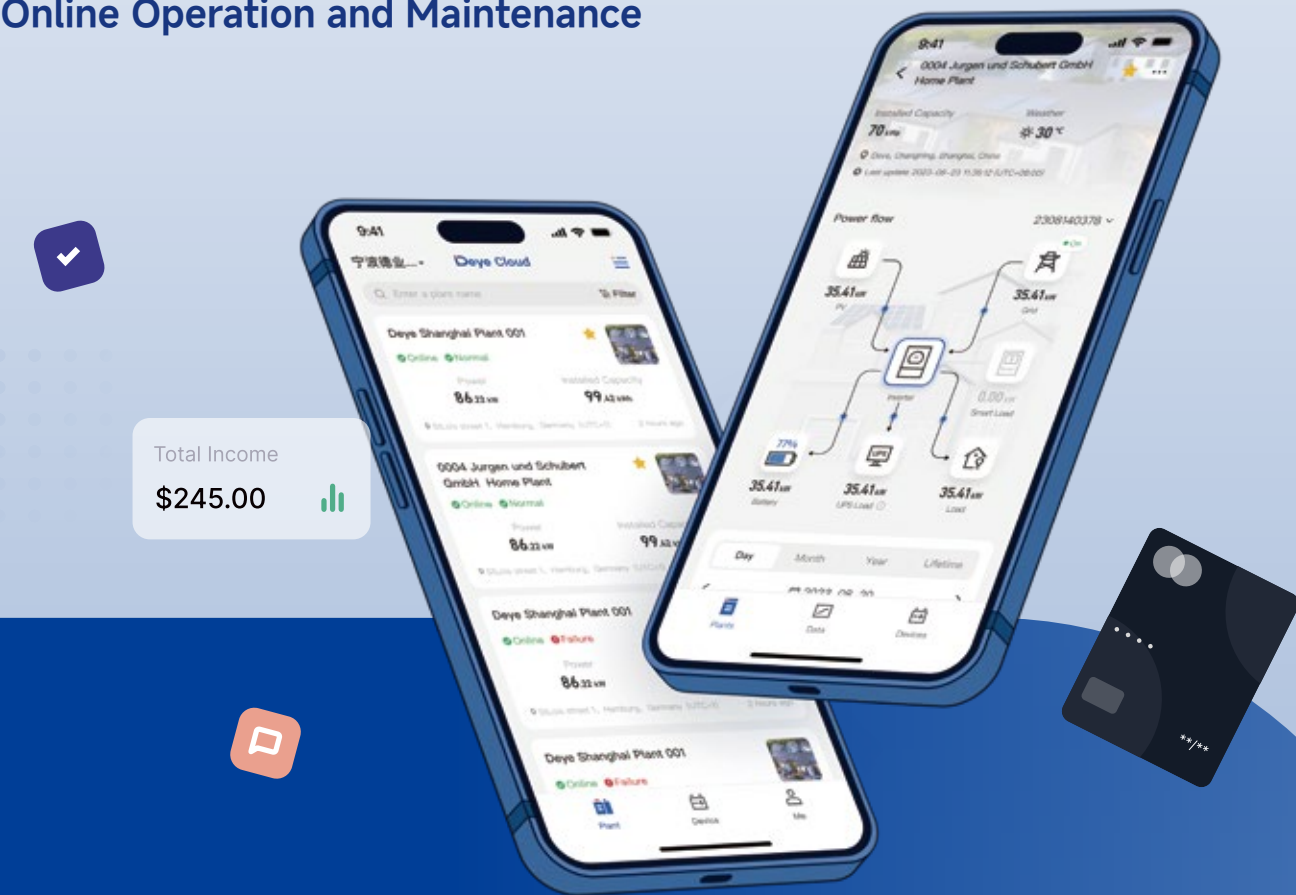
160+
Countries



7M+
Equipment in
Operation

DEYE CLOUD

Cloud Management: Online Operation and Maintenance



- FW Update
- APP & Web
- Alert Notifications
- Localized Data Centers
- AI Assistant

Deye Cloud is an advanced platform specifically designed for Deye Inverter and ESS, providing users with an outstanding online experience.

Through Deye Cloud, users can easily connect their photovoltaic or energy storage systems to the internet, supporting real-time monitoring of electricity usage and load conditions, cloud-based parameter adjustment, and online firmware updates.

With smart load settings based on time and battery SOC, it is possible to achieve home automation based on energy management.

It supports time-of-use or integration with dynamic pricing to achieve the lowest possible electricity costs.

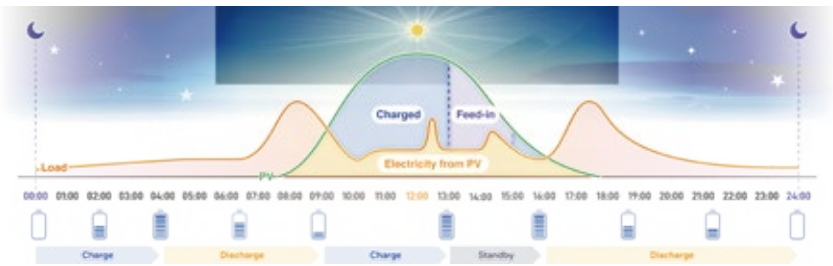
Deye Cloud utilizes two localized data centers in Europe and America to ensure data independence and security.

Customizable Charging and Discharging Function

The inverter can be programmed with 6 different charging and discharging time slots to make the most of time-of-use electricity pricing and reduce costs.

Through the **Deye Copilot** feature in the Deye Cloud, the system can also access local dynamic electricity prices, enabling AI to make decisions on selling or buying electricity (available in select regions).

Self Consumption - conservative

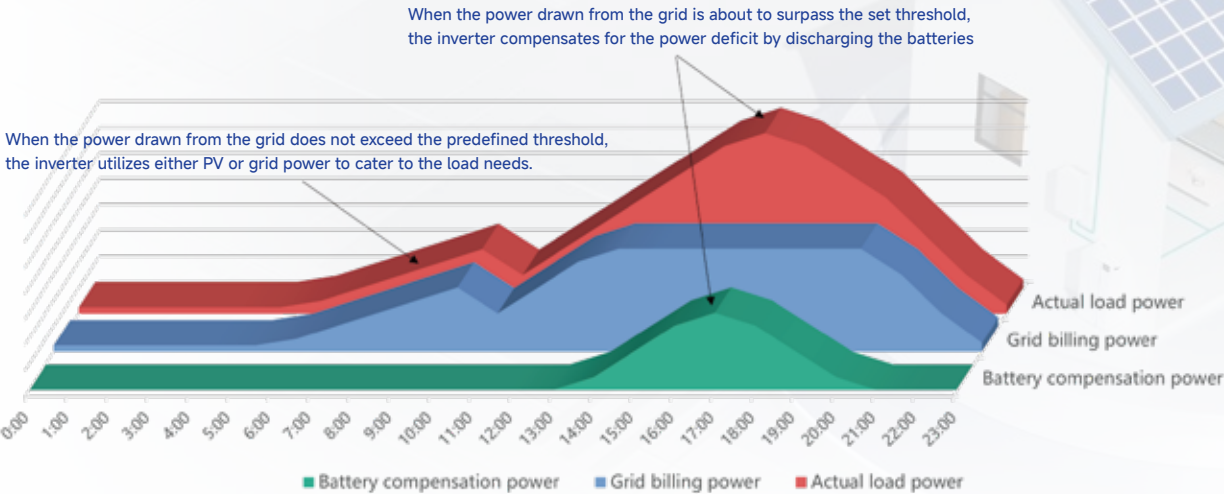


Maximum Earning - radical

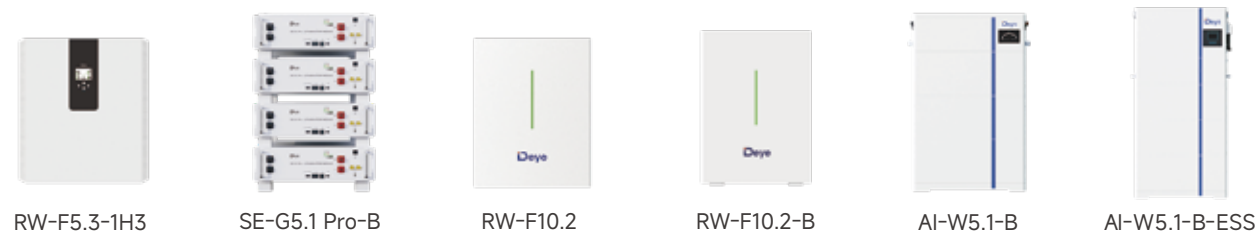
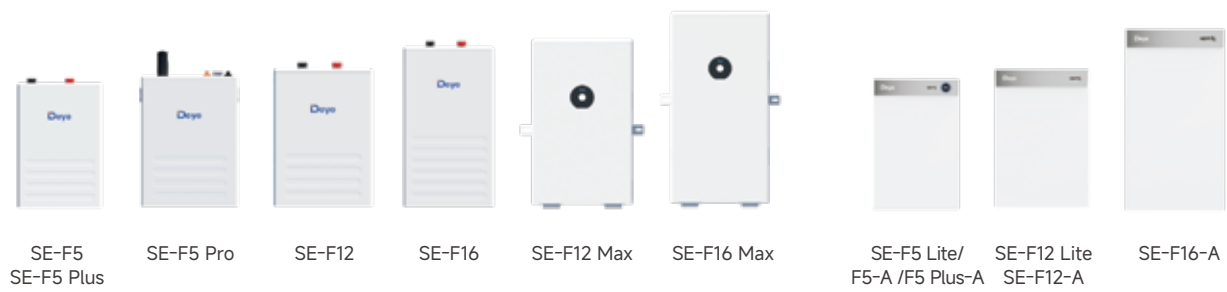


Grid Peak Shaving Function

Grid peak shaving, when the power drawn from the grid approaches the set limit, the battery discharges to supplement part of the power, preventing high-rate electricity usage and reducing costs.



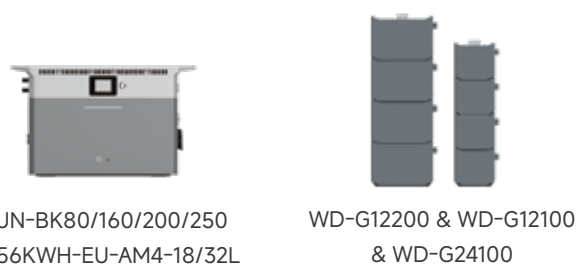
Spring Series /



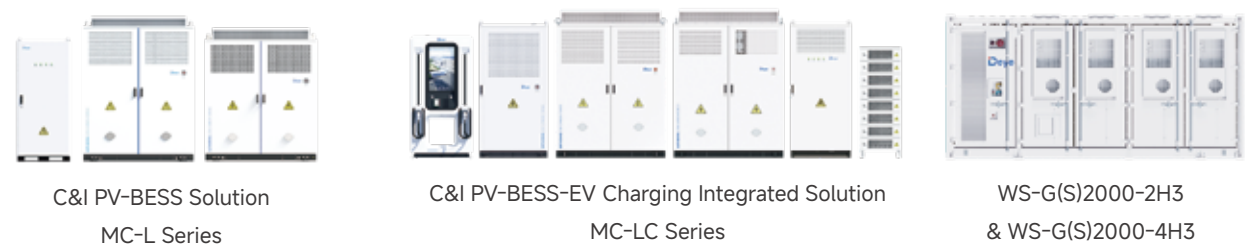
Summer Series /



Autumn Series /



Winter Series /



CONTENTS

SPRING

Series

Residential ESS Solution

SE-F5 & SE-F5 Plus (AS, AF, LATAM)	17
SE-F5 Pro (Global)	17
SE-F12 & SE-F16 (EU, AS, AF, LATAM)	19
SE-F12 Max & SE-F16 Max (EU, AU)	19
SE-F5 Lite & SE-F5-A & SE-F5 Plus-A (EU, AS, AF, LATAM)	21
RW-F5.3-1H3 (EU, AS, AF, LATAM)	25
SE-G5.1 Pro-B (EU, NA, AU)	29
RW-F10.2 (EU, AU) & RW-F10.2-B (NA)	31
AI-W5.1-B (EU, AU)	33
AI-W5.1-B-ESS (EU, AU)	35

Spring Series
Residential ESS Solution

Wall-Mounted Battery(LV)

NEPT F



Comprehensive Protection

- Advanced BMS with active fuse



Optimized Energy Density

- Integrated PACK: reduced line loss, enhanced energy density



Easy Maintenance

- Auto-networking, Local monitoring mode for battery, remote monitoring mode for ESS



Superior Performance

- Support Max. 1C charge & 1.2C discharge (SE-F5 & F5 Plus), GaN MOSFETs: 50% loss reduction, high-temp resistance



Flexible Expansion

- Max. 32 units in parallel



Reliable Durability

- Operates reliably in -20°C to 55 °C, natural cooling

SE-F5 & SE-F5 Plus (AS, AF, LATAM)
SE-F5 Pro (Global)

Technical Data



Main Parameters

		SE-F5	SE-F5 Plus	SE-F5 Pro
Battery Chemistry		LiFePO ₄		
Capacity		100 Ah		
Scalability ^[1]		Max. 32 pcs in parallel		
Nominal Voltage		51.2 V		
Operating Voltage		44.8 V ~ 57.6 V		
Nominal Energy		5.12 kWh		
Charge Current ^[2]	Recommend	50 A	50 A	50 A
	Max. Continuous	100 A	100 A	100 A
	Peak	120 A (10 sec)	150 A (120 sec)	150 A (120 sec)
Discharge Current ^[2]	Recommend	50 A	50 A	50 A
	Max. Continuous	120 A	100 A	100 A
	Peak	150 A (10 sec)	150 A (120 sec)	150 A (120 sec)

Other Parameters

Model	SE-F5	SE-F5 Plus	SE-F5 Pro
Recommend Depth of Discharge	80% DoD	90% DoD	
Dimension (W × D × H, mm) (Without hanging board)	370 × 548 × 140	370 × 548 × 140	404 × 547 × 141
Weight Approximate	41 kg	41 kg	44 kg
LED Indicator	LED (SOC, working, protecting) & Buzzer		
IP Rating of Enclosure	IP21		
Operating Temperature	Charge: 0~55°C / Discharge: -20~55°C	Charge: -10~55°C / Discharge: -20~55°C	Charge: 0~55°C / Discharge: -20~55°C
Storage Temperature	0~35°C		
Relative Humidity	95% (non-condensing)		
Altitude	≤3000m		
Cycle Life	≥6000(25°C±2°C,70%EOL)		
Installation	Wall-Mounted, Floor-Mounted, Stack-Mounted		
Communication	CAN2.0, RS485, Bluetooth+APP		CAN2.0, RS485, Optional module, (WiFi+Bluetooth+APP)
Warranty Period ^[3]	5 years	5 Years / 10 Years ^[4]	
Energy Throughput ^[3]	8 MWh	16 MWh	
Certification	UN38.3, MSDS, CE, CB		UN38.3, MSDS, CE, CB, VDE2510-50

[1] Max. 64 pcs can parallel with CAN-Bridge.

[2] Operating current is affected by temperature and SOC.

[3] Conditions apply, refer to Deye Warranty Letter.

[4] The warranty period depends on the final installation site of the battery system. For more information, please refer to the warranty policy.

SE-F12 & SE-F16 (EU, AS, AF, LATAM)
SE-F12 Max & SE-F16 Max (EU, AU)

Technical Data



Main Parameters				
		SE-F12	SE-F12 Max	SE-F16 / SE-F16 Max
Battery Chemistry		LiFePO ₄		
Capacity		235 Ah		314 Ah
Scalability ^[1]		Max. 32 pcs in parallel		
Nominal Voltage		51.2 V		
Operating Voltage		44.8 V ~ 57.6 V		
Nominal Energy		12.03 kWh		16 kWh
Charge Current ^[2]	Recommend	115 A		157 A
	Max. Continuous	230 A		160 A
	Peak	280 A (10 sec)		
Discharge Current ^[2]	Recommend	115 A		157 A
	Max. Continuous	230 A		
	Peak	280 A (10 sec)		

Other Parameters				
Model	SE-F12	SE-F12 Max	SE-F16	SE-F16 Max
Recommend Depth of Discharge	90% DoD			
Dimension (W × D × H, mm) (Without hanging board)	400 × 559 × 233	464 × 767 × 244.5	400 × 708 × 233	464 × 914 × 244.5
Weight Approximate	84 kg	93 kg	109 kg	118 kg
LED Indicator	LED (SOC, working, protecting) & Buzzer	LCD(SOC, Alarm)	LED (SOC, working, protecting) & Buzzer	LCD(SOC, Alarm), LED (Working)
IP Rating of Enclosure	IP21	IP65	IP21	IP65
Operating Temperature	Charge: 0~55°C (-20~55°C, 12 Max/16 Max with Optional heating)			Discharge: -20~55°C
Storage Temperature	0°C~35°C			
Relative Humidity	95% (non-condensing)			
Altitude	≤3000m			
Cycle Life	≥6000(25°C±2°C ,70%EOL)			≥8000 (25°C±2°C, 70%EOL)
Installation	Wall-Mounted, Floor-Mounted, Stack-Mounted			
Communication	CAN2.0, RS485, Bluetooth+APP	CAN2.0, RS485, Bluetooth+APP	CAN2.0, RS485, Bluetooth+APP	CAN2.0, RS485, Bluetooth+APP
Warranty Period ^[3]	5 Years / 10 Years ^[4]	10 years	5 Years / 10 Years ^[4]	10 years
Energy Throughput ^[3]	37 MWh	37 MWh	50 MWh	50 MWh
Certification	UN38.3, CE, CB	UN38.3, CE, CB	UN38.3, CE, CB	UN38.3, CE, CB

[1] Max. 64 pcs can parallel with CAN-Bridge.
[2] Operating current is affected by temperature and SOC.
[3] Conditions apply, refer to Deye Warranty Letter.
[4] The warranty period depends on the final installation site of the battery system. For more information, please refer to the warranty policy.

Product Comparison					
Model	Nominal Energy	Charge / Discharge Rate	DoD	Warranty	Size
SE-F5	5.12kWh, 51.2V, 100Ah	1C/1.2C	80%	5years	370 x 548 x 140 mm
SE-F5 Plus	5.12kWh, 51.2V, 100Ah	1C/1.2C	90%	10years	370 x 548 x 140 mm
SE-F5 Pro	5.12kWh, 51.2V, 100Ah	1C/1C	90%	10years	404 × 547 × 141 mm
SE-F12	11.8kWh, 51.2V, 235Ah	1C/1C	90%	10years	400 x 583 x 233 mm
SE-F12 Max	11.8kWh, 51.2V, 235Ah	1C/1C	90%	10years	464 × 767 × 244.5 mm
SE-F16	16kWh, 51.2V, 314Ah	0.5C/0.7C	90%	10years	400 x 708 x 233 mm
SE-F16 Max	16kWh, 51.2V, 314Ah	0.5C/0.7C	90%	10years	464 x 914 × 244.5 mm

SE-F Series Model Selection and Appearance Reference

Common version

LED strip version

Display screen version

Model	Config Version	Reference
SE-F5/F5 Plus/F5 Pro/F12/F16	L	
SE-F5/F5 Plus/F5 Pro/F12/F16	E	
SE-F5/F5 Plus/F5 Pro/F12/F16/F12 Max/F16 Max	C	

Spring Series
Residential ESS Solution

Wall-Mounted Battery(LV)

NEW NEPT S



- SE-F5 Lite
- SE-F5-A
- SE-F5 Plus-A
- SE-F12 Lite
- SE-F12-A
- SE-F16-A



Comprehensive Protection

- Advanced BMS with active fuse



Optimized Energy Density

- Integrated PACK: reduced line loss, enhanced energy density



Easy Maintenance

- Auto-networking, Local monitoring mode for battery, remote monitoring mode for ESS



Superior Performance

- Support Max. 1C charge & discharge(SE-F5-A&SE-F5 Plus-A), GAN MOSFETs: 50% loss reduction, high-temp resistance



Flexible Expansion

- Max. 32 units in parallel



Reliable Durability

- Operates reliably in -20°C to 55°C, natural cooling

SE-F5 Lite & SE-F5-A & SE-F5 Plus-A
(EU, AS, AF, LATAM)

Technical Data

Main Parameters

		SE-F5 Lite	SE-F5-A	SE-F5 Plus-A
Battery Chemistry		LiFePO ₄		
Capacity		100 Ah		
Scalability ^[1]		Max. 32 pcs in parallel		
Nominal Voltage		51.2 V		
Operating Voltage		44.8 V ~ 57.6 V		
Nominal Energy		5.12 kWh		
Charge Current ^[2]	Recommend	33 A	50 A	
	Max. Continuous	50 A	100 A	
	Peak	60 A (10sec)	120 A (10 sec)	
Discharge Current ^[2]	Recommend	33 A	50 A	
	Max. Continuous	60 A	100 A	
	Peak	72 A (10 sec)	120 A (10 sec)	

Other Parameters

Model	SE-F5 Lite	SE-F5-A	SE-F5 Plus-A
Recommend Depth of Discharge	80% DoD		90% DoD
Dimension (W × D × H, mm) (Without hanging board)	360 x 545 x 142.5		
Weight Approximate	41 kg		
LED Indicator	LED (SOC, working, protecting) & Buzzer		
IP Rating of Enclosure	IP21		
Operating Temperature	Charge:0~55°C/Discharge:-20~55°C		Charge:-10~55°C/Discharge:-20~55°C
Storage Temperature	0~35°C		
Relative Humidity	95% (non-condensing)		
Altitude	≤3000m		
Cycle Life	≥6000(25°C±2°C,70%EOL)		
Installation	Wall-Mounted, Floor-Mounted, Stack-Mounted		
Communication	CAN2.0, RS485, Bluetooth+APP		
Warranty Period ^[3]	5 years		5 Years / 10 Years ^[4]
Energy Throughput ^[3]	8 MWh		16 MWh
Certification	UN38.3, CE, CB		

[1] Max. 64 pcs can parallel with CAN-Bridge.

