

# MDR Power Supply Series

24 VDC power supply for DIN-rail mounted products



## Features and Benefits

- High inrush current protection
- 24 VDC power output
- -20 to 70°C operating temperature range
- 85 to 264 VAC or 120 to 370 VDC input

## Certifications



## Introduction

The MDR Power Supply Series supports inrush current protection of 30 A at 115 VAC and 60 A at 230 VAC. The series has an operating temperature range of -20 to 70°C and a three year warranty, which ensures suitability for operating in harsh environments. In addition, the MDR Series has passed a 100% full load burn-in test, is UL/CUL listed, TÜV/CB certified, and CE marked. There are also models available with output ratings from 40 W to 60 W with 24 VDC output.

## Specifications

### Output Power Parameters

Wattage	MDR-40-24: 40 W MDR-60-24: 60 W
Voltage	24 VDC
Current Rating	MDR-40-24: 0 to 1.7 A MDR-60-24: 0 to 2.5 A
Ripple and Noise	150 mVp-p
Voltage Adjustment Range	24 to 30 VDC
Setup/Rise Time at Full Load	500 ms, 30 ms at 115 VAC 500 ms, 30 ms at 230 VAC
Typical Hold Up Time at Full Load	20 ms at 115 VAC 50 ms at 230 VAC

### Input Power Parameters

Voltage Range	85 to 264 VAC (47 to 63 Hz) 120 to 370 VDC
Typical Efficiency	88%
Typical Current	MDR-40-24: 0.7 A @ 230 VAC, 1.1 A @ 115 VAC MDR-60-24: 1.0 A @ 230 VAC, 1.8 A @ 115 VAC
Typical Current (cold start)	60 A @ 230 VAC, 30 A @ 115 VAC

### Overload Protection

Rated Output Power	105 to 150%
Protection Type	Constant current limiting, recovers automatically after fault condition is removed

### Overvoltage Protection

Over-Voltage Range	31.2 to 36 V
Protection Type	Shut down operating voltage, repower on to recover

### Physical Characteristics

Dimensions	40 x 90 x 100 mm (1.57 x 3.54 x 3.94 in)
Weight	MDR-40-24: 260 g (0.57 lb) MDR-60-24: 280 g (0.62 lb)

### Environmental Limits

Operating Temperature	-20 to 70°C (-4 to 158°F)
Max. Operating Temperature at Full Load	MDR-40-24: 60°C MDR-60-24: 55°C
Ambient Relative Humidity	20 to 90% (non-condensing)

### Standards and Certifications

EMC	EN 50082-2, EN 55022 Class B, EN 61000-3-2 Class A, ENV 50204
Safety	EN 60950-1

### Warranty

Warranty Period	3 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

### Package Contents

Device	1 x MDR Power Supply Series power supply
Documentation	1 x warranty card

## Ordering Information

Model Name	Input Voltage	Output Voltage	Output Wattage	Operating Temp.
MDR-40-24	85 to 264 VAC 120 to 370 VDC	24 VDC	40 W	-20 to 70°C
MDR-60-24	85 to 264 VAC 120 to 370 VDC	24 VDC	60 W	-20 to 70°C

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