

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

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)	3.3V Output	120mVp-p max.
(with 100nF across each output)	All Others	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 / 1 minute	
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	Zener Diode Clamp	
(set at 4.8V - 5.4V for 3.3V and others 110% - 135% of its Nominal Output Voltage)		
Over Voltage Category	OVC II	

continued on next page

POWERLINE

AC/DC-Converter

with 3 year Warranty

RECOM

6 Watt Single/Dual Output



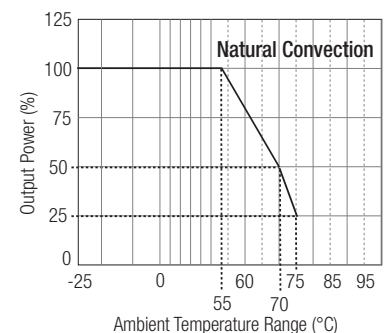
E224736

EN-60950-1 Certified
UL-60950-1 Certified

RAC06-C

Derating-Graph

(Ambient Temperature)



Refer to Application Notes

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

Operating Temperature Range ⁽³⁾	(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

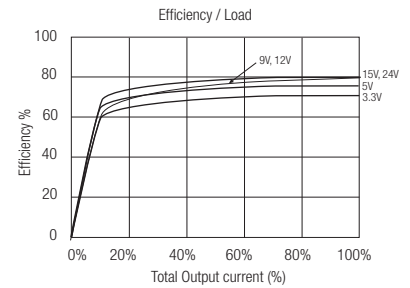
Notes:

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

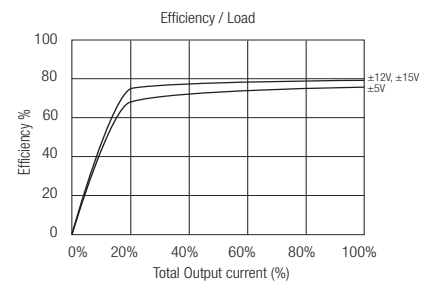
Note2: If used @ 115VAC / 60Hz with full load, max. capacitive load is less, please contact RECOM for detailed information.

Note3: Start up only is guaranteed at temperatures down to -25°C. Other specifications may not be met.

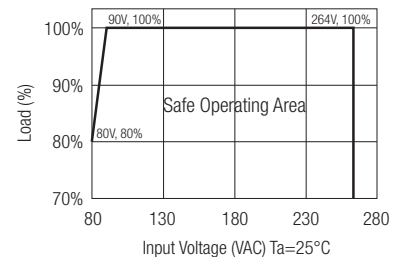
Single Output



Dual Output

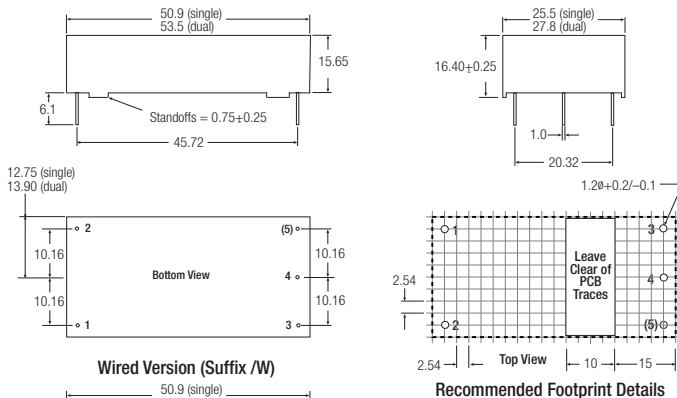


Input Voltage Derating Graph



Package Style and Pinning

PCB Mounting Version (Standard)



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.