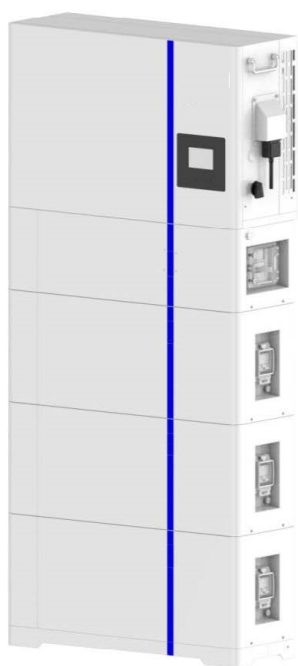


# AI-W5.1-5/6/8/10/12P3-EU-B-ESS



## All-in-one Energy Storage System

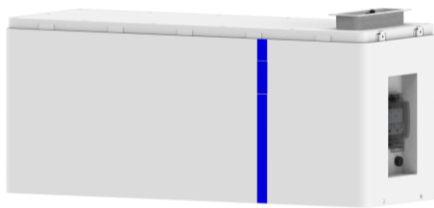
- ◆ All-in-one design, integrated 5kW~12kW Three Phase hybrid inverter and battery
- ◆ Comfortable and easy control via App, PC or Touch-Display
- ◆ Leading smart application: peak-shaving, smart load, AC couple etc
- ◆ Modular lithium iron phosphate battery, capacity of 5kWh~30kWh, scalable and safety
- ◆ Flat and stackable design, floor mounted, no wiring and extra fixing screws, quick and easy installation.
- ◆ Fast switching time of 4ms, ensuring your energy security

# Technical Data

Model	AI-W5.1-5P3-EU-B	AI-W5.1-6P3-EU-B	AI-W5.1-8P3-EU-B	AI-W5.1-10P3-EU-B	AI-W5.1-12P3-EU-B
<b>System Specification</b>					
Nominal Output Power/UPS Power (W)	5000 / 5000	6000 / 6000	8000 / 8000	10000 / 10000	12000 / 12000
AC Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
Recommended Energy Configuration	5kWh(Min.)		10kWh(Min.)		15kWh(Min.)
Max. Charging/Discharging Current (A)	120	150	190	210	240
Battery Operating Voltage (V)	43.2 ~ 57.6				
Battery Chemistry	LiFePO <sub>4</sub>				
IP Rating of Enclosure	IP65 (after stacking)				
System Certification	IEC62619, IEC60730, CE, VDE2510-50, CEI 0-21				
Warranty <sup>[1]</sup>	10 years				
<b>Inverter Technical Specification</b>					
Max. PV Input Power (W)	6500	7800	10400	13000	15600
Rated PV Input Voltage (Vdc)	550 (160~800)				
Start Up DC Voltage (Vdc)	160				
MPPT Voltage Range (Vdc)	200~650				
Full Load DC Voltage Range (V)	350~650				
Max. PV Input Current (A)	13+13			26+13	
Max. PV Short-circuit Current (A)	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)	720x255x440				
Weight (kg)	38				
Communication with BMS	CAN2.0				
EMC/Safety Regulation	IEC/EN 62109-1,IEC/EN 62109-2,IEC/EN 61000-6-1, IEC/EN 61000-6-2,IEC/EN 61000-6-3,IEC/EN 61000-6-4				
Grid Regulation	VDE4105,IEC61727/62116,VDE0126,AS4777.2,CEI 0-21,EN50549-1, G98,G99,C10-11,UNE217002,NBR16149/NBR16150				
Max. Efficiency	97.60%				
Max. charging/discharging efficiency	95.50%				
<b>Battery Technical Specification</b>					
Nominal Voltage (V)	51.2				
Battery Module Energy (kWh)	5.12				
Module Scalability	Max.36 pcs in parallel(Max. capacity of 184kWh)				
Battery Module Dimension	720*255*300(W x D x H, mm)				
Battery Base Dimension	720*255*68(W x D x H, mm)				
Battery PDU3 Dimension	720*255*228(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, 90%DOD,70%EOL)				
Battery Module Certification	IEC62619, CE, UK, VDE2510-50, CEI 0-21, UN38.3, CE-LVD, CEC				

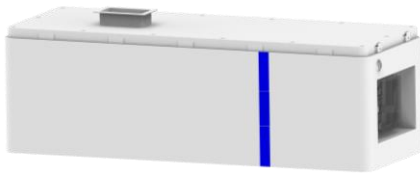
[1] Conditions apply, refer to Deye Warranty Letter.

Model	Accessories Parts Description	Remark
AI-W5.1-B Module (individual package)	5.12kWh Battery Module (Standard Configuration)	Stacked battery modules, each 5.12kWh, a single inverter can be stacked and installed 1~6 (battery capacity 5~30kWh), the maximum expansion of 36 modules to 184kWh.
AI-W5.1-PDU3-B+Base (individual package) (Optional 1)	Power Distribute Unit III (Included)	Battery power and communication quickly interface connect with Inverter and LED display system status, only support 2~6 modules expansion, capacity 10~30kWh.
	AI-W5.1-Base (Included)	The bottom support seat
AI-W5.1-PDU2-B+Base (individual package) (Optional 2)	Power Distribute Unit II (Included)	Battery power and communication quickly interface connect with Inverter and LED display system status, If the system is configured with more than 6 modules and less than 36 modules, this accessory is required, and PDU3 is not required.
	AI-W5.1-Base (Included)	The bottom support seat
	AI-W5.1-BCable1500 (Included)	Battery power and communication cable for external battery parallel expansion. This line is not needed for 2~6 modules, and this line is required for parallel connection when there are more than 6 modules.



**Model: AI-W5.1-B (Battery Module)**

**Details:** 5.12kWh, 720\*255\*300(W x D x H,mm), 53kg



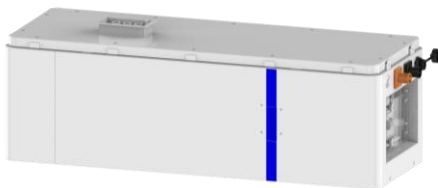
**Model: AI-W5.1-PDU3-B**

**Details:** 720\*255\*228(W x D x H,mm), 15kg



**Model: AI-W5.1-Base (Battery Base)**

**Details:** 720\*255\*68(W x D x H,mm), 6.5kg



**Model: AI-W5.1-PDU2-B**

**Details:** 720\*255\*238(W x D x H,mm), 15kg



**Model: AI-W5.1-BCable1500**

**Details:** Pair of 2/0AWG DC power cable and RJ45 communication cable for external battery expansion of **AI-W5.1-PDU2**, 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.