

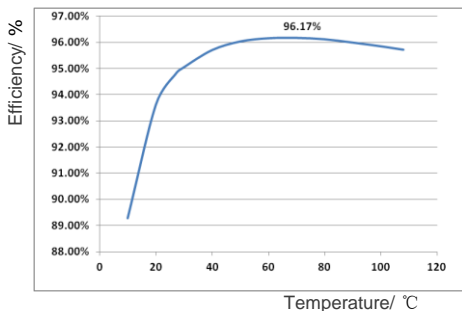
# R48100G1 Rectifier



Rectifier

## Features

- ✓ Input voltage range: 260~530VAC
- ✓ Operating temperature range: -40 °C to +75 °C (output derating above 45°C)
- ✓ Total harmonic distortion (THD): ≤ 5%
- ✓ Digital control mode
- ✓ Hot swap
- ✓ Supports intelligent electric meter
- ✓ Supports CAN communication
- ✓ Supports LED display
- ✓ Supports voltage and current adjustment
- ✓ Passes the TUV,CE,UL certifications and gets the CB certificate



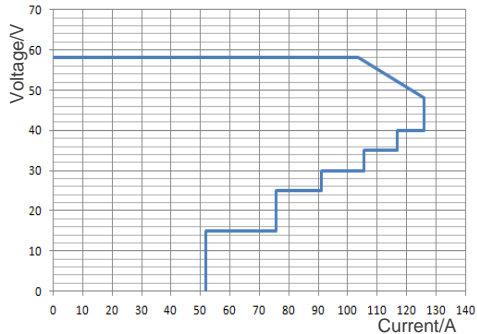
Efficiency curve

## Introduction

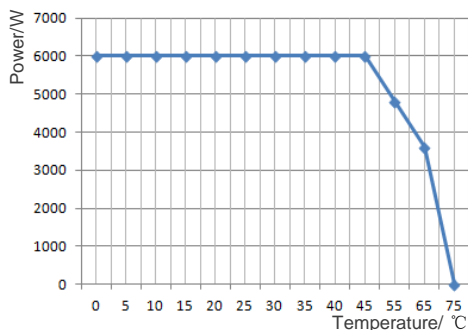
The R48100G1 is a digital control 3-phase rectifier with the maximum output power being 6000W. It converts 260~530VAC input voltage to 53.5VDC output voltage. The output voltage can be adjusted by the host. It performs comprehensive protection functions, supports soft start, and produces low noise. With the latest power monitoring technology, states of the rectifier and load are monitored in real time. Multiple rectifiers can be paralleled.

Electrical Specifications	Specification
<b>Input</b>	
Input voltage	260~530VAC
Frequency	45~66Hz Rated: 50Hz and 60Hz
Maximum input current	≤13A(Vin: 308VAC,100% load)
Power factor	≥ 0.99
THD	≤ 5%
<b>Output</b>	
Output voltage	42~58VDC Rated: 53.5VDC
Output power	6000W(304~530VAC)
<b>Others</b>	
Dimension	43mm(H) × 238mm(W) × 378mm(D)
Weight	< 6kg
Cooling	Forced wind ventilation
<b>Environmental Specifications</b>	
Operating temperature	-40°C to +75 °C(output derating above 45°C)
Storage temperature	-40°C to +75°C
Relative humidity	5%~95% (non-condensing)
Altitude range	≤ 4000m (If the altitude is within the range of 2000m to 4000m, the maximum operating temperature decreases by 1 °C as the altitude increases by 120m)

# R48100G1 Rectifier



Output feature



Power derating curve

Protection	
Input overvoltage protection	Protection point: >530VAC, <550VAC
Input undervoltage protection	Protection point: <260VAC
Output overvoltage protection	58.5~60.5VDC(can be set by PMU)
Output current limiting protection	See Figure: Output feature
Output short circuit protection	A long term short circuit is allowed. After the fault is rectified, the rectifier is restored to a healthy state automatically.
Over-temperature protection	Protection point: 75°C
Reliability	
MTBF	450,000 hours
Audible Noise	
Specification	≤45dB
Safety/EMC/Lightening protection	
Safety certification	Passes TUV, CE, UL certifications Catch the CB certificate Complies with UL60950-1 IEC60950-1 EN60950-1 CAN/CSA C22.2 No. 60950-1
EMC	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ITU-T K.20
Lightening protection	5KA