

AI-W5.1-B



◆ 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, easy maintenance, support 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, support wall-mounted & floor-mounted, no wiring, rapid and easy installation.

Model		AI-W5.1-B combinations					
Main Parameter							
Battery Model Number		AI-W5.1-B	AI-W5.1-B*2	AI-W5.1-B*3	AI-W5.1-B*4	AI-W5.1-B*5	AI-W5.1-B*6
Number of battery units in parallel (Optional)		1	2	3	4	5	6
Battery Chemistry		LiFePO ₄					
Built-in Circuit Breaker		125A 2P, 60Vdc					
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					
Nominal Energy (kWh)		5.12	10.24	15.36	20.48	25.6	30.72
Usable Energy (kWh) ^[1]		4.6	9.2	13.8	18.4	23	27.6
Rated DC Power (KW)		2.5	5	7.5	10	12	12
Charge/Discharge Current (A) ^[2]	Recommend	50	100	150	200	250	250
	Max.	100	180	250	250	250	250
	Peak(10s,25°C)	150	270	360	360	360	360
Other Parameter							
Recommend Depth of Discharge		90%					
System Dimension (W/D/H, mm)		720*255*569	720*255*850	720*255*1131	720*255*1412	720*255*1693	720*255*1974
System Weight (kg)		74.5	127.5	180.5	233.5	286.5	339.5
Battery Module Dimension(W/D/H, mm)		720*255*300 (without terminal parts)					
Battery Module Weight (kg)		53					
Master LED Indicator		Battery module: 3LED (working, alarming, protecting), PDU module: 5LED(SOC:20%~100%)&3LED (working, alarming, protecting)					
IP Rating of Enclosure		IP65 (after stacking)					
Operating Temperature		Charge: 0~55°C / Discharge: -20°C~55°C					
Storage Temperature		0°C ~ 35°C					
Humidity		5%~95%					
Altitude		≤2000m					
Installation		Wall-Mounted, Floor-Mounted					
Communication Port		CAN2.0, RS485					
Cycle Life		≥6000(25°C±2°C,0.5C/0.5C,90%DOD,70%EOL)					
Energy Throughput		16MWh(Battery Module @70%EOL)					
Warranty Period ^[3]		10 years					
Certification		UN38.3, IEC62619, CE, UK, VDE2510-50, CEI 0-21,CE-LVD, 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] Conditions apply, refer to Deye Warranty Letter.

[4]Made in China.

Introduction

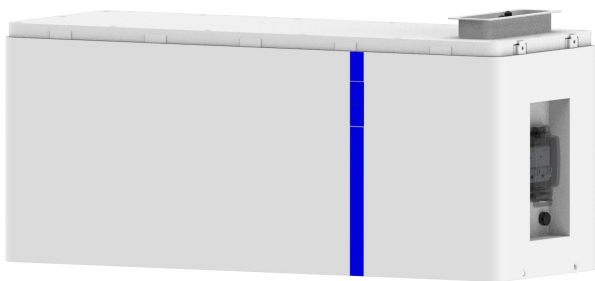
This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye , it can be used to support reliable power for various types of equipment and systems.

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

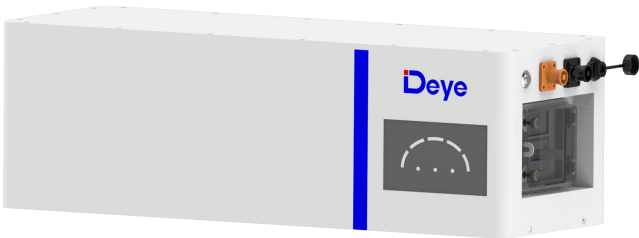
This series has built-in BMS battery management system, which can manage and monitor cells information including voltage, current and temperature. What's more, BMS can balance cells charging to extend cycle life.

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

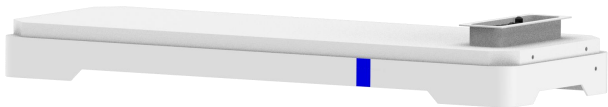
Model	Accessories Parts Description	Remark
AI-W5.1-B (individual package)	5.12kWh Battery Module	Stacked battery modules, each 5.12kWh, a single string can be stacked and installed 1~6 (battery capacity 5~30kWh)
AI-W5.1-PDU1-B+Base (individual package)	Power Distribute Unit I (Included)	Battery power and communication interface connect with Inverter and LED display system status
	Battery Base (Included)	The bottom support seat
	AI-W5.1-PCable1500 (Included)	Battery power and communication cable connect with hybrid inverter



Model: AI-W5.1-B (Battery Module)
Details: 5.12kWh, 720*255*300(W x D x H,mm), 53kg



Model: AI-W5.1-PDU1-B
Details: 720*255*238(W x D x H,mm), 15kg
Built-in Circuit Breaker: 250A 2P, 1000Vdc



Model: AI-W5.1-Base (Battery Base)
Details: 720*255*68(W x D x H,mm), 6.5kg