

Features

Regulated Converters

- Compact AC-DC Power Supply
- 10 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- UL Approved

POWERLINE AC/DC-Converter

RAC10-SB Series

Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RAC10-3.3SB	90-264	3.3	2500	70
RAC10-05SB	90-264	5	2000	72
RAC10-12SB	90-264	12	833	76
RAC10-15SB	90-264	15	667	75
RAC10-24SB	90-264	24	417	72

* add suffix "-DIN for DIN Rail mounting module (see separate datasheet)

Description

Compact switching power module for PCB or DIN-rail mounting with cUL, UL Safety Approvals. Pin compatible with RAC5-SB Models.

Specifications

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

Input Voltage Range	90-264VAC or 120-370VDC
Rated Power	10 Watts max.
Input Frequency Range (for AC Input)	47-440Hz
Input Current (full load)	220mA max. (115VAC) / 150mA max. (230VAC)
Inrush Current (<2ms)	10A max. (115VAC) / 20A max. (230VAC)
Leakage Current	14mA max.
Output Voltage Accuracy (Full load)	±2%
Line Voltage Regulation (low line, high line at full load)	±0.3% typ.
Load Voltage Regulation (5% to 100% full load)	±0.5% typ.
Output Ripple and Noise (20MHz limited)	0.5% Vout + 50mVp-p max.
Operating Frequency	125kHz typ.
Efficiency at Full Load	see table
Isolation Voltage (input to output)	3000VAC min.
Temperature Coefficient	±0.02%/°C typ.
Isolation Resistance	100 MΩ min.
Short Circuit Protection	Continuous, Automatic Restart
Operating Temperature Range (free air convection, with derating)	-25°C to +70°C
Storage Temperature Range	-40°C to +85°C
Humidity	95% RH max.
Case Material	Epoxy with Fibreglass (UL94V-0)
Package Weight	54g
	DIN Rail Module 91g
MTBF (+25°C)	using MIL-HDBK-217F 330 x 10 ³ hours

10 Watt Single Output

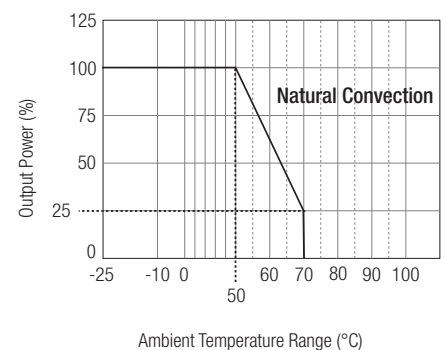


UL-60950 Certified

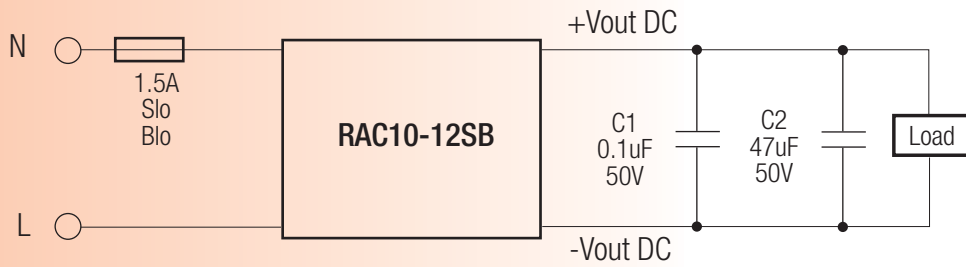
RECOM

Derating Graph

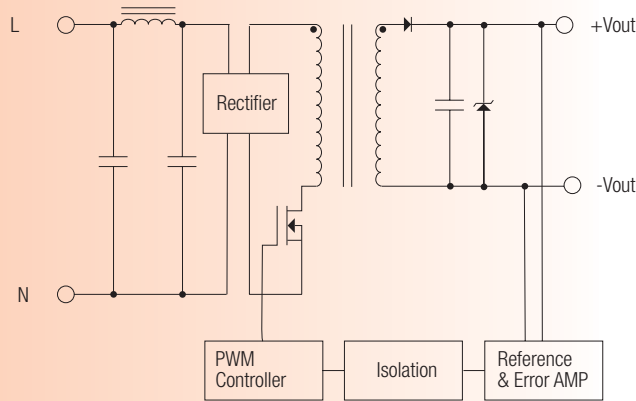
(Ambient Temperature)



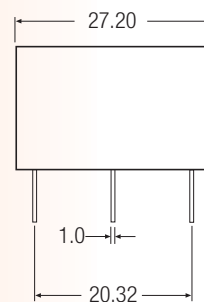
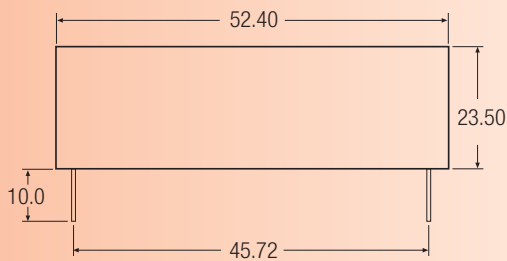
Typical Application



Simplified Schematic



Package Style and Pinning

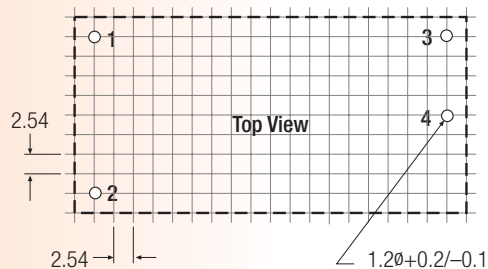
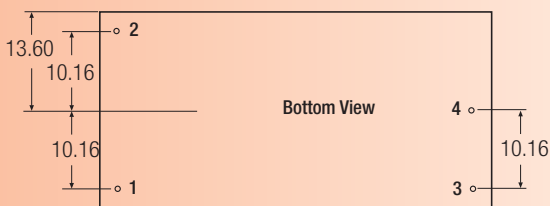


3rd angle projection

Pin Connections	
Pin #	Single Out
1	VAC in (N)
2	VAC in (L)
3	+VDC out
4	-VDC out

XX.X ± 0.5 mm
XX.XX ± 0.25 mm

Recommended Footprint Details



See DIN Rail Modules for DIN rail mounting option