[2] Operating current is affected by temperature and SOC.

[3] Conditions apply, refer to Deye Warranty Letter.

[4] The warranty period depends on the final installation site of the battery system. For more information, please refer to the warranty policy.

SE-F12 Lite & SE-F12-A & SE-F16-A
(EU, AS, AF, LATAM)

Technical Data

Main Parameters				
		SE-F12 Lite	SE-F12-A	SE-F16-A
Battery Chemistry		LiFePO ₄		
Capacity		235 Ah	235 Ah	314 Ah
Scalability ^[1]		Max. 32 pcs in parallel		
Nominal Voltage		51.2 V		
Operating Voltage		44.8 V ~ 57.6 V		
Nominal Energy		12.03 kWh	12.03 kWh	16 kWh
Charge Current ^[2]	Recommend	75 A	115 A	95 A
	Max. Continuous	120 A	230 A	160 A
	Peak	180 A (10sec)	280 A (10sec)	280 A (10sec)
Discharge Current ^[2]	Recommend	75 A	115 A	157 A
	Max. Continuous	140 A	230 A	230 A
	Peak	210 A (10 sec)	280 A (10 sec)	280 A (10 sec)

Other Parameters			
Model	SE-F12 Lite	SE-F12-A	SE-F16-A
Recommend Depth of Discharge	90% DoD		
Dimension (W × D × H, mm) (Without hanging board)	400 x 594 x 233		400 x 737 x 233
Weight Approximate	84 kg		109 kg
LED Indicator	LED (SOC, working, protecting) & Buzzer		
IP Rating of Enclosure	IP21		
Operating Temperature	Charge :0~55°C/Discharge: -20~55°C		
Storage Temperature	0~35°C		
Relative Humidity	95% (non-condensing)		
Altitude	≤3000m		
Cycle Life	≥6000(25°C±2°C,70%EOL)		≥8000(25°C±2°C ,70%EOL)
Installation	Wall-Mounted, Floor-Mounted, Stack-Mounted		
Communication	CAN2.0, RS485, Bluetooth+APP		
Warranty Period ^[3]	5 Years / 10 Years ^[4]		
Energy Throughput ^[3]	37 MWh		50 MWh
Certification	UN38.3, CE, CB		

[1] Max. 64 pcs can parallel with CAN-Bridge.
[2] Operating current is affected by temperature and SOC.
[3] Conditions apply, refer to Deye Warranty Letter.
[4] The warranty period depends on the final installation site of the battery system. For more information, please refer to the warranty policy.

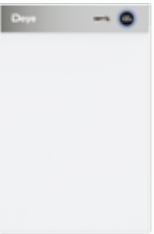
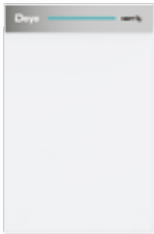
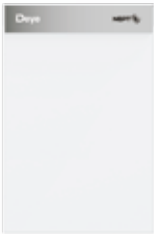
Product Comparison					
Model	Nominal Energy	Charge / Discharge Rate	DoD	Warranty	Size
SE-F5 Lite	5.12kWh, 51.2V, 100Ah	0.5C/0.6C	80%	5 years	360 x 545 x 142.5mm
SE-F5-A	5.12kWh, 51.2V, 100Ah	1C/1C	80%	5 years	360 x 545 x 142.5mm
SE-F5 Plus-A	5.12kWh, 51.2V, 100Ah	1C/1C	90%	10 years	360 x 545 x 142.5mm
SE-F12 Lite	12.03kWh, 51.2V, 235Ah	0.5C/0.6C	90%	10 years	400 x 594 x 233mm
SE-F12-A	12.03kWh, 51.2V, 235Ah	1C/1C	90%	10 years	400 x 594 x 233mm
SE-F16-A	16kWh, 51.2V, 314Ah	0.5C/0.7C	90%	10 years	400 x 737 x 233mm

SE-F Series Model Selection and Appearance Reference

Common version

LED strip version

Display screen version



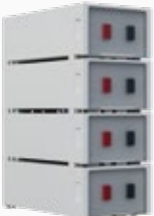
Mounting example

Stacked

Supports 6 layers in parallel (4 layers for SE-F16-A), allows multiple clusters in parallel


SE-F5 Lite & SE-F5-A & SE-F5 Plus-A

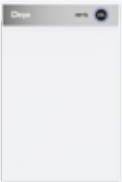

SE-F12 Lite & SE-F12-A

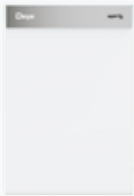

SE-F16-A

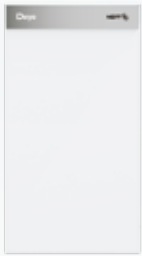
Wall mounted

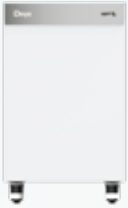
Optional wheels available for SE-F12 Lite & SE-F12-A & SE-F16-A

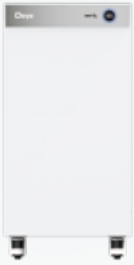
All support wall mounted installation, and support for multiple packs in parallel


SE-F5 Lite & SE-F5-A & SE-F5 Plus-A


SE-F12 Lite & SE-F12-A


SE-F16-A


SE-F12 Lite & SE-F12-A


SE-F16-A

Spring Series
Residential ESS Solution

All-in-One ESS (LV)



RW-F5.3-1H3 (EU, AS, AF, LATAM)



Enhanced Reliability

- Built-in Intelligent BMS, providing complete protection
- Natural cooling
- IP65 - rated for indoor and outdoor use
- Wide temperature range : -20°C ~ 55°C (with heating)



Flexible Expansion

- Max.16 units in parallel (80kW/84.8kWh)
Support expansion of Deye 5.1kWh LV battery,allowing up to 31 batteries for a Max. capacity of 163.2kWh



Easy Installation

- Flat design, wall-mounted, saving installation space, quick and easy installation



Smart Application

- Peak-shaving, smart load, AC couple etc.
- Fast switching time of 4ms, ensuring your energy security



All-in-One Design

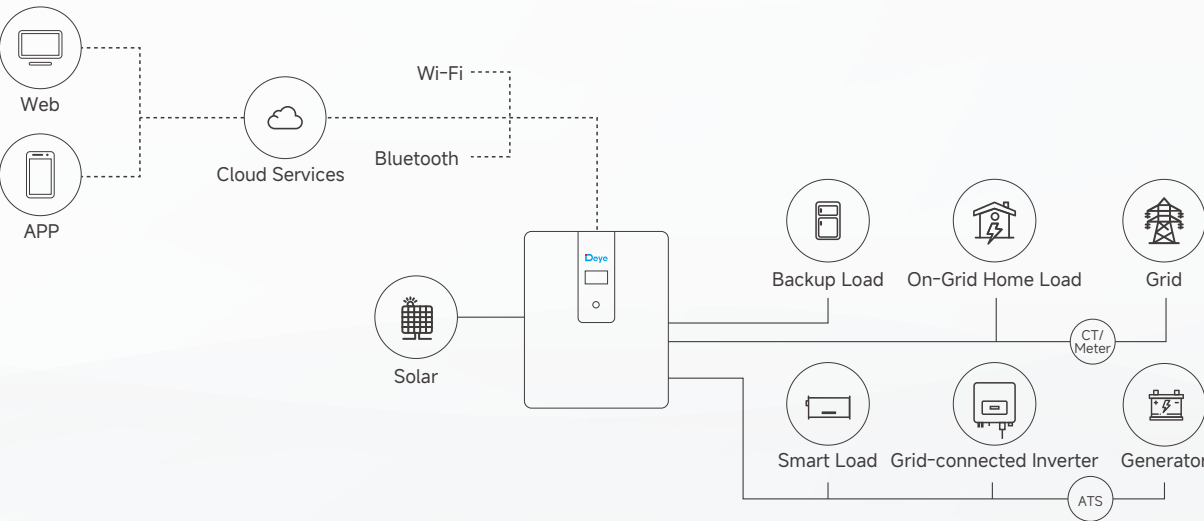
- Integrated 5kW hybrid inverter and 5.3kWh LFP battery



Intelligent Control

- Comfortable and easy control via App, PC or Touch-Display

System Application Topology Diagram



RW-F5.3-1H3 (EU, AS, AF, LATAM)

Technical Data

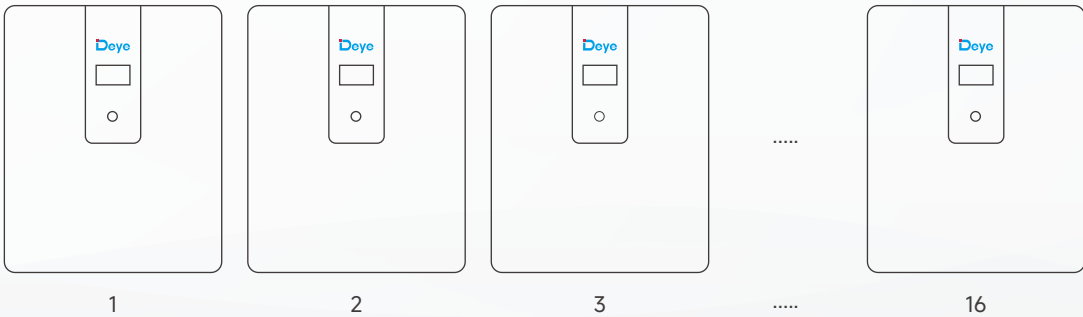


AC Technical Specification	
Model	RW-F5.3-1H3
Rated AC Input / Output Active Power (W)	5000 / 5000
Max AC Input / Output Apparent Power (VA)	5500
Peak Power (off grid)	2 time of rated power, 10s
AC Output Rated Current (A)	22.8 / 21.8
Max. AC Current (A)	25 / 24
Max Continuous AC Passthrough (grid to load) (A)	35
Rated Input / Output Voltage / Range (V)	220V / 230, 0.85Un-1.1Un
Rated Input / Output Grid Frequency/Range (Hz)	50Hz / 45Hz ~ 55Hz, 60Hz / 55Hz ~ 65Hz
Grid Connection Form	L+N+PE
Power Factor	0.8 leading to 0.8 lagging
Total Harmonic Distortion (THDi)	<3% (of nominal power)
DC injection current (mA)	<0.5% In

DC Technical Specification	
Max. PV Access Power (W)	10000
Max. PV Input Power (W)	8000
Max. PV Input Voltage (Vdc)	500
Start Up PV Voltage (Vdc)	125
MPPT Voltage Range (Vdc)	150 ~ 425
Full Load MPPT Voltage Range (Vdc)	300 ~ 425
Rated PV Input Voltage (Vdc)	370
Max. Operating PV Input Current (A)	18+18
Max. PV Input Short-circuit Current (A)	27+27
Number of MPP Trackers	2
No. of Strings Per MPP Tracker	1 + 1
Battery Chemistry	LiFePO4
Battery Nominal Voltage (V)	51.2
Battery Energy Configuration (kWh)	5.32
Max. Charging / Discharging Current (A)	100
Battery Operating Voltage (V)	44.8 ~ 57.6
Battery Cycle Life	≥6000 (@25°C±2°C, 0.5C / 0.5C, 80%EOL)

Other Technical Specification	
Model	RW-F5.3-1H3
Dimension (W × D × H, mm)	616 × 191 × 690 (Excluding connectors and brackets)
Weight Appr. (kg)	71
IP Rating of Enclosure	IP65
Operating Temperature Range (°C)	-20°C ~ 55°C (with heating)
Permissible Ambient Humidity	0~100%
Inverter Topology	Non-Isolated
Over Voltage Category	OVC II (DC), OVC III (AC)
Type Of Cooling	Natural Cooling
Noise (dB)	<30
Display	Touch LCD
Monitor Mode	WIFI, Bluetooth
Installation Style	Wall-Mounted, Floor-Mounted
Max. Efficiency	97%
Max. charging / discharging Efficiency	95.5%
MPPT Efficiency	>99%
Safety EMC / Standard	IEC / EN 61000-6-1 / 2 / 3 / 4 , IEC / EN 62109-1, IEC / EN 62109-2
Grid Regulation	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105
Certification	UN38.3, CE, CB, IEC62619
Warranty Period	5/10 years (the Warranty Period Depends on the Final Installation Site. More Info Please Refer to Warranty Policy)

Maximum support for 16 units in parallel	
RW-F5.3-1H3	80kW/84.8kWh



Spring Series
Residential ESS Solution

Rack-Mounted Battery(LV)



Eco-Friendly

- Use environmental protection materials, the whole module non-toxic, pollution-free



Convenient

- Battery module auto networking, easy maintenance
- Support remote monitoring and upgrade
- Support USB drive upgrade the firmware



Reliable

- Support high discharge power
- IP20, natural cooling
- Wide temperature range : -20°C to 55°C



Safer

- Cobalt Free Lithium Iron Phosphate LFP Battery : safety and long lifespan, high efficiency and high power
- Intelligent BMS, providing complete protection

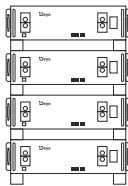


Flexible

- Modular design, easy to expand, Max. 64 units in parallel, Max. capacity of 327kWh
- Suitable for residential and commercial applications to increase the self-consumption ratio

SE-G5.1 Pro-B (EU, NA, AU)

Technical Data



Main Parameters

Battery Chemistry	LiFePO ₄
Built-in Circuit Breaker	125A 2P, 60Vdc
Capacity (Ah)	100
Scalability	Max. 64 pcs pack (327kWh) in parallel (Max. 32 pcs no external setup)
Nominal Voltage (V)	51.2
Operating Voltage (V)	43.2 ~ 57.6
Energy (kWh)	5.12
Usable Energy (kWh) ^[1]	5.12
Charge / Discharge	Recommend
Current (A) ^[2]	Max.
	Peak (2mins, 25°C)
	50
	100
	150

Other Parameters

Recommend Depth of Discharge	90%
Dimension (W × H × D, mm)	440 × 133 × 540
Weight Approximate (kg)	45
Master LED Indicator	5LED (SOC : 20% ~ SOC100%) , 3LED (working, alarming, protecting)
IP Rating of Enclosure	IP20
Operating Temperature	Charge : 0~55°C, Discharge : -20°C~55°C
Storage Temperature	0°C ~ 35°C
Humidity	5% ~ 95%
Altitude	≤2000m
Cycle Life	≥6000 (25°C±2°C, 0.5C / 0.5C, 90%DOD, 70%EOL)
Installation	Wall-Mounted, Floor-Mounted, Rack-Mounted (19-inch standard cabinet, cabinet depth ≥600mm)
Communication Port	CAN2.0, RS485
Warranty Period	5 Years / 10 Years ^[4]
Energy Throughput	16MWh@70%EOL
Certification	UN38.3, IEC62619, CE, CB, UK, VDE 2510-50, CEI 0-21, FCC, UL1973, UL9540, UL9540A

[1] DC Usable Energy, test conditions: 100% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

[2] The current is affected by temperature and SOC.

[3] Conditions apply, refer to Deye Warranty Letter.

[4] The warranty period depends on the final installation site of the battery system. For more information, please refer to the warranty policy.

Spring Series
Residential ESS Solution

Wall-Mounted Battery(LV)



Exceptional Performance

- RW-F10.2/RW-F10.2-B supports up to 1C/1.2C charging and discharging
- Peak discharge current of 300A for up to 2mins



Smarter

- Battery module auto networking (No DIP switch code)
- Support Deye remote monitoring and upgrade



Enhanced Reliability

- ≥6000 Cycles, 90%DOD, 70%EOL
- 10 years warranty for long-term peace of mind
- Wide temperature range: -20°C~55°C
- IP65-rated for indoor and outdoor use



More Flexible

- Modular design, easy to expand
- Support Max. 32 units in parallel
- RW-F10.2 has a maximum capacity of 326kWh
- RW-F10.2-B has a maximum capacity of 327kWh
- Suitable for residential and commercial use



Safer

- LFP Battery: safety, long lifespan and high-energy density
- Built-in intelligent BMS, providing complete protection
- Support natural cooling
- Use high-quality environmental protection materials

RW-F10.2 (EU, AU)
RW-F10.2-B (NA)

Technical Data



Main Parameters

RW-F10.2 (EU, AU)		RW-F10.2-B (NA)
Model		
Battery Type	LiFePO ₄	
Built-In Circuit Breaker	125A 4P 60Vdc	
Capacity (Ah)	200	
Nominal Voltage (V)	51.2	
Operating Voltage (V)	43.2~57.6	
Scalability	Max. 32 pcs pack in parallel (Max. 326kwh)	Max. 32 pcs pack in parallel (Max. 327kWh)
Rated Energy (kWh)	10.2	10.24
Usable Energy (kWh)	10.2	9.2
Rated DC Power (kW)	6	/
Max DC Power (kW)	12	/
Charge / Discharge Current (A) ^[2]	Recommend Max. Peak(2mins,25°C)	Charge:100/Discharge: 100 Charge:198/Discharge: 240 300

Other Parameters

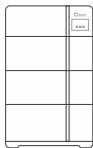
Recommend Depth of Discharge	90%	
Dimension (W × H × D, mm)	600 × 760 × 200 (Without hanging board)	600×830×200 (Without hanging board)
Weight Approximate (kg)	104	235.9 lbs.(107kg)
Master LED indicator	SOC state(20%-100%) work state(alarming, protecting)	LED(SOC:20%-100% and working state)
IP Rating of Enclosure	IP65	NEMA 3R(IP65)
Operating Temperature (°C)	Charge:1~55°C Discharge:-20°C~55°C	Charge: 33 °F ~ 131 °F (1 ~ 55°C) Discharge: -4 °F ~ 131 °F (-20°C ~ 55°C) Recommend: 59 °F ~ 95 °F (15°C ~ 35°C)
Storage Temperature (°C)	32°F ~ 95°F (0 ~ 35°C)	
External Ambient Temperature Range (°C)	/	-4°F ~ 131°F (-20°C ~ 55°C, with heating film)
Humidity	5%-95%	
Altitude	≤ 3000m	≤ Max. 9,843 ft (3,000m)
Cycle Life	≥6000(25°C+2°C,0.5C/0.5C,90%DOD,70%EOL)	
Installation Location	Wall-Mounted, Floor-Mounted	
Communication Port	CAN2.0., RS485	
Warranty Period	10 years	
Energy Throughput	32MWh(25°C,0.5C/0.5C,70%EOL)	
Certification	UN38.3, IEC 62619, CE, CEI 0-21, VDE 2510-50, CEC	UN38.3, FCC, UL 1973, UL 9540A

Spring Series
Residential ESS Solution

Stacked Battery(LV)



AI-W5.1-B (EU, AU)
Technical Data



Main Parameters

Battery Model Number		AI-W5.1-B	AI-W10.2-B	AI-W15.3-B	AI-W20.4-B	AI-W25.6-B	AI-W30.7-B
Number of battery units in parallel (Optional)		1	2	3	4	5	6
Battery Chemistry		LiFePO ₄					
Built-in Circuit Breaker		125A 2P, 60Vdc					
Battery Module Energy (kWh)		5.12					
Battery Module Voltage (V)		51.2					
Battery Module Capacity (Ah)		100					
Nominal Voltage (V)		51.2					
Operating Voltage (V)		44.8 ~ 57.6					
Nominal Energy (kWh)		5.12	10.24	15.36	20.48	25.6	30.72
Usable Energy (kWh) ^[1]		4.6	9.2	13.8	18.4	23	27.6
Rated DC Power (KW)		2.5	5	7.5	10	12	12
Charge / Discharge Current (A)	Recommend	50	100	150	200	250	250
	Max.	100	200	250	250	250	250
	Peak (10s, 25°C)	150	270	360	360	360	360

Other Parameters

Recommend Depth of Discharge		90%					
System Dimension (W × D × H, mm)		720×255×569	720×255×850	720×255×1131	720×255×1412	720×255×1693	720×255×1974
System Weight (kg)		74.5	127.5	180.5	233.5	286.5	339.5
Battery Module Dimension (W × D × H, mm)		720±3×254±1.5×300±1.5					
Battery Module Weight (kg)		53					
MasterLED Indicator		Battery module : 3LED (working, alarming, protecting) , PDU module : 5LED (SOC : 20% ~ 100%) & 3LED (working, alarming, protecting)					
IP Rating of Enclosure		IP65 (after stacking)					
Operating Temperature		Charge : 0°C~55°C (-20°C~55°C when heating on) / Discharge : -20°C~55°C					
Standard charging method by manufacturer		Charge at 25±2°C at constant current 50A until the voltage reaches 57.6V.					
Standard discharging method by manufacturer		Discharge at 25±2°C at constant current 50A until the voltage reaches 44.8v.					
Storage Temperature		0°C ~ 35°C					
Humidity		5% ~ 95%, non-condensing					
Altitude		≤3000m					
Installation		Floor-Mounted					
Communication Port		CAN2.0, RS485					
Cycle Life		≥6000 (25°C±2°C , 0.5C / 0.5C, 90%DOD, 70%EOL)					
Energy Throughput		16MWh (Battery Module @70%EOL)					
Warranty Period ^[3]		10 years					
Certification		UN38.3, IEC62619, CE, UK, VDE2510-50, CEI0-21,CE-LVD, CEC, FCC, UL1973, UL9540A					

[1]DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C . System usable energy may vary due to system configuration parameters.
[2]The current is affected by temperature and SOC.
[3]Conditions apply, refer to Deye Warranty Letter.
[4]Made in China.



