

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

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

Deye ESS R&D center and Manufacturing Base



- ◆ Ningbo Deye Technology Co., Ltd. is a large - scale manufacturing technology enterprise integrating R&D,design,production,sales and services.
- ◆ Deye has five core industrial chains:
 - The solar inverter system
 - The Li battery energy storage system
 - The frequency conversion control system
 - The environmental electrical appliance series
 - The heat exchanger series
- ◆ Deye ESS base in CiXi city of Ningbo. More than 170,000 square meter R&D center,battery pack,BMS, sheet metal processing, and spray factory. Deye ESS has 15,000 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

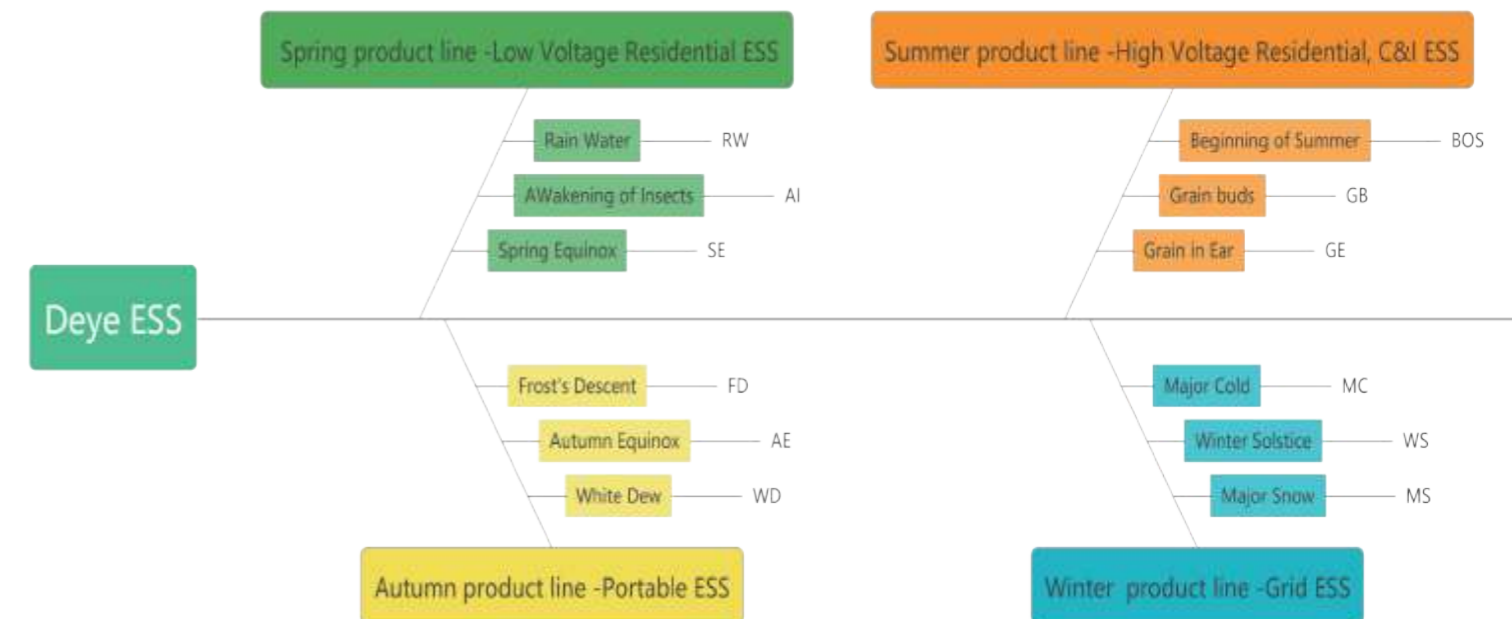
Modular design, easy to expand, Max. 32 units in parallel, Max. capacity of 163.8 kWh. Suited to residential and commercial applications for increasing the self-consumption ratio.

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.

