

Overview

IPower-Plus is a high-frequency pure sine wave inverter that can convert 12/24/48VDC to 220/230/240VAC (or 100/110/120VAC) and power the AC loads. It is designed according to the international standard with higher quality, reliability, and safety. Ranging from 350W to 5000W, IPower-Plus is compatible with lithium-ion battery perfectly and suits any situation of DC to AC, such as RVs, boats, residentials, and places where require high quality of electrical power.

Features

- Pure sine wave output
- Input to output electrical isolation
- Digital dual closed-loop control of voltage and current
- Input surge current suppression for lithium battery systems
- Output power factor up to 1
- Simple system wiring & 180 degrees rotating LCD
- Input Protection: Reverse polarity, Low-voltage, Over-voltage
- Output Protection: Overload, Short circuit, Overheating
- Phone and PC remote control through RS485 port
- Extra external switch port
- Safety (EN/IEC62109) & EMC approved by international standards



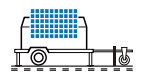
Solar Car



Solar Home



Solar Boat



Solar Power Generator

Parameters	IP1500-12-Plus	IP1500-22-Plus	IP1500-42-Plus	IP2000-12-Plus	IP2000-22-Plus	IP2000-42-Plus
Continuous output power	1500W@35°C@ Rated input voltage			2000W@35°C@ Rated input voltage		
Surge power	3000W@5S			4000W@5S		
Surge current when power on	< 100A		< 50A	< 100A	< 100A	< 50A
Output voltage	220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)			220VAC (±3%); 230VAC (-6%~+3%); 240VAC (-9%~+3%)		
Output frequency	50/60Hz ± 0.2%			50/60Hz ± 0.2%		
Output wave	Pure Sine Wave			Pure Sine Wave		
Output distortion THD	THD ≤ 3% (Resistive load)			THD ≤ 3% (Resistive load)		
Load power factor	0.2 ~ 1 (Load power ≤ Continuous output power)			0.2 ~ 1 (Load power ≤ Continuous output power)		
Rated input voltage	12VDC	24VDC	48VDC	12VDC	24VDC	48VDC
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC
Rated output efficiency ^①	> 89.0%	> 90.0%	> 92.5%	> 88.0%	> 90.0%	> 92.5%
Max. output efficiency ^②	> 93.0% (30% loads)	> 93.5% (30% loads)	> 94.0% (30% loads)	> 94.0% (30% loads)	> 93.0% (30% loads)	> 94.5% (30% loads)
Idle current	< 0.2A	< 0.15A	< 0.1A	< 0.2A	< 0.15A	< 0.1A
No-load current	< 1.2A	< 0.9A	< 0.5A	< 1.2A	< 1.0A	< 0.5A
USB output	5VDC/Max.1A		---	5VDC/Max.1A	5VDC/ Max.1A	---
RS485 com. port	5VDC/200mA			5VDC/ 200mA		
Mechanical parameters						
Input terminal	M6			M10	M6	M6
Dimension (L x W x H)	387 × 231.5 × 123mm			420 × 231.5 × 123mm	421 × 231.5 × 123mm	421 × 231.5 × 123mm
Mounting size (L x W)	361 × 145mm			395 × 145mm	395 × 145mm	395 × 145mm
Mounting hole size	Φ 6mm			Φ 6mm	Φ 6mm	Φ 6mm
Net Weight	5.85kg	5.48kg	5.30kg	7.25kg	6.07kg	6.00kg

① It is measured in the condition of continuous output power and rated input voltage.

② It means the max. output efficiency when the inverter is connected with different loads under the rated input voltage.

Technical Specifications

Parameters	IP3000-12-Plus	IP3000-22-Plus	IP3000-42-Plus	IP4000-42-Plus	IP5000-42-Plus
Continuous output power	3000W@35°C@Rated input voltage			4000W@35°C@Rated input voltage	5000W@35°C@Rated input voltage
Surge power	6000W@5S			8000W@5S	8000W@5S
Surge current when power on	< 100A	< 100A	< 65A	< 65A	< 65A
Output voltage	220VAC ($\pm 3\%$); 230VAC ($-6\% \sim +3\%$); 240VAC ($-9\% \sim +3\%$)				
Output frequency	50/60Hz $\pm 0.2\%$				
Output wave	Pure Sine Wave				
Output distortion THD	THD $\leq 3\%$ (Resistive load)				
Load power factor	0.2 ~ 1 (Load power \leq Continuous output power)				
Rated input voltage	12VDC	24VDC	48VDC	48VDC	48VDC
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC	43.2 ~ 64VDC	43.2 ~ 64.0VDC
Rated output efficiency ^①	> 87.0%	> 90.0%	> 92.5%	> 91.0%	> 91.0%
Max. output efficiency ^②	> 94.0%	> 94.0%	> 94.5%	> 94.0%	> 94.0%
	(30% loads)	(30% loads)	(30% loads)	(30% loads)	(30% loads)
Idle current	< 0.2A	< 0.15A	< 0.1A	< 0.1A	< 0.1A
No-load current	< 1.6A	< 1.0A	< 0.5A	< 0.6A	< 0.8A
USB output	5VDC/Max.1A	5VDC/Max.1A	---	---	---
RS485 com. port	5VDC/ 200mA				
Mechanical parameters					
Input terminal	M10	M6	M6	M6	M6
Dimension (L x W x H)	557 × 231.5 × 123mm	521 × 274 × 148mm	491 × 231.5 × 123mm	516 × 231.5 × 123mm	531 × 231.5 × 123mm
Mounting size (L x W)	532 × 145mm	495 × 145mm	465 × 145mm	490 × 145mm	505 × 145mm
Mounting hole size	$\Phi 6$ mm	$\Phi 6$ mm	$\Phi 6$ mm	$\Phi 6$ mm	$\Phi 6$ mm
Net Weight	9.60kg	8.85kg	7.00kg	8.15kg	8.90kg

Environment parameters		Certification	
Work temperature	-20°C ~ +60°C (Refer to the Derating Curve)	Safety	EN/IEC62109-1, UL1741, UL458, CSA C22.2#107.1
Storage temperature	-35°C ~ +70°C	EMC(Electromagnetic compatibility)	EN61000-6-1/EN61000-6-3 FCC 47 CFR Part 15, Subpart B
Relative humidity	$\leq 95\%$ (N.C.)	RoHS	IEC62321-3-1
Enclosure	IP20		--

① It is measured in the condition of continuous output power and rated input voltage.

② It means the max. output efficiency when the inverter is connected with different loads under the rated input voltage.