

Features

Regulated Converters

- Universal Input 80-264VAC or 115-370VDC
- Operating Temperature Range of -25°C to +85°C
- Isolated Output 3kVAC / 1 min
- Short Circuit and Overcurrent Protection
- Low Output Ripple & Noise
- Low Cost AC/DC Power Supply
- EN, UL and CE certified

Description

The ultra-compact wired RAC04-C/W modules are available with output voltages of 3.3, 5, 9, 12, 15, and 24V, and the input-to-output isolation is approximately 3kVAC/1min. With a standby consumption of 100mW typical, the mini power supplies are particularly suitable for energy-saving sleep mode and standby applications. Because of its compact design (height <17 mm), it is a versatile solution for home automation and other similar applications. Complete with an integrated input filter, the series has enhanced EMI performance and complies with EN55022, class B. The mini power supplies are also protected against short circuit with fully automatic restart after the error has been solved. The converters are EN/UL60950-1 certified and come complete with a 3 year warranty.

Selection Guide

| Part Number | Input Voltage (VAC) | Output Voltage (VDC) | Output Current max. (mA) | Efficiency Typ. (%) | Capacitive Load max. |
|---------------|---------------------|----------------------|--------------------------|---------------------|----------------------|
| RAC04-3.3SC/W | 80-264 | 3.3 | 1200 | 67 | 3000µF |
| RAC04-05SC/W | 80-264 | 5 | 800 | 72 | 1600µF |
| RAC04-09SC/W | 80-264 | 9 | 444 | 76 | 850µF |
| RAC04-12SC/W | 80-264 | 12 | 333 | 77 | 150µF |
| RAC04-15SC/W | 80-264 | 15 | 267 | 77 | 100µF |
| RAC04-24SC/W | 80-264 | 24 | 167 | 79 | 82µF |

Specifications (measured at TA 25°C, nominal input voltage, full load after warm-up)

| | | |
|-------------------------------------|---------------------------------------------|-------------------------|
| Input Voltage Range (with Derating) | 80-264VAC or 115-370VDC | |
| Input Frequency (for AC Input) | 47-63Hz | |
| Input Current (Full Load) | 115VAC / 230VAC | 110mA / 72mA max. |
| Inrush Current | 115VAC / 230VAC | 30A / 60A max. |
| No Load Power Consumption | 80-264VAC | 100mW typ. / 200mW max. |
| Output Voltage (Vout nom.) | 3.3V-24V | |
| Output Current Range | 167mA - 1200mA | |
| Rated Output Power | 4W max. | |
| Output Voltage Tolerance | ±2% typ. / ±5% max. | |
| Minimum Load | 0% | |
| Output Ripple & Noise | (Full Load) 115VAC / 230VAC @ 20MHz limited | 200mVp-p max. |
| Line Voltage Regulation | LL-HL at full Load | ±0.5% typ. / ±1% max. |
| Load Voltage Regulation | 10%-100% Load | ±1.5% typ. / ±5% max. |
| Over Load Protection | 105% - 155% | |
| Over Voltage Category | OVC II | |
| Leakage Current | 0.85µxA max. | |
| Operating Frequency | Full Load | 40kHz typ. |
| Isolation Voltage | Input-Output | 3kVAC / 1 minute |
| Isolation Resistance | Input-Output | 1G Ω min. |
| Isolation Capacitance | Input-Output | 1000pF typ. |
| Short Circuit Protection | Hiccup, Auto Restart | |
| Operating Temperature Range | natural convection, without derating | -20°C to +60°C |
| | natural air convection, with derating | -25°C to +85°C |
| Storage Temperature Range | -40°C to +100°C | |
| Case Material | UL94V-0 black plastic | |
| Potting Material | Silicone | |
| Relative Humidity | 95% RH max. | |
| Package Weight | 32g typ. | |

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POWERLINE

AC/DC-Converter

with 3 year Warranty

RECOM

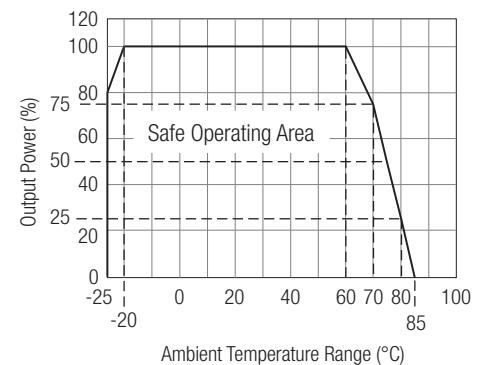
4 Watt Single Output



EN-60950-1 Certified
IEC-60950-1 Certified
UL-60950-1 Certified

RAC04-C/W

Derating-Graph (Ambient Temperature)