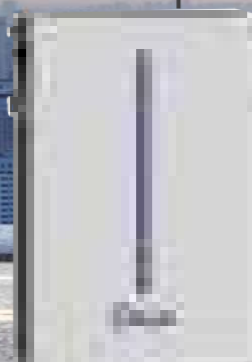


Battery Portfolio

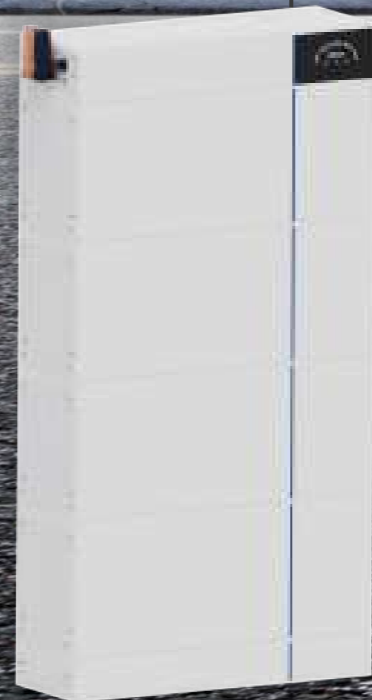
Spring 

 Summer

RW-M6.1



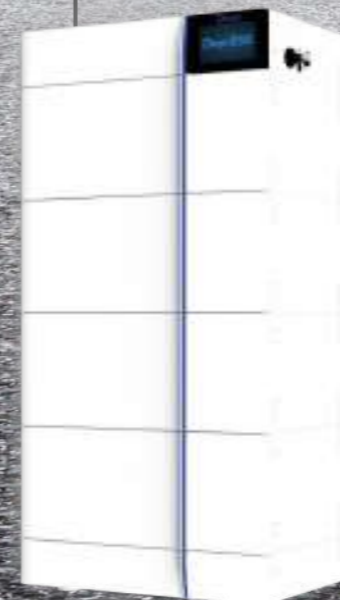
AI-W5.1



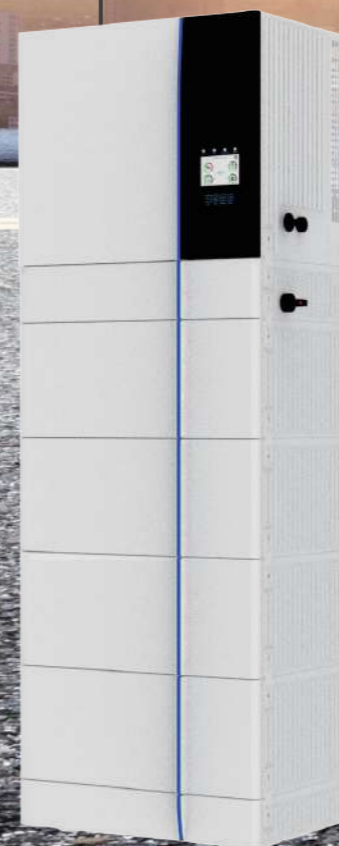
AI-W5.1-ESS



GB-L



GB-SL



GB-SCL



BOS-G



SE-G5.1Pro



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 | LiFePO4 | |
| Capacity (Ah) | 100 | |
| Scalability | Max. 64 pcs pack (327kWh) in parallel (Max. 32 pcs no external setup) | |
| Nominal Voltage (V) | 51.2 | |
| Operating Voltage(V) | 43.2~57.6 | |
| Energy (kWh) | 5.12 | |
| Usable Energy (kWh) ^[1] | 4.61 | |
| Charge/Discharge Current (A) | Recommend ^[2] | 50 |
| | Max. ^[2] | 100 |
| | Peak(2mins,25°C) | 150 |
| Other Parameter | | |
| Recommend Depth of Discharge | 90% | |
| Dimension (W/H/D, mm) | 445*133*430 | |
| Weight Approximate(kg) | 44 | |
| Master LED Indicator | 5LED(SOC:20%~SOC100%),3LED (working, alarming, protecting) | |
| IP Rating of Enclosure | IP20 | |
| Operating Temperature | Charge:0~55°C / Discharge:-20°C~55°C | |
| Storage Temperature | 0°C~35°C | |
| Humidity | 5%~95% | |
| Altitude | ≤2000m | |
| Cycle Life | ≥6000(25°C±2°C,0.5C/0.5C,70%EOL) | |
| Installation | 19-inch standard cabinet, cabinet depth ≥600mm / with rack | |
| Communication Port | CAN2.0, RS485 | |
| Warranty Period ^[3] | 10 years | |
| Energy Throughput ^[3] | 16MWh@70%EOL | |
| Certification | UN38.3, UL1973, 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 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.

