

RESIDENTIAL ESS SOLUTION

DEYE SPRING AI SERIES



All-in-One

- ⊙ Integrated hybrid inverter
- ⊙ And LFP battery



Smarter

- ⊙ Peak-shaving, smart load
- ⊙ AC coupling, etc.



Scalable

- ⊙ Flat and stackable design
- ⊙ Capacity of 5kWh~30kWh



Swift Security

- ⊙ Fast switching time of 4ms
- ⊙ Ensuring energy security



Flexible

- ⊙ No wiring and extra fixing screws
- ⊙ Quick and easy installation



Convenient

- ⊙ Comfortable and easy control
- ⊙ Via App, PC or Touch-Display

≥6000

Cycles

IP65

Rated for indoor and outdoor use

70%

EOL

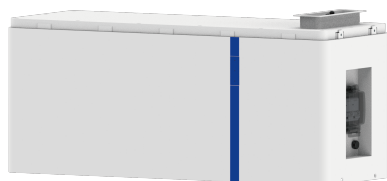
10 years

Warranty for long-term peace of mind

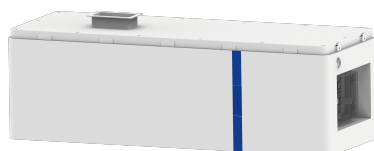
Model	AI-W5.1-3.6 P1-EU-B	AI-W5.1-5 P1-EU-B	AI-W5.1-6 P1-EU-B	AI-W5.1-7.6 P1-EU-B	AI-W5.1-8 P1-EU-B	AI-W5.1-5 P3-EU-B	AI-W5.1-6 P3-EU-B	AI-W5.1-8 P3-EU-B	AI-W5.1-10 P3-EU-B	AI-W5.1-12 P3-EU-B
System Specification										
Nominal Output Power / UPS Power (W)	3600 / 3600	5000 / 5000	6000 / 6000	7600 / 7600	8000 / 8000	5000 / 5000	6000 / 6000	8000 / 8000	10000 / 10000	12000 / 12000
AC Output Frequency and Voltage	50 / 60Hz; L / N / PE 220 / 230Vac					50 / 60Hz; 3L / N / PE 220 / 380, 230 / 400Vac				
Grid Type	Single Phase					Three Phase				
Recommended Energy Configuration	5kWh (Min.)			10kWh (Min.)		5kWh (Min.)		10kWh (Min.)		15kWh (Min.)
Max. Charging / Discharging Current (A)	90	120	135	190	190	120	135	190	210	240
Battery Operating Voltage (V)	44.8 ~ 57.6									
Battery Chemistry	LiFePO ₄									
IP Rating of Enclosure	IP65 (after stacking)									
System Certification	IEC62619, IEC60730, CE, VDE2510-50, CEI 0-21									
Warranty ^[1]	10 years									
Inverter Technical Specification										
Max. PV Access Power (W)	7200	10000	12000	15200	16000	10000	12000	16000	20000	24000
Max. PV Input Power (W)	5600	8000	9600	12160	12800	8000	9600	12800	16000	19200
Max PV Input Voltage (V)	500					800				
Rated PV Input Voltage (Vdc)	370					550				
Start Up DC Voltage (Vdc)	125					160				
MPPT Voltage Range (Vdc)	150 ~ 425					200 ~ 650				
Max. PV Input Current (A)	18+18			32+32		36+20				
Max. PV Short-circuit Current (A)	27+27			48+48		54+30				
No.of MPP Trackers / No.of String Per MPP Tracker	2 / 1+1			2 / 2+2		2 / 2+1				
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	0% ~ 100% (No Condensing)									
Dimension (W × D × H, mm)	720 × 255 × 330					720 × 255 × 440				
Weight (kg)	34					38				
Communication with BMS	CAN2.0									
Safety	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%									
Battery Technical Specification										
Built-in Circuit Breaker	125A 2P, 60Vdc									
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 × D × H, mm)									
Battery Base Dimension	720 × 255 × 68 (W × D × H, mm)									
Battery PDU3 Dimension	720 × 255 × 228 (W × D × H, mm)									
Battery Module Weight (kg)	55									
Operating Temperature Range	Charge : -20°C-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



Model : AI-W5.1-B (Battery Module)
Details : 5.12kWh, 720 × 255 × 300 (W × D × H, mm) , 55kg



Model : AI-W5.1-PDU3-B
Details : 720 × 255 × 228 (W × D × H, mm) , 15kg
Built-in Circuit Breaker: 250A 2P, 1000Vdc



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



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.



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