

## Features

### Regulated Converters

- Universal Input 80-264VAC
- 100mW max No load Power Consumption
- Efficiency up to 79%
- High Operating Temperature Range (-40°C to +80°C)
- Isolated Output 3.75kVAC / 1 min
- Continuous Short Circuit Protection
- Meet EN55022 Class B
- EN, UL and CE Certified

### Description

The RAC04-C/230 series are fully certified single and dual regulated AC/DC converters in an encapsulated PCB-mount package style with 3.75kVAC isolation and very low standby power consumption. The converters have SC protected single as well as dual outputs and meet EN55022 class B without any external components. Uses include board-level power supplies, home automation, instrumentation systems and standby applications.

### Selection Guide

Part Number	Input Voltage (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (Typ.) (%)	Max. Capacitive Load**
RAC04-3.3SC/230	80-264	3.3	1200	72	10000µF
RAC04-05SC/230	80-264	5	800	75	7200µF
RAC04-12SC/230	80-264	12	333	77	1000µF
RAC04-15SC/230	80-264	15	267	78	820µF
RAC04-24SC/230	80-264	24	167	79	220µF
RAC04-0512DC/230	80-264	5/12	720/33	75	4700/100µF
RAC04-05DC/230	80-264	±5	±400	76	±3300µF
RAC04-12DC/230	80-264	±12	±166	78	±680µF

\*\* measured @115VAC

### Specifications (measured at TA 25°C, full load after warm-up)

Input Voltage Range (with Derating)	80-264VAC or 113-373VDC	
Input Frequency	47-440Hz	
Input Current (Full Load)	115VAC/230VAC	98mA / 64mA max.
Inrush Current	115VAC/230VAC	15A / 30A max.
No Load Power Consumption	115VAC/230VAC 50/60Hz	100mW max.
Output Voltage Accuracy (Full Load)	Single Outputs	±2% typ.
	Dual Outputs	±2% typ.
	5V / 12V	±2% / ±10% typ.
Line Voltage Regulation (90-264VAC)	Single Outputs	±0.2% typ.
	Dual Outputs	±0.2% typ.
	5V / 12V	±0.2% / ±1% typ.
Load Voltage Regulation (10% - 100% load)	3.3V/5V Output	±1% typ.
	All Others	±0.5% typ.
	5V / 12V	±1% / ±5% typ.
Output Ripple&Noise	200mVp-p typ.	
(measured @ 20MHz of bandwidth with 0.1µF & 47µF parallel capacitors)		
Switching Frequency (Full Load)	67kHz typ.	
Hold-Up Time	115VAC	15ms min.
Minimum Load	0%	
Isolation Voltage	Input-Output	3.75kVAC / 1 minute
Leakage Current	230VAC / 50Hz	0.25mA max.
Isolation Resistance	100MΩ min.	

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## POWERLINE

AC/DC-Converter

with 3 year Warranty

**RECOM**

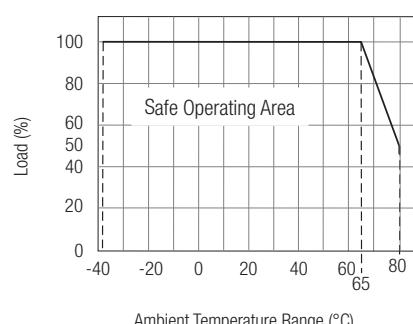
## 4 Watt Single & Dual Output



**EN-60950-1 certified**  
**UL-60950-1 certified**

## RAC04-C/230

## Derating-Graph (Ambient Temperature)



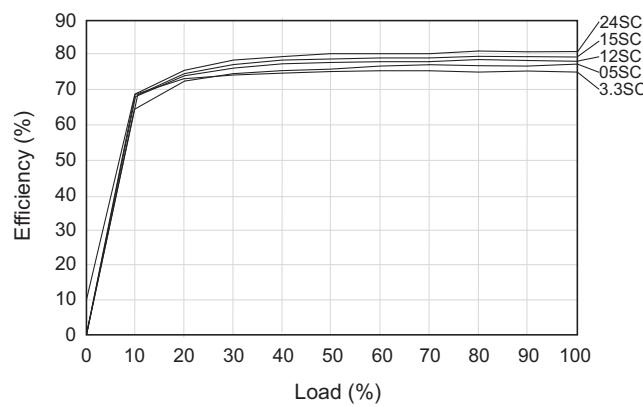
Ambient Temperature Range (°C)

