

Features

Regulated Converters

- AC-DC Power Supply
- 30 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- Triple Output with Independent Outputs
- UL Certified, CE Marked

Description

Compact UL certified switching AC/DC power module for PCB, screw-terminal connection or DIN-rail mounting.

Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC30-3.3SA	90-264	3.3	6000	75	80000μF
RAC30-05SA	90-264	5	6000	79	70000μF
RAC30-12SA	90-264	12	2500	82	14000μF
RAC30-15SA	90-264	15	2000	82	11000μF
RAC30-24SA	90-264	24	1250	82	5900μF
RAC30-05DA	90-264	±5	±3000	79	±50000μF
RAC30-12DA	90-264	±12	±1250	82	±14000μF
RAC30-15DA	90-264	±15	±1000	80	±10000μF
RAC30-0512DA	90-264	5/12	3000/1250	79	13200/±6400μF
RAC30-0512TA	90-264	5/±12	3000/±630	79	15000/±5400μF
RAC30-0515TA	90-264	5/±15	3000/±500	78	10000/3200μF

*add suffix "-E" for extended temperature range, e.g. RAC30-05SA-E

*add suffix "-ST" for screw terminal module e.g. RAC30-05DA-ST, RAC30-0512TA-E-ST

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

Input Voltage Range	90-264VAC or 120-370VDC	
Rated Power	30 Watts max.	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	115VAC/230VAC	520mA/ 320mA max.
No Load Power Consumption	115VAC/230VAC	2.58W max.
Inrush Current (<2ms)	115VAC	10A max. (-E = 23A max.)
	230VAC	20A max. (-E = 46A max.)
Leakage Current	0.75mA max.	
Output Voltage Accuracy (Full load)	±2%	
Line Voltage Regul. (low line, high line at full load) ⁽²⁾	Single, Dual	±1% typ.
	Double, Triple	±1%/±5% typ.
Load Voltage Regulation (5% to 100% full load)	Single, Dual	±1%, ±3%typ.
	Double, Triple	±2%/±6% typ.
Minimum Load	Single	3.3V: 5%/ 5V: 8%/ 12V, 15V, 24V: 2%
	Dual	±5V: 2%/ ±12V: 3%/ ±15V: 1%
	Double, Triple	20%
Output Ripple and Noise (20MHz limited)	Noise	0.5% Vout + 50mVp-p max.
	Ripple	<0.2% Vout + 40mVp-p max.
Operating Frequency	100kHz typ.	
Efficiency at Full Load	see table	
RMS Isolation Voltage (input to output)	3kVAC min.	
Temperature Coefficient	±0.02%/°C typ.	
Isolation Resistance	100 MΩ max.	
Short Circuit Protection	Continuous, Automatic restart	

continued on next page

POWERLINE

AC/DC-Converter

with 3 year Warranty

RECOM

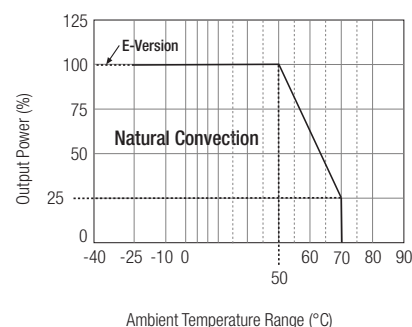
30 Watt Single/Dual/ Double & Triple Output



UL-60950-1 Certified

RAC30-A

Derating-Graph (Ambient Temperature)



Refer to Application Notes

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

Operating Temperature Range ⁽³⁾ (free air convection, with derating)	Standard Suffix -E	-25°C to +70°C -40°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		212g
Packing Quantity		2 pcs (-ST Version: 1 pc)
EMC		EN 55022 Class B / EN 55024
MTBF (+25°C)	using MIL-HDBK-217F	200 x 10 ³ hours

