

# Features

## Regulated Converters

- Very Compact AC-DC Power Supply
- 5 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- Very Low No Load Power Consumption
- UL Certified, CE Marked

### Description

Compact UL certified switching AC/DC power module for PCB, screw-terminal connection or DIN-rail mounting.

### Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC05-3.3SB	90-264	3.3	1250	68	13800µF
RAC05-05SB	90-264	5	1000	71	6000µF
RAC05-12SB	90-264	12	420	75	1400µF
RAC05-15SB	90-264	15	333	75	1000µF
RAC05-24SB	90-264	24	230	77	170µF

\*add suffix "-E" for extended temperature range, e.g. RAC05-05SB-E

\*add suffix "-ST" for screw terminal module e.g. RAC05-05SB-ST, RAC05-05SB-E-ST

### Specifications (typical at 25°C and after warm up time unless otherwise specified)

Input Voltage Range	90-264VAC or 120-370VDC	
Rated Power	5 Watts max.	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115VAC/230VAC	110mA / 70mA max.
No Load Power Consumption	115VAC/230VAC	80mW max.
Inrush Current (<2ms)	115VAC	10A max. (-E = 23A max.)
	230VAC	20A max. (-E = 46A max.)
Leakage Current	0.75mA max.	
Output Voltage Accuracy (Full load)	±2%	
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 limited)	Noise	0.5% Vout + 50mVp-p max.
	Ripple	<0.2% Vout + 40mVp-p max.
Operating Frequency	132kHz typ.	
Efficiency at Full Load	see table	
RMS Isolation Voltage (input to output)	3kVAC / 1minute	
Temperature Coefficient	±0.02%/°C typ.	
Isolation Resistance	100 MΩ max.	
Short Circuit Protection	Hiccup, Automatic Restart	
Operating Temperature Range	Standard	-25°C to +70°C
(free air convection, with derating)	Suffix -E	-40°C to +70°C
Storage Temperature Range	-40°C to +85°C	
Humidity	95% RH max.	
Case Material	Epoxy with Fibreglass (UL94V-0)	
Package Weight	30g	
Packing Quantity	9 pcs (-ST Version: 1 pc)	
EMC	EN 55022 Class B / EN 55024	
MTBF (+25°C)	using MIL-HDBK-217F	360 x 10 <sup>3</sup> hours

# POWERLINE

## AC/DC-Converter

with 3 year Warranty

# RECOM

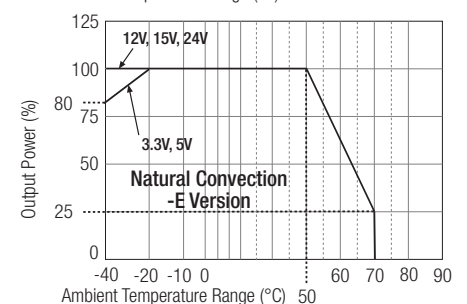
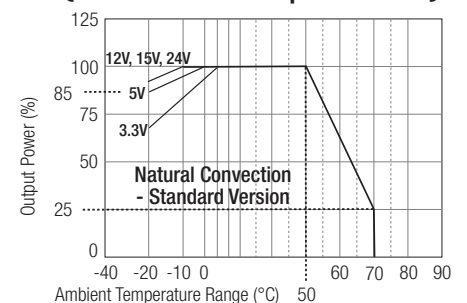
## 5 Watt Single Output



