

# Features

## Regulated Converter

- Universal input 90-264VAC
- Efficiency 91%
- Short circuit and over voltage protected
- Active PFC function, PF>0.95
- Power indicator LED
- UL, CE marked (CB report)
- Conformal coated product
- RECOM connector set available

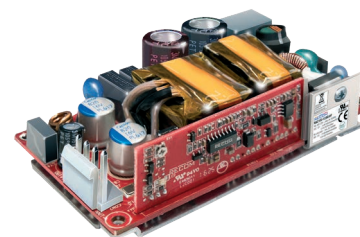
**RECOM**  
AC/DC Converter

## RAC150-G

150 Watt

4" x 2"

Open Frame or  
Enclosed Case



UL62368-1 certified  
CAN/CSA C22.2 No. 62368-1-14 certified  
UL60950 certified  
CAN/CSA C22.2 N.60950-1-07 certified  
IEC/EN60950-1 certified  
EN55032/55024  
FCC Part 15  
CB Report

## Description

The RAC150 series are cost-efficient 150 Watt AC/DC power supplies in a standard 2"x4" footprint with a universal input range of 90-264VAC for worldwide usage. They are built to deliver up to 125 Watt with natural air convection for use in tight, space-critical housings with low available airflow. UL and CE marks with CB-reports include the new 62368 safety standard as well as the usual 60950 safety standard. The RAC150 series offers tightly regulated 12V, 24V and 48VDC outputs with 3kVAC isolation and Class B EMC certifications and come with a three year warranty.

## Selection Guide

| Part Number                | Input Voltage Range [VAC] | Output Voltage [VDC] | max. Output Current <sup>(1)</sup> [mA] | Efficiency typ <sup>(2)</sup> [%] | Max. Capacitive Load <sup>(3)</sup> [μF] |
|----------------------------|---------------------------|----------------------|-----------------------------------------|-----------------------------------|------------------------------------------|
| RAC150-12SG <sup>(4)</sup> | 90-264                    | 12                   | 12500                                   | 91                                | 2000                                     |
| RAC150-24SG <sup>(4)</sup> | 90-264                    | 24                   | 6250                                    | 91                                | 1000                                     |
| RAC150-48SG <sup>(4)</sup> | 90-264                    | 48                   | 3125                                    | 91                                | 500                                      |

### Notes:

Note1: With forced air cooling, refer to derating graph

Note2: Typ. efficiency is tested @ 230VAC and full load

Note3: Max. cap load is tested @ 90-264VAC and full resistive load

## Model Numbering



### Notes:

Note4: add suffix "OF" for open frame version  
add suffix "ENC" for enclosed version

### Ordering Examples:

RAC150-24SG/OF 24Vout Single open frame version  
RAC150-12SG/ENC 12Vout Single enclosed version

## Specifications (measured @ Ta= 25°C, nom. Vin and full load unless otherwise stated)

### BASIC CHARACTERISTICS

| Parameter             | Condition           |                  | Min.                      | Typ.   | Max.       |
|-----------------------|---------------------|------------------|---------------------------|--------|------------|
| Output Power          | with forced cooling | 90-264VAC        |                           |        | 150W       |
|                       | natural convection  | 230VAC           |                           |        | 125W       |
|                       |                     | 115VAC           |                           |        | 120W       |
|                       | 90-115VAC           |                  | refer to "Derating Graph" |        |            |
| Internal Input Filter |                     |                  | Pi type                   |        |            |
| Input Voltage Range   |                     |                  | 90VAC                     | 230VAC | 264VAC     |
| Input Current         |                     |                  |                           |        | 2A         |
| Inrush Current        | cold start at 25°C  | 115VAC<br>230VAC |                           |        | 40A<br>60A |

