



Zhitao Group

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Industrial Power Supplies

Product Specifications

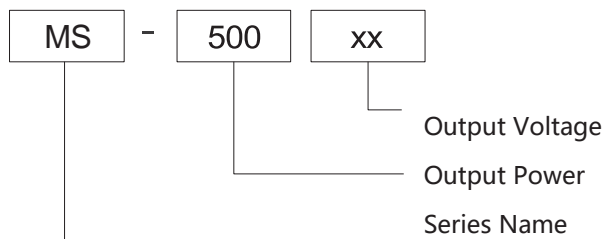
MS-500

- Product Category: 500w Single Output Power Supply
- Version number: ztao3.0
- Release date: 1st May 2025

Product Overview

MS-500-XX SERIES PRODUCTS FOR A 500W 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, FAN COOLING, AS WELL AS A FULL RANGE OF PROTECTION, TO ENSURE THAT THIS SERIES OF PRODUCTS OF HIGH RELIABILITY AND HIGH STABILITY.

Model encoding



product characteristics

- The AC range input is switched via the switch
- Type of protection: short circuit/overload/overvoltage
- fan cooling
- 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)



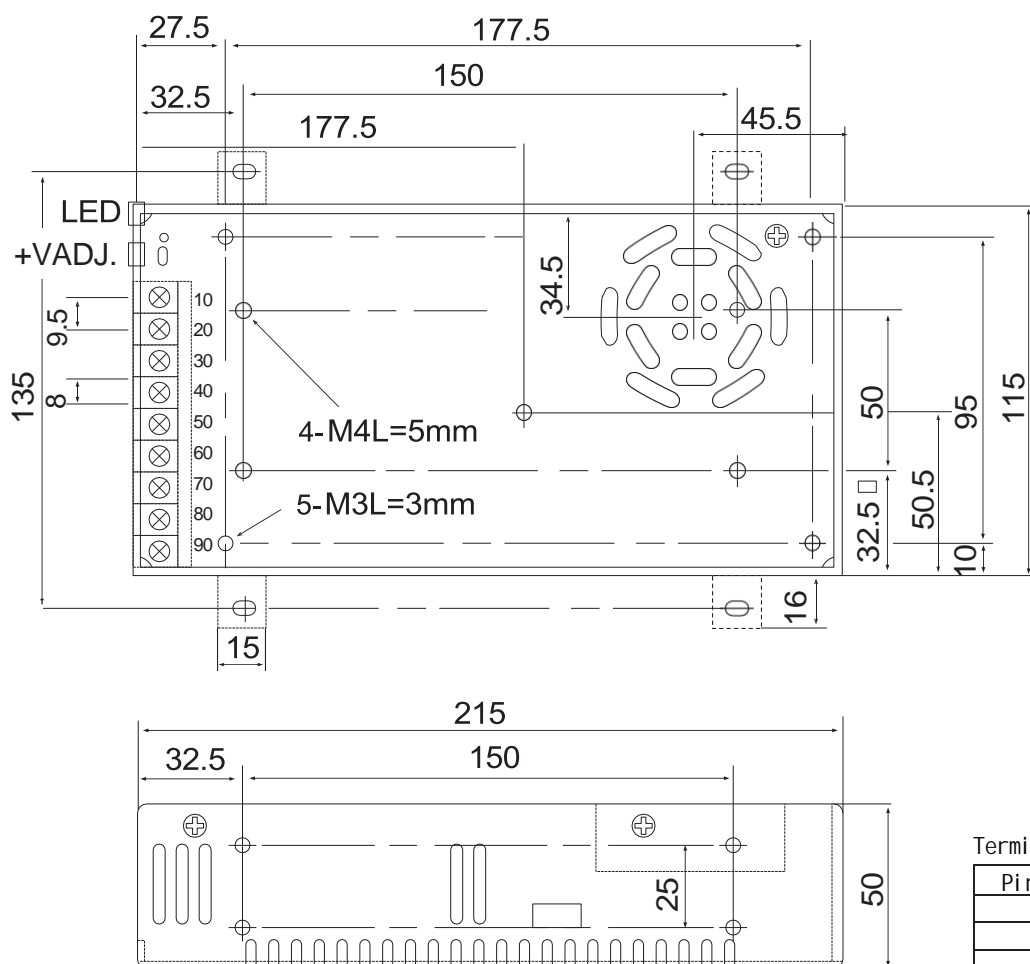
RoHS



electrical specifications

Model		MS-500-12	MS-500-15	MS-500-24	MS-500-36	MS-500-48
Output	DC output voltage	12V	15V	24V	36V	48V
	Rated current	40A	33A	20A	13.8A	10A
	Current range	0~40A	0~33A	0~20A	0~13.8A	0~10A
	Rated power	480W	495W	480W	496.8W	480W
	Ripple & Noise (Max)	200mVp-p	200mVp-p	240mVp-p	300mVp-p	300mVp-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	1000ms,50ms/230VAC 1000ms,50ms/115VAC (at full load)				
	Holding time	20mS/230VAC 16mS/115VAC (at full load)				
Input	Input Voltage	95~132 VAC/180~264VAC SELECTABLE BY SWITCH			254~370VDC(switc on 230VAC)	
	Input frequency	50~60HZ				
	Efficiency	85%	85%	87%	88%	89%