RW-M6.1



- ◆ **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. 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.

Technical Data

| Model | | RW-M6.1 |
|------------------------------------|--|---------|
| Main Parameter | | |
| Battery Chemistry | LiFePO4 | |
| Capacity (Ah) | 120 | |
| Scalability | Max.32 pcs in Parallel(196kWh) | |
| Nominal Voltage (V) | 51.2 | |
| Operating Voltage(V) | 43.2~57.6 | |
| Energy (kWh) | 6.14 | |
| Usable Energy (kWh) ^[1] | 5.53 | |
| Charge/Discharge Current (A) | Recommend ^[2] | 60 |
| | Max. ^[2] | 100 |
| | Peak(2mins,25°C) | 150 |
| Other Parameter | | |
| Recommend Depth of Discharge | 90% | |
| Dimension (W/H/D, mm) | 475*720*145(Without Base, depth of 161mm with Hanging Board) | |
| Weight Approximate(kg) | 58 | |
| Master LED Indicator | 5LED(SOC:20%~SOC100%),3LED (working, alarming, protecting) | |
| IP Rating of Enclosure | IP65 | |
| Operating Temperature | Charge:0~55°C / Discharge:-20°C~55°C | |
| Storage Temperature | 0°C~35°C | |
| Humidity | 5%~95% | |
| Altitude | ≤2000m | |
| Cycle Life | ≥6000(25°C±2°C,0.5C/0.5C,70%EOL) | |
| Installation | Wall-Mounted, Floor-Mounted | |
| Communication Port | CAN2.0, RS485 | |
| Warranty Period ^[3] | 10 years | |
| Energy Throughput ^[3] | 20MWh@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 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



- ◆ **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 | | | | |
| Scalability | | 2 | 3 | 4 | 5 | 6 |
| Nominal Voltage (V) | | 51.2 | | | | |
| Operating Voltage(V) | | 43.2~57.6 | | | | |
| Energy (kWh) | | 10.24 | 15.36 | 20.48 | 25.6 | 30.72 |
| Usable Energy (kWh) ^[1] | | 9.2 | 13.8 | 18.4 | 23.0 | 27.6 |
| Charge/Discharge Current (A) | Recommend ^[2] | 100 | 150 | 200 | 200 | 200 |
| | Max. ^[2] | 180 | 210 | 240 | 250 | 250 |
| | Peak(10s,25°C) | 270 | 315 | 360 | 360 | 360 |
| Other Parameter | | | | | | |
| Recommend Depth of Discharge | | 90% | | | | |
| System Dimension (W/D/H, mm) | | 720*255*770 | 720*255*1055 | 720*255*1340 | 720*255*1625 | 720*255*1910 |
| System Weight (kg) | | 124 | 177 | 230 | 283 | 336 |
| Battery Module Dimension(W/D/H, mm) | | 720*255*285 | | | | |
| Battery Module Weight (kg) | | 53 | | | | |
| Master LED Indicator | | 5LED(SOC:20%~100%), 3LED (working, alarming, protecting) | | | | |
| IP Rating of Enclosure | | IP65 | | | | |
| Operating Temperature | | Charge: 0~55°C / Discharge: -20°C~55°C | | | | |
| Storage Temperature | | -20°C ~ 35°C | | | | |
| Humidity | | 5%~95% | | | | |
| Altitude | | ≤2000m | | | | |
| Cycle Life ^[3] | | ≥6000(25°C±2°C,0.5C/0.5C,70%EOL) | | | | |
| Installation | | Floor-Mounted | | | | |
| Communication Port | | CAN2.0, RS485 | | | | |
| Warranty Period ^[3] | | 10 years | | | | |
| Energy Throughput ^[3] | | 16MWh(Battery Module @70%EOL) | | | | |
| Certification | | IEC62619, CE,VDE2510-10, CEI 0-21, UN38.3 | | | | |

