

DR180 Series | DIN Rail Power Supply

180W

- 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



Description

The DR180 Series is a 180W, 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 - 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	• 2.4A @ $V_{in} = 115\text{Vac}$, full load 1.4A @ $V_{in} = 230\text{Vac}$, full load
Turn-on delay time	• 36S 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°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°C to 70°C : 2.5% / $^\circ\text{C}$
Operating relative humidity	• 20 to 95%, non-condensing
MTBF	• 200kHrs Full load, 230Vac input, 25 $^\circ\text{C}$ ambient temperature
Dimension (WxHxD)	• 50 x 130 x 125mm 1.97 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)	Output Voltage Adjustment	Ripple Noise	Line Reg.	Load Reg.	Efficiency Typ.
DR180-24	100-240	24	4.5	-10% to +20%	≤150mV	±1%	±1%	90%
DR180-48	100-240	48	3.8	-10% to +20%	≤150mV	±1%	±1%	92%

Mechanical Specifications

