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)

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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.
Doub	ole/Triple: Main Output ±3% t	yp., Secondary Output(s) ±5% typ.
Line Voltage Regulation (low line, high line	e at full load)	Single, Dual Outputs ±0.5% typ.
Double	/Triple: Main Output ±0.5% t	yp., Secondary Output(s) ±5% typ.
Load Voltage Regulation	(1% to 100% Load)	Single: ±1% typ.
(10% to 100% Load)	Dual: Main Output ±1%	6 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%	6 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 outpo	uts) 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 shut	down, auto restart after cool down
Operating Temperature Range (free air co	onvection, 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



40 Watt Single/Dual/ Double & Triple Output



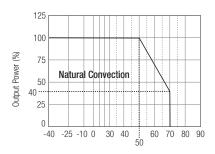


CE

RAC40-B

Derating-Graph

(Ambient Temperature)



Ambient Temperature Range (°C)

POWERLINE

AC/DC-Converter

RAC40-S_D_TB Series

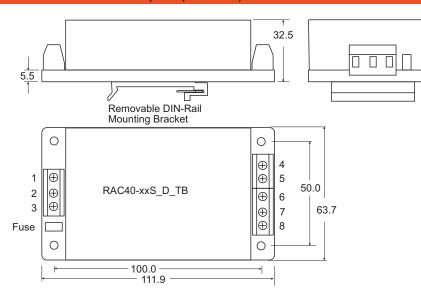
Specifications (typical at 25°C and after warm up time unless otherwise specified)			
Humidity		95% RH	
Case Material		Epoxy with Fibreglass (UL94V-0)	
Package Weight		280g	
suffix (-ST)		300g	
Packing Quantity		2 pcs (-ST Version: 1 pc)	
EMC		EN 55022 Class B, EN55024	
MTBF (+25°C)	using MIL-HDBK-217F	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.

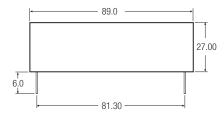
Screw Terminal Module Option (suffix -ST)

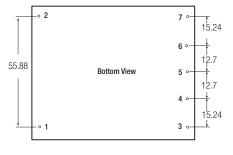


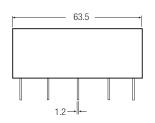
Pin Connections

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







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

Tolerance $=\pm 0.5 \text{ mm}$

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