

# Features

# DIN-Rail Series

- 2 and 3-phase operation
- Input voltage range: 320 – 575VAC
- Output trim range: 22.5 – 29.5VDC
- High electrical strength; high reliability
- Permanent overload and short-circuit protection
- Parallel operation capability
- International safety certification listing

# RECOM AC/DC Converter

## REDIN240/3AC

# 240 Watt 3 Phase DIN-Rail Power Supply



### Description

The REDIN/3AC is a series of rugged DIN rail power supplies for two and three-phase mains operation from 320 to 575Vac without the need of a neutral connection. Four versions with a maximum current limited output deliver 5A, 10A, 20A or 40A without derating up to +55°C. The output can be grounded via a third common output terminal. The LED signal on the front panel indicates that the output voltage remains within the wide adjustable range from 22.5 to 29.5Vdc. The units are covered by international safety certificates and are intended for worldwide use. In power-hungry applications, the units can be connected in parallel with no need for additional components.

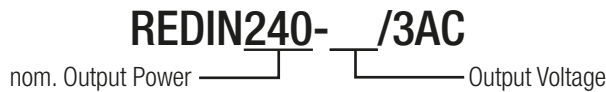
### Selection Guide

Part Number	nom. Input Voltage Range [VAC]	Output Voltage [VDC]	Output Adjustability [VDC]	Rated Current [A]	Efficiency <sup>(1)</sup> typ. [%]
REDIN240-24/3AC	400-500	24	22.5-29.5	10	88.5

#### Notes:

Note1: Efficiency is tested at nominal input and full load at +25°C ambient

### Model Numbering



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

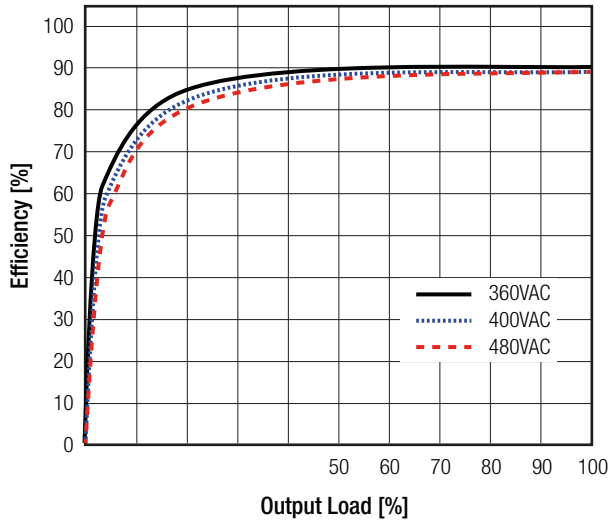
BASIC CHARACTERISTICS					
Parameter	Condition		Min.	Typ.	Max.
Input Voltage Range	3 phase operation		320VAC	400VAC	575VAC
	2 phase operation		360VAC	400VAC	575VAC
Input Current	3 phase operation	400VAC		3 x 600mA	
		500VAC		3 x 500mA	
Input Current	2 phase operation	400VAC		2 x 700mA	
		500VAC		2 x 600mA	
Inrush Current					15A
Powerfactor				0.59	
Return Voltage Immunity	24 Vout			35VDC	
No Load Power Consumption					7.5W
Input Frequency Range	AC Input		45Hz		65Hz
Output Voltage Trimming			22.5VDC		29.5VDC
Minimum Load			0%		
Start-up time	2/3 phase operation, 400VAC				1s
Rise time					2ms
Hold-up time	400VAC		20ms		
	480VAC		25ms		
Output Ripple & Noise	measured at 20MHz BW				30mVp-p
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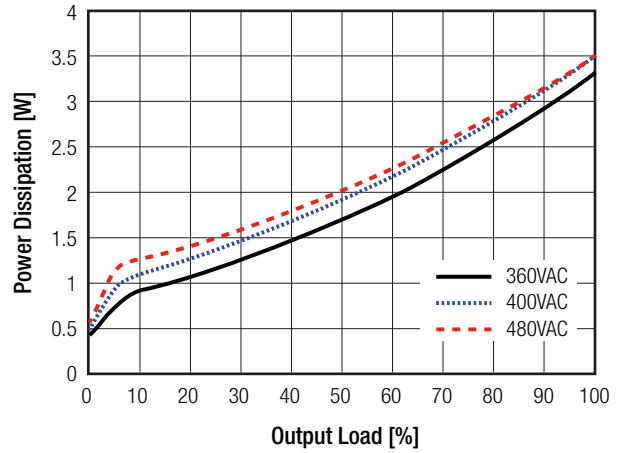
- UL60950-1 certified
- UL508 certified
- EN60950-1 certified
- CSA C22.2 No. 60950-01 certified
- EN55011 compliant
- EN50121-4 compliant
- CSA C22.2 No.107 certified
- EN61000-6-2 compliant
- EN61000-6-3 compliant

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

Efficiency vs. Load @ 3 Phase Operation



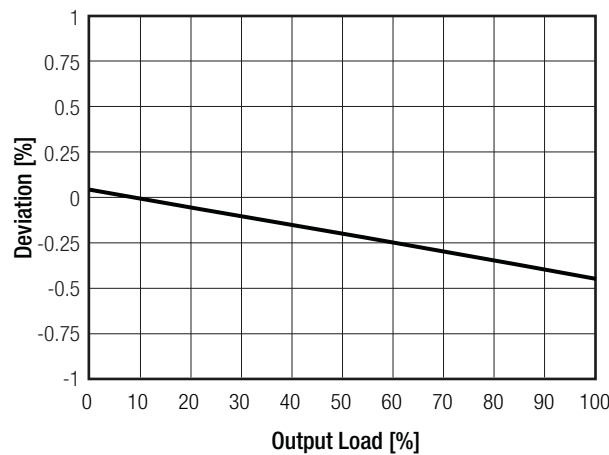
Power Dissipation vs. Load @ 3 Phase Operation



### REGULATION

Parameter	Condition	Value
Output Accuracy		±1.0% max.
Line Regulation	10% change in input voltage	±0.1% typ.
Load Regulation	10% - 100% load	1.0% typ; 2.0% max.
Transient Response	25% load step change recovery time	200mV typ. 50ms typ.

Deviation vs. Load



### PROTECTIONS

Parameter	Type	Value
Input Fuse <sup>(2)</sup>	internal	F4A, fast blow
Recommended backup fuse for mains protection		3x 6A (characteristics B) 3x 10A (characteristics B) 3x 16A (characteristics B)
Short Circuit Protection (SCP)	below 100mΩ	>120% typ. power limiting
Over Voltage Protection (OVP)		>145% typ. auto recovery
Over Voltage Category (OVC)		OVC II
Over Temperature Protection (OTP)		refer to note 3