



**Philadelphia Solar**  
Delivering Clean Energy Solutions

**DEYE ENERGY STORAGE  
PRODUCT CATALOG  
(GLOBAL)**

**Deye**  
Stock code:605117




**POWERING YOUR LIFE**



**WORLD LEADING**

**ENERGY STORAGE SYSTEM  
SOLUTIONS PROVIDER**

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# 01

# COM- PANY PROFILE



## LEADING PROVIDER OF ENERGY STORAGE SYSTEM SOLUTIONS

### DEYE TECHNOLOGY CO., LTD.

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 600,000+ square meters with complete production and testing equipment.

Listed on the Shanghai Stock Exchange in April 2021

**500+**  
R&D PERSONNEL

**600000+m<sup>2</sup>**  
FLOOR SPACE

**2021.4**  
LISTED

## 4

### CORE INDUSTRY CHAINS



The solar & hybrid inverter



The environmental electrical appliance series



The heat exchanger series



The lithium battery energy storage system

# DEVELOPMENT HISTORY



**2023**

## Shanghai Office Established

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

**2020**

## Energy Storage Business Started

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

**2007**

## Inverter Business Started

Deye Inverter team was established and became a provider of inverter solutions.

**2021**

## Listed on SSE

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

**2016**

## Inverter Business Booms

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

**1990**

## Mold Injection

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

**2024**

## Revenue hits 10 billion RMB

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

**2000**

## Environmental Appliances

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

# OUR FACTORY

**50B** Annual Planned Output Before 2030

## 1 Innovation Center



Ningbo Beilun: 32 acres, 130,000 sqm, 12B output

## 4 Production Bases



Ningbo Cixi Longshan Base: 45 acres, 180,000 sqm, 15B output



Shanghai Innovation Center: 200M investment, 7,000 sqm



Ningbo Beilun 246 Base: 500M investment, 100,000 sqm, 6B output



Haiyan Base: 1.8B investment, 200,000 sqm, 17B output

# 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



 **18**  
Overseas Service Centers

 **140+**  
Countries

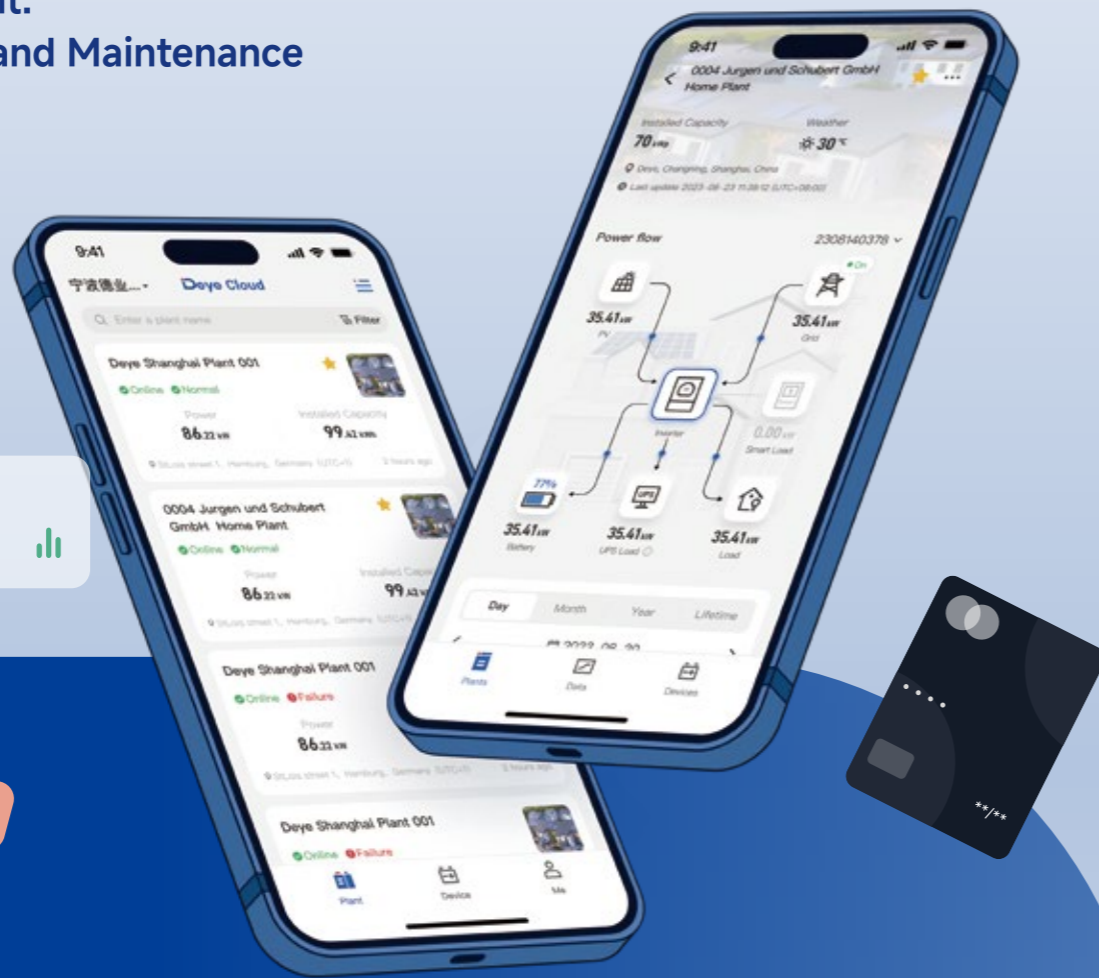
 **5M+**  
Equipment in Operation

# DEYE CLOUD

## Cloud Management: Online Operation and Maintenance



Total Income  
**\$245.00**



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.

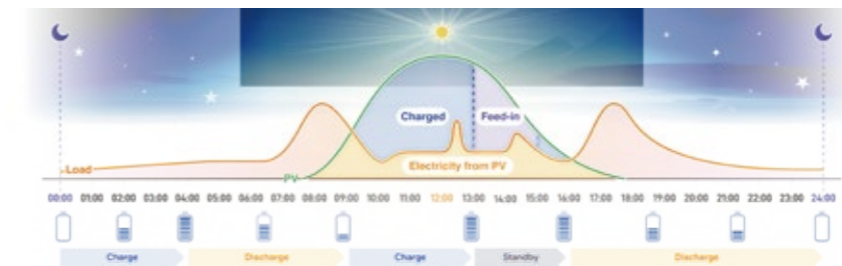
Deye Cloud utilizes two localized data centers in Europe and America to ensure data independence and security.

## 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

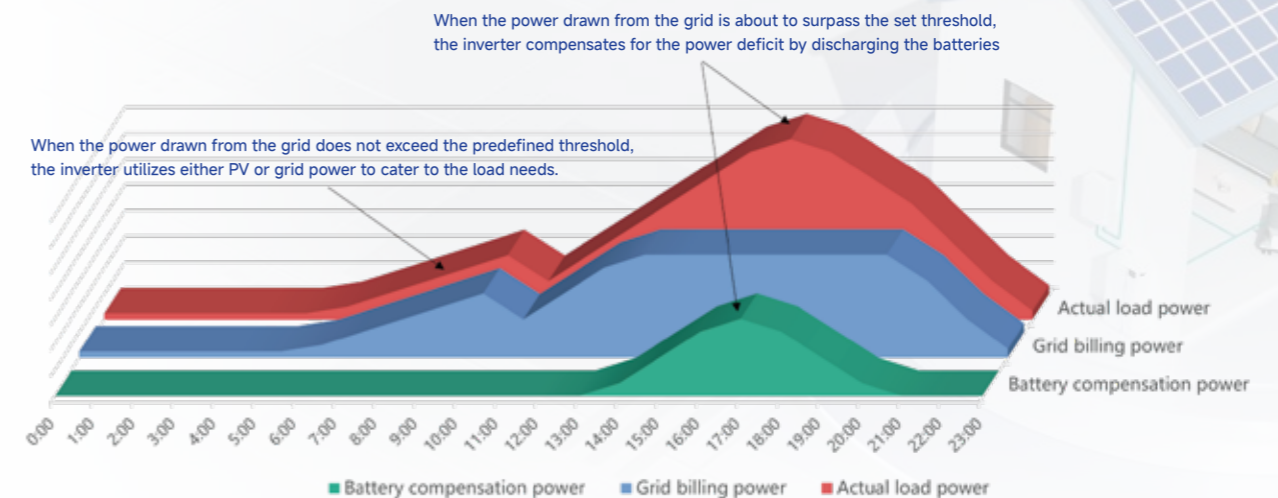


### Maximum Earning - radical



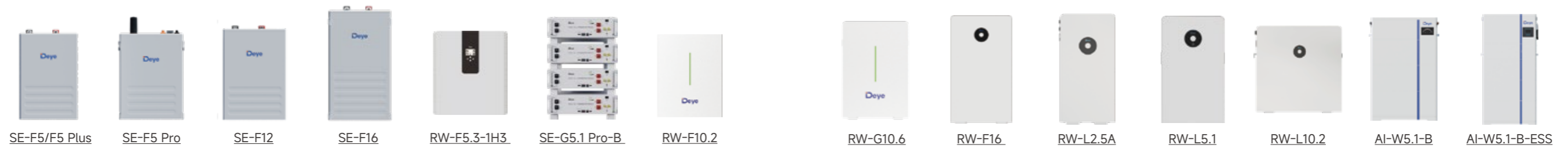
## Grid Peak Shaving Function

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.



CLOUD

# Spring Series /



# Summer Series /



# Autumn Series /



# Winter Series /



# CONTENTS

# SPRING

Series

## Residential ESS Solution

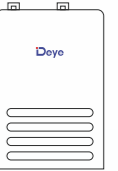
SE-F5 & SE-F5 Plus & SE-F12 & SE-F16 (EU, AS, AF, LATAM).....	17
SE-F5 Pro (Global) .....	17
RW-G10.6 (AS, AF, LATAM) .....	19
RW-F16 (EU, AS, AF, LATAM, NA).....	21
RW-L2.5A & RW-L5.1 & RW-L10.2 (EU, AS, AF, LATAM) .....	23
RW-F5.3-1H3 (EU, AS, AF, LATAM) .....	25
SE-G5.1 Pro-B (EU, NA, AU) .....	29
RW-F10.2 (EU, AU) & RW-F10.2-B (NA) .....	31
AI-W5.1-B (EU, NA, AU) .....	33
AI-W5.1-B-ESS (EU, NA, AU) .....	35

# Spring Series Off-Grid ESS Solution

Wall-Mounted Battery(LV)



## SE-F5 & SE-F5 Plus & SE-F12 & SE-F16 (EU, AS, AF, LATAM) SE-F5 Pro (Global)



### Technical Data

Main Parameters		SE-F5	SE-F5 Plus	SE-F5 Pro	SE-F12	SE-F16
Battery Chemistry				LiFePO <sub>4</sub>		
Capacity		100 Ah	100 Ah	100 Ah	230 Ah	314 Ah
Scalability <sup>[1]</sup>		Max. 32 pcs in parallel				
Nominal Voltage		51.2V				
Operating Voltage		44.8 V ~ 57.6 V				
Nominal Energy		5.12 kWh	5.12 kWh	5.12 kWh	11.8 kWh	16 kWh
Charge Current <sup>[2]</sup>	Max. Continuous	100 A	100 A	100 A	230 A	160 A
	Peak	120 A ( 10 sec )	120 A ( 10 sec )	150 A ( 120 sec )	280 A ( 10 sec )	280 A ( 10 sec )
Discharge Current <sup>[2]</sup>	Max. Continuous	120 A	120 A	100 A	230 A	230 A
	Peak	150 A ( 10 sec )	150 A ( 10 sec )	150 A ( 120 sec )	280 A ( 10 sec )	280 A ( 10 sec )

Other Parameters		SE-F5	SE-F5 Plus	SE-F5 Pro	SE-F12	SE-F16
Model		SE-F5	SE-F5 Plus	SE-F5 Pro	SE-F12	SE-F16
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	400 × 559 × 233	400 × 708 × 233
Weight Approximate		41 kg	41 kg	44 kg	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		Charge / 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				
Warranty Period <sup>[3]</sup>		5 years	10 years	10 years	5 years / 10 years (extended warranty)	
Energy Throughput <sup>[3]</sup>		8 MWh	16 MWh	18 MWh	18 MWh	25 MWh
Certification		UN38.3, MSDS, CE, CB		UN38.3, MSDS, CE, CB, VDE2510-50,FCC, UL1973, UL9540A, CEC	UN38.3, MSDS, CE, CB	

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

[2] Operating current is affected by temperature and SOC. This max. continuous current is only supported in lithium battery mode; for lead-acid mode, please refer to the manual for the max. continuous current.

