

**i-POWER**

## **RECTIFIER MODULE DATASHEET**

# **IPR-483KH**



# IPR-483KH

IPR-483KH is a high-efficiency rectifier designed to optimize medium-site performance. It minimizes energy loss and heat dissipation, supports parallel operation with multiple rectifiers, and enables intelligent monitoring via CAN reducing operational costs over the system's lifecycle.



## PRODUCT OVERVIEW

### AC Input

Input Voltage (Nominal): 110 Vac / 220 Vac  
Input Voltage Range: 85 ~ 290 Vac  
Max. Input Current: 16 A  
Input Frequency: 45 ~ 65 Hz  
Power Factor:  $\geq 0.99$  (220 Vac @20%~100% Load)

### DC Output

Output Voltage: -42 ~ 58 Vdc, rated: -53.5 Vdc  
Peak Efficiency:  $> 98\%$   
Maximum Capacity: 3000W  
Maximum Output Current: 62.5 A  
THD:  $\leq 5\%$  @50%~100% load

### Certifications Standard

#### EMC

- EN 55032  
Class B
- EN 55035

#### Safety

- CE, UL, UL-CB UL  
62368-1

### Control and Monitoring

#### LED



- Green – Normal
- Yellow – Alarm
- Red – Fault

#### Communication Protocol

- CAN

### Table Detail Specification

| Item                  | Description                                                              |
|-----------------------|--------------------------------------------------------------------------|
| Dimension             | 291mm(L) * 106.4mm (W) * 41.5mm (H)                                      |
| Weight                | <2Kg                                                                     |
| Cooling mode          | Forced air cooling, built-in fan (with linear speed regulation function) |
| Over voltage          | 290Vac input voltage >300Vac: alarm light on, output on 300Vac input     |
| Input Protection      | Voltage: output off                                                      |
| Over-voltage recovery | Input voltage >290Vac, automatic recovery                                |
| Under-voltage         | Input voltage >290Vac, automatic recovery                                |

### Contact Us

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### IPOWER GLOBAL HOLDINGS LTD

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## Table Detail Specification

| Item                   | Description                                                                                                                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Under-voltage recovery | Input voltage >80-90Vac, automatic recovery                                                                                                                                                                                                                                     |
| Output protection      | Internal over-voltage: 58.5VDC-60.5VDC, can be set via monitor                                                                                                                                                                                                                  |
| External over-voltage  | External over-voltage >63VDC, and last for more than 500ms. The module locks out when the external over-voltage protection occurs.                                                                                                                                              |
| Current limiting       | Refer to output characteristic curve                                                                                                                                                                                                                                            |
| Short-circuit          | Long time short-circuit tolerance, can be automatically recovered after the short-circuit disappears                                                                                                                                                                            |
| Over temperature       | With over temperature protection                                                                                                                                                                                                                                                |
| Surge protection       | Lightning protection 5KA 8/20μs                                                                                                                                                                                                                                                 |
| Operating temperature  | -10°C~+75°C                                                                                                                                                                                                                                                                     |
| Storage temperature    | -10°C~+75°C                                                                                                                                                                                                                                                                     |
| Operating environment  | <p>At -10°C ~ -55°C, it works normally; at -10°C ~ -65°C, the output power is linearly degraded to 80%; at -65°C ~ -75°C, the output power is linearly degraded to 40%.</p> <p>At -40°C, can power on normally after the input powered on. Output waveform is not required.</p> |
| Relative humidity      | <90% RH (no condensation)                                                                                                                                                                                                                                                       |
| Altitude               | <4000m (from 3000m to 4000m, the operating temperature decreases by 1°C for each additional 200m)                                                                                                                                                                               |
| MTBF                   | >500,000 hours (25°C)                                                                                                                                                                                                                                                           |
| Audible Noise          | <56dB(A) (40°C)                                                                                                                                                                                                                                                                 |

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