Reliable

- High discharge power, IP65
- Natural cooling, wide temp: -20°C to 55°C



Quick Installation

- Flat, stackable design
- Floor-mounted, no wiring



Convenient

- Auto networking, easy maintenance
- Remote monitoring, firmware upgrades



Eco-Friendly

- Non-toxic materials
- Pollution-free



Flexible

- Modular, Max. 6 clusters in parallel (36pcs)
- Max capacity 184kWh
- Residential/commercial use



Safer

- Cobalt-free LFP battery
- Intelligent BMS, long lifespan, high efficiency

Spring Series
Residential ESS Solution

All-in-One ESS (LV)



AI-W5.1-B-ESS (EU, AU)



All-in-One

- Hybrid inverter and LFP battery in one sleek system



Scalable Capacity

- Modular design expandable from 5 kWh to 50 kWh



Effortless Installation

- Tool-free stacking for quick and easy installation



Smarter Energy Use

- Peak-shaving, smart load, AC coupling, time of use



Uninterrupted Supply

- 4 ms seamless switchover from grid to back-up for energy security



Smart Control

- Convenient management via App, PC, or touch display

≥6000

Cycles

IP65

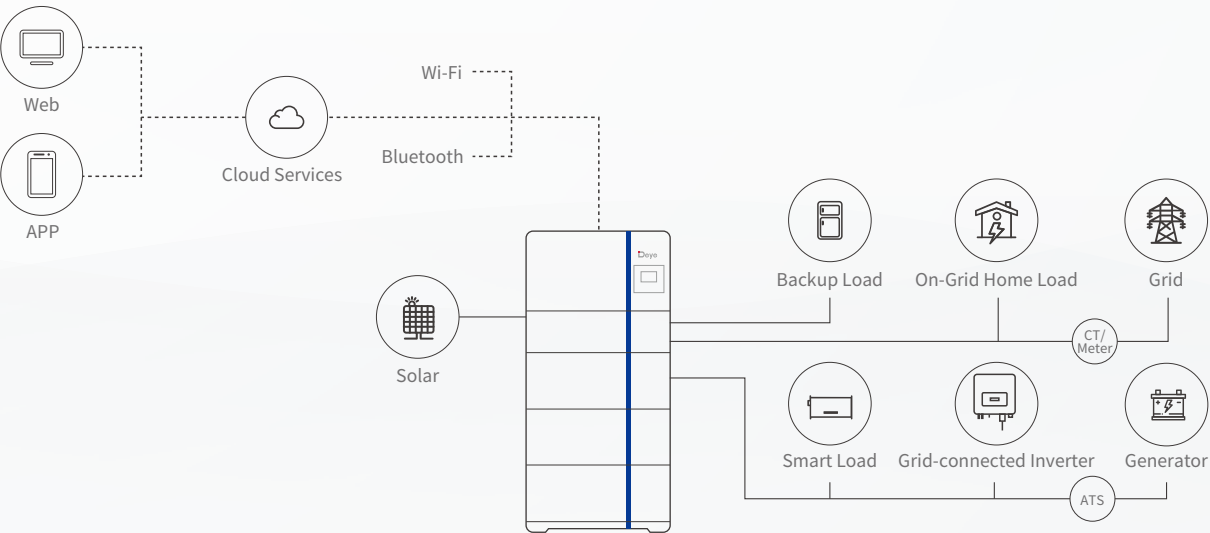
Rated for indoor and outdoor use

70%

EOL

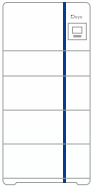
10 years

Warranty for long-term peace of mind



AI-W5.1-B-ESS (EU, AU)

Technical Data



Model	AI-W5.1-3.6P1-EU-B	AI-W5.1-5P1-EU-B	AI-W5.1-6P1-EU-B	AI-W5.1-7P1-EU-B	AI-W5.1-7.6P1-EU-B	AI-W5.1-8P1-EU-B	AI-W5.1-10P1-EU-B
Battery Input Data							
Battery Type	Lithium-ion						
Battery Voltage	40-60						
Max. Charging Current(A)	90	120	135	175	190	190	210
Max. Discharging Current(A)	90	120	135	175	190	190	210
Charging Strategy for Li-Ion Battery	Self-adaption to BMS						
Number of Battery Input	1						
PV String Input Data							
Max. PV access power(W)	7200	10000	12000	14000	15200	16000	20000
Max. PV Input Power(W)	5760	8000	9600	11200	12160	12800	16000
Max. PV Input Voltage(V)	500						
Start-up Voltage(V)	125						
PV Input Voltage Range(V)	125-500						
MPPT Voltage Range(V)	150-425						
Full Load MPPT Voltage Range(V)	300-425					200-425	250-425
Rated PV Input Voltage(V)				370			
Max. Operating PV Input Current(A)	18+18					32+32	
Max. Input Short-Circuit Current(A)	27+27					48+48	
No.of MPPT Trackers/No.of String MPPT Tracker	2/1+1					2/2+2	
Max. Inverter Backfeed Current to The Array	0						
AC Input/Output Data							
Rated AC Input/Output Active Power(W)	3600	5000	6000	7000	7600	8000	10000
Max. AC Input/Output Apparent Power(VA)	3960	5500	6600	7700	8360	8800	11000
Peak Power (off-grid)(W)	2 times of rated power, 10s						
Rated AC Input/Output Current(A)	16.4/15.7	22.7/21.7	27.3/26.1	31.9/30.5	34.5/33	36.4/34.8	45.5/43.5
Max. AC Input/Output Current(A)	18/17.2	25/23.9	30/28.7	35/33.5	38/36.3	40/38.3	50/47.9
Max. Continuous AC Passthrough (grid to load)(A)	35		40			50	
Max. Output Fault Current(A)	36	50	60	70	76	80	100
Max. Output Overcurrent Protection(A)	80				140		
Rated Input/Output Voltage/Range(V)	230V/240V 0.85Un-1.1Un						
Grid Connection Form	L+N+PE						
Rated Input/Output Grid Frequency/Range	50Hz/45Hz-55Hz 60Hz/45Hz-65Hz						
Power Factor Adjustment Range	0.8 leading-0.8 lagging						
Total Current Harmonic Distortion THDi	<3% (of nominal power)						
DC Injection Current	<0.5%In						
Efficiency							
Max. Efficiency	97.6%						
Euro Efficiency	96.5%						
MPPT Efficiency	>99%						
General Data							
Operating Temperature Range	-40 to +60°C, >45°C Derating						
Permissible Ambient Humidity	0-100%						
Permissible Altitude	2000m						
Noise	<30 dB(A)						
Ingress Protection(IP) Rating	IP 65						
Inverter Topology	Non-Isolated						
Over Voltage Category	OVC II(DC), OVC III(AC)						
Cabinet size(W*H*D) [mm]	720W×399.2H×256D (Excluding connectors and brackets)						
Weight(kg)	31.6						
Warranty	5 Years/10 Years						
Type of Cooling	Intelligent Air Cooling						
Grid Regulation	IEC 61727,IEC 62116,CEI 0-21,EN 50549,NRS 097,RD 140, UNE 217002,OVE-Richtlinie R25,G99,VDE-AR-N 4105						
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2						

Model	AI-W5.1-5P3-EU-B	AI-W5.1-6P3-EU-B	AI-W5.1-8P3-EU-B	AI-W5.1-10P3-EU-B	AI-W5.1-12P3-EU-B
Battery Input Data					
Battery Type	Lithium-ion				
Battery Voltage	40-60				
Max. Charging Current(A)	120	130	190	210	240
Max. Discharging Current(A)	120	130	190	210	240
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
Number of Battery Input	1				
PV String Input Data					
Max. PV access power(W)	10000	12000	16000	20000	24000
Max. PV Input Power(W)	8000	9600	12800	16000	19200
Max. PV Input Voltage(V)	800				
Start-up Voltage(V)	160				
PV Input Voltage Range(V)	160-800				
MPPT Voltage Range(V)	200-650				
Full Load MPPT Voltage Range(V)	350-650				
Rated PV Input Voltage(V)	550				
Max. Operating PV Input Current(A)	20+20			36+20	
Max. Input Short-Circuit Current(A)	30+30			54+30	
No.of MPPT Trackers/No.of String MPPT Tracker	2/1+1			2/1+1	
Max. Inverter Backfeed Current to The Array	0				
AC Input/Output Data					
Rated AC Input/Output Active Power(W)	5000	6000	8000	10000	12000
Max. AC Input/Output Apparent Power(VA)	5500	6600	8800	11000	13200
Peak Power (off-grid)(W)	2 times of rated power, 10s				
Rated AC Input/Output Current(A)	7.6/7.2	9.1/8.7	12.1/11.6	15.2/14.5	18.2/17.4
Max. AC Input/Output Current(A)	8.4/8	10/9.6	13.4/12.8	16.7/15.9	20/19.1
Max. Continuous AC Passthrough (grid to load)(A)	45				
Max. Output Fault Current(A)	16.8	20	26.8	33.4	40
Max. Output Overcurrent Protection(A)	70				
Rated Input/Output Voltage/Range(V)	220/380V,230/400V 0.85Un-1.1Un				
Grid Connection Form	3L+N+PE				
Rated Input/Output Grid Frequency/Range	50Hz/45Hz-55Hz 60Hz/55Hz-65Hz				
Power Factor Adjustment Range	0.8 leading-0.8 lagging				
Total Current Harmonic Distortion THDi	<3% (of nominal power)				
DC Injection Current	<0.5%In				
Efficiency					
Max. Efficiency	97.6%				
Euro Efficiency	97.0%				
MPPT Efficiency	>99%				
General Data					
Operating Temperature Range	-40 to +60°C, >45°C Derating				
Permissible Ambient Humidity	0-100%				
Permissible Altitude	2000m				
Noise	≤ 55 dB				
Ingress Protection(IP) Rating	IP 65				
Inverter Topology	Non-Isolated				
Over Voltage Category	OVC II(DC), OVC III(AC)				
Cabinet size(W*H*D) [mm]	720W×460.5H×254D (Excluding connectors and brackets)				
Weight(kg)	44				
Warranty	5 Years/10 Years				
Type of Cooling	Intelligent Air Cooling				
Grid Regulation	IEC 61727,IEC 62116,CEI 0-21,EN 50549,NRS 097,RD 140, UNE 217002,OVE-Richtlinie R25,G99,VDE-AR-N 4105				
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2				

CONTENTS

SUMMER

Series

Residential ESS Solution

GB-L Lite/Plus/Ultra (EU, AU, AS, AF, LATAM)	41
GB-L Pro (EU, AU)	49
GB-SL Pro (EU)	51
GB-A (JP)	55

Small-Scale C&I ESS Solution

GB-W (EU, AS, AF, LATAM)	57
BOS-B Pro-A3 (EU, AS, AF, LATAM, AU)	59
BOS-A (NA, AS, AF, LATAM, EU)	61
BOS-GH/BOS-GL (JP, NA)	63
BOS-G Pro (EU, SA)	65
GE-F60 (NA, AS, AF, LATAM, EU, AU)	67
GE-F120-2H2/4/6 (NA, AU, EU)	69
GE-F128 & GE-F240 & GE-F256 (EU, AS, AF, LATAM, AU)	71

Summer Series
Residential ESS Solution

Stacked Battery(HV)

NEW NEPT G



GB-L Lite/Plus/Ultra (EU, AU, AS, AF, LATAM)



Intelligent Management & Easy O&M

- Pack + Cell Dual-Level Online Self-Balancing Technology, expansion and battery replacement require no pre-configuration
- Deye BMS+EMS integrated control for real-time performance optimization
- Bluetooth & Deye Cloud , 24/7 monitoring & diagnostics



Superior Performance & Ultimate Safety

- 75A Continuous Output, perfectly matched with Deye 10~50kW HV inverters
- IP66 protection, Stable Operation from -20°C to 55°C
- Cluster Temperature Difference < 8°C , ensuring longer battery cycle life
- Pack-Level Pressure & Fire Protection, Cell & Connection Over-Temperature Protection



High Integration & Easy Expansion

- Built on a modular architecture, with a cable-free stacking design
- Higher energy density maximizes vertical space utilization
- Each cluster delivers 11.52~80.64kWh for residential & small C&I applications

Three-Phase ESS Solution (Recommend)

GB-L Lite/Plus/Ultra Battery



GB-L17
Lite/Plus/Ultra



GB-L23
Lite/Plus/Ultra



GB-L28
Lite/Plus/Ultra



GB-L40
Lite/Plus/Ultra



GB-L51
Lite/Plus/Ultra



GB-L69
Lite/Plus/Ultra

Three-Phase HV
Hybrid Inverter



10kW (55A)

Under development



12kW (55A)

Under development



15kW (55A)

New



20kW(55A) 30kW(75A)

New



25kW(55A) 35kW(75A)

New



50kW(75A)



GB-L Lite/Plus/Ultra (EU, AU, AS, AF, LATAM)

Technical Data



Model		GB-L17 Lite	GB-L23 Lite	GB-L28 Lite	GB-L34 Lite	GB-L40 Lite	GB-L46 Lite
Main Parameters							
Cell Chemistry		LiFePO ₄					
Module model		GB-L-Pack5.76-C3					
Module Energy (kWh)		5.76					
Module Norminal Voltage (V)		57.6					
Module Capacity (Ah)		100					
Battery Module Qty In Series (Optional)		3	4	5	6	7	8
System Nominal Voltage (V)		172.8	230.4	288.0	345.6	403.2	460.8
System Operating Voltage (V)		135~197.1	180~262.8	225~328.5	270~394.2	315~459.9	360~525.6
System Normal Energy (kWh)		17.28	23.04	28.8	34.56	40.32	46.08
Charge Current (A) ^[1]	Max.Continuous	75					
	Peak	104(15s)					
Discharge Current (A) ^[1]	Max.Continuous	75					
	Peak	135(2min)					
Other Parameters							
Depth of Discharge		Recommended 90%, Max. adjustable 100%					
Dimension (W × D × H) (mm)		610x385x597	610x385x737	610x385x877	610x385x1017	610x385x1157	610x385x1297
Weight Approximate (kg)		171	220	269	318	367	416
Display		LCD					
Communication Port		CAN2.0, RS485, Bluetooth					
Cycle Life ^[2]		≥6000					
Working Temperature Charge		0~55					
(°C) Discharge		-20 ~ 55					
Warranty ^[3]		5 years					
Storage Temperature (°C)		0 ~ 35					
Fire Protection		Aerosol, Explosion venting					
Humidity		5%~95% RH, Non-Condensing					
Altitude (m)		≤3000					
IP Rating of Enclosure		IP66					
Scalability		Max.16 Modules in parallel					
Instalaton Location		Floor Mount					
Type of Cooling		Natural Cooling					
Certification		IEC 62619/UN38.3					

1. The current is affected by temperature and SOC.
2. 25°C±2°C, 0.5C, 100%DOD, 70%EOL.
3. Condintions apply, refer to Deye Warranty Letter.

Model		GB-L51 Lite	GB-L57 Lite	GB-L63 Lite	GB-L69 Lite	GB-L74 Lite	GB-L80 Lite
Main Parameters							
Cell Chemistry		LiFePO ₄					
Module model		GB-L-Pack5.76-C3					
Module Energy (kWh)		5.76					
Module Norminal Voltage (V)		57.6					
Module Capacity (Ah)		100					
Battery Module Qty In Series (Optional)		9	10	11	12	13	14
System Nominal Voltage (V)		518.4	576	633.6	691.2	748.8	806.4
System Operating Voltage (V)		405~591.3	450~657	495~722.7	540~788.4	585~854.1	630~919.8
System Normal Energy (kWh)		51.84	57.6	63.36	69.12	74.88	80.64
Charge Current (A) ^[1]	Max.Continuous	75					
	Peak	104(15s)					
Discharge Current (A) ^[1]	Max.Continuous	75					
	Peak	135(2min)					
Other Parameters							
Depth of Discharge		Recommended 90%,Max. adjustable 100%					
Dimension (W × D × H) (mm)		610x385x1437	610x385x1577	610x385x1717	610x385x1857	610x385x1997	610x385x2137
Weight Approximate (kg)		465	514	563	612	661	710
Display		LCD					
Communication Port		CAN2.0, RS485, Bluetooth					
Cycle Life ^[2]		≥6000					
Working Temperature Charge		0~55					
(°C)	Discharge	-20 ~ 55					
Warranty ^[3]		5 years					
Storage Temperature (°C)		0 ~ 35					
Fire Protection		Aerosol, Explosion venting					
Humidity		5%-95% RH,Non-Condensing					
Altitude (m)		≤3000					
IP Rating of Enclosure		IP66					
Scalability		Max.16 Modules in parallel					
Instalaton Location		Floor Mount					
Type of Cooling		Natural Cooling					
Certification		IEC 62619/UN38.3					

1. The current is affected by temperature and SOC.
2. 25°C±2°C, 0.5C, 100%DOD, 70%EOL.
3. Condintions apply, refer to Deye Warranty Letter.

GB-L Lite/Plus/Ultra (EU, AU, AS, AF, LATAM)

Technical Data



Model		GB-L17 Plus	GB-L23 Plus	GB-L28 Plus	GB-L34 Plus	GB-L40 Plus	GB-L46 Plus
Main Parameters							
Cell Chemistry		LiFePO ₄					
Module model		GB-L-Pack5.76-A7					
Module Energy (kWh)		5.76					
Module Norminal Voltage (V)		57.6					
Module Capacity (Ah)		100					
Battery Module Qty In Series (Optional)		3	4	5	6	7	8
System Nominal Voltage (V)		172.8	230.4	288.0	345.6	403.2	460.8
System Operating Voltage (V)		135~197.1	180~262.8	225~328.5	270~394.2	315~459.9	360~525.6
System Normal Energy (kWh)		17.28	23.04	28.8	34.56	40.32	46.08
Charge Current (A) ^[1]	Max.Continuous	75					
	Peak	104(15s)					
Discharge Current (A) ^[1]	Max.Continuous	75					
	Peak	135(2min)					
Other Parameters							
Depth of Discharge		Recommended 90%, Max. adjustable 100%					
Dimension (W × D × H) (mm)		610x385x597	610x385x737	610x385x877	610x385x1017	610x385x1157	610x385x1297
Weight Approximate (kg)		171	220	269	318	367	416
Display		LCD					
Communication Port		CAN2.0, RS485, Bluetooth					
Cycle Life ^[2]		≥6000					
Working Temperature Charge		0~55					
(°C)	Discharge	-20 ~ 55					
Warranty ^[3]		10 years					
Storage Temperature (°C)		0 ~ 35					
Fire Protection		Aerosol, Explosion venting					
Humidity		5%~95% RH,Non-Condensing					
Altitude (m)		≤3000					
IP Rating of Enclosure		IP66					
Scalability		Max.16 Modules in parallel					
Instalaton Location		Floor Mount					
Type of Cooling		Natural Cooling					
Certification		IEC 62619/IEC 62040/VDE 2510-50/CEC/UN38.3					

1. The current is affected by temperature and SOC.
2. 25°C±2°C, 0.5C, 100%DOD, 70%EOL.
3. Condintions apply, refer to Deye Warranty Letter.

Model		GB-L51 Plus	GB-L57 Plus	GB-L63 Plus	GB-L69 Plus	GB-L74 Plus	GB-L80 Plus
Main Parameters							
Cell Chemistry		LiFePO ₄					
Module model		GB-L-Pack5.76-A7					
Module Energy (kWh)		5.76					
Module Norminal Voltage (V)		57.6					
Module Capacity (Ah)		100					
Battery Module Qty In Series (Optional)		9	10	11	12	13	14
System Nominal Voltage (V)		518.4	576	633.6	691.2	748.8	806.4
System Operating Voltage (V)		405~591.3	450~657	495~722.7	540~788.4	585~854.1	630~919.8
System Normal Energy (kWh)		51.84	57.6	63.36	69.12	74.88	80.64
Charge Current (A) ^[1]	Max.Continuous	75					
	Peak	104(15s)					
Discharge Current (A) ^[1]	Max.Continuous	75					
	Peak	135(2min)					
Other Parameters							
Depth of Discharge		Recommended 90%,Max. adjustable 100%					
Dimension (W × D × H) (mm)		610x385x1437	610x385x1577	610x385x1717	610x385x1857	610x385x1997	610x385x2137
Weight Approximate (kg)		465	514	563	612	661	710
Display		LCD					
Communication Port		CAN2.0, RS485, Bluetooth					
Cycle Life ^[2]		≥6000					
Working Temperature Charge		0~55					
(°C)	Discharge	-20 ~ 55					
Warranty ^[3]		10 years					
Storage Temperature (°C)		0 ~ 35					
Fire Protection		Aerosol, Explosion venting					
Humidity		5%-95% RH,Non-Condensing					
Altitude (m)		≤3000					
IP Rating of Enclosure		IP66					
Scalability		Max.16 Modules in parallel					
Instalaton Location		Floor Mount					
Type of Cooling		Natural Cooling					
Certification		IEC 62619/IEC 62040/VDE 2510-50/CEC/UN38.3					

1. The current is affected by temperature and SOC.
2. 25°C±2°C, 0.5C, 100%DOD, 70%EOL.
3. Condintions apply, refer to Deye Warranty Letter.