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



#### 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

- Supports Max. 1.2C (6kW or 12kW) discharge, GaN MOSFETs: 50% loss reduction, high-temp resilient



#### Flexible Expansion

- Max. 32 units in parallel



#### Reliable Durability

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

# Spring Series Residential ESS Solution

Wall-Mounted Battery(LV)



Support 8-20kW single-phase or three-phase inverters, meeting the application requirements of 1-4 hours



## Safer

- LFP Battery: safe, long-lasting, high-efficiency
- Built-in circuit breaker, intelligent BMS
- Eco-friendly materials, non-toxic, pollution-free module



## Easy Operation & Maintenance

- Automatic networking for battery modules (No DIP switches)
- Support remotely monitor and upgrade the firmware via Deye inverter
- Support external power supply activation, prevents battery suspension
- Allow over-discharge direct recharge, easy to maintain



## Reliable

- Built-in circuit breaker, support 100A charge and 100A discharge
- Charge from 0°C to 55°C, discharge from -20°C to 55°C



## Flexible Application

- Support Max.32 units in parallel
- Built-in 10A constant-current limit charge
- Compatible with any brand inverter charge and discharge
- Suitable for providing energy for backup power(residential use)

## RW-G10.6 (AS, AF, LATAM)

### Technical Data



#### Main Parameters

Model	RW-G10.6	
Battery Chemistry	LiFePO <sub>4</sub>	
Built-in Circuit Breaker	125A 1P, 60Vdc	
Capacity ( Ah )	208	
Scalability	Max. 32 pcs pack ( Max.340kWh ) in parallel	
Nominal Voltage ( V )	51.2	
Operating Voltage ( V )	44.8 ~ 57.6	
Nominal Energy ( kWh )	10.64	
Usable Energy ( kWh ) <sup>[1]</sup>	9.58	
Charge / Discharge Current ( A ) <sup>[2]</sup>	Max. Continuous	100 / 100
	Peak	200 / 200 (10 sec )

#### Other Parameters

Recommend Depth of Discharge	90%
Dimension ( W × H × D , mm )	600 × 750 × 200 ( Without hanging board )
Weight Approximate ( kg )	96
Master LED Indicator	LED ( SOC : 20% ~ SOC100% and working state )
IP Rating of Enclosure	IP20
Operating Temperature	Charge : 0 ~ 55°C / Discharge : -20°C ~ 55°C
Recommend Operating Temperature	15°C ~ 35°C
Storage Temperature	0°C ~ 35°C
Relative Humidity	95% non-condensing
Altitude	≤2000m
Cycle Life	≥6000 ( 25°C±2°C, 0.5C / 0.5C, 90%DOD, 70%EOL )
Installation	Wall-Mounted, Floor-Mounted
Communication Port	CAN2.0, RS485
Warranty Period	5 years
Energy Throughput	16MWh ( 25°C, 0.5C / 0.5C, 70%EOL )
Certification	UN38.3

[1] Test conditions : 25°C±2°C, at beginning of life, 0.3C charge & 0.3C discharge,100% DOD.

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

\*Wall-Mounted, Floor-Mounted

# Spring Series Residential ESS Solution

Wall-Mounted Battery(LV)



Support 8-20kW single-phase or three-phase inverters, meeting the application requirements of 1-4 hours



## Safer

- LFP Battery : Safe, long-lasting, high-efficiency. Built-in circuit breaker, Intelligent BMS. Eco-friendly materials, non-toxic, pollution-free module.



## Easy Operation & Maintenance

- Battery module auto networking ( No DIP switches )
- Support remotely monitoring and upgrade the firmware via Deye inverter
- Support external power supply activation, prevents battery suspension
- Allow over-discharge direct recharge, easy to maintain.



## Reliable

- Built-in circuit breaker, Support 160A charge and 160A discharge
- Charge from 0°C to 55°C, discharge from -20°C to 55°C

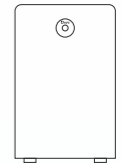


## Flexible Application

- Support Max. 32 units in parallel
- Built-in 10A constant-current limit charge
- Compatible with any brand inverter charge and discharge
- Suited to provide energy for backup power, residential,etc.

# RW-F16 (EU, AS, AF, LATAM, NA)

## Technical Data



### Main Parameters

Model	RW-F16	
Battery Chemistry	LiFePO <sub>4</sub>	
Built-in Circuit Breaker	125A 2P, 60Vdc	
Capacity ( Ah )	314	
Scalability	Max. 32 pcs pack ( Max.512kWh ) in parallel	
Nominal Voltage ( V )	51.2	
Operating Voltage ( V )	44.8 ~ 57.6	
Nominal Energy ( kWh )	16	
Usable Energy ( kWh ) <sup>[1]</sup>	14.4	
Charge / Discharge	Recommend	/
Current ( A ) <sup>[2]</sup>	Max.	160 / 160
	Peak ( 25°C )	300 / 300 ( 10 sec )

### Other Parameters

Recommend Depth of Discharge	90%
Dimension ( W × H × D, mm )	480 × 830 × 230 ( Without hanging board )
Weight Approximate ( kg )	122
Master LED Indicator	LED ( SOC and working state )
IP Rating of Enclosure	IP20
Operating Temperature	Charge : 0 ~ 55°C / Discharge : -20°C ~ 55°C
Recommend Operating Temperature	15°C ~ 35°C
Storage Temperature	0°C ~ 35°C
Relative Humidity	95%
Altitude	≤2000m
Cycle Life	≥6000 ( 25°C±2°C, 0.5C / 0.5C, 90%DOD, 70%EOL )
Installation	Wall-Mounted, Floor-Mounted
Communication Port	CAN2.0, RS485
Warranty Period	5 / 10 years
Energy Throughput <sup>[3]</sup>	26.25 / 52.5MWh ( 25°C, 0.5C / 0.5C, 70%EOL )
Certification	UN38.3, MSDS

[1] Test conditions : 25°C±2°C, at beginning of life, 0.5C charge & 0.5C discharge,100% DOD.

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

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

\*Wall-Mounted, Floor-Mounted

# Spring Series Residential ESS Solution

Wall-Mounted Battery(LV)



Support 3-20kW single-phase or three-phase inverters, meeting the application requirements of 1-4 hours



## Automatic Recovery Function

- Minimum cold-start capability of 9V



## 1C Charge, 1.2C Discharge

- Compared to traditional products, performance improve by 20%



## Flexible Expansion

- Max. 32 units in parallel, ideal for backup power



## Smart Fuse, Safe Power

- Prevents thermal runaway in key circuits for ultimate safety



## Reverse Polarity Protection

- Prevents battery and BMS damage from incorrect wiring



## Seamless Convenience

- Automatic battery networking and remote monitoring/upgrade support

# RW-L2.5A & RW-L5.1 & RW-L10.2 (EU, AS, AF, LATAM)

## Technical Data



### Main Parameters

Model	RW-L2.5A	RW-L5.1	RW-L10.2
Battery Chemistry	LiFePO <sub>4</sub>		
Built-in Circuit Breaker	125A 1P, 60Vdc		125A 2P, 60Vdc
Capacity ( Ah ) <sup>[1]</sup>	100	200	
Scalability	Max. 32 pcs in parallel		
Nominal Voltage ( V )	25.6	51.2	
Operating Voltage ( V )	22.4 ~ 28.8	44.8 ~ 57.6	
Nominal Energy ( kWh ) <sup>[1]</sup>	2.56	5.12	10.24
Usable Energy ( kWh@90%DoD) <sup>[1]</sup>	2.3	4.61	9.22
Charge / Discharge	Max. Continuous	100 / 120	
Current ( A ) <sup>[2]</sup>	Peak	200 / 200 ( 10 sec )	
		300 / 300 ( 10 sec )	

### Other Parameters

Recommend Depth of Discharge	90%		
Dimension ( W×H×D,mm ) ( Without hanging board )	350 × 680 × 160	420 × 680 × 160	745 × 745 × 170
Weight Approximate ( kg )	32	50	100
Master LED Indicator	LED ( SOC and working state )		
IP Rating of Enclosure	IP65		
Operating Temperature	Charge : 0 ~ 55°C / Discharge : -20°C ~ 55°C		
Recommend Operating Temperature	15°C ~ 35°C		
Storage Temperature	0 ~ 35°C		
Relative Humidity	95%		
Altitude	≤2000m		
Cycle Life	≥6000 ( 25°C±2°C, 0.5C / 0.5C, 90%DOD, 70%EOL )		
Installation	Wall-Mounted, Floor-Mounted		
Communication Port	CAN2.0, RS485		
Warranty Period	10 years		
Energy Throughput <sup>[3]</sup>	4MWh	8MWh	16MWh
Certification	UN38.3, CE, CB		

[1] Test conditions : 25°C±2°C, at beginning of life and calibration mode, 0.5C charge & 0.5C discharge,100% DOD.

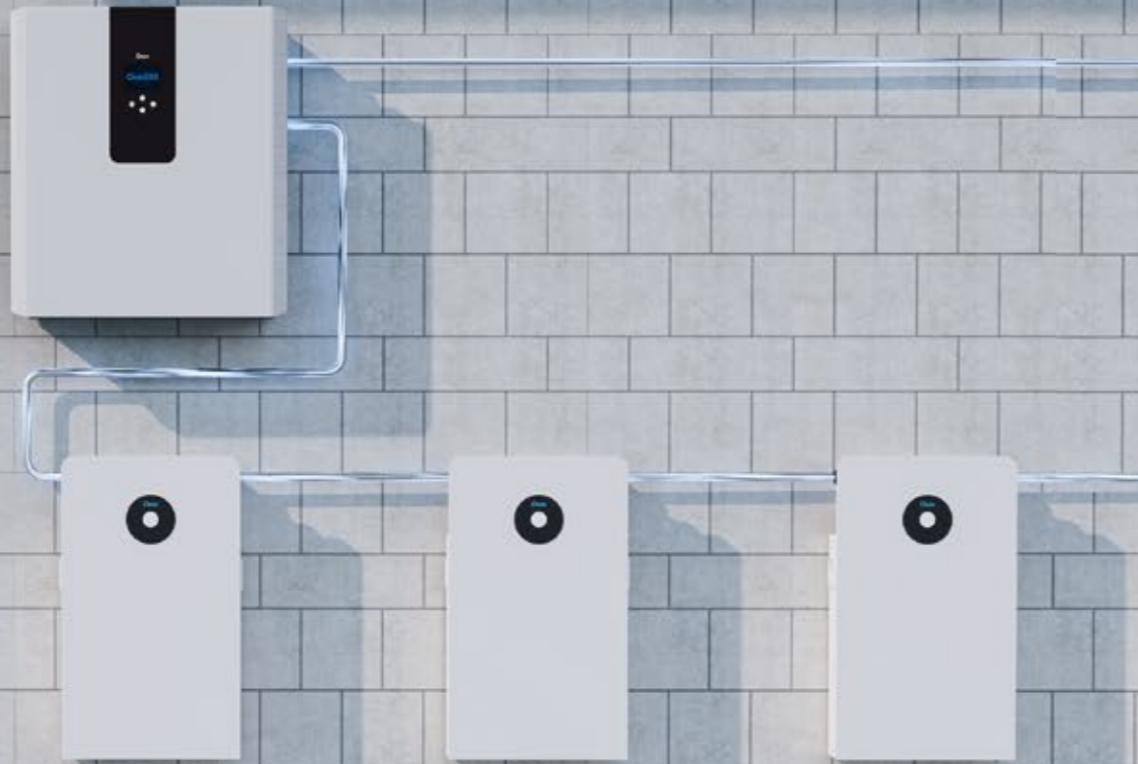
[2] The current is affected by temperature and SOC.

