



Zhitao Group

ZHITAO GROUP

Industrial Din rail power supply

product specification

MDR-60

Product Category: 60W Single Output Din rail switching Power Supply

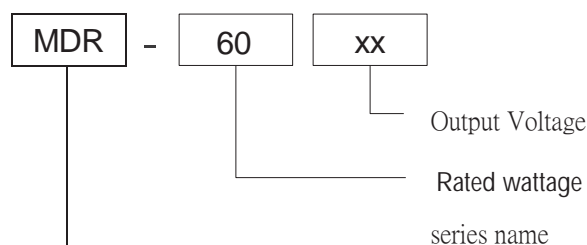
Version No.: ZTAO3.0

Release date: May 1st, 2025

Product Overview

International full range AC input, mounting rail: TS35/7.5 or 15, no-load power consumption <0.8W, 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
- rail mounted: TS35/7 or 15
- no-load power consumption <0.8W
- 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

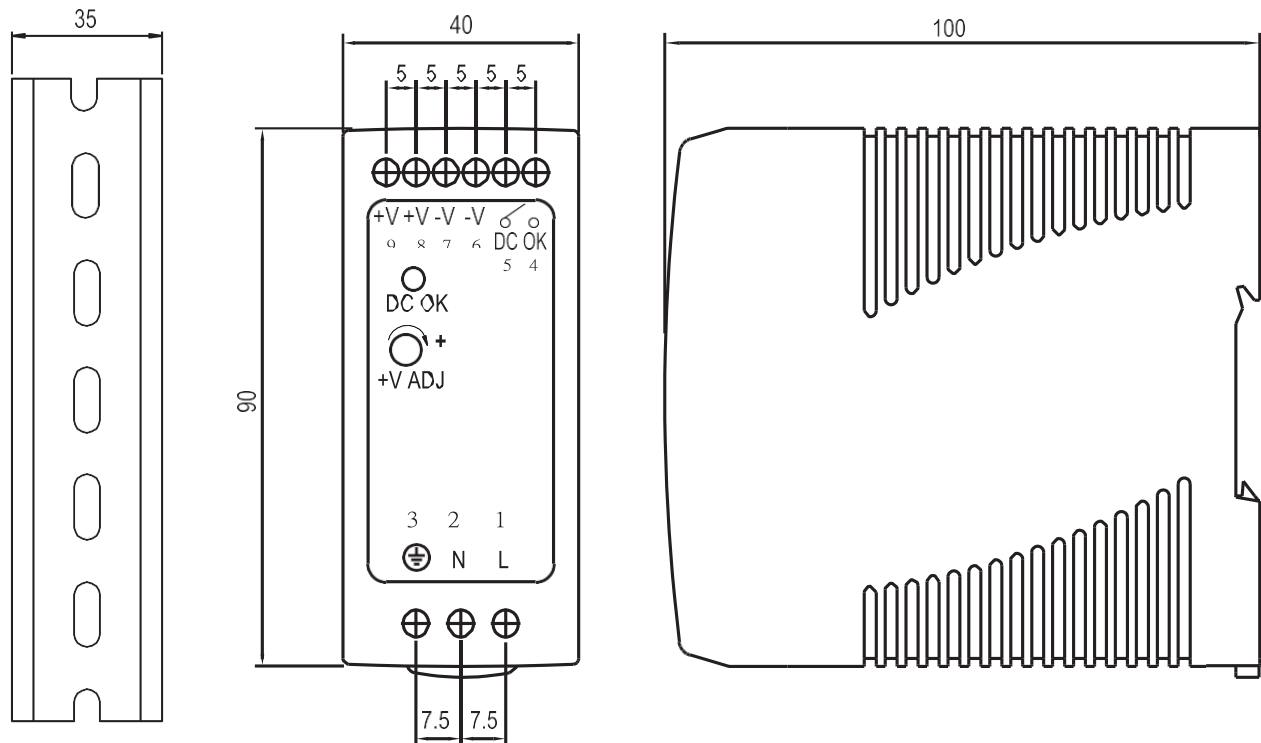
Industrial control, mechanical and electrical, electronic instruments, industrial automation, electronic equipment, semiconductor equipment, etc. (except information technology equipment)



Electrical Specifications

Model		MDR-60-5	MDR-60-12	MDR-60-15	MDR-60-24	MDR-60-36	MDR-60-48
Output	DC output voltage	5V	12V	15V	24V	36V	48V
	Rated current	10A	5A	4A	2.5A	1.7A	1.25A
	Current range	0~10A	0~5A	0~4A	0~2.5A	0~1.7A	0~1.25A
	Rated power	50W	60W	60W	60W	60.12W	60W
	Ripple & Noise (Max)	80mVp-p	80mVp-p	100mVp-p	100mVp-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 500ms,30ms/115VAC(at full load)					
	Holding time	60 mS/230VAC 25mS/115VAC (at full load)					
	Input Voltage	85~264VAC 120~370VDC					
Input	Input frequency	50~60HZ					
	Efficiency	78%	85%	86%	88%	88%	88%
	Input current	1.8A/115VAC 1A/230VAC					
	Leakage current	< 1mA/240VAC					
	overload protection	125~150% of rated power Protection mode: hiccup protection, automatic recovery after removal of abnormal conditions					
Protection	Overvoltage protection	5.9~7.3V	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					
Security	Vibration-resistant	10~500HZ, 5G 10 min/cycle, X, Y, Z 60 min each					
	pressure resistance	Input to Output :1.5KVAC; Input to Ground :1.5KVAC; Output to Ground :500VAC					
Others	Insulation impedance	Input to Output, Input to Ground, Output to Ground :100 Ohms/500VDC/25℃ /70%RH					
	Product dimensions	40*90*100mm (W*H*D)					
	Packaging	0.3kg/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 0.1μ and 47μ 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	FG⏏	8~9	DCOUTPUT +V