GB-L Lite/Plus/Ultra (EU, AU, AS, AF, LATAM)

Technical Data



Model		GB-L17 Ultra	GB-L23 Ultra	GB-L28 Ultra	GB-L34 Ultra	GB-L40 Ultra	GB-L46 Ultra
Main Parameters							
Cell Chemistry		LiFePO ₄					
Module model		GB-L-Pack5.76-H7					
Module Energy (kWh)		5.76					
Module Norminal Voltage (V)		57.6					
Module Capacity (Ah)		100					
Battery Module Qty In Series (Optional)		3	4	5	6	7	8
System Nominal Voltage (V)		172.8	230.4	288.0	345.6	403.2	460.8
System Operating Voltage (V)		135~197.1	180~262.8	225~328.5	270~394.2	315~459.9	360~525.6
System Normal Energy (kWh)		17.28	23.04	28.8	34.56	40.32	46.08
Charge Current (A) ^[1]	Max.Continuous	75					
	Peak	104(15s)					
Discharge Current (A) ^[1]	Max.Continuous	75					
	Peak	135(2min)					
Other Parameters							
Depth of Discharge		Recommended 90%, Max. adjustable 100%					
Dimension (W × D × H) (mm)		610x385x597	610x385x737	610x385x877	610x385x1017	610x385x1157	610x385x1297
Weight Approximate (kg)		171	220	269	318	367	416
Display		LCD					
Communication Port		CAN2.0, RS485, Bluetooth					
Cycle Life ^[2]		≥6000					
Working Temperature (°C)	Charge	-20~55 (Heating On)					
	Discharge	-20 ~ 55					
Warranty ^[3]		10 years					
Storage Temperature (°C)		0 ~ 35					
Fire Protection		Aerosol, Explosion venting					
Humidity		5%~95% RH,Non-Condensing					
Altitude (m)		≤3000					
IP Rating of Enclosure		IP66					
Scalability		Max.16 Modules in parallel					
Instalaton Location		Floor Mount					
Type of Cooling		Natural Cooling					
Certification		IEC 62619/IEC 62040/VDE 2510-50/CEC/UN38.3					

1. The current is affected by temperature and SOC.
2. 25°C±2°C, 0.5C, 100%DOD, 70%EOL.
3. Condintions apply, refer to Deye Warranty Letter.

Model		GB-L51 Ultra	GB-L57 Ultra	GB-L63 Ultra	GB-L69 Ultra	GB-L74 Ultra	GB-L80 Ultra
Main Parameters							
Cell Chemistry		LiFePO ₄					
Module model		GB-L-Pack5.76-H7					
Module Energy (kWh)		5.76					
Module Norminal Voltage (V)		57.6					
Module Capacity (Ah)		100					
Battery Module Qty In Series (Optional)		9	10	11	12	13	14
System Nominal Voltage (V)		518.4	576	633.6	691.2	748.8	806.4
System Operating Voltage (V)		405~591.3	450~657	495~722.7	540~788.4	585~854.1	630~919.8
System Normal Energy (kWh)		51.84	57.6	63.36	69.12	74.88	80.64
Charge Current (A) ^[1]	Max.Continuous	75					
	Peak	104(15s)					
Discharge Current (A) ^[1]	Max.Continuous	75					
	Peak	135(2min)					
Other Parameters							
Depth of Discharge		Recommended 90%,Max. adjustable 100%					
Dimension (W × D × H) (mm)		610x385x1437	610x385x1577	610x385x1717	610x385x1857	610x385x1997	610x385x2137
Weight Approximate (kg)		465	514	563	612	661	710
Display		LCD					
Communication Port		CAN2.0, RS485, Bluetooth					
Cycle Life ^[2]		≥6000					
Working Temperature Charge		-20~55 (Heating On)					
(°C)	Discharge	-20 ~ 55					
Warranty ^[3]		10 years					
Storage Temperature (°C)		0 ~ 35					
Fire Protection		Aerosol, Explosion venting					
Humidity		5%-95% RH,Non-Condensing					
Altitude (m)		≤3000					
IP Rating of Enclosure		IP66					
Scalability		Max.16 Modules in parallel					
Instalaton Location		Floor Mount					
Type of Cooling		Natural Cooling					
Certification		IEC 62619/IEC 62040/VDE 2510-50/CEC/UN38.3					

1. The current is affected by temperature and SOC.
2. 25°C±2°C, 0.5C, 100%DOD, 70%EOL.
3. Condintions apply, refer to Deye Warranty Letter.

Summer Series
Residential ESS Solution

Stacked Battery(HV)



High-voltage Stack Design

- Cable-free high-voltage stacking delivers higher efficiency and easier installation.



Built for Durability

- IP65 protection, ≥C2 anti-corrosion design deliver long-term durability



Wide Temperature Operation

- Low-temperature battery cell enables reliable performance in environments below -20°C.



All-Round Safety

- Built in explosion relief device to dredge gas, and built in fire protection device to cut off the fire source within 3 seconds.



Thermal Management

- Intelligent temperature sensing across core components ensures stable, reliable performance.



Smart & Visible Management

- Real-time alerts, remote upgrades, and an intuitive LCD interface keep the system always under control.

GB-L Pro (EU, AU)

Technical Data

Main Parameters

Model	GB-L8-Pro	GB-L12-Pro	GB-L16-Pro	GB-L20-Pro	GB-L24-Pro
Cell chemistry	LiFePO ₄				
Module model	GB-L-Pro-Pack4.1-2				
Module Energy (kWh)	4				
Module Nominal Voltage (V)	102.4				
Module Capacity (Ah)	40				
Battery Module Qty in Series (Optional)	2	3	4	5	6
System Nominal Voltage (V)	204.8	307.2	409.6	512	614.4
System operating Voltage (V)	166.4-700.8				
System Energy (kWh)	8	12	16	20	24
System Usable Energy (kWh)	7.2	10.8	14.4	18	21.6
Charge / Discharge Current (A) ^[2]	Recommend	20			
	Max.	40			
	Peak (25°C)	50			

Other Parameters

Working Temperature (°C)	Charge : -20~55 / Discharge: -20~55				
LCD Display	SOC, Power, Total Voltage				
Communication Port	CAN2.0,RS485				
Humidity	5%-90%				
Altitude	≤2000m				
IP Rating of Enclosure	IP65				
Storage Temperature (°C)	0~35				
Dimension (W × H × D, mm)	540 × 385 ×	540 × 385 ×	540 × 385 ×	540 × 385 ×	540 × 385 ×
	650	870	1090	1310	1530
Weight (kg)	97	136	175	214	253
Installation Location	Floor-Mounted				
Recommend Depth of Discharge	90%				
Cycle Life	25+2°C,0.5C/0.5C,EOL70%≥6000				
Warranty Period	10 years				
Certification	CE / IEC 62619 / VDE 2510-50 / UN38.3				

1. DC Usable Energy, test conditions : 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
2. The current is affected by temperature and SOC.
3. The warranty is due whichever reached first of warranty period or life cycle power.

Summer Series
Residential ESS Solution

All-in-One ESS(HV)



GB-SL Pro (EU)



Exceptional Performance

- All-in-One design
- Beautiful appearance and scene integration
- 100% unbalanced output, each phase
- Max. output up to 60% rated power



Smarter

- Temperature detection of key parts, cell, power plug-in, etc.
- Optional heating function for low-temperature applications



Enhanced Reliability

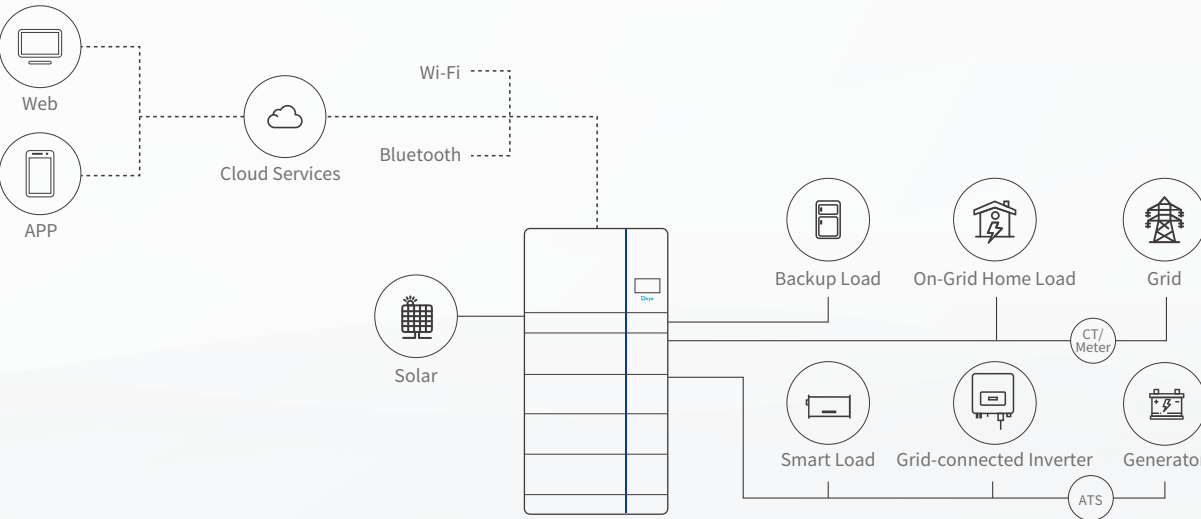
- ≥6000 Cycles, 70%EOL
- Wide temperature range: -20°C ~ 60°C
- IP65-rated for indoor and outdoor use
- Support storing energy from diesel generator



More Flexible

- Max. 10 pcs parallel for on-grid and off-grid operation
- Modules are connected in series without cable connection, and high-voltage platform improves system efficiency

System Application Topology Diagram



*Floor-Mounted

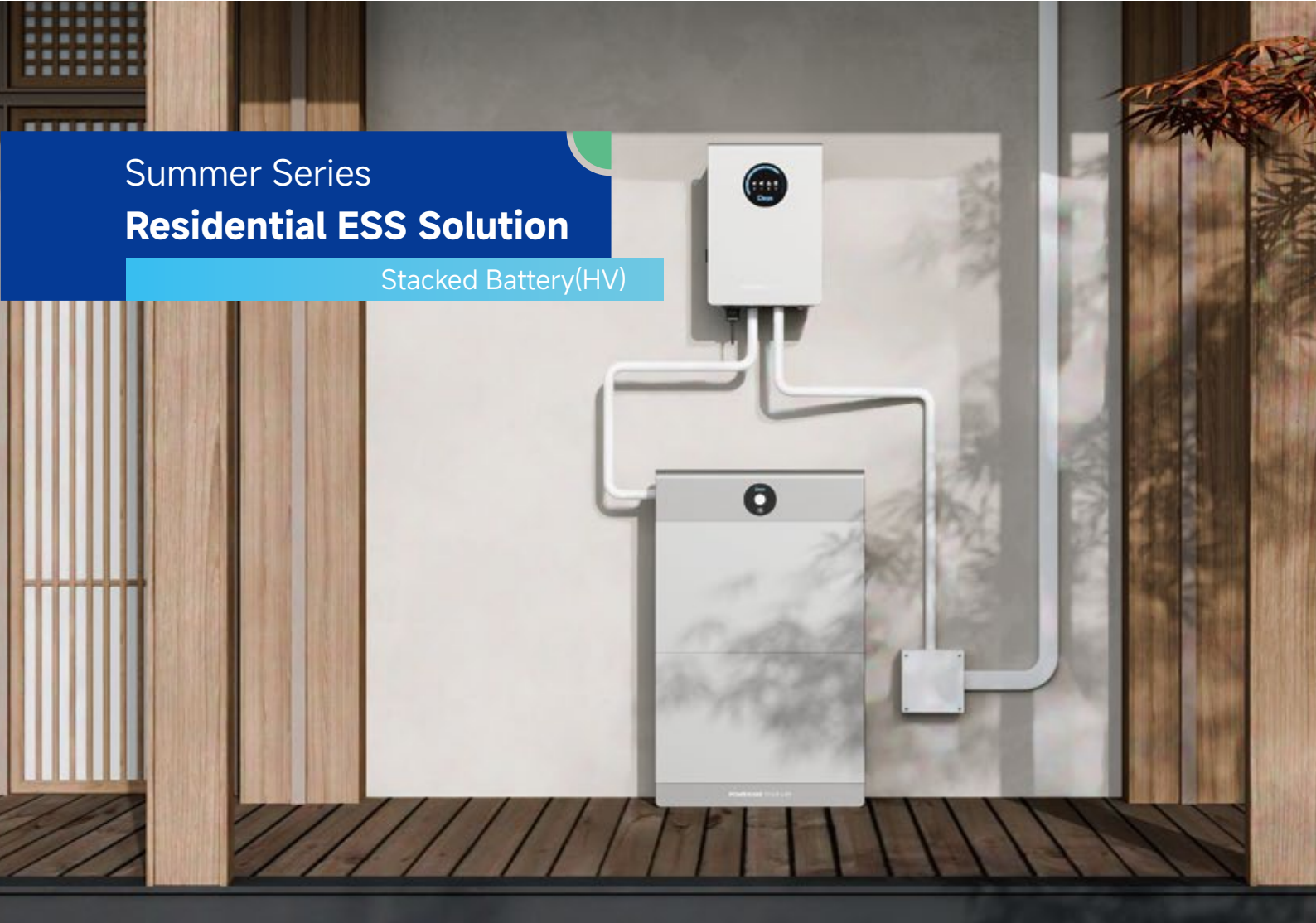
GB-SL Pro (EU)

Technical Data



Battery Technical Specification							
Battery Model		GB-L-Pro-Pack-4.1-2					
Main Parameters							
Battery Type		LiFePO ₄					
Battery Module Energy (kWh)		4					
Battery Module Nominal Voltage (V)		102.4					
Battery Module Capacity (Ah)		40					
Battery Module Qty in Series (Optional)		2	3	4	5	6	
Scalability		204.8	307.2	409.6	512	614.4	
System Operating Voltage (V)		166.4-700.8					
System Energy (kWh)		8	12	16	20	24	
System Usable Energy (kWh)		7.2	10.8	14.4	18	21.6	
Charge / Discharge Current (A) ^[2]	Recommend	20					
	Max.	40					
	Peak (25°C)	50@2min					
Other Parameters							
Operating Temperature (°C)		Charge : -20~55 / Discharge : -20~55					
Thermal Management		Natural Cooling					
Communication Port		CAN2.0 / RS485					
Humidity		5 ~ 85%RH					
Altitude		≤ 2000					
IP Rating of Enclosure		IP65					
Noise (dB)		< 55					
Module Dimension (W × H × D, mm)	540 × 385 ×	540 × 385 ×	540 × 385 ×	540 × 385 ×	540 × 385 ×		
	1100	1320	1540	1760	1980		
Module Weight Approximate (kg)		137	176	215	254	293	
Installation Location		Floor-Mounted					
Recommend Depth of Discharge		90%					
Cycle Life		25 ±2°C, 0.5C / 0.5C, 70%EOL ≥ 6000					
Warranty Period		10 years					
Certification		CE / IEC 62619 / VDE 2510-50 / UN38.3					
Inverter Technical Specification							
Inverter Model	GB-S 5K-EU	GB-S 6K-EU	GB-S 8K-EU	GB-S 10K-EU	GB-S 12K-EU	GB-S 15K-EU	GB-S 20K-EU
Efficiency							
Max. Efficiency				97.6%			
Euro Efficiency				97%			
MPPT Efficiency				99%			
Protection							
Integrated		PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection					
Output Over Voltage Protection		DC Type II / AC Type III					
Certifications and standards		CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98					
Grid Regulation		VDE 0126-1-1, RD 1699, C10-11					
Safety EMC /standard		IEC / EN 61000-6-1 / 2 / 3 / 4, IEC / EN 62109-1, IEC / EN 62109-2					
General Data							
Operating Temperature Range (°C)		-40 ~ 60°C, >45°C derating					
Cooling		Free cooling		Smart cooling			
Communication With BMS		RS485; CAN					
Warranty Period		5 years					

Inverter Technical Specification							
Inverter Model	GB-S 5K-EU	GB-S 6K-EU	GB-S 8K-EU	GB-S 10K-EU	GB-S 12K-EU	GB-S 15K-EU	GB-S 20K-EU
Main Parameters							
Battery Type				LI-ION			
Battery Voltage Range (V)				160 ~ 700			
Max. Charging Current (A)		30	37				
Max. Discharging Current (A)		30	37				
Number of Battery Input				1			
Charging Strategy for Li-Ion Battery				Self-adaption to BMS			
PV String Input Data							
Start Up Dc Voltage (Vdc)				150			
Max. DC input Power (W)		6500	7800	10400	13000	15600	26000
Max. Dc Input Voltage (V)				1000			
MPPT Range (V)				150~850			
Full Load Dc Voltage Range (V)		195~850	195~850	260~850	325~850	340~850	500~850
Rated Dc Input Voltage (V)				600			
PV Input Current (A)			20+20		26+20		26+26
Max.PV ISC (A)			30+30		39+30		39+39
Number of MPP Trackers				2			
Number of Strings Per MPP Tracker			1+1		2+1		2+2
AC Output Data							
Rated Ac Output and UPs Power (W)		5000	6000	8000	10000	12000	20000
Max. Ac Output Power (W)		5500	6600	8800	11000	13200	22000
AC Output Rated Current (A)		7.6 / 7.3	9.1 / 8.7	12.2 / 11.6	15.2 / 14.5	18.2 / 17.4	30.4 / 29
Max. Ac Output (off-gird) Current (A)		8.4 / 8	10 / 9.6	13.4 / 12.8	16.7 / 16	20 / 19.2	33.4 / 31.9
Max. Three-phase Unbalanced output Current (A)		13	13	18	22	25	35
Max. Continuous AC Pass Through (A)					40		
Peak Power (off grid)					1.5 times of rated power, 10s		
Generator input / Smart Load / AC Couple Current (A)		7.6 / 40 / 7.6	9.1 / 40 / 9.1	12.2 / 40 / 12.2	15.2 / 40 / 15.2	18.2 / 80 / 18.2	30.4 / 80 / 30.4
Power Factor				0.8 leading to 0.8 lagging			
Output Frequency and Voltage				50 / 60Hz; 3L / N / PE 220 / 380, 230 / 400Vac			
Grid Type				Three Phase			
DC Injection Current (mA)				<0.5%In			



Self-Sufficient and Grid-Connected Operation

- Seamlessly switch between self-sufficient power and grid power.

Single-Function and Full Load Support

- Can handle both single appliances and full household loads.

Backflow Prevention

- Equipped with backflow prevention measures to protect the grid.

101V/202V Load Support

- Compatible with both 101V and 202V electrical systems.

GB-A (JP)

Technical Data



Main Parameters					
Model		GB-A4		GB-A10	GB-A16
Cell chemistry				LiFePO ₄	
Module Energy (kWh)				2	
Module Nominal Voltage (V)				51.2	
Module Capacity (Ah)				39.1	
System Nominal Voltage (V)		102.4		256	409.6
System Energy (kWh)		4		10	16
Charge Power (kW)		2.5		6.25	10
Discharge power (kW)		3.3		8.2	10
Max.charge current (A)				28	
Discharge Current (A)	Recommend			30	
	Max.			37	
Ambient operating Temperature (°C)		Charge/Discharge: -15~55			
Status Indicator		Yellow: Battery High Voltage Power On			
		Red: Battery System Alarm			
Communication Port		CAN2.0/ RS485			
Humidity		5%-95%RH			
Altitude		3000m			
IP Rating of Enclosure		IP65			
Dimension (W/D/H,mm)		700 × 200 × 695		700 × 200 × 1135	700 × 200 × 1575
Weight Approximate (kg)		59		116	173
Installation Location		Wall-Mounted/Floor-Mounted			
Recommend storage Temperature (°C)		0~35			
Recommend Depth of Discharge		90%			
Cycle Life		25±2°C,0.5C/0.5C, EOL70%≥6000			
Warranty		10 years			
Certification		JET			

Summer Series
Indoor C&I ESS Solution

Stacked Battery(HV)

NEW ORION W



User-friendly Structural Design

- Cable-free stackable design enables fast, tool-free installation
- Millimeter-grade filtered airflow ensures efficient dust removal
- Detachable maintenance cover allows direct on-cluster service



Wide Compatibility

- Advanced cluster-level, pack-level, and cell-level balancing algorithms ensure seamless battery replacement and parallel operation.
- Compatible with 30-125 kW power units



Intelligent Thermal Management

- Independent fan control at pack level
- Optimized airflow design keeps cell temperature difference within 4 °C



High Power Output

- 230A continuous charge/discharge for high-load and fast-charge scenarios



Flexible Expansion

- Modular design, scalable from 5~16 packs (60-192 kWh) per cluster.
- Up to 16 clusters in parallel, reaching 3MWh



Robust Protection

- C4 anti-corrosion coating ensures superior environmental resistance

GB-W (EU, AS, AF, LATAM)

Technical Data

Days	
.....	
.....	
.....	
.....	
.....	
.....	
.....	