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

\*Wall-Mounted, Rack-Mounted, Floor-Mounted

# 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 : -10°C to 55°C



### 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

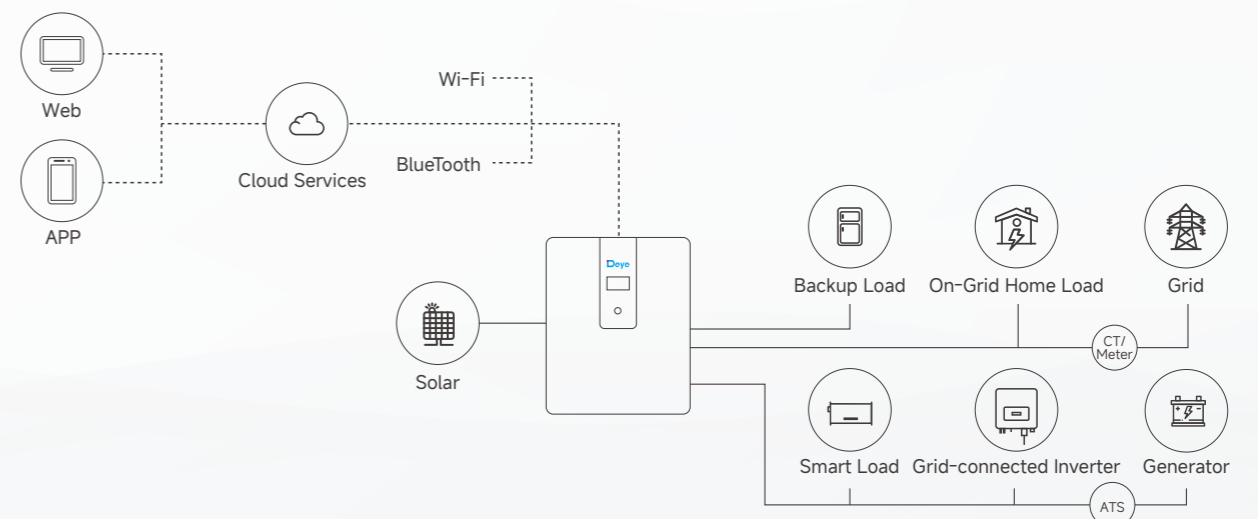
- Integrated 5kW hybrid inverter and 5.3kWh LFP battery



### Intelligent Control

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

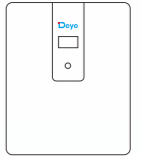
### System Application Topology Diagram



\*Wall-Mounted, Floor-Mounted

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

## Technical Data



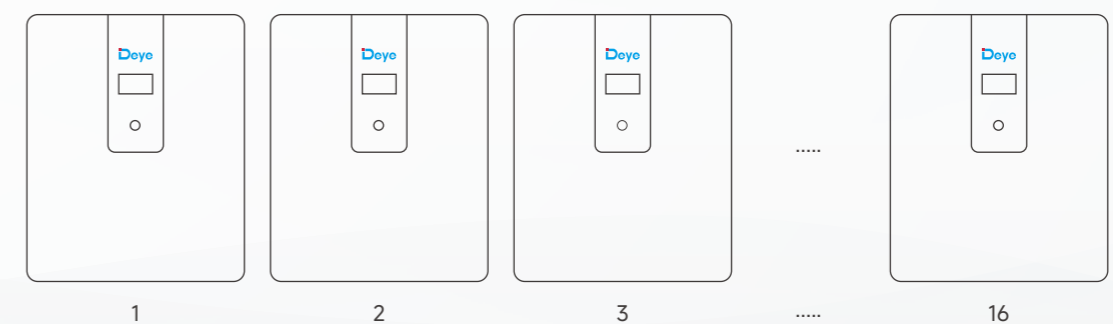
AC Technical Specification	
Model	RW-F5.3-1H3
Rated AC Input / Output Active Power ( W )	5000 / 5000
Max AC Input / Output Apparent Power ( VA )	5500
Peak Power ( off grid )	2 time of rated power, 10s
AC Output Rated Current ( A )	22.8 / 21.8
Max. AC Current ( A )	25 / 24
Max Continuous AC Passthrough ( 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, 70%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 )	-10°C ~ 55°C
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)



Support 3/5/6/8kW single-phase or three-phase inverters, meeting the application requirements of 1-4 hours



## 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

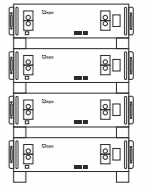


## Flexible

- 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 <sub>4</sub>
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 ) <sup>[1]</sup>	5.12
Charge / Discharge Current ( A ) <sup>[2]</sup>	Recommend 50 Max. 100 Peak ( 2mins, 25°C ) 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 ( Optional heating : -20°C ~ 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	10 years
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.

\*Wall-Mounted, Rack-Mounted, Floor-Mounted

# Spring Series Residential ESS Solution

Wall-Mounted Battery(LV)



Support 8-20kW single-phase or three-phase inverters, meeting the application requirements of 1-4 hours



## 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

Model	RW-F10.2 (EU, AU)	RW-F10.2-B (NA)
Battery Type	LiFePO <sub>4</sub>	
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 )	9.2(90%DOD)	9.2
Rated DC Power ( kW )	6	/
Max DC Power ( kW )	12	/
Charge / Discharge Current ( A ) <sup>[2]</sup>	Recommend Max. Peak	Charge:100/Discharge: 100 Charge:198/Discharge: 240 Discharge: 300(2mins,25°C)

### Other Parameters

Recommend Depth of Discharge	90%	
Dimension ( W × H × D, mm )	600 × 760 × 200 (Without hanging board)	600×830×200 (With 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

\*Wall-Mounted, Floor-Mounted

# Spring Series Residential ESS Solution

Stacked Battery(LV)



Support 3/5/6/8/12kW single-phase or three-phase inverters, meeting the application requirements of 1-4 hours



## Smarter

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



## Exceptional Performance

- Support Max. 1C continuous charging and discharging
- Peak discharge current of 360A for up to 10s (6 units)



## 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



## Safer

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

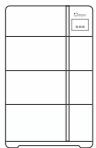


## More Flexible

- Modular design, easy to expand
- Up to 6 clusters (36 packs) can be supported in parallel
- The max power of the system can reach 184kW
- Suitable for residential and commercial use

## AI-W5.1-B (EU, NA, AU)

### Technical Data



#### Main Parameters

Battery Type	LiFePO <sub>4</sub>					
Built-in Circuit Breaker	125A 2P, 60Vdc					
Battery Module Energy ( kWh )	5.12					
Battery Module Nominal Voltage ( V )	51.2					
Battery Module Capacity ( Ah )	100					
scalability	1	2	3	4	5	6
System Nominal Voltage ( V )	51.2					
System operating Voltage ( V )	44.8-57.6					
System Energy ( kWh )	5.12	10.24	15.36	20.48	25.6	30.72
System Usable Energy ( kWh )	4.6	9.2	13.8	18.4	23	27.6
Charge / Discharge Current ( A )	Recommend	50	100	150	200	250
	Max.	100	180	250	250	250
	Peak ( 2mins, 25°C )	150	270	360	360	360

#### Other Parameters

Working Temperature ( °C )	Charge:-20°C~55°C/Discharge: -20°C~55°C					
Storage Temperature ( °C )	0°C~35°C					
Communication Port	CAN2.0,RS485					
Humidity	5%~95%					
Altitude	≤2000m					
IP Rating of Enclosure	IP65 (after stacking)					
System Dimension ( W x H x D.mm )	720 x255 x300(without terminal parts)					
System Weight Approximate ( kg )	55					
Module Dimension ( W x H x D.mm )	720 × 255	720 × 255	720 × 255	720 × 255	720 × 255	720 × 255
	× 569	× 850	× 1131	× 1412	× 1693	× 1974
Module Weight Approximate ( kg )	74.5	127.5	180.5	233.5	286.5	339.5
	Battery module: 3LED (working, alarming, protecting), PDU module: 5LED (SOC: 20%-100%) & 3LED (working, alarming, protecting)					
Master LED Indicator	Wall-Mounted, Floor-Mounted					
Installation Location	90%					
Recommend Depth of Discharge	≥6000 (25°C ±2°C, 0.5C / 0.5C, 90%DOD, 70%EOL)					
Cycle Life	10 years					
Warranty Period	16MWh (Battery Module @70%EOL)					
Energy Throughput	UN38.3, IEC 62619, CE, UK, VDE 2510-50, CEI 0-21, CE-LVD, CEC, FCC, UL1973, UL9540, UL9540A					
Certification						

\*Wall-Mounted, Floor-Mounted

# Spring Series Residential ESS Solution

All-in-One ESS (LV)



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



### Swift Security

- Fast switching time of 4ms ensuring energy security



### Scalable

- Flat and stackable design
- Capacity of 5kWh~30kWh



### Flexible

- No wiring and extra fixing screws
- Quick and easy installation



### Smart

- Peak-shaving, smart load AC coupling, etc.



### All-in-One

- Integrated hybrid inverter and LFP battery



### Convenient

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

≥6000

Cycles

IP65

Rated for indoor and outdoor use

70%

EOL

10 years

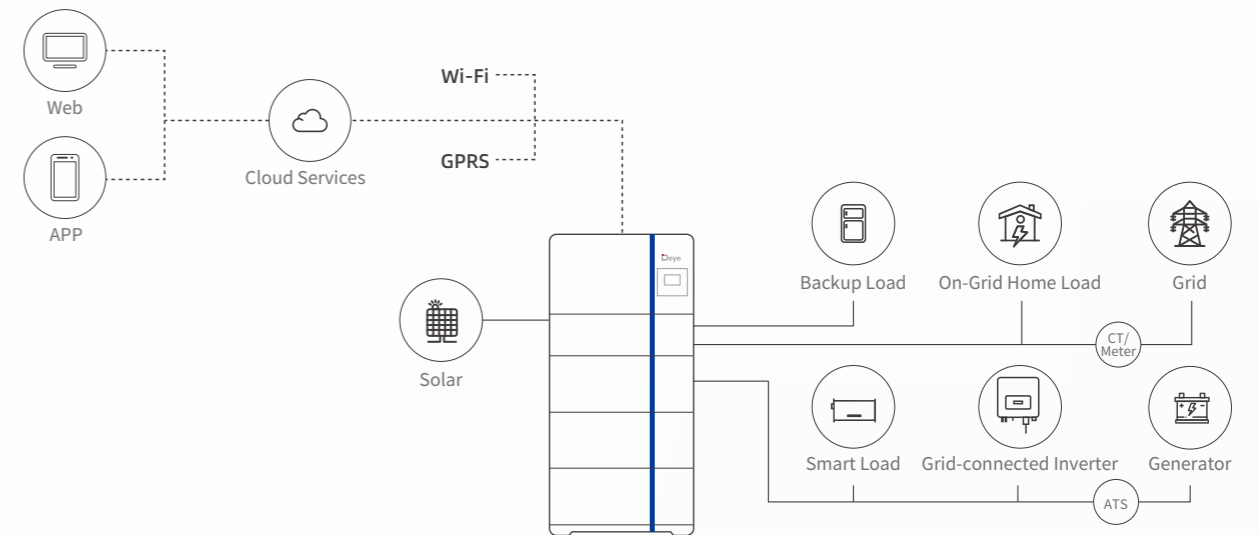
Warranty for long-term peace of mind

# AI-W5.1-B-ESS (EU, NA, 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
<b>Battery Input Data</b>							
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						
<b>PV String Input Data</b>							
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)	125-425						
Full Load MPPT Voltage Range(V)	300-425					200-425	
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						
<b>AC Input/Output Data</b>							
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)	15.78	21.8	26.1	30.5	33.1	34.8	43.5
Max. AC Input/Output Current(A)	17.2	23.9	28.7	33.5	36.3	38.3	47.9
Max. Continuous AC Passthrough (grid to load)(A)	35		40			50	
Max. Output Fault Current(A)	31.4	43.4	52.2	61	69.6	66	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						
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						
<b>Efficiency</b>							
Max. Efficiency	97.6%						
Euro Efficiency	96.5%						
MPPT Efficiency	>99%						
<b>General Data</b>							
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	10 Years						
Type of Cooling	Intelligent Air Cooling						
Grid Regulation	AS/NZS 4777.2						
Safety EMC/Standard	IEC 61727, IEC 62116, CEI 0-21, EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, G98, VDE-AR-N 4105						

