

Features

Regulated Converter

- 300W baseplate-cooled, fan-less operation
- 550W peak power or forced air rating
- Universal AC input range (80~264VAC)
- Standby power consumption <0.5W
- Operating temperature -40°C to +70°C
- Signals: remote sensing and ON/OFF control

RECOM AC/DC Converter

RACM550-G

550 Watt
5" x 3"
Open Frame or Enclosed
Single Output



Description

The RACM550 Series is designed to support up to 300 Watt continuous output power without fan cooling. The compact 5" x 3" baseplate design enables direct heat dissipation through metal housings in the application. Up to 550 watts are available to drive dynamic loads for several seconds of peak power or with forced air for even longer time frames. A smart fan output is on board as standard as well as a 5V/1A VSB output for applications with housekeeping circuits and on/off control. A wide input range of 80 to 264VAC, up to 5000m operating altitude and international safety agency certifications make the series worldwide compliant for medical 2 MOPP, household and industrial ITE applications.

Selection Guide

Part Number	Input Voltage Range [VAC]	Nom. Output Voltage [VDC]	Max. Output Current ⁽¹⁾ [A]	Efficiency typ. ⁽²⁾ [%]
RACM550-24SG ⁽³⁾	80-264	24	22.92	93
RACM550-36SG ⁽³⁾	80-264	36	15.28	93
RACM550-48SG ⁽³⁾	80-264	48	11.46	93
RACM550-56SG ⁽³⁾	80-264	56	9.82	94

Notes:

Note1: With forced air cooling (2.5m/s) + conduction cooling + refer to "Line Derating"
Note2: Efficiency is tested at nominal input and full load at +25°C ambient

Model Numbering



Notes:

Note3: add suffix "/OF" for open frame version
add suffix "/ENC" for enclosed version

Ordering Examples:

RACM550-24SG/OF 24Vout Single open frame
RACM550-36SG/ENC 24Vout Single enclosed



UL62368-1 (TÜV NRTL) certified
CAN/CAS C22.2 No. 62368-1 certified
IEC/EN62368-1 certified
IEC/EN60950-1 (pending)
IEC/EN60335-1 (pending)
IEC/EN60601-1 (pending)
ANSI/AAMI ES60601-1 (pending)
CSA/CAN 22.2 60950-1-14 (pending)
IEC/EN61558-1 (pending)
IEC/EN61558-2-16 (pending)
EN55032 compliant
EN55024 compliant
CB Report

Specifications (measured @ Ta= 25°C, rated input, rated load unless otherwise stated)

BASIC CHARACTERISTICS

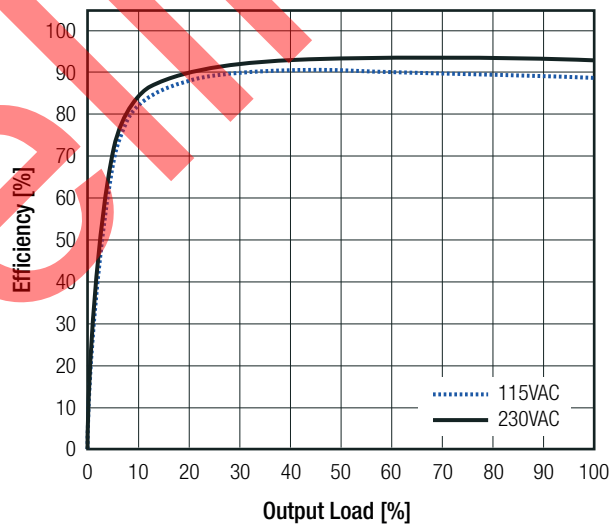
Parameter	Condition		Min.	Typ.	Max.
Input Voltage Range ⁽⁴⁾	nom. Vin= 230VAC		80VAC 120VDC	230VAC	264VAC 370VDC
Input Current	115VAC 230VAC				6.5A 3.0A
Inrush Current	115VAC 230VAC				40A 60A
No load Power Consumption					2W
Standby Power	main output OFF, VSB Output unloaded				0.5W
Input Frequency Range	AC input		47Hz		63Hz
ErP Lot 6 Standby Mode Conformity (VSB Output Load Capability)	Input Power= 1W (main output= standby mode)				450mW
Minimum Load			0%		
Power Factor	115VAC 230VAC		0.98 0.95	0.99 0.97	
Start-up Time	main output VSB Output	115VAC/230VAC 115VAC/230VAC		400ms 140ms	
Rise Time	main output VSB Output	115VAC/230VAC 115VAC/230VAC		15ms 5ms	
Hold-up Time	main output VSB Output	115VAC/230VAC, 550W 115VAC/230VAC		15ms 130ms	
Output Ripple and Noise ⁽⁶⁾	20MHz BW @ 25°C	main output VSB Output			1% of Vout nom. max. 120mVp-p

Notes:

Note4: The products were submitted for safety files at AC-input operation. For DC-input make sure that sufficient fuses are used

Note5: Measurements are made with a 12" twisted pair-wire terminated with a 0.1µF and 10µF parallel capacitor

Efficiency vs. Load



REGULATIONS

Parameter	Condition		Value
Output Accuracy	main output VSB output		±3.0% max. ±4.0% max.
Line Regulation	low line to high line, full load	main output / VSB output	±1.0% max.
Load Regulation ⁽⁶⁾	10% to 100% load	main output / VSB output	1.0% max.

Notes:

Note6: Operation below 10% load will not harm the converter, but specifications may not be met