

## 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 |                                     |

continued on next page

## POWERLINE

### AC/DC-Converter

with 3 year Warranty

RECOM

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

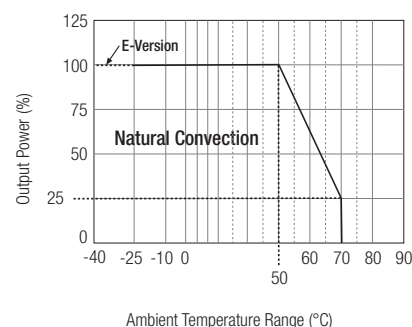


E196683

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><br>(free air convection, with derating) | Standard<br>Suffix -E | -25°C to +70°C<br>-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      |

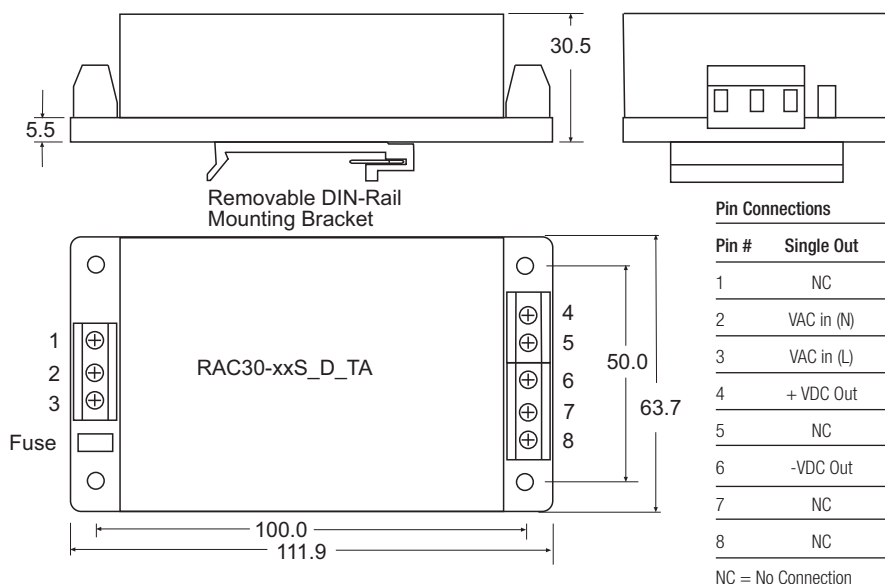
### Notes:

Note 1: Suggested input fuse rating 3.15A Slow Blow

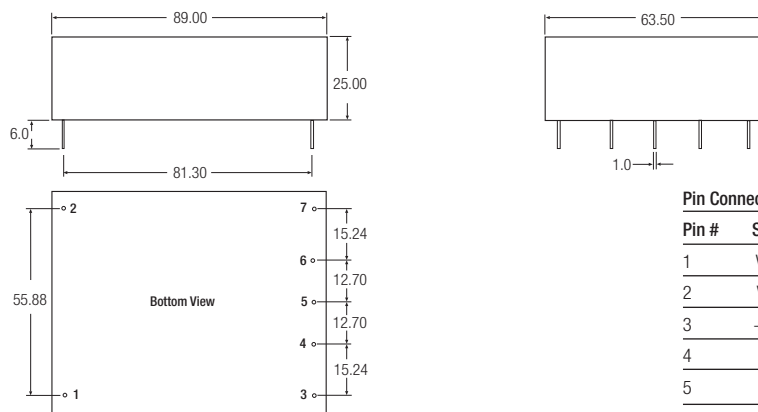
Note 2: Triple output version has +/-Vout common that is not connected to +5V Return pin internally.

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)



## Standard Package Style and Pinning



XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

The product information and specifications are subject to change without prior notice. All products are designed for non-safety critical commercial and industrial applications.  
The Buyer agrees to implement safeguards that anticipate the consequences of any failures that might cause harm, loss of life and/or damage property.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## RECOM:

[RAC30-0512DA](#) [RAC30-0512DA-E](#) [RAC30-0512DA-E-ST](#) [RAC30-0512DA-ST](#) [RAC30-0512TA](#) [RAC30-0512TA-E](#)  
[RAC30-0512TA-E-ST](#) [RAC30-0512TA-ST](#) [RAC30-0515TA](#) [RAC30-0515TA-E](#) [RAC30-0515TA-E-ST](#) [RAC30-0515TA-](#)  
[ST](#) [RAC30-05DA](#) [RAC30-05DA-E](#) [RAC30-05DA-E-ST](#) [RAC30-05DA-ST](#) [RAC30-05SA](#) [RAC30-05SA-E](#) [RAC30-](#)  
[05SA-E-ST](#) [RAC30-05SA-ST](#) [RAC30-12DA](#) [RAC30-12DA-E](#) [RAC30-12DA-E-ST](#) [RAC30-12DA-ST](#) [RAC30-12SA](#)  
[RAC30-12SA-E](#) [RAC30-12SA-E-ST](#) [RAC30-12SA-ST](#) [RAC30-15DA](#) [RAC30-15DA-E](#) [RAC30-15DA-E-ST](#) [RAC30-](#)  
[15DA-ST](#) [RAC30-15SA](#) [RAC30-15SA-E](#) [RAC30-15SA-E-ST](#) [RAC30-15SA-ST](#) [RAC30-24SA](#) [RAC30-24SA-E](#)  
[RAC30-24SA-E-ST](#) [RAC30-24SA-ST](#) [RAC30-3.3SA](#) [RAC30-3.3SA-E](#) [RAC30-3.3SA-E-ST](#) [RAC30-3.3SA-ST](#)