

Features

- Universal AC input (85-264VAC)
- Protections: SCP, OVP, OLP, OTP
- DC OK indicator LED with relay contacts
- 150% (720W) peak load capacity
- Built-in active PFC, PF>0.95
- High efficiency up to 93.8%

DIN Rail Series

RECOM AC/DC Converter

REDIN480

480 Watt DIN-Rail Power Supply



Description

These DIN-rail mounted power supplies have a robust case, 4mm screw terminal connectors and use high reliability components to give a long, trouble-free life. The REDIN480 can be end mounted to save rail space or side mounted for use in low-profile cabinets. The units can deliver up to 150% start-up power and allow n+1 parallel operation to increase the continuous output current or for supply redundancy. Relay contacts simplify DC OK monitoring. The REDIN480 series is designed for demanding commercial and industrial applications with UL508, UL60950, IEC60950 CB report and CE (LVD + EMC + RoHS) certifications. They come with a full 5-year warranty.

Selection Guide

| Part Number | nom. Input Voltage Range [VAC] | Output Voltage [VDC] | Output Adjustability [VDC] | Rated Current [A] | Efficiency typ. [%] |
|-------------|--------------------------------|----------------------|----------------------------|-------------------|---------------------|
| REDIN480-24 | 100-240 | 24 | 24-28 | 20 | 93.8 |
| REDIN480-48 | 100-240 | 48 | 48-56 | 10 | 93.5 |



Specifications (measured @ Ta = 25°C, rated Vin, rated load and after warm up)

| BASIC CHARACTERISTICS | | | | | |
|--------------------------------|--|------------------|-------|----------------|----------------------|
| Parameter | Condition | | Min. | Typ. | Max. |
| Input Voltage Range | | | 85VAC | | 264VAC |
| Absolute Maximum Input Voltage | max. 3s | | | | 300VAC |
| Input Current | full load, 115VAC full load, 230VAC | | | 4.59A 2.36A | 7.0A 3.5A |
| Inrush Current | cold start at 25°C, 115VAC cold start at 25°C, 230VAC | | | 6.8A 13A | 20A 40A |
| No Load Power Consumption | 85-264VAC 230VAC | | | 3.85W 2.85W | 5W 4W |
| Input Frequency Range | | | 47Hz | | 63Hz |
| Power Factor | 115VAC 230VAC | | | 0.99 0.95 | |
| Start-up time | 24Vout | 115VAC 230VAC | | 1.6s 1.3s | 3s |
| | 48Vout | 115VAC 230VAC | | 1.5s 1.3s | 3s |
| Hold-up time | 24Vout | 230VAC | 20ms | 21ms | |
| | 48Vout | | 20ms | 22ms | |
| Rise time | 24Vout | 230VAC | | 31ms | 100ms |
| | 48Vout | | | 49ms | 100ms |
| Ripple & Noise ⁽¹⁾ | 0 - 70°C -25°C | 24Vout | | | 240mVp-p 480mVp-p |
| | -25 - 70°C | 48Vout | | | 480mVp-p |

Notes:

Note1: Measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 10µF parallel capacitor

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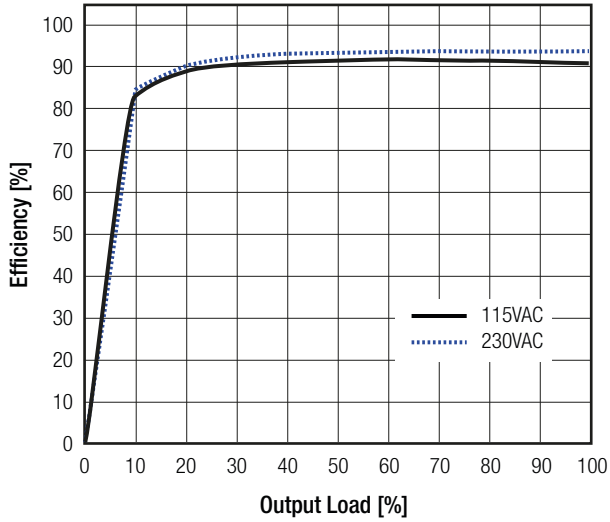


