MDR-20-12 - 12 V DC 20 W Power Supply

Article number: MDR-20-12

DIN rail power supply, -20 - +70 °C, 12 V DC, 20 W

GENERAL DATA	
Series	MDR-20
Type	DIN rail power supply
INPUTS	
Input voltage V AC	85 - 264 V AC
Input voltage V DC	120 - 370 V DC
Input frequency	47 - 63 Hz
Efficiency	80 %
Input current V AC	0.55 A @ 115 V AC / 0.35 A @ 230 V AC
Inrush current	40 A @ 230 V AC
Inrush current cold start	20 A @ 115 V AC
Leakage current	< 1 mA @ 240 V AC

CAT-MDR-20-12-V1 EN ed. 04/16 Welotec GmbH

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OUTPUTS	
Number of outputs	1
Output voltage V DC	12 V DC
Rated current	1.67 A
Current range	0 - 1.67 A
Rated power	20 W
Ripple Noise	120 mVp-p
Output voltage adjustment range	10.8 - 13.2 V
Output voltage tolerance	±1 %
Line regulation	±1 %
Load regulation	±1 %
Setup time	500 ms, 30 ms @ 230 V AC / 1000 ms, 30 ms @ 115 V AC (Full load)
Hold-up time typical	50 ms @ 230 V AC
Hold-up time full load	20 ms @ 115 V AC
Overload protection	Power limited (105 - 160 % Rated output power)
Over voltage protection	13.8 - 16.2 V
Short circuit protection	Yes
Checking output voltage V DC	9 - 13.5 V, 40 mA
PHYSICAL CHARACTERISTICS	
Dimensions (W x H x D)	22.5 x 90 x 100 mm
Weight	190 g
Mounting	DIN rail
ENVIRONMENTAL	
Operating temperature range	-20 - +70 °C
Storage temperature range	-40 - +85 °C
Humidity	20 - 90 % (non condensing)
Temperature coefficient	±0.03 %/°C (0 - +50 °C)
Vibration	10 - 500 Hz, 2 G, 3-axis, IEC60068-2-6
APPROVALS	
CE	Yes
cULus	UL 508
TÜV	EN 60950-1
EMC	EN 55011 / EN 55022 (CISPR22) / EN55024 / EN 61000-3-2,3 / EN 61000-4-2,3,4,5,6,8,11 / EN 61000-6-1 / EN 61204-3 Class B
RoHS	Yes
MTBF	
MTBF time	min. 236.900 hours @ 25 °C
MTBF standard	MIL-HDBK-217F

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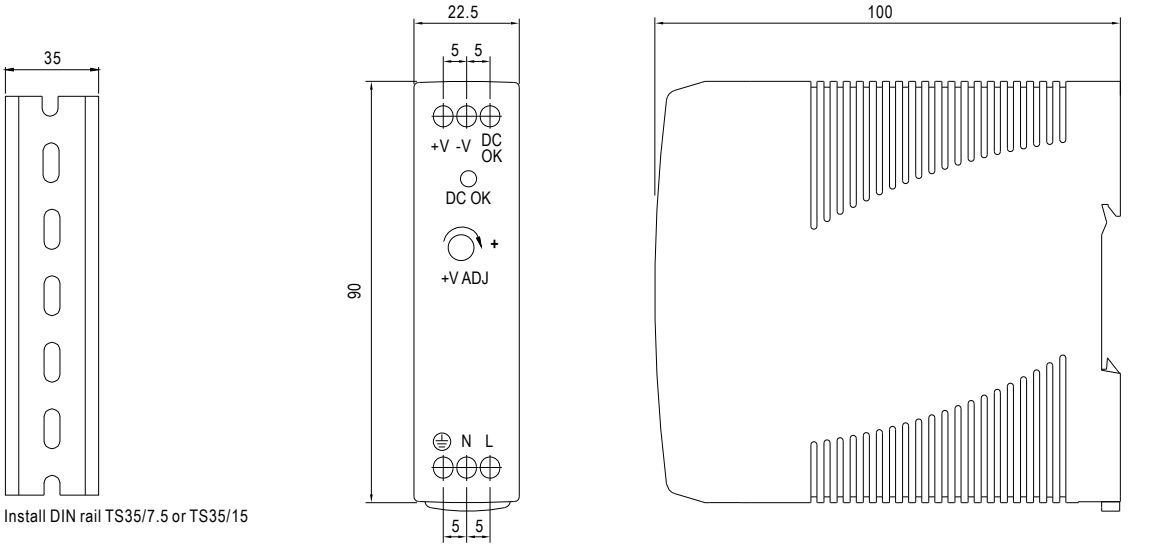
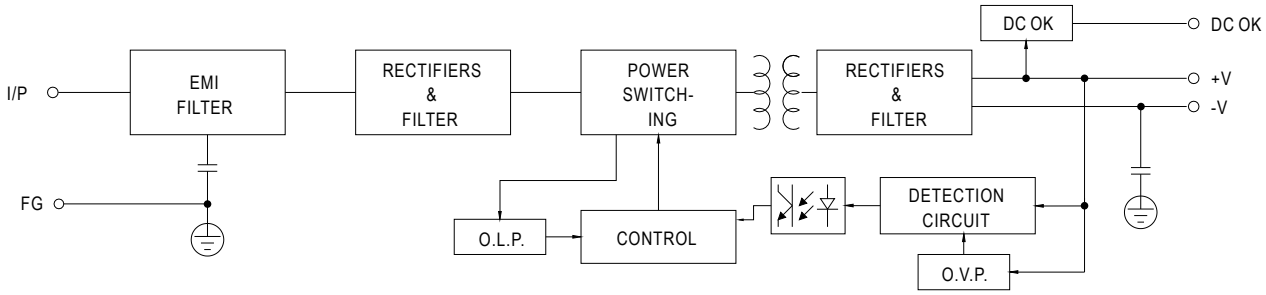
■ Mechanical Specification

