

# DR120 Series | DIN Rail Power Supply

## 120W

- 100-240Vac (125-370Vdc) input voltage range
- 35mm DIN rail installation
- High reliability
- Built-in EMI filter
- Short circuit, over current and over voltage protection
- Free air/convection cooled
- 100% burn-in test
- DC power ON indicator
- DC low voltage indicator
- 3-year warranty



GREEN POWER

## Description

The DR120 Series is a 120W, universal input, single output power supply that uses DIN Rail mounting to simplify installation and maintenance. This series is used in factory automation, process control and functional modules.

## Specifications

### Input

Input Voltage	• 90 - 264 Vac, Min. - Max. 125 - 370 Vdc
Input Frequency	• 47 Hz to 63 Hz
Power Factor	• 0.93 to 0.98, Min. - Max.
Inrush Current	• 20A @ $V_{in} = 115\text{Vac}$ , cold start, full load 40A @ $V_{in} = 230\text{Vac}$ , cold start, full load
Input Current	• 2.0A @ $V_{in} = 115\text{Vac}$ , full load 1.0A @ $V_{in} = 230\text{Vac}$ , full load
Turn-on delay time	• 560ms Max @ $V_{in} = 115\text{Vac}$ , full load

### Output

Voltage adjustment range	• -10 to +20% $V_{out}$
Line Regulation	• $\pm 1\%$ typical
Load Regulation	• $\pm 1\%$ typical $V_{out}$ from min. to max.
Hold-on time	• 20 ms typ., $V_{in} = 115\text{Vac}$ , full load
Ripple & Noise	• 120mV typical, 150mV maximum
Over current	• Type: 110-150%; Hiccup mode, recovers automatically after fault conditions are removed
Short circuit	• Hiccup mode, recovers automatically after fault conditions are removed
Over voltage	• Type: 110-150%; Hiccup mode, recovers automatically after fault conditions are removed
DC-OK Lamp	• LED (Green)
DC-Low Lamp	• LED (Red)
Parallel/series operation	• Series operation is possible

### Notes:

1. Rated Load and Rated Input Voltage,  $T_a = 25^\circ\text{C}$ ;
2. Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

### Environmental

Storage Temperature	• $-40^\circ\text{C}$ to $+85^\circ\text{C}$ , 5% to 95% RH
Ambient operating temperature	• $-25$ to $+70^\circ\text{C}$ , startup at rated voltage Derating from $50^\circ\text{C}$ to $70^\circ\text{C}$ : 2.5%/°C
Operating relative humidity	• 20 to 95%, non-condensing
MTBF	• 200kHrs Full load, 230Vac input, $25^\circ\text{C}$ ambient temperature
Dimension (WxHxD)	• 40 x 130 x 125mm 1.57 x 5.12 x 4.92 in

### EMC & Safety

Withstand voltage	• Input-output: 3kVac Input-ground: 2kVac Output-ground: 0.5kVac
Safety standards	• UL, C-UL, CE, CB
EMC	• FCC Part 15 Class B, CLSPR22-B, EN55022-B
THD	• EN61000-3-2 (Class-A)

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## Output Specifications

Model No.	Input voltage (Vac)	Output voltage (Vdc)	Output current (A)	Voltage Adjustment	Ripple Noise	Line Reg.	Load Reg.	Efficiency Typ.
DR120-24	100-240	24	5	-10% to +20%	≤150mV	±1%	±1%	87%
DR120-48	100-240	48	2.5	-10% to +20%	≤150mV	±1%	±1%	88%

## Mechanical Specifications

