

# Features

## Regulated Converters

- Compact 40W AC-DC Power Supply
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- Triple Output with Independent Outputs
- Suitable for Industrial Applications
- CE Marked

### Description

Compact switching power module for PCB or DIN-rail mounting

### Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC40-05SB	90-264	5	8000	81	40000µF
RAC40-12SB	90-264	12	3333	84	8600µF
RAC40-15SB	90-264	15	2666	83	6600µF
RAC40-24SB	90-264	24	1667	83	1400µF
RAC40-05DB	90-264	±5	±4000	81	±12000µF
RAC40-12DB	90-264	±12	±1666	83	±4400µF
RAC40-15DB	90-264	±15	±1333	83	±1000µF
RAC40-0512DB	90-264	5/12	5000/1250	82	10000/470µF
RAC40-0512TB	90-264	5/±12	+5000/±600	82	10000/±780µF
RAC40-0515TB	90-264	5/±15	+5000/±500	81	10000/±900µF

\*add suffix "-ST" for screw terminal module e.g. RAC40-05SB-ST, RAC40-05DB-ST, RAC40-0512TB-ST

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

Input Voltage Range	90-264VAC or 100-375VDC
Rated Power	40 Watts max.
Input Frequency Range (for AC Input)	47-440Hz
Input Current (full load)	115VAC/230VAC 860mA/ 460mA max.
No Load Power Consumption	115VAC/230VAC 720mW max.
Inrush Current (<2ms)	115VAC/230VAC 30A / 50A max.
Leakage Current	0.75mA max.
Holdup time	10ms min.
Output Voltage Accuracy (Full load) <sup>(2)</sup>	Single, Dual Outputs ±2% typ. Double/Triple: Main Output ±3% typ., Secondary Output(s) ±5% typ.
Line Voltage Regulation (low line, high line at full load)	Single, Dual Outputs ±0.5% typ. Double/Triple: Main Output ±0.5% typ., Secondary Output(s) ±5% typ.
Load Voltage Regulation (10% to 100% Load)	(1% to 100% Load) Single: ±1% typ. Dual: Main Output ±1% typ., Secondary Output ±1% typ.
(10% to 100% Load)	Double: Main Output ±2% typ., Secondary Output ±6% typ.
(10% to 100% Load)	Triple: Main Output ±3% typ., Secondary Outputs ±7% typ.
Cross Regulation	Dual: Main Output ±5%, Secondary Output ±5% typ. Double: Main Output ±1% typ., Secondary Output ±7% typ. Triple: Main output ±3% typ., Secondary Outputs ±7% typ.
Output Ripple and Noise (20MHz limited, 0.1µF and 47µF across outputs)	1% Vout max.
Operating Frequency	132kHz typ.
RMS Isolation Voltage (input to output)	3kVAC / 1 minute
Temperature Coefficient	±0.01%/°C typ.
Isolation Resistance	100 MΩ min.
Short Circuit Protection	Continuous, Automatic Restart
Overcurrent Protection	105% typ.
Over Temperature Protection	100°C
Operating Temperature Range (free air convection, with derating)	-40°C to +70°C
Storage Temperature Range	-40°C to +85°C