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

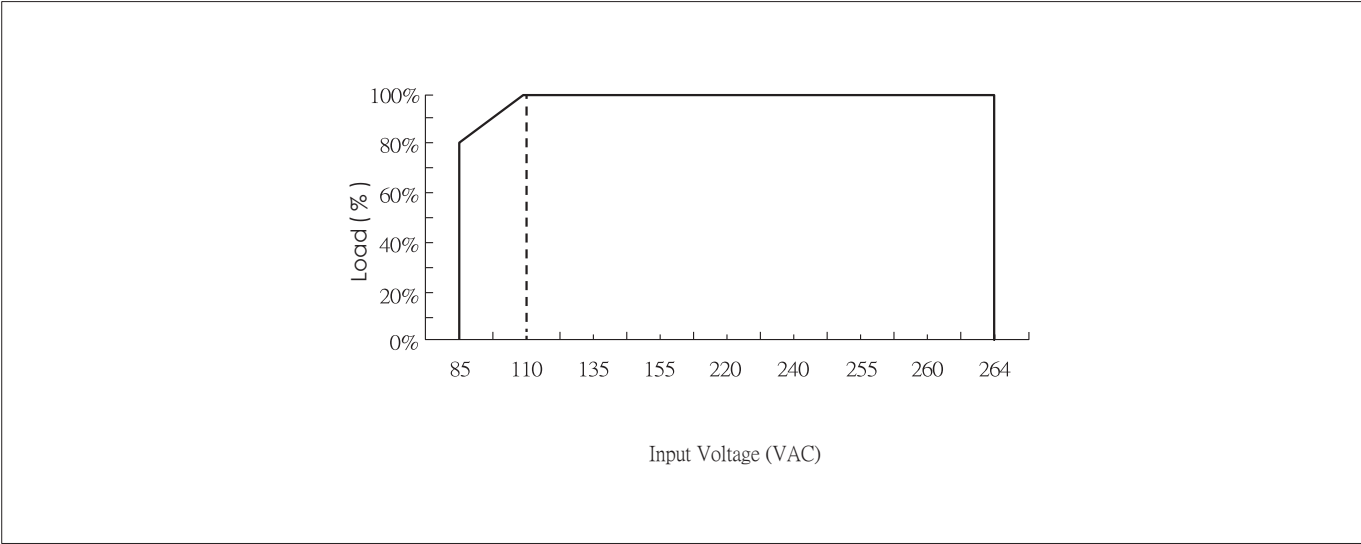
rail-guided customer system installation

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

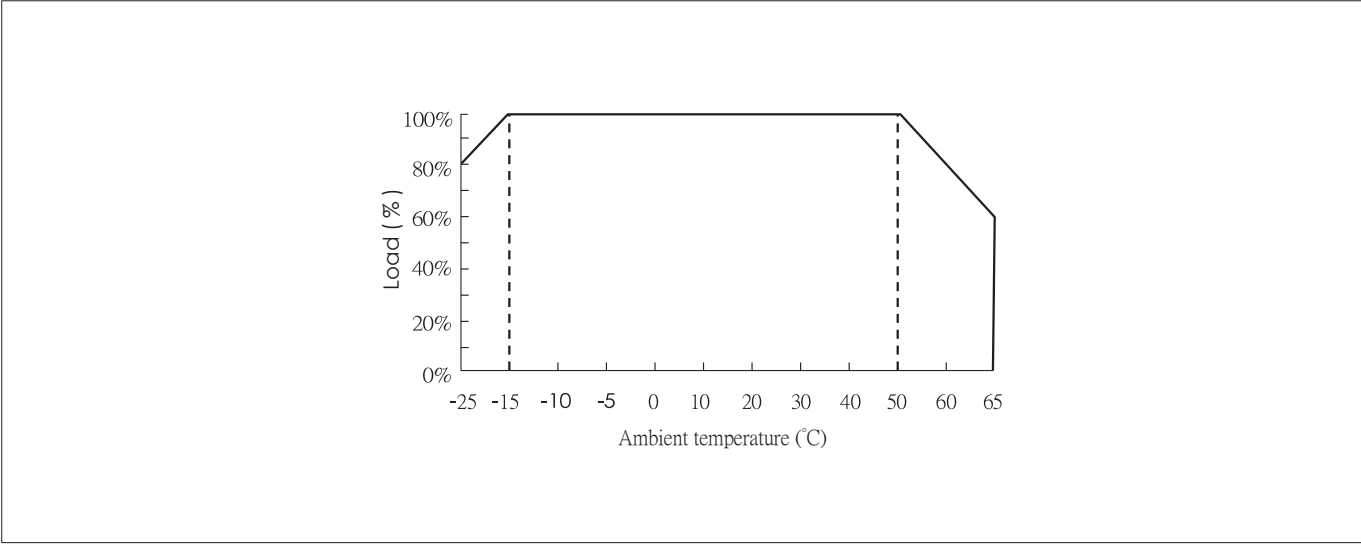
Unit: mm [inch]; unlabelled tolerances are ±0.5 [±0.020].

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.