

# Deye

*To Make ESS Better*

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

Ver: 1.0 2023



## *World-leading Energy Storage System Provider*

Stock Code: 605117.SH

*Choose Deye — Choose a Green and Healthy Life*

**Deye**  
**2023**

# About Deye



## China Stock Code:605117

- ◆ Ningbo Deye Technology Co., Ltd. is a large - scale manufacturing technology enterprise integrating R&D,design,production,sales and services.
- ◆ Deye has four core industrial chains:
  - The solar inverter system
  - The Li battery energy storage system
  - The environmental electrical appliance series
  - The heat exchanger series
- ◆ Deye ESS base in CiXi city of Ningbo. More than 170,000square meter R&D center,battery pack,BMS, sheet metal processing, and spray factory. Deye ESS has15,000 sets(100,000 sets before 2025) ESS product capacity per month. Deye ESS product is certified by UL,CE etc

# Deye Milestones

**2022**

After a year and a half of energy storage product development and accumulation, up to now, Accumulative orders of energy storage products have exceeded 10,000 sets.

**2021**

Deye Group was successfully listed on SSE of China in 2021, Stock Code 605117.SH.

**2020**

Founded Deye ESS company and prepared to build a team with senior industry experience, Devoted to make ESS better.

**2019**

By the end of 2019, with total shipments 30,000+, Deye hybrid inverter has become Top 3 in South Africa, Pakistan and Top 1 Chinese brand in USA.

**2017**

Deye has launched first generation hybrid inverter and attracted a lot of attention with many unique features such as V/f droop control technology and battery DC / DC topology etc...

**2007**

Founded in 2007 with registered capital of 46 million USD.

# Core Technology

**Safer**

Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high-Power density. Intelligent BMS, providing complete protection.

**Reliable**

Support high discharge power. IP65, natural cooling, wide temperature range: -20°C to 55°C.

**Flexible**

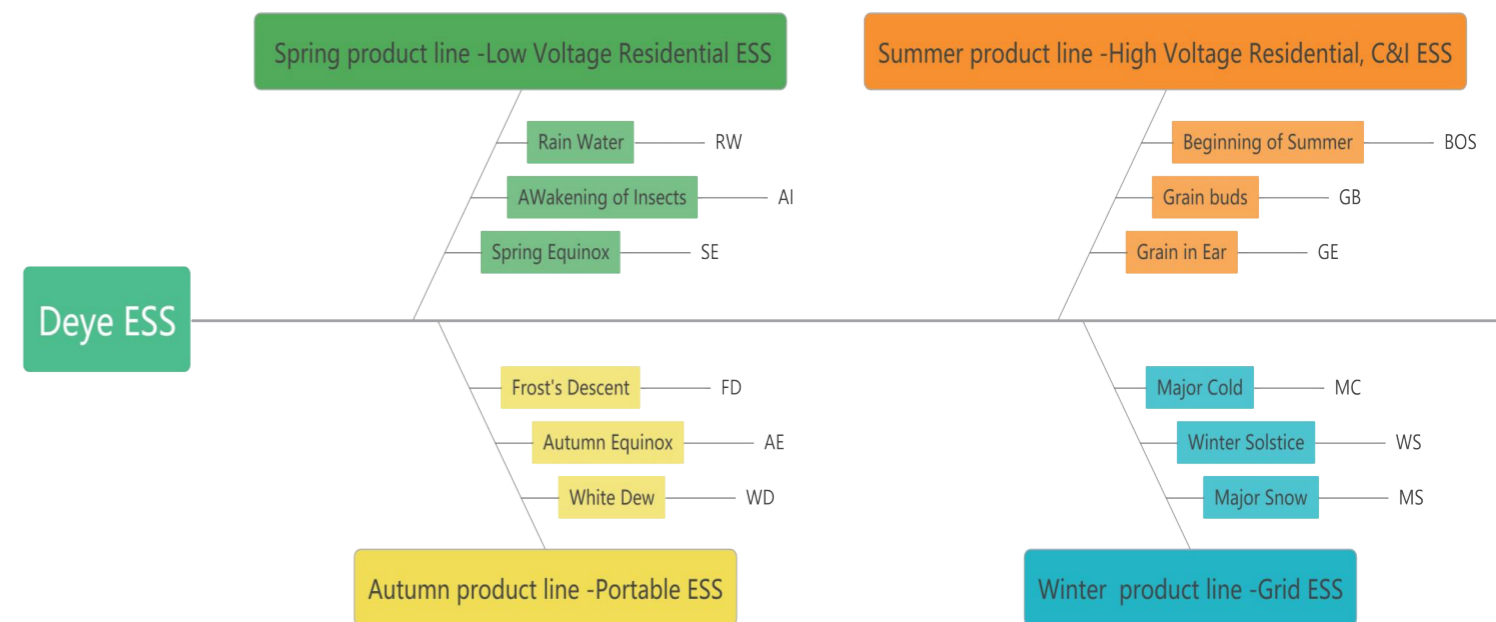
Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 163.8 kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.

**Convenient**

Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.

**Eco-Friendly**

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



# Product Display



# SE-G5.3



#### ◆ Safer

Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high power density. Intelligent BMS, providing complete protection.

#### ◆ Reliable

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

#### ◆ Flexible

Modular design, easy to expand, Max. 64 units in parallel, Max. capacity of 340kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.

#### ◆ Convenient

Battery module auto networking, easy maintenance, support remotely monitoring and upgrade, support USB drive upgrade the firmware.

#### ◆ Eco-Friendly

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

## Technical Data

Model		SE-G5.3
<b>Main Parameter</b>		
Battery Chemistry		LiFePO <sub>4</sub>
Capacity(Ah)		104
Scalability		Max. 64 pcs pack (340kWh) in parallel (Max. 32 pcs no external setup)
Nominal Voltage(V)		51.2
Operating Voltage(V)		43.2~57.6
Energy (kWh)		5.32
Usable Energy (kWh) <sup>[1]</sup>		4.79
Charge/Discharge Current(A)	Recommend <sup>[2]</sup>	34
	Max. <sup>[2]</sup>	80
	Peak	100 (10mins,25 °C)
<b>Other Parameter</b>		
Recommend Depth of Discharge		90%
Dimension (W/H/D,mm)		440*133*560
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) / Discharge: -20°C ~ 55°C
Storage Temperature		0°C~ 35°C
Humidity		5%~95%
Altitude		≤2000m
Cycle Life		≥4000(25 °C±2°C,0.2C/0.2C 90% DOD ,70%EOL)
Installation		19-inch standard cabinet, cabinet depth ≥600mm / with rack
Communication Port		CAN2.0, RS485
Warranty Period <sup>[3]</sup>		5 years
Energy Throughput <sup>[3]</sup>		8MWh@70%EOL
Certification		CE,IEC62619,UN38.3

[1] DC Usable Energy, test conditions: 90% DOD, 0.3C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or Energy Throughput .

### Introduction

This series lithium iron phosphate battery is one of new energystorage products developed and produced by Deye, it can be used to support reliable power for various types of equipment and systems.

This series is especially suitable for application scene of high power,limited installation space, restricted loadbearing and long cycle life.

This series battery has built-in BMS ( Battery Management System ), which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging to extend cycle life.

Multiple batteries can connect in parallel for larger capacity and longer power supporting duration requirements.

# SE-G5.1 Pro



- ◆ **Safer:**  
Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high-Power density. Intelligent BMS, providing complete protection.
- ◆ **Reliable:**  
Support high discharge power. IP20, natural cooling, wide temperature range: -20°C to 55°C.
- ◆ **Flexible:**  
Modular design, easy to expand, Max. 64 units in parallel, Max. capacity of 327kWh.  
Suited to residential and commercial applications for increasing the self-consumption ratio.
- ◆ **Convenient:**  
Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.
- ◆ **Eco-Friendly:**  
Use environmental protection materials, the whole module non-toxic, pollution-free.