UL-60950-1 Certified

# RAC05-B

## Derating-Graph (Ambient Temperature)



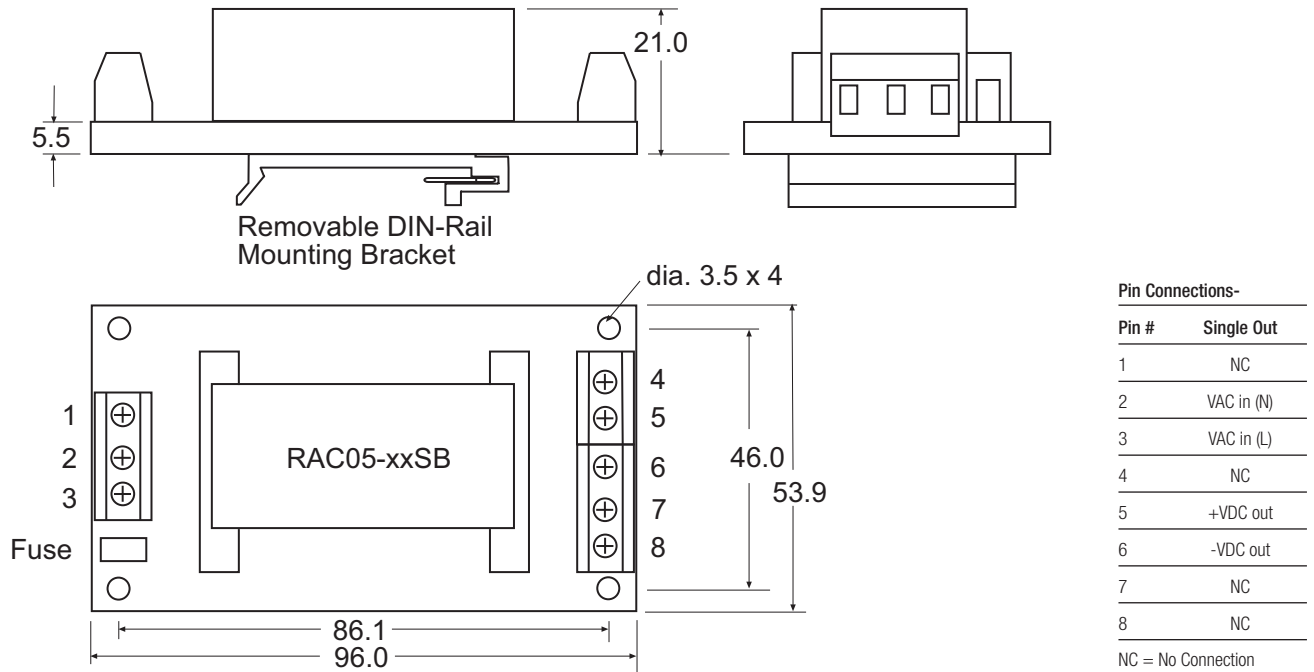
Refer to Application Notes

# POWERLINE

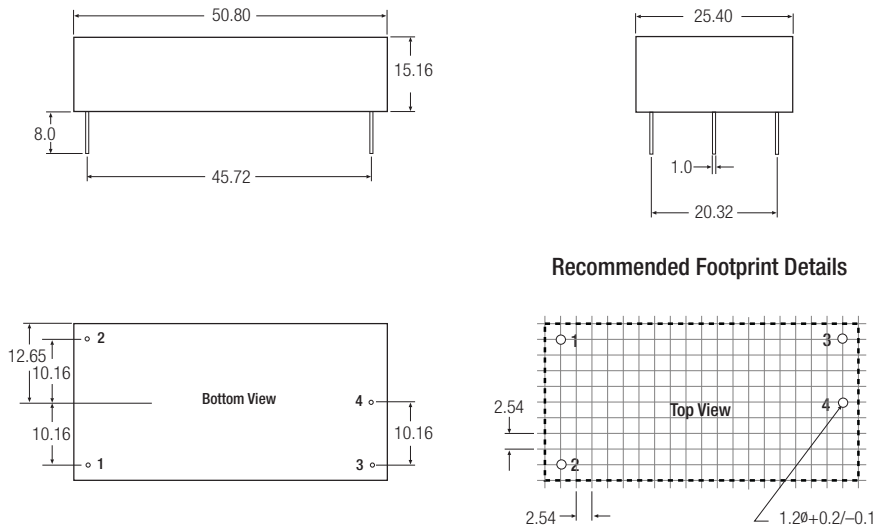
AC/DC-Converter

# RAC05-SB Series

Screw Terminal Module Option (suffix -ST)



## Package Style and Pinning

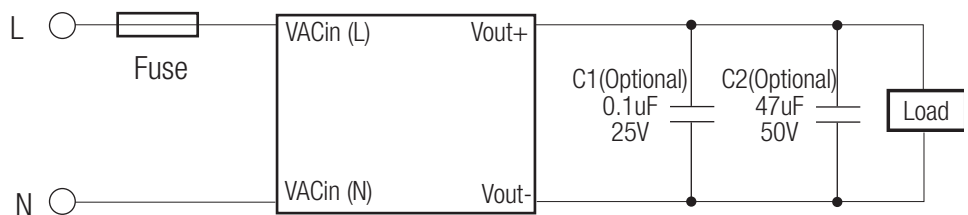


Pin #	Single Out
1	VAC in (N)
2	VAC in (L)
3	+VDC out
4	-VDC out
Tolerance	± 0.5 mm

RAC05-B

## Standard Application Circuit

Suggested fuse rating  
1A Slow Blow



**Please Read Application Notes**

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