Main Parameters

Cell Chemistry	LiFePO ₄											
Module Energy (kWh)	12.03											
Module Capacity (Ah)	235											
Nominal Voltage (V)	51.2											
Battery Module Qty in series (Optional)	5	6	7	8	9	10	11	12	13	14	15	16
Battery Model Number	GB-W60	GB-W72	GB-W84	GB-W96	GB-W108	GB-W120	GB-W132	GB-W144	GB-W156	GB-W168	GB-W180	GB-W192
System Nominal Voltage (Vdc)	256	307.2	358.4	409.6	460.8	512	563.2	614.4	665.6	716.8	768	819.2
System Operating Voltage (Vdc)	208 ~292	249.6 ~350.4	291.2 ~408.8	332.8 ~467.2	374.4 ~525.6	416 ~584	457.6 ~642.4	499.2 ~700.8	540.8 ~759.2	582.4 ~817.6	624 ~876	665.6 ~934.4
System Energy (kWh)	60.1	72.1	82.4	96.2	108.2	120.3	132.3	144.3	156.4	168.4	180.4	192.5
System Usable Energy (kWh)	54.1	64.9	74.1	86.6	97.4	108.2	119.1	129.9	140.7	151.6	162.4	173.2
System Nomianal Charge/Discharge Power (kW)	58.8	70.6	82.4	94.2	105.9	117.7	129.5	141.3	153	164.8	176.6	188.4
Charge / Discharge Max.Continuous Current	230											
Current Peak	322 (1s)											
Working Temperature (°C)	Charge:0~55 / Discharge:-20~55											
Communication Port	CAN / RS485											
Thermal Management	Natural air cooling											
Recommend Depth of Discharge	90%											
Cycle Life	25±2°C,0.5C/0.5C,70%EOL≥6000											
Warranty	10 years											

Other Parameters

Humidity	0~85%
Altitude (m)	≤3000
IP Rating of Enclosure	IP20
Noise (dB)	≤60@25°C, 1m
Storage Temperature (°C)	-30~60
Installation Location	Floor Mount

Model GB-W-PDU-2

Operating Voltage	200~1000Vdc
Nominal Charge/DischargeCurrent	230A
Operating Temperature	-20~55°C
Ingress Protection	IP20
Details	690 x 436 x 151.2(W x D x H), 20.8kg

Model GB-W-Pack12~2-A3

Nominal Capacity	235Ah
Nominal Energy	12.03kWh
Nominal Voltage	51.2Vdc
Max Charge/Discharge Current	230A
Ingress Protection	IP20
Operating Temperature (Charge)	0~55°C
Operating Temperature (Discharge)	-20~55°C
StorageTemperature	-30~60°C
Details	690 x 436 x 270(W x D x H), 93kg

Model GB-W-Base

Details	690 x 436 x 117(W x D x H),14kg
---------	---------------------------------

Model Telescopic Slide Rail

Details	Stroke: 200~300 mm
---------	--------------------

Model Top Cover

Details	690 x 436 x 90 (W x D x H, 6kg)
---------	---------------------------------

Summer Series
Indoor C&I ESS Solution

Rack-Mounted Battery (HV)

ORION B



Intelligent Control

- Peak-valley mgmt, anti-backflow, overload protection
- Load tracking, demand control, backup power, phase separation



Scalable

- Support up to 16 units in parallel, maximum 2.3MW/4.1MWh



Reliable

- Operating temp : -20°C to 55°C
- Operate up to 3000m altitude
- 11x overload capacity
- Balancing solutions extend battery life
- Triple auxiliary power design for stable supply



Easy Maintenance

- 5U Standard Chassis
- User Interface & Bluetooth App
- USB & Cloud Upgrades
- TCP Protocol for EMS
- Fault Signal Input Support



Multi-Fusion

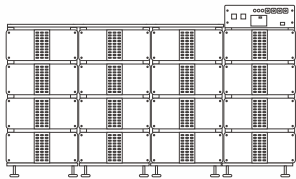
- Integrated EMS, PCS, and BMS
- Support expansion of MPPT module
- Support off-grid backup



Safer

- LFP batteries
- Support aerosol fire extinguishing

BOS-B Pro-A3 (EU, AS, AF, LATAM, AU)
Technical Data



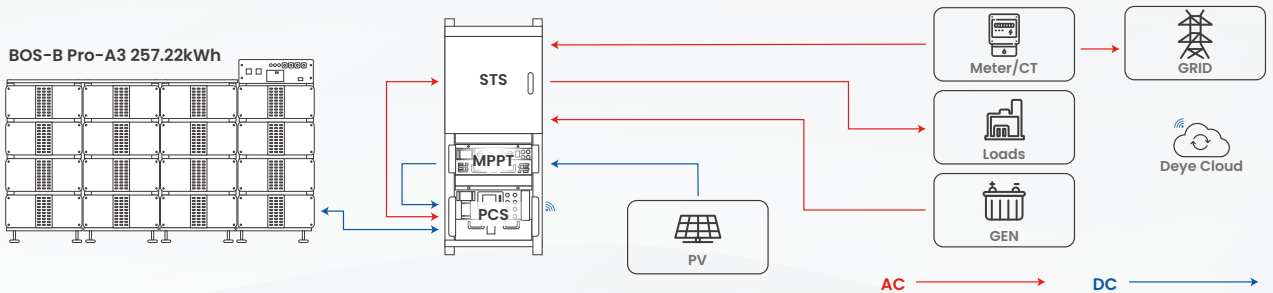
Main Parameters

Battery Module Energy (kWh)	16.08											
Battery Module Nominal Voltage (V)	51.2											
Battery Module Capacity (Ah)	314											
Module Weight Approximate (kg)	126											
Battery Module Qty In Series (Optional)	5-16											
Matching Mode	PCS or Hybrid Inverter 14-16 units for PCS on-grid applications, 15-16 units for PCS off-grid applications, 5-16 units for hybrid inverter systems											
	PCS + MPPT 16 units (on/off-grid) for MPPT Open-Circuit Voltage ≤800V 15 units (on/off-grid) for MPPT Open-Circuit Voltage ≤ 750V 14 units (on-grid) for MPPT Open-Circuit Voltage ≤ 700V											
Battery Model Number	BOS-B80 Pro-A3	BOS-B96 Pro-A3	BOS-B112 Pro-A3	BOS-B128 Pro-A3	BOS-B144 Pro-A3	BOS-B160 Pro-A3	BOS-B176 Pro-A3	BOS-B192 Pro-A3	BOS-B208 Pro-A3	BOS-B224 Pro-A3	BOS-B240 Pro-A3	BOS-B256 Pro-A3
Battery Module Qty In Series (Optional)	5	6	7	8	9	10	11	12	13	14	15	16
System Nominal Voltage (V)	256	307.2	358.4	409.6	460.8	512	563.2	614.4	665.6	716.8	768	819.2
System Operating Voltage (V)	208-292	249.6-350.4	291.2-408.8	332.8-467.2	374.4-525.6	416-584	457.6-642.4	499.2-700.8	540.8-759.2	582.4-817.6	624-876	665.6-934.4
System Energy (kWh)	80.3	96.4	112.5	128.6	144.6	160.7	176.8	192.9	208.9	225	241.1	257.2
System Usable Energy (kWh)	72.27	86.76	101.25	115.74	130.14	144.63	159.12	173.61	188.01	202.5	216.99	231.48
Max DC Power(kW)	46.08	55.296	64.512	73.728	82.944	92.16	101.376	110.592	119.808	129.024	138.24	147.456
Max.Charge/Discharge Current (A)	180											

Other Parameters

Operating Temperature (°C)	Charge : 0 ~ 55 Discharge : -20 ~ 55											
Storage Temperature (°C)	0 ~ 35											
Thermal Management	Smart fan cooling											
LCD Display	SOC / Fault Code											
Status Indicator	Yellow : Battery High Voltage Power On Red : Battery System Alarm											
Communication Port	TCP / RS485 / CAN											
Communication With BMS	CAN											
Humidity	5% ~ 85%											
Altitude	≤3000m											
IP Rating of Enclosure	IP20											
Noise (dB)	TBD											
System Dimension (W × H × D, mm)	1067 × 1305 × 800			1608 × 1305 × 800				2150 × 1305 × 800				
System Weight Approximate (kg)	758	884	1010	1136	1310	1436	1562	1688	1862	1988	2114	2240
Installation Location	Rack Mounted											
Recommend Depth of Discharge	90%											
Cycle Life	25±2°C, 0.5C / 0.5C, EOL70%≥6000											
Warranty Period	10 years											
Certification	CE / IEC62619 / IEC62040 / UN38.3											

Typical Application Scenario



Summer Series
Small-Scale C&I ESS Solution

Rack-Mounted Battery (HV)



Safe and Reliable

- Intelligent BMS
- Firefighting module
- Dual electrode disconnection design
- Support up to 160A current output



Intelligent Control

- Protection against over-discharge, over-charge, over-current and extreme temperatures
- Automatically manage charge / discharge
- States and balances cell current voltage
- Uploading of battery data via TCP protocol



Flexible Expansion

- Support 7 ~ 21 packs
- Inverter 50 ~ 100kW, Battery 54 ~ 161kWh
- Easy capacity expansion and save more budget



Easy Installation

- 3U rack embedded design
- A concise data display interface
- Multiple battery modules can be in parallel for expanding
- Dual power output plugins, each supports 100A
- Connectable to two inverter DC interfaces
- USB, Bluetooth connection



Smart Operation

- Cloud-based monitoring
- Keep track of the operating status
- Intelligent strategy control
- Effectively saving on electricity bill

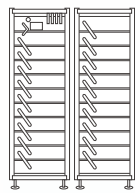


Long Service Life

- 10-year warranty
- 6000 cycles

BOS-A (NA, AS, AF, LATAM, EU)

Technical Data



Main Parameters

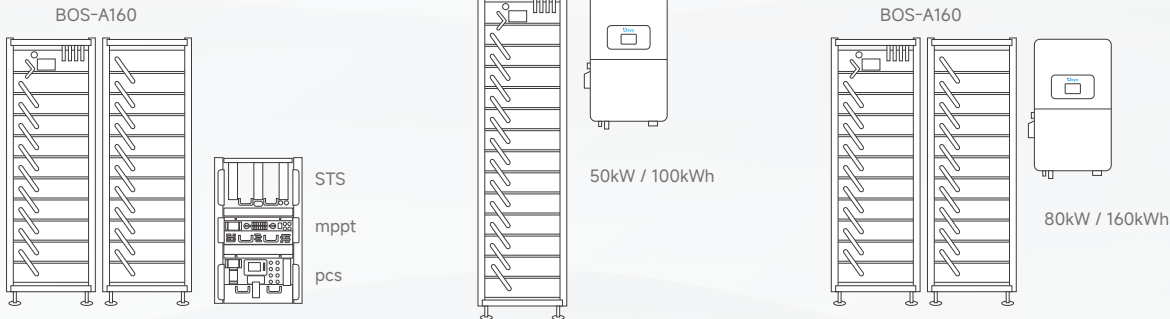
Cell Chemistry	LiFePO ₄		
Module Energy (kWh)	7.68		
Module Nominal Voltage (V)	38.4		
Module Capacity (Ah)	200		
Module Dimension (W × D × H, mm)	601.5 × 520 × 135		
Module Weight Approximate (kg)	70		
Battery Module Qty In Series (Optional)	7	13	21
System Nominal Voltage (V)	268.8	499.2	806.4
System Operating Voltage (V)	235.2 ~ 306.6	436.8 ~ 569.4	705.6 ~ 919.8
System Energy (kWh)	53.76	99.84	161.28
System Usable Energy (kWh) ¹	48.38	89.85	145.15
Charge / Discharge	Recommend	100	
Current (A) ^[2]	Max.	160	

Other Parameters

Working Temperature (°C)	Charge : 0 ~ 55 / Discharge : -20 ~ 55		
Status Indicator	Yellow : Battery High Voltage Power On Red : Battery System Alarm		
Communication Port	CAN2.0		
Humidity	5% ~ 85%RH		
Altitude	≤3000m		
IP Rating of Enclosure	IP20		
Dimension (W × D × H, mm)	610 × 610 × 1900	610 × 610 × 2350	(610 × 610 × 1900) × 2
Weight Approximate (kg)	525	934	1501
Installation Location	Rack-Mounted		
Storage Temperature (°C)	0 ~ 35		
Recommend Depth of Discharge	90%		
Cycle Life	≥6000 (25±2°C, 0.5C / 0.5C, EOL70%)		
Warranty Period	10 years		
Certification	CE / IEC 62619 / IEC 62040 / UN38.3 / VDE-2510		

- DC Usable Energy, test conditions : 90%DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
- The current is affected by temperature and SOC.
- The warranty is due whichever reached first of warranty period or life cycle power.

Backup Power Duration Plan	1 hours	2 hours		4 hours	
Hybrid inverter power	100kW	50kW	80kW	50kW	80kW
Battery model	BOS-A160	BOS-A100	BOS-A160	BOS-A100	BOS-A160
Number of batteries	1 pc	1 pc	1 pc	2 pcs	2 pcs



Summer Series
Small-Scale C&I ESS Solution

Rack-Mounted Battery (HV)



Intelligent Functions

- Protection functions against over-discharge, over-charge, over-current, over-high or low temperature
- Automatically manage charge/discharge and balance current/voltage
- Less self-discharge, up to 6 months without charging it on shelf
- No memory effect, excellent performance of shallow charge and discharge



Convenient

- 19-inch embedded design
- Support USB and Wi-Fi upgrade(optional)
- Support remotely monitoring and upgrade
- Multiple battery modules can be in parallel



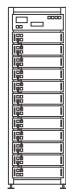
Safe and Reliable

- LFP Battery: safety, long lifespan and high-energy density
- The module is non-toxic, non-polluting, and eco-friendly
- Working temperature: -20°C ~ 55°C

1. DC Usable Energy, test conditions : 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
2. The current is affected by temperature and SOC.

BOS-GH/BOS-GL (JP,NA)

Technical Data



Main Parameters

Model	BOS-GL60	BOS-GH40	BOS-GH60
Cell Chemistry	LiFePO ₄		
Module Energy (kWh)	5.12		
Module Nominal Voltage (V)	51.2		
Module Capacity (Ah)	100		
Battery Module Qty In Series (Optional)	12 (2P6S)	8 (1P8S)	12 (1P12S)
System Nominal Voltage (V)	307.2	409.6	614.4
System Operating Voltage (V)	240 ~ 350.4	320 ~ 467.2	480 ~ 700.8
System Energy (kWh)	61.44	40.96	61.44
System Usable Energy (kWh)	55.29	36.86	55.29
Charge / Discharge ² Current (A)	Recommend	100	50
	Max.	100	
	Peak Discharge (2 mins, 25°C)	125	

DC Technical Specification

Working Temperature (°C)	Charge : 0 ~ 55 / Discharge : -20 ~ 55		
Status Indicator	Yellow : Battery High Voltage Power On Red : Battery System Alarm		
Communication Port	CAN2.0 / RS485		
Humidity	5% ~ 85%RH		
Altitude	≤2000m		
IP Rating of Enclosure	IP20		
Dimension (W × D × H, mm)	530 × 667 × 2187	530 × 667 × 1629	530 × 667 × 2187
Weight Approximate (kg)	75+45 × 12+20=635kg	53+45 × 8+20=433kg	75+45 × 12+20=635kg
Installation Location	Rack Mounting		
Storage Temperature (°C)	0 ~ 35		
Recommend Depth of Discharge	90%		
Cycle Life	25±2°C, 0.5C / 0.5C, EOL70%≥6000		
Warranty Period	10 years		
Certification	UL1973 / UL9540A / UN38.3 / UL9540		

Backup Power Duration Plan

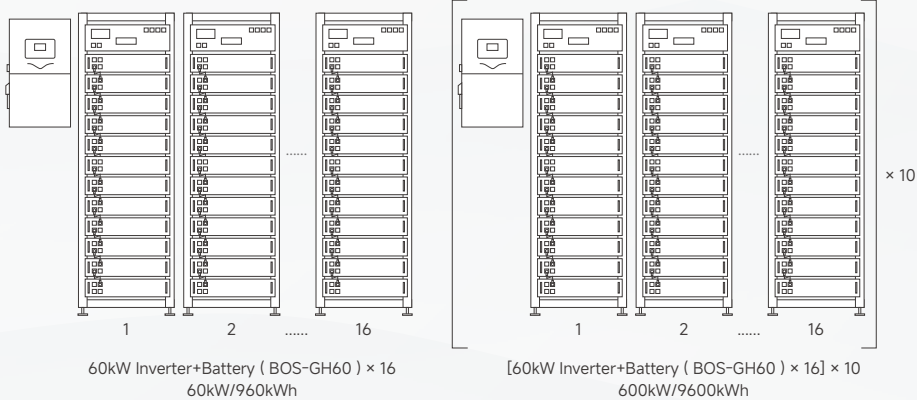
	1 hour		2 hours	
Hybrid inverter power	30kW	60kW	60kW	30kW
Battery model	BOS-GH40	BOS-GH60	BOS-GH60	BOS-GL60
Number of batteries	1 pc	1 pc	2 pcs	1 pcs

BOS-GH60 | Minimum 4 battery packs connected in series, maximum 12 batteries

Battery Module Number	BOS-G20	BOS-G25	BOS-G30	BOS-G35	BOS-G40	BOS-G45	BOS-G50	BOS-G55	BOS-G60
Battery Module Qty In Series (Optional)	4	5	6	7	8	9	10	11	12
System Energy (kWh)	20.48	25.6	30.72	35.84	40.96	46.08	51.2	56.32	61.44

Supports up to 16 battery clusters in parallel

Supports up to 10 AC inverters in parallel



Summer Series
Small-Scale C&I ESS Solution

Rack-Mounted Battery (HV)

ORION G



Convenient

- Quick installation standard of 19-inch embedded designed module is comfortable for installation and maintenance.



Intelligent BMS

- It has protection functions including over-discharge, over-charge, over-current and over-high or low temperature. The system can automatically manage charge and discharge state and balance current and voltage of each cell.



Eco-friendly

- The whole module is non-toxic, non-polluting and environmentally friendly.



Safe and Reliable

- Cathode material is made from LiFePO4 with safety performance and long cycle life. The module has less self-discharge, up to 6 months without charging it on shelf, no memory effect, excellent performance of shallow charge and discharge.



Flexible Configuration

- Multiple battery modules can be in parallel for expanding capacity and power. Support USB upgrade, remote up grade (Compatible with Deye inverter).

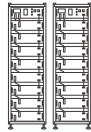


Wide Temperature

- Working temperature range is from -20°C to 55°C, with excellent discharge performance and cycle life.

