



# 乐清市乐宇自动化电气有限公司

Yueqing Leyu Electric Automation Co., Ltd.

## 20W Single Output Industrial DIN Rail Power Supply

MDR-20 series

Features:

Universal AC input/ full range

Protections: Short circuit/ Over load/ Over voltage

Cooling by free air convection

Can be installed on DIN rail TS-35/7.5 or 15

LED indicator for power on

100% full load burn-in test

2 years warranty

SPECIFICATIONS				
OUTPUT				
Model	MDR-20-5	MDR-20-12	MDR-20-15	MDR-20-24
DC Voltage	5V	12V	15V	24V
Rated Current	3A	1.67A	1.34A	1A
Current Range	0-3A	0-1.67A	0-1.34A	0-1A
Rated Power	15W	20W	20W	24W
Ripple & Noise	80mVp-p	120mVp-p	120mVp-p	150mVp-p
Voltage Tolerance	±2%	±1%	±1%	±1%
Line regulation	±1.0%	±1.0%	±1.0%	±1.0%
Load regulation	±1.0%	±1.0%	±1.0%	±1.0%
Setup, Rise Time	500ms,30ms/230VAC    1000ms,30ms/115VAC at full load			
Hold Up Time	50ms/230VAC    25ms/115VAC at full load			
INPUT				
Voltage Range	85~264VAC    47~63Hz; 120~370VDC			
AC Current	0.55A/115VAC    0.35A/ 230VAC			
Efficiency	76%	80%	81%	84%
Inrush Current	Cold start 20A/115V    40A/230V			
Leakage Current	<1mA/240VAC			
PROTECTION				
Over Load	105% ~ 160% rated output power			
	Protection type: Constant current limiting, recovers automatically after fault condition is removed			
Over Voltage	5.75-6.75V	13.8-16.2V	17.25-20.25V	27.6-32.4V
	Protection type: Shut down o/p voltage, re-power on to recover			
ENVIRONMENT				



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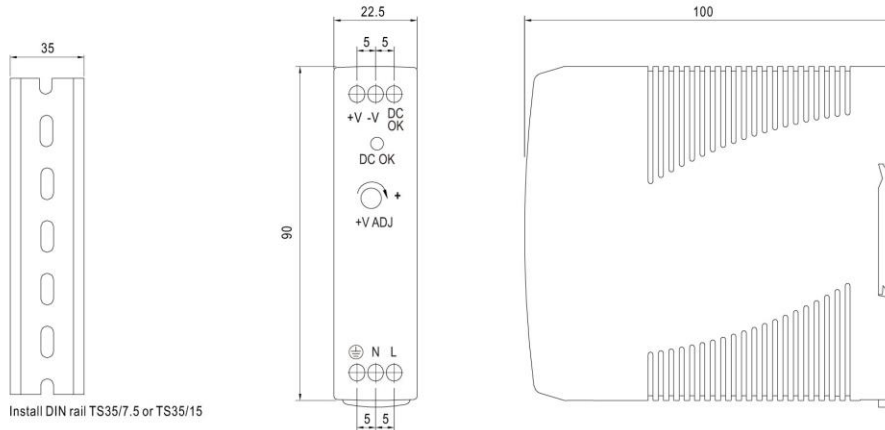
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Working Temp., Humidity	-20°C~+70°C; 20%~90% RH non-condensing
Storage Temp., Humidity	-40°C~+85°C; 10%~95%RH
Temp. Coefficient	±0.03%/°C(0~50°C)
Vibration	10~500Hz, 2G 10min./1cycle, period for 60min, each along X, Y, Z axes
SAFETY	
Withstand Voltage	I/P-O/P: 3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-F/G: 100M Ohms / 500VDC/25°C/70% RH
STANDARD	
Safety Standard	Design refer to UL508,TUV EN60950-1
EMC Standard	Design refer to EN55011,EN55022,EN61000-3-2,-3,EN61000-4-2,3,4,5,6,8,11,EN55024, EN61000-6-1, EN61204-3, light industry level, criteria A
OTHERS	
Dimension	22.5*90*100mm(W*H*D)
Weight	0.19Kg
Packing	72pcs/carton/14.7kg/0.91CUFT
NOTE	
<p>1.All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2.Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µf &amp; 47µf parallel capacitor.</p> <p>3.Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4.The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</p>	

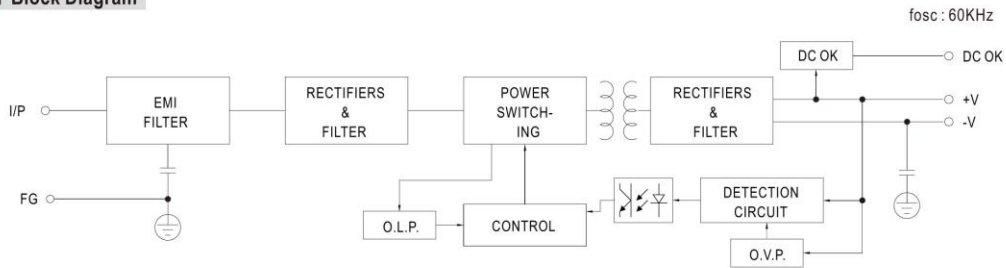
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### MDR-20 series

#### ■ Mechanical Specification

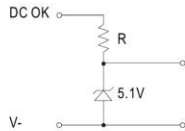


#### ■ Block Diagram



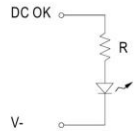
#### ■ Application of DC OK Active Signal

##### (a) 5V signal



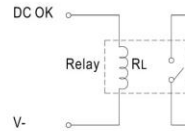
Model	R
5V	≥200Ω
12V	≥1.5KΩ
15V	≥2KΩ
24V	≥3.9KΩ

##### (b) LED



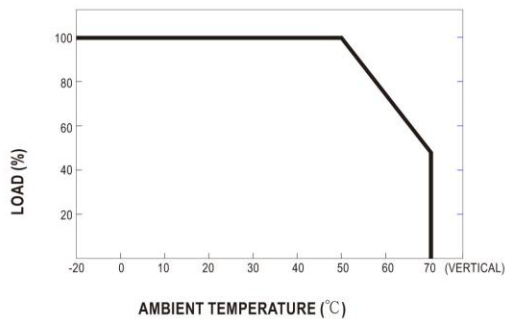
Model	R
5V	≥1KΩ
12V	≥2.4KΩ
15V	≥3KΩ
24V	≥4.7KΩ

##### (c) Relay



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

#### ■ Derating Curve



#### ■ Output Derating VS Input Voltage

