

Shiningintl Bidirectional Inverter solution

Introduce:

Shiningintl is an one stop solution supplier in communication, energy management, smart electronics device. The Shiningintl PK series bidirectional inverter solution features both inverting and charging capabilities, utilizing the latest generation LLC technology. It boasts a maximum charging current of 50A and is characterized by convenient installation and debugging, simple operation and maintenance, stable performance, and high practicality.

Features

Super Fast Charging

Integrated AC/DC bidirectional conversion with equal power for charging and discharging, eliminating the need for bulky external chargers.

High Efficiency

Designed with advanced technology for low loss and low heat emission, saving battery power and extending discharge time.

Compact Size

High power density, small footprint, lightweight yet structurally strong, suitable for portable and mobile applications.

Excellent Load Adaptability Outputs 100/110/120V&220/230/240V, 50/60Hz sine wave, robust overload capability, compatible with various IT equipment, power tools, and household appliances without being picky about the load.

Ultra-wide Input Voltage and Frequency Range

Achieves an ultra-wide input voltage of 120-275Vac (for 220V systems) & 60-150Vac (for 110V systems) and a frequency input range of 46~64Hz, fearless in harsh electrical environments.

DSP Digital Control Technology

Incorporates advanced DSP digital control technology with multiple comprehensive protections for stability and reliability.

Reliable Product Design

Constructed with all-glass fiber double-sided boards and large span components, sturdy, corrosion-resistant, significantly enhancing environmental adaptability.

Product catalogue

Power rate	AC output	Battery number
300W/600W	208V/220V/230V/240V	4 series connection LiFePO4 with MPPT
600W/700W	208V/220V/230V/240V	6 series connection NMC, 7series connection NMC, 8series connection NMC 7 series connection LiFePO4, 8 series connection LiFePO4, 10 series connection LiFePO4
600W/700W	100V/110V/120V	6 Series connection NMC, 7 Series connection NMC, 8series connection NMC 7 series connection LiFePO4, 8 series connection LiFePO4, 10 series connection LiFePO4
1000W/1200W	208V/220V/230V/240V	6 Series connection NMC, 7 Series connection NMC 7 series connection LiFePO4, 8 series connection LiFePO4, 10 series connection LiFePO4
1000W/1200W	100V/110V/120V	6 Series connection NMC, 7 Series connection NMC 7 series connection LiFePO4, 8 series connection LiFePO4

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1500W	208V/220V/230V/240V	7 Series connection NMC, 8 series connection LiFePO4, 9 series connection LiFePO4, 14 Series connection NMC, 15 series connection LiFePO4, 16 series connection LiFePO4
1500W	100V/110V/120V	7 Series connection NMC, 8 series connection LiFePO4, 9 series connection LiFePO4, 14 Series connection NMC, 15 series connection LiFePO4, 16 series connection LiFePO4
2000W/2200W	208V/220V/230V/240V	12 series connection LiFePO4, 14 Series connection NMC 14 series connection LiFePO4, 15 series connection LiFePO4, 16 series connection LiFePO4
2000W/2200W	100V/110V/120V	14 Series connection NMC 14 series connection LiFePO4, 15 series connection LiFePO4, 16 series connection LiFePO4
2400W/2500W	208V/220V/230V/240V	14 Series connection NMC 15 series connection LiFePO4, 16 series connection LiFePO4
2400W/2500W	100V/110V/120V	14 Series connection NMC 15 series connection LiFePO4, 16 series connection LiFePO4
3000W/3600W	208V/220V/230V/240V	14 Series connection NMC 15 series connection LiFePO4, 16 series connection LiFePO4
3000W	100V/110V/120V	14 Series connection NMC 15 series connection LiFePO4, 16 series connection LiFePO4
3600W	100V/110V/120V	14 Series connection NMC 15 series connection LiFePO4, 16 series connection LiFePO4
6000W	208V/220V/230V/240V	15 series connection LiFePO4, 16 series connection LiFePO4

