



IPR Series

High-frequency Pure Sine Wave Inverter

Overview

The IPR series is a high-frequency pure sine wave inverter with grid input bypass function. It supports RS485 and CAN/LIN communication, with CAN supporting the RV-C protocol. It features ultra-low standby power consumption. The product boasts high conversion efficiency and low total harmonic distortion (THD). It can be applied to DC-AC off-grid solar systems, providing high-quality and highly reliable power supply at home, in RVs, or camping.

Features

Stable & Reliable Output

- Pure sine wave output: Stable voltage, low ripple
- Strong load capability: Supports inductive loads (ACs, refrigerators, power tools)

Compact Design

- Compact design: < 90 mm thickness

Power Supply Flexibility

- Automatic AC switching: AC input powers load when available

Communication & Integration

- RS485 standard; Optional CAN/LIN

Built-in Protection

- Reverse Polarity; Over/Undervoltage; Overload; Short Circuit; Overtemperature

Smart Cooling

- Adaptive air-cooling: Responds to temperature and load



►► Technical Specifications

Parameter	IPR1012	IPR1512	IPR2012	IPR3012	IPR1011	IPR1511	IPR2011	IPR3011
Battery Input (DC)								
Voltage Range	10.8VDC ~ 16.0VDC							
Rated Voltage	12VDC							
Rated Current	101.8A	154.3A	205.8A	315.7A	106.4A	159.6A	215.3A	326.8A
AC Input								
AC Input Breaker Rating	5A	8A	10A	15A	10A	15A	20A	30A
Input Voltage Range	190VAC~265VAC				85VAC~140VAC			
Input Frequency Range	45Hz~55Hz/55Hz~65Hz							
AC Output								
Rated Output Power	1000W@ 40°C@ Rated battery voltage	1500W@ 40°C@ Rated battery voltage	2000W@ 40°C@ Rated battery voltage	3000W@ 40°C@ Rated battery voltage	1000W@ 40°C@ Rated battery voltage	1500W@ 40°C@ Rated battery voltage	2000W@ 40°C@ Rated battery voltage	3000W@ 40 °C @ Rated battery voltage
Surge Power (2s)	2000W	3000W	4000W	6000W	2000W	3000W	4000W	6000W
Rated Output Current	4.5A	6.8A	9.09A	13.6A	9.09A	13.6A	18.18A	27.3A
Output Waveform	Pure sine wave							
Rated Output Voltage	220/230/240VAC				110/120/130VAC			
Output Frequency	50Hz/60Hz ± 0.2%							
THDu	≤ 3% (Resistive load)				≤ 4% (Resistive load)			
Power Factor	0.2 ~ 1 (Load power ≤ Continuous output power)							
Efficiency								
Rated Output Efficiency	90.5%	89.5%	90.0%	88.0%	87.5%	87.5%	86%	85%
Max. Output Efficiency	> 92.5%	> 94.0%	> 94.0%	> 94.0%	> 93.0%	> 93.0%	> 93.0%	> 94.0%
Environmental Parameters								
Operating Temperature	-20°C~60°C (> 40°C Derating)							
Storage Temperature	-35°C~70°C							
Relative Humidity	≤ 95% (N.C.)							
Altitude	< 3000m (> 2,000m Derating)							
Ingress Protection	IP20							
Noise	< 60dB (Full load)							
Mechanical Parameters								
Dimensions (L×W×H)(mm)	406×192×87	421×192×87	433×239×90	452×239×90	406×192×87	421×192×87	433×239×90	468×239×90
Mounting Dimensions (L×W)(mm)	357×105	372×105	384×158	403×158	357×105	372×105	384×158	403×158
Mounting Hole Size	Φ5.5mm							
Weight (kg)	4.3	4.8	5.9	6.9	4.5	5.0	6.1	7.0
Input Terminal	M6							
Others								
No-load Current	< 1A	< 0.9A	< 1.2A	< 1.3A	< 1A	< 1.1A	< 1.2A	< 1.5A
Standby Current	< 0.3A					< 0.4A	< 0.3A	
Communication Method	RS485/CAN(RV-C)/LIN/BMS/Bluetooth/WIFI							