



志涛集团

ZHITAO GROUP

Industrial Power Supply

Product Specification

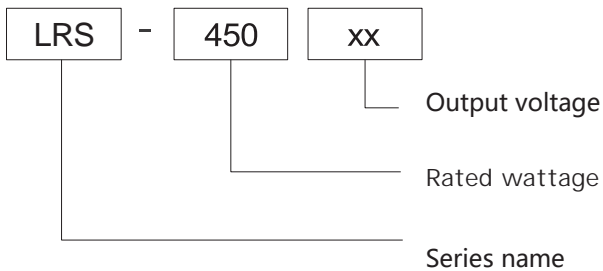
LRS-450

- Product Category: 450W single output switching power supply
- supply Version No.: ZTAO3.0
- Release date: May 1st, 2025

Product Overview

The AC input range is switched by a switch, no-load power consumption <3.8W, sm all size 1U low profile, protection types: short circuit/overload/overcurrent protection, fan cooling, Power on LED indicator light, 100% full load burn-in test, 3-year warranty.

Model Encoding



Product Features

- The AC input range is switched by a switch
- no-load power consumption <3.8W
- Small size, 1U low profile
- Protection type: short circuit/overload/overvoltage protection
- Fan cooling
- Power on LED indicator light
- 100% full load burn-in test