## System Application Topology Diagram



# CONTENTS

# SUMMER

Series

## Residential ESS Solution

GB-L Pro (EU, AU) .....	41
GB-SL (EU, AU) & GB-SL Pro (EU) .....	43
GB-A (JP) .....	47
SS-F5 & SS-F10 (EU) .....	49

## Small-Scale C&I ESS Solution

BOS-B (AS, AF, LATAM, EU, AU-EVE) .....	51
BOS-B Pro-A3 (EU) .....	53
BOS-A (NA, AS, AF, LATAM, EU) .....	55
BOS-GH/BOS-GL (JP, NA) .....	57
BOS-G Pro (EU, SA) .....	59
BOS-W (AS, AF, LATAM) .....	61
GE-F60 (NA, AS, AF, LATAM, EU, AU) .....	63
GE-F120-2H2/4/6 (NA, AU, EU) .....	65

# Summer Series Residential ESS Solution

Stacked Battery(HV)



## Safer

- LFP Battery: safety, long lifespan and high-energy density
- Built-in explosion relief device to dredge gas
- Built-in fire protection device to cut off the fire source for 3 seconds
- Use high-quality environmental protection materials



## Enhanced Reliability

- ≥6000 Cycles, 70%EOL
- 10 years warranty for long-term peace of mind
- Wide temperature range: -20°C ~ 60°C
- IP65-rated for indoor and outdoor use
- Anti-corrosion grade ≥ C2



## Smarter

- Temperature detection of key parts, cell, power plug-in, etc
- Optional heating function for low-temperature applications
- Support remote upgrade, real-time battery warning information push, LCD data display



## More Flexible

- Modules are connected in series without cable connection
- And high-voltage platform improves system efficiency
- Battery Module: 2 ~ 6 pcs in series (optional)

## GB-L Pro (EU, AU)

### Technical Data


#### Main Parameters

Model	GB-L Pro				
Cell chemistry	LiFePO <sub>4</sub>				
Module Energy ( kWh )	4				
Module Nominal Voltage ( V )	102.4				
Module Capacity ( Ah )	40				
Battery System Model	GB-L8 PRO	GB-L12 PRO	GB-L16 PRO	GB-L20 PRO	GB-L24 PRO
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				
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 ) <sup>[2]</sup>	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	0.9				
Cycle Life	25+2°C,0.5C/0.5C,EOL70%≥6000				
Warranty Period	10 years				
Certification	CE / IEC 62619 / VDE 2510-50 / UN38.3				

Inverter	1h	2h	3h	4h
SUN-5K-SG01HP3-EU-AM2	X2	X3	X4	X5
SUN-6K-SG01HP3-EU-AM2	X2	X3	X5	X6
SUN-8K-SG01HP3-EU-AM2	X3	X4	X6	/
SUN-10K-SG01HP3-EU-AM2	X4	X5	/	/
SUN-12K-SG01HP3-EU-AM2	X5	X6	/	/
SUN-15K-SG01HP3-EU-AM2	X5	/	/	/
SUN-20K-SG01HP3-EU-AM2	X6	/	/	/

\*Floor-Mounted

Summer Series  
Residential ESS Solution

All-in-One ESS(HV)



GB-SL (EU, AU) & 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

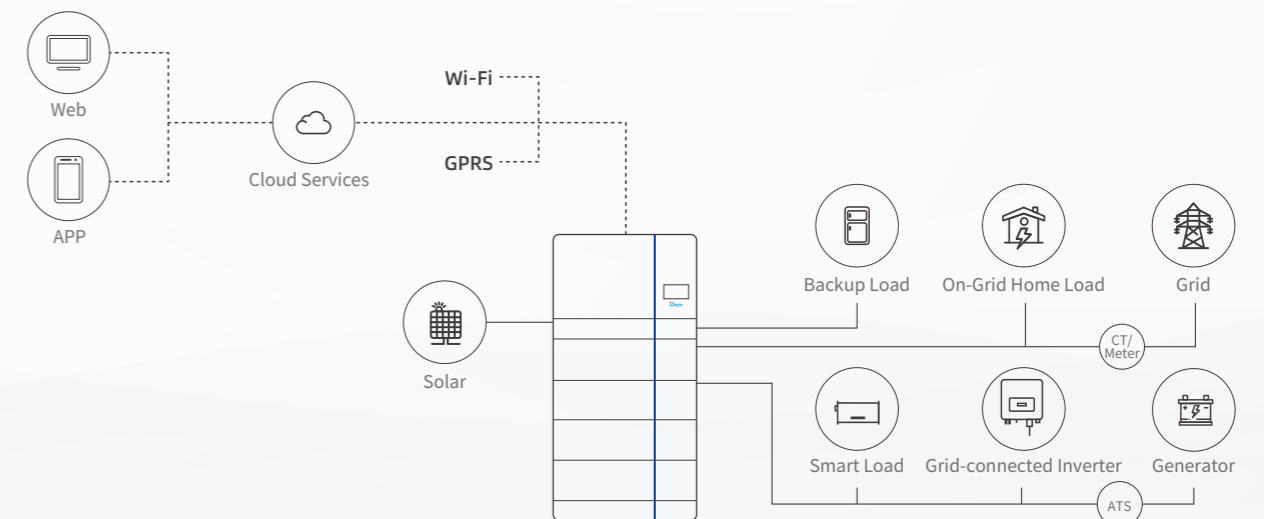
- ≥6000 Cycles, 70%EOL
- Wide temperature range: -20°C ~ 60°C
- IP65-rated for indoor and outdoor use
- Support storing energy from diesel generator



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 (EU, AU) & GB-SL Pro (EU)

## Technical Data



Battery Technical Specification							
Battery Model	GB-SL & GB-SL Pro						
<b>Main Parameters</b>							
Battery Type	LiFePO <sub>4</sub>						
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 )	179.2-691.2						
System Energy ( kWh )	8	12	16	20	24		
System Usable Energy ( kWh )	7.36	11.04	14.72	18.4	22.08		
Charge / Discharge Current ( A ) <sup>[2]</sup>	Recommend	20					
	Max.	40					
	Peak ( 25°C )	50@2min					
<b>Other Parameters</b>							
Operating Temperature ( °C )	GB-SL: Charge : 0~55 / Discharge : -20~60 GB-SL Pro: 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						
<b>Inverter Technical Specification</b>							
Inverter Model	GB-S5K	GB-S6K	GB-S8K	GB-S10K	GB-S12K	GB-S15K	GB-S20K
<b>Efficiency</b>							
Max. Efficiency	97.6%						
Euro Efficiency	97%						
MPPT Efficiency	99%						
<b>Protection</b>							
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						
<b>General Data</b>							
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-S5K	GB-S6K	GB-S8K	GB-S10K	GB-S12K	GB-S15K	GB-S20K	
<b>Main Parameters</b>								
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							
<b>PV String Input Data</b>								
Start Up Dc Voltage ( Vdc )	150							
Max. DC input Power ( W )	6500	7800	10400	13000	15600	19500	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	420-850	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		
<b>AC Output Data</b>								
Rated Ac Output and UPs Power ( W )	5000	6000	8000	10000	12000	15000	20000	
Max. Ac Output Power ( W )	5500	6600	8800	11000	13200	16500	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	22.8 / 21.8	30.4 / 29	
Max. Ac Output ( off-grid ) Current ( A )	8.4 / 8	10 / 9.6	13.4 / 12.8	16.7 / 16	20 / 19.2	25 / 24	33.4 / 31.9	
Max. Three-phase Unbalanced output Current ( A )	13	13	18	22	25	30	35	
Max. Continuous AC Pass Through ( A )	40				80			
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	22.8 / 80 / 22.8	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							

# Summer Series Residential ESS Solution

Stacked Battery(HV)



## GB-A (JP)

### Technical Data



#### Main Parameters

Model	GB-A4	GB-A10	GB-A16
Cell chemistry		LiFePO <sub>4</sub>	
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	



#### 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.

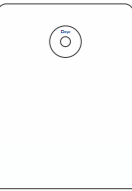
# Summer Series Residential ESS Solution

Wall-Mounted Battery (HV)



## SS-F5 & SS-F10 (EU)

### Technical Data



#### Main Parameters

Model	SS-F5	SS-F10
Cell Chemistry	LiFePO <sub>4</sub>	
Battery System Energy ( KWh )	5	10
Battery System Capacity ( Ah )	20Ah	
Battery System Nominal Voltage ( Vdc )	256	512
Battery System Operating Voltage ( Vdc )	224 ~ 292	448 ~ 584
Discharge / charge current ( A )	Recommend Max.	10 20

#### Other Parameters

Ambient operating Temperature ( °C )	Charge / Discharge : -20 ~ 55	
Status Indicator	SOC, fault code Fault Code	
Communication Port	CAN2.0 / RS485	
Humidity	0% ~ 100%RH	
Altitude	3000m	
IP Rating of Enclosure	IP65	
Dimension ( W × D × H, mm )	470 × 170 × 650	850 × 170 × 650
Weight Approximate ( kg )	45	85
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 Period	10 years	
Certification	Europe, Germany	



#### Intelligent Management

- Integrated master-slave BMS board with power circuitry (Max output: 20A / 256DC / 512DC)
- Max. passive balancing current of 0.15A, tripling equalization efficiency



#### Enhanced Scalability & Safety

- Up to 6 units in parallel, max. capacity of 60kWh
- Intelligent arc detection on DC side (Optional)



#### Advanced Structural Design

- Direct Cell-to-Pack integration with welded assembly
- Plastic enclosure replaces metal casing, increasing energy density by 14%
- Sleek brushed metal finish with integrated LCD screen



#### Easy Operation & Maintenance

- MC4 quick connectors for simplified installation
- Visual fault codes for local diagnostics and remote real-time monitoring

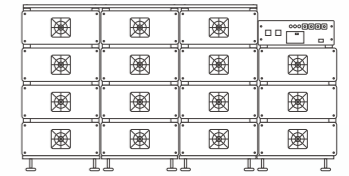


# Summer Series Indoor C&I ESS Solution

Rack-Mounted Battery (HV)



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



### Main Parameters

Battery Module Energy ( kWh )	14.3
Battery Module Nominal Voltage ( V )	51.2
Battery Module Capacity ( Ah )	280
Module Weight Approximate ( kg )	123
Battery Module Qty In Series ( Optional )	15
Scalability	14~15 For Deye PCS, 5~15 For Deye Hybrid Inverter
System Nominal Voltage ( V )	768
System Energy ( kWh )	214.5
System Usable Energy ( kWh )	193.05
Charge / Discharge Current ( A )	Recommend: 140 Max.: 168

### Other Parameters

Operating Temperature ( °C )	discharge : -20 ~ 55	charge : 0 ~ 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 )	2150 × 1136 × 800	
System Weight Approximate ( kg )	1944	
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	



### Intelligent Control

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



### Scalable

- Support up to 20 units in parallel, maximum 2MW/4.3MWh



### Multi-Fusion

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



### 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

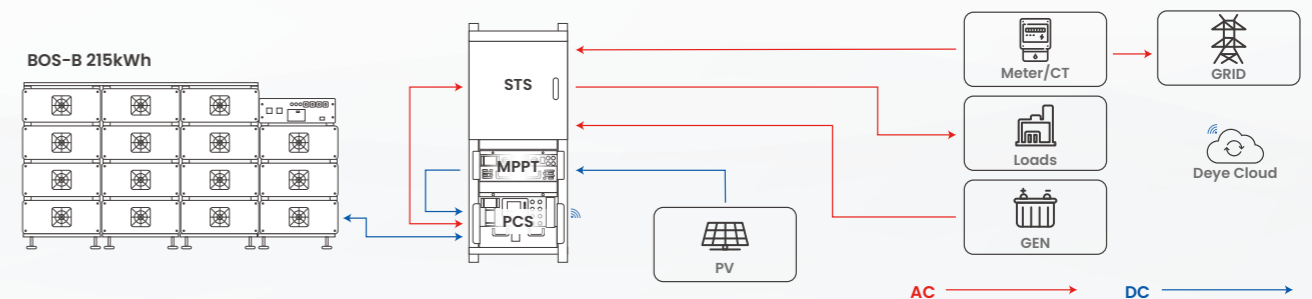
- 5U Standard Chassis
- User Interface & Bluetooth App
- USB & Cloud Upgrades
- TCP Protocol for EMS
- Fault Signal Input Support