[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

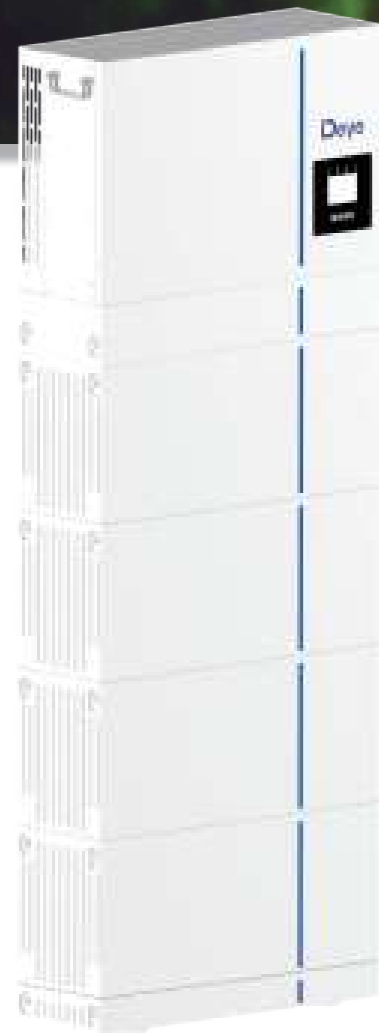
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This series is especially suitable for application scene of high power,limited installation space, restricted load- bearing and long cycle life.

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-W5.1-10P3-EU | AI-W5.1-12P3-EU |
|---|---|----------------|------------------------|--------------------------------------|------------------------|-----------------|
| System Specification | | | | | | |
| 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 | | |
| Recommended Energy Configuration | 5kWh (Min. 1 module) | | 10kWh (Min. 2 modules) | | 15kWh (Min. 3 modules) | |
| 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 | | | | | |
| Inverter Technical Specification | | | | | | |
| Max. PV Input Power (W) | 6500 | 7800 | 10400 | | 13000 | 15600 |
| 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 Trackers | 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 | | | | | |
| Relative Humidity | 15% ~ 85% (No Condensing) | | | | | |
| Dimension (W x D x H,mm) | 720x255x330 | | | 720x255x440 | | |
| Weight (kg) | 32 | | | 36 | | |
| Communication with BMS | CAN | | | | | |
| EMC | IEC/EN 61000-6-1/2/3/4 | | | | | |
| Safety | 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% | | | | | |
| Battery Technical Specification | | | | | | |
| 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 | 720*255*285(W x D x H,mm) | | | | | |
| Battery Base Dimension | 720*255*85(W x D x H,mm) | | | | | |
| Battery PDU Dimension | 720*255*110(W x D x H,mm) | | | | | |
| Battery Module Weight (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 | | | | | |

BOS-G



◆ 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.

