

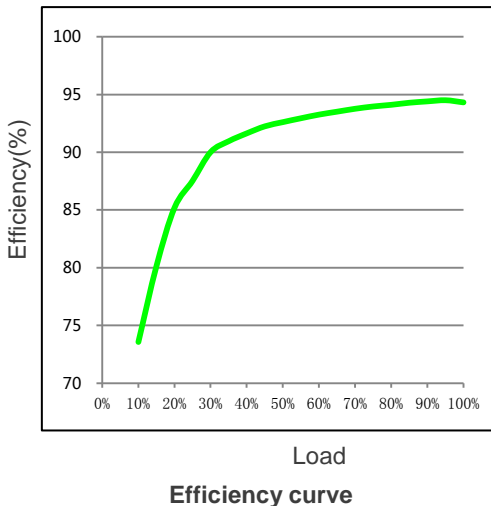
# R4805G1 Rectifier



Rectifier

## Features

- ✓ High efficiency:  $\geq 94\%$
- ✓ Input voltage range: 85~300VAC
- ✓ Operating temperature range:  $-40^{\circ}\text{C} \sim 75^{\circ}\text{C}$
- ✓ Total harmonic distortion(THD):  $\leq 6\%$
- ✓ Hot-plug
- ✓ Digital control
- ✓ Intelligent electric meter
- ✓ Communication over CAN
- ✓ Adjustment of voltage and current
- ✓ Meet RoHS requirements
- ✓ Passing the TUV,CE,CB,UL certifications



## Introduction

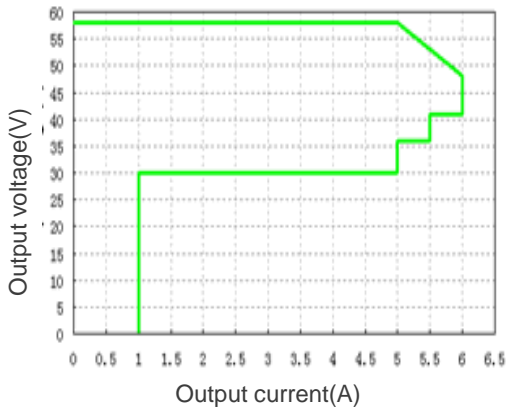
The R4805G1 is a digital rectifier that converts the 85~300VAC to 53.5VDC and possesses the characters of high efficiency, walk-in start, hot-plug, complete protection, and no audible noise. The rectifier adopts the latest power monitoring technology, implements the function of monitoring the states of loads and the rectifier status in real time. The output voltage of the rectifier can be adjusted through the host.

Electrical Specifications	Specification
<b>Input</b>	
Input voltage	85~300VAC
Input voltage mode	220VAC single phase (or 110VAC dual live lines)
Frequency	45~65Hz Rated: 50Hz/60Hz
Maximum input current	$\leq 2.5\text{A}$
Power factor	$\geq 0.98$
THD	$\leq 6\%$
<b>Output</b>	
Output voltage	42~58VDC Default value: 53.5VDC
Output power	270W(176~300VAC)
<b>Others</b>	
Dimension	40.8(H)mm×95.5(W)mm×208(D)mm
Weight	$\leq 1.3\text{kg}$
Cooling	Natural cooling
<b>Environmental Specifications</b>	
Operating temperature	$-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$ (non-derating under $55^{\circ}\text{C}$ )
Storage temperature	$-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$
Relative humidity	5% ~ 95% (non-condensing)
Altitude range	$\leq 4000\text{m}$ (If the altitude is within the range of 3000m to 4000m, the maximum operating temperature decreases by $1^{\circ}\text{C}$ as the altitude increases by 200m.)

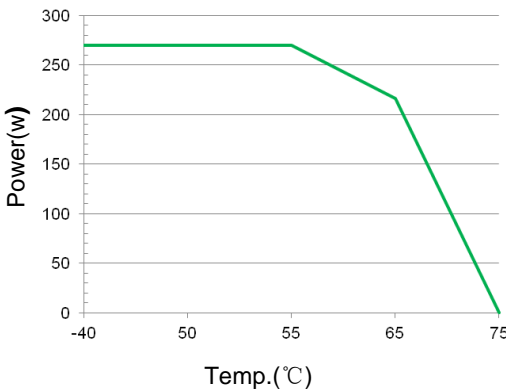
# R4805G1 Rectifier



**Rectifier**



**Output voltage V.S Output current**



**Power derating curve**

Protection	
Input overvoltage protection	Protection point: >300VAC
Input undervoltage protection	Protection point: <85VAC
Output overvoltage protection	58.5~60.5VDC(can be set by PMU)
Output short circuit protection	A long term short circuit is allowed.
Over-temperature protection	Protection point: over 75°C(167°F).
Reliability	
MTBF	>500,000hours
Audible Noise	
Specification	No audible noise
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
	EN55022 Class B EN55024 EN61000-3-2 EN61000-3-3 ETSI EN300 386 ETSI EN301489 ITU-T K.20
EMC	
Lightning protection	YD 5098-2005 5KA

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Huawei Industrial Base  
Bantian, Longgang  
Shenzhen 518129, P.R.China  
Tel: +86-755-28780808  
www.huawei.com

