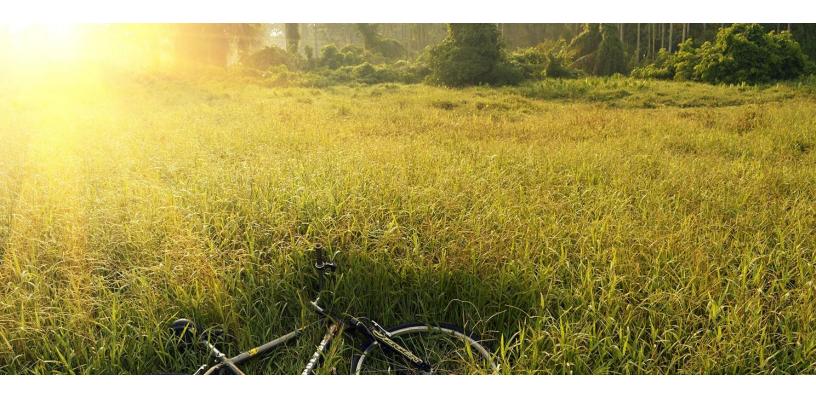
# **SE-G5.3**





## 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.



Main Parameter           Battery Chemistry         LIFePO4           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)**         4.79           Recommend Page (Pack)**         5.0           Charge/Dischage (Pack)**         6.0           Max. (2)         100           Peak         120 (30s,25°C)           Other Parameter         90%           Recommend Depth of Discharge         90%           Dimension (WH/D) → 10 (20 km)         45           Weight Approximate (km)         5 (20 km)           IP Rating of Encloser         5 (20 km)           Operating of Encloser         19 (20 km)           Operating Temperature         Charge.0~55°C (Optional heating) / Discharge.20°C~55°C           Humidity         6 (32 km)           Altitude         5 (32 km)           Cycle Life         2 (30 km)           19-inch standard rack (depth ±600mm / with). Floor-Mounted, Wall-Mounted,           Communication Port         19-inch standard rack (depth ±600mm / w	Model		SE-G5.3		
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) I <sup>(1)</sup> 4.79           Charge/Discharge Curent (A)         Max. [A]         50           Max. [A]         100           Peak         120 (30s,25°C)           Other Parameter           Recommend Depth of Discharge         90%           Dimension (W/H/D, m)         440*133*560           Weight Approxim±(k)         45           Master LED Indicator         5LED(SOC:20%~SOC100%), 3LED (working, alarming, protecting)           IP Rating of Enclosure         1P20           Operating Temperature         Charge:0~55°C (Optional heating) / Discharge:-20°C~55°C           Storage Temperature         0°C~35°C           Humidity         5%-95%           Altitude         ≤6000(25°C±2°C, 0.3C/0.3C, 9%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Pot         CAN2.0, RS485	Main Parameter				
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) [*]         4.79           Charge/Discharge (Current (A))         Recommend [*]         50           Peak         100           Peak         120 (30s.25°C)           Other Parameter           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         Charge:0~55°C (Optional heating) / Discharge:-20°C~55°C           Storage Temperature         5%~95%           Altitude         ≤6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period (B)	Battery Chemistry		LiFePO <sub>4</sub>		
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> 50           Other Parameter           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         ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period <sup>[3]</sup> 10 years	Capacity (Ah)		104		
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> 50           Max, <sup>[2]</sup> 100           Peak         120 (30s,25°C)           Other Parameter         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         ≤6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period [3]         10 years	Scalability		Max. 64 pcs pack (340kWh) in parallel (Max. 32 pcs no external setup)		
Energy (kWh)         5.32           Usable Energy (kWh)         11         4.79           Charge/Discharge Current (A)         Recommend  2          50           Max.  2          100           Peak         120 (30s,25°C)           Other Parameter           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         ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period [3]         10 years	Nominal Voltage (V)		51.2		
Usable Energy (kWh) I¹¹         4.79           Charge/Discharge Current (A)         Recommend I²¹         50           Max. I²¹         100           Peak         120 (30s,25°C)           Other Parameter           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         ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period [8]         10 years	Operating Voltage(V)		43.2~57.6		
Charge/Discharge Current (A)         Recommend [2]         50           Max. [2]         100           Peak         120 (30s,25°C)           Other Parameter           Recommend Depth of Discharge           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         ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period [3]         10 years	Energy (kWh)		5.32		
Charge/Discharge Current (A)         Max. □         100           Peak         120 (30s,25°C)           Other Parameter           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         ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period [3]         10 years	Usable Energy (kWh) [1]		4.79		
Current (A)         Nat. 1.00           Peak         120 (30s,25°C)           Other Parameter           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         ≥ 6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period [3]         10 years		Recommend [2]	50		
Other Parameter           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         ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)           Installation         19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,           Communication Port         CAN2.0, RS485           Warranty Period (S)         10 years		Max. [2]	100		
Recommend Depth of Discharge90%Dimension (W/H/D, mm)440*133*560Weight Approximate(kg)45Master LED Indicator5LED(SOC:20%~SOC100%), 3LED (working, alarming, protecting)IP Rating of EnclosureIP20Operating TemperatureCharge:0~55°C (Optional heating) / Discharge:-20°C~55°CStorage Temperature0°C~35°CHumidity5%~95%Altitude≤2000mCycle Life≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)Installation19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,Communication PortCAN2.0, RS485Warranty Period [3]10 years		Peak	120 (30s,25°C)		
Dimension (W/H/D, mm)440*133*560Weight Approximate(kg)45Master LED Indicator5LED(SOC:20%~SOC100%), 3LED (working, alarming, protecting)IP Rating of EnclosureIP20Operating TemperatureCharge:0~55°C (Optional heating) / Discharge:-20°C~55°CStorage Temperature0°C~35°CHumidity5%~95%Altitude≤2000mCycle Life≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)Installation19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,Communication PortCAN2.0, RS485Warranty Period [3]10 years	Other Parameter				
Weight Approximate(kg)45Master LED Indicator5LED(SOC:20%~SOC100%), 3LED (working, alarming, protecting)IP Rating of EnclosureIP20Operating TemperatureCharge:0~55°C (Optional heating) / Discharge:-20°C~55°CStorage Temperature0°C~35°CHumidity5%~95%Altitude≤2000mCycle Life≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)Installation19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,Communication PortCAN2.0, RS485Warranty Period [3]10 years	Recommend Depth of Discharge		90%		
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       ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)         Installation       19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,         Communication Port       CAN2.0, RS485         Warranty Period [3]       10 years	Dimension (W/H/D, mm)		440*133*560		
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       ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)         Installation       19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,         Communication Port       CAN2.0, RS485         Warranty Period [3]       10 years	Weight Approximate(kg)		45		
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       ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)         Installation       19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,         Communication Port       CAN2.0, RS485         Warranty Period [3]       10 years	Master LED Indicator		5LED(SOC:20%~SOC100%), 3LED (working, alarming, protecting)		
Storage Temperature $0^{\circ}$ C~35°CHumidity $5\%$ ~95%Altitude≤2000mCycle Life≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)Installation19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,Communication PortCAN2.0, RS485Warranty Period [3]10 years	IP Rating of Enclosure		IP20		
Humidity       5%~95%         Altitude       ≤2000m         Cycle Life       ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)         Installation       19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,         Communication Port       CAN2.0, RS485         Warranty Period [3]       10 years	Operating Temperature		Charge:0 $\sim$ 55°C (Optional heating) / Discharge:-20°C $\sim$ 55°C		
Altitude ≤2000m  Cycle Life ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)  Installation 19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,  Communication Port CAN2.0, RS485  Warranty Period [3] 10 years	Storage Temperature		0°C~35°C		
Cycle Life       ≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)         Installation       19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,         Communication Port       CAN2.0, RS485         Warranty Period [3]       10 years	Humidity		5%~95%		
Installation     19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,       Communication Port     CAN2.0, RS485       Warranty Period [3]     10 years	Altitude		≤2000m		
Communication Port CAN2.0, RS485 Warranty Period [3] 10 years	Cycle Life		≥6000(25°C±2°C, 0.3C/0.3C, 90%DOD, 70%EOL)		
Warranty Period [3] 10 years	Installation		19-inch standard rack (depth ≥600mm / with), Floor-Mounted, Wall-Mounted,		
	Communication Port		CAN2.0, RS485		
Energy Throughput [3] 16MWh@70%EOL	Warranty Period [3]		10 years		
	Energy Throughput [3]		16MWh@70%EOL		
Certification CE, IEC62619, UN38.3	Certification		CE, IEC62619, UN38.3		