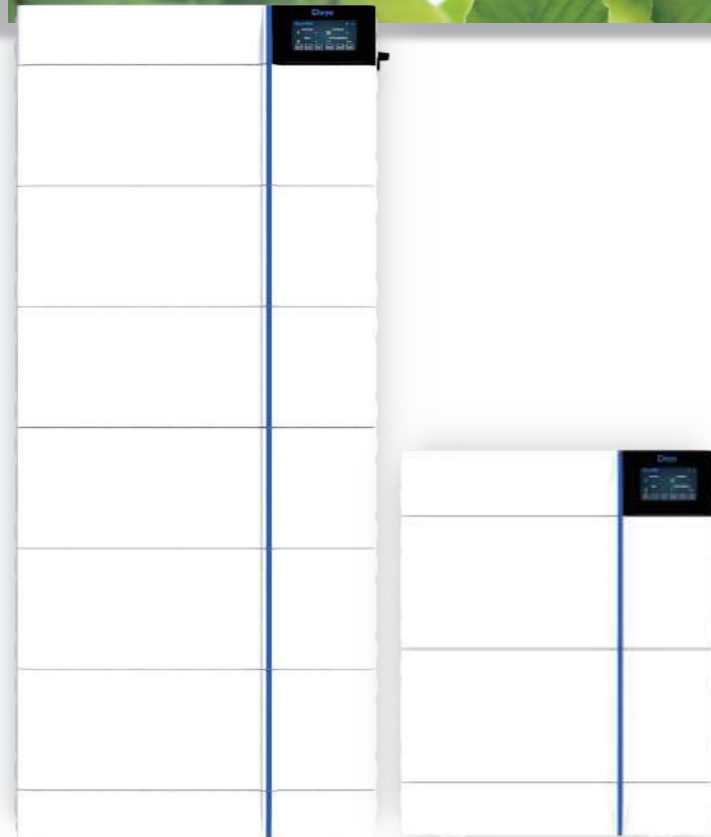
Technical Data

| 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) ¹ | 13.8 | 36.86 | 55.29 |
| Charge/Discharge ² Current (A) | Recommend | 50 | |
| | Nominal | 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 | ≤2000m | | |
| 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 ³ | 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

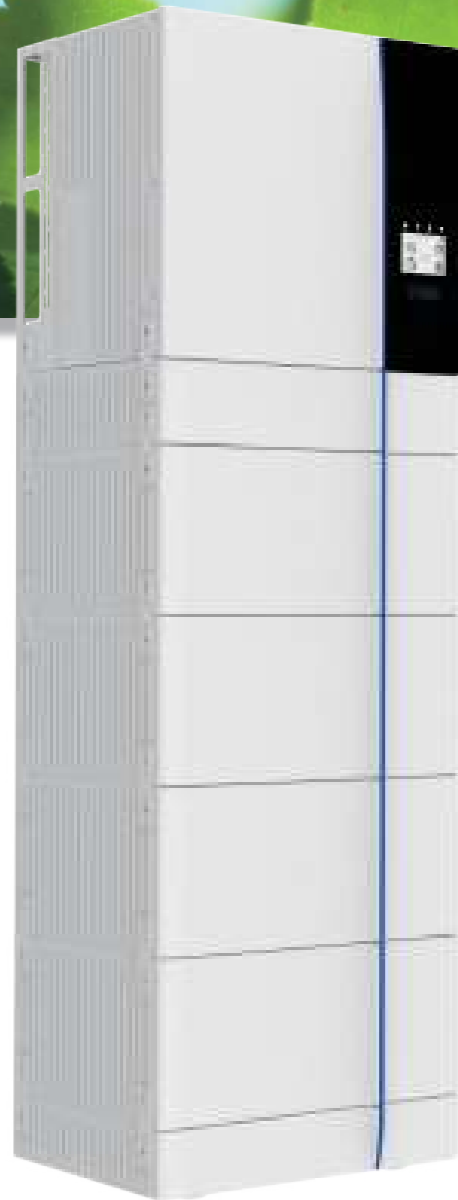
| Model | | GB-L | | | | |
|---|--|-------------|--------------|--------------|--------------|--|
| Main Parameter | | | | | | |
| Cell Chemistry | LiFePO4 | | | | | |
| Module Energy(kWh) | 4.09 | | | | | |
| Module Nominal Voltage (V) | 102.4 | | | | | |
| Module Capacity(Ah) | 40 | | | | | |
| Battery Module Qty InSeries (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) ¹ | 7.36 | 11.04 | 14.72 | 18.40 | 22.10 | |
| Charge/Discharge Current (A) | Recommend | 20 | | | | |
| | Nominal | 40 | | | | |
| | Peak Discharge (2 mins,25°C) | 50 | | | | |
| Working Temperature(°C) | Charge: 0~55/Discharge: -20~60 | | | | | |
| LCD Display | SOC%,Power,Total Voltage | | | | | |
| Communication Port | CAN2.0,RS485 | | | | | |
| Humidity | 5%~90% | | | | | |
| Altitude | $\leq 2000m$ | | | | | |
| 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°C,0.5C/0.5C,EOL70% ≥ 6000 | | | | | |
| Warranty ³ | 10years | | | | | |
| 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.

