

# MDIN20W12

12V/20W Din Rail Power Supply



## ■ Features:

- Constant voltage design
- Universal input voltage range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
  - Isolation class II
- Can be installed on DIN Rail TS-35/7 or 15
  - MTBF 200.000 h

## ELECTRICAL SPECIFICATION

SELV LPS

MODEL	MDIN20W12					
<b>OUTPUT</b>						
Rated Voltage	12V					
Rated Current	1.67A					
Current Range	0 ÷ 1.67A					
Rated Power	20W					
No Output Voltage (max)	12.6V					
Voltage Adjustment Range [6]	11 – 13.80V					
Line Regulation	± 0.5%					
Load Regulation	± 2%					
Tolerance [3]	± 5%					
Ripple & Noise (max.) [2]	150mVp-p					
Setup,Rise Time [4]	max. 820ms, max. 70ms / 230VAC at full load					
Hold up Time (typ.)	65ms at full load and 230VAC nominal line					
<b>INPUT</b>						
Voltage Range	90 ÷ 264VAC					
Frequency Range	47 ÷ 63Hz					
Inrush current (max.)	30A at 115VAC; 60A at 230VAC cold start at 25°C					
Efficiency (typ.)	80.07% - Average (25%+50%+75%+100%)/4					
AC Current (typ.)	0.15A / 230VAC, 0.42A / 115VAC,					
Leakage current	<1.5mA at 50/60Hz 240VAC INPUT					
Max. No. Of PSU on Circuit Breaker	B10	B16	C10	C16	D10	D16
	5	8	5	8	11	17
No load Power Consumption (max.)	<1.0W					

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## PROTECTIONS

<b>Over Current</b>	Range 110 ÷ 140% Type: hiccup mode. Recovers automatically after fault condition is removed.
<b>Short Circuit</b>	Type: hiccup mode.
<b>Over Voltage</b>	14 - 17V Type: shut down output voltage. Re-power on to recovery.
<b>Over Temperature</b>	Range: 110°C ± 10°C Type: shut down output voltage. Re-power on to recovery.

## WORKING ENVIRONMENT

<b>Working Temperature</b>	-20°C to 50°C ambient derate each output at 4.0% per degree from 50°C to 60°C
<b>Operating humidity</b>	5 ÷ 95% RH (non-condensing)
<b>Storage Temperature and Humidity</b>	-40°C ÷ +85°C, 5 ÷ 95% RH (non-condensing)

## SAFETY and EMC REGULATIONS

<b>Safety Standards</b>	Compliance to EN 62368-1
<b>Withstand Voltage</b>	IN/OUT: 3kVAC, IN/GND: 2kVAC, OUT/GND: 0.5kVAC
<b>EMC Emission</b>	Compliance to EN55032
<b>EMC Immunity</b>	Compliance to EN55035
<b>Harmonic Current</b>	Compliance to EN61000-3-2; EN61000-3-3

## OTHERS

<b>Dimensions</b>	100 x 89.9 x 22.7mm (L x W x H)
<b>Weight and Packing</b>	135g; 100pcs./box; weight box and dimensions: 15.5kg; 58 x 35 x 21 cm

## MECHANICAL SPECIFICATION

### PIN ASSIGNMENT

NO.	Assignment
1	Input: GND
2	Input: AC/N
3	Input: AC/L
4	Output: U <sub>OUT</sub> +
5	Output: U <sub>OUT</sub> -
6	Relay DC OK signal
7	SVR1: Output Voltage Adjustment
8	LED DC OK signal

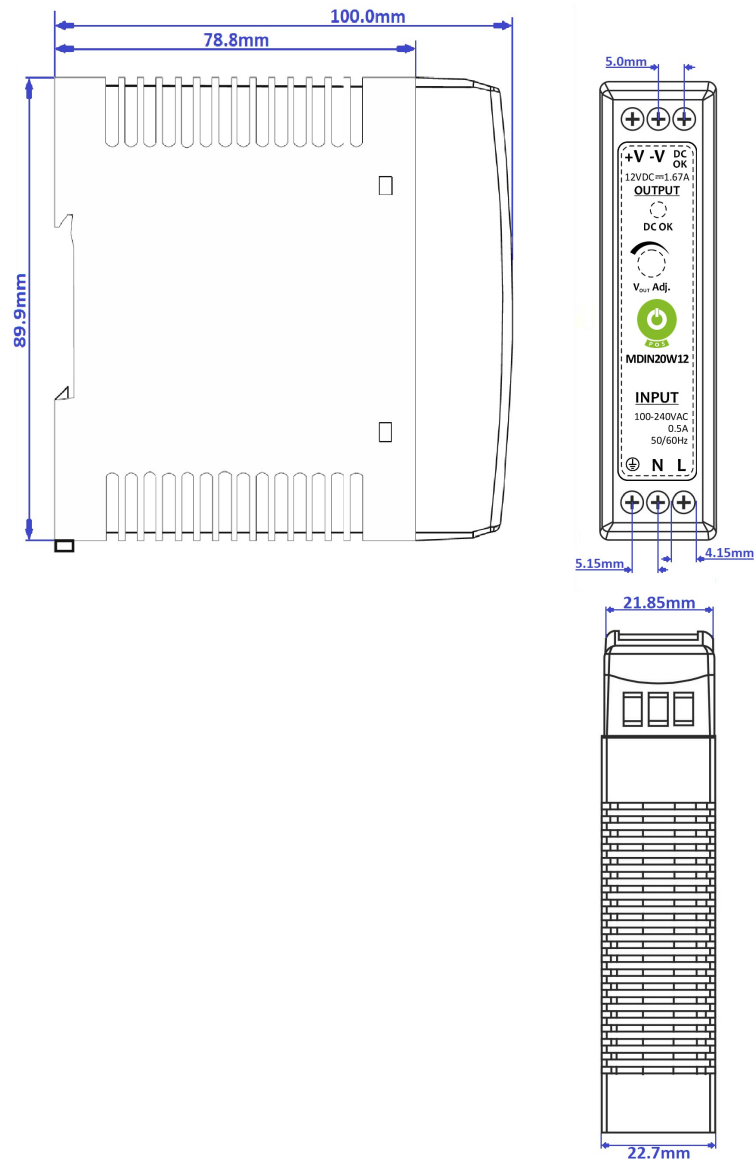


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## MECHANICAL SPECIFICATION:



1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 $\mu$ F i 47 $\mu$ F parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.
4. Setup and rise time is measured from 0 to 90% rated output voltage.
5. Power supply is considered as component not indented to apply by end-user. Power supply meets safety and EMC standards however the final equipment with power supply must be re-quality to comply with EMC Directives.
6. By built-in potentiometer.