

Features

Regulated Converters

- Compact AC-DC Power Supply
- 20 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- High Efficiency
- UL Certified, CE Marked

Description

Compact universal input voltage switching power module for PCB or DIN-rail mounting available with single, dual or triple output voltages

Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Capacitive Load (max)
RAC20-3.3SA	90-264	3.3	4500	75	25000µF
RAC20-05SA	90-264	5	4000	79	13000µF
RAC20-09SA	90-264	9	2230	82	1100µF
RAC20-12SA	90-264	12	1670	83	920µF
RAC20-15SA	90-264	15	1340	83	820µF
RAC20-24SA	90-264	24	840	84	600µF
RAC20-05DA	90-264	±5	±2000	79	±4300µF
RAC20-12DA	90-264	±12	±833	82	±560µF
RAC20-15DA	90-264	±15	±677	82	±220µF
RAC20-0512TA	90-264	5/±12	+2800/±250	81	3500/±200µF
RAC20-0515TA	90-264	5/±15	+2800/±200	81	3500/±150µF

*add suffix "-ST" for screw terminal module e.g. RAC20-05SA-ST, RAC20-05DA-ST, RAC20-0512TA-ST

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

Input Voltage Range	90-264VAC or 100-375VDC	
Rated Power	20 Watts max	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115VAC/230VAC	400mA/ 230mA max.
No Load Power Consumption	115VAC/230VAC	470mW max.
Inrush Current (<2ms)	115VAC/230VAC	30A/ 50A max.
Leakage Current	0.25mA max	
Output Voltage Accuracy (Full load)	±2% max	
Line Voltage Regulation (low line, high line at full load)	- Single /Dual Output - Triple Output	±0.5% max ±1%/ ±5% max
Load Voltage Regulation (10% to 100% symmetric load)	- Single - Dual - Triple	±1% max ±3% max ±2% /±5% max
Output Ripple and Noise (see Note 1)	Noise Ripple	<0.9% Vout + 50mVp-p max. <0.2% Vout + 40mVp-p max.
Minimum Load	Single/Dual = 0%, Triple = 10% main /20% auxilliary	
Operating Frequency	100kHz typ	
RMS Isolation Voltage (input to output)	3kVAC / 1 minute	
Temperature Coefficient	±0.02%/°C typ	
Over-Current Protection	105% typ	
Short Circuit Protection	Continuous, Automatic Restart	
Over-Voltage Protection	Zener Diode Clamp	
Operating Temperature Range (free air convection, with derating)	-25°C to +70°C	
Storage Temperature Range	-40°C to +85°C	

continued on next page

POWERLINE

AC/DC-Converter

with 3 year Warranty



20 Watt Single/Dual & Triple Output

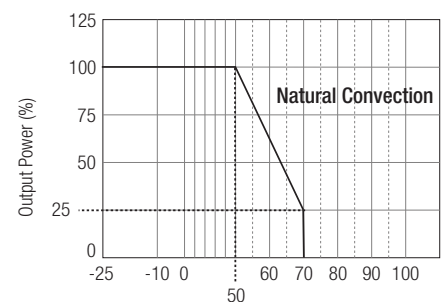


UL-60950-1 Certified

RAC20-A

Derating Graph

(Ambient Temperature)



Ambient Temperature Range (°C)

