



Zhitao Group

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Industrial Din rail power supply

product specification

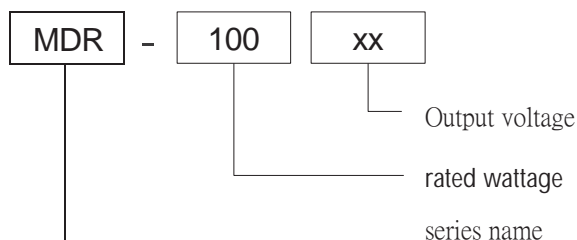
MDR-100

- Product Category: 100W Single Output Din rail switching 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 <1.4W, DC OK relay contacts, protection types: short circuit/overload/overcurrent 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 Mounting rail: TS35/7.5 or 15
No-load power consumption <1.4W
- DC OK relay contact
- Type of protection: short
- circuit/overload/overvoltage protection,
Cooling by free air convection,
- LED indicator for power on
- 100% full load burn-in test
- 3-year warranty

areas of application

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



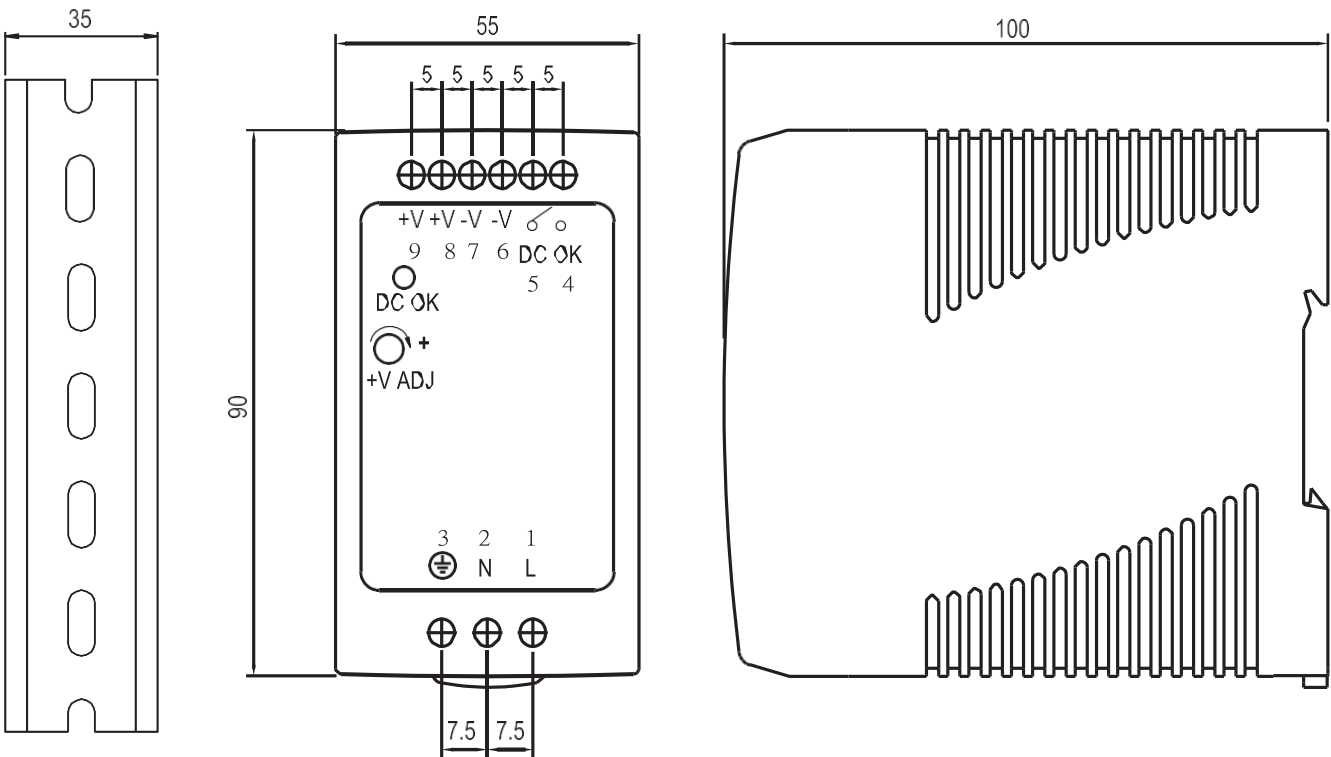
RoHS



electrical specifications

	Model	MDR-100-12	MDR-100-15	MDR-100-24	MDR-100-36	MDR-100-48
Output	DC output voltage	12V	15V	24V	36V	48V
	Rated current	7.5A	6A	4A	2.67A	2A
	Current range	0~7.5A	0~6A	0~4A	0~2.67A	0~2A
	Rated power	90W	90W	96W	96.12W	96W
	Ripple & Noise (Max)	120mVp-p	150mVp-p	240mVp-p	360mVp-p	360mVp-p
	voltage adjustment range	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%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Adjustment Ratio	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	start-up & rise time	3000ms,30ms/230VAC 3000ms,30ms/115VAC (at full load)				
	Holding time	60mS/230VAC 30mS/115VAC (at full load)				
	Input	Input Voltage	90~264VAC 127~370VDC			
Input frequency		50~60HZ				
Efficiency		83%	83%	87%	88%	88%
Input current		1.3A/115VAC 0.8A/230VAC				
Leakage current		< 1mA/240VAC				
Protection	overload protection	120~150% of rated power				
