product specification

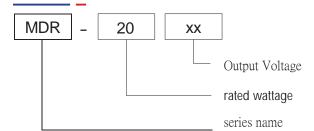
MDR-20

- Product Category: 20W Single Output Din rail switching Power Supply Power Supply
- Version No.:ZTAO3.0
- Release date: May 1st, 2025

Product Overview

International full range AC input, mounting rail: TS35/7.5 or 15, no-load power consumption <0.7W, DC OK relay contacts, protection types:short circuit/overload/o vercurrent protection, Cooling by free air convection, LED indicator for power on, 100% full load burn-in test, 3-year warranty.

Model Encoding



Features

- International full range AC input rail
- mounted: TS35/7 or 15 no-load power consumption < 0.7W
- DC OK relay contact
- Type of protection: short circuit/overload/overvoltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- 3-year warranty

+V -V DC 24VDC 1.0A DC OK +V ADJ ZTAO 100-240VAC







Areas of Application

Industrial control, mechanical and electrical, electronic instruments, industrial automation, electronic equipment, semiconductor equipment, etc. (except information technology equipment)

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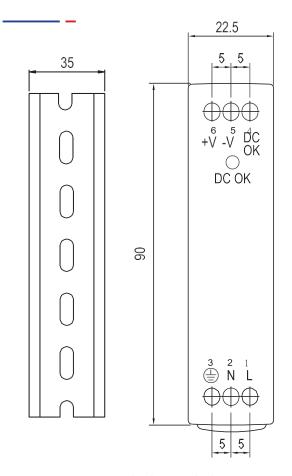
Electrical Specifications

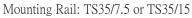
	Model	MDR-20-5	MDR-20 -12	MDR-20 -15	MDR-20- 24	MDR-20- 36	MDR-20- 48		
	DC output voltage	5V	12V	15V	24V	36V	48V		
	Rated current	3A	1.67A	1.34A	1A	0.56A	0.42A		
	Current range	0~3A	0~1.67A	0~1.34A	0~1A	0~0.56A	0~0.42A		
	Rated power	15W	20.04W	20.1W	24W	20.16W	20.16W		
Output	Ripple & Noise (Max)	80mVp-p	100mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p		
	voltage adjustment range	4.5~5.5V	10.2~13.8V	13.5~16.5V	21.6~26.4V	32.4~39.6V	43.2~52.8V		
	voltage accuracy	±1%	±1%	±1%	±1%	±1%	±1%		
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	Load Adjustment Ratio	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	start-up & rise time	500ms,30ms/230VAC 1000ms,30ms/115VAC(at full load)							
	Holding time	60mS/230VAC;25mS/115VAC (at full load)							
	Input Voltage	85~264VA C 120~370 V DC							
Input	Input frequency	50~60HZ							
	Efficiency	76%	78%	79%	82%	82%	84%		
	Input current	0.55A/115VA C 0.35A/230VAC							
	Leakage current	< 1mA/240VAC							
	overload protection	125~150% of rated power							
Protec	overload protection	Protection mode: hiccup protection, automatic recovery after removal of abnormal conditions							
tion	0	5.9~7.3V	13.8~16.2V	18.7~21.7V	28.8~33.6V	41.4~48.6V	55.2~64.8V		
	Overvoltage protection	Protect mode: shut down the output voltage, restart to recover							
Functi on	DC OK signal	Relay contact (max): 30V/1A resistive load							
	Operating temperature	-20°C ~ +65 °C							
Enviro	Operating humidity	20~90%RH No condensation							
nment	Storage temperature/humidity	-40~+80°C 10~95%RH, no condensation							
	Vibration-resistant	10~500HZ, 5G 10 min/cycle, X, Y, Z 60 min each							
Security	pressure resistance	Input to Output :1.5KVAC; Input to Ground :1.5KVAC; Output to Ground :500VAC							
	Insulation impedance	Input to Output, Input to Ground, Output to Ground :100 Ohms/500VDC/25℃ /70%RH							
Others	Product dimensions	22.5*90*100mm (W*H*D)							
Outers	Packaging	0.13kg/pcs							
Remarks		 All parameters are measured at 230VAC input, rated load and 25°C when not otherwise specified. Ripple and noise voltages were measured on a 20MHz bandwidth oscilloscope with 0.1 μ and 47 μ capacitors at the end of a 12-inch twisted pair cable, measured at 20MHz bandwidth. Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio. Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time. When operating at altitudes higher than 2000 metres (6500ft): the operating environment needs to be reduced by 5°C / 1000 metres 							