	Input current	6.0A/115VAC 3.0A/230VAC				
	Leakage current	< 2mA/240VAC				
Protection	overload protection	105~135% of rated power				
		Protection mode: +vo down to undervoltage point, 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				
	Over temperature	Turn off the output voltage, reboot to restore				
Function	Fan On/Off Control (Typ.)	TH3 ≥ 50 °C FAN ON, ≤ 40 °C FAN OFF				
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				
Security	Resistant to vibration	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°C /70%RH				
	Product dimensions	215*115*50mm (L*W*H)				
	Packaging	1.3kg/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 0.1μ 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°C / 1000 metres				

Outline and Mounting Dimensions (mm)



Terminal Pin No. Assignment

Pin No	Assignment
1	AC/N(DC+)
2	AC/L(DC-)
3	FG (⊕)
4,5,6	DC OUTPUT -V
7,8,9	DC OUTPUT +V

Pinout	Function	
L	AC LINE	Screw:m4*9.5 Torque:22Kgf.cn(2..... 2N.m)
N	AC NETURAL	
⊕	EARTH	
-Vo	DC output -	Screw:m4*9.5 Torque:22Kgf.cn(2..... 2N.m)
-Vo	DC output -	
-Vo	DC output -	
+Vo	DC output +	
+Vo	DC output +	
+Vo	DC output +	

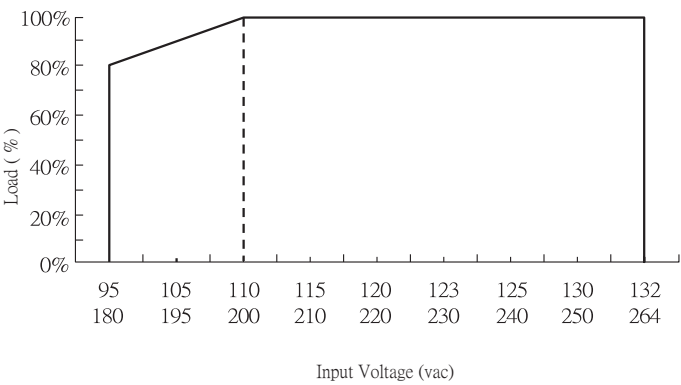
8-m4 Customer system
mounting holes
mounting screws:m4
Installation torque: 8Kgf.cn
(0.8N.m) screws into the
housing not more than 3mm

Remarks:

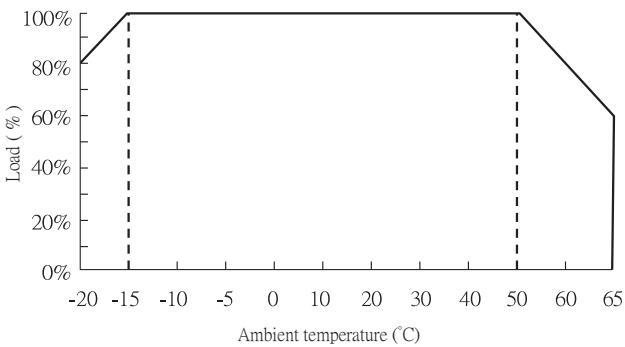
Unit: mm [inch]; unlabelled tolerance ± 0.5 [± 0.020].

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.