Unit: mm



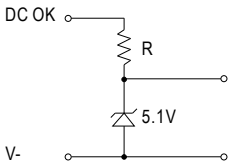
■ Block Diagram

fosc : 60KHz



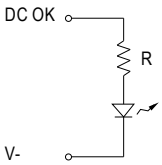
■ Application of DC OK Active Signal

(a) 5V signal



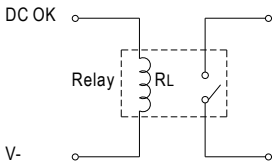
Model	R
5V	≥ 200Ω
12V	≥ 1.5KΩ
15V	≥ 2KΩ
24V	≥ 3.9KΩ

(b) LED



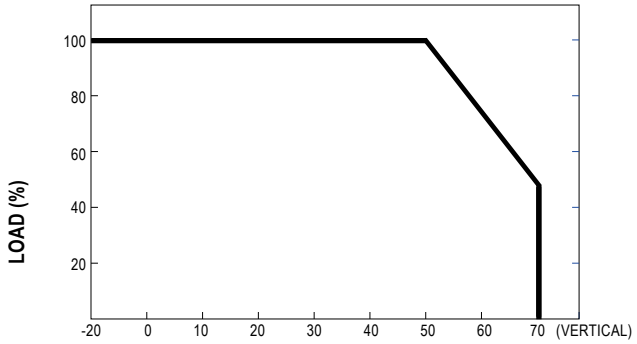
Model	R
5V	≥ 1KΩ
12V	≥ 2.4KΩ
15V	≥ 3KΩ
24V	≥ 4.7KΩ

(c) Relay



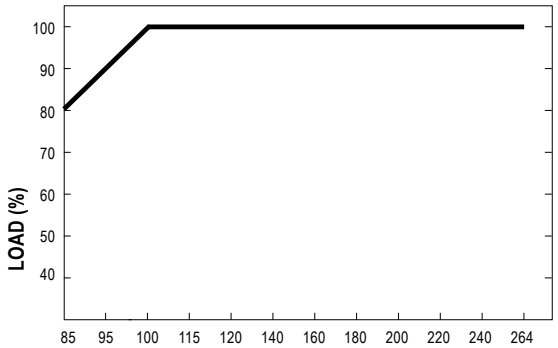
Model	RL
5V	≥ 120Ω
12V	≥ 700Ω
15V	≥ 700Ω
24V	≥ 1.2KΩ

■ Derating Curve



AMBIENT TEMPERATURE (°C)

■ Output Derating VS Input Voltage



INPUT VOLTAGE (VAC) 60Hz