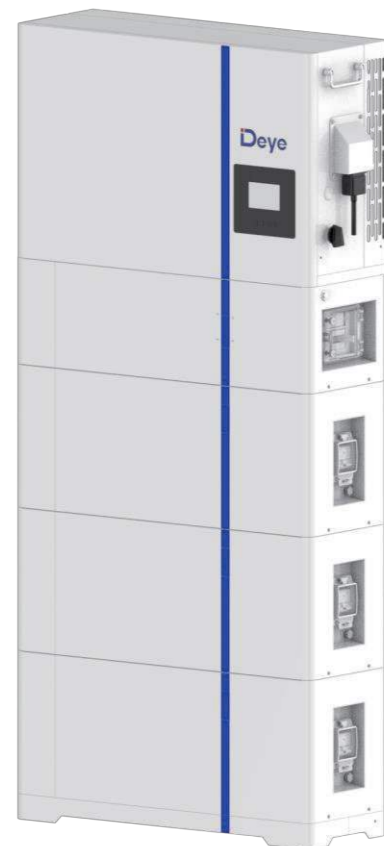


AI-W5.1-3.6/5/6/7.6/8P1-EU-ESS & AI-W5.1-5/6/8/10/12P3-EU-ESS



All-in-one Energy Storage System

- AI-W5.1-(3.6-8)P1-EU-ESS:
All-in-one design, integrated 3.6kW~8kW Single Phase hybrid inverter and battery.
- AI-W5.1-(5-12)P3-EU-ESS:
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-W5.1-3.6P1-EU | AI-W5.1-5P1-EU | AI-W5.1-6P1-EU | AI-W5.1-7.6P1-EU | AI-W5.1-8P1-EU |
|---|--|----------------|----------------|------------------|----------------|
| Nominal Output Power/UPS Power (W) | 3600/3600 | 5000 / 5000 | 6000 / 6000 | 7600/7600 | 8000 / 8000 |
| AC Output Frequency and Voltage | 50/60Hz; L/N/PE 220/230Vac | | | | |
| Grid Type | Single Phase | | | | |
| Recommended Energy Configuration | 5kWh(Min.) | | | 10kWh(Min.) | |
| Max. Charging/Discharging Current (A) | 90 | 120 | 135 | 190 | 190 |
| 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) | 4680 | 6500 | 7800 | 9880 | 10400 |
| Rated PV Input Voltage (Vdc) | 370 (125~500) | | | | |
| Start Up DC Voltage (Vdc) | 125 | | | | |
| MPPT Voltage Range (Vdc) | 150-425 | | | | |
| Full Load DC Voltage Range (V) | 300~425 | | | 200~425 | |
| Max. PV Input Current (A) | 13+13 | | | 26+26 | |
| Max. PV Short-circuit Current (A) | 17+17 | | | 34+34 | |
| 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) | 720x255x330 | | | | |
| Weight (kg) | 34 | | | | |
| 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 | | | | | |
| 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.

Technical Data

| Model | AI-W5.1-5P3-EU | AI-W5.1-6P3-EU | AI-W5.1-8P3-EU | AI-W5.1-10P3-EU | AI-W5.1-12P3-EU |
|---|--|----------------|----------------|-----------------|-----------------|
| 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 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% | | | | |

| Model | AI-W5.1-5P3-EU | AI-W5.1-6P3-EU | AI-W5.1-8P3-EU | AI-W5.1-10P3-EU | AI-W5.1-12P3-EU |
|--|---|----------------|----------------|-----------------|-----------------|
| Battery Technical Specification | | | | | |
| 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.