



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 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) <sup>(2)</sup>	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	

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# POWERLINE

## AC/DC-Converter

with 3 year Warranty

# RECOM

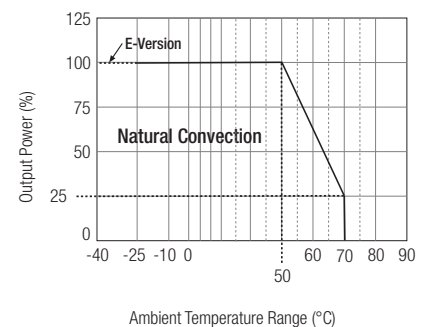
## 30 Watt Single/Dual/ Double & Triple Output



UL-60950-1 Certified

# RAC30-A

## Derating-Graph (Ambient Temperature)



Refer to Application Notes

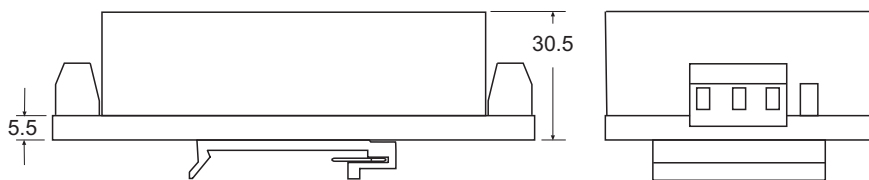
**Specifications** (typical at 25°C and after warm up time unless otherwise specified )

Operating Temperature Range <sup>③</sup> (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 <sup>3</sup> hours

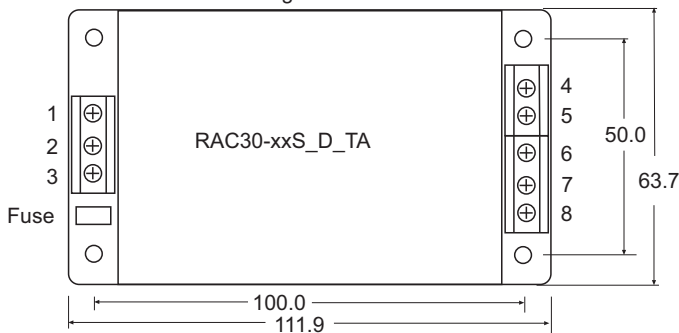
**Notes:**

- 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)**



Removable DIN-Rail Mounting Bracket

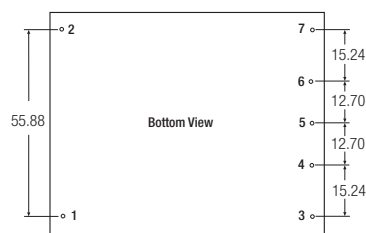
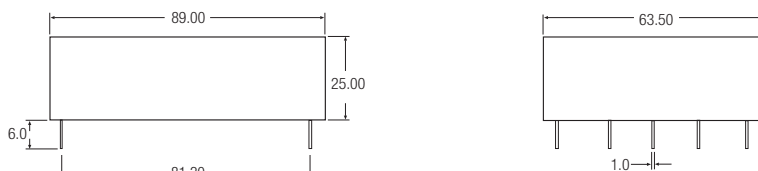


**Pin Connections**

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

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