Specifications

1. Low voltage version

Model		Pk700	Pk1000	Pk2000	Pk3600
Rated power		700VA/700W	1kVA/1kW	2kVA/2kW	3.6kVA/3.6kW
Peak power		1400W	2kW	4kW	7kW
function		Bidirectional AC/DC inverter			
Input phase/output phase		Single phase input/single phase output			
Working mode		Auto charging: auto charging when connecting to grid Manual invert discharging: manually start the AC inverting output UPS mode: grid AC power supply, when grid supply off, the board will automatically provide AC output(<10ms)			
	Rated voltage	220V/110VAC			
	Output voltage accuracy	±1%			
	output frequency	50/60Hz±0.1Hz(fixed frequency mode)/ can set auto frequency			
	Output wave	Pure sine wave			
	Output distortion degree (THDV%)	<3%(Linear load) <7%(Nonlinear load PF > 0.7)			
	Overload capacity	60s@105%~120% rated load 10s@120%~150% rate load 0.2S@>150% rated load Support Software adjustment, can set auto recover, can set stable power mode			
efficiency	charging	Max 90%	Max 91%	Max 93%	Max 93%
	discharging	Max 89%	Max 91%	Max 93%	Max 93%
Standby power		<3W (standby) <25W(no load output)			
Shutdown leakage current		<100uA			
Battery and	Battery rated voltage	24V		48V	

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charger	Charging control method	Pre charge, constant current, constant voltage, equalization charge, float charge, shutdown			
	Charging Off voltage	28.2V / Continuously adjustable		57.7V / Continuously adjustable	
	Charging current	Digital setting			
	Charging commands	Charging termination voltage, charging current, charging enable, charging saturation detection, battery failure, battery temperature, charging mode switching			
Protection function		Overload protection, over temperature protection, input overvoltage protection, input undervoltage protection, overcharge protection, over discharge protection			
Environment parameter	Working temperature range	-10~45°C			
	Working humidity range	0-98% (No condensation)			
structure	size	13.2mm*18.5mm*45mm	148mm*45mm*250mm	158mm*60mm*270mm	198mm*60mm*298mm
	weight(kg)	0.8kg	1kg	1.8kg	2.8kg
Insulation isolation withstand voltage		Battery and AC terminal insulation withstand voltage : 3000VDC leakage current<10mA			
Safety regulations and electromagnetic compatibility standards		IEC60950			

2. high voltage version

Model	Pk700	Pk1000	Pk2000
Rate power	700VA/700W	1kVA/1kW	2kVA/2kW
Peak power	1400W	2kW	4kW
function	Bidirectional AC/DC inverter		
Input phase/output phase	Single phase input/single phase output		
Working mode	Auto charging: auto charging when connecting to grid Manual invert discharging: manually start the AC inverting output UPS mode: grid AC power supply, when grid supply off, the board will automatically provide AC output(<10ms)		
output	Output line Single phase two wire (L,N)+protected ground		

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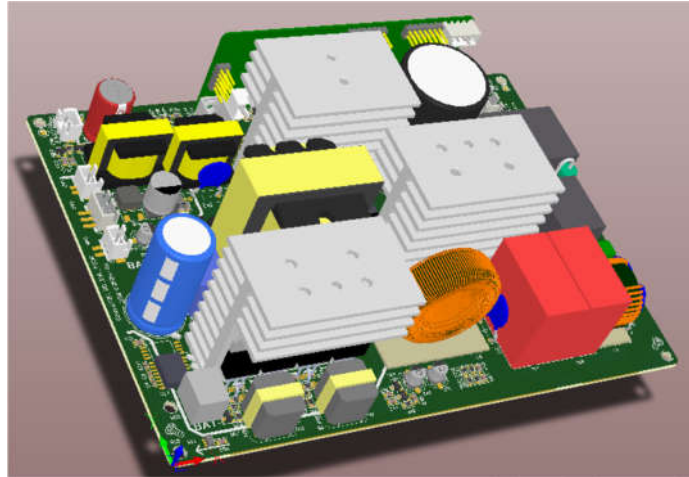
	num		
	Rated power	220/230/240VAC	
	Output voltage accuracy	±1%	
	Output frequency	50/60Hz±0.1%(fixed frequency mode)/same as grid AC frequency)	
	Output wave	Pure sine wave	
	Output distortion degree (THDV%)	<2%(linear load)	
		<8%(Nonlinear load)	
	Overload capacity	30s@105%~120% rated load 10s@120%~150% rated load 0.2S@>150% rated load	
efficiency	charging (AC->battery)	Max 90%	Max 92%
	discharging (battery->AC)	Max 90%	Max 92%
Standby rated power		<3W (standby, no output) <25W (output without load)	
Shutdown leakage current		<100uA	
AC input	Input lines num	Single phase two wires (L,N)+protected ground	
	Input voltage range	L-N voltage: 90~300VAC	
	Input frequency range	46Hz-64Hz	
	Input power factor	≥0.95	
Battery and	Battery rated voltage	24V	48V

