

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) (note 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



CE

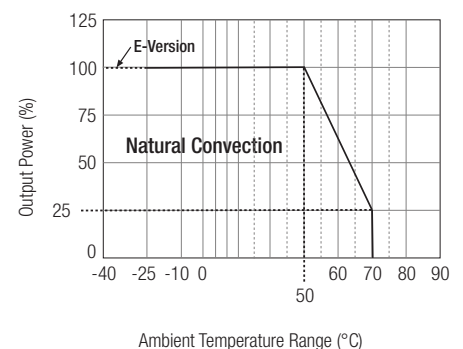


UL-60950-1 Certified

RAC30-A

Derating Graph

(Ambient Temperature)



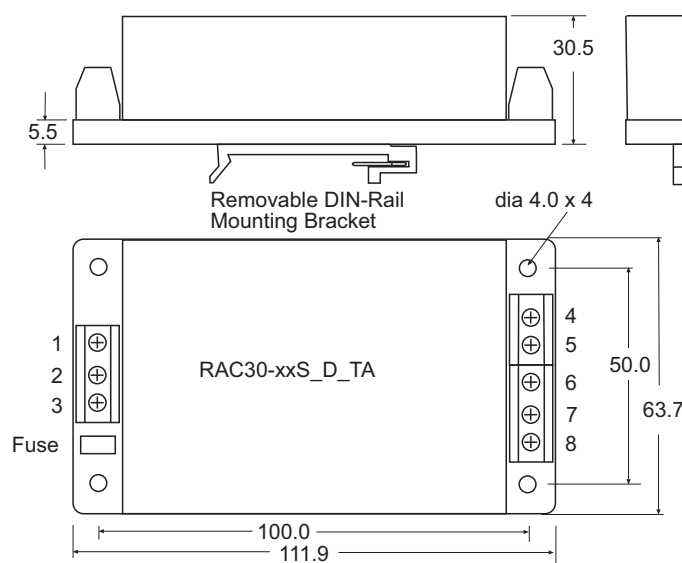
Please Read Application Notes

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Specifications continued

Operating Temperature Range (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

Screw Terminal Module Option (suffix -ST)

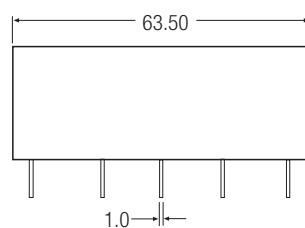
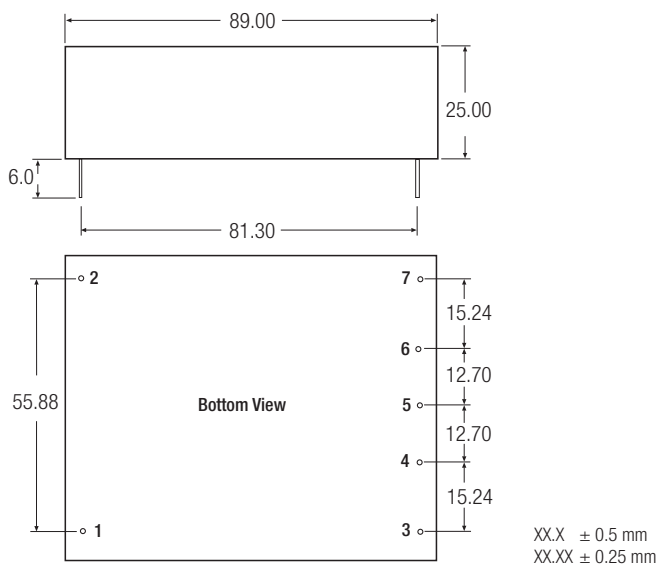


Pin Connections

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

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.