**Specifications** (measured at TA 25°C, full load after warm-up)

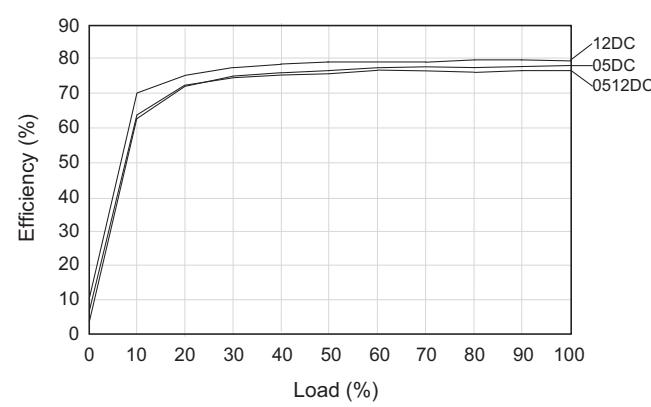
Short Circuit Protection	Auto Recovery
Over Voltage Category	OVC II
Operating Temperature Range	-40°C to +65°C (without Derating) -40°C to +80°C (with Derating)
Storage Temperature Range	-40°C to +100°C
Case Material	UL94V-0 Black Plastic
Relative Humidity	Non-condensing 95% RH max.
Package Weight	31.5g typ.
Dimension	(L x W x H) 36.7 x 27.2 x 17.1mm
EMC	Conducted and Radiated Noise Immunity EN55022 Class B EN55024
MTBF (+25°C)	MIL-HDBK-217F 500 x 10 <sup>3</sup> hours
Certification	CE Report: E224736 EN55022 Class B
UL General Safety	Report: 131055-1CB-M1 UL60950-1, 2nd Edition
EN General Safety	Report: 131055-1CB-M1 EN60950-1, 2006, 2nd Edition + A12:2012
CB General Safety	Report: 131055-1CB-M1 IEC 60950-1: 2005; 2nd Edition

