

Features

Regulated Converters

- AC-DC Power Supply
- 5 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- UL Approved, 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
RAC05-3.3SA	90-264	3.3	1500	62	40000µF
RAC05-05SA	90-264	5	1000	65	19000µF
RAC05-12SA	90-264	12	416	70	4000µF
RAC05-15SA	90-264	15	333	70	3500µF
RAC05-24SA	90-264	24	200	71	900µF
RAC05-05DA	90-264	±5	±500	70	±9500µF
RAC05-12DA	90-264	±12	±200	67	±1400µF
RAC05-15DA	90-264	±15	±160	67	±950µF

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

*add suffix "-ST" for screw terminal module e.g. RAC05-05SA-ST, RAC05-05DA-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	5 Watts max	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115VAC/230VAC	120mA /70mA max.
No Load Power Consumption	115VAC/230VAC	1.18W 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)	Ripple	<0.2% Vout + 40mVp-p max
	Noise	0.5% Vout + 50mVp-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 max	
Short Circuit Protection	Hiccup, Automatic Restart	
Operating Temperature Range (free air convection, with derating)	Standard	-25°C to +70°C
	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	80g	
Packing Quantity	5 pcs (-ST Version: 1 pc)	
EMC	EN 55022 ClassB / EN 50082-1	
MTBF (+25°C)	using MIL-HDBK-217F	300 x 10 ³ hours

POWERLINE

AC/DC-Converter

with 3 year Warranty

RECOM

5 Watt Single/Dual Output

PREFERRED ALTERNATIVES

Please consider these alternatives:

RAC10-K/277 Series

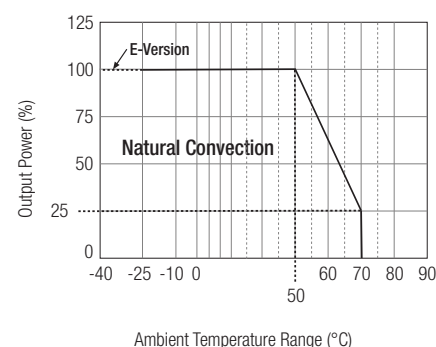
RAC05-K/277 Series



UL-60950-1 Certified

RAC05-A

Derating-Graph (Ambient Temperature)



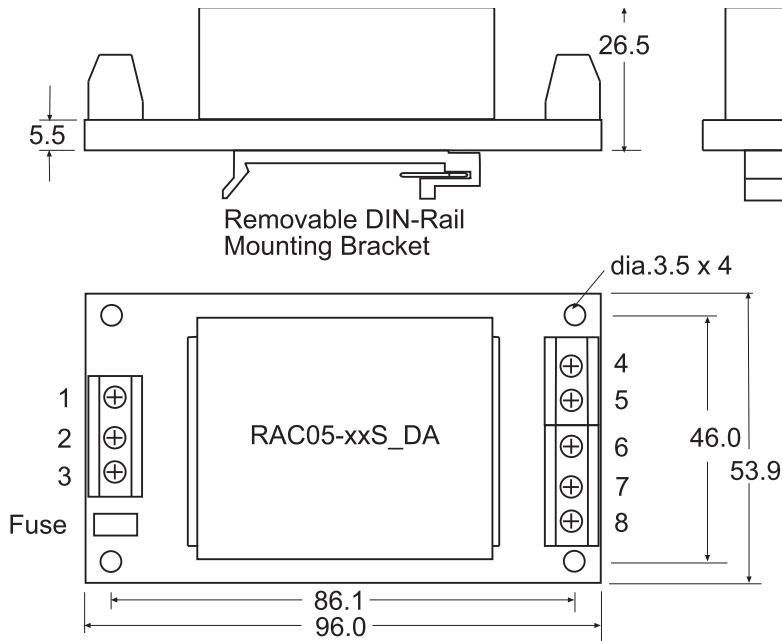
Refer to Application Notes

POWERLINE

AC/DC-Converter

RAC05-S_DA Series

Screw Terminal Module Option (suffix -ST)

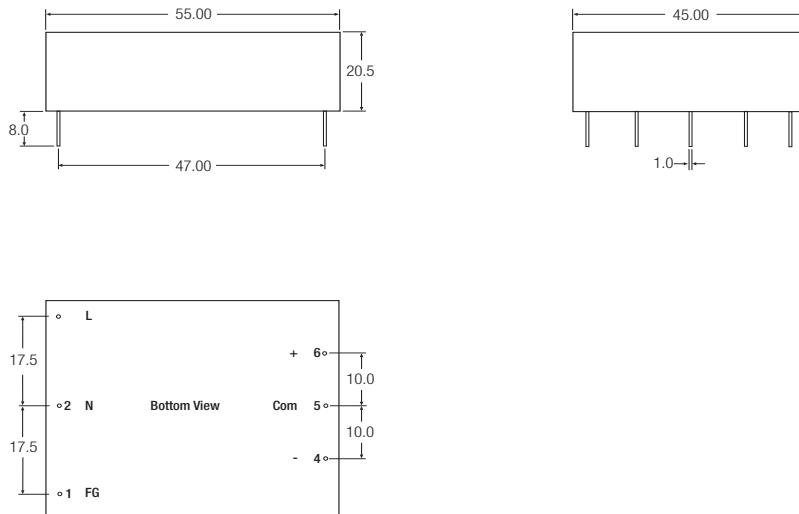


Pin Connections-

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



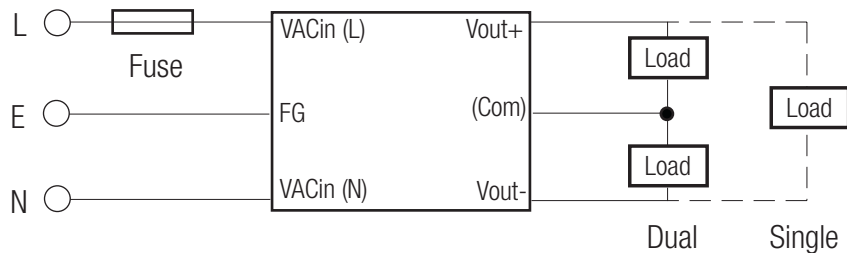
Pin Connections-

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

Standard Application Circuit

Suggested fuse rating
1A Slow Blow



The product information and specifications may be subject to changes even without prior written notice. The product has been designed for various applications; its suitability lies in the responsibility of each customer. The products are not authorized for use in safety-critical applications without RECOM's explicit written consent. A safety-critical application is an application where a failure may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The applicant 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.

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