### Safer

- LFP batteries
- Support aerosol fire extinguishing

### Typical Application Scenario



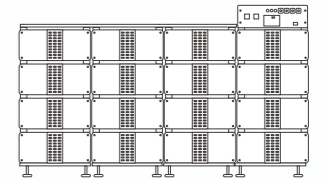
# Summer Series Indoor C&I ESS Solution

Rack-Mounted Battery (HV)



## BOS-B Pro-A3 (EU)

### 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 )	123
Battery Module Qty In Series ( Optional )	16
Scalability	5 - 16
System Nominal Voltage ( V )	819.2
System Energy ( kWh )	257.23
System Usable Energy ( kWh )	231.51
Charge / Discharge	Recommend
Current ( A )	Max.
	157
	180

#### Other Parameters

Operating Temperature ( °C )	discharge : 0 ~ 55	charge : -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 )	2150 × 1305 × 800	
System Weight Approximate ( kg )	1980	
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	



#### Intelligent Control

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



#### Scalable

- Support up to 20 units in parallel, maximum 2.9MW/5.1MWh



#### Multi-Fusion

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



#### 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

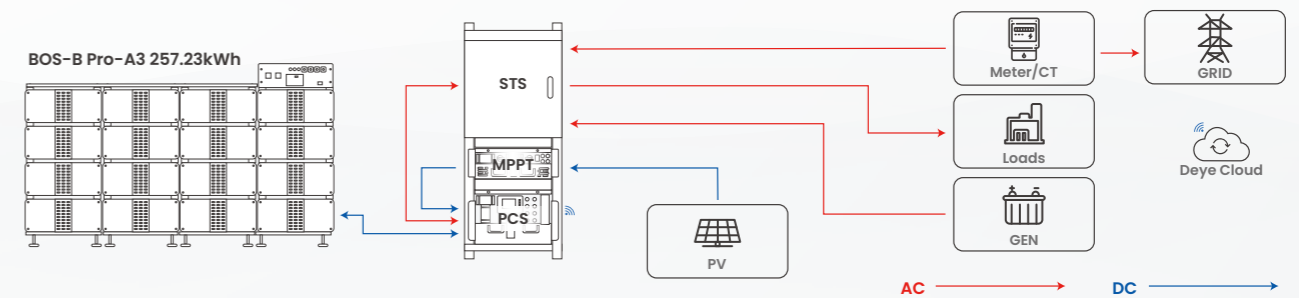
- 5U Standard Chassis
- User Interface & Bluetooth App
- USB & Cloud Upgrades
- TCP Protocol for EMS
- Fault Signal Input Support



#### Safer

- LFP batteries
- Support aerosol fire extinguishing

#### 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



## Flexible Expansion

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



## Smart Operation

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



## 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



## 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

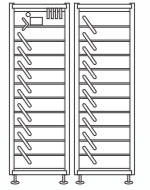


## Long Service Life

- 10-year warranty
- 6000 cycles

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

### Technical Data



#### Main Parameters

Cell Chemistry	LiFePO <sub>4</sub>		
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 ) <sup>1</sup>	48.38	89.85	145.15
Charge / Discharge Current ( A ) <sup>[2]</sup>	Recommend Max.	100	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 )	558	985	1586
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	CUN38.3, IEC, VDE, UL1973, UL9540A, FCC, UL9540		

Inverter	1h	2h	3h	4h
SUN-30K-SG01HP3-EU-BM3	/	X8	X12	X16
SUN-40K-SG01HP3-EU-BM4	/	X11	X16	X11 X2
SUN-50K-SG01HP3-EU-BM4	/	X13	/	X13 X2
SUN-60K-SG02HP3-EU-EM4	/	X16	X12 X2	X16 X2
SUN-80K-SG02HP3-EU-EM6	/	X21	X16 X2	X21 X2

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.

# Summer Series Small-Scale C&I ESS Solution

Rack-Mounted Battery (HV)



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

### Technical Data



#### Main Parameters

Model	BOS-GL60	BOS-GH40	BOS-GH60
Cell Chemistry	LiFePO <sub>4</sub>		
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 <sup>2</sup> Current ( A )	Recommend	100	50
	Max. Peak Discharge ( 2 mins, 25°C )		100 125

#### 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 / FCC		

#### Backup Power Duration Plan

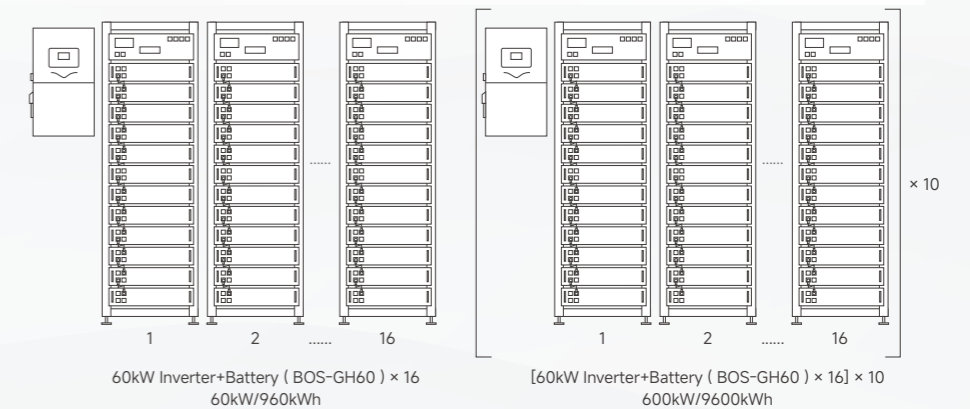
	1 hour		2 hours	
Hybrid inverter power	30kW	60kW	60kW	30kW
Battery model	BOS-GH40	BOS-GH60	BOS-GH60	BOS-GL60
Number of batteries	1 pc	1 pc	2 pcs	1 pcs

#### 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



#### 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.

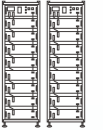
# Summer Series Small-Scale C&I ESS Solution

Rack-Mounted Battery (HV)



## BOS-G Pro (EU, SA, AU)

### Technical Data



#### Main Parameters

Cell Chemistry	LiFePO <sub>4</sub>			
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
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	73.73
Rated DC Power	25.6	40.96	61.44	81.92
Charge / Discharge Current ( A )	Recommend	50		
	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	
System Weight Approximate ( kg )	290	428	622	837
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, IEC, VDE, CEC			

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



#### 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 LiFePO<sub>4</sub> 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.
- Support Aerosol fire extinguishing.



#### 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.

# Summer Series Small-Scale C&I ESS Solution

Rack-Mounted Battery (HV)



## Safe and Reliable

- LFP Battery : Safe, long-lasting, high-efficiency
- Less self-discharge, up to 6 months without charging
- No memory effect, excellent with shallow charge and discharge



## Excellent Performance

- Working temperature range : -20°C ~ 55°C
- Excellent discharge performance and cycle life



## Smarter

- Protect against over-discharge, over-charge, over-current, and extreme temperatures
- Automatically manage charge, discharge, and cell balancing

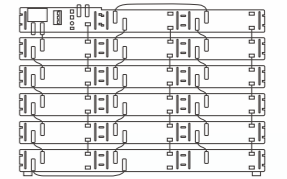


## Flexible

- Multiple battery modules can be in parallel
- Support USB and remote upgrades ( Compatible with Deye inverter )

# BOS-W (AS, AF, LATAM)

## Technical Data



### Main Parameters

Cell Chemistry	LiFePO <sub>4</sub>			
Module Energy ( kWh )	5.12			
Module Nominal Voltage ( V )	51.2			
Module Capacity ( Ah )	100			
Battery Module Number	BOS-W25	BOS-W40	BOS-W60	BOS-W80
Battery Module Qty In Series ( Optional )	5 ( Min )	8	12	16
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 ) <sup>1</sup>	23.04	36.86	55.3	73.73
Rated DC Power	25.6	40.96	55.3	81.92
Charge / Discharge Current ( A ) <sup>[2]</sup>	Recommend	50		
	Max.	100		
	Peak ( 25°C )	125		

### 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 / RS485			
Humidity	5% ~ 85%RH			
Altitude	≤3000m			
IP Rating of Enclosure	IP20			
Weight Approximate ( kg )	249	387	571	755
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	5 years			
Certification	UN38.3			

### Typical Application Solutions

16 × W60+50kW Inverter	Maximum support for 16 racks of batteries in parallel
( 16 × W60+50kW Inverter ) × 10	Maximum support for 10 inverters in AC parallel operation
16 × W80+80kW Inverter	Maximum support for 16 racks of batteries in parallel
( 16 × W80+80kW Inverter ) × 10	Maximum support for 10 inverters in AC parallel operation

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 Battery Cabinet



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

### Technical Data

#### Main Parameters

Cell Chemistry	LiFePO <sub>4</sub>	
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 ) <sup>1</sup>	55.29	
Rated DC Power	61.44	
Charge / Discharge <sup>2</sup> Current (A)	Recommend	50
	Max.	100
	Peak Discharge ( 2 mins, 25°C )	125

#### 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% )	
Warranty Period	10 years	
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.



#### Safety Protection

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



#### Total Protection

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



#### Integrated Technology

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



#### Flexible Extension

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

# 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:  $-20^{\circ}\text{C} \sim 55^{\circ}\text{C}$

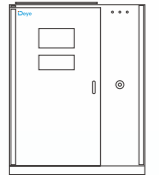


## Flexible

- 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
<b>Main Parameters</b>			
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	60	75.8
Battery Operating Voltage ( V )	500 ~ 700		
Max. RTE	89%		
Battery Chemistry	LiFePO <sub>4</sub>		
IP Rating of Enclosure	IP55		
Installation Method	Floor-Mounted		
Storage Temperature ( °C )	0 ~ 35		
Operating Temperature ( °C )	-20 ~ 55 ( > 43 derating )		
Warranty Period	10 years		

### 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%In		
Display	LCD		
Operating Temperature Range ( °C )	-40 ~ 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	$\geq 6000$ ( @25°C±2°C, 0.5C / 0.5C, 70%EOL )
Battery Module Certification	UN38.3, IEC 62619, IEC 61000, VED, CEI, FCC, UL1973, UL9540, UL9540A

# CONTENTS

# AUTUMN Series

## Balcony ESS Solution

SUN-BK80/160/200/250-2.56KWH-EU-AM4-18L ..... 69  
(EU, AS, AF, LATAM)

## Residential ESS Solution

WD-G12100 & WD-G12200 & WD-G24100 (AS, AF, LATAM) ..... 71

# Autumn Series Balcony ESS Solution

Balcony ESS



## 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

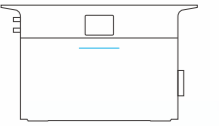
- IP65 Protection Rating
- 10-year standard warranty



## Quiet Operation

- Fanless design with natural cooling

# SUN-BK80/160/200/250-2.56KWH-EU-AM4-18L (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
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			
AC Input / Output Frequency and Voltage	50Hz ( 45Hz ~ 55Hz ) , 60Hz ( 55Hz ~ 65Hz ) , L + N + PE , 220 / 230 Vac			
Grid Type	Single phase			
Rated AC Input/Output Current	3.7A / 3.5A	7.3A / 7.0A	9.1A / 8.7A	11.4A / 10.9A
Max. AC Input/Output Current	4A / 3.9A	8A / 7.7A	10A / 9.6A	12.5A / 12A
Peak Power ( off-grid )	2 time of rated power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 lagging			
Max. Bypass ( Grid to Load )	30A			
DC Injection Current	<0.5%In			

## PV Technical Specification

Max. PV Access Power ( W )	4400W
Max. Operating PV Input Current	18+18+18+18A
Max. Input Short-Circuit Current	27+27+27+27A
Rated PV Input Voltage	42.5V
Start-up Voltage	25Vdc
MPPT Voltage Range	20 ~ 55V
No. of MPP Trackers/No. of Strings MPP Tracker	4/1+1+1+1
Battery Chemistry	LiFePO <sub>4</sub>
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2560Wh
Max.Charging/Discharging Current	55A
Battery Cycle Life	≥6,000 (@25°C±2°C, 70%EOL)

