

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
System Specification					
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 ₄				
IP Rating of Enclosure	IP65 (after stacking)				
System Certification	IEC62619, IEC60730, CE, VDE2510-50, CEI 0-21				
Warranty ^[1]	Battery 10 years (Inverter 5 years)				
Inverter Technical Specification					
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/D/H, mm)	720*255*440				
Weight (kg)	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 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°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.