

Features

Regulated Converters

- Very Compact AC-DC Power Supply
- 6 Watt PCB Mount Package
- Single and Dual Output Versions
- Universal Input Voltage Range
- Class II Power Supply with 3kVAC Isolation
- Low Output Ripple and Noise
- Short Circuit, Overload, Overtemp Protected
- Low Standby Power Consumption
- UL/cUL Certified, CE Marked

Description

Compact, low cost, high efficiency, universal input switching AC/DC power module for PCB or wired mounting with single or dual outputs. CE marked and UL/cUL Certified.

Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max Capacitive Load ⁽¹⁺²⁾
RAC06-3.3SC*	80-264	3.3	1500	70	12000µF
RAC06-05SC*	80-264	5	1200	75	6800µF
RAC06-09SC*	80-264	9	667	77	2500µF
RAC06-12SC*	80-264	12	500	78	1500µF
RAC06-15SC*	80-264	15	400	79	750µF
RAC06-24SC*	80-264	24	250	79	330µF
RAC06-05DC*	80-264	±5	±600	75	±3300µF
RAC06-12DC*	80-264	±12	±250	78	±680µF
RAC06-15DC*	80-264	±15	±200	79	±330µF

* add suffix /W for wired version

Specifications (Ta=25°C and after warm up time, measured at 115VAC/60Hz and 230VAC/50Hz)

Input Voltage Range (with derating)	80-264VAC or 115-370VDC	
Rated Power	6 Watts max.	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115/230VAC	120mA / 78mA typ.
No Load Power Consumption	250mW max.	
Inrush Current (<2ms)	115/230VAC	30A/60A max.
Holdup Time (Full Load)	115VAC	10ms typ.
Leakage Current	0.85mA max.	
Output Voltage Accuracy (Full load)	±2% max.	
Line Voltage Regulation (low line, high line at full load)	±0.3% typ.	
Load Voltage Regulation (5% to 100% full load)	±0.5% typ.	
Output Ripple and Noise (20MHz BW) (with 100nF across each output)	3.3V Output All Others	120mVp-p max. 150mVp-p max.
Operating Frequency (full load)	132kHz typ.	
Minimum Load = 0%	specifications valid for 5% minimum load only	
RMS Isolation Voltage (input to output)	3kVAC / 1minute	
Isolation Resistance (input to output)	1 GΩ min.	
Isolation Capacitance (input to output)	1000pF typ.	
Short Circuit Protection	Hiccup, Automatic Restart	
Overload Protection	115VAC/230VAC	115% ~ 145%
Output Overvoltage Protection (set at 4.8V - 5.4V for 3.3V and others 110% - 135% of its Nominal Output Voltage)	Zener Diode Clamp	

continued on next page

POWERLINE

AC/DC-Converter

with 3 year Warranty

RECOM

6 Watt Single/Dual Output



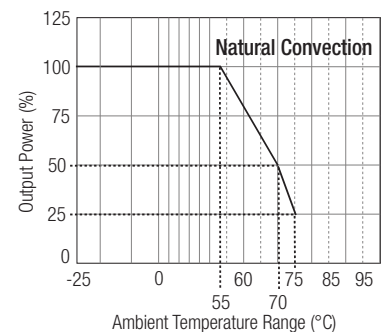
E224736

EN-60950-1 Certified

UL-60950-1 Certified

RAC06-C

Derating Graph (Ambient Temperature)



