

# 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.

**Deye**

Stock Code: 605117.SH

| Model  |                 | AI-W5.1-B combinations   |             |              |              |              |              |
|--|-----------------|--|-------------|--------------|--------------|--------------|--------------|
| Main Parameter                                 |                 |  |             |              |              |              |              |
|  |                 | 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  |
| Battery Model Number                           |                 |  |             |              |              |              |              |
| Number of battery units in parallel (Optional) |                 | 1  | 2           | 3            | 4            | 5            | 6            |
| Battery Chemistry                              |                 | LiFePO <sub>4</sub>  |             |              |              |              |              |
| 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) <sup>[1]</sup>             |                 | 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) <sup>[2]</sup>    | 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),<br>PDU module: 5LED(SOC:20%~100%)&3LED (working, alarming, protecting) |             |              |              |              |              |
| IP Rating of Enclosure                         |                 | IP65 (after stacking)  |             |              |              |              |              |
| Operating Temperature                          |                 | Charge: 0~55°C (-20°C~55°C when heating on) / 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 <sup>[3]</sup>                 |                 | 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

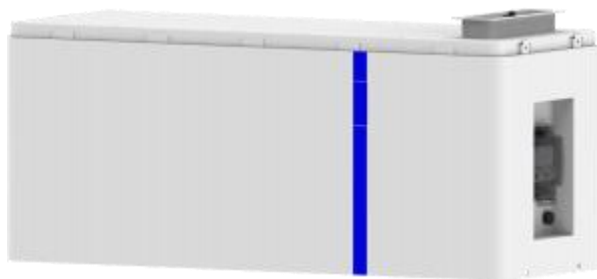
This series lithium iron phosphate battery is one of new energy storage products developed and produced by Deye , it can be used to support reliable power for various types of equipment and systems.

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<br>(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) |
|   | Power Distribute Unit I<br>(Included) | Battery power and communication interface connect with Inverter and LED display system status                      |
| AI-W5.1-PDU1-B+Base<br>(individual package) | Battery Base<br>(Included)            | The bottom support seat  |
|   | AI-W5.1-PCable1500<br>(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