## Technical Data

Model		SE-G5.1 Pro
Main Parameter		
Battery Chemistry		LiFePO <sub>4</sub>
Capacity (Ah)		100
Scalability(Max. in 1 battery group)		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>		4.61
Charge/Discharging Current(A)	Recommend <sup>[2]</sup>	50
	Max <sup>[2]</sup>	100
	Peak (2 mins,25°C)	150
Other Parameter		
Depth of Discharge		90%
Dimension (W/D/H,mm)		445*133*430
Weight Approximate (kg)		45
Master LED indicator		5LED(SOC:20%~100%), 3LED(working,alarming,protecting)
IP Rating of Enclosure		IP20
Altitude		≤2000m
Working Temperature (°C)		Charge: 0~55/Discharge: -20~55
Storage Temperature(°C)		0~35
Humidity		5%~95%
Cycle Life		25±2°C ,0.5C/0.5C,70%EOL≥6000
Installation Location		19-inch standard cabinet, cabinet depth ≥600mm / with rack
Communication Port		CAN2.0, RS485
Warranty		10 years
Life Cycle Power During Warranty Period <sup>[3]</sup>		16MWh@70%EOL
Certification		UL1973, IEC62619, IEC61000, CE, UN38.3,UKCA,VDE 2510-50,UL9540A,FCC,CEC

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

### Introduction

This series lithium iron phosphate battery is one of new energystorage products developed and produced by Deye , it can be used to support reliable power forvarious types of equipment and systems.

This series is especially suitable for application scene of high power,limited installation space, restricted load- bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple batteries can connect in parallel to expand capacity and power in parallel for larger capacity and longer power supporting duration requirements.

# SE-G15.3 SE-G20.4



- ◆ **Safer**  
Cobalt Free Lithium Iron Phosphate (LFP) Battery, Safety and long Lifespan. Intelligent BMS, providing complete protection.
- ◆ **Reliable**  
High efficiency and high discharge power, natural cooling, wide temperature range: -4°F (-20°C) to 131°F (55°C).
- ◆ **Flexible**  
Modular design, module capacity 5kWh, easy to expand, Max. 8 sets in parallel, Max. capacity of 163.8 kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.
- ◆ **Convenient**  
The battery module has automatic IP address, easy maintenance, and supports the upgrade of the battery firmware through the inverter.
- ◆ **Eco-Friendly**  
Use environmental protection materials, the whole module non-toxic, pollution-free.

## Technical Data

Model	SE -G15.3	SE -G20.4
<b>Main Parameter</b>		
Battery Chemistry	LiFePO <sub>4</sub>	
Capacity(Ah)	300	400
Scalability	Max.8 units in parallel	
Nominal Voltage (V)	51.2	
Operating Voltage(V)	43.2~57.6	
Energy (kWh)	15.36	20.48
Usable Energy (kWh) <sup>[1]</sup>	13.82	18.43
Charge/Discharge Current (A)	Recommend <sup>[2]</sup>	150
	Max. <sup>[2]</sup>	200
	Peak(10s, 25°C)	360
<b>Other Parameter</b>		
Recommend Depth of Discharge	90%	
Dimension (W×D×H)	20.5"×13.1"×52.9" (520×333×1,345mm, with base)	
Weight Approximate	379 lbs. (172kg)	476 lbs. (216kg)
Enclosure Protection Rating	Type 3R (IP55)	
Operating Temperature	Charge: 32°F ~ 131°F (0 ~ 55°C) Discharge: -4°F ~ 131°F (-20°C ~ 55°C)	
Operating Temperature(Recommended)	59°F ~ 86°F (15°C ~ 30°C)	
Storage Temperature	32°F ~ 95°F (0°C ~ 35°C)	
Humidity	5%~95%	
Altitude	≤Max. 6,562 ft (2,000m)	
Cycle Life	≥6,000(25 °C±2°C,0.5C/0.5C,70%EOL)	
Installation	Floor-Mounted	
Communication Port	CAN2.0, RS485	
Warranty Period <sup>[3]</sup>	10 years	
Certification	UL1973, UL9540A, FCC, IEC62619, UN38.3,CEC,VDE,UKCA, CE,CEI0-21	

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

### Introduction

This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye, it can be used to support reliable power for various types of equipment and systems.

This series is especially suitable for application scene of high power, limited installation space, restricted loadbearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple batteries can connect in parallel for larger capacity and longer power supporting duration requirements.

# RW-L2.5



- ◆ **Safer**  
Cobalt Free Lithium Iron Phosphate (LFP) Battery, safety and long lifespan, high efficiency and high-energy density
- ◆ **Reliable**  
Intelligent BMS, providing complete protection. Natural cooling, IP 54, wide temperature range: -20°C to +55°C.
- ◆ **Flexible**  
Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 82kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.
- ◆ **Convenient**  
Battery module auto networking, easy maintenance, support remotely monitoring and upgrade, support USB drive upgrade the firmware.
- ◆ **Eco-Friendly**  
Use environmental protection materials, the whole module non-toxic, pollution-free.
- ◆ **Wall-Mounted**  
Flat design, wall-mounted, saving installation space.

## Technical Data

Model		RW - L2.5
<b>Main Parameter</b>		
Battery Chemistry	LiFePO <sub>4</sub>	
Capacity(Ah)	100	
Scalability	Max.32 pcs in Parallel(82kWh)	
Nominal Voltage (V)	25.6	
Operating Voltage (V)	21.6~28.8	
Energy(kWh)	2.56	
Usable Energy (kWh) <sup>[1]</sup>	2.30	
Charge/Discharge Current (A)	Recommend <sup>[2]</sup>	34
	Max. <sup>[2]</sup>	80
	Peak	100 (10mins,25 °C)
<b>Other Parameter</b>		
Recommend Depth of Discharge	90%	
Dimension (W/H/D,mm)	380*450*215( without Hanging Board )	
Weight Approximate(kg)	28	
Master LED Indicator	5LED(SOC:20%~SOC100%),3LED (working, alarming, protecting)	
IP Rating of Enclosure	IP54	
Operating Temperature	Charge:0 ~ +55°C / Discharge: -20°C ~ +55°C	
Storage Temperature	-20°C ~ +35°C	
Humidity	5%~95%	
Altitude	≤2000m	
Cycle Life	≥4000(25 °C ± 2°C,0.2C/0.2C,90%DOD,70%EOL)	
Installation	Wall -Mounted	
Communication Port	CAN2.0, RS485	
Warranty Period <sup>[3]</sup>	5 years	
Energy Throughput <sup>[3]</sup>	4MWh@70%EOL	
Certification	UN38.3, MSDS	

[1] DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or energy throughput.

### Introduction

This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye , it can be used to support reliable power for various types of equipment and systems.

This series is especially suitable for application scene of low power, limited installation space, restricted load-bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple batteries can connect in parallel for larger capacity and longer power supporting duration requirements.



# RW-M5.3



- ◆ **Safer**  
Cobalt Free Lithium Iron Phosphate (LFP) Battery, safety and long lifespan, high efficiency and high-energy density.
- ◆ **Reliable**  
Intelligent BMS, providing complete protection. Natural cooling, IP 54, wide temperature range: -20°C to 55°C.
- ◆ **Flexible**  
Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 170 kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.
- ◆ **Convenient**  
Battery module auto networking, easy maintenance, support remotely monitoring and upgrade, support USB drive upgrade the firmware.
- ◆ **Eco-Friendly**  
Use environmental protection materials, the whole module non-toxic, pollution-free.
- ◆ **Wall-Mounted**  
Flat design, wall-mounted, saving installation space.

## Technical Data

Model		RW-M5.3
<b>Main Parameter</b>		
Battery Chemistry	LiFePO <sub>4</sub>	
Capacity (Ah)	104	
Scalability	Max.32 pcs in Parallel(170kWh)	
Nominal Voltage(V)	51.2	
Operating Voltage (V)	43.2~57.6	
Energy(kWh)	5.32	
Usable Energy(kWh) <sup>[1]</sup>	4.79	
Charge/Discharge Current(A)	Recommend <sup>[2]</sup>	34
	Max. <sup>[2]</sup>	80
	Peak	100 (10mins,25 °C)
<b>Other Parameter</b>		
Recommend Depth of Discharge	90%	
Dimension(W/H/D,mm)	380*620*140( Without Hanging Board )	
Weight Approximate(kg)	44	
Master LED Indicator	5LED(SOC:20%~SOC100%),3LED (working, alarming, protecting)	
IP Rating of Enclosure	IP54	
Operating Temperature	Charge:0 ~55 °C / Discharge: -20 °C~55 °C	
Storage Temperature	0°C~35°C	
Humidity	5%~95%	
Altitude	≤2000m	
Cycle Life	≥4000(25 °C±2°C,0.2C/0.2C,70%EOL)	
Installation	Wall -Mounted	
Communication Port	CAN2.0, RS485	
Warranty Period <sup>[3]</sup>	5 years	
Energy Throughput <sup>[3]</sup>	8MWh@70%EOL	
Certification	UN38.3, IEC62619, CE, CEI 0-21	

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25 °C . System usable energy may vary due to system configuration parameters

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

[3] The warranty is due whichever reached first of warranty period or energy throughput.