Please Read Application Notes

www.recom-power.com

Typical Characteristics

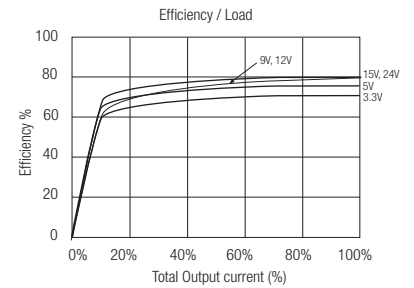
Operating Temperature Range	(free air convection, without derating)	-25°C to +55°C
	(free air convection, with derating)	-25°C to +75°C
Storage Temperature Range		-40°C to +100°C
Recommended External Input Fuse		1.5A Slow Blow
Humidity		95% RH max.
Case Material	Plastic Case filled with Epoxy (UL94V-0)	
Package Weight	Single/Dual	35g/38g
Packing Quantity	Single Output	10 pcs
	Dual Output	9 pcs
	/W Version	1 pc
Emissions	CE	EN 55022: 2006 + A1: 2007 / Class B
	EMC	EN 55024:1998 + A1:2001 + A2:2003
	Harmonics	EN 61000-3-2:2006 / Class A
	Flicker	EN 61000-3-3:1995 + A1:2001 +A2:2005
Immunity	ESD	IEC 61000-4-2 / Criterion B
	RS	IEC 61000-4-3 / Criterion A
	EFT	IEC 61000-4-4 / Criterion B
	Surge	IEC 61000-4-5 / Criterion B
	CS	IEC 61000-4-6 / Criterion A
	PMF	IEC 61000-4-8 / Criterion A
	Voltage Variations	IEC 61000-4-11 / Criteria B + C
	MTBF (+25°C)	using MIL-HDBK-217F
(+65°C)		>200 x 10 ³ hours
Certifications:		
UL General Safety	Report: E224736	UL-60950-1, 2nd Edition
cUL	Report: E224736	C22.2 No. 60950-1-07, 2nd Edition
EN General Safety	Report: SPCLVD1211033-1	EN-60950-1:2006 + A12:2011
CE		EN55022 Class B

Notes:

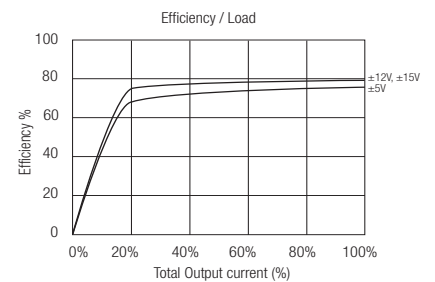
Note1: Measured @ 230VAC / 50Hz / Ta=25°C with constant resistant mode at full load.

Note2: If used @ 115VAC / 60Hz with full load, max. capacitive load is less, please contact RECOM for detailed information.

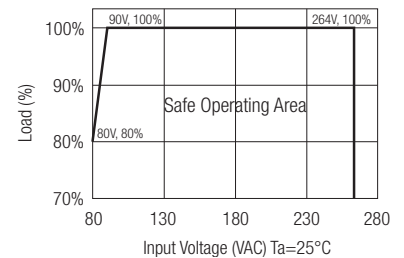
Single Output



Dual Output

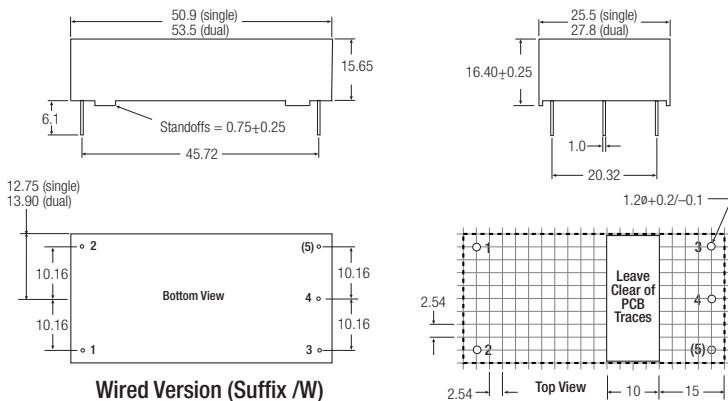


Input Voltage Derating Graph



Package Style and Pinning

PCB Mounting Version (Standard)



Recommended Footprint Details

Pin Connections

Pin #	Single Out	Dual Out
1	VAC in (N)	VAC in (N)
2	VAC in (L)	VAC in (L)
3	+VDC out	+VDC out
4	-VDC out	Com
5	No Pin	-VDC out
Tolerance	± 0.5 mm	

Wire Connections

Wire	AWG#22	Single Out	Dual Out
Blue	1015	VAC in (N)	VAC in (N)
Brown	1015	VAC in (L)	VAC in (L)
Red	1007	+VDC out	+VDC out
Black	1007	-VDC out	Com
Orange	1007		-VDC out

The product information and specifications are subject to change without prior notice. All products are designed for non-safety critical commercial and industrial applications. The Buyer agrees to implement safeguards that anticipate the consequences of any failures that might cause harm, loss of life and/or damage property.