

Deye AI-W5.1-B Battery

5.12kWh | LFP | Stacked Battery Module

5.12kWh~30.72kWh Per Stack



Highly **scalable** and
flexible capacity



Intelligent **BMS** for safety
and longer lifespan



Real-time battery
monitoring via Deye Cloud



Auto-networking and
remote firmware upgrades



Wide operating temperature
range with natural cooling



IP65 protection for reliable
outdoor performance



100% DOD
Maximises subsidies at
lower cost



Built-in **Parallel Interface**
No External Combiner Box Needed



Stacked Battery (LV)

Model		AI-W5.1-B
Main Parameter		
Battery Chemistry		LiFePO4
Built-in Circuit Breaker		125A 2P, 60Vdc
Nominal Energy (kWh)		5.12
Usable Energy (kWh) ^[1]		5.12
Capacity (Ah)		100
Nominal Voltage (V)		51.2
Operating Voltage(V)		44.8~57.6
Rated DC Power （kW）		2.5
Charge/Discharge Current (A) ^[2]	Recommend	50
	Max.	100
	Peak(10s,25°C)	150
Other Parameter		
Recommend Depth of Discharge		100%
Battery Dimension (W/D/H, mm)		720*255*300 (without terminal parts)
Battery Weight (kg)		53
Master LED Indicator		Battery module: 3LED (working, alarming, protecting), PDU module: 5LED(SOC:20%~ 100%)&3LED (working, alarming, protecting)
Operating Temperature		Charge: 0~55°C (-20°C~55°C when heating on) / Discharge: -20°C~55°C
Storage Temperature		0°C ~ 35°C
IP Rating of Enclosure		IP65 (after stacking)
Humidity		5%~95%, non-condensing
Altitude		≤3000m
Installation		Floor-Mounted
Communication Port		CAN2.0, RS485
Cycle Life		≥6000(25°C±2°C ,0.5C/0.5C,70%EOL)
Energy Throughput		16MWh(Battery Module @70%EOL)
Warranty Period ^[3]		10 years
Certification		UN38 .3, IEC62619, CE, UK, VDE2510-50, CEI0-21,CE-LVD, CEC, FCC, UL1973, UL9540A

Parallel expansion

Battery system	Battery Pack Quantity	1	2	3	4	5	6
	System Usable Energy (kWh) [1]	5.12	10.24	15.36	20.48	25.6	30.72
	System Recommend Charge/Discharge Current (A)	50	100	150	200	250	250
	System Max. Charge/Discharge Current (A) [2]	100	200	250	250	250	250
	System Rated DC Power （kW）	2.5	5	7.5	10	12	12
	System Dimension (W/D/H, mm) (With PDU, Base)	720*255*569	720*255*850	720*255* 1131	720*255* 1412	720*255* 1693	720*255* 1974
	System Weight (kg) (With PDU, Base)	74.5	127.5	180.5	233.5	286.5	339.5

[1]DC Usable Energy, test conditions: 100%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.