**Efficiency vs Load**

Single Output 115VAC

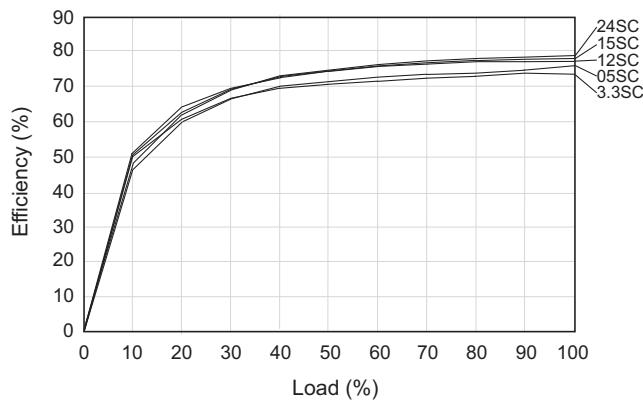


Dual Output 115VAC

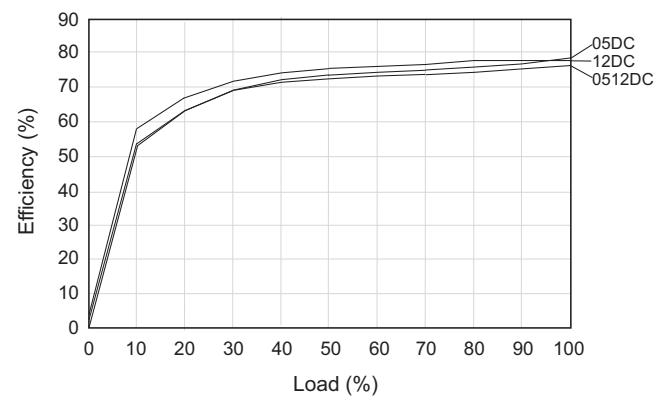


RACO4-  
xxxC/230

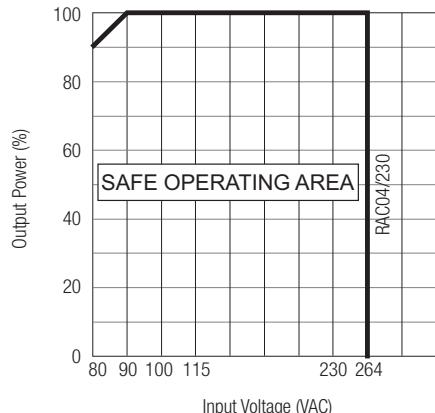
Single Output 230VAC



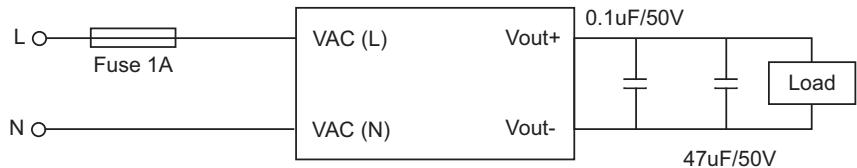
Dual Output 230VAC



**Specifications** (measured at TA 25°C, full load after warm-up)

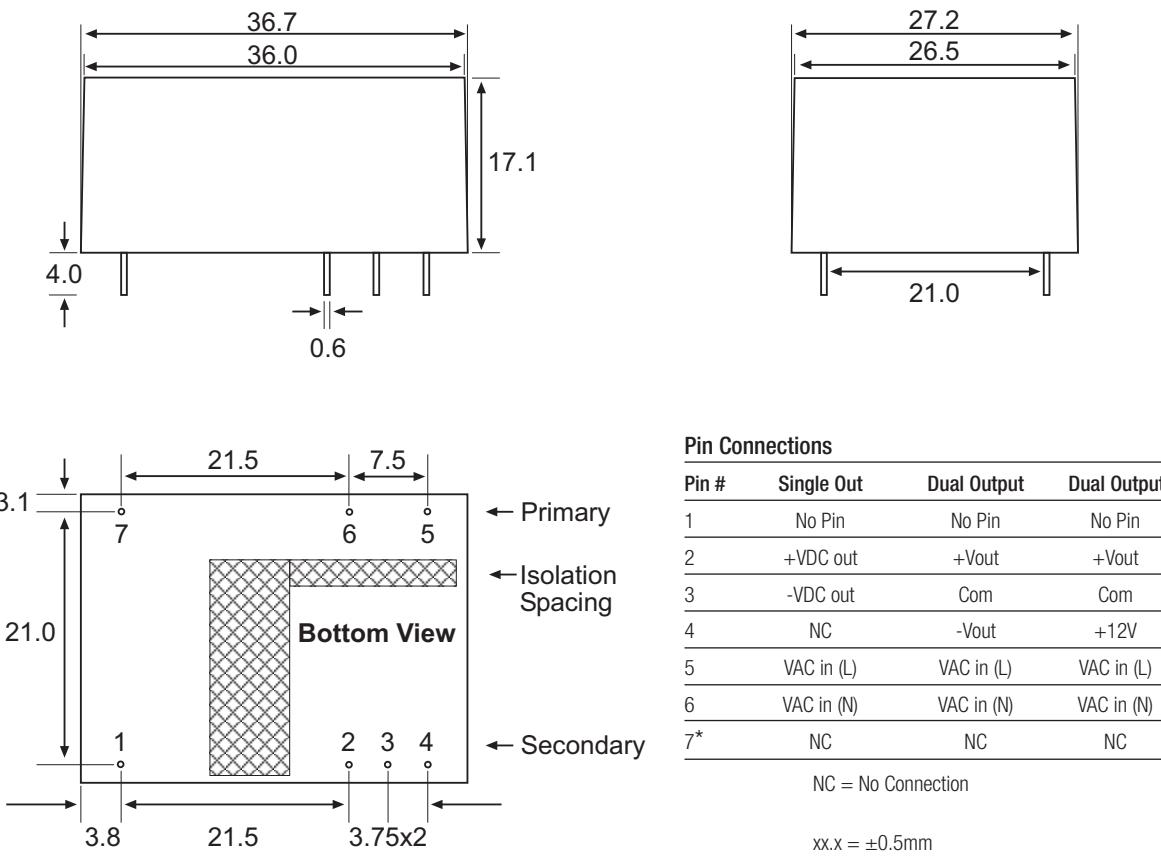


**Application Note:**



1. Recommended external input fuse 1A/slow blow type.
2. To measure the output ripple & noise connect 0.1uF/50V & 47uF/50V @20MHz, as close to pins as possible with nominal input and full load. Please see above.

**Package Style and Pinning**



\* Pin 7 is NC but need 4mm minimum clearance to ground for safety.

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