UL60950-1 certified
UL508 certified
IEC/EN60950-1 certified

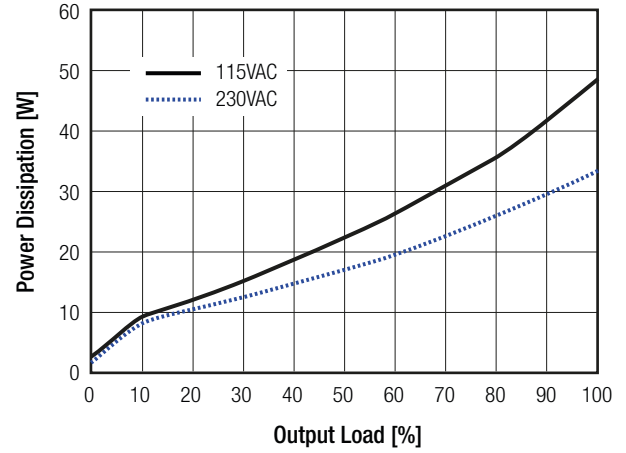
Specifications (measured @ Ta = 25°C, rated Vin, rated load and after warm up)

REDIN480-24

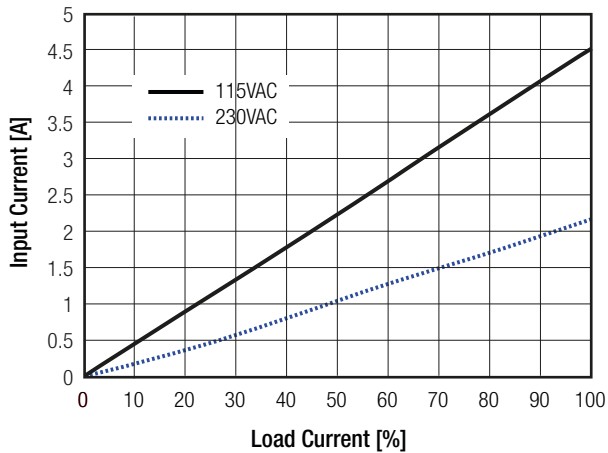
Efficiency vs Load



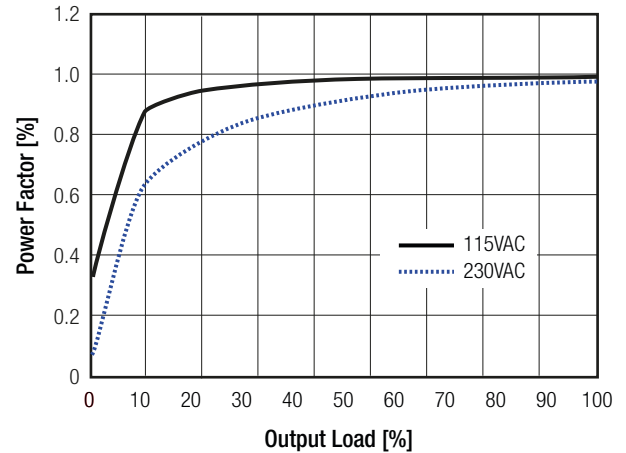
Power Dissipation vs Load



Input Current vs Load



Power Factor vs Load over Vin



REGULATION

| Parameter | Condition | Value |
|--------------------|--|-------------------------|
| Output Accuracy | 24Vout | ±0.6% typ. / ±3.0% max. |
| | 48Vout | ±0.5% typ. / ±3.0% max. |
| Line Regulation | 24Vout, 48Vout | ±0.1% typ. / ±0.5% max. |
| Load Regulation | 0% to 100% load | 0.3% typ. / 1.0% max. |
| Transient Response | 100Hz & 1kHz, 50% duty, 25% load step change | ±2.0% typ. / ±5.0% max. |