## Other Technical Specification

Display	Colorful Touch LCD & APP & Battery LED ( SOC, Alarm )
Communication Interfaces	Wi-Fi, Bluetooth, LoRa
Operating Temperature Range	-10°C ~ 55°C, >45°C Derating, ( -20°C~55°C with heating, optional)
Permissible Altitude	3000m
Ingress Protection(IP) Rating	IP 65
Dimension(W X D X H)	560 × 210 × 330mm
Relative Humidity	0% ~ 95% ( No Condensing )
Safety EMC / Standard	IEC 62619,UN38.3,IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1/2/3/4
Grid Regulation	VDE 4105,IEC 61727/62116,VDE 0126,AS 4777.2,CEI 0-21,EN 50549-1,G98,C10-11,UNE 217002
Battery Certification	UN38.3, IEC 62619
Installation Style	Floor-Mounted,Stacked-Mounted
Warranty	10 years

## Battery Technical Specification

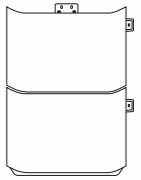
	AE-F2.6
Battery Chemistry	LiFePO <sub>4</sub>
Battery Nominal Voltage	51.2V
Battery Nominal Energy	2560Wh
Max. Charging / Discharging Current	55A
Battery Operating Voltage	44.8V ~ 57.6V
Battery Cycle Life	≥6,000 (@25°C±2°C, 70%EOL)
Max. Stack NO.	5 pcs (up to 12.8kWh )
Parallel Capability	40 pcs*
Display	LED ( SOC, Alarm )
Communication Interfaces	LoRa
Dimension ( W × D × H )	450 × 210 × 244 (without terminal)
Ingress Protection(IP) Rating	IP 65
Weight Approximate ( kg )	24kg
Operating Temperature Range	-10°C~55°C ( -20°C~55°C with heating, optional)
Max. Operating Altitude	3000m
Relative Humidity	0% ~ 95% ( No Condensing )
Certification	UN38.3, IEC 62619, CE
Installation Style	Floor-Mounted,Stacked-Mounted
Warranty Period	10 years

# Autumn Series Residential ESS Solution

Stacked Battery (LV)



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



### Technical Data

#### Main Parameters

Model		WD-G12100	WD-G12200	WD-G24100
Battery Chemistry		LiFePO <sub>4</sub>		
Nominal Capacity <sup>[1]</sup>		100 Ah	200 Ah	100 Ah
Nominal Voltage		12.8 V		25.6 V
Operating Voltage		11.2 V ~ 14.6 V		
Nominal Energy <sup>[1]</sup>		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 <sup>[2]</sup>	Max. Continuous	100 A	200 A	100 A
	Peak	200 A (10 sec)	300 A (10 sec)	200 A (10 sec)
Discharge Current <sup>[2]</sup>	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 ( WxDxH, 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.



#### Reverse Polarity Protection

- Prevents battery or BMS damage from incorrect wiring



#### Current-limiting Charging

- Supports parallel connection and auto-recharges after deep discharge



#### Automatic Recovery Function

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



#### Thermal Protection

- Prevents thermal runaway with high-precision temperature sensor



#### Flexible Expansion

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



#### External Power Support

- Solar recharging, avoid battery standby, allow direct recharge

# CONTENTS

# WIN TER

Series

## C&I ESS Solution

MS-G215 (CHN) .....	75
MS-G215-2H3 & MS-GS215-2H3 (Global) .....	77
MC-L430-2H2 & MC-L430-BC-2 (EU) .....	79
MC-L430-2H3 & MC-L430-BC-3 (AS, AF, LATAM, EU) .....	81

## C&I PV-BESS-EV Charging Integrated Solution

MS-LC430-2H2 & MS-LC430-BC-2 (EU) .....	83
MS-DC420-2 & MS-DCC180-2 (EU) .....	85
MS-L430-2/4H4 & MS-L430-BC-4 (US) .....	87
MS-DC420-4 & MS-DCC180-4 (US) .....	89

## Utility-Scale ESS Solution

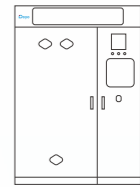
WS-G2000-2H3/WS-GS2000-2H3 (AS, AF, LATAM, EU) .....	91
WS-L4300-BC-3 & WS-PCS2250-2 (AS, AF, LATAM, EU) .....	93

# Winter Series C&I ESS Solution

C&I Air-Cooled ESS



## MS-G215 (CHN) Technical Data



### System Technical Specification

Nominal Output Power ( kW )	100
AC Output Frequency and Voltage	50 / 60Hz; 380 / 400Vac
Grid Type	3L / PE
Energy ( kWh )	215
Dimension ( Wx D x H,mm )	1765 x 1000 x 2500
Weight Appr. ( kg )	2695
Battery Operating Voltage ( V )	660 ~ 876
MaX. RTE	88.5%
System Communication	ETH / 4G
System Operating temperature range ( °C )	-20 ~ 45
Max. working altitude ( m )	≤3000
IP Rating of Enclosure	IP54
Anti-corrosion grade	C4
Installation Style	Floor-Mounted
Warranty Period	10 years

### Converter Technical Specification

AC Output Rated Current ( A )	152
MAX. AC Output Current ( A )	167
MAX.number of parallel	12 PCS
Peak Power ( off-grid )	1.1 times of rated power
Power Factor	-1 ~ 1
THD	<3%
DC injection current	<0.5In
Operating Temperature Range ( °C )	-20~60 ( >45°C derating )
Relative Humidity	15%-85% ( No Condensing )
Dimension ( W x D x H,mm )	485x780x220
Communication	CAN, RS485, ETH
Overvoltage protection	Dc Type II / Ac Type II
Protection level	Class 1
Max. Efficiency	98.5%



#### Safer

- 1 hour flame retardant protection
- C4 shell protection
- Rated power operation, the maximum temperature of the battery < 38 °C



#### Enhanced Reliability

- LFP Battery : safety, long lifespan and high-energy density
- Aerosol fire suppression systems for battery packs and systems
- Intelligent BMS active balancing provides complete protection
- Wide temperature range: -20°C ~ 45°C



#### Multi-Fusion

- All-in-One design
- Integrated EMS, PCS, and BMS
- Power supply redundancy design
- Support black start function



#### More Flexible

- Support expansion of MPPT modules, charging modules, and diesel generator connections

# Winter Series C&I ESS Solution

C&I Air-Cooled ESS



## Safer

- LFP batteries
- System supports aerosol fire extinguishing
- Battery compartment with auto venting & explosion-proof



## Intelligent Control

- Thermal management keeps battery < 35°C
- Peak-valley management, anti-backflow overload protection
- Load tracking, demand control backup power, phase separation



## Multi-Fusion

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



## Scalable

- Support up to 5 units off-grid backup maximum 500kW/1MWh
- Support up to 20 units on-grid in parallel maximum 2MW/4.3MWh
- Support up to 10 units off-grid in parallel maximum 1MW/2.15MWh



## Reliable

- Operating temp :-20°C to 50°C
- IP54 & C5 protection rating
- Operate up to 3000m altitude
- 1.1x overload capacity
- Balancing solutions extend battery life
- Triple auxiliary power design for stable supply

## MS-G215-2H3 & MS-GS215-2H3 (Global)

### Technical Data

PV Specification	MS-GS215-2H3
Out Rated Power ( kW )	150 ( dc )
Max. Input Voltage ( V )	1000
Start Voltage ( V )	200
MPPT Voltage Range ( V )	180 ~ 650
Full Load Voltage Range ( V )	450 ~ 650
Number of MPPT	8 pcs
MPPT Max.Current/Short Current ( A )	40 / 60
Dimension ( WxDxH,mm )	440 x 610 x 178
Weight Appr.( kg )	32

System Specification	MS-G215-2H3 / MS-GS215-2H3
AC Output Power ( kW )	100
AC Output Frequency and Voltage	50/60Hz;380 / 400Vac
Grid Type	3L / N / PE
Battery OperatingVoltage ( Vd.c.)	660 ~ 864
Energy ( kWh )	215
Dimension ( W x D x H,mm )	1865 x 1000 x 2500
Weight Appr. ( kg )	2732
Battery Operating Voltage ( Vd.c. )	DC: 600-935 (grid on) / DC: 700-935 (grid off)
Max. RTE	88%
System Communication	ETH / 4G
System Operating Temperature Range ( °C )	-20~50 ( >45 Derating )
Max. Working Altitude ( m )	≤3000
IP Rating of Enclosure	IP54
Anti-Corrosion Grade	≤C5
System Certification	UN3536, IEC61000,IEC62477,IEC60730
Warranty Period	10 years or Cycle Life ≥6000 (@25°C±2°C,0.5C/0.5C, 70% EOL)

Converter Specification	MS-G215-2H3 / MS-GS215-2H3
AC Output Rated Current ( A )	152
Max.AC Output Current ( A )	167
Max.Number of Parallel ( off-grid )	10 pcs ( off-grid )
Peak Power	1.1 times of rated power
Power Factor	-1~1
THD	<3%
DC Injection Current	<0.5In
Display	LCD
Relative Humidity	15%-85% ( No Condensing )
Dimension ( W x D x H,mm )	506 x 772 x 310
Communication	CAN, RS485, ETH
Overvoltage Protection	DC Type II / AC Type II
Protection Level	Class 1
Grid Regulation	EN50549, AS4777.2, CEI0-21, CEI-016, NRS097
Max. Efficiency	97.6%

## Winter Series C&I ESS Solution



### Intelligent Cloud Platform

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



### Ultimate Safety

- 3+3 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-L430-2H2 (EU) MC-L430-BC-2 (EU)

### Technical Data

Model	MC-L430-2H2 ( AC BESS )
<b>System Parameters</b>	
Operating Temperature	-25°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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤5000kg
Dimensions ( W × D × H )	2000 × 1300 × 2480mm
<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	0.5P
<b>AC Data</b>	
Nominal AC Voltage	380/400V 3L+N+PE
Rated Frequency	50 / 60Hz
Rated Power	200kW
Maximum Power	220kW ( 1.1 times of rated power )
Power Factor	-0.8 ~ +0.8

Model	MC-L430-BC-2 ( DC BESS )
<b>System Parameters</b>	
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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤4900kg
Dimensions ( W × D × H )	2000 × 1300 × 2480mm
<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	0.5P

## Winter Series C&I ESS Solution



## MC-L430-2H3 (AS, AF, LATAM, EU) MC-L430-BC-3 (AS, AF, LATAM, EU)

### Technical Data

Model	MC-L430-2H3 ( AC BESS )
<b>System Parameters</b>	
Operating Temperature	-25°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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤5000kg
Dimensions ( W × D × H )	2000 × 1300 × 2480mm
<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	0.5P
<b>AC Data</b>	
Nominal AC Voltage	380/400V 3L+N+PE
Rated Frequency	50 / 60Hz
Rated Power	200kW
Maximum Power	220kW ( 1.1 times of rated power )
Power Factor	-0.8 ~ +0.8

Model	MC-L430-BC-2 ( DC BESS )
<b>System Parameters</b>	
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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤4900kg
Dimensions ( W × D × H )	2000 × 1300 × 2480mm
<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	0.5P



### Intelligent Cloud Platform

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



### 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



### Ultimate Safety

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



### Multiple Application Scenarios

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

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



### Intelligent Cloud Platform

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



### Ultimate Safety

- 3+3 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.)