		Protection mode: hiccup protection, automatic recovery after removal of abnormal conditions				
	Overvoltage protection	13.8~16.2V	18.7~21.7V	28.8~33.6V	41.4~48.6V	55.2~64.8V
		Protect mode: shut down the output voltage, restart to recover				
Function	DC OK signal	Relay contact (max): 30V/1A resistive load				
Environment	Operating temperature	-20℃ +65℃				
	Operating humidity	20~90%RH No condensation				
	Storage temperature/humidity	-40~+80℃ 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	55*90*100mm (W*H*D)				
	Packaging	0.35kg/pcs				
	Remarks	1. All parameters are measured at 230VAC input, rated load and 25℃ when not otherwise specified. 2. 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. 3. Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio. 4. Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load 5. Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load 6. Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time. 7. When operating at altitudes higher than 2000 metres (6500ft): the operating environment needs to be reduced by 5℃ / 1000 metres				

Appearance and Installation Dimensions (mm)



Mounting rail: TS35/7.5 or TS35/15

Terminal Pin No. Assignment

pin No	Assignment	pin No	Assignment
1	AC/L	4~5	DC OK relay contact
2	AC/N	6~7	DCOUTPUT -V
3	AC/PE	8~9	DCOUTPUT +V

Pinout	Function	
L	AC LINE	Screw:M2.5*8.5 Torque:4Kgf.cm (0.4N.m)
N	AC NETURAL	
⊥	EARTH	
-Vo	DC output -	Screw:M2.5*8.5 Torque:4Kgf.cm (0.4N.m)
-Vo	DC output -	
+Vo	DC output +	
+Vo	DC output +	

mounting holes for rail-type customer systems

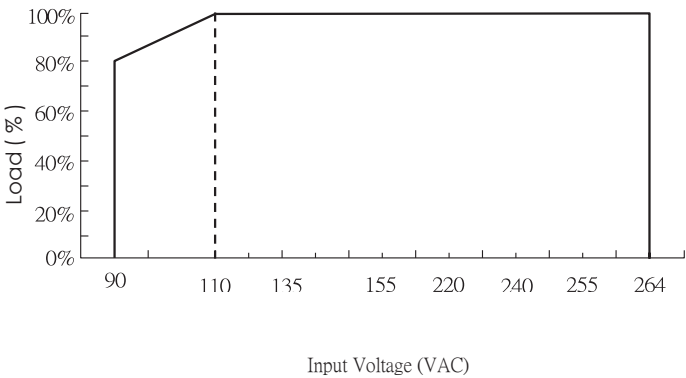
Rail mounting: TS35/7.5 or TS35/15

Remarks:

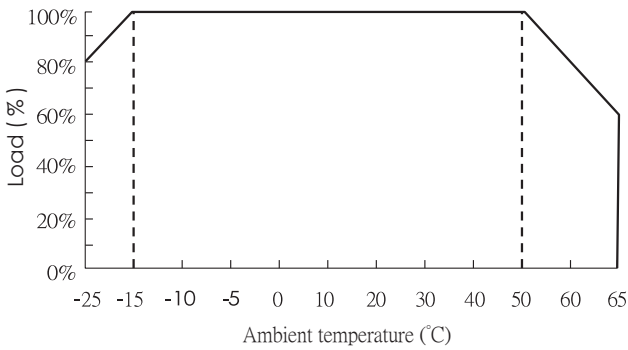
Unit: mm [inch]; unlabelled tolerances are ± 0.5 [± 0.020].

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.