

Features

Regulated Converters

- Compact 40W AC-DC Power Supply
- Universal Input Voltage Range
- 4000VAC Isolation, Low Leakage Current
- Low Output Ripple and Noise
- Short Circuit Protected
- UL-60601 Certified for Medical Applications

Description

Compact switching power module for PCB or DIN-rail mounting with medical certification UL-60601-1.

Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RAC40-05SA	90-264	5	8000	79
RAC40-12SA	90-264	12	3333	83
RAC40-15SA	90-264	15	2666	83
RAC40-24SA	90-264	24	1666	83
RAC40-05DA	90-264	±5	±4000	79
RAC40-12DA	90-264	±12	±1666	83
RAC40-15DA	90-264	±15	±1320	83
RAC40-0512DA	90-264	5/12	5000/1250	80
RAC40-0512TA	90-264	5/±12	+5000/±600	80
RAC40-0515TA	90-264	5/±15	+5000/±500	80

*add suffix "-E" for extended temperature range, e.g. RAC40-05SA-E

*add suffix "-ST" for screw terminal module e.g. RAC40-05SA-ST, RAC40-05DA-ST, RAC40-0512TA-ST

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

Input Voltage Range	90-264VAC or 100-370VDC
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 10A / 20A max.
Leakage Current	115VAC/230VAC 100µA/ 200µA max.
Output Voltage Accuracy (Full load)	Single, Dual Outputs ±2% typ. Others: 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. Others: Main Output ±0.5% typ., Secondary Output(s) ±5% typ.
Load Voltage Regulation (10% to 100% symmetric load)	Single, Dual Outputs ±2% typ. Others: Main Output ±3% typ., Secondary Output(s) ±7% typ.
Cross Regulation (Dual, Triple Outputs)	Main Outputs ±5%, 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)	4kVAC / 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)	-25°C to +70°C
Storage Temperature Range	-40°C to +100°C

continued on next page

POWERLINE AC/DC-Converter

RECOM

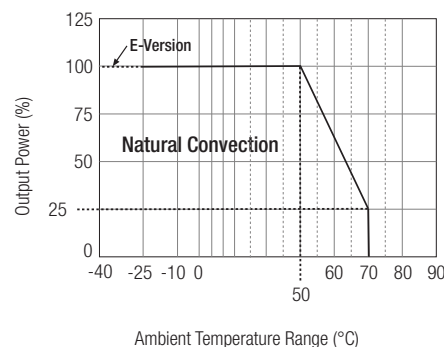
40 Watt Single, Dual, Double & Triple Output



UL-60601-1 Certified
E314885

RAC40-A

Derating Graph (Ambient Temperature)