 $<sup>[1] \</sup> DC \ Usable \ Energy, \ test \ conditions: 90\% \ DOD, \ 0.3C \ charge \ \& \ discharge \ at \ 25^{\circ}C. \ System \ usable \ energy \ may \ vary \ due \ to \ system \ configuration \ parameters.$ 

### 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 load-bearing 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.

<sup>[2]</sup> The current is affected by temperature and SOC.

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

Model	Accessories Parts Description	Remark	
3U-Lrfe-B	Battery Rack Fixed Ears and screws (Included)	Used for battery fixing with 19inch rack or cabinet.	
SE-G5.3-BCable	Battery Parallel Cable (Included)	Battery power and communication parallel connection cable, and ground line.	
3U-W-Bracket-B	Battery Wall-Mounted Brackets and screws (Included)	Simple wall hanging support.	
SE-G5.3-PCable	Hybrid inverter Cable (Included)	Battery power and communication cable connect with hybrid inverter.	
3U-Bracket-B	Battery Stack Brackets and screws (Optional)	Simple stacking bracket, 1 unit including 4 pcs brackets, Max. stacking 4 floors.	



Model: 3U-Lrfe-B

**Details**: Pair of rack fixed ears used for battery fixing with 19inch rack or cabinet, included 6 pcs M4 screws, 4 sets of M6 screws and buckle nuts.



Model: SE-G5.3-BCable

**Details:** Pair of 270mm 4AWG Power cable (Both ends are M8 copper terminals) and 250mm RJ45 communication cable for battery parallel, and 250mm 10AWG yellow-green ground line.



Model: Battery Wall-Mounted Brackets

**Details:** Pair of simple wall hanging support, included 4 sets of M6 expansion screws.



Model: SE-G5.3-PCable

**Details:** Pair of 4AWG battery power cable (Both ends are M8 copper terminals) and RJ45 communication cable connect with hybrid inverter. The cable length can be customized based on customer requirements, default length is 1500mm.



Model: 3U-Bracket-B

**Details:** Simple stacking bracket, height 180mm, 1 set including 4 pcs brackets and 8 pcs M4 screws, Max. stacking 4 floors.