### Introduction

This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye , it can be used to support reliable power for various types of equipment and systems.

This series is especially suitable for application scene of low power, limited installation space, restricted load-bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple batteries can connect in parallel for larger capacity and longer power supporting duration requirements.

# RW-M6.1



## Technical Data

Model		RW-M6.1
Main Parameter		
Battery Chemistry		LiFePO <sub>4</sub>
Capacity (Ah)		120
Scalability (max. in 1 battery group)		Max.32 in Parallel(196kWh)
Nominal Voltage (V)		51.2
Operating Voltage(V)		43.2~57.6
Energy (kWh)		6.14
Usable Energy (kWh) <sup>[1]</sup>		5.53
Charge/Discharge Current (A)	Recommend <sup>[2]</sup>	60
	Max <sup>[2]</sup>	100
	Peak (2 mins,25°C)	150
Other Parameter		
Recommend Depth of Discharge		90%
Dimension (W/H/D,mm)		460x720x143
Weight Approximate (kg)		55
Master LED Indicator		5LED(SOC:20%~100%), 3LED (working, alarming, protecting)
IP Rating of Enclosure		IP65
Working Temperature (°C)		Charge:0 ~ 55/Discharge:-20 ~ 55
Storage Temperature		0°C ~ 35°C
Humidity		5%~95%
Altitude		≤2000m
Cycle Life		25°C±2°C, 0.5C/0.5C,70%EOL≥6000
Installation		Wall-Mounted, Floor-Mounted
Communication Port		CAN2.0, RS485
Warranty		10 years
Life Cycle Power During Warranty Period <sup>[3]</sup>		20MWh@70%EOL
Certification		UL1973, FCC, IEC62619, CEI 0-21, UN38.3, UKCA, VDE 2510-50

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

### Introduction

This series lithium iron phosphate battery is one of new energystorage products developed and produced by Deye , it can be used to support reliable power forvarious types of equipment and systems.

This series is especially suitable for application scene of high power,limited installation space, restricted load- bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple batteries can connect in parallel to expand capacity and power in parallel for larger capacity and longer power supporting duration requirements.



#### ◆ Safer:

Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high-Power density. Intelligent BMS, providing complete protection.

#### ◆ Reliable:

Support high discharge power. IP65, natural cooling, wide temperature range: -20°C to 55°C.

#### ◆ Flexible:

Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 196kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.

#### ◆ Convenient:

Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.

#### ◆ Eco-Friendly:

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

#### ◆ Wall-Mounted:

High-power density:  
Flat design, wall-mounted, saving installation space.

# AIO-Cabinet-EU/US



## All-in-one Energy Storage System

- ◆ All-in-one design, could integrated 3kW~16kW low voltage hybrid inverter and 5kWh~30kWh battery
- ◆ Comfortable and easy control via App, PC or Touch-Display
- ◆ Leading smart application: peak-shaving, smart load, AC couple etc.
- ◆ Modular lithium iron phosphate battery, module capacity 5kWh, scalable and safety
- ◆ Flat design, floor mount, Simple line design, quick and easy installation
- ◆ Fast switching time of 4ms, ensuring your energy security

## Technical Data

Model	AIO - Cabinet - EU	AIO - Cabinet - US
<b>System Specification</b>		
Hybrid Inverter Model	SUN -3/3.6/5/6K -SG04LP1 -EU SUN -3.6/5/6K -SG03LP1-EU SUN -3.6/5/6/7.6/8K -SG05LP1-EU SUN -12/14/16K -SG01LP1-EU	SUN -5/6/8/10/12K -SG04LP3-EU SUN -5/6K -SG01LP1-US SUN -7.6/8K -SG01LP1-US
Grid Type	Single phase	Three phase Split phase
AC Input/Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac	50/60Hz; 3L/N/PE 220/380, 230/400Vac 60Hz(55Hz -65Hz); L1/L2/N(PE) 120/240/208Vac
Battery Energy Configuration	5kWh ~ 30kWh	
Dimension (W x D x H)	Cabinet Type I : 39.4 " × 13.8 " × 61.8 " (1,000 × 350 × 1,570 mm) Cabinet Type II : 25.6 " × 19.1 " × 78.7 " (650 × 485 × 2,000 mm)	
Cabinet Weight Approximate	Cabinet Type I : 198 lbs.(90kg) Cabinet Type II : 187 lbs.(85kg)	
Max. Charging/Discharging Current (A)	Depends on the inverter model and Battery QTY. (70A ~ 250A)	
Battery Operating Voltage (V)	43.2 ~ 57.6	
Battery Chemistry	LiFePO <sub>4</sub>	
Enclosure Protection Rating	NEMA 3R (IP54)	
Display	LCD(inverter)	
Installation Style	Floor-Mounted	
Warranty	5 years	
<b>Inverter Technical Specification</b>		
Depends on the inverter model		
Communication with BMS	CAN	
Safety EMC / Standard	UL1741, FCC, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4	
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150	
Max. Efficiency	97.60%	
Max. charging/discharging efficiency	95.00%	
<b>Battery Technical Specification</b>		
Nominal Voltage (V)	51.2	
Battery Module Energy (kWh)	5.12	
Battery Module Dimension	16.5"×9.2"×26.4" (445×430×133mm)	
Battery Module Weight	97 lbs.(44kg)	
Operating Temperature Range	Charge: 32 °F ~ 131 °F (0~ 55°C), Optional Heating (Charge: -20°C ~ 55°C) Discharge: -4°F ~ 131 °F (-20°C ~ 55°C)	
Operating Temperature (Recommended)	59°F ~ 86°F (15°C ~ 30°C)	
Storage Temperature	32°F ~ 95°F (0°C ~ 35°C)	
Humidity	5%~95%	
Altitude	≤Max. 6562 ft (2,000m)	
Cycle Life	≥6,000(@25 °C±2°C, 0.5C/0.5C, 70%EOL)	
Battery Module Certification	UN38.3, IEC62619, CE, VDE2510 -50, CEI 0-21, UL1973, UL9540A, FCC	

# AI0-7.6K-15-US AI0-7.6K-20-US



## All-in-one Energy Storage System

- ◆ All-in-one design, integrated 7.6 kW hybrid inverter and 15kWh~20kWh battery
- ◆ Comfortable and easy control via App, PC or Touch -Display
- ◆ Leading smart application: peak -shaving, smart load, AC couple etc .
- ◆ Modular lithium iron phosphate battery, module capacity 5 kWh, scalable and safety
- ◆ Flat design, floor mount, Simple line design, quick and easy installation
- ◆ Fast switching time of 4ms, ensuring your energy security

## Technical Data

Model	AI0-7.6k-15-US	AI0-7.6k-20-US
<b>System Specification</b>		
Nominal AC Output Power/UPS Power (W)	7,600 / 7,600	
AC Input/Output Frequency and Voltage	60Hz(55Hz - 65Hz); L1/L2/N(PE) 120/240/208Vac	
Grid Type	Split phase	
Energy Configuration (kWh)	15.36	20.48
Dimension (W x D x H)	39.4"×13.8"×61.8" (1,000×350×1,570mm)	
Weight Approximate	540 lbs.(245kg)	639 lbs.(290kg)
Max. Charging/Discharging Current (A)	190	
Battery Operating Voltage (V)	43.2 ~ 57.6	
Battery Chemistry	LiFePO4	
Enclosure Protection Rating	NEMA 3R	
Display	LCD	
System Certification	UL1973, UL9540A, UN38.3	
Installation Style	Floor -Mounted	
Warranty	10 years	
<b>Inverter Technical Specification</b>		
Max. PV Input Power(W)	9880(if more than 9880W will limit power operation)	
Max. PV Input Current(A)	26+26	
Rated PV Input Voltage(Vdc)	370 (125~500)	
Start Up DC Voltage(Vdc)	125	
MPPT Voltage Range (Vdc)	150~425	
Max. PV Short -circuit Current (A)	44+44	
Number of MPPT	2	
Peak Power (off grid)	2 time of rated power, 10s	
Power Factor	0.8 leading to 0.8 lagging	
DC injection current (mA)	THD<3% (Linear load<1.5%)	
Operating Temperature Range	-40 ℉ ~140 ℉ (-40 ℃ ~60 ℃ , >45 ℃ derating)	
Dimension (W ×D×H)	16.5"×9.2"×26.4" (420×233×670mm)	
Weight Approximate	70.5 lbs.(32kg)	
Communication with BMS	CAN	
Safety EMC / Standard	UL1741, FCC, IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4	
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150	
Max. Efficiency	97.60%	
Max. charging/discharging efficiency	95.50%	
<b>Battery Technical Specification</b>		
Nominal Voltage (V)	51.2	
Battery Module Energy (kWh)	5.12	
Battery Module Dimension	16.5"×9.2"×26.4" (445×430×133mm)	
Battery Module Weight	97 lbs.(44kg)	
Operating Temperature Range	Charge: 32 ℉ ~ 131 ℉ (0 ~ 55 ℃) Discharge: -4 ℉ ~ 131 ℉ (-20 ℃ ~ 55 ℃)	
Operating Temperature (Recommended)	59 ℉ ~ 86 ℉ (15 ℃ ~ 30 ℃)	
Storage Temperature	32 ℉ ~ 95 ℉ (0 ℃ ~ 35 ℃)	
Humidity	5%~95%	
Altitude	≤Max. 6562 ft (2,000m)	
Cycle Life	≥6,000(@25℃±2℃, 0.5C/0.5C, 70%EOL)	
Battery Module Certification	UL1973, UL9540A, FCC, IEC62619, UN38.3 ,CEC,VDE,UKCA,CE	

