



Zhitao Group

ZHITAO GROUP

Industrial Power Supplies

Product Specifications

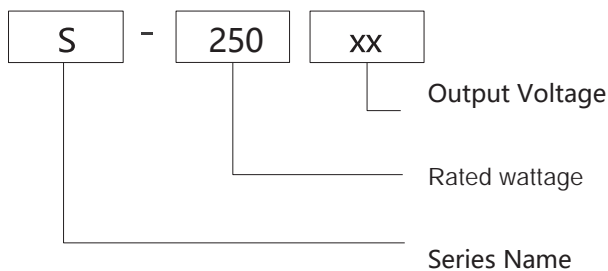
S-250

- Product Category: 250W Single Output Power Supply
- Version No.: ZTAO3.0
- Release date: 1st May 2025

Product Overview

S-250-XX series of products for a 250W chassis-type industrial power supply, the output voltage including 5V/12V/24V/36V/48V, etc., can be adapted to different load application requirements to meet the majority of industrial applications, fan cooling, and 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)



01-01

250W Single Output Power Supply
S-250 Series



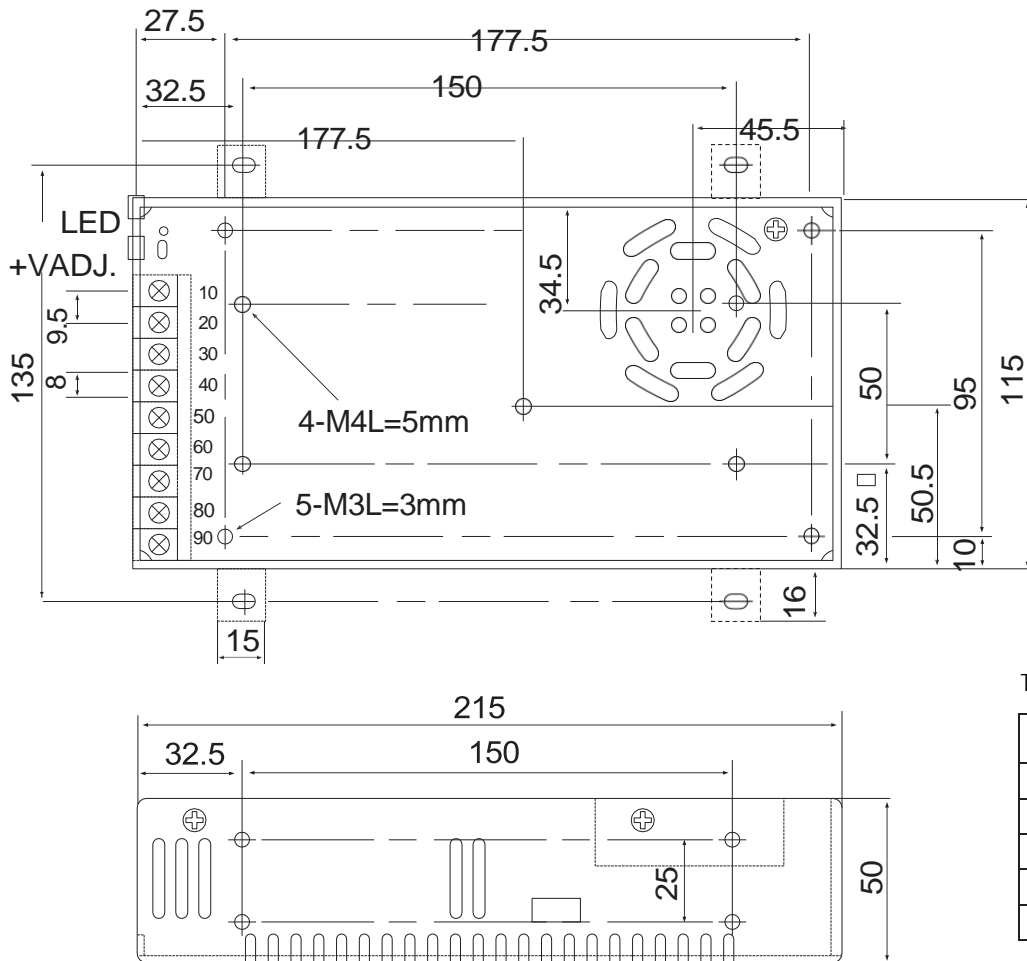
electrical specifications

Model		S-250-5	S-250-12	S-250-15	S-250-24	S-250-36	S-250-48
Output	DC output voltage	5V	12V	15V	24V	36V	48V
	Rated current	50A	20A	16.6A	10A	7A	5.3A
	Current range	0~50A	0~20A	0~16.6A	0~10A	0~7A	0~5.3A
	Rated power	250W	240W	249W	240W	252W	254.4W
	Ripple & Noise (Max)	120mVp-p	150mVp-p	150mVp-p	200mVp-p	240mVp-p	240mVp-p
	voltage adj 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	1000ms,50ms/230VAC 1000ms,50ms/115VAC(at full load)					
	Holding time	20mS/230VAC;16mS/115VAC (at full load)					
Input	Input Voltage	95~132VAC/ 185~264VAC selectable by switch				260~370VDC(switc on 230VAC)	
