

# 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.

### Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC10-3.3SA	90-264	3.3	3000	65	70000µF
RAC10-05SA	90-264	5	2000	71	35000µF
RAC10-12SA	90-264	12	833	76	11000µF
RAC10-15SA	90-264	15	666	75	7000µF
RAC10-24SA	90-264	24	426	76	2300µF
RAC10-05DA	90-264	±5	±800	73	±22000µF
RAC10-12DA	90-264	±12	±380	75	±3000µF
RAC10-15DA	90-264	±15	±300	74	±2000µF

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

\*add suffix "-ST" for screw terminal module e.g. RAC10-05SA-ST, RAC010-05DA-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	200mA / 130mA max.
No Load Power Consumption	115VAC/230VAC	1.65W 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	100kHz 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	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	92g	
Packing Quantity	5 pcs (-ST Version: 1 pc)	
EMC	EN 55022 Class B / EN 50082-1	
MTBF (+25°C)	using MIL-HDBK-217F	250 x 10 <sup>3</sup> hours

# POWERLINE

## AC/DC-Converter

with 3 year Warranty

# RECOM

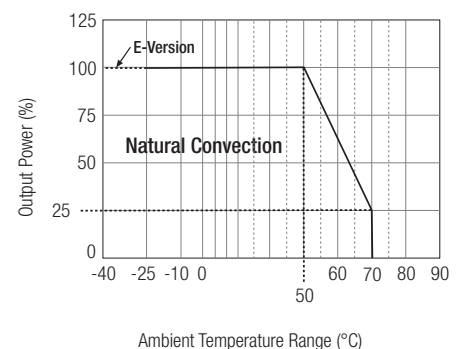
## 10 Watt Single/Dual Output



UL-60950-1 Certified

# RAC10-A

## Derating-Graph (Ambient Temperature)



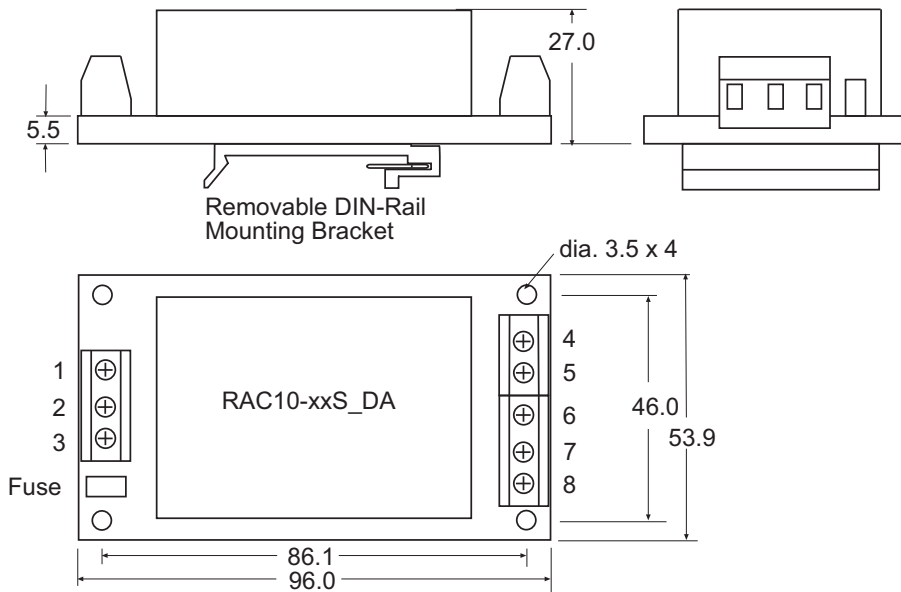
Refer to Application Notes

# POWERLINE

AC/DC-Converter

# RAC10-S\_DA Series

## Screw Terminal Module Option (suffix -ST)

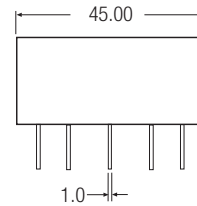
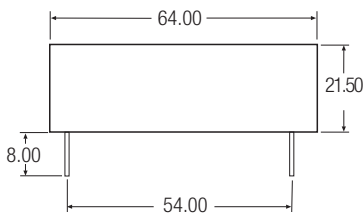


### Pin Connections

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

NC = No Connection

## Standard Package Style and Pinning

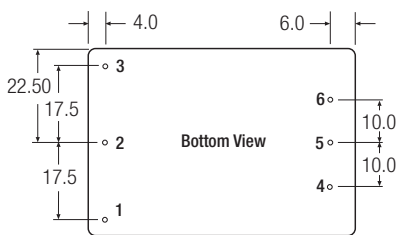


### Pin Connections

Pin #	Single Out	Dual Out
1	FG	FG
2	VAC in (N)	VAC in (N)
3	VAC in (L)	VAC in (L)
4	-VDC out	-VDC out
5	No Pin	Com
6	+VDC out	+VDC out

XX.X ± 0.5 mm

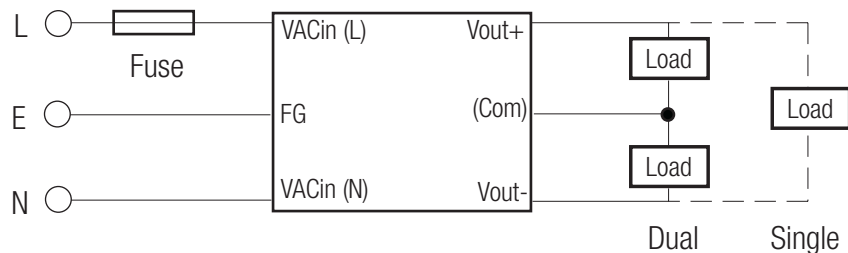
XX.XX ± 0.25 mm



RAC10-A

## Standard Application Circuit

Suggested fuse rating  
2A Slow Blow



The product information and specifications are subject to change without prior notice. RECOM products are not authorized for use in safety-critical applications (such as life support) without RECOM's explicit written consent. A safety-critical application is defined as an application where a failure of a RECOM product may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The buyer shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.