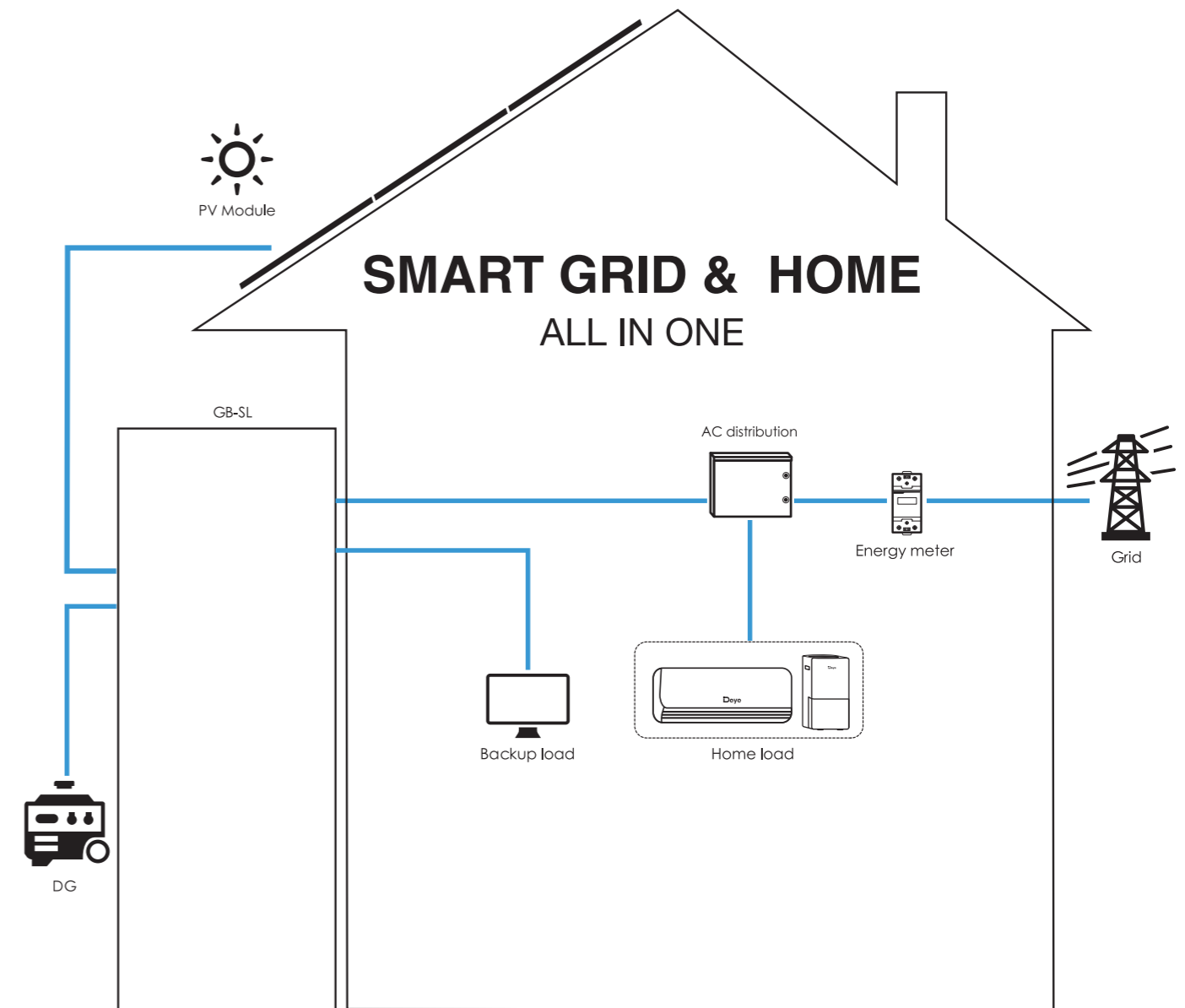
[3] The warranty is due whichever reached first of warranty period or life cycle power.

