

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



REDIN120/3AC

**120 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 ⁽¹⁾ typ. [%]
REDIN120-24/3AC	400 - 500	24	22.5 - 29.5	5	89

Notes:

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

Model Numbering

REDIN120-24/3AC

nom. Output Power Output Voltage



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

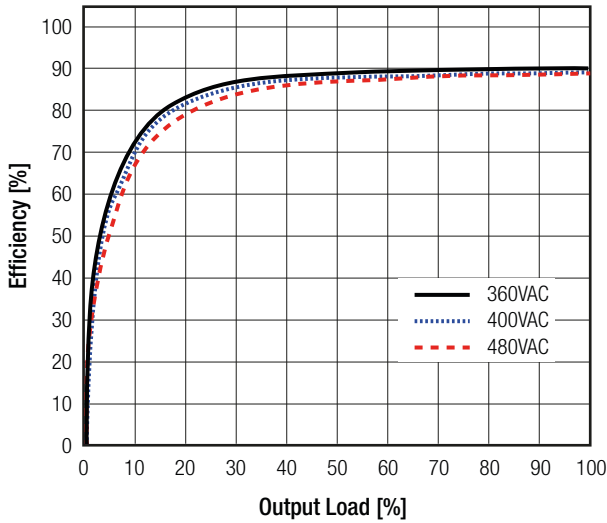
BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range	3 phase operation	320VAC	400VAC	575VAC
	2 phase operation	360VAC	400VAC	575VAC
Input Current	3 phase operation	400VAC 500VAC	3 x 300mA 3 x 300mA	
	2 phase operation	400VAC 500VAC	2 x 650mA 2 x 500mA	
Inrush Current				15A
Return Voltage Immunity	24Vout		35VDC	
No Load Power Consumption				4W
Input Frequency Range		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	30ms		
Output Ripple & Noise	measured at 20MHz BW			30mVp-p

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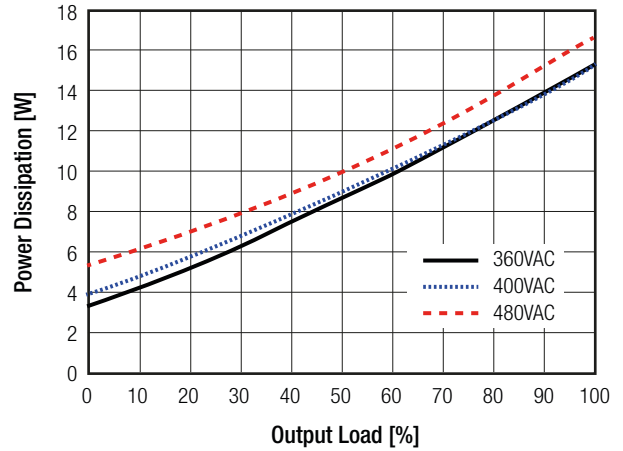
- UL60950-1 certified
- UL508 certified
- EN60950-1 certified
- CSA C22.2 No. 60950-01 certified
- EN55011 compliant
- EN50121-4 compliant
- CSA C22.2 No.107 certified
- EN61000-6-2 compliant
- EN61000-6-3 compliant

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

Efficiency vs. Load @ 3 Phase Operation



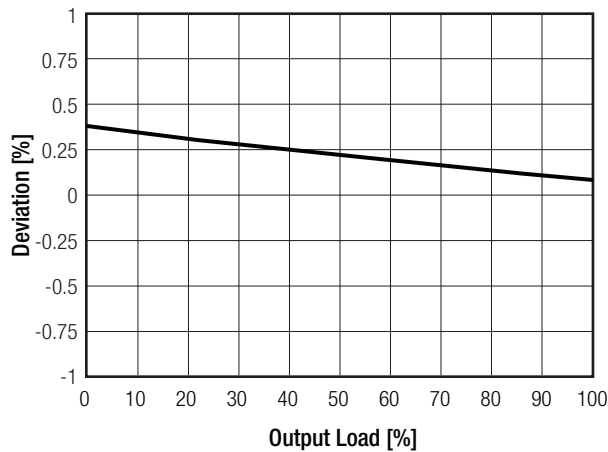
Power Dissipation vs. Load @ 3 Phase Operation



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 ⁽²⁾	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

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