# AI-W5.1



- ◆ **Safer:**  
Cobalt Free Lithium Iron Phosphate (LFP) Battery: Safety and long Lifespan, high efficiency and high-Power density. Intelligent BMS, providing complete protection.
- ◆ **Reliable:**  
Support high discharge power. IP65, natural cooling, wide temperature range: -20°C to 55°C.
- ◆ **Flexible:**  
Modular design, easy to expand, Max. 6 clusters in parallel(36 pcs), Max. capacity of 184kWh.  
Suited to residential and commercial applications for increasing the self-consumption ratio.
- ◆ **Convenient:**  
Battery module auto networking, Automatic IP addressing, Easy maintenance, remotely monitoring and upgrade, Support USB drive upgrade the firmware.
- ◆ **Eco-Friendly:**  
Use environmental protection materials, the whole module non-toxic, pollution-free.
- ◆ **Quick Installation :**  
Flat and stackable design, floor or wall mount, no wiring and extra fixing screws, quick and easy installation.

## Technical Data

Model		AI-W5.1				
Main Parameter						
Battery Chemistry		LiFePO4				
Battery Module Energy (kWh)		5.12				
Battery Module Voltage (V)		51.2				
Battery Module Capacity (Ah)		100				
Nominal Voltage (V)		51.2				
Operating Voltage (V)		43.2~57.6				
Scalability(Max. in 1 battery group)		2	3	4	5	6
Energy (kWh)		10.24	15.36	20.48	25.6	30.72
Usable Energy (kWh) <sup>[1]</sup>		9.2	13.8	18.4	23.0	27.6
Charge/Discharging Current(A) <sup>[2]</sup>	Recommend	100	150	200	250	250
	Max <sup>[3]</sup>	180	210	240	300	300
	Peak (2 mins,25°C)	270	315	360	360	360
Other Parameter						
Depth of Discharge		90%				
Dimension (W/D/H,mm)		697*240*766	697*240*1049	697*240*1332	697*240*1615	697*240*1898
Weight (kg)		117	163	209	255	301
Master LED Indicator		5LED(SOC:20%~100%), 3LED(working, alarming, protecting)				
IP Rating of Enclosure		IP65				
Altitude		≤2000m				
Working Temperature (°C)		Charge: 0~55/Discharge: -20~55				
Storage Temperature (°C)		0 ~ 35				
Humidity		5%~95%				
Cycle Life		@25±2°C,0.5C/0.5C,70%EOL≥6000				
Installation Location		Floor Mounted, Wall Mounted				
Communication Port		CAN2.0, RS485				
Warranty <sup>[3]</sup>		10 years				
Life Cycle Power During Warranty Period <sup>[3]</sup>		16MWh(Battery Module @70%EOL)				
Certification		IEC62619, CE, VDE2510-10, UN38.3, UKCA				

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

### Introduction

This series lithium iron phosphate battery is one of new energystorage products developed and produced by Deye , it can be used to support reliable power forvarious types of equipment and systems.

This series is especially suitable for application scene of high power,limited installation space, restricted load- bearing and long cycle life.

This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging and discharging to extend cycle life.

Multiple batteries can connect in parallel to expand capacity and power in parallel for larger capacity and longer power supporting duration requirements.

# AI-W5.1-5/6/8P1-EU AI-W5.1-8/10/12P3-EU



## All-in-one Energy Storage System

- ◆ All-in-one design, integrated 5/8/12KW hybrid inverter and battery
- ◆ Comfortable and easy control via App, PC or Touch-Display
- ◆ Leading smart application: peak-shaving, smart load, AC couple etc
- ◆ Modular lithium iron phosphate battery, capacity of 5kWh~30kWh, scalable and safety
- ◆ Flat and stackable design, floor or wall mount, no wiring and extra fixing screws, quick and easy installation.
- ◆ Fast switching time of 4ms, ensuring your energy security.

## Technical Data

Model	AI-W5.1-5P1-EU	AI-W5.1-6P1-EU	AI-W5.1-8P1-EU	AI-W5.1-8P3-EU	AI-W5.1-10P1-EU	AI-W5.1-12P3-ES
<b>System Specification</b>						
Nominal Output Power/UPS Power (W)	5000 / 5000	6000 / 6000	8000 / 8000		10000 / 10000	12000 / 12000
AC Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac			50/60Hz; 3L/N/PE 220/380, 230/400Vac		
Grid Type	Single Phase			Three Phase		
Energy Range	5kWh~30kWh(Single system)					
Recommended Energy Configuration	5kWh (Min.)		10kWh (Min.)		15kWh (Min.)	
Max. Charging/Discharging Current (A)	120	135	190		210	240
Battery Operating Voltage (V)	43.2~57.6					
Battery Chemistry	LiFePO4					
IP Rating of Enclosure	IP65					
System Certification	IEC62619,IEC60730,CE,VDE2510-10, CEI 0-21					
Warranty	10 years					
<b>Inverter Technical Specification</b>						
Max. PV Input Power (W)	6500	7800	10400		15600	19500
Max. PV Input Current (A)	13+13		26+26	13+13	26+13	
Rated PV Input Voltage (Vdc)	370 (125~500)			550 (160~800)		
Start Up DC Voltage (Vdc)	125			160		
MPPT Voltage Range (Vdc)	150-425			200-650		
Max. PV Short-circuit Current (A)	17+17		34+34	17+17	34+17	
No. of MPP Tracker	2					
Peak Power (off grid)	2 time of rated power, 10s					
Power Factor	0.8 leading to 0.8 lagging					
DC injection current (mA)	THD<3% (Linear load<1.5%)					
Display	LCD					
Operating Temperature Range (°C)	-40~60(>45°C derating)					
Relative Humidity	15% ~ 85% (No Condensing)					
Dimension (W x D x H,mm)	720x255x330			720x255x440		
Weight Appr. (kg)	32			36		
Communication with BMS	CAN					
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4,IEC/EN 62109-1,IEC/EN 62109-2					
Grid Regulation	CEI 0-21,VDE-AR-N 4105,NRS 097,IEC 62116, IEC 61727,G99,G98, VDE 0126-1-1,RD 1699,C10-11					
Max. Efficiency	97.60%					
Max. charging/discharging efficiency	95.50%					
<b>Battery Technical Specification</b>						
Nominal Voltage (V)	51.2					
Battery Module Energy (kWh)	5.12					
Scalability	Max.6 systems in parallel(36 pcs), Max. capacity of 184kWh					
Battery Module Dimension (W x D x H,mm)	720*255*285					
Battery Base Dimension (W x D x H,mm)	720*255*85					
Battery PDU Dimension (W x D x H,mm)	720*255*110					
Battery Module Weight Appr. (kg)	53					
Operating Temperature Range	Charge: 0~55°C / Discharge: -20°C~+55°C					
Cycle Life	≥6000(@25°C±2°C,0.5C/0.5C,70%EOL)					
Battery Module Certification	IEC62619, CE, VDE2510-10, CEI 0-21, UN38.3, UL1973, FCC					



◆ **Convenient**

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

◆ **Safe and reliable**

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

◆ **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.

