Features

Regulated Converter

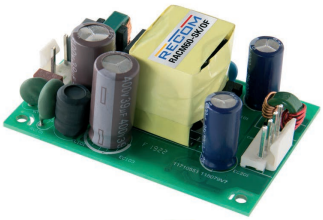
- 2”x3” optional 2“x4“, low profile design
- 60W power from -40°C up to +55°C ambient
- Operating temperature up to +85°C with derating
- 4 kVAC/1min reinforced isolation
- 2MOPP medical certified, B and BF compliant
- 4000m/5000m (medical/ITE) operating altitude
- Class B EMC filter built-in

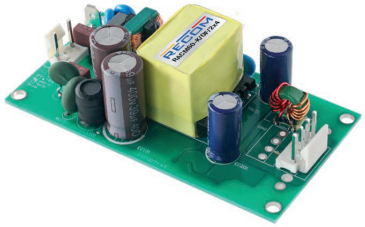
RECOM
AC/DC Converter

RACM60-K/OF

60 Watt Open Frame 2“x3“ & 2“x4“ Single Output

3 YEAR warranty





Description

The multi-purpose, industrial + household + medical grade AC/DC converter series RACM60-K/OF delivers 60 Watts of output power from -40°C to +55°C with natural air convection only, and up to +85°C with derating or forced cooling. With a clear focus on extended thermal performance for systems where space is limited, these 2” x 3” compact modules are designed to gain highest overall efficiency levels over the full output load range from universal AC inputs. The RACM60-K/OF has ANSI/AAMI/IEC 60601-1 medical safety and EN 60601-1-2 medical EMC certifications and offers 4kVAC/1 min isolation, 2MOPP and designed to meet B and BF requirements. It is additionally certified to IEC/EN62368-1(CB Report) and IEC61558-1/-2-16 for industrial applications and IEC/EN60335-1 for household appliances. The robust built-in Class B EMC filter has sufficient margin to allow both Installation Class II or Class I PELV with grounded output. A range of mechanical fixing options makes the RACM60 suitable for many different mounting conditions: the standard chassis mount part mates with Molex connectors and the /PCB option permits direct installation in printed circuit boards. Additionally, a 2” x 4” footprint for backwards-compatibility with legacy designs is available on request.

Selection Guide

Part Number	Input Voltage Range [VAC]	Output Voltage [VDC]	Output Current [mA]	Output Power [W]	Efficiency typ. (1) [%]
RACM60-05SK/OF (2, 3)	80-264	5	8000	40	89
RACM60-12SK/OF (2, 3)	80-264	12	5000	60	90
RACM60-15SK/OF (2, 3)	80-264	15	4000	60	90
RACM60-24SK/OF (2, 3)	80-264	24	2500	60	90
RACM60-36SK/OF (2, 3)	80-264	36	1667	60	90
RACM60-48SK/OF (2, 3)	80-264	48	1250	60	90

Notes:

Note1: Efficiency is tested at nominal input and full load at +25°C ambient

Model Numbering

RACM60- __ SK /OF/ ___ -__

- nom. Output Power
- Output Voltage
- Single
- Packaging options (3)
- Connection options (2)
- Case style (2)

Notes:

Note2: “/OF” = standard 2”x3” open frame version with standard header connectors
“/OF/PCB-T”= 2”x3” open frame with PCB mounting pins in single tray packaging (05, 12, 24Vout versions available)
“/OF/2x4” = 2”x4” open frame version with standard header connectors (12 and 24Vout versions available)
For other case/connection/footprint options, please contact RECOM technical support

Note3: without suffix, standard single pack (1pcs/cardboard box)
add suffix “-CTN” for project packaging (4 layers of tray within a carton, for “/OF” only + MOQ= 1152pcs)
for detail information, refer to ***“PACKAGING INFORMATION”***

Ordering Examples:

RACM60-05SK/OF	5Vout	2” x 3”	open frame	standard header connector	1pcs/cardboard box
RACM60-24SK/OF/PCB-T	24Vout	2” x 3”	open frame	PCB mounting pins	12pcs/tray packaging
RACM60-12SK/OF/2x4	12Vout	2” x 4”	open frame	standard header connector	1pcs/cardboard box
RACM60-12SK/OF-CTN	12Vout	2” x 4”	open frame	standard header connector	48pcs/carton (MOQ= 1152pcs)

