

## Overview

IPower-Plus is a high-frequency pure sine wave inverter that can convert 12/24/48VDC to 220/230VAC (or 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, residences, 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



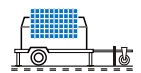
Solar Car



Solar Home



Solar Boat



Solar Power Generator

Parameters	IP350-11-Plus	IP350-21-Plus	IP500-11-Plus	IP500-21-Plus	IP1000-11-Plus	IP1000-21-Plus	IP1000-41-Plus
Continuous output power	350W@35°C @ Rated input voltage		500W@35°C@35°C @ Rated input voltage		1000W@35°C@ Rated input voltage		
Surge power	700W@5S		1000W@5S		2000W@5S		
Surge current when power on	< 30A		< 50A		< 100A		< 35A
Output voltage	100VAC/110VAC (±3%); 120VAC (-7%~+3%)				100VAC/110VAC (±3%); 120VAC (-7%~+3%)		100VAC/110VAC /120VAC(±3%)
Output frequency	50/60Hz ± 0.2%						
Output wave	Pure Sine Wave						
Output distortion THD	THD ≤ 4% (Resistive load)	THD ≤ 3% (Resistive load)	THD ≤ 4% (Resistive load)		THD ≤ 4% (Resistive load)	THD ≤ 3% (Resistive load)	THD ≤ 3% (Resistive load)
Load power factor	0.2 ~ 1 (Load power ≤ Continuous output power)						
Rated input voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	48VDC
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32VDC	10.8 ~ 16.0VDC	21.6 ~ 32VDC	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC
Rated output efficiency①	> 87.0%	> 90.0%	> 87.5%	> 90.0%	> 87.0%	> 90.0%	> 91.0%
Max. output efficiency②	> 89.0% (70% loads)	> 90.5% (70% loads)	> 90.0% (40% loads)	> 91.0% (40% loads)	> 92.0% (40% loads)	> 92.5% (30% loads)	> 92.5% (40% loads)
Idle current	< 0.15A	< 0.10A	< 0.15A	< 0.10A	< 0.2A	< 0.15A	< 0.1A
No-load current	< 0.8A	< 0.4A	< 0.8A	< 0.5A	< 0.8A	< 0.6A	< 0.5A
USB output	5VDC/Max.1A						—
RS485 com. port	5VDC/200mA						
<b>Mechanical parameters</b>							
Input terminal	M6		M6		M6	M6	M6
Dimension (L x W x H)	229 × 163.5 × 75mm (with decorative cover) 229 × 160 × 73mm (without decorative cover)		286 × 163.5 × 78mm (with decorative cover) 286 × 160 × 78mm (without decorative cover)		371 × 231.5 × 123mm		332 × 231.5 × 123mm
Mounting size (L x W)	205 × 75mm		262 × 75mm		345 × 145mm		306 × 145mm
Mounting hole size	Φ5mm		Φ5mm		Φ6mm		
Net Weight	1.5kg		2.3kg		5kg		4.5kg

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.

Parameters	IP1500-11-Plus	IP1500-21-Plus	IP1500-41-Plus	IP2000-11-Plus	IP2000-21-Plus	IP2000-41-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	< 100A	< 50A	< 100A	< 100A	< 50A
Output voltage	100VAC/110VAC (±3%); 120VAC (-7%~+3%)					
Output frequency	50/60Hz ± 0.2%					
Output wave	Pure Sine Wave					
Output distortion THD	THD ≤ 4% (Resistive load)			THD ≤ 5% (Resistive load)	THD ≤ 4% (Resistive load)	
Load power factor	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 <sup>①</sup>	> 88.0%	> 88.0%	> 90.0%	> 85.0%	> 88.0%	> 88.0%
Max. output efficiency <sup>②</sup>	> 93.0% (30% loads)	> 92.5% (30% loads)	> 92.0% (30% loads)	> 92.0% (30% loads)	> 92.0% (30% loads)	> 93.0% (30% loads)
Idle current	< 0.2A	< 0.15A	< 0.1A	< 0.2A	< 0.15A	< 0.1A
No-load current	< 1.0A	< 0.9A	< 0.5A	< 1.2A	< 0.9A	< 0.5A
USB output	5VDC/Max.1A	5VDC/Max.1A	---	5VDC/Max.1A	5VDC/Max.1A	---
RS485 com. port	5VDC/200mA					
<b>Mechanical parameters</b>						
Input terminal	M6			M10	M6	
Dimension (L x W x H)	387 × 231.5 × 123mm			420 × 231.5 × 123mm	421 × 231.5 × 123mm	
Mounting size (L x W)	361 × 145mm			395 × 145mm	395 × 145mm	
Mounting hole size	Φ6mm					
Net Weight	6.0kg			8.0kg	6.5kg	

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.

Parameters	IP3000-11-Plus	IP3000-21-Plus	IP3000-41-Plus	IP4000-41-Plus
Continuous output power	3000W@35°C@Rated input voltage			4000W@35°C @Rated input voltage
Surge power	4800W@5S	6000W@5S	6000W@5S	8000W@5S
Surge current when power on	< 100A	< 100A	< 65A	< 65A
Output voltage	100VAC/110VAC (±3%); 120VAC (-7%~+3%)			
Output frequency	50/60Hz ± 0.2%			
Output wave	Pure Sine Wave			
Output distortion THD	THD ≤ 4% (Resistive load)	THD ≤ 5% (Resistive load)	THD ≤ 4% (Resistive load)	THD ≤ 4% (Resistive load)
Load power factor	0.2 ~ 1 (Load power ≤ Continuous output power)			
Rated input voltage	12VDC	24VDC	48VDC	48VDC
Input voltage range	10.8 ~ 16.0VDC	21.6 ~ 32.0VDC	43.2 ~ 64.0VDC	43.2 ~ 64.0VDC
Rated output efficiency <sup>①</sup>	> 85.0%	> 87.0%	> 89.5%	> 88.0%
Max. output efficiency <sup>②</sup>	> 93.0% (30% loads)	> 91.5% (30% loads)	> 93.5% (30% loads)	> 93.0% (30% loads)
Idle current	< 0.2A	< 0.15A	< 0.1A	< 0.1A
No-load current	< 1.6A	< 1A	< 0.4A	< 0.6A
USB output	5VDC/Max.1A	5VDC/Max.1A	---	---
RS485 com. port	5VDC/200mA			
<b>Mechanical parameters</b>				
Input terminal	M10	M6	M6	M6
Dimension (L x W x H)	550 × 274 × 148mm	521 × 274 × 148mm	516 x 231.5 x 123mm	521 × 274 × 148mm
Mounting size (L x W)	525 × 145mm	495 × 145mm	490 x 145mm	495 × 145mm
Mounting hole size	Φ6mm			
Net Weight	13.0kg	8.0kg	8.0kg	12.0kg

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.

Environment parameters	
Environment temperature	-20°C ~ +60°C (Refer to the Derating Curve)
Storage temperature	-35°C ~ +70°C
Relative humidity	< 95% (N.C.)
Enclosure	IP20
Altitude	< 5000m (If the altitude exceeds 1000 meters, the rated power will be reduced according to IEC62040.)
Certification	
Safety	EN/IEC62109-1, UL1741, UL458, CSA C22.2#107.1
EMC (Electromagnetic compatibility)	EN61000-6-1/EN61000-6-3 FCC 47 CFR Part 15, Subpart B
RoHS	IEC62321-3-1