◆ **Flexible configuration**

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

◆ **Wide temperature**

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

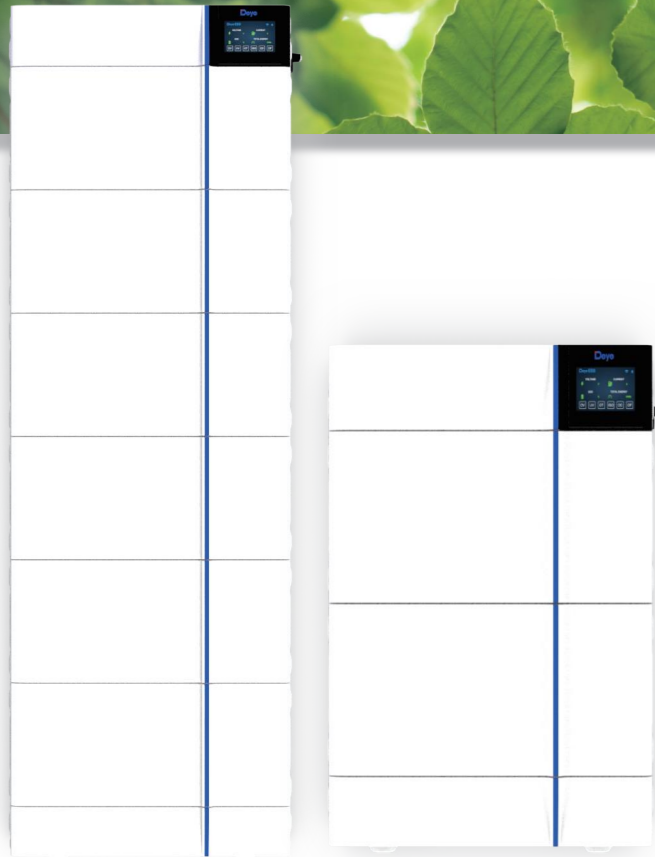
## Technical Data

Model		BOS-G	
Main Parameter			
Cell Chemistry	LiFePO4		
Module Energy (kWh)	5.12		
Module Nominal Voltage (V)	51.2		
Module Capacity (Ah)	100		
Battery Module Qty in series. (Optional)	3 (Min)	8 (Standard US Cluster)	12 (Standard EU Cluster)
System Nominal Voltage (V)	153.6	409.6	614.4
System Operating voltage (V)	124.8~175.2	332.8~467.2	499.2~700
System Energy (kWh)	15.36	40.96	61.44
System Usable Energy (kWh) <sup>[1]</sup>	13.8	36.86	55.29
Charge/Discharge Current (A) <sup>[2]</sup>	Recommend	50	
	Max	100	
	Peak Discharge (2 mins, 25°C)	125	
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	≤2000 m		
IP Rating of Enclosure	IP20		
Dimension (W/D/H,mm)	589*590*1640		589*590*2240
Weight Approximate (kg)	258	434	628
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 <sup>[3]</sup>	10 years		
Certification	CE, IEC62619, UL1973, UL9540A, UN38.3		

[1] DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.



◆ **Structural safety:**

Meet high seismic grade zone 4.

◆ **High-voltage stack:**

Modules are connected in series without cable connection, and high-voltage platform improves system efficiency.

◆ **Thermal management:**

Temperature detection of key parts, cell, power plug-in, etc.

◆ **Wide temperature operation:**

The heating function is optional to meet the application scenarios with low temperature and no sense.

◆ **Environmental friendliness:**

IP protection grade 65, anti-corrosion grade  $\geq$ C2, environmental protection battery.

◆ **Intelligent and visual:**

Support remote upgrade, real-time battery warning information push, LCD data display.

## Technical Data

Model		GB-L				
Main Parameter						
Cell Chemistry	LiFePO <sub>4</sub>					
Module Energy (kWh)	4.09					
Module Nominal Voltage (V)	102.4					
Module Capacity (Ah)	40					
Battery Module Qty In Series (Optional)	2	3	4	5	6	
System Nominal Voltage (V)	204.8	307.2	409.6	512	614.4	
System Operating voltage (V)	166.4~700					
System Energy (kWh)	8.18	12.27	16.36	20.45	24.56	
System Usable Energy (kWh) <sup>[1]</sup>	7.36	11.04	14.72	18.40	22.10	
Charge/Discharge Current (A) <sup>[2]</sup>	Recommend	20				
	Max	40				
	Peak Discharge (2 mins,25°C)	50				
Working Temperature (°C)	Charge:0~55/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/D/H,mm)	540*385*650	540*385*870	540*385*1090	540*385*1310	540*385*1530	
Weight(kg)	97	136	175	214	253	
Installation Location	Floor Mount					
Recommend Depth of Discharge	90%					
Cycle Life	25±2,0.5C/0.5C, EOL70%≥6000					
Warranty <sup>[3]</sup>	10 years					
Certification	CE, IEC62619, VDE2510-50, UL1973, UL9540A, UN38.3					

[1] DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

[3] The warranty is due whichever reached first of warranty period or life cycle power.

