

# Features

## Regulated Converters

- Compact AC-DC Power Supply
- 10 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- UL Certified, CE Marked

### Description

Compact UL certified switching AC/DC power module for PCB, screw-terminal connection or DIN-rail mounting. Pin compatible with RAC5-xxSB models.

### Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RAC10-3.3SB	90-264	3.3	2500	70
RAC10-05SB	90-264	5	2000	72
RAC10-12SB	90-264	12	833	76
RAC10-15SB	90-264	15	667	75
RAC10-24SB	90-264	24	417	72

\*add suffix "-E" for extended temperature range, e.g. RAC10-05SB-E

\*add suffix "-ST" for screw terminal module e.g. RAC10-05SB-ST, RAC10-05SB-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	10 Watts max.	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115VAC/230VAC	220mA/ 150mA max.
No Load Power Consumption	230VAC	490mW max.
Inrush Current (<2ms)	115VAC 230VAC	10A max. (-E = 23A max.) 20A max. (-E = 46A max.)
Leakage Current	0.25mA 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)	0.5% Vout + 50mVp-p max.	
Operating Frequency	125kHz 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 min.	
Short Circuit Protection	Continuous, Automatic Restart	
Operating Temperature Range (free air convection, with derating)	Standard Suffix -E	-25°C to +70°C -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	54g	
Packing Quantity	8 pcs (-ST Version: 1 pc)	
EMC	EN 55022 Class B / EN 55024	
MTBF (+25°C)	using MIL-HDBK-217F	330 x 10 <sup>3</sup> hours

# POWERLINE

## AC/DC-Converter

with 3 year Warranty



## 10 Watt Single Output

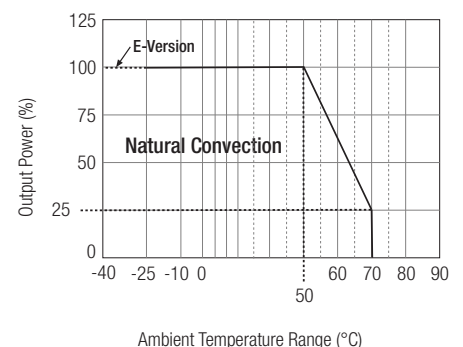


**UL-60950-1 Certified  
E196683**

# RAC10-B

## Derating Graph

(Ambient Temperature)



Please Read Application Notes

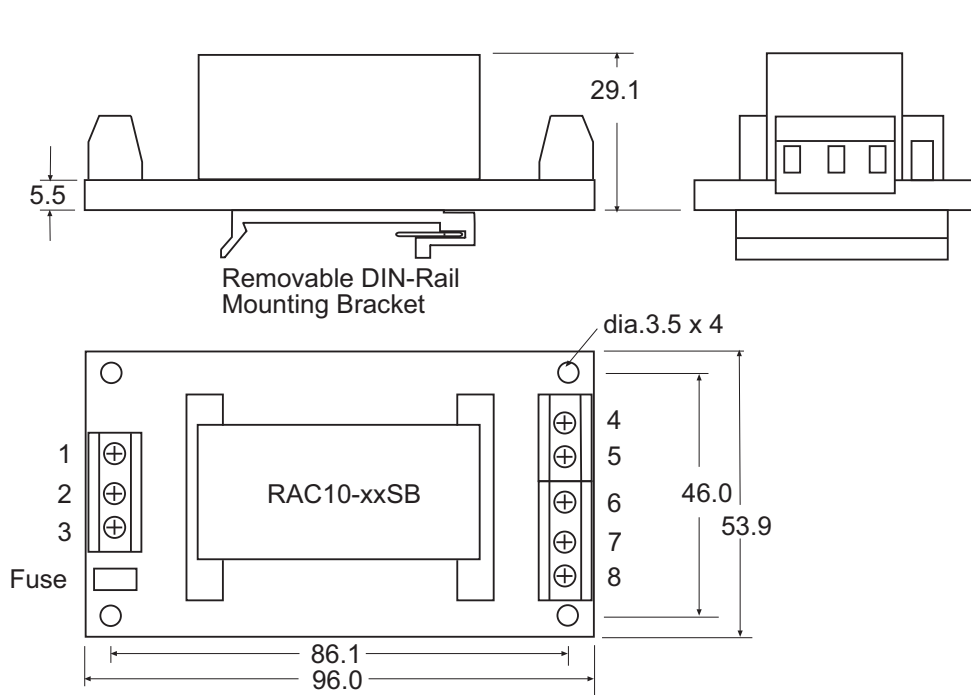
[www.recom-electronic.com](http://www.recom-electronic.com)

# POWERLINE

AC/DC-Converter

# RAC10-SB Series

## Screw Terminal Module Option (suffix -ST)



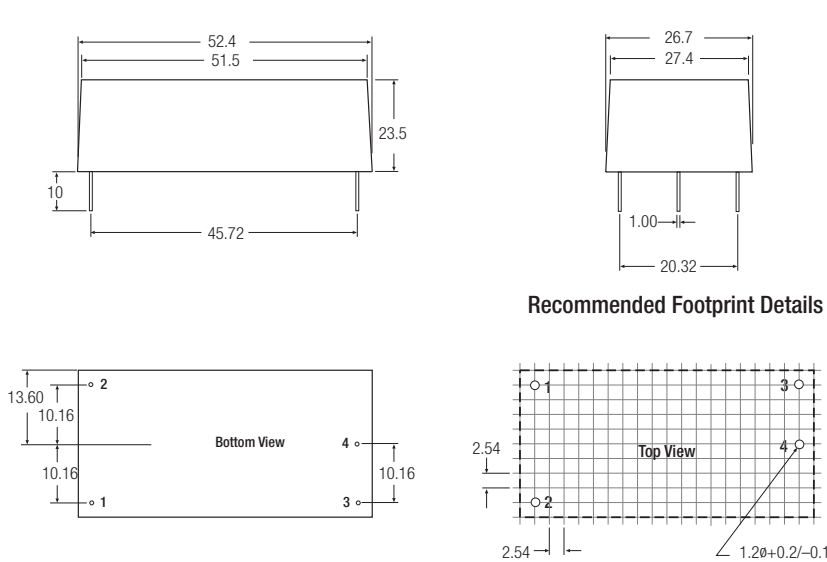
3rd angle projection

### Pin Connections

Pin #	Single Out
1	NC
2	VAC in (N)
3	VAC in (L)
4	NC
5	+VDC out
6	-VDC out
7	NC
8	NC

NC = No Connection

## Standard Package Style and Pinning



3rd angle projection

### Recommended Footprint Details

### Pin Connections

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

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

RAC10-B

## Standard Application Circuit

Suggested fuse rating  
2A Slow Blow

