# **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:  $-20^{\circ}$ C to  $55^{\circ}$ 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 the firmware.

#### Eco-Friendly

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

### Quick Installation

Flat and stackable design, floor-mounted, no wiring and extra fixing screws, rapid and easy installation.



Technical Data www.deyeess.com

Main Parameter  Battery Chemistry  Battery Module Energy (kWh)							
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		LiFePO4					
Detter Media Valtere (V)	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	
Recomm	nend [2]	100	150	200	200	200	
Charge/Discharge Current (A)  Max. [2]		180	210	240	250	250	
Peak(10	s,25°C)	270	315	360	360	360	
Other Parameter							
Recommend Depth of Discharge		90%					
System Dimension (W/D/H, mm)		720*255*765	720*255*1050	720*255*1335	720*255*1620	720*255*1905	
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,VDE2510-50, CEI 0-21, UN38.3					

 $<sup>[1] \</sup> DC \ Usable \ Energy, \ test \ conditions: 90\% \ DOD, \ 0.5C \ charge \ \& \ discharge \ at \ 25\degree \ C. \ System \ usable \ energy \ may \ vary \ due \ to \ system \ configuration \ parameters.$ 

### 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 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.

<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			
AI-W5.1-PDU1	Power Distribute Unit I (Standard Configuration)	Battery power and communication interface connect with Inverter and LED display system status			
AI-W5.1-Base	Battery Base (Standard Configuration)	The bottom support seat			
AI-W5.1-PCable	Hybrid inverter Cable (Standard Configuration)	Battery power and communication cable connect with hybrid inverter			
AI-W5.1-BCable	Battery expansion Cable (Optional)	Battery power and communication cable for external battery expansion			



Model: AI-W5.1-PDU1

Details: 720\*255\*110(W x D x H,mm), 10kg



Model: Al-W5.1-Base

Details: 720\*255\*85(W x D x H,mm), 8kg



Model: Al-W5.1-PCable

**Details**: Pair of 2/0AWG DC power cable and RJ45 communication cable connect with hybrid inverter, **one end has a waterproof terminal**. The cable length can be customized based on customer requirements, default length is 1500mm.



Model: Al-W5.1-BCable

**Details**: Pair of 2/0AWG DC power cable and RJ45 communication cable for external battery expansion, power cable one end has a waterproof terminal, **communication cable both ends have waterproof terminals**. The cable length can be customized based on customer requirements, default length is 1500mm.



Model: Wi-fi module(Optional)

**Details:** After connecting the device, check the status of NET lights, COM lights, and READY lights, and see if there is data on the platform.

When the router is connected to the network normally:

- 1,NET light is always bright (server connection is successful),
- 2, READY light is flashing (collection rod is working normally),
- 3, COM light is always bright (collection rod is connected to inverter successfully)