

# IPower series Pure Sine Wave Inverter

#### Overview

IPower series is a kind of pure sine wave inverter which can convert. 12/24/48VDC to 220/230VAC(or 110/120VAC). Industrial design, compared with the civil design, has a wider operating temperature, easy installation and operation. The wide input voltage range is ideal for solar system application. The inverter can be applied in many fields, such as household emergency lighting system, vehicle mounted system and small field power supply etc.









### **Features**

- Safe design with input and output electrical isolation
- Adoption of advanced SPWM technology, pure sine wave output
- Optional output voltage 220/230VAC(or 110/120VAC), choosing by DIP switch
- LED indicators for fault status and working status
- Lower No-load consumption
- Max. efficiency up to 95%(IP2000-22, IP2000-42)①
- Input protection: Over voltage protection, low voltage protection
- Output protection: Over load protection, short circuit protection
- Over temperature protection: Temperature-controlled Fan Ventilation;
   Inverter turns off automatically when overheating
- Operational USB output 5VDC/1A
- Operational RS485 communication port2

The efficiency is tested at rated input voltage,220V output with resistive load, 25 Ambient temperature,1500W and higher version 1000W and higher version support RS485 communication port optional.









## **Technical Specifications**

Model	IP350-12	IP350-22	IP350-11	IP350-21	IP500-12	IP500-22	IP500-11	IP500-21	
Technical Specification									
Rated Input Voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	
Input Voltage Range	10.8~16VDC	21.6~32VDC	10.8~16VDC	21.6~32VDC	10.8~16VDC	21.6~32VDC	10.8~16VDC	21.6~32VDC	
Input surge voltage	<32VDC	<44VDC	<32VDC	<44VDC	<32VDC	<44VDC	<32VDC	<44VDC	
Output Voltage	220VAC (±5%) 230VAC (-7% ~ + 5%)		110VAC (± 5%) 20VAC (-10% ~ + 5%)		220VAC (±5%) 230VAC (-10% ~ + 5%)		110VAC (± 5%) 120VAC (-10% ~ + 5%)		
Output Frequency		50/60±0.1Hz							
Output Continuous Power	280W			400W					
Output Power 15 min.	350W			500W					
Surge power	750W			1000W					
Power factor		0.2-1(VA lower than output continuous power)							
Output Wave		Pure sine wave							
Distortion THD	THD≤3%① THD≤5%①			THD≤3%① THD≤5%①			5%(1)		
Max. Efficiency	91%	92%	90%	91%	92%		91	91%	
No-load current	<0.7A	<0.5A	<0.7A	<0.5A	<0.9A	<0.5A	<0.9A	<0.5A	
USB Output Port②	5VDC/Max.1A								
Binding post	Ф6тт			Ф6тт					
Overall dimension	214 × 105.5 × 57.7mm			232.2 × 132 × 74.5mm					
Mounting dimension	185.5 × 76.7mm			205 × 102 mm					
Mounting hole size	Ф4.2mm			Ф5.2mm					
Net weight	1.0kg			1.7 kg					

Model	IP1000-12	IP1000-22	IP1000-11	IP1000-21	IP1500-12	IP1500-22	IP1500-11	IP1500-21
Technical Specification								
Rated Input Voltage	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC	12VDC	24VDC
Input Voltage Range	10.8 ~ 16VDC	21.6 ~ 32VDC	10.8 ~ 16VDC	21.6 ~ 32VDC	10.8 ~ 16VDC	21.6 ~ 32VDC	10.8 ~ 16VDC	21.6 ~ 32VDC
Input Surge Voltage	<20VDC	<40VDC	<20VDC	<44VDC	<20VDC	<40VDC	<20VDC	<40VDC
Output Voltage	220VAC / 230VAC (± 5%) 110VAC / 120VAC (± 3%)		OVAC (± 3%)	220VAC (± 5%) 110VAC (± 3%) 230VAC (-7% ~ + 5%) 120VAC (-7% ~ + 3%)				
Output Frequency		50/60±0.1Hz						
Output Continuous Power	800W			1200W				
Output Power 15 min.	1000W			1500W				
Surge power	1600W			2400W				
Power factor		0.2-1(VA lower than output continuous power)						
Output Wave		Pure sine wave						
Distortion THD	THD≤3%① THD≤5%①			THD≤3%① THD≤5%①			≤5%①	
Max. Efficiency	94.	5% 92.5%		93%	94%	93%	94%	
No-load Current	<0.8A	<0.5A	<0.8A	<0.5A	<1.0A	<0.6A	<1.0A	<0.6A
USB Output Port②	5VDC/Max.1A							
RS485 Com. Port②	5VDC / 200mA							
Binding Post	Ф10mm							
Overall Dimension (mm)	298.3 × 231.5 × 98.5	284.7 x 231.5 x 98.5	298.3 × 231.5 × 98.5	284.7 x 231.5 x 98.5	326,12×231.5 ×98.5	284.7×231.5 ×98.5	326,12×231.5 ×98.5	284.7×231.5 ×98.5
Mounting Dimension	183 × 220 mm   163 × 219.5mm   183 × 220 mm   163 × 219.5mm   208 × 220 mm   163 × 219.5mm   208 × 220 mm   163 × 219.5mm					163 × 219.5mm		
Mounting Hole Size	Ф5.5mm							

### **Environmental Parameters**

Net Weight

3.9 kg

3.6 kg

Working Temperature	-20 °C ~ + 45 °C
Storage Temperature	-35 ℃ ~ + 70 ℃
Humidity	<95% (NC)
Enclosure	IP20
Altitude	< 5000 m (Derating to operate according to IEC62040 at a height exceeding 1000m)

3.6 kg

4.6 kg

3.9 kg

4.6 kg

3.9 kg

3.9 kg

Model	IP2000-22	IP2000-42	IP2000-21	IP2000-41		
Technical Specification						
Rated Input Voltage	24VDC	48VDC	24VDC	48VDC		
Input Voltage Range	21.6 ~ 32VDC	43.2 ~ 60 VDC	21.6 ~ 32VDC	43.2 ~ 60 VDC		
Input Surge Voltage	<40VDC	<80VDC	<40VDC	<80VDC		
Output Voltage	220VAC (± 5%) 230VAC (-10% ~ + 5%) 110VAC (± 5%) 120VAC (-10% ~ + 5%)					
Output Frequency	50/60±0.1Hz					
Output Continuous Power	1600W					
Output Power 15 min.	2000W					
Surge power	3200W					
Power factor	0.2-1(VA lower than output continuous power)					
Output Wave	Pure sine wave					
Distortion THD	THD≤3%① THD≤5%①			£5% <u>①</u>		
Max. Efficiency	95	5%	94	94%		
No-load Current	<0.6A	<0.4A	<0.6A	<0.4A		
USB Output Port②	5VDC/Max.1A					
RS485 Com. Port②	5VDC / 200mA					
Binding Post	Ф10mm					
Overall Dimension	326.12 × 231.5 × 98.5mm					
Mounting Dimension	208 × 219.5mm					
Mounting Hole Size	Ф5.5mm					
Net Weight	4.6 kg					

### Others

Dielectric Strength	Between DC input terminals and metal case: Test voltage AC500V, 1 minute Between AC output terminals and metal case: Test voltage AC1500V, 1 minute
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