

Features

Regulated Converters

- Compact AC-DC Power Supply
- 15 Watt PCB Mount Package
- Universal Input Voltage Range
- 4000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- Triple Output with Independent Outputs
- UL-60601 Certified for Medical Applications
- CE Marked

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 (%)	Max. Capacitive Load
RAC15-3.3SB	90-264	3.3	3000	75	40000µF
RAC15-05SB	90-264	5	3000	79	10000µF
RAC15-09SB	90-264	9	1666	80	3000µF
RAC15-12SB	90-264	12	1250	81	1100µF
RAC15-15SB	90-264	15	1000	82	1000µF
RAC15-24SB	90-264	24	625	83	820µF
RAC15-05DB	90-264	±5	±1500	79	±4700µF
RAC15-12DB	90-264	±12	±625	82	±560µF
RAC15-15DB	90-264	±15	±500	82	±500µF
RAC15-0512TB	90-264	5/±12	+2000/±200	78	10000/±470µF
RAC15-0515TB	90-264	5/±15	+2000/±150	78	10000/±600µF

*add suffix "-E" for extended temperature range, e.g. RAC15-05SB-E

*add suffix "-ST" for screw terminal module e.g. RAC15-05SB-ST, RAC15-05DB-ST, RAC15-0512TB-ST

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

Input Voltage Range	90-264VAC or 100-370VDC	
Rated Power	15 Watts max.	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115VAC/230VAC	220mA / 118mA max.
No Load Power Consumption	115VAC/230VAC	590mW max.
Inrush Current (<2ms)	115VAC/230VAC	10A / 20A max.
Leakage Current	115VAC/230VAC	100µA/ 200µA max.
Output Voltage Accuracy (Full load)	Single and Dual ±2% max.	
(Note 5)	Triple ±2% / ±3% max.	
Line Voltage Regulation (low line, high line at full load)	Single&Dual	±0.5% max.
See Note 1	Triple	±2% / ±3% max.
Load Voltage Regulation (10% to 100% symmetric load)	Single&Dual	±1% max.
See Note 2	Triple	1% / 5% max.
Output Ripple and Noise - See Note 3	1% Vout max.	
Operating Frequency	132kHz typ.	
Efficiency at Full Load	see table	
RMS Isolation Voltage (input to output)	4kVAC / 1 minute	
Temperature Coefficient	±0.01%/°C typ.	
Over-Current Protection	105% typ.	
Short Circuit Protection	Hiccup, Automatic Restart	
Over-Voltage Protection	Zener Diode Clamp	
Over-Temperature Protection	100°C	
Operating Temperature Range	Standard	-25°C to +70°C
(free air convection, with derating)	Suffix -E	-40°C to +70°C
Storage Temperature Range	-40°C to +100°C	

continued on next page

POWERLINE

AC/DC-Converter

with 3 year Warranty

RECOM

15 Watt Single/Dual & Triple Output

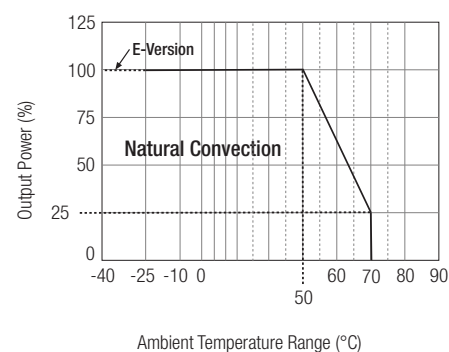


UL-60601-1 Certified

RAC15-B

Derating Graph

(Ambient Temperature)