continued on next page

# POWERLINE

## AC/DC-Converter

with 3 year Warranty

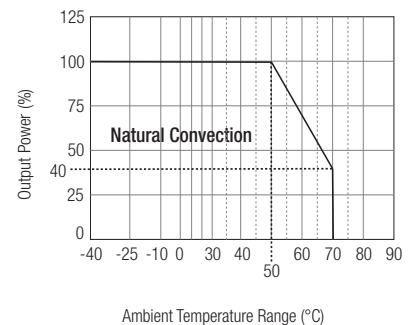
# RECOM

## 40 Watt Single/Dual/ Double & Triple Output



# RAC40-B

## Derating-Graph (Ambient Temperature)



Refer to Application Notes

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

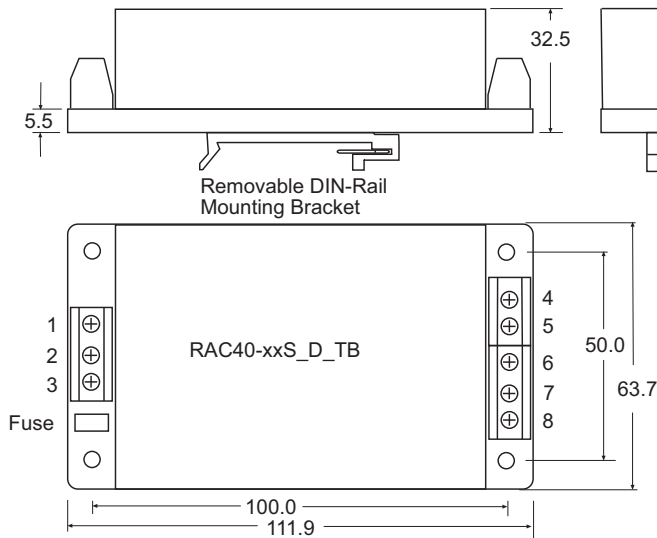
Humidity	95% RH	
Case Material	Epoxy with Fibreglass (UL94V-0)	
Package Weight	280g	
suffix (-ST)	300g	
Packing Quantity	2 pcs (-ST Version: 1 pc)	
EMC	EN 55022 Class B, EN55024	
MTBF (+25°C)	using MIL-HDBK-217F	200~400 x 10 <sup>3</sup> hours

Notes:

Note 1: Suggested input fuse rating 3.15A Slo Blo

Note 2: Triple output version has +/-Vout common that is not connected to +5V Return pin internally.

**Screw Terminal Module Option (suffix -ST)**



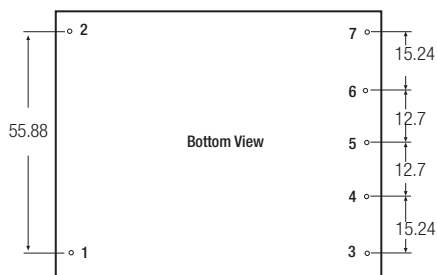
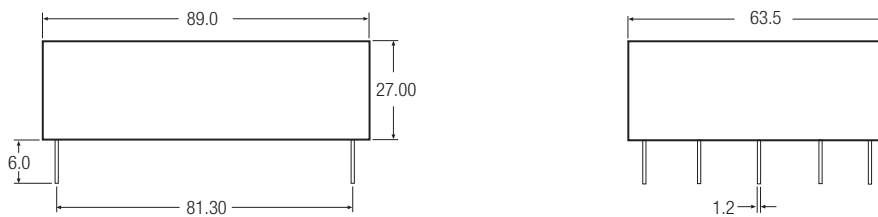
**Pin Connections**

Pin #	Single Out	Dual Out	Double Out	Triple Out
1	NC	NC	NC	NC
2	VAC in (L)	VAC in (L)	VAC in (L)	VAC in (L)
3	VAC in (N)	VAC in (N)	VAC in (N)	VAC in (N)
4	+VDC out	+VDC out	+12V Out	+VDC out
5	NC	NC	+5V Out	+5V Out
6	-VDC out	Com	+12V Rtn	Com
7	NC	NC	+5V Rtn	+5V Rtn
8	NC	-VDC out	NC	-VDC out

NC = No Connection

RAC40-B

**Package Style and Pinning**



Tolerance = ± 0.5 mm

**Pin Connections**

Pin #	Single Out	Dual Out	Double Out	Triple Out
1	VAC in (L)	VAC in (L)	VAC in (L)	VAC in (L)
2	VAC in (N)	VAC in (N)	VAC in (N)	VAC in (N)
3	+VDC out	+VDC out	+12V Out	+VDC out
4	No Pin	No Pin	+5V Out	+5V Out
5	-VDC out	Com	+12V Rtn	Vout Com
6	No Pin	No Pin	+5V Rtn	+5V Rtn
7	NC	-VDC out	No Pin	-VDC out

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.