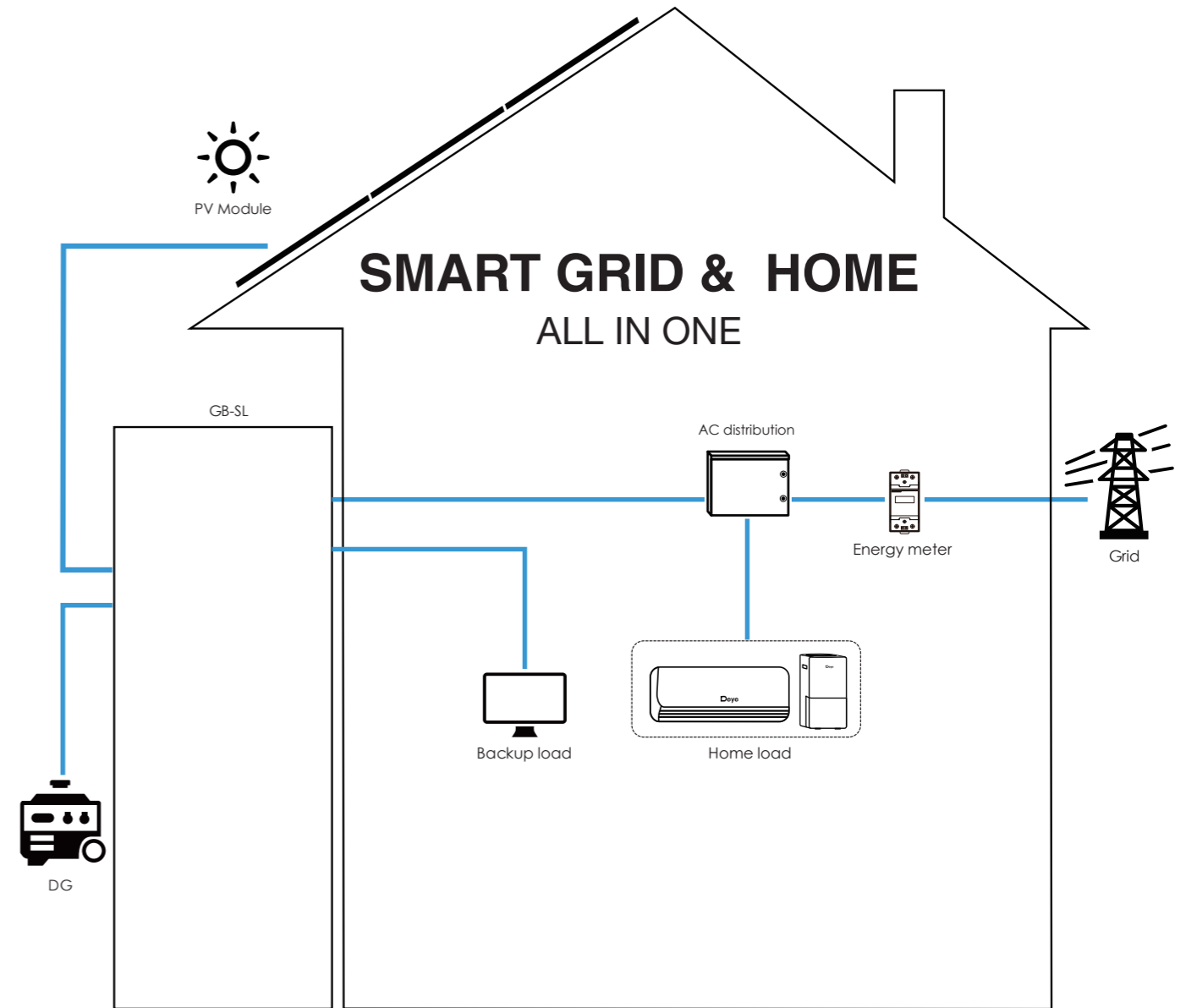


# GB-SL-EU



- ◆ **ALL IN ONE**  
Integrated design, beautiful appearance and scene integration
- ◆ **Maximum output**  
100% unbalanced output, each phase; Max. output up to **50%** rated power
- ◆ **Maximum connection**  
Max. 10pcs parallel for on-grid and off-grid operation;
- ◆ **More support**  
Support storing energy from diesel generator
- ◆ **High-voltage stack**  
Modules are connected in series without cable connection, and high-voltage platform improves system efficiency
- ◆ **Thermal management**  
Temperature detection of key parts, cell, power plug-in, etc
- ◆ **Wide temperature operation**  
The heating function is optional to meet the application scenarios with low temperature and no sense

## Typical Application Diagram



## Technical Data GB-SL-EU

Model	GB-S6K-EU	GB-S8K-EU	GB-S10K-EU	GB-S12K-EU	GB-S15K-EU	GB-S20K-EU
<b>Battery Input Data</b>						
Battery Type	Li-ion					
Battery Voltage Range (V)	150~700					
Max. Charging Current (A)	37					
Max. Discharging Current (A)	37					
Number of battery input	1					
Charging Strategy for Li-Ion Battery	Self-adaption to BMS					
<b>PV String Input Data</b>						
Max. DC Input Power (W)	7800	10400	13000	15600	19500	26000
Max. DC Input Voltage (V)	1000					
Start-up Voltage (V)	150					
MPPT Range (V)	150-850					
Full Load DC Voltage Range (V)	195-850	260-850	325-850	340-850	423-850	500-850
Rated DC Input Voltage (V)	600					
PV Input Current (A)	20+20		26+20		26+26	
Max. PV I <sub>sc</sub> (A)	23+23		32+23		32+32	
No. of MPP Trackers	2					
No. of Strings per MPP Tracker	1		2+1		2	
<b>AC Output Data</b>						
Rated AC Output and UPS Power (W)	6000	8000	10000	12000	15000	20000
Max. AC Output Power (W)	6600	8800	11000	13200	16500	22000
AC Output Rated Current (A)	9.1	12.2	15.2	18.2	22.8	30.3
Max. AC Current (A)	13	18	22	25	30	35
Max. Continuous AC Passthrough (A)	80					
Peak Power (off grid)	1.5 time of rated power, 10 S					
Generator input/Smart load /AC couple current (A)	9.1 / 80 / 9.1	12.2 / 80 / 12.2	15.2 / 80 / 15.2	18.2 / 80 / 18.2	22.8 / 80 / 22.8	30.3 / 80 / 30.3
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%I <sub>n</sub>					
<b>Efficiency</b>						
Max. Efficiency	97.60%					
Euro Efficiency	97.00%					
MPPT Efficiency	99.90%					
<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					
<b>Certifications and Standards</b>						
Grid Regulation	EN50549, AS4777.2:2015, VDE0126-1-1, IEC61727, VDEN4105-2018, G99					
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	Smart cooling					
Communication with BMS	RS485; CAN					
Warranty	5 years					

## Technical Data GB-SL-EU

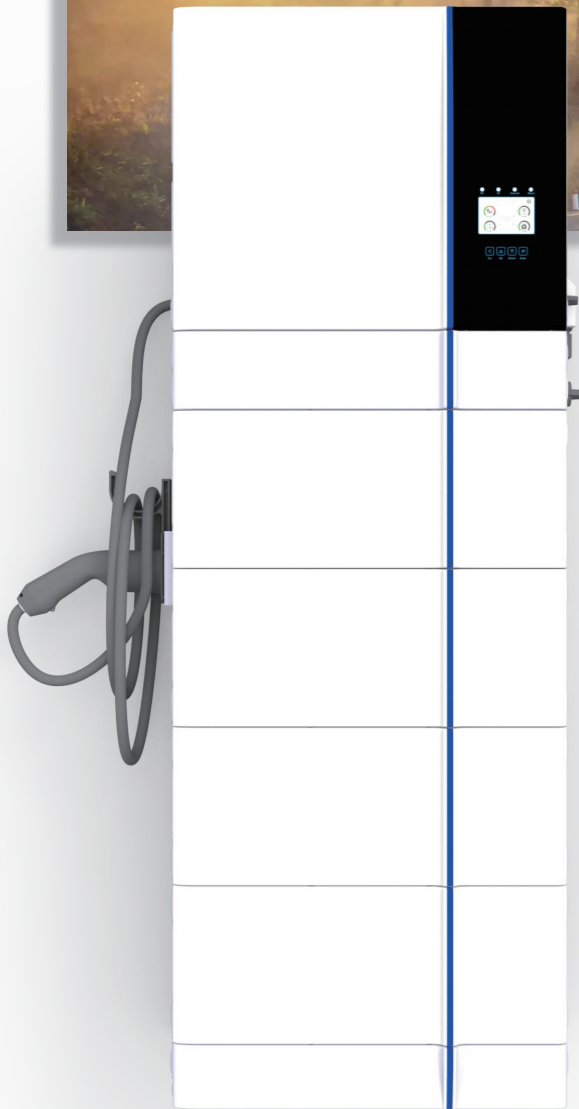
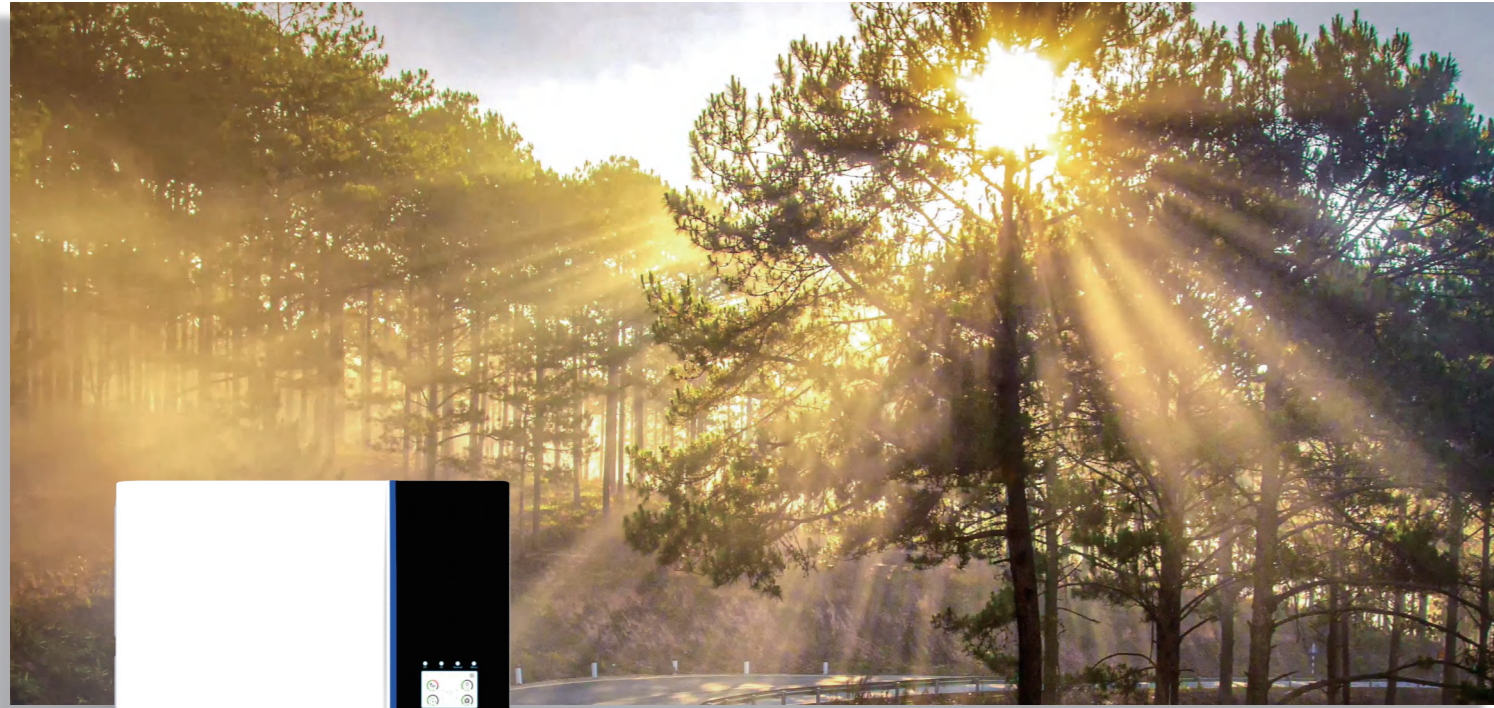
Model	GB-L				
<b>Battery System Data</b>					
Cell Chemistry	LiFePO4				
Module Energy (kWh)	4.09				
Module Nominal Voltage (V)	102.4				
Module Capacity (Ah)	40				
Battery Module Qty in series.(Optional)	2	3	4	5	6
System Nominal Voltage (V)	204.8	307.2	409.6	512	614
System Operating voltage (V)	179.2~ 691.2				
System Energy (kWh)	8.18	12.27	16.36	20.45	24.57
System Usable Energy (kWh)	7.36	11.04	14.72	18.40	22.11
Charge/Discharge Current (A)	Recommend				
	Max				
	20				
	40				
	peak (2mins, 25°C)				
	50				
Working Temperature (°C)	Charge/Discharge:-20~55				
Communication Port	CAN2.0/RS485				
Thermal Management	Natural Cooling/Smart Heating				
Recommend Depth of Discharge	90%				
Cycle Life	25±2°C,0.5C/0.5C,70%EOL≥6000				
Warranty	10 years				
Certification	CE/IEC 62619/VDE 2510-50/UN38.3				
<b>Other Data</b>					
Humidity	5~85%RH				
Altitude (m)	≤2000				
IP Rating of Enclosure	IP65				
Noise (dB)	<45				
Storage Temperature (°C)	0~35				
Dimension (W/D/H,mm)	540*385*1100	540*385*1320	540*385*1540	540*385*1760	540*385*1980
Weight Approximate (kg)	137	176	215	254	293
Installation Location	Floor Mount				