Application Areas

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



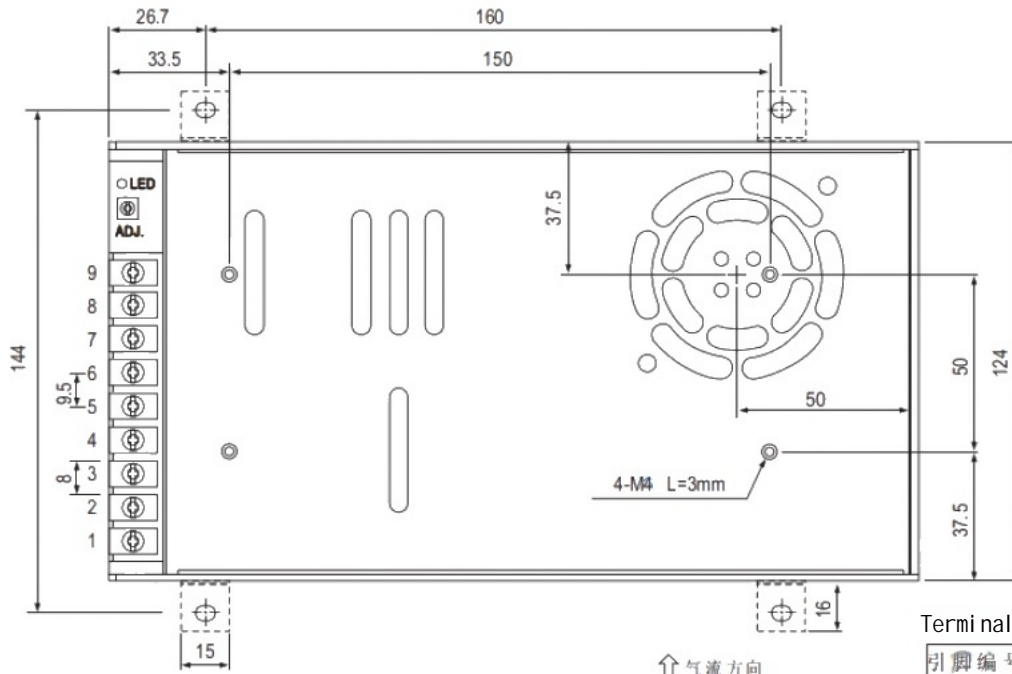
Electrical Specifications

model		LRS-450-12	LRS-450-15	LRS-450-24	LRS-450-36	LRS-450-48
Output	DC output voltage	12V	15V	24V	36V	48V
	Rated current	37.5A	30A	18.8A	12.5A	9.4A
	Current range	0~37.5A	0~30A	0~18.8A	0~12.5A	0~9.4A
	Rated Power	450W	450W	451.2W	450W	451.2W
	Ripple & Noise(Max)	150mVp-p	150mVp-p	200mVp-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%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Startup & Rise Time	1500ms,30ms/230VAC 1500ms,30ms/115VAC (full load)				
	Keep Time	20mS/230VAC 15mS/115VAC (at full load)				
Input	Input voltage	95~132 VAC/185~264VAC selectable by switch			260~370VDC(switc on 230VAC)	
	Input frequency	50~60HZ				
	efficiency	87%	87%	89%	90%	90%
	Input Current	10A/115VAC		6A/230VAC		
	Leakage Current	< 1mA/240VAC				
Protection	Overload protection	105~135% of rated power Protection mode: Vo drops to the undervoltage point and automatically recovers after the abnormal condition is 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 and restart to recover				
Function	Fan on/off control (Typ.)	RTH3≥50°C fan on, ≤40°C fan off				
Environmental	Operating temperature	-20°C ~+65°C				
	Operating humidity	20~90%RH no condensation				
Safety	Storage temperature/humidity	-40~+80°C 10~95%RH, no condensation				
	Vibration resistance	10~500HZ,5G 10 minutes/cycle,X,Y,Z 60 minutes each				
	Pressure resistance	Input to output: 1.5KVAC; Input to ground: 1.5KVAC; Output to ground: 500VAC				
	Insulation resistance	Input to output, input to ground, output to ground: 100 Ohms/500VDC/25°C/70%RH				
other	Product size	225*124*35mm (L*W*H)				
	Package	0.85kg/pcs				

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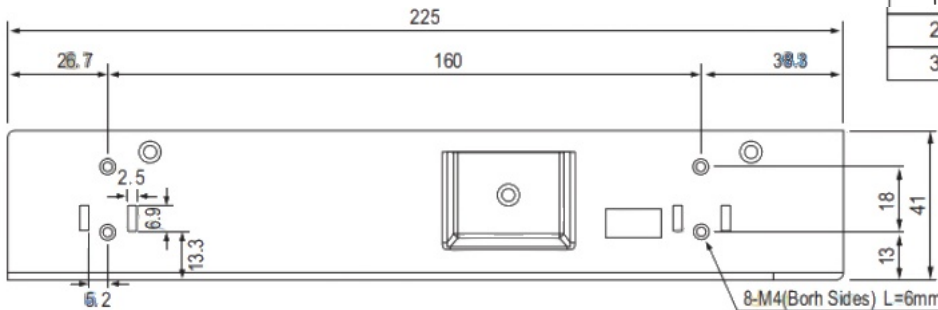
1. All paraneters Not specially mentioned are measured at 230VAC input,rated load and 25 ambient temperature,
- 2.Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf&47uf parallel capacitor.
- 3.Tolerance: includes set up tolerance,line regulation and load regulation
- 4.Line regulation is measured from low line to high line at rated load
- 5.Load regulation is measured from 0% to 100% rated load.
- 6.Length of set up time is measured at cold first start,Turning ON/OFF the power supply very quikly may lead to increase of the set up time
- 7.The ambient temperature derating of 5/1000m is needed for operating altitude greater than 2000m(6500ft)

Mechanical Specification and Installation (mm)