Please Read Application Notes

www.recom-electronic.com

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AC/DC-Converter

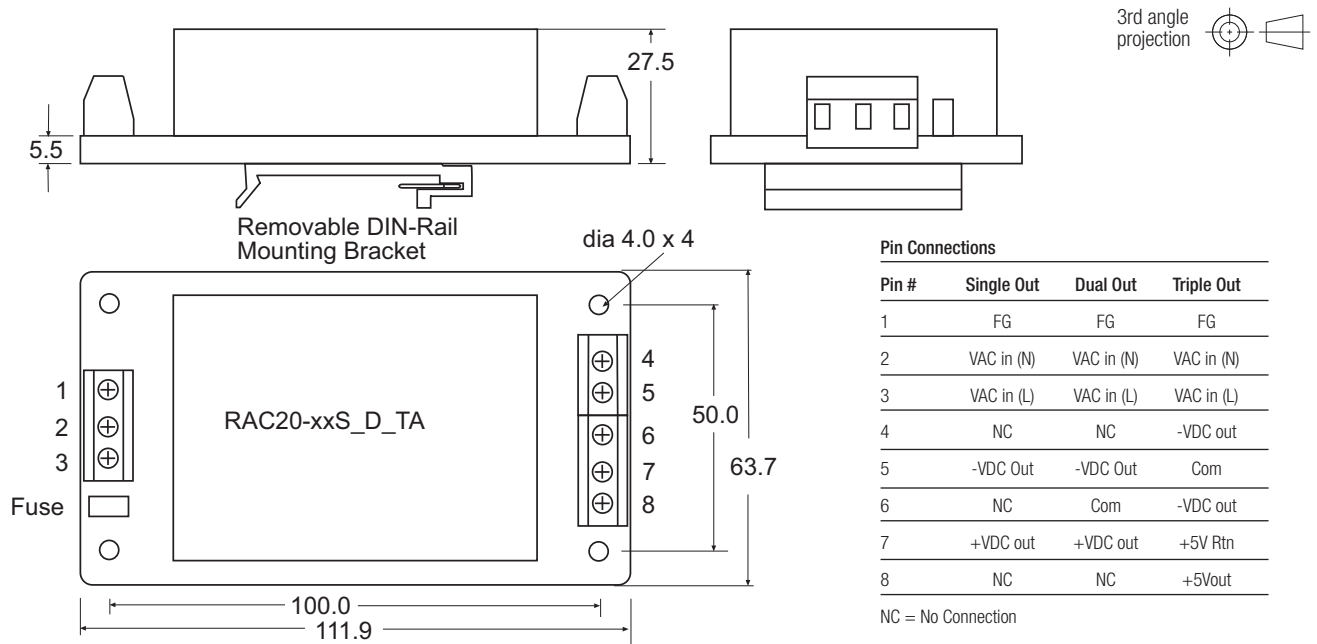
RAC20-S_D_TA

Series

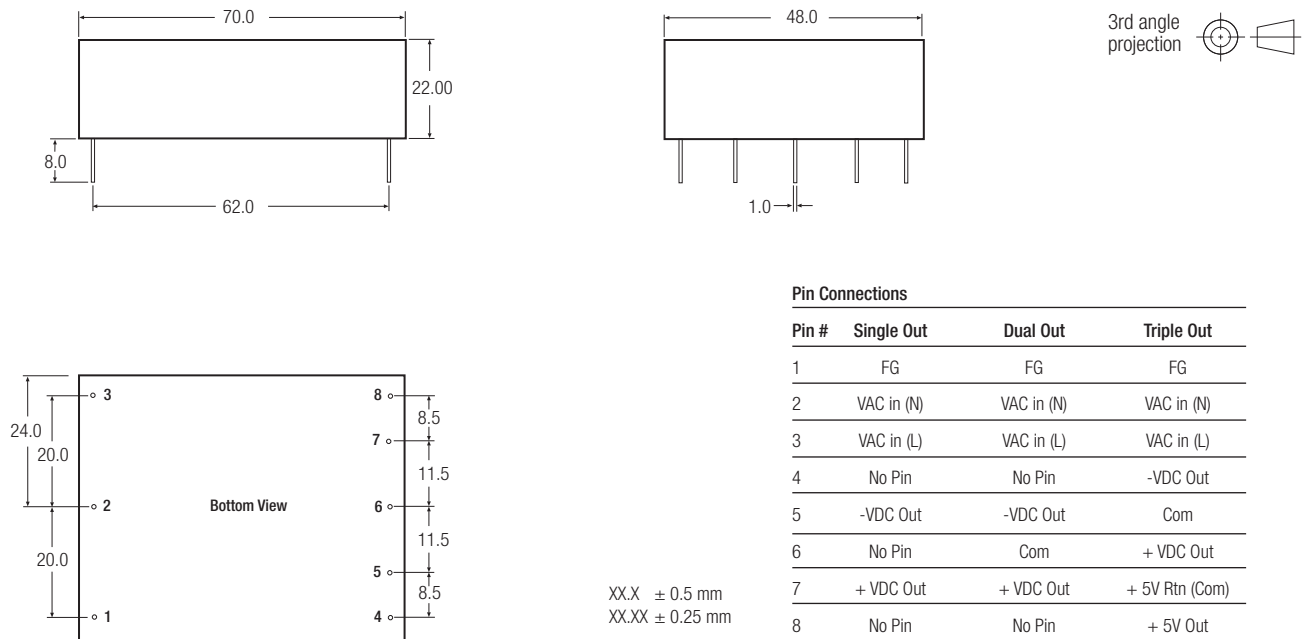
Specifications continued

Humidity		95% RH max.
Case Material		Epoxy with Fibreglass (UL94V-0)
Package Weight		110g
Packing Quantity		3 pcs (-ST Version: 1 pc)
EMC		EN 55022 Class B / EN 55024
MTBF (+25°C)	using MIL-HDBK-217F	>200 x 10 ⁶ hours

Screw Terminal Module Option (suffix -ST)



Package Style and Pinning



Notes

Note 1: Ripple & Noise measured with 20MHz BW probe and 0.1µF + 47µF capacitors in parallel across the outputs.

Note 2: Suggested input fuse rating 2A Slow Blow