

## 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
- UL-60601 Certified

## POWERLINE

AC/DC-Converter

# RAC15-S\_D\_TB Series

## 15 Watt Single, Dual & Triple Output



UL-60601 Certified

# RECOM

### Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RAC15-3.3SB	85-264	3.3	3000	74
RAC15-05SB	85-264	5	3000	78
RAC15-09SB	85-264	9	1666	79
RAC15-12SB	85-264	12	1250	81
RAC15-15SB	85-264	15	1000	81
RAC15-24SB	85-264	24	625	83
RAC15-12DB	85-264	±5	±1500	78
RAC15-12DB	85-264	±12	±625	80
RAC15-15DB	85-264	±15	±500	81
RAC15-0512TB	85-264	5/±12	+2000/±200	78
RAC15-0515TB	85-264	5/±15	+2000/±150	78

### Specifications

( typical at 25°C, nominal input voltage and after warm up time unless otherwise specified )

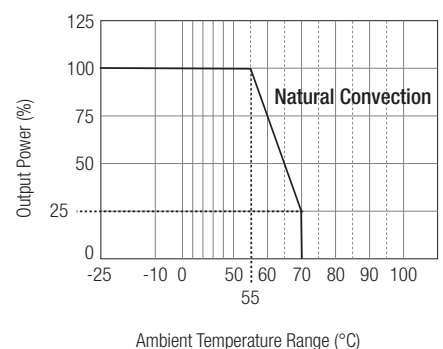
Input Voltage Range	90-264VAC or 100-370VDC
Rated Power	15 Watts max.
Input Frequency Range (for AC Input)	47-440Hz
Input Current (full load)	220mA max. (115VAC) / 118mA max. (230VAC)
Inrush Current (<2ms)	10A max. (115VAC) / 20A max. (230VAC)
Leakage Current	0.1mA max.
Output Voltage Accuracy (Full load)	Single and Dual ±1% max. Triple ±2%/±3% max.
Line Voltage Regulation (low line, high line at full load) - See Note 1	±0.5% max.
Load Voltage Regulation (10% to 100% symmetric load) - See Note 2	±1% max.
Output Ripple and Noise - See Note 3	1% Vout max.
Operating Frequency	132kHz typ.
Efficiency at Full Load	see table
Isolation Voltage (input to output)	4000VAC min.
Temperature Coefficient	±0.01%/°C typ.
Over-Current Protection	105% typ.
Short Circuit Protection	Continuous, Automatic Restart
Over-Voltage Protection	Zener Diode Clamp
Over-Temperature Protection	100°C
Operating Temperature Range (free air convection, with derating)	-25°C to +71°C
Storage Temperature Range	-40°C to +100°C
Humidity	95% RH max.
Case Material	Epoxy with Fibreglass (UL94V-0)
Package Weight	100g
MTBF (+25°C)	using MIL-HDBK-217F 200~400 x 10 <sup>3</sup> hours