2MOPP
250VAC

IEC/EN62368-1 (pending)
ANSI/AAMI ES60601-1 Ed. 3.1 certified
CSA/CAN-C22.2 No. 60601-1:14 certified
IEC/EN60335-1 (pending)
IEC/EN61558-1 (pending)
IEC/EN61558-2-16 (pending)
EN60601-1-2 compliant
EN55032 compliant
EN55035 compliant
CB Report (pending)

Specifications (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

BASIC CHARACTERISTICS

Parameter	Condition		Min.	Typ.	Max.
Internal Input Filter					Pi Type
Nom. Input Voltage			100VAC		240VAC
Input Voltage Range (3,4)			80VAC 120VDC		264VAC 370VDC
Input Current	115VAC 230VAC				1400mA 600mA
Inrush Current	cold start	115VAC 230VAC			30A 60A
ErP Standby Mode Conformity (Output Load Capability)	115/230VAC	Input Power: 0.5W 1.0W		0.3W 0.7W	
No load Power Consumption	230VAC			100mW	
Input Frequency Range	AC Input		47Hz		63Hz
Minimum Load			0%		
Power Factor	115VAC 230VAC		0.6 0.5		
Start-up Time				150ms	
Rise Time				100ms	
Hold-up Time	115VAC 230VAC		12ms 50ms		
Internal Operating Frequency	100% load at nominal Vin			100kHz	
Output Ripple and Noise (5)	20MHz BW	5Vout others			200mVp-p 1% of Vout

Notes:

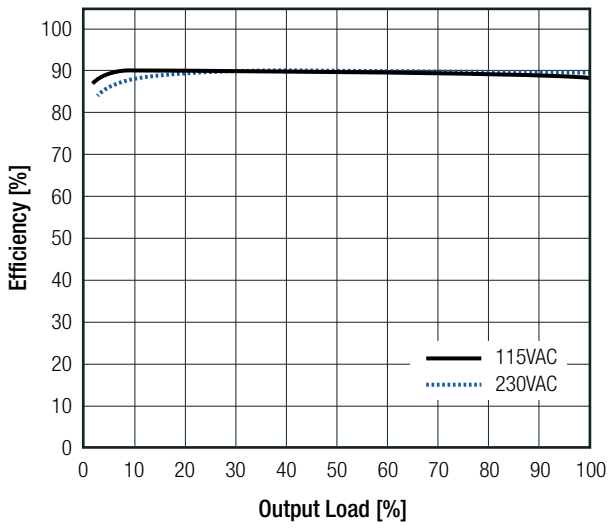
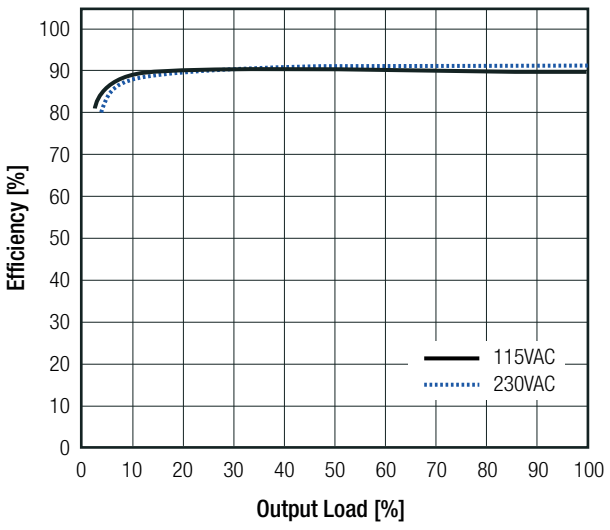
Note3: The products were submitted for safety files at AC-Input operation (90-264VAC)

Note4: Output power derating for Line-input of less than 90VAC (derate linearly from 100% at 90VAC to 80% at 80VAC)

Note5: Measurements are made with a 0.1µF MLCC & 10µF E-cap in parallel across output. (low ESR)

Efficiency vs. Load

RACM60-05SK/OF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