# R48100G1 Rectifier

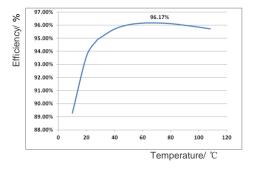




## Rectifier

# – • Features • · -

- ✓ Input voltage range: 260~530VAC
- ✓ Operating temperature range: -40  $^{\circ}$ C to +75  $^{\circ}$ C (output derating above 45 $^{\circ}$ 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.

Multiple rectillers can be paralleled.								
Electrical Specifications	Specification							
Input								
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%							
Output								
Output voltage	42~58VDC Rated: 53.5VDC							
Output power	6000W(304~530VAC)							
Others								
Dimension	43mm(H) × 238mm(W) × 378mm(D)							
Weight	< 6kg							
Cooling	Foreced wind ventilation							
Environmental Specifications								
Operating temperature	-40℃ to +75 ℃ (output derating above 45℃)							
Storage temperature	-40℃ to +75℃							
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)							



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Voltage/V											
40										4	
30								4			
20					f						
10			F								
0		40	50	50 7	0 8	0 9	0 10		120	#	

Output feature

## **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 A long term short circuit is allowed. After the Output short circuit protection 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**

Lightening protection

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

5KA

≥ 7000	7											
9000 Power/W	-	+	+	+	+	+	+	+	+	+++		
5000	-										/	
4000	) -	+	H	H		H	H				++	$\overline{}$
3000	, -	+									#	$\perp$
2000	, -	_					H					
1000	, -	+		H		H					-	
C	, -								Ш			$\Box \downarrow$
		0	5	10	15	20	25	30	35			65 75 ture/ °C

Power derating curve

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