### Description

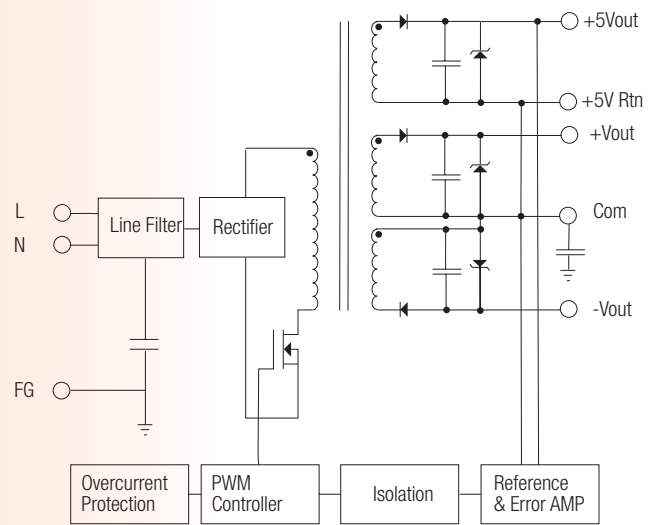
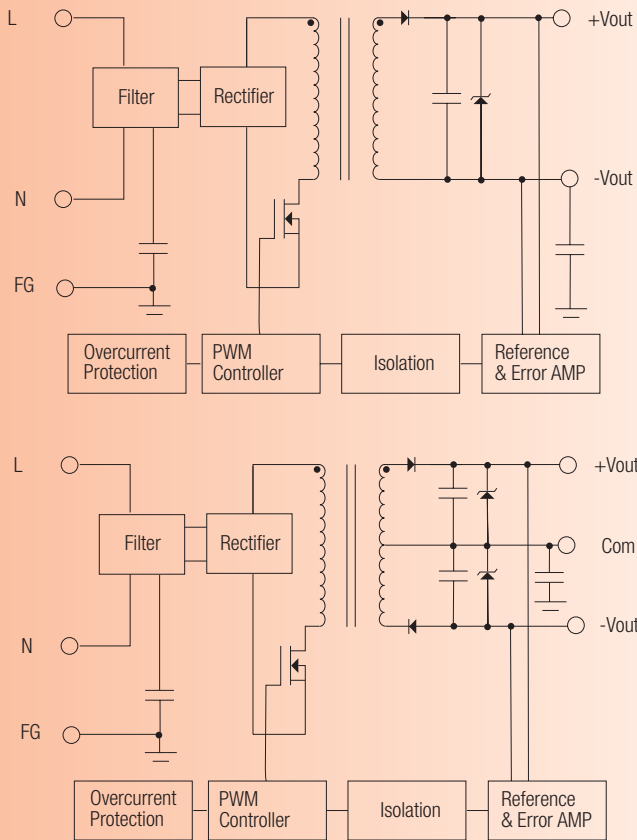
Compact switching power module for PCB or DIN-rail mounting with medical certification UL-60601-1.

## Derating Graph

(Ambient Temperature)



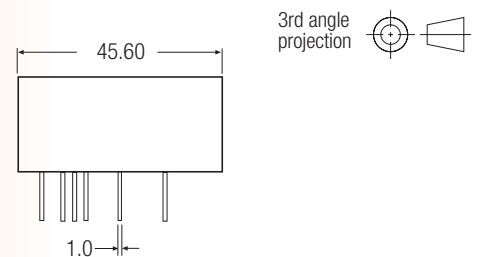
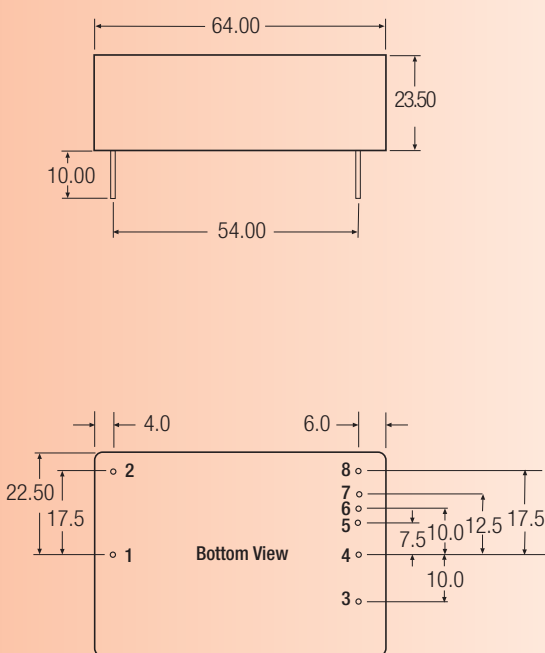
**Simplified Schematics**



**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.

**Package Style and Pinning**



**Pin Connections-**

Pin #	Single Out	Dual Out	Triple Out
1	VAC in (L)	VAC in (L)	VAC in (L)
2	VAC in (N)	VAC in (N)	VAC in (N)
3	-VDC Out	-VDC Out	+5V Ret.
4	No Pin	Com	+5V Out
5	No Pin	No Pin	-VDC out
6	+VDC out	+VDC out	-VDC out
7	No Pin	No Pin	Com
8	No Pin	No Pin	+VDC out

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm