

i-POWER

RECTIFIER MODULE DATASHEET

IPR-481K



IPR-481K

IPR-481K is our most compact rectifier, delivering 1700W with a wide input range and stable DC output. Designed for space-constrained environments, it's ideal for small DC cabinets in dense urban or indoor sites. Supports full CAN protocol for seamless system monitoring environments



PRODUCT OVERVIEW

AC Input

Input Voltage (Nominal): 110 Vac / 220 Vac
Input Voltage Range: 85 ~ 290 Vac
Max. Input Current: 12 A
Input Frequency: 45 ~ 65 Hz
Power Factor: ≥ 0.99 (220 Vac @20%-100% Load)

DC Output

Output Voltage: -42 ~ 58 Vdc, rated: -53.5 Vdc
Peak Efficiency: $> 94\%$
Maximum Capacity: 1700W
Maximum Output Current: 33 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	230.1 mm(L) * 96.9 mm (W) * 41.6 mm (H)
Weight	<1.5 Kg
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

RM NO. 32, BLOCK F, 9/F, MAI TAK INDUSTRIAL BUILDING,
221 WAI YIP ST, KWUN TONG, HONG KONG

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 8/20 μ s
Operating temperature	-10°C~+75°C
Storage temperature	-10°C~+75°C
Operating environment	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%. At -40°C, can power on normally after the input powered on. Output waveform is not required.
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	<55 dB(A) (40°C)

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