## MS-LC430-2H2 (EU) MS-LC430-BC-2 (EU) MS-DC420-2 & MS-DCC180-2 (EU)

### Technical Data

Model	MS-LC430-2H2 ( AC BESS )
<b>System Parameters</b>	
Operating Temperature	-25°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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤5000kg
Dimensions ( W × D × H )	2000 × 1300 × 2480mm
Active Balancing Function	No
<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	charge 0.5P, discharge 1P
<b>AC Data</b>	
Nominal AC Voltage	380/400V 3L+N+PE
Rated Frequency	50 / 60Hz
Rated Power	200kW
Maximum Power	220kW ( 1.1 times of rated power )
Power Factor	-0.8 ~ +0.8

Model	MS-LC430-BC-2 ( DC BESS )
<b>System Parameters</b>	
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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤4800kg
Dimensions ( W × D × H )	2000 × 1300 × 2480mm
<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	charge 0.5P, discharge 1P

# MS-LC430-2H2 (EU) MS-LC430-BC-2 (EU) MS-DC420-2 & MS-DCC180-2 (EU)

## Technical Data

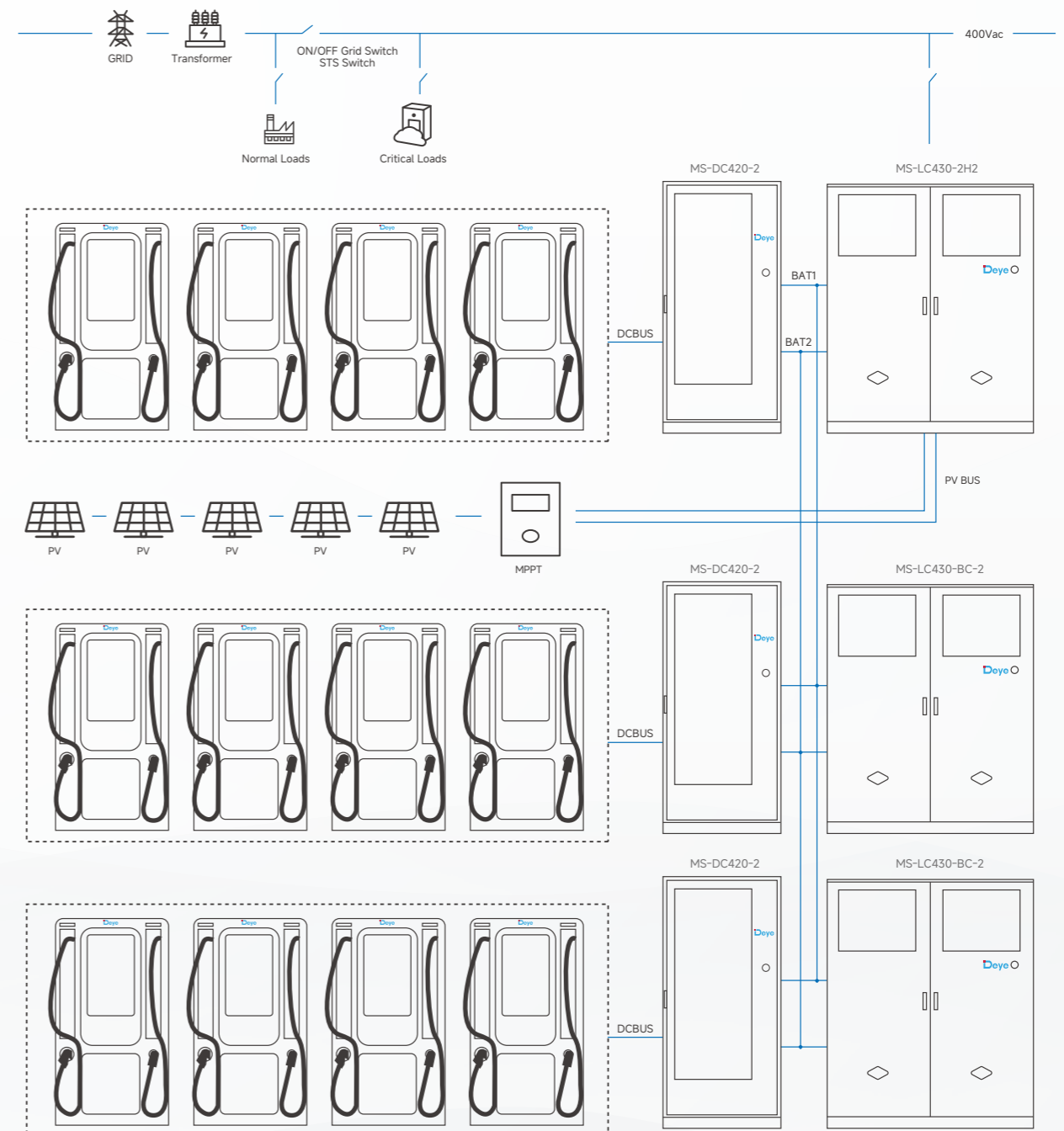
Model MS-DC420-2 ( 420kW DC charge power cabinet )	
<b>DC Input Data</b>	
Input standard	DC+ / DC- / PE
DC input voltage range	200Vdc ~ 850Vdc
DC input current range	≤640A
DC rated input power	420kW @400Vdc≤Vin≤850Vdc
<b>DC Output Data</b>	
Dc output voltage range	50Vdc ~ 1000Vdc
Dc output current range	8 branches, max 250A each
<b>Environmental Conditions</b>	
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
Altitude	≤2000m ( Derated when higher than 2000m )
IP Rating of Enclosure	≥IP54
<b>Other Parameters</b>	
Efficiency	≥ 97.5%, @full load
Dimension ( W × H × D, mm )	1250 × 2450 × 1000mm
Approximate Weight ( kg )	600kg

Model MS-DCC180-2 ( DC charging terminal )	
<b>DC Input Data</b>	
DC Input Voltage Range ( V )	50Vdc ~ 1000Vdc
Input number	2 DC inputs
<b>DC Output Data</b>	
Output interface	1 pile 2 guns, each gun 180kW charging power, support the CCS2 charging standard interface
DC Output range	50Vdc ~ 1000Vdc
Max. Output Power ( W )	Single gun Max 180kW @300 ~ 1000Vdc ( conventional terminal )
Max. Output Current	Single gun Max. 250A
<b>Environmental Conditions</b>	
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	Natural cooling
Altitude	≤2000m
IP Rating of Enclosure	≥IP54
<b>Other Parameters</b>	
Dimension ( W × H × D, mm )	1100 × 2200 × 400mm
Approximate Weight ( kg )	280kg

## Integrated energy storage and charging application

Support up to four sets of double-gun charging terminals  
Split type DC fast charging, With a maximum DC charging power of up to 180kW for a single gun  
Supports flexible charging power distribution Adaptable to CCS2 charging interfaces  
To solve the problem of insufficient capacity of new energy vehicles to access the distribution grid



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



## MS-L430-2/4H4 (US) MS-L430-BC-4 (US) MS-DC420-4 & MS-DCC180-4 (US)

### Technical Data

Model	MS-L430-2H4 ( AC BESS )	MS-L430-4H4 ( AC BESS )
<b>System Parameters</b>		
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	≤2000m	
Communication	RS485, Modbus TCP, DIDO	
Weight	≤5050kg	≤4900kg
Dimensions ( W × D × H )	2000 × 1350 × 2480mm	

<b>DC Data</b>		
Battery	LiFePO <sub>4</sub>	
Nominal Capacity	280Ah	
Nominal Energy	430.08kWh	
Nominal DC Voltage	768Vd.c.	
DC Voltage Range	636Vd.c ~ 876Vd.c.	
Charge and discharge rate	charge 0.5P, discharge 1P	charge 0.25P, discharge 1P

<b>AC Data</b>		
Nominal AC Voltage	3480V ( -10%~+5% )	
Rated Frequency	60Hz ( ±3Hz )	
Rated Power	250kW	125kW
Maximum Power	275kW ( 1.1 times of rated power )	137.5kW ( 1.1 times of rated power )
Power Factor	-1 ~ +1	

Model	MS-L430-BC-4 ( DC BESS )
<b>System Parameters</b>	
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	≤2000m
Communication	RS485, Modbus TCP, DIDO
Weight	≤4760kg
Dimensions ( W × D × H )	2000 × 1350 × 2480mm

<b>DC Data</b>	
Battery	LiFePO <sub>4</sub>
Nominal Capacity	280Ah
Nominal Energy	430.08kWh
Nominal DC Voltage	768Vd.c.
DC Voltage Range	636Vd.c ~ 876Vd.c.
Charge and discharge rate	charge 0.5P, discharge 1P



#### Intelligent Cloud Platform

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



#### Ultimate Safety

- 3+3 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.)

# MS-L430-2/4H4 (US) MS-L430-BC-4 (US) MS-DC420-4 & MS-DCC180-4 (US)

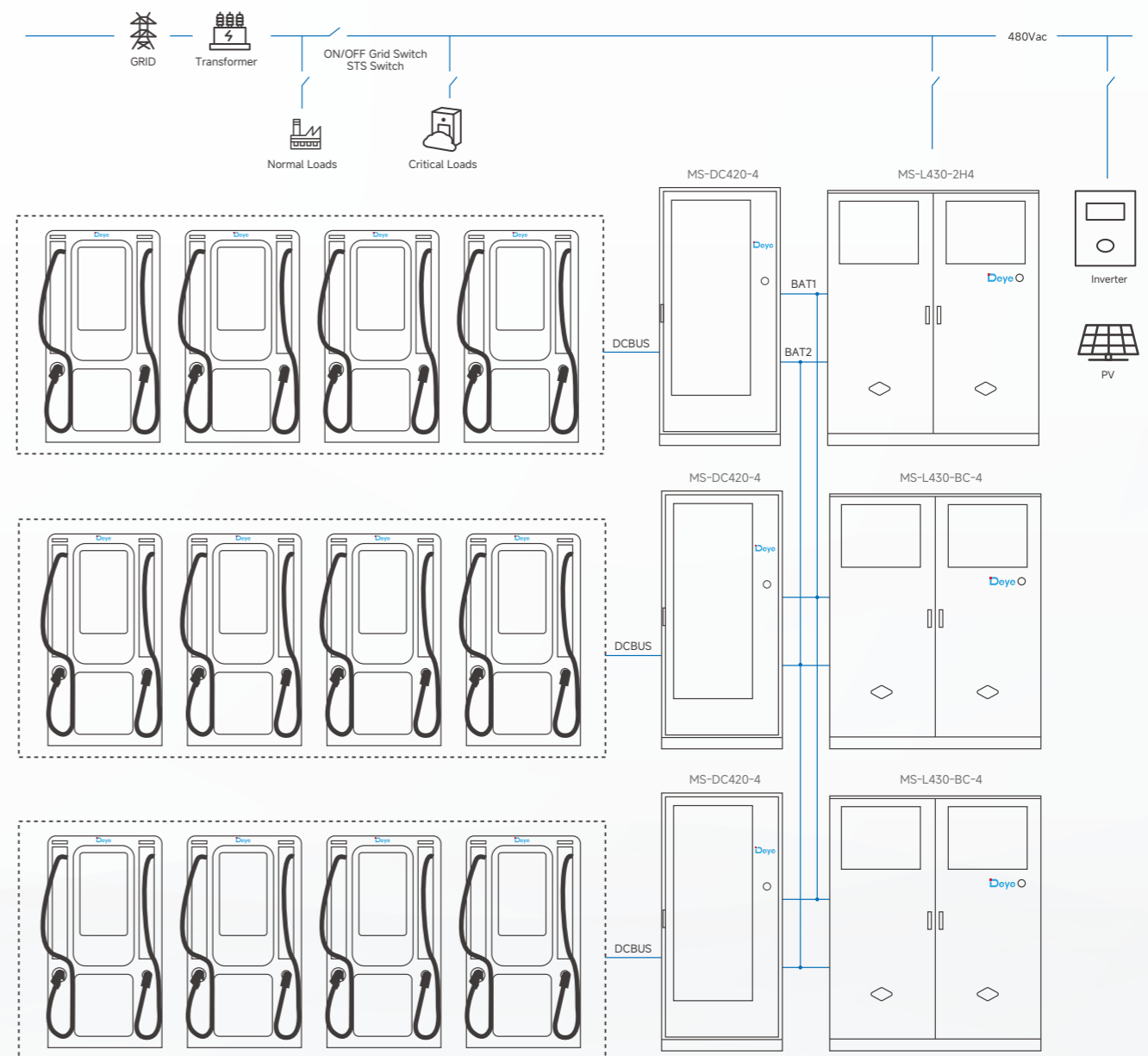
## Technical Data

Model		MS-DC420-4 ( 420kW DC charge power cabinet )
<b>DC Input Data</b>		
Input standard	DC+ / DC- / PE	
DC input voltage range	200Vdc ~ 850Vdc	
DC input current range	≤640A	
DC rated input power	420kW @400Vdc≤Vin≤850Vdc	
<b>DC Output Data</b>		
Dc output voltage range	50Vdc ~ 1000Vdc	
Dc output current range	8 branches, max 250A each	
<b>Environmental Conditions</b>		
Operating Temperature Range ( °C )	-30°C ~ +55°C ( derating above 50°C )	
Storage Temperature ( °C )	-40°C to +60°C	
Humidity	≤ 95%RH, no condensation	
Cooling	Forced air cooling	
Altitude	≤2000m ( Derated when higher than 2000m )	
IP Rating of Enclosure	≥IP54	
<b>Other Parameters</b>		
Certification	UL2202, UL2231, UL991, UL1998	
Efficiency	≥ 97.5%, @full load	
Dimension ( W × H × D, mm )	1250 × 2450 × 1000mm	
Approximate Weight ( kg )	600kg	