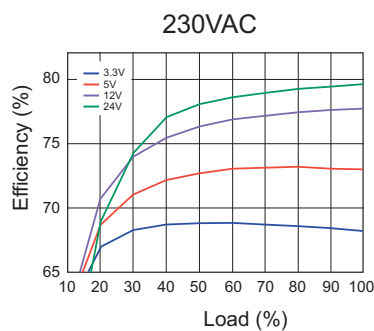
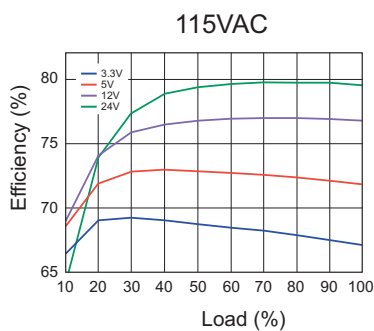


Specifications (measured at TA 25°C, nominal input voltage, full load after warm-up)

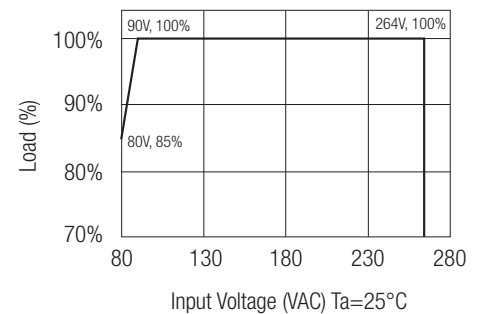
| | | |
|--------------------|----------------------------|-----------------------------|
| Package Quantity | | 30pcs |
| Physical | Dimension (LxWxH) | 37.80 x 23.90 x 16.40 mm |
| MTBF | 115VAC, 25°C | 820 x 10 ³ hours |
| | 230VAC, 25°C | 735 x 10 ³ hours |
| | 115VAC, 60°C | 550 x 10 ³ hours |
| | 230VAC, 25°C | 430 x 10 ³ hours |
| EMC | Conducted and Radiated | EN55022, Class B |
| | Noise Immunity | EN55024 |
| Safety Standard | | |
| EN General Safety | Report: SPCLVD1310055-1 | EN-60950-1, 3rd Edition |
| IEC General Safety | CB Report: 1311055-CB | IEC-60950-1 2nd Edition |
| UL General Safety | Report Number: E224736-A21 | UL-60950-1, 2nd Edition |
| | | CSA C22.2 No. 60950-1-07 |

Typical Characteristic

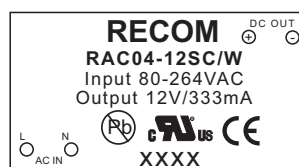
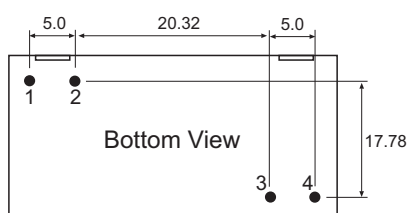
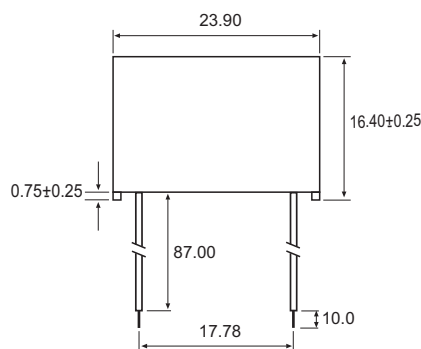
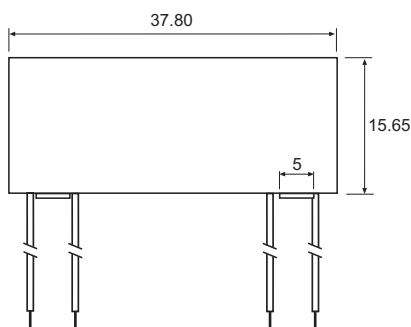
Input Voltage Derating Graph



Efficiency vs Load



Package Style and Pinning



Wired Connections

| Wired Color | Type | Function |
|-------------|----------------|------------|
| 1 Brown | UL-1015 AWG#22 | VAC in (L) |
| 2 Blue | UL-1015 AWG#22 | VAC in (N) |
| 3 Red | UL-1430 AWG#22 | +VDC out |
| 4 Black | UL-1430 AWG#22 | -VDC out |

Case Tolerance ±0.5mm
Unless otherwise specified

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.