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 |
|---|---|------------------|------------------|------------------|------------------|------------------|
| Battery Input Data | | | | | | |
| 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 | | | | | |
| PV String Input Data | | | | | | |
| 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 _{sc} (A) | 23+23 | | | 32+23 | | 32+32 |
| No.of MPP Trackers | 2 | | | | | |
| No. of Strings per MPP Tracker | 1 | | | 2+1 | | 2 |
| AC Output Data | | | | | | |
| 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 _n | | | | | |
| Efficiency | | | | | | |
| Max. Efficiency | 97.60% | | | | | |
| Euro Efficiency | 97.00% | | | | | |
| MPPT Efficiency | 99.90% | | | | | |
| Protection | | | | | | |
| Integrated | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection | | | | | |
| Output Over Voltage Protection | DC Type II/AC Type III | | | | | |
| Certifications and Standards | | | | | | |
| 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 | | | | | |
| General Data | | | | | | |
| 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-LM4.0 | | | | |
|---|---------------------------------|--------------|--------------|--------------|--------------|
| Battery System Data | | | | | |
| 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) ¹ | 7.36 | 11.04 | 14.72 | 18.40 | 22.11 |
| Charge/Discharge ² Current (A) | Recommend | 20 | | | |
| | Max | 40 | | | |
| | Discharge peak /2mins | 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 ³ | 10 years | | | | |
| Certification | CE/IEC 62619/VDE 2510-50/UN38.3 | | | | |
| Other Data | | | | | |
| 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.

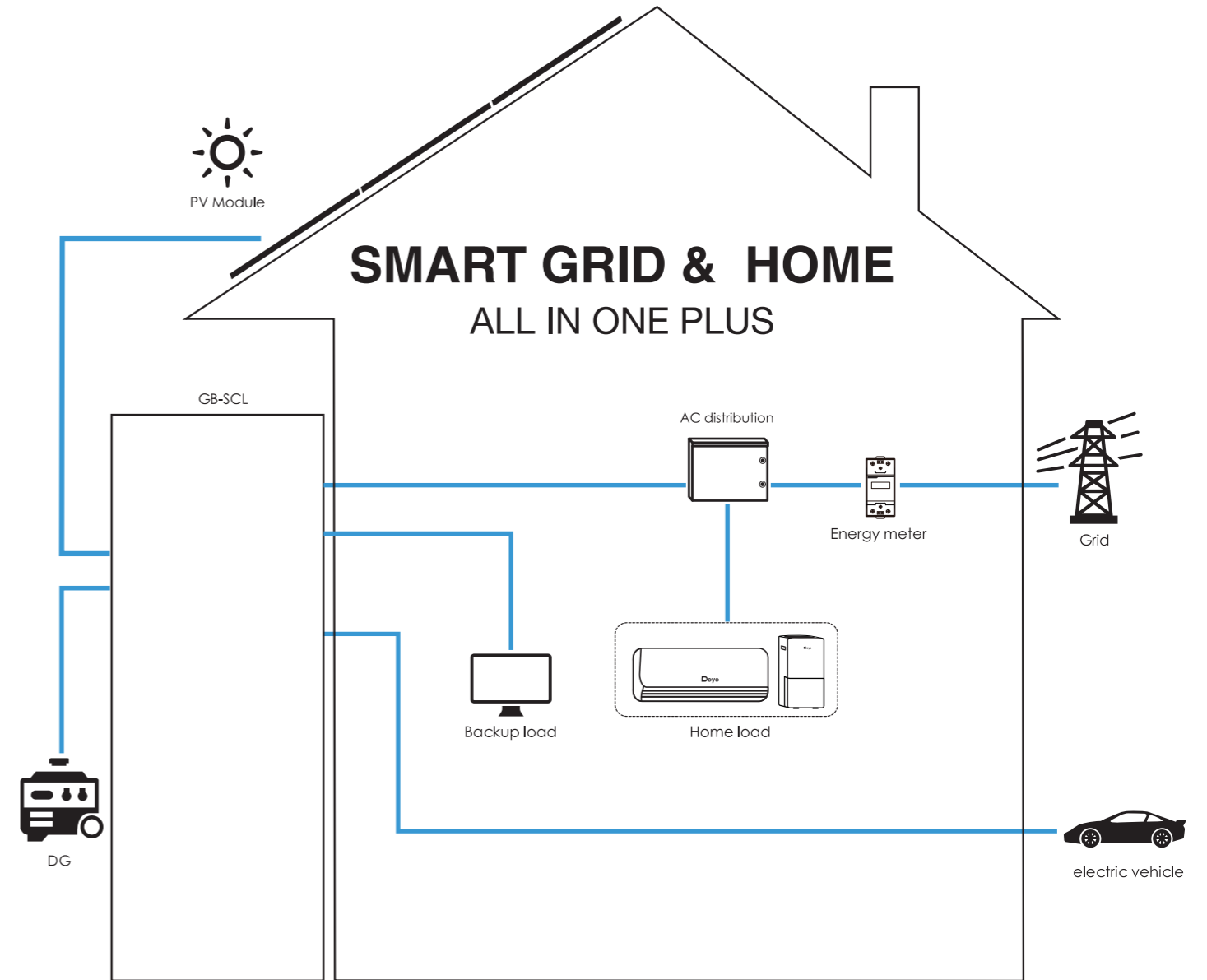
[3] The warranty is due whichever reached first of warranty period or life cycle power.