BOS-G Pro (EU, SA, AU)

Technical Data



Main Parameters

Cell Chemistry	LiFePO ₄			
Module Energy (kWh)	5.12			
Module Nominal Voltage (V)	51.2			
Module Capacity (Ah)	100			
Battery Module Number	BOS-G25 Pro	BOS-G40 Pro	BOS-G60 Pro	BOS-G80-Pro
Battery Module Qty In Series (Optional)	5 (Min)	8	12	16 (Max)
System Nominal Voltage (V)	256	409.6	614.4	819.2
System Operating Voltage (V)	220~292	352~467.2	528~700.8	704~934.4
System Energy (kWh)	25.6	40.96	61.44	81.92
System Usable Energy (kWh)	23.04	36.86	55.3	73.72
Rated DC Power	25.6	40.96	61.44	81.92
Charge / Discharge	Recommend			50
Current (A)	Max.			100
	Peak Discharge (2 mins, 25°C)			125

Other Parameters

Operating Temperature (°C)	Charge : 0 ~ 55 / Discharge : -20 ~ 55		
Status Indicator	Yellow : Battery High Voltage Power On Red : Battery System Alarm		
Communication Port	CAN2.0 / RS485		
Humidity	5% ~ 85%RH		
Altitude	≤3000m		
IP Rating of Enclosure	IP20		
System Dimension (W x D x H,mm)	530 × 602 × 1629	530 × 602 × 2219	1060 × 602 × 1629
System Weight Approximate (kg)	290	428	622
Installation Location	Rack Mounting		
Storage Temperature(°C)	0 ~ 35		
Recommend Depth of Discharge	90%		
Cycle Life	25±2°C, 0.5C / 0.5C, EOL70%≥6000		
Warranty Period	10 years		
Certification	UN38.3 / CE / CE-EMC / IEC62040 / CEC / VDE		

Inverter	1h	2h	3h	4h
SUN-30K-SG01HP3-EU-BM3	X6	X12	X9 X2	X12 X2
SUN-40K-SG01HP3-EU-BM4	X8	X8 X2	X12 X2	X11 X3
SUN-50K-SG01HP3-EU-BM4	X10	X10 X2	X10 X3	X10 X4
SUN-60K-SG02HP3-EU-EM4	X12	X12 X2	X12 X3	X16 X3
SUN-80K-SG02HP3-EU-EM6	X16	X16 X2	X16 X3	X16 X4

Summer Series

Small-Scale C&I ESS Solution

Small-Scale C&I Battery Cabinet



Safety Protection

- Lithium iron phosphate LFP batteries, battery packs and
- Systems all use aerosol fire suppression solutions



Integrated Technology

- EMS, hybrid inverter and BMS integration technology
- Power supply redundancy design
- Support for black start function, off-grid operation



Total Protection

- Combustible gas, smoke and temperature detection
- System active exhaust and fire alarm



Flexible Extension

- Support battery expansion a maximum capacity of
- 3600kWh(Off-grid)

GE-F60 (NA, AS, AF, LATAM, EU, AU)

Technical Data



Main Parameters

Cell Chemistry		LiFePO ₄
Module Energy (kWh)		5.12
Module Nominal Voltage (V)		51.2
Module Capacity (Ah)		100
Battery Module Qty In Series		12
System Nominal Voltage (V)		614.4
System Operating Voltage (V)		480 ~ 700
System Energy (kWh)		61.44
System Usable Energy (kWh) ¹		55.29
Rated DC Power		61.44
Charge / Discharge ²	Recommend	50
	Max.	100
	Current (A)	Peak Discharge (2 mins, 25°C)

Other Parameters

Status Indicator	Yellow : Battery High Voltage Power On	Red : Battery System Alarm
Communication Port	CAN2.0 / RS485	
Humidity	5% ~ 85%RH	
Altitude	≤2000m	
IP Rating of Enclosure	IP55	
Dimension (W × D × H, mm)	783 × 1059 × 2235	
Weight Approximate (kg)	1070	
Installation Method	Floor-Mounted	
Storage Temperature (°C)	0 ~ 35	
Operating Temperature (°C)	-30 ~ 60 (> 45 derating)	
Recommend Depth of Discharge	90%	
Cycle Life	≥6000 (25±2°C, 0.5C / 0.5C, EOL70%)	
Certification	UN38.3, IEC, VDE, CEI, CEC, FCC, UL1973, UL9540A, UL9540	

Typical Application Solutions

6 × F60+50kW Inverter	Maximum 6 DC parallel-connected units	Up to : 50kW / 360kWh
(6 × F60+50kW Inverter) × 10	Maximum 10 groups AC parallel	Up to : 500kW / 3600kWh
(F60+50kW Inverter) × 10	Maximum 10 groups AC parallel	Up to : 500kW / 600kWh
10 × F120	30kW/ 50kW Inverter selectable	Up to : 500kW / 1200kWh
F120+4 × F60	1+4 Combined DC Expansion	Up to : 50kW / 360kWh
(F120+4 × F60) × 10	Maximum 10 groups AC parallel	Up to : 500kW / 3600kWh

1. DC Usable Energy, test conditions : 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
2. The current is affected by temperature and SOC.
3. Made in China.



Summer Series
Small-Scale C&I ESS Solution

Small-Scale C&I ESS



Protection

- Combustible gas, smoke and temperature detection
- System active exhaust and fire alarm
- Battery pack and system use aerosol fire suppression



Multi-Fusion

- All-in-One design
- EMS, hybrid inverter and BMS integrated technology
- Support black start function and off-grid operation
- Power supply redundancy design



Enhanced Reliability

- Maximum battery temperature $\leq 35^{\circ}\text{C}$ at rated power
- IP55-rated for outdoor use
- Wide temperature range: $-20^{\circ}\text{C} \sim 55^{\circ}\text{C}$



Flexible

- F120 supports the integration of 30/40/50kW inverters
- Support expansion a maximum capacity of 3600kWh

GE-F120-2H2/4/6 (NA, AU, EU)

Technical Data



System Specification

Model	GE-F120-4H2	GE-F120-3H2	GE-F120-2H2
Main Parameters			
Nominal Output Power / UPS Power (W)	30000	40000	50000
AC Output Frequency and Voltage	50 / 60Hz ; 220 / 380, 230 / 400Vac		
Grid Type	3L / N / PE		
Number of Parallel (Off-grid)	10		
Energy Configuration (kWh)	122.8		
Dimension (W × D × H, mm)	1780 × 1056 × 2235		
Weight Approximate (kg)	2090		
AC Output Rated Current (A)	45	58	75.8
Battery Operating Voltage (V)	500 ~ 700		
Max. RTE	89%		
Battery Chemistry	LiFePO4		
IP Rating of Enclosure	IP55		
Installation Method	Floor-Mounted		
Storage Temperature ($^{\circ}\text{C}$)	0 ~ 35		
Operating Temperature ($^{\circ}\text{C}$)	$-20 \sim 55$ (> 43 derating)		

Inverter Technical Specification

Max. PV Input Power (W)	39000	52000	65000
Max. PV Input Current (A)	36+36+36	36+36+36+36	36+36+36+36
Rated PV Input Voltage (Vdc)	600		
Start Up DC Voltage (Vdc)	180		
MPPT Voltage Range (Vdc)	150-850		
Max. PV Short-circuit Current (A)	55+55+55	55+55+55+55	55+55+55+55
Number of MPPT	3	4	4
Peak Power (off grid)	1.5 time of rated power, 10s		
Power Factor	0.8 leading to 0.8 lagging		
THD	$< 3\%$		
DC Injection current (mA)	$< 0.5\%I_n$		
Display	LCD		
Operating Temperature Range ($^{\circ}\text{C}$)	$-40 \sim 60$ (> 45 derating)		
Relative Humidity	15% ~ 85% (No Condensing)		
Dimension (W × D × H, mm)	527 × 294 × 894		
Inverter Communication	CAN, RS485, WIFI, ETH		
Grid Regulation	VDE 4105, IEC 61727 / 62116, VDE 0126, AS 4777.2, CEI 0-21, EN 50549-1, G98, G99, C10-11, UNE 217002, NBR 16149 / NBR 16150		
Max. Efficiency	97.6%		
MPPT Efficiency	99.9%		

Battery Technical Specification

Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	5.12
BMS Communication	CAN
Battery Module Dimension (W × D × H mm)	440 × 570 × 133
Battery Module Weight (kg)	44
Cycle Life	≥ 6000 (@ $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 0.5C / 0.5C, 70%EOL)
Battery Module Certification	UN38.3, IEC 62619, IEC 61000, VED, CEI, FCC, UL1973, UL9540, UL9540A

Summer Series
C&I ESS Solution

C&I Outdoor Battery Cabinet

NEW ORION E



Ultimate Protection

- Six-dimensional safety design, eliminating the risk of fire and explosion
- High-intensity cabinet, unique patented door latch design, eliminates structural weak points
- Hour-level fire resistance, prevent heat spread



Highly Integrated

- Outer cabinet wall preset inverter bracket installation position, no wall bearing concerns, no need to drill
- Single cabinet can easily deploy PV+BESS, PV+BESS+DG
- Can be installed side by side or back to back, reducing the footprint



Stable Efficient

- Long-life lithium iron phosphate battery, ≥ 8000 cycles
- High-efficiency thermal management, no derating at 45°C, cell temperature difference ≤6°C
- Full-range 0.5P charge and discharge, efficient recharging, stable load-bearing



Intelligent Management

- Leading rack-level + pack-level + cell-level energy balancing algorithm, non-inductive pack change and cabinet expansion
- Single cabinet can be configured with a 2/3/4h system of 30~125kW, up to 10 units battery cabinet parallel
- Integrated energy platform, 24/7 AI smart customization of optimal power usage strategies

GE-F128 & GE-F240 & GE-F256 (EU, AS, AF, LATAM, AU)
Technical Data

Main Parameters

GE-F128 Series			
Model	GE-F96-BC-2-A3	GE-F112-BC-2-A3	GE-F128-BC-2-A3
Cell Type	LiFePO ₄		
Module Capacity (Ah)	314		
Module Nominal Voltage (Vdc)	51.2		
Module Energy (kWh)	16.08		
Module Qty In Series	6	7	8
System Nominal Energy (kWh)	96.46	112.53	128.61
System Usable Energy (kWh) ^[1]	96.46	112.53	128.61
System Nominal Voltage (Vdc)	307.2	358.4	409.6
System Operating Voltage (Vdc)	240~350.4	280~408.8	320~467.2
Rated DC Power (kW)	48	56	64
Charge/Discharge Current(A) ^[2]	Recommend		157
	Max. Continuous		180
	Peak Discharge@15s/20~45°C		285

Other Parameters

Fire Protection System	Aerosol and Water fire interface CO gas detection, Active exhaust and Explosion venting		
Cooling Method	Smart Air Cooling		
Communication Port	CAN, RS485		
Communication protocol	CAN2.0, Modbus485		
Operating Temperature (°C) ^[3]	-30~55		
Recommend Storage Temperature (°C)	0~35		
Humidity	5% ~ 95%RH (No Condensing)		
Altitude	3000m		
IP Protection	IP55		
Anti Corrosion Level	Standard: C4-M, customizable up to C5		
Dimension (W x D x H,mm)	998 x 1240 x 2405.5		
Weight (kg)	1460	1575	1690
Installation Location	Floor Mount		
Cycle Life	≥8000 (25±2°C,0.5P,EOL70%)		
Certification	UN38.3,CE,IEC62619,IE62477,IEC62933-5-2,UL9540A		

1. Test conditions : 100% DOD, 0.5P charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.
2. The current is affected by temperature and SOC.
3. Derated operation at > 45°C.

GE-F128 & GE-F240 & GE-F256 (EU, AS, AF, LATAM, AU)

Technical Data

Main Parameters					
GE-F240 Series					
Model	GE-F176 -BC-2-A3	GE-F192 -BC-2-A3	GE-F208 -BC-2-A3	GE-F224 -BC-2-A3	GE-F240 -BC-2-A3
Cell Type	LiFePO ₄				
Module Capacity (Ah)	314				
Module Nominal Voltage (Vdc)	51.2				
Module Energy (kWh)	16.08				
Module Qty In Series	11	12	13	14	15
System Nominal Energy (kWh)	176.84	192.92	208.99	225.07	241.15
System Usable Energy (kWh) ^[1]	176.84	192.92	208.99	225.07	241.15
System Nominal Voltage (Vdc)	563.2	614.4	665.6	716.8	768
System Operating Voltage (Vdc)	440~642.4	480~700.8	520~759.2	560~817.6	600~876
Rated DC Power (kW)	88	96	104	112	121
Charge/Discharge Current(A) ^[2]	Recommend				
	Max. Continuous				
	Peak Discharge@15s/20~45°C				

Other Parameters					
Fire Protection System	Aerosol and Water fire interface CO gas detection, Active exhaust and Explosion venting				
Cooling Method	Smart Air Cooling				
Communication Port	CAN, RS485				
Communication protocol	CAN2.0, Modbus485				
Operating Temperature (°C) ^[3]	-30~55				
Recommend Storage Temperature (°C)	0~35				
Humidity	5% ~ 95%RH (No Condensing)				
Altitude	3000m				
IP Protection	IP55				
Anti Corrosion Level	Standard: C4-M, customizable up to C5				
Dimension (W x D x H,mm)	1303 x 1240 x 2405.5				
Weight (kg)	2150	2264	2380	2495	2610
Installation Location	Floor Mount				
Cycle Life	≥8000 (25±2°C,0.5P,EOL70%)				
Certification	UN38.3,CE,IEC62619,IE62477,IEC62933-5-2,UL9540A				

1. Test conditions : 100% DOD, 0.5P charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

2. The current is affected by temperature and SOC.

3. Derated operation at > 45°C.

Main Parameters		GE-F256-BC-2-A3
Cell Type	LiFePO ₄	
Module Capacity (Ah)	314	
Module Nominal Voltage (Vdc)	51.2	
Module Energy (kWh)	16.08	
Module Qty In Series	16	
System Nominal Energy (kWh)	257.23	
System Usable Energy (kWh) ^[1]	257.23	
System Nominal Voltage (Vdc)	819.2	
System Operating Voltage (Vdc)	640~934.4	
Rated DC Power (kW)	129	
Charge/Discharge Current(A) ^[2]	Recommend	157
	Max. Continuous	180
	Peak Discharge@15s/20~45°C	285

Other Parameters	
Fire Protection System	Aerosol and Water fire interface CO gas detection, Active exhaust and Explosion venting
Cooling Method	Smart Air Cooling
Communication Port	CAN, RS485
Communication protocol	CAN2.0, Modbus485
Operating Temperature (°C) ^[3]	-30~55
Recommend Storage Temperature (°C)	0~35
Humidity	5% ~ 95%RH (No Condensing)
Altitude	3000m
IP Protection	IP55
Anti Corrosion Level	Standard: C4-M, customizable up to C5
Dimension (W x D x H,mm)	1303x1240x2510
Weight (kg)	2790
Installation Location	Floor Mount
Cycle Life	≥8000 (25±2°C,0.5P,EOL70%)
Certification	UN38.3,CE,IEC62619,IE62477,IEC62933-5-2,UL9540A

1. Test conditions : 100% DOD, 0.5P charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

2. The current is affected by temperature and SOC.

3. Derated operation at > 45°C.

CONTENTS

AUT
UMN Series

Micro ESS Solution

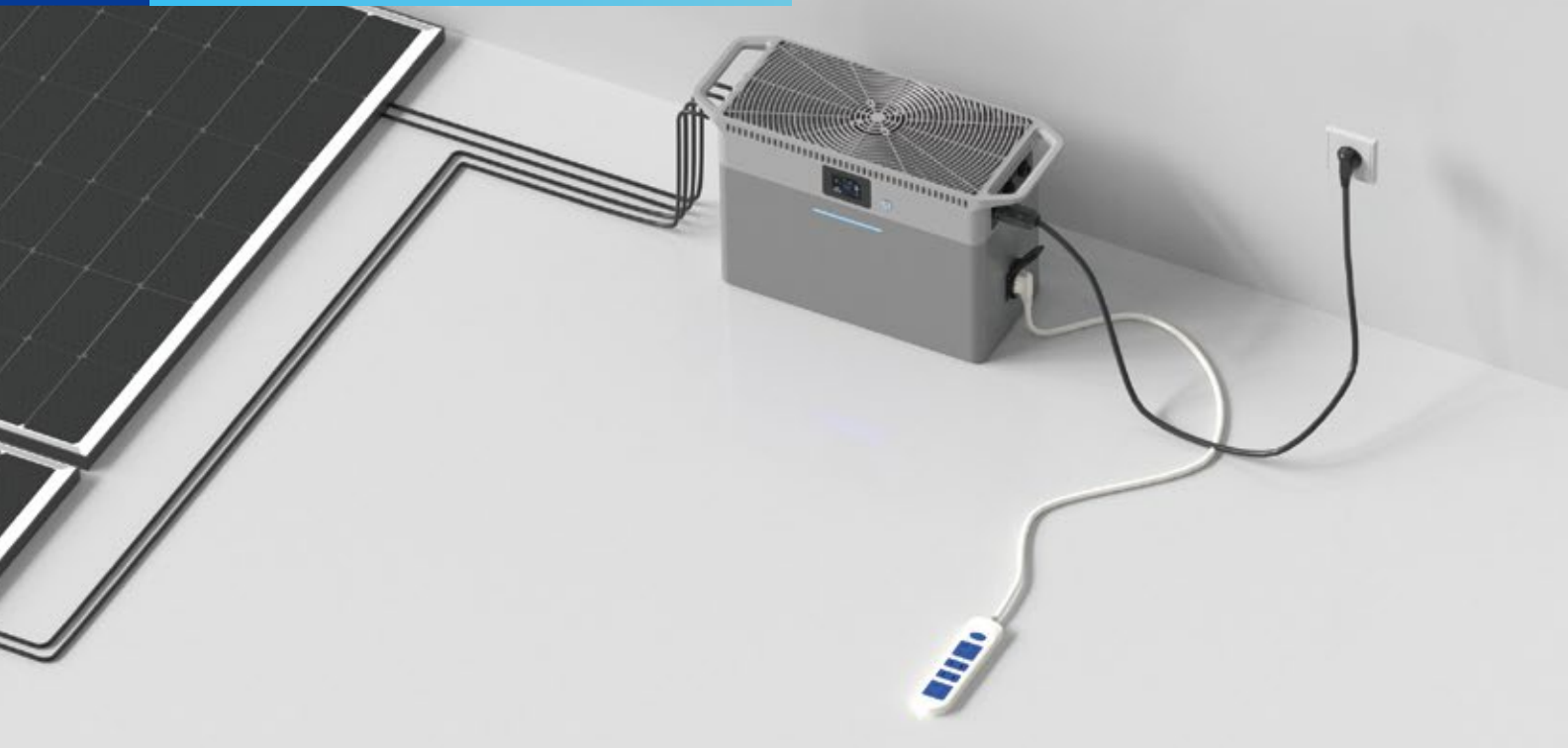
SUN-BK80/160/200/250-2.56KWH-EU-AM4-18/32L 77
(EU, AS, AF, LATAM)

Residential ESS Solution

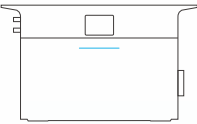
WD-G12100 & WD-G12200 & WD-G24100 (AS, AF, LATAM) 81

Autumn Series
Micro ESS Solution

Micro ESS



SUN-BK80/160/200/250-2.56KWH-EU
-AM4-18/32L (EU, AS, AF, LATAM)



Technical Data

Model	SUN-BK80-2.56KWH -EU-AM4-18L	SUN-BK160-2.56KWH -EU-AM4-18L	SUN-BK200-2.56KWH -EU-AM4-18L	SUN-BK250-2.56KWH -EU-AM4-18L
Battery Input Data				
Battery Type	LiFePO ₄			
Battery Voltage Range(V)	44.8-57.6 V			
Battery Nominal Energy (Wh)	2560Wh			
Max.Charging/Discharging Current(A)	50A			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
PV String Input Data				
Max. PV access power (W)	4400W			
Max. Operating PV Input Current (A)	18+18+18+18A			
Max. Input Short-Circuit Current (A)	32+32+32+32A			
Rated PV Input voltage (V)	42.5V			
Start-up Voltage (V)	25Vdc			
MPPT voltage range (V)	20 ~ 55V			
No. of MPP Trackers/No. of Strings MPP Tracker	4/1+1+1+1			
AC Input/Output Data				
Rated AC Input/Output Active Power	800W	1600W	2000W	2500W
Max. AC Input/Output Active Power	880W	1760W	2200W	2750W
Max. off grid power	2500W			
Rated AC Input/Output Current (A)	3.7A / 3.5A	7.3A / 7.0A	9.1A / 8.7A	11.4A / 10.9A
Max. AC Input/Output Current (A)	4A / 3.9A	8A / 7.7A	10A / 9.6A	12.5A / 12A
Peak Power (off-grid) (W)	2 times of rated power,10s			
AC Input / Output Frequency and Voltage	50Hz (45Hz ~ 55Hz) , 60Hz (55Hz ~ 65Hz) , L + N + PE , 220 / 230 Vac			
Power Factor Adjustment Range	0.8 leading~0.8lagging			
Max. Continuous AC Passthrough (grid to load)(A)	30A			
DC Injection Current	<0.5%In			
Efficiency				
Max. Efficiency	96.5%			
Euro Efficiency	96.0%			
MPPT Efficiency	>99%			
Equipment Protection				
Integrated	DC reverse polarity protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, Insulation Impedance detection, Anti-islanding protection			
Surge Protection Level	TYPE II(DC),TYPE II(AC)			
General Data				
Max. Inverter Parallel NO.	3 pcs (up to 7.5 kW rated output)			
Communication Interface	Wi-Fi, Bluetooth, LoRa			
Operating Temperature Range (°C)	-10°C ~ 55°C, >45°C Derating, (-20°C~55°C with heating, optional)			
Permissible Altitude (m)	2000m			
Ingress Protection(IP) Rating	IP 65			
Cabinet Size (W X H X D)	560 × 330 × 210mm			
Weight (kg)	30kg			
Permissible Ambient Humidity	0% ~ 95% (No Condensing)			
Warranty	10 years			
Grid Regulation	VDE 4105, IEC 61727/62116, VDE 0126, AS 4777.2, CEI 0-21, EN 50549-1, G98, C10-11, UNE 217002			
Safety EMC/Standard	IEC 62619, UN38.3, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1/2/3/4			



High Conversion Efficiency

- DC-AC conversion efficiency of up to 96.5%
- 2500W rated power AC charge/discharge
- Supports 18A high-current PV modules



UPS-Grade Backup Power

- Grid-tie and off-grid switchover time is less than 4ms



Seamless Scalability

- Easily expand the system with additional battery capacity



Intelligent Control

- Local bluetooth communication, supports offline control via the Deye Cloud APP
- Supports Deye smart IoT system: smart plug, smart switch, wireless CT



Enhanced Reliability

- IP65 Protection Rating
- 10-year standard warranty



Quiet Operation

- Fanless design with natural cooling

SUN-BK80/160/200/250-2.56KWH-EU
-AM4-18/32L (EU, AS, AF, LATAM)

