

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) ⁽²⁾	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	tc=100°C thermal shutdown, auto restart after cool down	
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

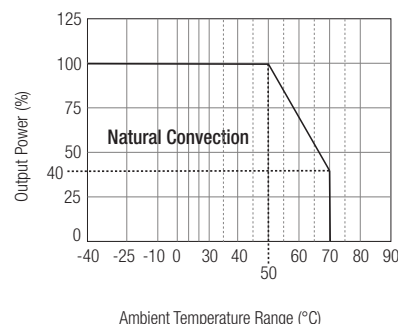
RECOM

40 Watt Single/Dual/ Double & Triple Output



RAC40-B

Derating-Graph (Ambient Temperature)



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

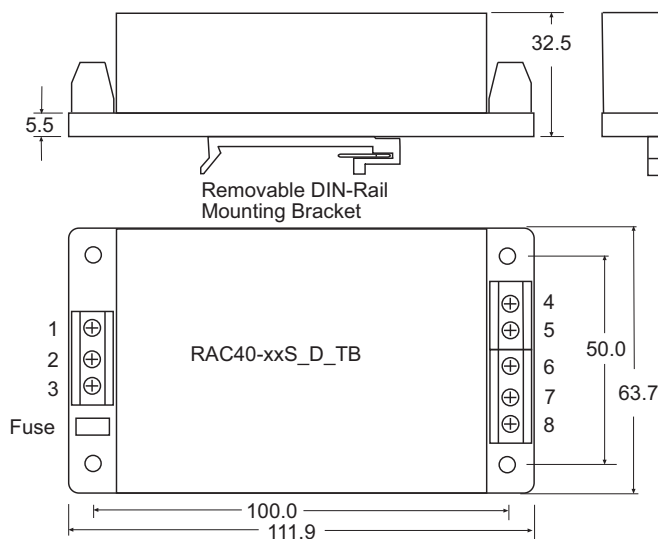
Humidity	95% RH
Case Material	Epoxy with Fibreglass (UL94V-0)
Package Weight	280g
suffix (-ST)	300g
Packing Quantity	2 pcs (-ST Version: 1 pc)
EMC	EN 55022 Class B, EN55024
MTBF (+25°C)	using MIL-HDBK-217F 200~400 x 10 ³ hours

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)

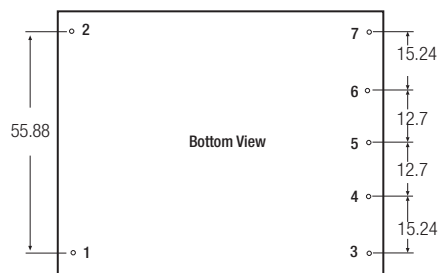
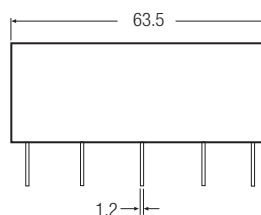
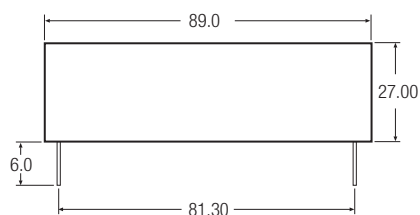


Pin Connections

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

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

Mouser Electronics

Authorized Distributor

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RECOM:

[RAC40-05DB](#) [RAC40-15SB](#) [RAC40-24SB-ST](#) [RAC40-0515TB-ST](#) [RAC40-0512TB](#) [RAC40-05SB-ST](#) [RAC40-12SB](#)
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