# NOT RECOMMENDED FOR NEW DESIGNS LAST TIME BUY: 30TH OCT 2020, 3.3SB, 15SB

### **Features**

## Regulated **Converters**

MTBF (+25°C)

- 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 Certified. CE Marked**

Selection Guide					
Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC10-05SB	90-264	5	2000	75	40000μF
RAC10-12SB	90-264	12	833	77	8500µF
RAC10-24SB	90-264	24	417	77	1200µF

NRND (Last time buy: 30 <sup>th</sup> Oct 2020)					
Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC10-3.3SB	90-264	3.3	2500	72	75000µF
RAC10-15SB	90-264	15	667	77	3500µF

<sup>\*\*</sup>add suffix "-E" for extended temperature range, e.g. RAC05-05SB-E

#### 90-264VAC or 120-370VDC Input Voltage Range Rated Power 10 Watts max.

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

Input Frequency Range (for AC Input)		47-440Hz
Input Current (full load)	115VAC/230VAC	220mA/ 150mA max.
No Load Power Consumption	230VAC	490mW max.
Inrush Current (<2ms)	115VAC	10A max. (-E = 23A max.)
	230VAC	20A  max. (-E = 46A  max.)
Leakage Current		0.25mA 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	l load )	±0.5% typ.
Output Ripple and Noise (20MHz limited)	Noise	0.5% Vout + 50mVp-p max.
	Ripple	<0.2% Vout + 40mVp-p max.
Operating Frequency		125kHz typ.
Efficiency at Full Load		see table
RMS Isolation Voltage (input to output)		3kVAC / 1minute
Temperature Coefficient		±0.02%/°C typ.
Isolation Resistance		100 MΩ min.
Short Circuit Protection		Hiccup, Automatic Restart
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 +85°C
Humidity		20%-85% RH
Case Material		Epoxy with Fibreglass (UL94V-0)
Package Weight		51g
Packing Quantity		8 pcs (-ST Version: 1 pc)
EMC		EN 55022 Class B / EN 55024

using MIL-HDBK-217F

### **POWERLINE**

AC/DC-Converter with 3 year Warranty



## 10 Watt Single **Output**

**PREFERRED ALTERNATIVES** Please consider these alternatives: RAC10-K/277 Series

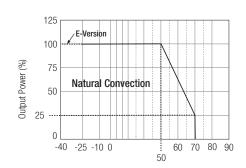


**UL-60950-1** Certified

RAC10-B

## **Derating-Graph**

(Ambient Temperature)



Ambient Temperature Range (°C)

**Please Read Application Notes** 

330 x 103 hours

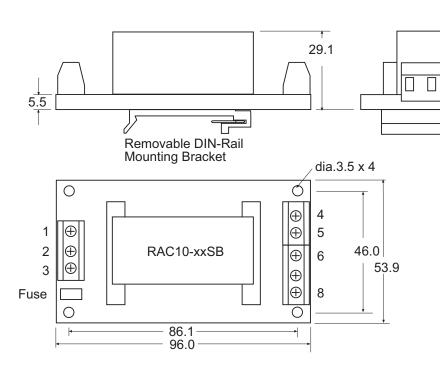
<sup>\*</sup>add suffix "-ST" for screw terminal module e.g. RAC05-05SB-ST, RAC05-05SB-E-ST

## **POWERLINE**

AC/DC-Converter

# RAC10-SB Series

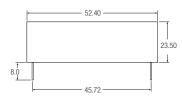
#### Screw Terminal Module Option (suffix -ST)

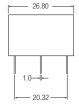


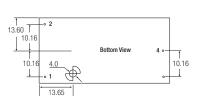
Pin Connections		
Pin#	Single Out	
1	NC	
2	VAC in (N)	
3	VAC in (L)	
4	NC	
5	+VDC out	
6	-VDC out	
7	NC	
8	NC	

 $\ensuremath{\mathsf{NC}} = \ensuremath{\mathsf{No}}$  Connection

### Standard Package Style and Pinning

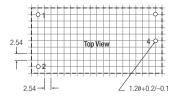






Maximum Torque 12 kgf.cm (1.21 Nm)

## Recommended Footprint Details



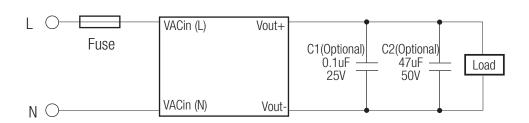
#### Pin Connections

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

 $XX.X \pm 0.5 \text{ mm}$ XX.XX + 0.25 mm

### **Standard Application Circuit**

Suggested fuse rating 2A Slow Blow



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