



Zhitao Group

ZHITAO GROUP

Industrial Power Supplies

Product Specifications

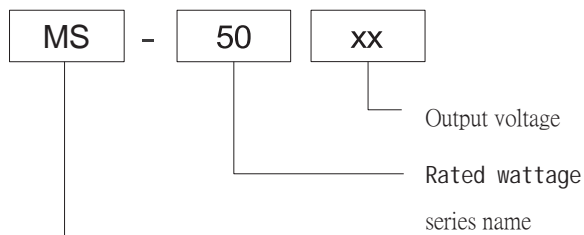
MS-50

- Product Category: 50w single output power supply
- Version number: ztao3.0
- Release date: 1st May 2025

Product Overview

MS-50-XX SERIES PRODUCTS FOR A 50W CHASSIS-TYPE INDUSTRIAL POWER SUPPLY, THE OUTPUT VOLTAGE INCLUDING 12V/24V/36V/48V, ETC., CAN BE ADAPTED TO DIFFERENT LOAD APPLICATION REQUIREMENTS TO MEET THE NEEDS OF MOST INDUSTRIAL APPLICATIONS, SELF-COOLING HEAT DISSIPATION, AS WELL AS A FULL RANGE OF PROTECTIONS, TO ENSURE THAT THIS SERIES OF PRODUCTS OF HIGH RELIABILITY AND HIGH STABILITY.

Model encoding



product characteristics

- International full-scope exchange inputs
- Type of protection: short circuit/overload/overvoltage
- Cooling by free air convection
- Power on led indicator
- 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)

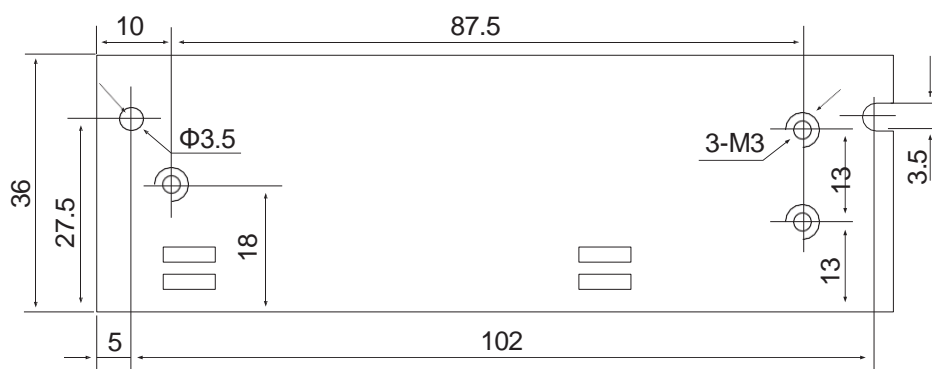
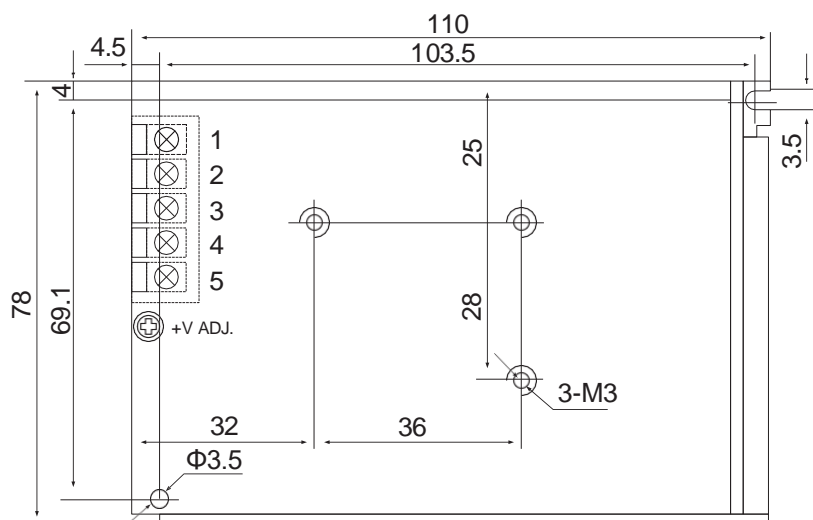