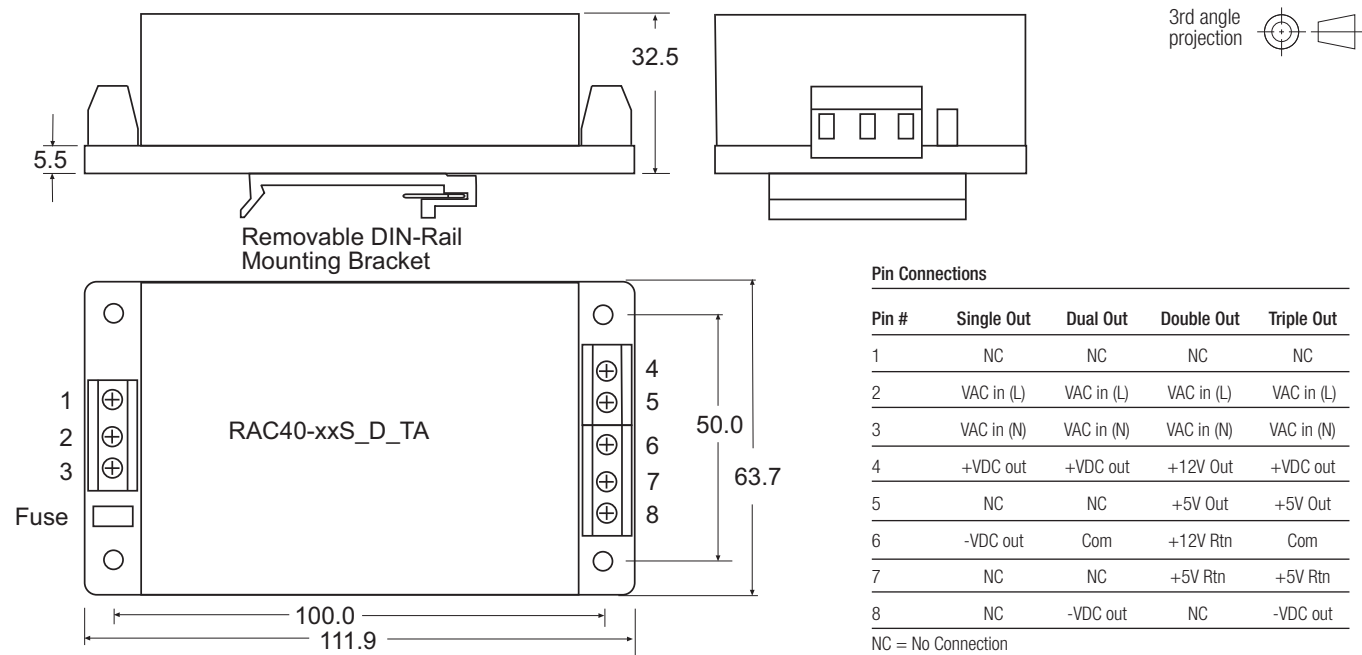
Please Read Application Notes

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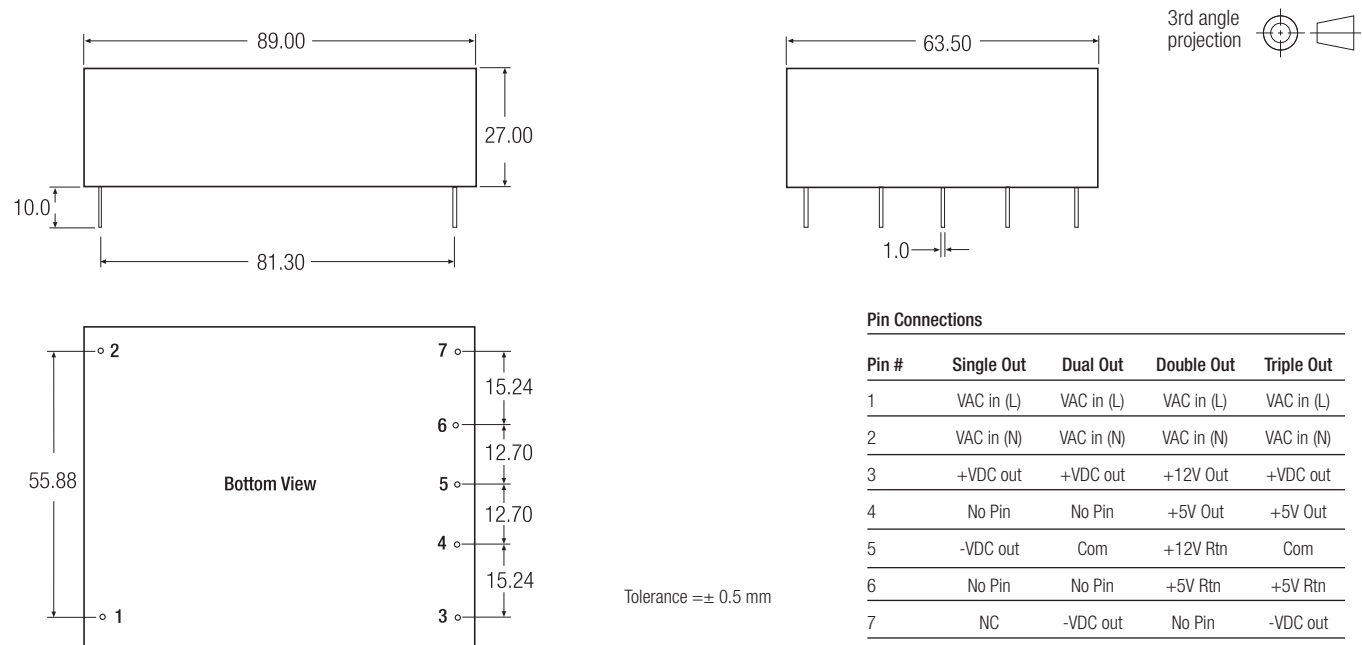
Specifications continued

Humidity	95% RH max.	
Case Material	Epoxy with Fibreglass (UL94V-0)	
Package Weight	280g	
EMC	EN 55011 Class B / EN60601-1-2	
MTBF (+25°C)	using MIL-HDBK-217F	200~400 x 10 ³ hours

Screw Terminal Module Option (suffix -ST)



Package Style and Pinning



Notes

Note 1: Suggested input fuse rating 3.15A Slo Blo