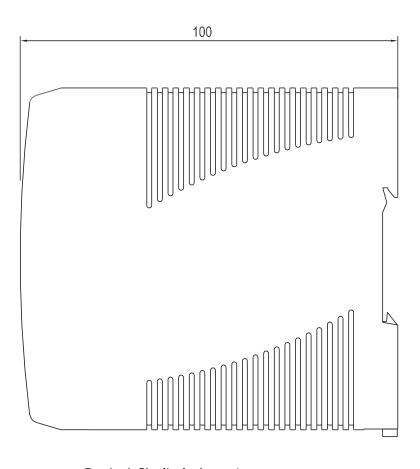
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Appearance and Installation Dimensions (mm)







Terminal Pin No. Assignment

pin No	Assignment	pin No	Assignment	
1	AC/L	4	DC OK relay contact	
2	2 AC/N		DCOUTPUT -V	
3 FG≟		6	DCOUTPUT +V	

Pinout	Function			
L	AC LINE	Screw:M2.5*8.5 Torque:4Kgf.cn(0.4N.m)		
N	AC NETURAL			
₩	EARTH			
-Vo	DC output -			
+Vo	DC output +	Screw:M2.5*8.5		
DC OK	relay contacts	Torque:4Kgf.cn(0.4N.m)		

rail-guided customer system installation

Rail mounting: TS35/7.5 or TS35/15 Notes:

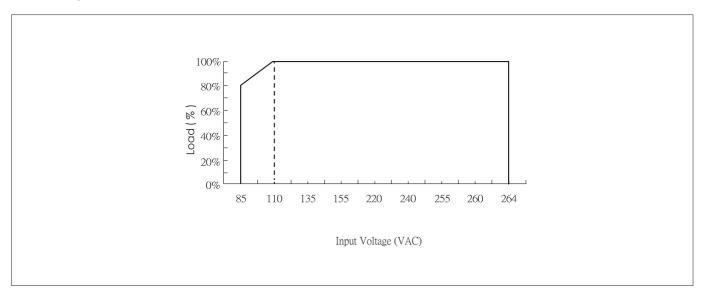
Unit: mm [inch]; unlabelled tolerances are ±0.5 [±0.020].

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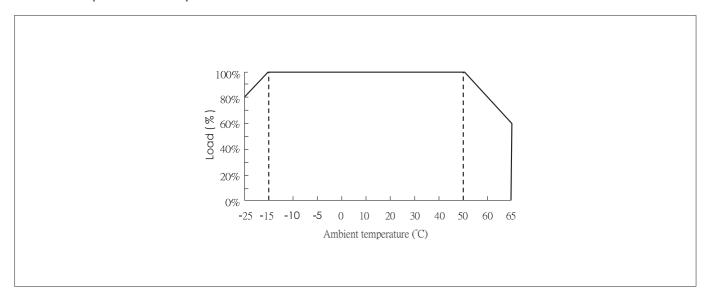


Characteristic Curve

Input Voltage VS Output Load



Ambient Temperature VS Output Load



Note:

1.If you need more detailed test data, please contact our technical support to get the application notes of the corresponding products.

2. This product is suitable for use in a natural air convection environment, if used in a closed environment, please contact our technical support staff.