Model		MS-DCC180-4 ( DC charging terminal )
<b>DC Input Data</b>		
DC Input Voltage Range ( V )	50Vdc ~ 1000Vdc	
Input number	2 DC inputs	
<b>DC Output Data</b>		
Output interface	1 pile 2 guns, each gun 180kW charging power, support the US standard CCS1 and Tesla charging standard interface	
DC Output range	50Vdc ~ 1000Vdc	
Max. Output Power ( W )	Single gun Max 180kW @300 ~ 1000Vdc ( conventional terminal )	
Max. Output Current	Single gun Max. 250A	
<b>Environmental Conditions</b>		
Operating Temperature Range ( °C )	-30°C ~ +55°C ( derating above 50°C )	
Storage Temperature ( °C )	-40°C ~ +60°C	
Humidity	≤ 95%RH, no condensation	
Cooling	Natural cooling	
Altitude	≤2000m	
IP Rating of Enclosure	≥IP54	
<b>Other Parameters</b>		
Dimension ( W × H × D, mm )	1100 × 2200 × 400mm	
Approximate Weight ( kg )	280kg	

## Integrated energy storage and charging application

Support up to four sets of double-gun charging terminals  
Split type DC fast charging, With a maximum DC charging power of up to 180kW for a single gun  
Supports flexible charging power distribution Adaptable to both TESLA and CCS1 charging interfaces  
To solve the problem of insufficient capacity of new energy vehicles to access the distribution grid



# Winter Series Utility-Scale ESS Solution

Air-Cooled ESS



## 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
- System size and weight: 20ft, 25,000 kg



## Applications

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



## Performance

- Supports 1.1x continuous overload, and 1.5x overload for up to 10s
- Max RTE: 88.5%
- System Operating Conditions :  
• -20°C ~ -50°C | IP54 | C4-M
- Supports 2 PCS & 2 MW off-grid

# WS-G2000-2H3/WS-GS2000-2H3 (AS, AF, LATAM, EU)

## Technical Data

### AC Parameters

Rated power	1000kW
Max. Apparent Power	1100kVA
Rated Voltage/Range	400V/0.85Un-1.1Un
Grid Connection Form	3L+N+PE
Frequency/Range	50Hz/45Hz-55Hz
Power Factor Adjustment Range	0.8 leading-0.8lagging
Total Current Harmonic Distortion (THDi)	<3% (of Rated power)
DC Injection Current	<0.5% In
Max.RTE	88.50%

### PV Parameters

Max. PV Input Power	1600kW(200kW*8)
Max. PV Input Voltage	1000Vdc
Start-up Voltage	200Vdc
MPPT Voltage Range	180-850Vdc
Full Load MPPT Voltage Range	450-850Vdc
Rated PV Input Voltage	600Vdc
Max. Operating PV Input Current	40A
Max. Input Short-Circuit Current	60A
No. of MPP Trackers	8*8
MPP Trackers of String PV panel	2*20A or 3*13A
Max. Efficiency	>88.5%

### Battery Parameters

Cell type	LiFePO <sub>4</sub>
Battery configuration	256S1P*8
Battery energy	2057kWh
Battery voltage range	691.2-921.6Vdc

### Other Parameters

Fire protect system	Gas fire protection+Water fire protection
cooling type	Smart Air Cooling
Communication port	RJ45
Communication protocol	Modbus TCP, IEC104, IEC61850
Operating ambient	-20-50 °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)	20ft (HC)
Weight approximate (kg)	25000kg
Installation Location	Floor-mounted
Recommend storage temperature (°C)	0-35
Cycle Life	25±2°C,0.5P, EOL70%≥8000
Warranty Period	10years

# Winter Series Utility-Scale ESS Solution

Liquid - Cooled ESS



## WS-L4300-BC-3 (AS, AF, LATAM, EU) WS-PCS2250-2 (AS, AF, LATAM, EU)



### Ultimate Safety

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



### Seamless Scalability

- Modular Architecture
- Flexible 2/4/6h Energy Storage Solutions
- Compact Design, High Energy Density



### 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



### Smart Cloud Management

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



### High Energy Density

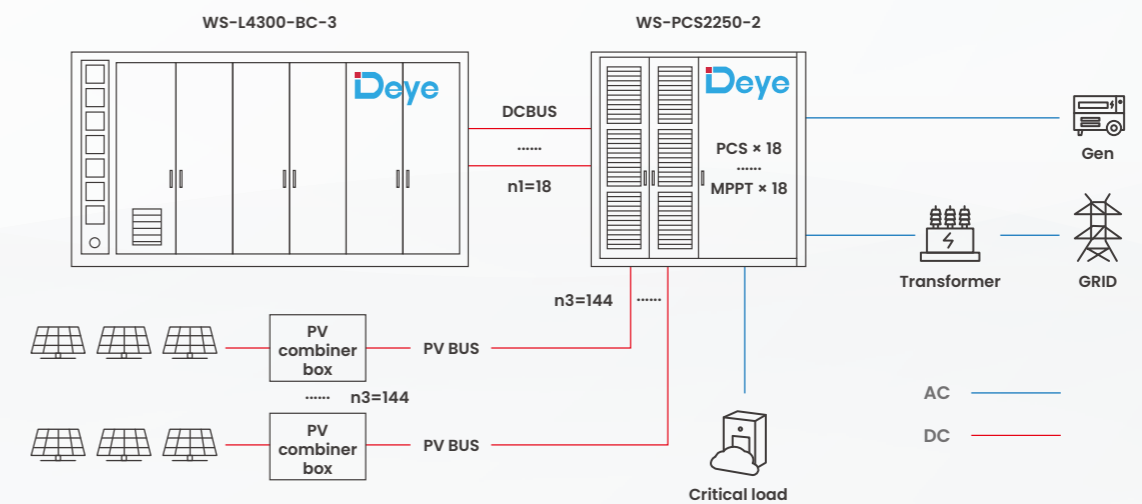
- 4300kWh in 20' BESS container
- 2250kW PCS, 3600kW PV in 10' container



### Cluster Management

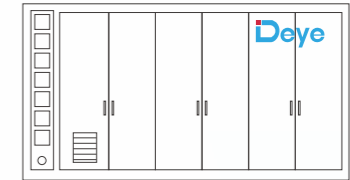
- One cluster management, high availability, more friendly to the cell

### UTILITY-SCALE ESS Solution

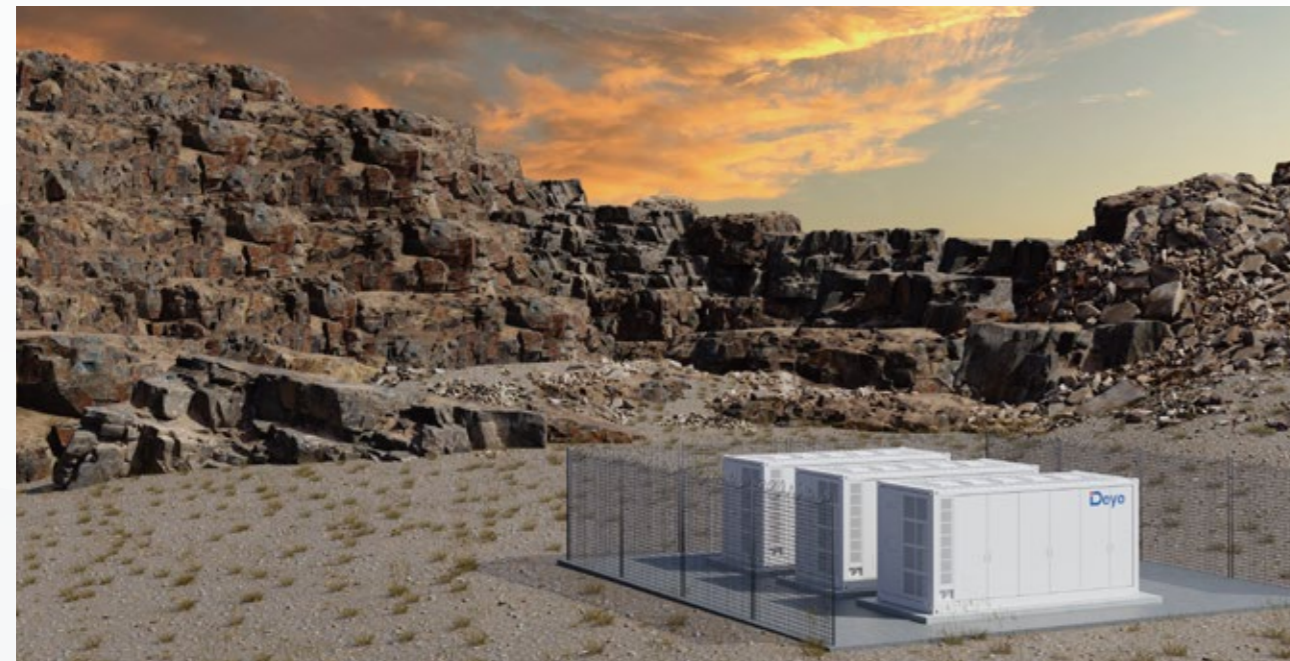


## WS-L4300-BC-3 (AS, AF, LATAM, EU) WS-PCS2250-2 (AS, AF, LATAM, EU)

### Technical Data



Liquid-Cooled ESS	
Model	WS-L4300-BC-3
<b>DC Battery</b>	
Battery Type	LiFePO <sub>4</sub>
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
<b>System</b>	
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
Altitude	≤2000m
Communication	CAN, RS485, TCP, DIDO
Weight	40000kg
Dimensions ( W × D × H )	6058 × 2438 × 2896mm



Liquid-Cooled ESS	
Model	WS-PCS2250-2
<b>PCS Data</b>	
AC Rated Power	2250kW ( 18 × 125kW )
AC Rated Voltage / Frequency	400Vac / 50Hz ( 3L+N+PE )
AC Rated Current	3248A ( 18 × 180.4A )
Max Power	2475kW ( 18 × 137.5kW )
Power Factor	-0.8 ~ +0.8
Battery Input Voltage Range	630Vdc ~ 1000Vdc
Max. Charging / Discharging Current	3420A ( 18 × 190A )
<b>MPPT Data</b>	
Max. PV Input Power	3600kW ( 18 × 200kW )
Max. PV Input Voltage	1000Vdc
Start-up Voltage	200Vdc
Max Operating PV Input Current	18 × ( 40+40+40+40+40+40+40 ) A
No. of MPP Trackers	144 ( 18 × 8 )
<b>System Data</b>	
<b>Grid Side Data</b>	
AC Rated Voltage / Frequency	400Vac / 50Hz ( 3L+N+PE )
AC Max Current	5400A
<b>Gen Side Data</b>	
AC Rated Voltage / Frequency	400Vac / 50Hz ( 3L+N+PE )
AC Max Current	3600A
<b>Load Side Data</b>	
AC Rated Voltage / Frequency	400Vac / 50Hz ( 3L+N+PE )
AC Max Current	2700A
<b>General Data</b>	
Operating Temperature	-25°C ~ +55°C
Humidity	0 ~ 95% ( No condensation )
Ingress Protection	IP54
Anticorrosion grade	≥C4
Altitude	≤2000m
Weight	6000kg
Dimensions ( W × D × H )	2991 × 2438 × 2896mm

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