Terminal Pin No. Assignment

引脚编号	Assignment	Pin	Assignment
1	AC/L	4-6	DCOUTPUT-V
2	AC/N	7-9	DCOUTPUT+V
3	FG		



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

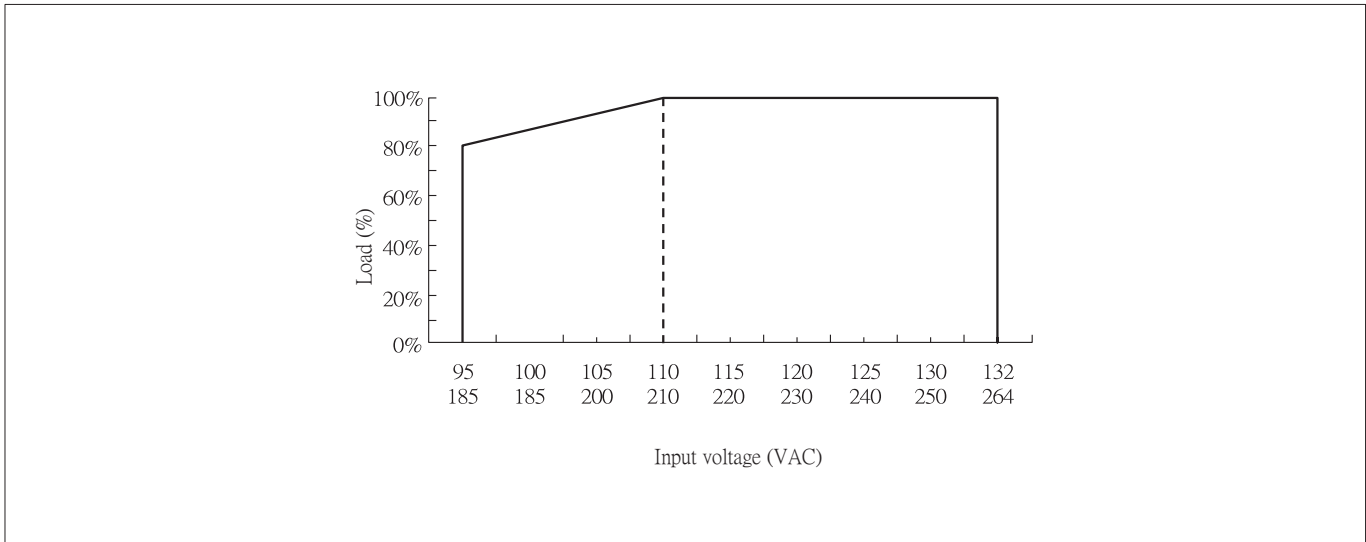
8-M4 Customer system mounting hole
Mounting screw: M4
Installation torque: 8Kgf.cm (0.8Nm) The screw should not extend into the housing more than 3mm

Remark:

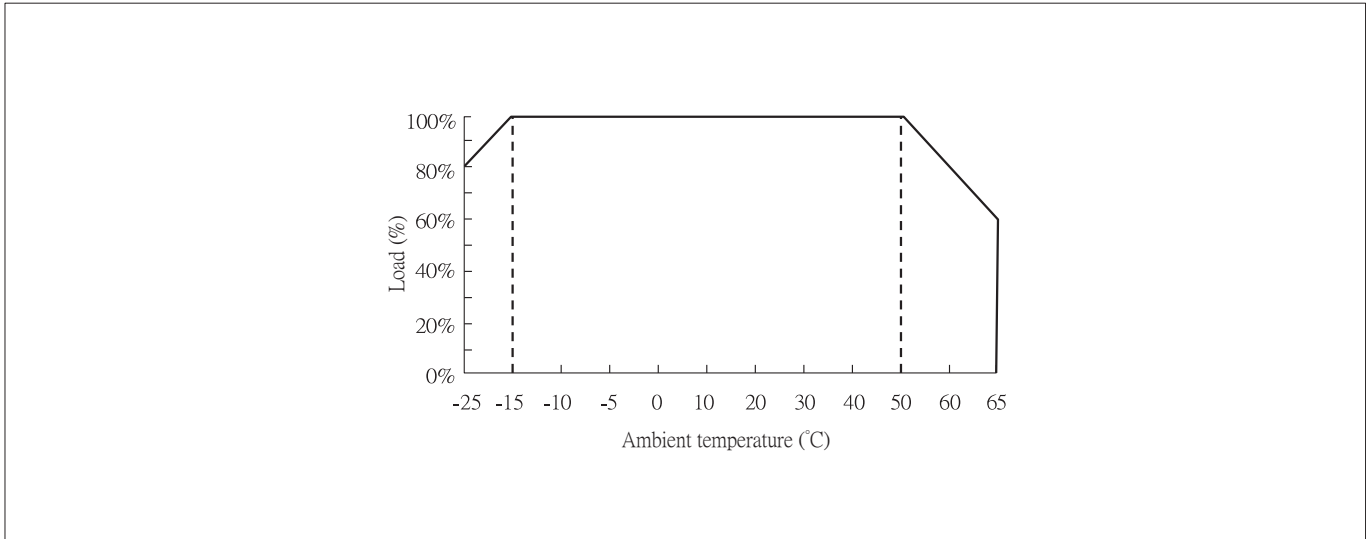
Unit: mm (inch); tolerance not specified is ± 0.5 [± 0.020]

Characteristic Curves

Input voltage vs output load



Ambient temperature vs output load



Notes:

1. If you need to know more detailed test data during application, please contact our technical support to obtain the application notes of the corresponding product.
2. This product is suitable for use in a natural air convection environment. If it is used in a closed environment, please contact our technical support personnel.