Technical Data



Model	SUN-BK80-2.56KWH -EU-AM4-32L	SUN-BK160-2.56KWH -EU-AM4-32L	SUN-BK200-2.56KWH -EU-AM4-32L	SUN-BK250-2.56KWH -EU-AM4-32L
Battery Input Data				
Battery Type	LiFePO ₄			
Battery Voltage Range(V)	44.8-57.6 V			
Battery Nominal Energy (Wh)	2560Wh			
Max.Charging/Discharging Current(A)	50A			
Charging Strategy for Li-ion Battery	Self-adaption to BMS			
PV String Input Data				
Max. PV access power (W)	5760W			
Max. Operating PV Input Current (A)	32+32+32+32A			
Max. Input Short-Circuit Current (A)	48+48+48+48A			
Rated PV Input voltage (V)	42.5V			
Start-up Voltage (V)	25Vdc			
MPPT voltage range (V)	20 ~ 55V			
No. of MPP Trackers/No. of Strings MPP Tracker	4/1+1+1+1			
AC Input/Output Data				
Rated AC Input/Output Active Power	800W	1600W	2000W	2500W
Max. AC Input/Output Active Power	880W	1760W	2200W	2750W
Max. off grid power	2500W			
Rated AC Input/Output Current (A)	3.7A / 3.5A	7.3A / 7.0A	9.1A / 8.7A	11.4A / 10.9A
Max. AC Input/Output Current (A)	4A / 3.9A	8A / 7.7A	10A / 9.6A	12.5A / 12A
Peak Power (off-grid) (W)	2 times of rated power,10s			
AC Input / Output Frequency and Voltage	50Hz (45Hz ~ 55Hz) , 60Hz (55Hz ~ 65Hz) , L + N + PE , 220 / 230 Vac			
Power Factor Adjustment Range	0.8 leading-0.8lagging			
Max. Continuous AC Passthrough (grid to load)(A)	30A			
DC Injection Current	<0.5%In			
Efficiency				
Max. Efficiency	96.5%			
Euro Efficiency	96.0%			
MPPT Efficiency	>99%			
Equipment Protection				
Integrated	DC reverse polarity protection, AC Output Overcurrent Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, Thermal Protection, Insulation Impedance detection, Anti-islanding protection			
Surge Protection Level	TYPE II(DC),TYPE II(AC)			
General Data				
Max. Inverter Parallel NO.	3 pcs (up to 7.5 kW rated output)			
Communication Interface	Wi-Fi, Bluetooth, LoRa			
Operating Temperature Range (°C)	-10°C ~ 55°C, >45°C Derating, (-20°C~55°C with heating, optional)			
Permissible Altitude (m)	2000m			
Ingress Protection(IP) Rating	IP 65			
Cabinet Size (W X H X D)	560 × 330 × 210mm			
Weight (kg)	30kg			
Permissible Ambient Humidity	0% ~ 95% (No Condensing)			
Warranty	10 years			
Grid Regulation	VDE 4105, IEC 61727/62116, VDE 0126, AS 4777.2, CEI 0-21, EN 50549-1, G98, C10-11, UNE 217002			
Safety EMC/Standard	IEC 62619, UN38.3, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1/2/3/4			

Supports up to 5 batteries for vertical stacking expansion and up to 8 clusters (40 batteries) via cable connection	
Model	AE-F2.56
Battery Technical Specification	
Battery Chemistry	LiFePO ₄
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2560Wh
Max. Charging / Discharging Current	50A
Battery Operating Voltage	44.8V ~ 57.6V
Battery Cycle Life	≥6,000 (@25°C±2°C, 70%EOL)
Max. Stack NO.	5 pcs (up to 12.8kWh)
Parallel Capability	40 pcs*
Other Technical Specification	
Display	LED (SOC, Alarm)
Communication Interfaces	LoRa
Dimension (W × D × H) (mm)	450 × 210 × 244 (without terminal)
Ingress Protection(IP) Rating	IP 65
Weight Approximate	22±3 kg
Operating Temperature Range	-10°C~55°C (-20°C~55°C with heating, optional)
Max. Operating Altitude	2,000m
Relative Humidity	0% ~ 95% (No Condensing)
Certification	UN38.3, IEC 62619, CE
Installation Style	Floor-Mounted, Stacked-Mounted
Warranty	10 years

*Maximum 40 Pieces AE-F2.56 Packs in Parallel, Up to 102.4kWh.

Autumn Series
Residential ESS Solution

Stacked Battery (LV)



Reverse Polarity Protection

- Prevents battery or BMS damage from incorrect wiring

Thermal Protection

- Prevents thermal runaway with high-precision temperature sensor

Current-limiting Charging

- Supports parallel connection and auto-recharges after deep discharge

Flexible Expansion

- Max.4 packs in series and Max. 10 units in parallel

Automatic Recovery Function

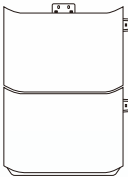
- Keeps battery stable at low-voltage, minimum cold-start capability of 5V

External Power Support

- Solar recharging, avoid battery standby, allow direct recharge

WD-G12100&WD-G12200&WD-G24100
(AS, AF, LATAM)

Technical Data



Main Parameters

Model		WD-G12100	WD-G12200	WD-G24100
Battery Chemistry		LiFePO ₄		
Nominal Capacity ^[1]		100 Ah	200 Ah	100 Ah
Nominal Voltage		12.8 V		25.6 V
Operating Voltage		11.2 V ~ 14.6 V		22.4 ~ 29.2 V
Nominal Energy ^[1]		1.28 kWh	2.56 kWh	2.56 kWh
Cell Configuration		Prismatic, 1P4S	Prismatic, 2P4S	Prismatic, 1P8S
Scalability		Max. 4 units in series (51.2V) and Max. 10 units in parallel		Max. 2 units in series (51.2V)
Charge Current ^[2]	Max. Continuous	100 A	200 A	100 A
	Peak	200 A (10 sec)	300 A (10 sec)	200 A (10 sec)
Discharge Current ^[2]	Max. Continuous	100 A	200 A	100 A
	Peak	200 A (10 sec)	300 A (10 sec)	200 A (10 sec)

Other Parameters

Recommend Depth of Discharge		80% DOD		
Dimension Approximate (W×D×H, mm)		310 × 160 × 298	471 × 160 × 348	471 × 160 × 348
Weight Approximate		13 kg	22 kg	21 kg
Case Material		ABS+PC		
LED Indicator		LED (SOC, working, protecting) & Buzzer		
Communication		RS485		
IP Rating of Enclosure		IP20		
Operating Temperature		Charge : 0 ~ 55°C, Discharge : -20°C ~ 55°C		
Storage Temperature		0 ~ 35°C		
Relative Humidity		95%		
Altitude		≤2000m		
Cycle Life		≥6000 (25°C±2°C, 0.2C charging and discharging, 80%DOD, 70%EOL)		
Warranty Period		5 years		
Installation		Floor-Mounted, Stacked		
Certification		UN38.3, CB, MSDS		

[1] Test conditions : 25°C±2°C, at beginning of life and calibration mode, 0.2C charge & 0.2C discharge, 100% DOD.

[2] The current is affected by temperature and SOC.

CONTENTS

WINTER

Series

C&I ESS Solution

MC-L522-2H2/3 (EU, AS, AF, LATAM)	85
---	----

C&I PV-BESS-EV Charging Integrated Solution

MC-LC480-2H2 & MC-LC480-BC-2 (EU, AS, AF, LATAM)	89
MS-DC480-2 & MS-DCC180-2 & MS-MPPT-400/200-2	91

Utility-Scale ESS Solution

WS-G(S)2000-2H3 & WS-G(S)2000-4H3 (AS, AF, LATAM, EU)	93
WS-L4300-BC-3-A (AS, AF, LATAM, EU)	97
WS-PCS1125-2-A & WS-TS1000-2-A (AS, AF, LATAM, EU)	99
WS-L5000-BC-2 & WS-MV5000-2 (AS, AF, LATAM, EU)	101

Winter Series
C&I ESS Solution

NEW ORION 522



Intelligent Cloud Platform

- 24-hour online O&M
- Battery life and safety warning
- Device cloud interconnection



Ultimate Safety

- 4 Fire Protection System
- 3+3 Electrical Safety Safeguards
- AC Leakage & DC Insulation Detection
- High-voltage interlocking, preventing loaded arc operation



Versatile Expansion

- PCS/BMS/EMS All-in-one modular design
- Support up to 10 cabinets in parallel
- Support 2/4/6/8-hour energy storage applications
- Higher energy density to reduce footprint
- PV and BESS DC Coupling



Multiple Application Scenarios

- Peak-to-Valley arbitrage/Peak-to-Valley shifting
- Virtual power plant ready
- Off-grid operation (Islands, communication base stations, etc.)

MC-L522-2H2/3 (EU, AS, AF, LATAM)
MC-L522-BC-2/3 (EU, AS, AF, LATAM)

Technical Data

Model	MC-L522-2H2/3 (AC BESS)
System Parameters	
Operating Temperature	-30°C ~ 55°C(≥40°C Derating)
Storage Temperature	-30°C ~ 60°C
Humidity	0 ~ 95% (No Condensation)
Type of cooling	Liquid Cooling
Fire Suppression	Aerosol, Water
Ingress Protection	IP54
Anticorrosion grade	≥C4
Altitude	≤3000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤5500kg
Dimensions (W × D × H)	2000 × 1400 × 2440mm
DC Data	
Battery	LiFePO ₄
Nominal Capacity	2314Ah
Nominal Energy	522.496kWh
Nominal DC Voltage	832Vd.c.
DC Voltage Range	715~936Vd.c
Charge and discharge rate	0.5P
AC Data	
Nominal AC Voltage	380/400V 3L+N+PE
Rated Frequency	50 / 60Hz
Rated Power	250kW
Maximum Power	250kW
Power Factor	-1~1

Model	MC-L522-BC-2/3 (DC BESS)
System Parameters	
Operating Temperature	-30°C ~ +55°C
Storage Temperature	-30°C ~ +60°C
Humidity	0 ~ 95% (No Condensation)
Type of cooling	Liquid Cooling
Fire Suppression	Aerosol, Water
Ingress Protection	IP54
Anticorrosion grade	≥C4
Altitude	≤3000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤5100kg
Dimensions (W × D × H)	2000 × 1400 × 2190mm
DC Data	
Battery	LiFePO ₄
Nominal Capacity	314Ah
Nominal Energy	522.496kWh
Nominal DC Voltage	832Vd.c.
DC Voltage Range	715~936Vd.c
Charge and discharge rate	0.5P

MC-L522-2H2/3 (EU, AS, AF, LATAM)

MC-L522-BC-2/3 (EU, AS, AF, LATAM)

Technical Data

Model	MS-TS500-2-A
Grid/PCS Side	
Rated AC Input/Output Active Power(kW)	500
Rated AC Input/Output Current(A)	758/725
Rated Input/Output Voltage(V)	220/380, 230/400
Grid Connection Form	3L/N/PE
Rated Input/Output Grid Frequency	50Hz/60Hz
Load Side Data	
Rated Output Active Power(kW)	500
Rated Output Current(A)	758/725
Rated Output Voltage(V)	220/380,230/400
Grid Connection Form	3L/N/PE
Rated Output Grid Frequency	50Hz/60Hz
GEN Side Data	
Rated AC Input Active Power(kW)	500
Rated AC Input Current(A)	758/725
Rated Input Voltage(V)	220/380, 230/400
Grid Connection Form	3L/N/PE
Rated Input Grid Frequency	50Hz/60Hz
System Data	
Off Grid Switching Time	≤10ms
Operating Temperature Range	-20°C~55°C
Permissible Altitude	≤3000m
Ingress Protection (IP) Rating	IP54
Cabinet Size (W*H*D) [mm]	1000 X 2250 X1000
Weight [kg]	≤700kg



Model	MS-EMS
System	
Configuration	EMS controller, lightning protection module, switch power supply, UPS module, switch
Function	Basic functions : peak valley arbitrage, anti backflow, main transformer overload protection, load tracking, demand control, backup power function, phase separation control, SOC balancing, Deye Cloud monitoring Advanced features : load forecasting, production planning, electricity price planning, optimal economic curv
Communicate	
Ethernet (5 Channels)	10 / 100 / 1000 Mbps
Fiber optic port (2 Channels)	1Gbps
USB (2 Channels)	Host
CAN (3 Channels)	Isolation, with 2 Channels Supporting CAN-FD
RS485 (8 Channels)	Isolation
RS232 (3 Channels)	2 Isolated Channels, 1 non Isolated Debugging Channel (DB9 Socket)
TF Card (1 Channel)	Standard TF Card Holder
LVDS (1 Channel)	The Physical Interface is DVI (Including 1 USB for Touch)
M. 2 Interfaces (1 Channel)	PCIe2.0 X1, Scalable SSD (Standard 1TB)
MiniPCle Interface (1 Channel)	4G Card With Expandable USB Communication Protocol (Standard)
Nano SIM Interface (1 Channel)	Used in Conjunction with the Minipcie Expansion 4G Module
DI (17 Channels)	Optocoupler Isolation
DO (8 Channels)	Relay Isolation
WLAN	802.11 b / AC g n, HT 20 / 40, 2.4 GHz 5 GHz
4G Antenna	Support Multi Country Frequency Bands
Power Supply	
Communication Input	220Vac
DC In	24Vdc
UPS Backup Power	24Vdc
Consumption	Max 25W
Environmental Parameters	
Operation Temperature	-15°C ~ +50°C
Storage Temperature	-15°C ~ +50°C
Working Humidity	5% ~ 95%
Max. Working Altitude (m)	≤3000m
IP Rating of Enclosure	IP54
Anti-Corrosion Grade	≥C4
Mechanical Parameters	
Dimension (W × D × H, mm)	488 × 188 × 588
Weight Appr. (kg)	≤24.5kg
Installation Location	Indoor or Outdoor, Wall-mounted
Box Material	Metal
Incoming Specifications	AC power cord : Recommended wire diameter 1.5mm ² DC power cord : Recommended wire diameter of 1.5mm ² Eight core Ethernet cable: Recommended CAT5e Ethernet cable RS485 : Recommended 0.75mm ² ~1.5mm ² outdoor UV protection with shielding layer twisted pair cable length<1000m (baud rate 9600)

Winter Series
C&I PV-BESS-EV Charging
Integrated Solution

NEW ORION 480



Intelligent Cloud Platform

- Customizable load algorithmic modules
- 24-hour online O&M
- Battery life and safety warning
- Device cloud interconnection



Ultimate Safety

- 4 Fire Protection System
- 3+3 Electrical Safety Safeguards
- AC Leakage & DC Insulation Detection
- High-voltage interlocking, preventing loaded arc operation



Versatile Expansion

- PCS/BMS/EMS All-in-one modular design
- Support up to 10 cabinets in parallel
- Support 2/4/6/8-hour energy storage applications
- Higher energy density to reduce footprint
- PV and BESS DC Coupling



Multiple Application Scenarios

- Peak-to-Valley arbitrage/Peak-to-Valley shifting
- Virtual power plant ready
- Off-grid operation (Islands, communication base stations, etc.)

MC-LC480-2H2 & MC-LC480-BC-2 (EU, AS, AF, LATAM)
MS-DC480-2 & MS-DCC180-2 (EU, AS, AF, LATAM)
MS-MPPT-400/200-2 (EU, AS, AF, LATAM)

Technical Data

Model	MC-LC480-2H2 (AC BESS)
System Parameters	
Operating Temperature	-25°C ~ 55°C
Storage Temperature	-30°C ~ 60°C
Humidity	0 ~ 95%
Type of cooling	Liquid Cooling
Fire Suppression	Aerosol, Water
Ingress Protection	Overall IP54 (Battery compartment, Chiller control box: IP55; PCS: IP65)
Anticorrosion grade	C4-M (Optional C5)
Altitude	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤5100kg
Dimensions (W × D × H)	2000 × 1350 × 2480mm (Without Air Outlet Cover)
DC Data	
Battery	LiFePO ₄
Nominal Capacity	314Ah
Nominal Energy	482.304kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	648Vd.c ~ 876Vd.c
Charge and discharge rate	Charge 0.4P, Discharge 0.9P
AC Data	
Nominal AC Voltage	380/400V 3P+N+PE
Rated Frequency	50 / 60Hz
Rated Power	200kW
Maximum Power	220kW (1.1 Times of Rated Power)
Power Factor	-1~1

Model	MC-LC430-BC-2 (DC BESS)
System Parameters	
Operating Temperature	-25°C ~ 55°C
Storage Temperature	-30°C ~ 60°C
Humidity	0 ~ 95%
Type of cooling	Liquid Cooling
Fire Suppression	Aerosol, Water
Ingress Protection	Overall IP54 (Battery compartment, Chiller control box: IP55)
Anticorrosion grade	C4-M (C5M is optional)
Altitude	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤4800kg
Dimensions (W × D × H)	2000 × 1350 × 2480mm
DC Data	
Battery	LiFePO ₄
Nominal Capacity	314Ah
Nominal Energy	482.304kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	648Vd.c ~ 876Vd.c.
Charge and discharge rate	Charge 0.4P, Discharge 0.9P

MC-LC480-2H2 & MC-LC480-BC-2 (EU, AS, AF, LATAM)
MS-DC480-2 & MS-DCC180-2 (EU, AS, AF, LATAM)
MS-MPPT-400/200-2 (EU, AS, AF, LATAM)

Technical Data

Model	MS-DC480-2 (480kW DC charge power cabinet)
DC Input Data	
Input standard	DC+ / DC- / PE
DC input voltage range	200Vdc ~ 850Vdc
DC input current range	≤667A
DC rated input power	480kW @400Vdc≤Vin≤850Vdc
DC Output Data	
DC output voltage range	150Vdc ~ 1000Vdc
DC output current range	8 branches, max 250A each
Environmental Conditions	
Operating Temperature Range (°C)	-30°C to +55°C (derating above 55°C)
Storage Temperature (°C)	-40°C to +60°C
Humidity	≤ 95%RH, no condensation
Cooling	Forced air cooling
	≤ 2000 m
Altitude	(No derating required foroperation >1000m:Set the actual altitude value; the working temperature decreases-by 1°C for-every 100 m increase-in altitude)
IP Rating of Enclosure	≥IP54
Other Parameters	
Efficiency	≥ 97.5%, @ peak full load
Dimension (W × H × D, mm)	1250mm× 2450mm (without eyebolt)× 1000mm
Approximate Weight (kg)	1200kg

Model	MS-DCC180-2 (DC charging terminal)
DC Input Data	
DC Input Voltage Range (V)	150~1000Vd.c. 500A max
Input number	2 DC inputs
DC Output Data	
Output interface	1 pile 2 guns, each gun 180kW charging power, support the CCS2 charging standard interface
DC Output range	150~1000Vd.c. 500A~max
Max. Output Power (W)	360kW(2*180kW).
Max. Output Current	Single gun Max.250A
Environmental Conditions	
Operating Temperature Range (°C)	-30°C to +55°C (derating above 50°C)
Storage Temperature (°C)	-40°C to +60°C
Humidity	≤ 95%RH, no condensation
Cooling	Natural cooling
Altitude	≤2000m
IP Rating of Enclosure	IP54
Other Parameters	
Dimension (W × H × D, mm)	1100 mm x 2200 mm (without GPS & 4G antenna) x 400mm
Approximate Weight (kg)	280kg

Model	MS-MPPT400-2
System Parameters	
Dimension (W × D × H, mm)	1000 × 1000 × 2480
Weight Appr. (kg)	≤950kg
System Operating temperature range	-30°C ~ 45°C
Max. working altitude (m)	≤2000m
IP Rating of Enclosure	IP54
STS Parameters	
Rated insulation voltage (V)	DC1000
Rated working voltage (V)	AC400
Auxiliary equipment operating voltage (V)	AC220, DC24
Frequency	50/60Hz
Rated power of load (kW)	250
Rated power of the power grid (kW)	500
Rated power of oil engine (kW)	500
Switching Time	≤10ms
MPPT Parameters	
No. of MPPT	2
Max. PV Access Power (kW)	400(200*2)
Max. PV Input Power (kW)	320(2*160)
Max. PV Input Voltage (V)	800
Start-up Voltage (V)	200
MPPT Voltage Range (V)	180 ~ 750
Full Load MPPT Voltage Range (V)	450 ~ 750
Rated PV Input Voltage (V)	600
Max. Operating PV Input Current (A)	2*(40+40+40+40+40+40+40+40)
Max. Input Short-Circuit Current (A)	2*(60+60+60+60+60+60+60+60)
No.of MPP Trackers	16 (2*8)
Max. Efficiency	>99%
MPPT Efficiency	>99.9%
Model	MS-MPPT200-2
PV String Input Data	
Max. PV Access Power (kW)	200
Max. PV Input Power (kW)	160
Max. PV Input Voltage (V)	800
Start-up Voltage (V)	200
MPPT Voltage Range (V)	180-750
Full Load MPPT Voltage Range (V)	450-750
Rated PV Input Voltage (V)	600
Max. Operating PV Input Current (A)	40+40+40+40+40+40+40+40
Max. Input Short-Circuit Current (A)	60+60+60+60+60+60+60+60
No. of MPP Trackers	8
Efficiency	
Max. Efficiency	>99%
MPPT Efficiency	>99.9%
Equipment Protection	
DC input reverse protection	YES
DC ARC protection	Optional
Anti-PID(Potential Induced Degradation)	Optional
DC Switch	YES
Surge Protection Level	TYPE II
General Data	
Ingress Protection(IP) Rating	IP65
Over Voltage Category	OVC I
Cabinet Size[W×H×D] (mm)	543x198x700
Weight (kg)	70
Type Of Cooling	Intelligent air cooling
Safety EMC/Standard	IEC/EN 62109-1
DC Output Data	
DC Output Voltage Range(V)	630-1000
Max. DC Output Current(A)	200