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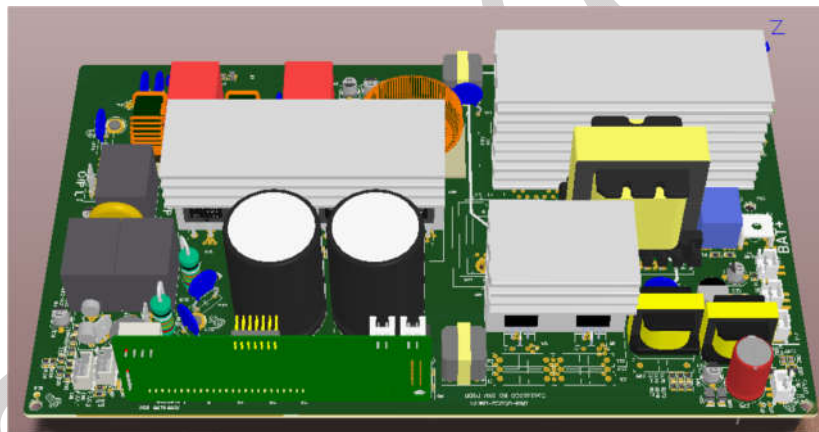
charger	Battery type	Recommended lithium/lead-acid batteries		
	Charging control method	Pre charge, constant current, constant voltage, equalization charge, float charge, shutdown		
	Charging stopped voltage	28.2V / Continuously adjustable		56.5V / Continuously adjustable
	Discharging stopped voltage	22V / Continuously adjustable		44V / Continuously adjustable
	Charging current	Digital setting available		
	Precharge current	2.5A		
	Charging commands	Charging termination voltage, charging current, charging enable, charging saturation detection, battery failure, battery temperature, charging mode switching		
Protection functions		Overload protection, over temperature protection, input overvoltage protection, input undervoltage protection, overcharge protection, over discharge protection		
Human Machine Interface	Communication interface	Power on/power off command, RS232 Isolation TTL level		
	LCD display (optional)	Display input and output voltage, frequency, load percentage, operating mode, machine status		
Environment parameters	Working temperature range	-10~45°C		
	Working humidity range	0-98% (no condensation)		
	Cooling way	Wind cooling		
	Recommend fan	80*25mm 12V*0.25A 3500RPM		
structure	size	13.2mm*18.5mm*45mm	148mm*45mm*250mm	158mm*60mm*270mm
	weight(kg)	0.8kg	1kg	1.8kg
Insulation isolation withstand voltage		Battery and AC terminal insulation withstand voltage: 3000VDC leakage current<10mA		
Safety regulations and electromagnetic		IEC60950		

Product appearance

1. 600W/700W

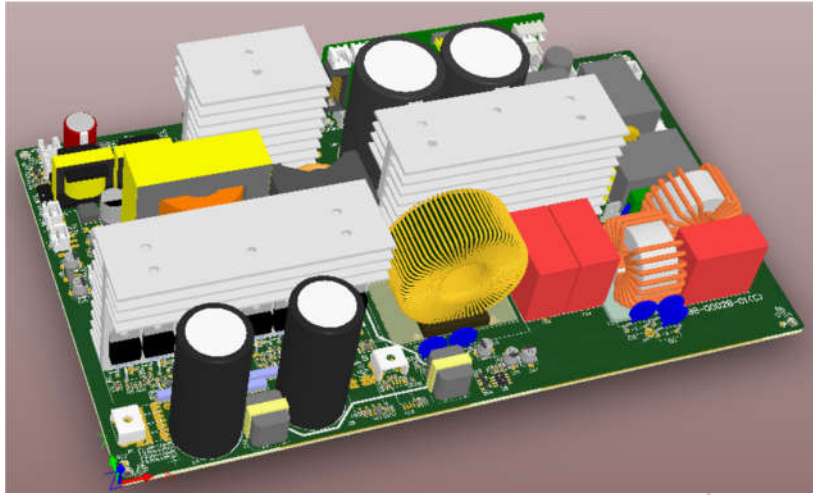


2. 1000W/1200W



3. 2000W~3000W

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