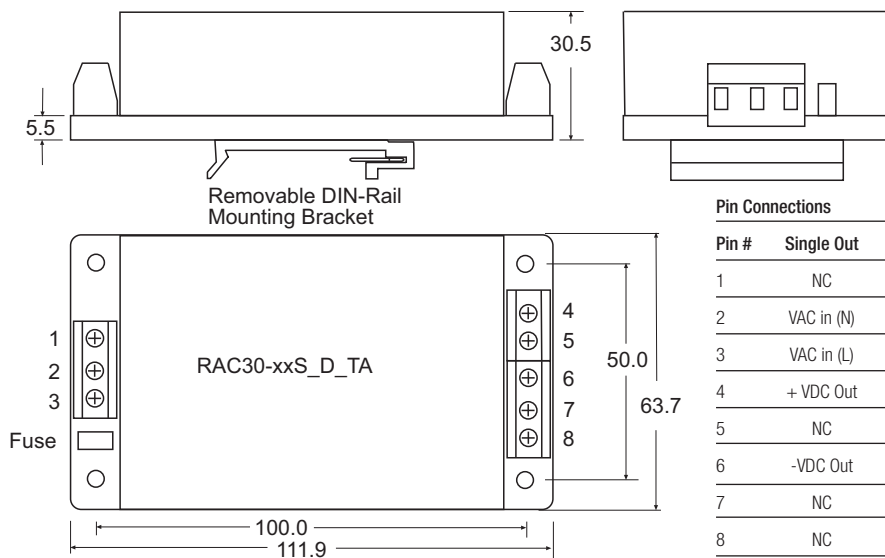
Notes:

Note 1: Suggested input fuse rating 3.15A Slow Blow

Note 2: Triple output version has +/-Vout common that is not connected to +5V Return pin internally.

Note 3: Start up only is guaranteed at temperatures down to -25°C. Other specifications may not be met.

Screw Terminal Module Option (suffix -ST)

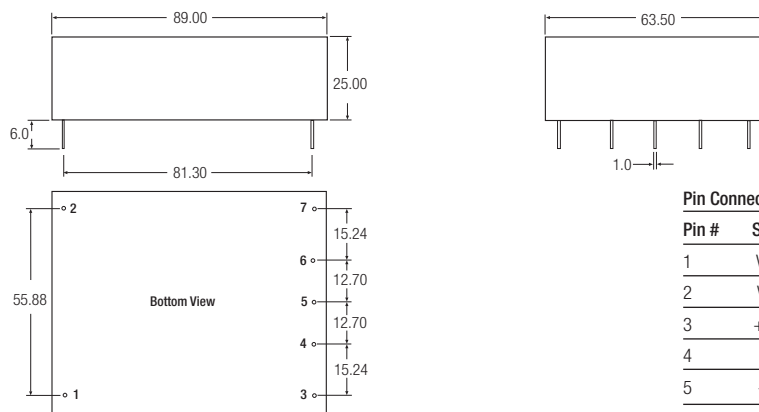


Pin Connections

Pin #	Single Out	Dual Out	0512DA	Triple Out
1	NC	NC	NC	NC
2	VAC in (N)	VAC in (N)	VAC in (N)	VAC in (N)
3	VAC in (L)	VAC in (L)	VAC in (L)	VAC in (L)
4	+ VDC Out	+VDC Out	+12V Out	+ VDC Out
5	NC	NC	+5V Out	+5V Out
6	-VDC Out	Com	+12V Rtn	Com
7	NC	NC	+5V Rtn	+5V Rtn
8	NC	-VDC Out	NC	-VDC Out

NC = No Connection

Standard Package Style and Pinning



Pin Connections

Pin #	Single Out	Dual Out	0512DA	Triple Out
1	VAC in (N)	VAC in (N)	VAC in (N)	VAC in (N)
2	VAC in (L)	VAC in (L)	VAC in (L)	VAC in (L)
3	+ VDC Out	+VDC Out	+12V Out	+ VDC Out
4	No Pin	No Pin	+5V Out	+5V Out
5	-VDC Out	Com	+12V Rtn	Vout Com
6	No Pin	No Pin	+5V Rtn	+5V Rtn
7	NC	-VDC Out	No Pin	-VDC Out

XX.X ± 0.5 mm

XX.XX ± 0.25 mm

The product information and specifications are subject to change without prior notice. RECOM products are not authorized for use in safety-critical applications (such as life support) without RECOM's explicit written consent. A safety-critical application is defined as an application where a failure of a RECOM product may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The buyer shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.