	Input frequency	50~60HZ					
	Efficiency	78%	86%	86%	88.5%	89%	90%
	Input current	5.0A/115VAC 2.0A/230VAC					
	Leakage current	< 1mA/240VAC					
Protection	overload protection	125~150% of rated power					
		Protection mode: +VO drops to the undervoltage point, and automatically recovers when abnormal conditions are removed					
	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					
Over temperature	Turn off the output voltage, reboot to restore						
Function	Fan On/Off Control (Typ.)	RTH3 ≥ 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					
	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	215*115*50mm (L*W*H)
	Packaging	1.0kg/pcs
Remarks		<ol style="list-style-type: none"> 1. All parameters are measured at 230VAC input, rated load and 25°C 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 (6500 ft): the operating environment needs to be reduced by 5°C/1000 metres

01-02

Outline and Mounting Dimensions (mm)



Terminal Pin No. Assignment

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

Pinout	Function	Screw:M4*9.5 Torque:22Kgf.cn(2..... 2N.m)
L	AC LINE	
N	AC NETURAL	
⊕	EARTH	Screw:M4*9.5 Torque:22Kgf.cn(2..... 2N.m)
-V	DC output -	
-V	DC output -	
-V	DC output -	
+V	DC output +	
+V	DC output +	
+V	DC output +	