Summer 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 GB-SCL-EU

| Model | GB-S6K-EU | GB-S8K-EU | GB-S10K-EU | GB-S12K-EU | GB-S15K-EU | GB-S20K-EU |
|---|---|------------------|------------------|------------------|------------------|------------------|
| Battery Input Data | | | | | | |
| 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 | | | | | |
| PV String Input Data | | | | | | |
| 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 _{sc} (A) | 23+23 | | 32+23 | | 32+32 | |
| No. of MPP Trackers | 2 | | | | | |
| No. of Strings per MPP Tracker | 1 | | 2+1 | | 2 | |
| AC Output Data | | | | | | |
| 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 _n | | | | | |
| Efficiency | | | | | | |
| Max. Efficiency | 97.60% | | | | | |
| Euro Efficiency | 97.00% | | | | | |
| MPPT Efficiency | 99.90% | | | | | |
| Protection | | | | | | |
| Integrated | PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge protection | | | | | |
| Output Over Voltage Protection | DC Type II/AC Type III | | | | | |
| Certifications and Standards | | | | | | |
| 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 | | | | | |
| General Data | | | | | | |
| Operating Temperature Range (°C) | -40~60°C, >45°C derating | | | | | |
| Cooling | Smart cooling | | | | | |
| Communication with BMS | RS485; CAN | | | | | |
| Warranty | 5 years | | | | | |

Technical Data GB-SCL-EU

| Model | GB-C20K-EU | | | |
|---|---------------------------------|--------------|--------------|--------------|
| Charger Module Data | | | | |
| Rate Power (kw) | 20 | | | |
| Output Voltage Range (V) | 50~750 | | | |
| Output Current Range (A) | 0~50 | | | |
| Communication Port | CAN2.0 | | | |
| Charging standard | CCS2 Type | | | |
| Standards/regulations | IEC61851-1 | | | |
| Operating Temperature Range (°C) | 40~60 | | | |
| Cooling | Smart cooling | | | |
| Warranty | 5 years | | | |
| Certification | EN61851-1/EN61851-23 | | | |
| Model | GB-L | | | |
| Battery System Data | | | | |
| 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 |
| System Operating voltage (V) | 268.8~691.2 | | | |
| System Energy (kWh) | 12.27 | 16.36 | 20.45 | 24.57 |
| System Usable Energy (kWh) | 11.04 | 14.72 | 18.40 | 22.11 |
| Charge/Discharge Current (A) | Recommend | 20 | | |
| | Max | 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 | | | |
| Other Data | | | | |
| 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*1420 | 540*385*1530 | 540*385*1640 | 540*385*2080 |
| Weight Approximate (kg) | 173 | 205 | 237 | 269 |
| 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.