

Features

Regulated Converters

Rev. 0

- 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

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)	860mA max. (115VAC) / 460mA max. (230VAC)
Inrush Current (<2ms)	10A max. (115VAC) / 20A max. (230VAC)
Leakage Current	100µA max. (115VAC) / 200µA max. (230VAC)
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.
Isolation Voltage (input to output)	4000VAC min.
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
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

POWERLINE

AC/DC-Converter

RAC40-S_D_TA Series

40 Watt Single, Dual, Double & Triple Output



UL-60601-1 Certified

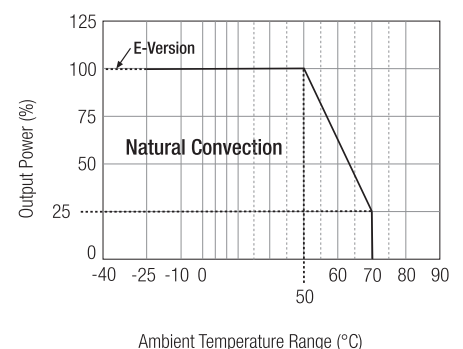
RECOM

Description

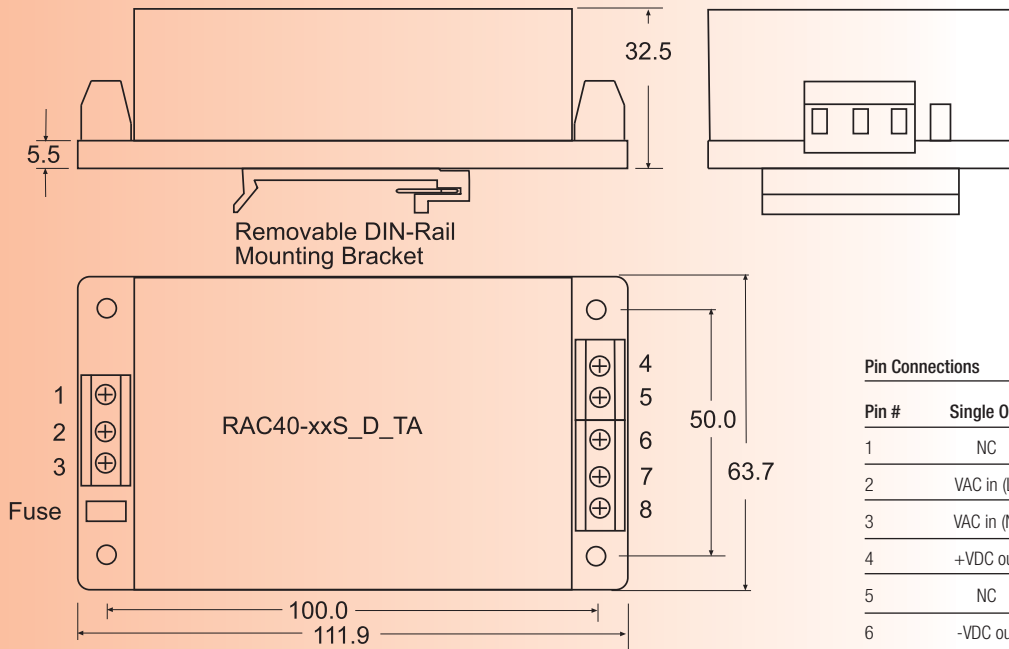
Compact switching power module for PCB or DIN-rail mounting with medical certification UL-60601-1.

Derating Graph

(Ambient Temperature)



Screw Terminal Module Option (suffix -ST)

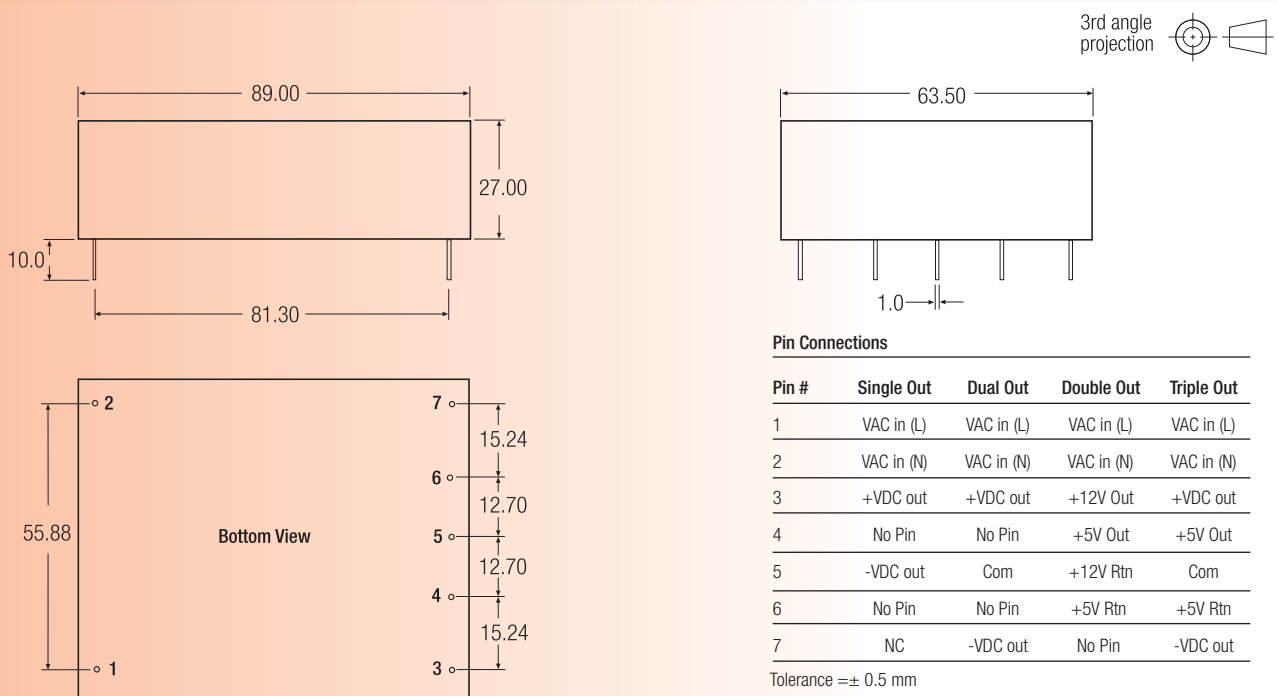


Pin Connections

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	Com
6	No Pin	No Pin	+5V Rtn	+5V Rtn
7	NC	-VDC out	No Pin	-VDC out

Tolerance = ± 0.5 mm