Winter Series
Utility-Scale ESS Solution

Air-Cooled ESS

MAGNUS 2000



Advanced Safety

- 2-hour fire resistance
- Combustible gas detection, smoke evacuation, aerosol extinguishers, water sprinklers



Integrated Technology

- LC, PCS, MPPT, and battery integrated
- EMS for system management
- ATS for on/off-grid switching
- 1 MW PCS output, 1.6 MWp solar input
- System energy capacity: 2057 kWh



Applications

- Support black start function
- Support off-grid operation & back up
- Support peak shaving
- Transformer capacity control



Performance

- 1.1x overload, 1.5x overload
- System Operating Conditions :
-20°C ~ 55°C | IP54 | C4-M
- Supports 2 PCS & 2 MW off-grid

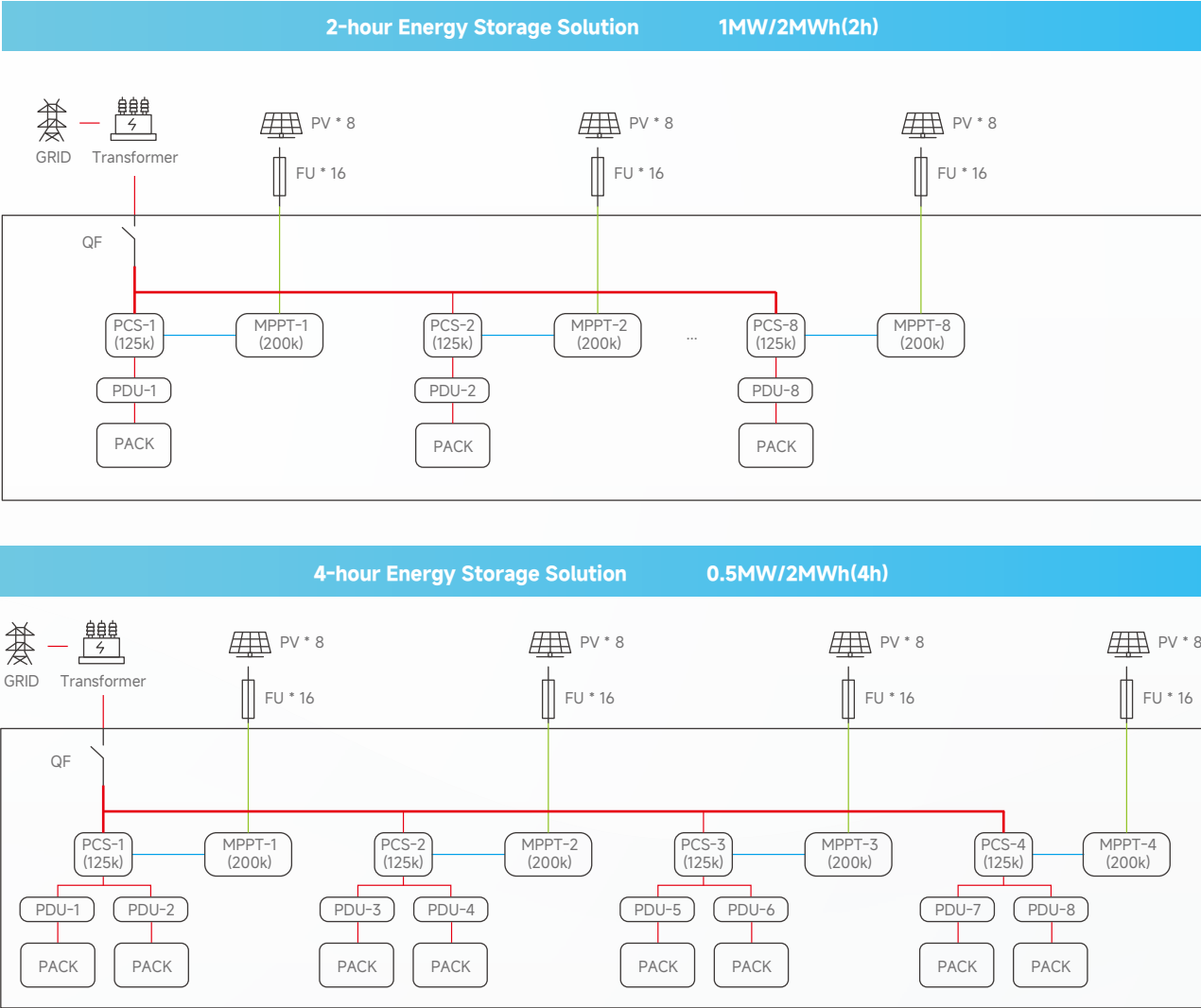
WS-G(s)2000-2H3/WS-G(s)2000-4H3 (AS, AF, LATAM, EU)
Technical Data

Model	WS-GS2000-2H3	WS-G2000-2H3
AC Parameter		
Rated power	1000kW	
Max. Apparent Power	1100kVA	
AC Rated Current	1443A(8×180.4A)	
Rated Voltage/Range	400V/0.85Un~1.1Un	
Grid Connection Form	3L+N+PE	
Frequency/Range	50Hz/45Hz~55Hz	
Power Factor Adjustment Range	-1 ~ +1	
Total Current Harmonic Distortion （THDi）	<3% (of Rated power)	
DC Injection Current	<0.5% In	
Max.RTE	88%	
Battery Parameter		
Cell Type	LFP	
Nominal Capacity (Cell)	314Ah	
PACK Configuration	1P16S	
Battery Configuration	256S1P*8	
Battery Energy	2057kWh	
Battery Voltage Range	819.2Vdc(691.2~921.6Vdc)	
Other Parameter		
Fire Protect System	Gas fire protection+Water fire protection	
Cooling Type	Air cooling	
Communication Port	RJ45	
Communication Protocol	Modbus TCP, IEC104, IEC61850	
Operating Ambient	-20~55 °C	
Humidity	0%-90%RH	
Altitude	3000m	
IP Rating of Enclosure	IP54	
Anti-corrosion Level	C4-M	
Seismic Grade	Moderate performance level (0.5g)	
Dimension (W/D/H,mm)	6058 x 2438 x 2896 mm	
Weight Approximate (kg)	≤26000kg	
Installation Location	Floor mount	
Recommend Storage Temperature (°C)	-20~60	
PV Parameter		
Max. PV Input Power	1280kW(160kW*8)	/
Max. PV Input Voltage	800Vdc	/
Start-up Voltage	200Vdc	/
MPPT Voltage Range	180~750Vdc	/
Full Load MPPT Voltage Range	450~750Vdc	/
Rated PV Input Voltage	600Vdc	/
Max. Operating PV Input Current	8 × (40+40+40+40+40+40+40+40) A	/
Max. Input Short-Circuit Current	8 × (60+60+60+60+60+60+60+60) A	/
No. of MPP Trackers	64 (8*8)	/
Max. Efficiency	>99%	/

WS-G(s)2000-2H3/WS-G(s)2000-4H3 (AS, AF, LATAM, EU)

Technical Data

Model	WS-GS2000-4H3	WS-G2000-4H3
AC Parameter		
Rated power	500kW	
Max. Apparent Power	550kVA	
AC Rated Current	722A(8×180.4A)	
Rated Voltage/Range	400V/0.85Un~1.1Un	
Grid Connection Form	3L+N+PE	
Frequency/Range	50Hz/45Hz~55Hz	
Power Factor Adjustment Range	-1 ~ +1	
Total Current Harmonic Distortion （THDi）	<3% (of Rated power)	
DC Injection Current	<0.5% In	
Max.RTE	88%	
Battery Parameter		
Cell Type	LFP	
Nominal Capacity (Cell)	314Ah	
PACK Configuration	1P16S	
Battery Configuration	256S1P*8	
Battery Energy	2057kWh	
Battery Voltage Range	819.2Vdc(691.2~921.6Vdc)	
Other Parameter		
Fire Protect System	Gas fire protection+Water fire protection	
Cooling Type	Air cooling	
Communication Port	RJ45	
Communication Protocol	Modbus TCP, IEC104, IEC61850	
Operating Ambient	-20~55 °C	
Humidity	0%~90%RH	
Altitude	3000m	
IP Rating of Enclosure	IP54	
Anti-corrosion Level	C4-M	
Seismic Grade	Moderate performance level (0.5g)	
Dimension (W/D/H,mm)	6058 x 2438 x 2896 mm	
Weight Approximate (kg)	≤26000kg	
Installation Location	Floor mount	
Recommend Storage Temperature (°C)	-20~60	
PV Parameter		
Max. PV Input Power	640kW(160kW*4)	/
Max. PV Input Voltage	800Vdc	/
Start-up Voltage	200Vdc	/
MPPT Voltage Range	180~750Vdc	/
Full Load MPPT Voltage Range	450~750Vdc	/
Rated PV Input Voltage	600Vdc	/
Max. Operating PV Input Current	4×（40+40+40+40+40+40+40）A	/
Max. Input Short-Circuit Current	4×（60+60+60+60+60+60+60）A	/
No. of MPP Trackers	32（4*8）	/
Max. Efficiency	>99%	/



Winter Series
Utility-Scale ESS Solution

Liquid - Cooled ESS

MAGNUS 4300

WS-L4300-BC-3-A (AS, AF, LATAM, EU)
WS-PCS1125-2-A & WS-TS1000-2-A (AS, AF, LATAM, EU)

Ultimate Safety

- 3+3 Fire Protection System
- 3+3 Electrical Safety Safeguards
- AC Leakage & DC Insulation detection
- High-Voltage Interlock

Versatile Applications

- Peak Shaving & Energy Arbitrage
- Virtual Power Plant (VPP) Ready
- Off-Grid & Microgrid Capable
- PV and BESS DC Coupling
- Hybrid Solar-BESS-Diesel Systems

High Energy Density

- 4300kWh in 20' BESS container
- 1125kW PCS, 1800kW PV in Mppt Stacked Module

Seamless Scalability

- Modular Architecture
- Flexible 2/4h Energy Storage Solutions
- Compact Design, High Energy Density

Smart Cloud Management

- AI-Powered Load Optimization
- 24/7 Remote Monitoring & O&M
- Real-Time Battery Health & Safety Alerts
- Cloud-Connected Ecosystem

Cluster Management

- One Cluster Management, High Availability, More Friendly to the Cell

PV-BESS DC-Coupled Solution

The diagram illustrates a PV-BESS DC-Coupled Solution. It shows a PV array connected to a WS-L4300-BC-3 BESS container. The BESS container is connected to a WS-PCS1125-2-A PCS container, which is then connected to a WS-TS1000-2-A TS container. The TS container is connected to a Transformer, which is connected to the GRID. A Generator is also connected to the Transformer. The TS container is also connected to Loads.

PV-BESS AC-Coupled Solution

The diagram illustrates a PV-BESS AC-Coupled Solution. It shows a PV array connected to a WS-L4300-BC-3 BESS container. The BESS container is connected to a WS-PCS1125-2-A PCS container, which is then connected to a WS-TS1000-2-A TS container. The TS container is connected to a Transformer, which is connected to the GRID. A Generator is also connected to the Transformer. The TS container is also connected to Loads. A SUN-100K-G03 inverter is connected to the PV array.

97

POWERING YOUR LIFE

POWERING YOUR LIFE

98

WS-L4300-BC-3-A (AS, AF, LATAM, EU)

WS-PCS1125-2-A & WS-TS1000-2-A (AS, AF, LATAM, EU)

Technical Data

Liquid-Cooled ESS	
Model	WS-L4300-BC-3-A
DC Battery	
Battery Type	LiFePO ₄
Nominal Capacity (Cell)	314Ah
Nominal Energy	4340kWh
PACK Configuration	1P48S
RACK Configuration	18 × 1P240S
Nominal DC Voltage	768Vdc
DC Voltage Range	648Vdc ~ 876Vdc
Charge and discharge rate	≤0.5P
Max. Charging / Discharging Current	3150A (18 × 175A)
No. of DC Output	18
System	
Operating Temperature	-30°C ~ +55°C
Storage Temperature	-30°C ~ +60°C
Humidity	0 ~ 95% (No condensation)
Type of cooling	Liquid cooling
Fire Suppression	Aerosol、Water
Ingress Protection	IP55
Anticorrosion grade	C4-M (Optional C5)
Altitude	≤2000m
Communication	CAN、RS485、TCP、DIDO
Weight	38000kg
Dimensions (W × D × H)	6058 × 2438 × 2896mm



Model	WS-PCS1125-2-A
PCS Data	
AC Rated Power	1125kW (9 × 125kW)
AC Rated Voltage / Frequency	400Vac / 50Hz (3L+N+PE)
AC Rated Current	1624A (9 × 180.4A)
Power Factor	-1 ~ +1
Battery Input Voltage Range	630Vdc ~ 1000Vdc
Max. Charging / Discharging Current	1710A (9 × 190A)
General Data	
Operating Temperature	-30°C~ +55°C (Discharge derating>45°C; Charge derating >40°C)
Humidity	0~95% (No condensation)
Ingress Protection	IP54
Anticorrosion grade	C4-M (Optional C5)
Altitude	≤3000m
Weight	≤2000kg
Dimensions (W × D × H)	1850 X 1120 X 2450mm

Model	WS-TS1000-2-A
Grid Side Data	
Rated AC Input/Output Active Power (kw)	1000
Rated AC Input/Output Current (A)	1450
Rated Input/Output Voltage (V)	220/380, 230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
Load Side Data	
Rated AC Input/Output Active Power (kw)	1000
Rated AC Input/Output Current (A)	1450
Rated Input/Output Voltage (V)	220/380, 230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
GEN Side Data	
Rated AC Input/Output Active Power (kw)	1000
Rated AC Input/Output Current (A)	1450
Rated Input/Output Voltage (V)	220/380, 230/400 (three phase)
Grid Connection Form	3L/N/PE
Rated input/Output Grid Frequency	50Hz/60Hz
System Data	
Dimension (W x D x H,mm)	2000 × 1200 × 2450mm
Weight Appr. (kg)	1600
System Operating temperature range	-20°C~55°C
Max. working altitude (m)	≤3000
IP Rating of Enclosure	IP54
Switching Time (ms)	≤20

Winter Series
Utility-Scale ESS Solution

Liquid - Cooled ESS

MAGNUS 5000



WS-L5000-BC-2 (AS, AF, LATAM, EU)
The Low LCOS Multi-intelligent Energy Storage Solution



Economical and Efficient

- 20-foot container 5016kWh
- Maximum efficiency 94.5%
- Shoulder-to-shoulder/back-to-back installation



Flexible and Convenient

- Liquid cooling circuit equipped with bidirectional shut-off valve
- Equipped with waste liquid collection device
- Single/dual circuit output, 2/4h application



Smart Cloud Management

- AI-Power Load Optimization
- 24/7 Remote Monitoring & O&M
- Real-Time Battery Health & Safety Alerts
- Cloud-Connected Ecosystem



Ultimate Safety

- 2+3 Level Fire Protection System
- 3+2+1 Level Electrical Safety Protection

WS-MV5000-2 (AS, AF, LATAM, EU)
Integrated Boost and Conversion Solution



High-efficiency Conversion

- Three-level topology with a maximum efficiency of 99%
- Intelligent air-water cooling with a maximum operating temperature of 60°C



Safe and Reliable

- IP54/C5 high protection class
- Online insulation monitoring for safety assurance
- Interlocks with BMS and EMS to support multiple system protection functions



Grid Support

- Fast active/reactive power response, supporting source-grid-load-storage dispatching
- Weak grid support, enabling stable operation with SCR=1.1
- Equipped with grid-forming functions such as inertia support and microsecond-level voltage building



Flexible Application

- Supports off-grid parallel operation and independently participates in grid black start
- Equipped with VSG, VF, PQ and other operating modes
- Supports application in various scenarios including high altitude, high salt spray, high temperature and extreme low temperature

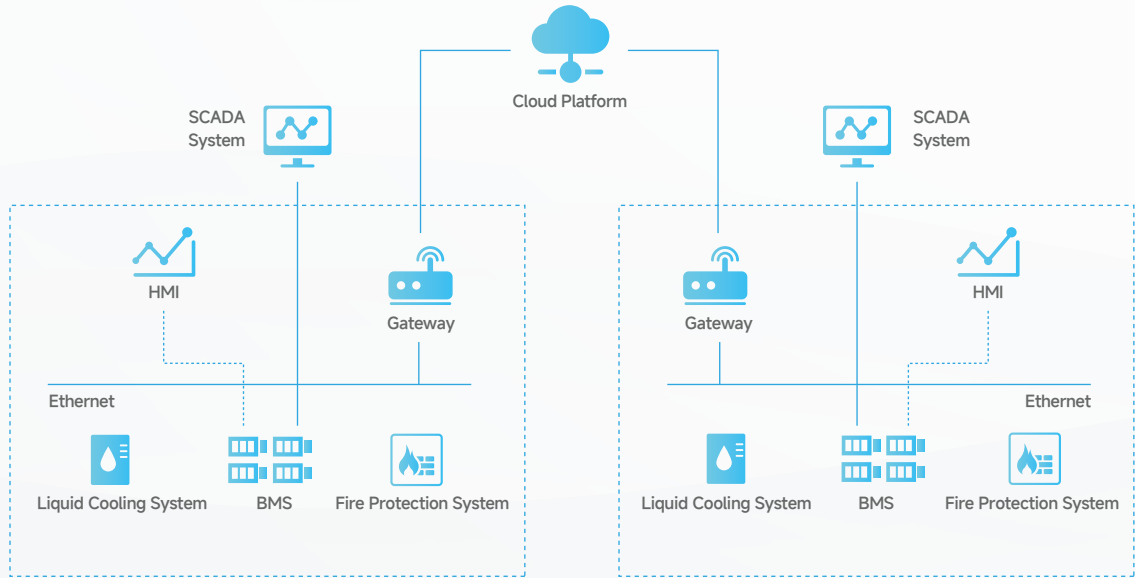
WS-L5000-BC-2 (AS, AF, LATAM, EU)

WS-MV5000-2 (AS, AF, LATAM, EU)

Technical Data

Model	WS-L5000-BC-2
Battery Data	
Battery Type	LiFePO ₄
Nominal Capacity (Cell)	314Ah
PACK Configuration	1P104S
RACK Configuration	4*1P104S
System Configuration	2*6P416S (12P416S)
Nominal Voltage	1331.2Vdc (1144~1497.6Vdc)
Nominal Energy	5016kWh (12× 418kWh)
Nominal Current	2*939A
Charge/Discharge Rate	0.5P
DC Efficiency	≥94.5%
System Data	
Operating Temperature	-30°C ~ +55°C (>45°C derating)
Storage Temperature	-30°C ~ +60°C
Humidity	0 ~ 95%RH
Type of Cooling BAT	Liquid cooling
Fire Suppression	Aerosol、Water
Ingress Protection	IP55
Anticorrosion Grade	C4/C5
Altitude	≤3000m
Weight	≤40500kg
Dimensions (W × D × H)	6058*2438*2896mm
Communication	Ethernet/CAN
Standard Compliance	IEC62619,IEC62477,IEC62933,IEC63056,IEC61000,UN38.3,UN3536,NFPA855,UL9540A

Architecture Diagram



Model	WS-MV5000-2
DC Side Data	
Max. DC Voltage	1500Vdc
DC Voltage Range for Nominal Power	1000Vdc~1500Vdc
Max. DC Current	1913A*4
No. of DC Inputs	4
PCS AC Side Data	
Rated output power	1250*4 kVA
Max output power	1250*3*4 kVA @35°C
Rated AC voltage	690Vac
AC voltage range	586.5~759Vac (-15%~+10%)
Max AC current	3138*4 A
Nominal grid frequency	50Hz
Grid frequency rage	45~55Hz
Power factor range	1 leading ~ 1 lagging
Efficiency	
Average Efficiency	≥98.3%
Transformer	
Isolation Mode	Oil-Immersed Transformer
Transformer Rated Power	5250kVA
LV/MV Voltage	0.69kV/20~35kV
Transformer Vector	Dy11
Cooling Type	ONAN
General Data	
Dimensions (W*D*H)	12192×2438×2896mm
Weight	≤40T
Protection Degree	IP65 for PCS, IP54 others
Cooling Method	Natural air cooling (transformer)/Air-water cooling (PCS)
Altitude	3000m(> 2000m derating)
Operating Temperature Range	-40°C~60°C (>45°C derating)
Humidity Range	0~100% (non-condensing)
Anticorrosion Grade	C4/C5
Over Voltage Range	DC OVC II / AC OVC III
Surge Protection	DC Type II / AC Type II
Communication	RS485/ETH/CAN
Standard Compliance	IEC 62477, IEC 61000, IEC 62920, IEC 61727, IEC 62116,IEC 60076, IEC 62271-100/103/200, EN 50549-2/-10,ANSI C57.12.10/20

* The warranty will be based on the warranty period or the minimum throughput of each model, whichever comes first.