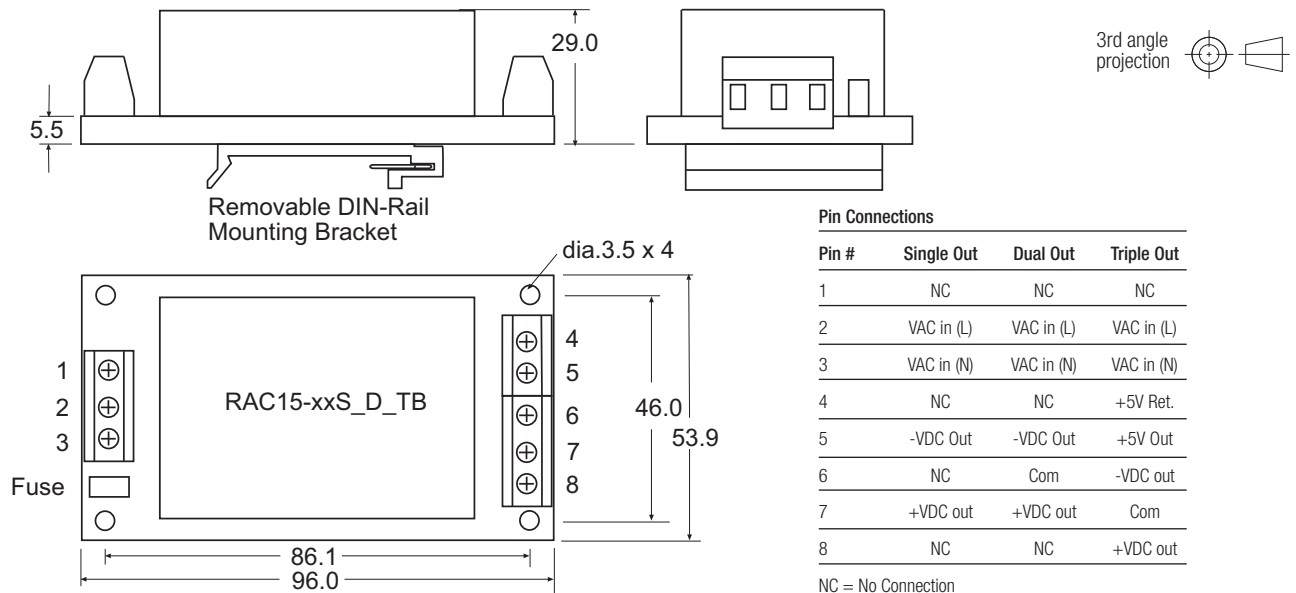
Please Read Application Notes

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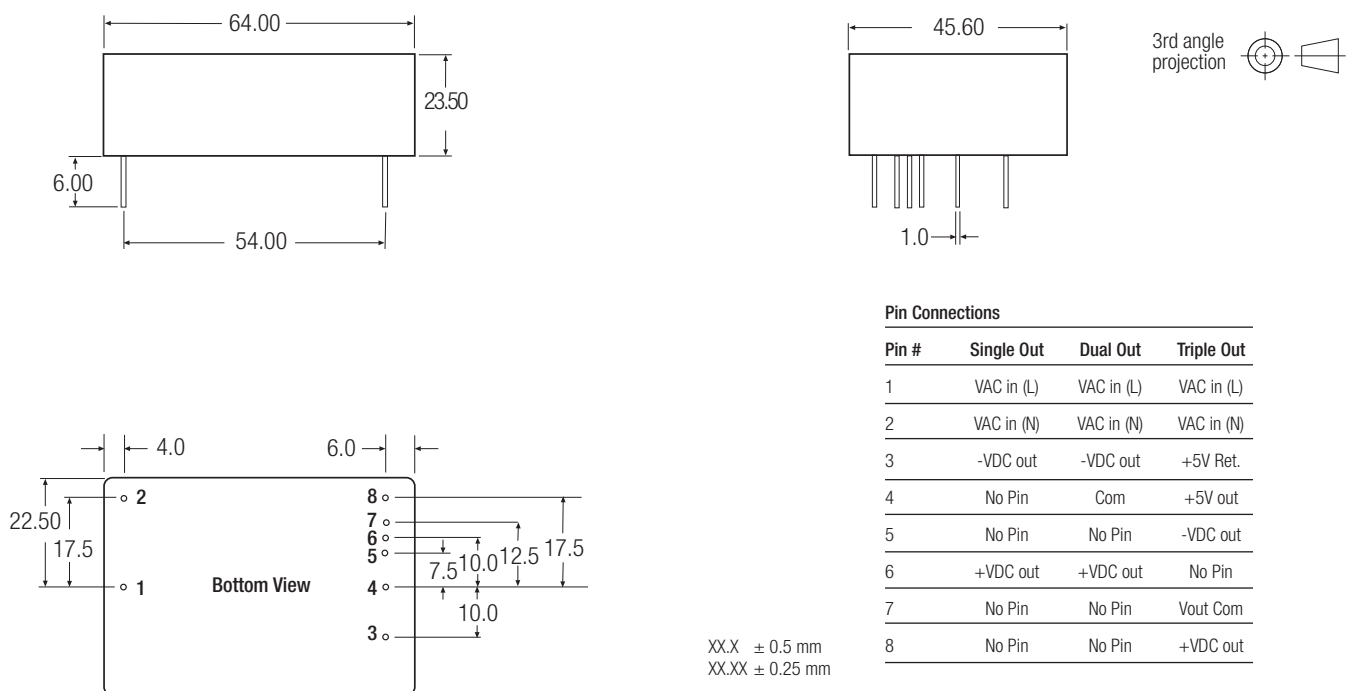
Specifications continued

Case Material	Epoxy with Fibreglass (UL94V-0)	
Package Weight	120g	
Packing Quantity	5 pcs (-ST Version: 1 pc)	
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: Line Regulation = 2% max. for triple output +Vout and -Vout.

Note 2: Load Regulation = 5% max. for triple output +Vout and -Vout.

Note 3: Ripple & Noise measured with 20MHz BW probe and 0.1µF + 47µF capacitors in parallel across the outputs.

Note 4: Suggested input fuse rating = 2A Slow Blow

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

Mouser Electronics

Authorized Distributor

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RECOM:

[RAC15-0512TB](#) [RAC15-0512TB-E](#) [RAC15-0512TB-E-ST](#) [RAC15-0512TB-ST](#) [RAC15-0515TB](#) [RAC15-0515TB-E](#)
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