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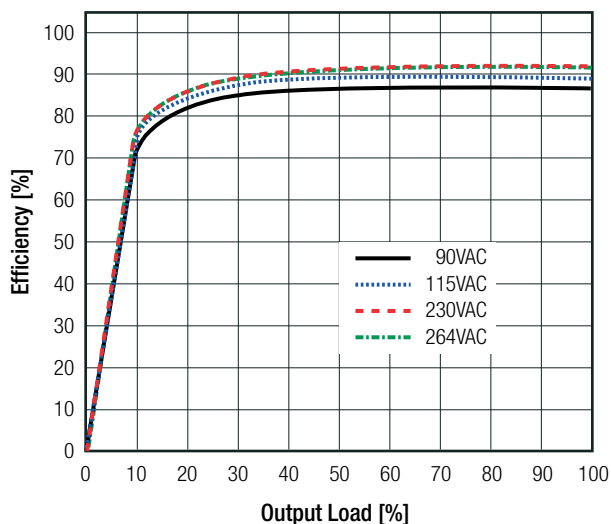
**Specifications** (measured @ Ta= 25°C, nom. Vin, full load and after warm-up unless otherwise stated)

### BASIC CHARACTERISTICS

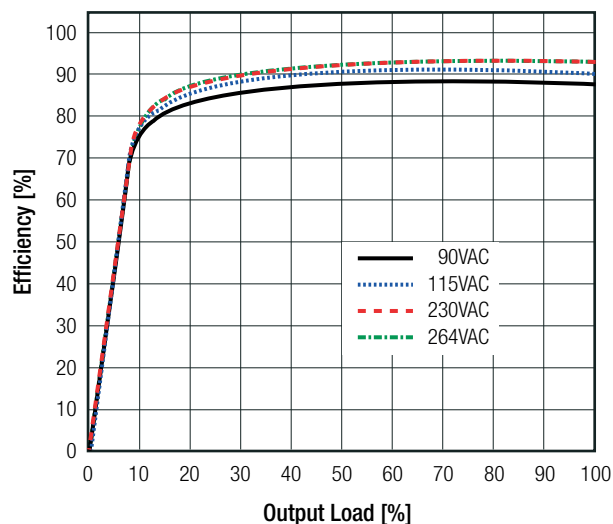
| Parameter                    | Condition        |                            | Min.         | Typ.   | Max.                             |
|------------------------------|------------------|----------------------------|--------------|--------|----------------------------------|
| Input Frequency Range        |                  |                            | 47Hz         |        | 63Hz                             |
| Minimum Load                 |                  |                            | 0%           |        |                                  |
| Power Factor                 | 115VAC<br>230VAC |                            | 0.98<br>0.95 |        |                                  |
| Rise Time                    | 115VAC/230VAC    |                            |              |        | 50ms                             |
| Hold-up Time                 | 115VAC<br>230VAC | 100% load<br>50% load      | 6ms          | 20ms   |                                  |
| Internal Operating Frequency |                  |                            |              | 132kHz |                                  |
| Output Ripple and Noise      | +70°C            | 12Vout<br>24Vout<br>48Vout |              |        | 150mVp-p<br>240mVp-p<br>360mVp-p |
|                              | -30°C            | 12Vout<br>24Vout<br>48Vout |              |        | 300mVp-p<br>480mVp-p<br>720mVp-p |

### Efficiency vs. Load

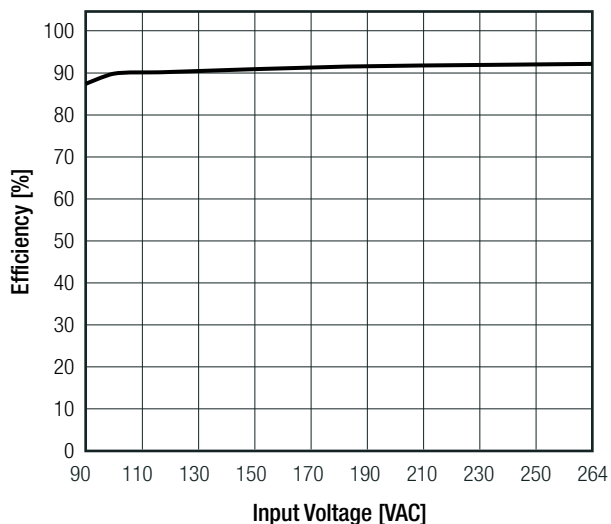
RAC150-12SG



RAC150-24SG



### Efficiency vs. Input Voltage (@ full load)



### Recommended Line Derating <115VAC