[1] DC Usable Energy, test conditions: 90% DOD, 0.5C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

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

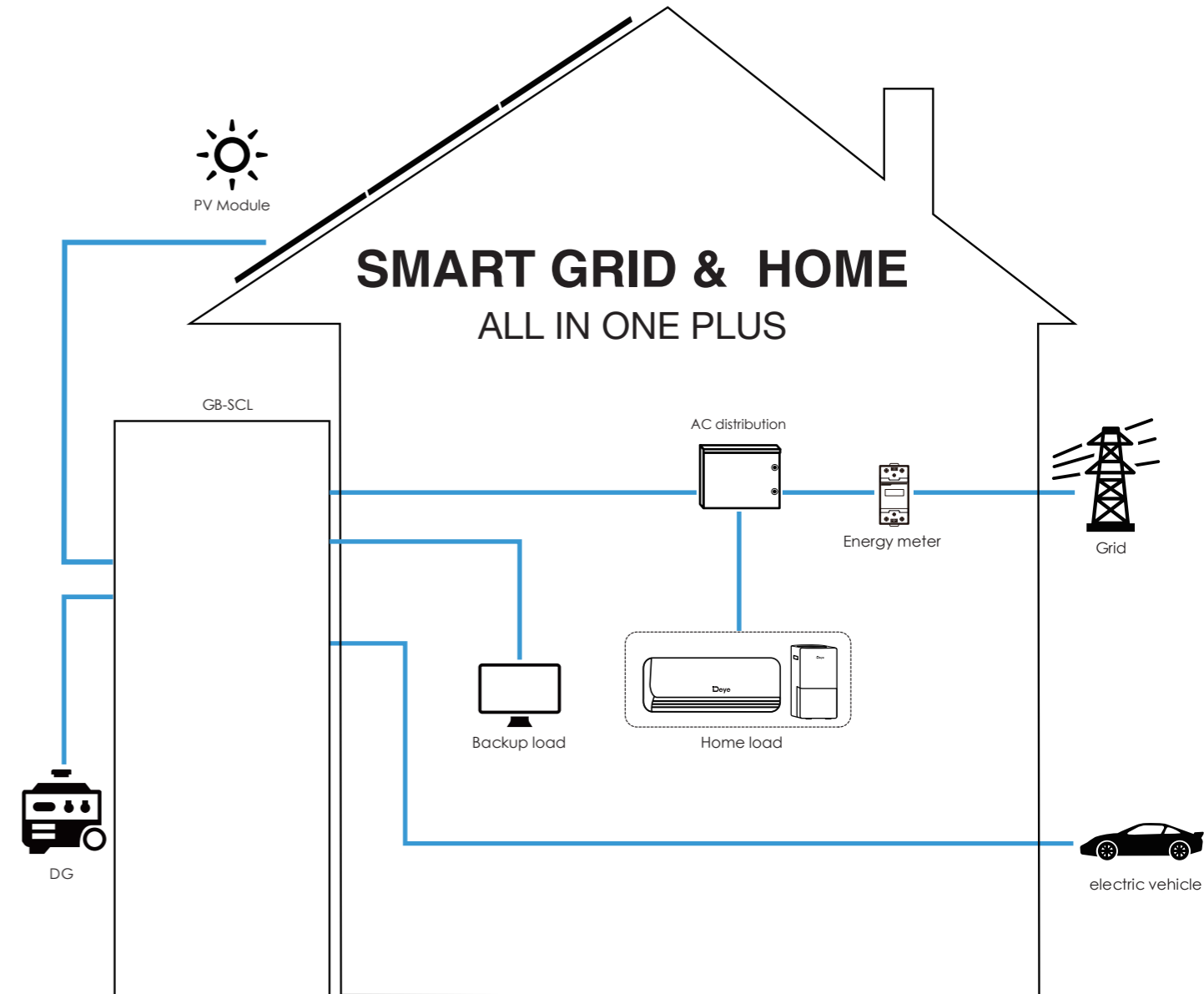
[3] The warranty is due whichever reached first of warranty period or life cycle power.

# GB-SCL-EU



- ◆ **ALL IN ONE PLUS**  
Solar storage and charging integrated solution, one-stop service
- ◆ **Maximum output**  
100% unbalanced output, each phase; Max. output up to **50%** rated power
- ◆ **Maximum connection**  
Max. 10pcs parallel for on-grid and off-grid operation;
- ◆ **More support**  
Support storing energy from diesel generator
- ◆ **High-voltage stack**  
modules are connected in series without cable connection, and high-voltage platform improves system efficiency
- ◆ **Thermal management**  
temperature detection of key parts, cell, power plug-in, etc
- ◆ **Wide temperature operation**  
The heating function is optional to meet the application scenarios with low temperature and no sense

## Typical Application Diagram



## Technical Data

Model	GB-S6K-EU	GB-S8K-EU	GB-S10K-EU	GB-S12K-EU	GB-S15K-EU	GB-S20K-EU
<b>Battery Input Data</b>						
Battery Type	Li-ion					
Battery Voltage Range(V)	150~700					
Max. Charging Current(A)	37					
Max. Discharging Current(A)	37					
Number of battery input	1					
Charging Strategy for Li-Ion Battery	Self-adaption to BMS					
<b>PV String Input Data</b>						
Max. DC Input Power(W)	7800	10400	13000	15600	19500	26000
Max. DC Input Voltage(V)	1000					
Start-up Voltage(V)	150					
MPPT Range(V)	150-850					
Full Load DC Voltage Range(V)	195-850	260-850	325-850	340-850	423-850	500-850
Rated DC Input Voltage(V)	600					
PV Input Current(A)	20+20		26+20		26+26	
Max. PV I <sub>sc</sub> (A)	23+23		32+23		32+32	
No. of MPP Trackers	2					
No. of Strings per MPP Tracker	1		2+1		2	
<b>AC Output Data</b>						
Rated AC Output and UPS Power (W)	6000	8000	10000	12000	15000	20000
Max. AC Output Power (W)	6600	8800	11000	13200	16500	22000
AC Output Rated Current (A)	9.1	12.2	15.2	18.2	22.8	30.3
Max. AC Current (A)	13	18	22	25	30	35
Max. Continuous AC Pass through(A)	80					
Peak Power (off grid)	1.5 time of rated power, 10S					
Generator input/Smart load /AC couple current (A)	9.1 / 80 / 9.1	12.2 / 80 / 12.2	15.2 / 80 / 15.2	18.2 / 80 / 18.2	22.8 / 80 / 22.8	30.3 / 80 / 30.3
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% I <sub>n</sub>					
<b>Efficiency</b>						
Max. Efficiency	97.60%					
Euro Efficiency	97.00%					
MPPT Efficiency	99.90%					
<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					
<b>Certifications and Standards</b>						
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, 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	Smart cooling					
Communication with BMS	RS485; CAN					
Warranty	5 years					

