



# Zhitao Group

ZHITAO GROUP

Industrial Power Supplies

## Product Specifications

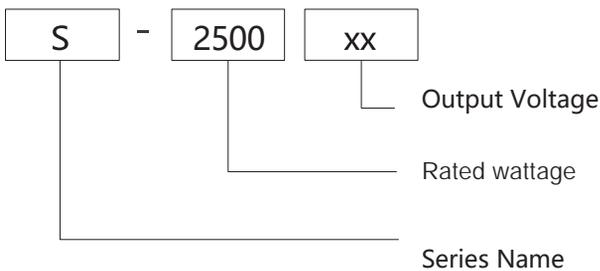
# S-2500

- Product Category: 2500W Single Output Power Supply
- Version number: ztao3.0
- Release date: 1st May 2025

### product overview

S-2500-XX SERIES PRODUCTS FOR A 2500W 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

- AC input range 190~264vac
- Type of protection: short circuit/overload/overvoltage
- fan cooling . led indicator for Power on
- 100% full load burn-in test
- 3-year warranty



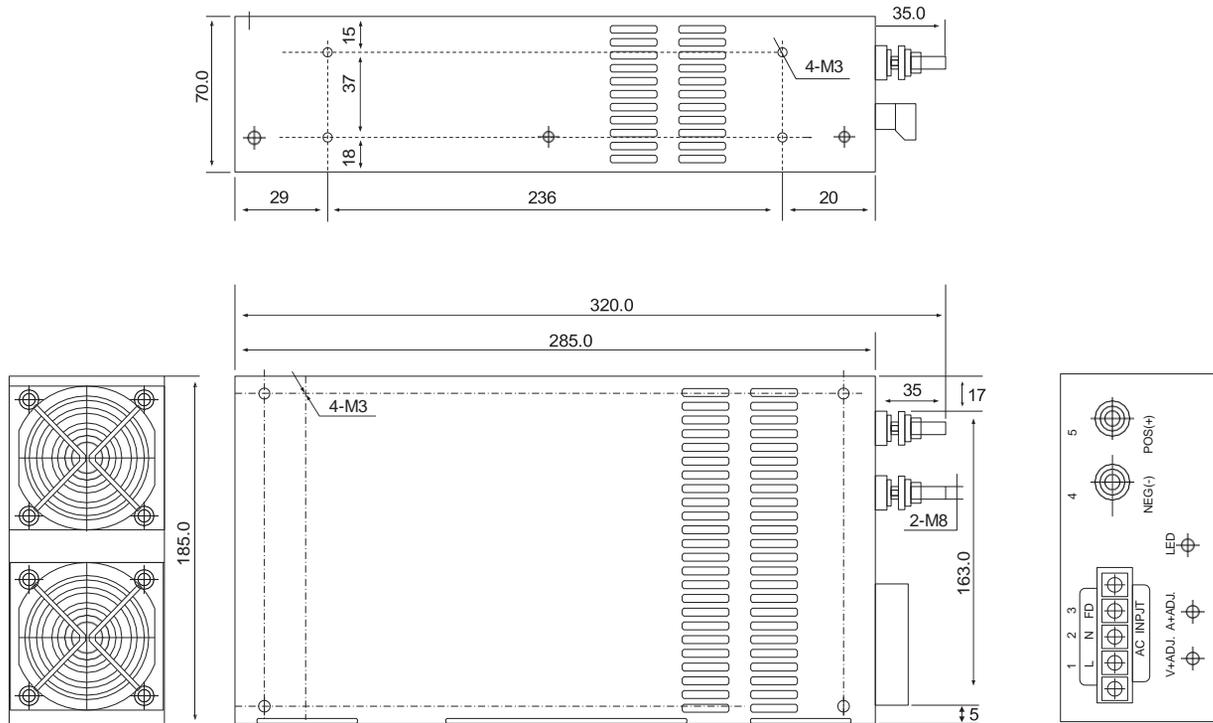
### areas of application

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

## electrical specifications

Model		S-2500-12	S-2500-15	S-2500-24	S-2500-36	S-2500-48
Output	DC output voltage	12V	15V	24V	36V	48V
	Rated current	200A	160A	105A	69.5A	52.5A
	Current range	0~200A	0~160A	0~105A	0~69.5A	0~52.5A
	Rated power	2400W	2400W	2520W	2502W	2520W
	Ripple & Noise (Max)	200mVp-p	200mVp-p	240mVp-p	320mVp-p	320mVp-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	±1%	±1%	±1%	±1%	±1%
	Load Adjustment Ratio	±1%	±1%	±1%	±1%	±1%
	start-up & rise time	2000ms,70ms/230VAC (at full load)				
	Holding time	12ms/230VAC ( at full load )				
Input	Input Voltage	190~264VAC	266~370VDC			
	Input frequency	50~60HZ				
	Efficiency	86%	86%	90%	91%	91%
	Input current	19.8A/230VAC				
	Leakage current	< 2mA/240VAC				
Protection	overload protection	100~125% of rated power Protection mode: constant current limiting mode, restart to recover after 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
	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 ~+60°C				
	Operating humidity	20~90%RH no condensation				
	Storage temperature/humidity	-40~+80°C 10~95%rh, no condensation				
Security	Vibration-resistant pressure resistance	10~500HZ, 5G 10 MIN/CYCLE, X, Y, Z 60 MIN EACH				
		Input-to-output: 1.5kvac; I NPUT 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	285*185*70mm ( L*W*H )		320*185*70mm(including terminal block)		
	Packaging	5kg/pcs				
Remarks		<ol style="list-style-type: none"> <li>All parameters are measured at 230vac input, rated load and 25°C when not specified.</li> <li>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.</li> <li>Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio.</li> <li>Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load</li> <li>Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load</li> <li>Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time.</li> <li>When operating at altitudes above 2000 m (6500ft): The operating environment needs to be lowered by 5°C / 1000 m</li> </ol>				