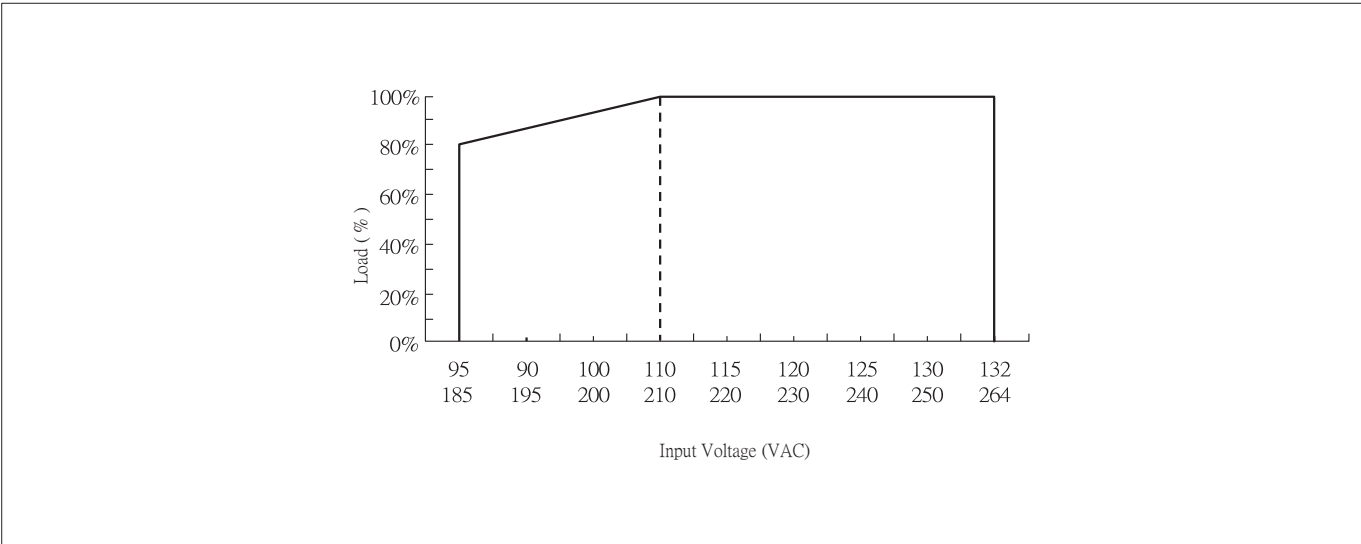
8-M4 Customer
system mounting
holes mounting
screws: M4
Installation torque: 8Kgf.cn
(0.8N.m) screws into the
housing is not more than
3mm

Remarks:

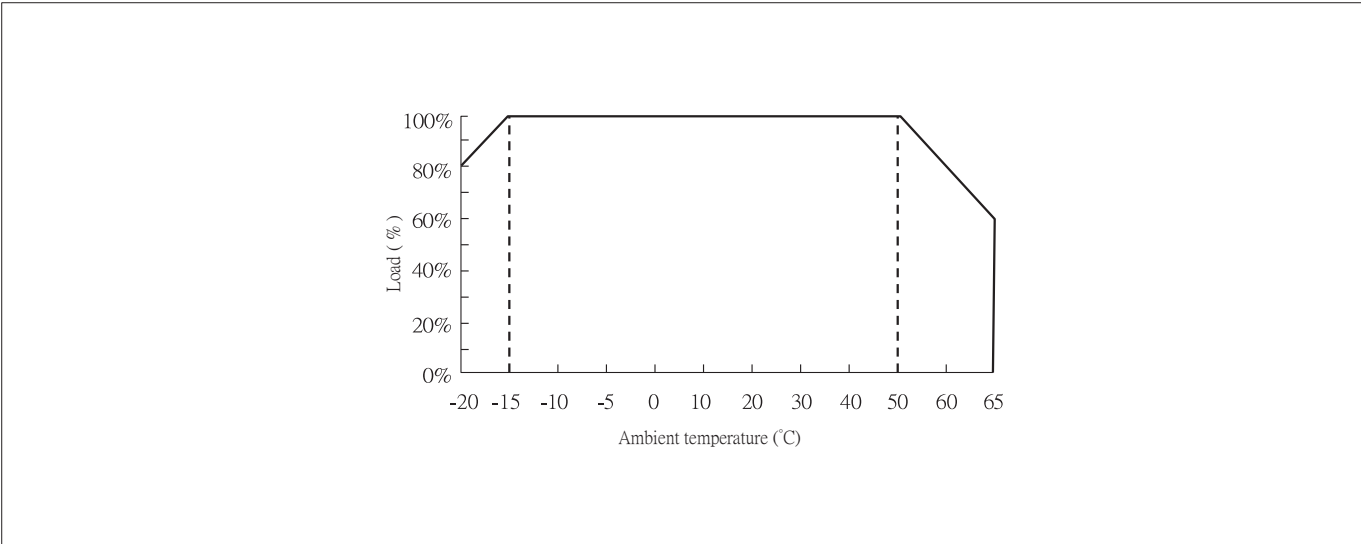
Unit: mm [inch]; unlabelled tolerance ± 0.5 [± 0.020].

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.