## Technical Data

Model	GB-C11K-EU			
<b>Charger Data</b>				
Rate Power(kw)	11			
Output Voltage Range(V)	400AC			
Output Current Range(A)	16A			
Communication Port	RS485			
Charging standard	Type2			
Standards/regulations	IEC61851-1			
Operating Temperature Range(°C)	-30~50			
Thermal Management	Natural Cooling			
Warranty	2 years			
Certification	CE/CB			
Model	GB-LM4.0			
<b>Battery System Data</b>				
Cell Chemistry	LiFePO4			
Module Energy(kWh)	4.09			
Module Nominal Voltage(V)	102.4			
Module Capacity(Ah)	40			
Battery Module Qty in series.(Optional)	3	4	5	6
System Nominal Voltage(V)	307.2	409.6	512	614.4
System Operating Voltage(V)	268.8~691.2			
System Energy (kWh)	12.27	16.36	20.45	24.57
System Usable Energy (kWh) <sup>1</sup>	11.04	14.72	18.40	22.08
Charge/Discharge <sup>2</sup> Current (A)	Recommend	20		
	Max	40		
	peak(2mins, 25°C)	50		
Working Temperature(°C)	Charge:0~55/Discharge:-20~60			
Communication Port	CAN2.0/RS485			
Thermal Management	Natural Cooling			
Recommend Depth of Discharge	90%			
Cycle Life	25±2°C, 0.5C/0.5C, 70%EOL≥6000			
Warranty <sup>3</sup>	10 years			
Certification	CE/IEC 62619/VDE 2510-50/UN38.3			
<b>Other Data</b>				
Humidity	5~85%RH			
Altitude(m)	≤2000			
IP Rating of Enclosure	IP65			
Noise (dB)	<45			
Storage Temperature(°C)	0~35			
Dimension(W/D/H,mm)	540*385*1320	540*385*1540	540*385*1760	540*385*1980
Weight Approximate(kg)	176	215	254	293
Installation Location	Floor Mount			

1 DC Usable Energy, test conditions: 90% DOD, 0.2C charge & discharge at 25°C. System usable energy may vary due to system configuration parameters.

2 The current is affected by temperature and SOC.

3 The warranty is due whichever reached first of warranty period or life cycle power.

# GE-F60



#### ◆ Intelligent temperature control

Built-in air conditioner, the maximum temperature of the battery is less than 40°C

#### ◆ Reliable

Positive Balance Intelligent BMS, providing complete protection, can effectively extend cycle life of battery packs

#### ◆ Flexible

EMS and BMS integrated technology, AC/DC power supply redundancy design, support black start function

#### ◆ Safer

Prismatic Lithium Iron Phosphate (LFP) Battery, The battery pack and system adopt an aerosol fire extinguishing solution

## Technical Data

Model	GE - F60
<b>System Specification</b>	
Nominal Output Power/UPS Power (W)	50000
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac
Grid Type	Threephase
Energy Configuration (kWh)	61.4
Dimension (W x D x H,mm)	735x1050x2250 (no contain inverter)
Weight Appr. (kg)	880
AC Output Rated Current(A)	75.8
Battery Operating Voltage (V)	500 ~ 700
Battery Chemistry	LiFePO <sub>4</sub>
IP Rating of Enclosure	IP55
System Certification	UN38.3,IEC62619, CE, CEI 0-21, VDE-AR-N 4105, IEC 62109
Installation Style	Floor - Mounted
Warranty	10 years
<b>Inverter Technical Specification</b>	
Max. PV Input Power (W)	65000
Max. PV Input Current (A)	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)	44+44+44+44
Number of MPPT	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)	<0.5In
Display	LCD
Operating Temperature Range (°C)	-40~60( >45°C derating)
Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W x D x H,mm)	420x233x670
Inverter Communication	CAN,RS485,WIFI,ETH
Safety EMC / Standard	UL1741, FCC, IEC/EN 62109-1,IEC/EN 62109-2,IEC/EN 61000-6-1, IEC/EN 61000-6-2,IEC/EN 61000-6-3,IEC/EN 61000-6-4
Grid Regulation	VDE4105,IEC61727/62116,VDE0126,AS4777.2,CEI 0 21,EN50549-1, G98,G99,C10-11,UNE217002,NBR16149/NBR16150
Max. Efficiency	97.6%
Max. charging/discharging efficiency	91%
<b>Battery Technical Specification</b>	
Battery Module Nominal Voltage(V)	51.2
Battery Module Energy (kWh)	5.12
BMS Communication	CAN
Battery Module Dimension(W*D*H mm)	440x570x133
Battery Module Weight (kg)	44
Operating Temperature Range	Charge: 0 ~ 55°C / Discharge: -20°C ~ 55°C
Cycle Life	≥6000(@25 °C ± 2°C,0.5C/0.5C,70%EOL)
Battery Module Certification	CE, IEC62619, IEC62040, UN38.3

# MS-G230



#### ◆ Scalable

Support the expansion of MPPT module, charging module, and diesel generator connection

#### ◆ Intelligent temperature control

Built-in air conditioner, the maximum temperature of the battery is less than 38 C

#### ◆ Reliable

Positive Balance Intelligent BMS, providing complete protection, can effectively extend cycle life of battery packs

#### ◆ Flexible

EMS and BMS integrated technology, AC/DC power supply redundancy design, support black start function

#### ◆ Safer

Lithium Iron Phosphate (LFP) Battery, The battery pack and system adopt an aerosol fire extinguishing solution

## Technical Data

Model	MS-G230
<b>System Specification</b>	
Nominal Output Power (KW)	100
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 380/400Vac
Grid Type	On grid/Off grid(500ms)
Energy Configuration (kWh)	230
Dimension (W x D x H,mm)	1700x1000 x 2500
Weight Appr. (kg)	2.8T
Battery Operating Voltage (V)	DC:600~935(on grid)/DC:700 ~ 935(off grid)
Max. RTE	88%
System Communication	ETH/4G
System Operating temperature range(°C)	-30~45
Max. working altitude(m)	3000
IP Rating of Enclosure	IP55
Anti-corrision grade	C5
System Certification	UN38.3, IEC62619, IEC61000, IEC62477
Installation Style	Floor-Mounted
Warranty	10 years
<b>Converter Technical Specification</b>	
AC Output Rated Current (A)	152
MAX. AC Output Rated Current (A)	167
MAX .number of parallel	12 PCS
Peak Power (off grid)	1.5 time of rated power, 10s
Power Factor	-1~1
THD	<3%
DC injection current (mA)	<0.5In
Display	LCD
Operating Temperature Range (°C)	-25 ~65( >45°C derating)
Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W x D x H,mm)	506x772x310
Converter Communication	CAN,RS485, ETH
Overvoltage protection	DC Type II / AC Type III
Protection level	Class 1
Safety EMC / Standard	IEC/EN 62109-1,IEC/EN 62109-2 IEC/EN 61000-6-1, IEC/EN 61000 2,IEC/EN 61000 3,IEC/EN 61000 -6-4
Grid Regulation	IEC62477,VDE4105,CEI 0-21,G98,G99,
Max. Efficiency	97.6%
<b>Battery Technical Specification</b>	
Battery Chemistry	LiFePO4
Battery Module Nominal Voltage (V)	51.2
Battery Module Energy (kWh)	14.3
BMS Communication	CAN
Battery Module Dimension(W*D*H mm)	526x784.5x230
Battery Module Weight (kg)	100
Operating Temperature Range	Charge: 0 ~55 °C / Discharge20 °C~ 55°C
Cycle Life	6000(@25 °C,0.5C/0.5C,70%EOL)
Battery Module Certification	IEC61000,IEC60730, IEC62619, IEC62477, UN38.3