01-01

Electrical Specifications

Model		MS-50-12	MS-50-15	MS-50-24	MS-50-36	MS-50-48
Output	DC output voltage	12V	15V	24V	36V	48V
	Rated current	4.2A	3.4A	2.1A	1.4A	1.1A
	Current range	0~4.2A	0~3.4A	0~2.1A	0~1.4A	0~1.1A
	Rated power	50.4W	51W	50.4W	50.4W	52.8W
	Ripple & Noise (Max)	80mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-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	800ms,30ms/230VAC 1000ms,30ms/115VAC (at full load)				
	Holding time	20mS/230VAC 10mS/115VAC (at full load)				
Input	Input Voltage	95~264 VAC 133~370VDC				
	Input frequency	50~60HZ				
	Efficiency	86%	86%	88%	89%	89%
	Input current	1.0A/115VAC 0.5A/230VAC				
	Leakage current	< 1mA/240VAC				
Protection	overload protection	120~140% of rated power Protection Mode: VO drops to undervoltage point and automatically recovers when abnormal conditions are removed				
	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				
Environment	Operating temperature	-20°C ~+65°C				
	Operating humidity	20~90%rh No condensation				
	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°C /70%RH				
Others	Product dimensions	110*78*32mm (L*W*H)				
	Packaging	0.4kg/pcs				
Remarks		1. All parameters are measured at 230vac input, rated load and 25°C when not 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°C / 1000 metres				

Outline and Mounting Dimensions (mm)



Terminal Pin No. Assignment

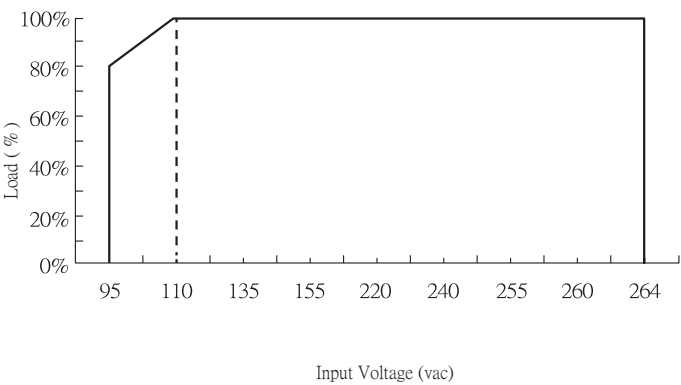
pin No	Assignment
1	AC/L(DC-)
2	AC/N(DC+)
3	FG \oplus
4	DC OUTPUT -V
5	DC OUTPUT +V

Pinout	Function	
L	AC LINE	Screw:m3*8 Torque:8Kgf.cn(0.8N.m)
N	AC NETURAL	
\oplus	EARTH	
-V	DC output -	Screw:m3*8 Torque:8Kgf.cn(0.8N.m)
+V	DC output +	

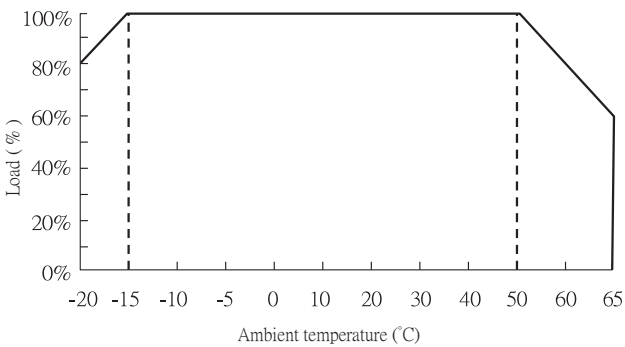
8-m3 Customer system
mounting holes mounting
screws:m3
Installation torque: 8Kgf.cn (0.8N.m)
screws into the housing is not more
than 3mm
Remarks:
Unit: mm [inch]; unlabelled tolerance ± 0.5 [± 0.020]

Characteristic Curve

Input Voltage vs Output Load



Ambient temperature vs. output load



Remarks:

- 1.If you need to know 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.