Outline and Mounting Dimensions (mm)



Terminal Pin No. Assignment

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

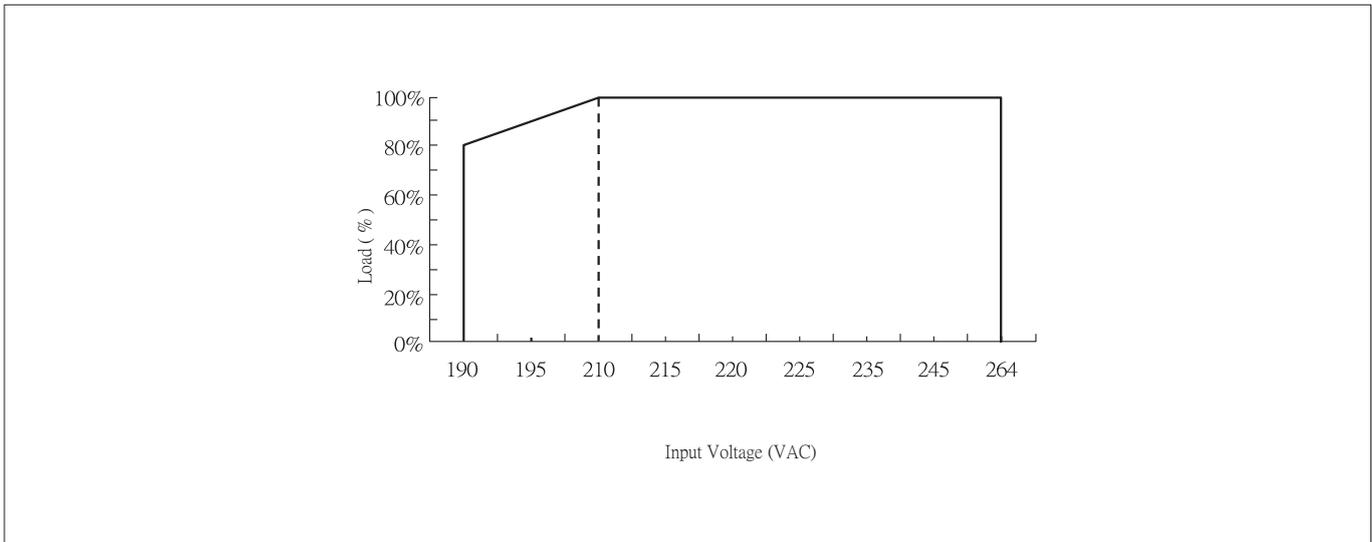
Pin	Function	
L	AC LINE	Screw:m4*10 Torque: 22Kgf.cn ( 2.2N.m)
N	AC NETURAL	
⊕	EARTH	
NEG(-)	DC output -	Screw:m8*12 Torque: 22Kgf.cn ( 2.2N.m)
POS(+)	DC output +	

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

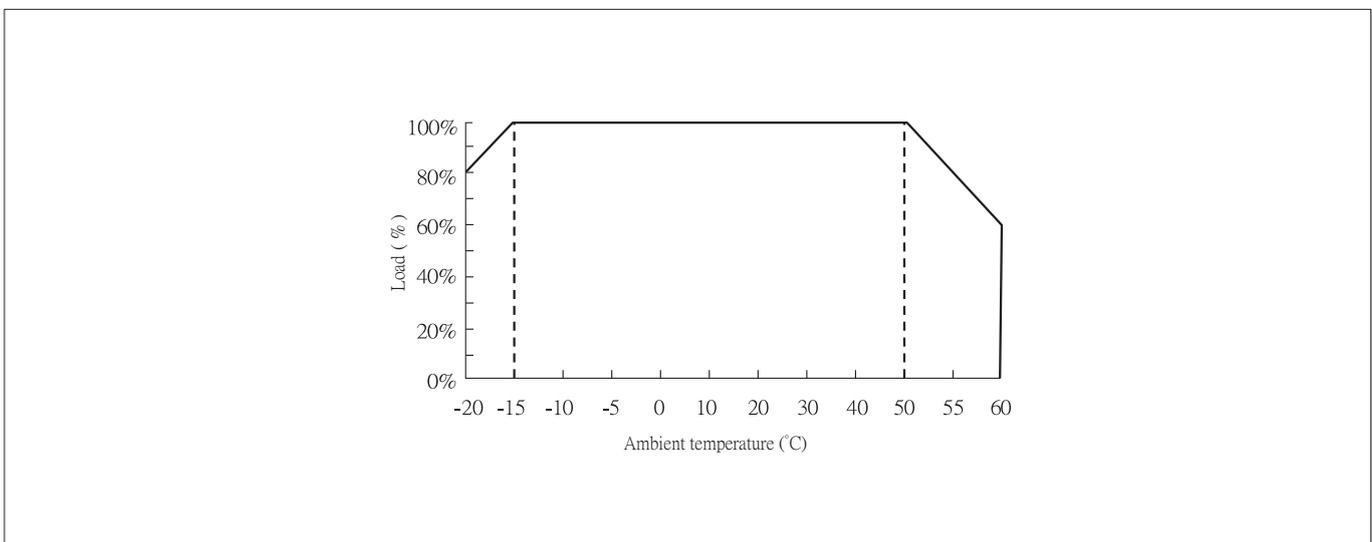
Remarks:  
Unit: mm [inch]; unlabelled tolerance  $\pm 0.5 [\pm 0.020]$ .

### 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.