AI TECH PV 8500

6.2 kW Hybrid Solar Inverter | Model: AI-PV-8500 | 48 V Hybrid

GENERAL & AC OUTPUT

Input formation	L + N + PE
AC input	220 / 230 / 240 VAC
Input voltage range	90–280 VAC ±3% (Normal Mode); 170–280 VAC ±3 V (UPS Mode)
Frequency	50 / 60 Hz (Adaptive)
Rated power	6200 W
Dual output power	6500 W
Output voltage (AC)	220 / 230 / 240 VAC ±5%
Output frequency	50 / 60 Hz ±0.1%
Output waveform	Pure sine wave
Transfer time (adjustable)	10 ms for computer equipment; 20 ms for household equipment
Peak power	12400 VA
Overload ability	Battery mode: 11 s @ 105–150% load; 2 s @ 150–200% load; 400 ms @ >200% load

GRID-CONNECTED OPERATION

Grid output voltage	220 / 230 / 240 VAC
Grid voltage range	180–280 VAC
Grid frequency range	47–53 ±1 Hz / 57–62 ±1 Hz
Grid output current	26.9 A
Power factor range	>0.99
Maximum efficiency (DC/AC)	98%

BATTERY & SOLAR CHARGING

Rated battery voltage	48 VDC
Constant charging voltage	56.4 VDC
Float charging voltage	54 VDC
PV charging method	MPPT
Maximum PV input power	8500 W
PV input voltage range	60–500 VDC
Maximum PV input voltage	500 VDC
Maximum PV input current	27 A
Maximum PV charge current	120 A
Maximum AC charge current	100 A
Maximum charge current	120 A

INTERFACES & ENVIRONMENT

LCD	Displays operating mode / load / input / output
RS232	6-pin / pitch 2.54 mm; baud rate 2400
Expansion slot communication interface	Lithium battery BMS communication card (WiFi 2 × 5-pin / pitch 2.54 mm)
Parallel interface	Supports parallel
Operating temperature	–10°C to 50°C
Storage temperature	–15°C to 60°C
Altitude	Up to 1000 m; above 1000 m, rated power will lower; maximum 4000 m
Operating humidity	20%–95%, non-condensing

Noise	<50 dB
Protection level	IP54