

## Industrial power supply

# Specification

# **LRS-50**

- product category: 50w single output power supply
- version No: ZTAO3.0
- release date: May 1st, 2025

## Description

International full-range AC input, no-load power consumption <0.9W, small size 1U low appearance, protection types: short circuit/overload/overcurrent protection, natural air cooling, power start LED indicator light, 100% full-load burn-in test, 3-year warranty

## Model Encoding



## Features

- International full-range AC input
- \_ no-load power consumption <0.9W
- small size 1U low appearance
- protection types: short circuit/overload/overvoltage
- \_ air cooling
- power start LED indicatorlight
- 100% full-load burn-in test
- 3 years warranty

## Application

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

## 01-01



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CE FC RoHS



## Model Specification

Model		LRS-50-5	LRS-50-12	LRS-50-15	LRS-50-24	LRS-50-36	LRS-50-48		
Ouput	DC Voltage	5V	12V	15V	24V	36V	48V		
	Rated Current	10A	4.2A	3.4A	2.2A	1.45A	1.1A		
	Current Range	0~10A	0~4.2A	0~3.4A	0~2.2A	0~1.45A	0~1.1A		
	Rated Power	50W	50.4W	51W	52.8W	52.2W	52.8W		
	Ripple&Noise(max.)	80mVp-p	100mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-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 Tolerance	±1%	±1%	±1%	±1%	±1%	±1%		
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	Load Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	Setup,Rise time	1000ms,30ms/230VAC 2000ms,30ms/115VAC at full load							
	Hold up time	30mS/230VAC; 12mS/115VAC at full load							
Input	Voltage Range	90~264VAC 127~370VDC							
	Frequency Range	50~60HZ							
	Efficiency	84%	86%	86%	89%	89%	90%		
	AC Current	0.95A/115VAC 0.56A/230VAC							
	Inrush Current	< 1mA/240VAC							
	Overload	125~150% rated output power							
Protection		Hiccup protection, Recovers automatically after fault condition is removed							
	Over Voltage	5.9~7.3V Protection typ	13.8~16.2V	18.7~21.7V	28.8~33.6V	41.4~48.6V	55.2~64.8V		
Environmen	Working Temp.	Protection type: Turn off the output voltage and restart to restore -20°C ~+65°C							
	Working Humidity	20~90%RH non-condensing							
	Storage Temp., Humdity	-40~+80°C 10~95%RH, non-condensing							
	Vibration	10~500HZ, 5G 10 min/1cycle, period for 60min, each along X, Y, Z axes							
Withstand		I / P - O / P :1.5KVAC; I / P - F G :1.5KVAC; O / P - F G :500VAC							
Safety	Isolation Resistance	I/P-O/P、I/P-FG、O/P-FG:100 Ohms/500VDC/25°C /70%RH							
	Dimension	99*82*30mm(L*W*H)							
Others	Packing	0.2kg/pcs							
Note		<ol> <li>All paraneters Not specially mentioned are measured at 230VAC input,rated load and 25°C ambient temperature,</li> <li>Ripple&amp;noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf&amp;47uf parallel capacitor.</li> <li>Tolerance: includes set up tolerance,line regulation and load regulation</li> <li>Line regulation is measured from low line to high line at rated load</li> <li>Load regulation is measured from 0% to 100% rated load.</li> <li>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</li> </ol>							
		7.The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft) 01-02							



Mechanical Specification and Installation (mm)





Pin	Function				
L	AC LINE	screw: M4*9.5 twisting force : 22Kgf.cn(2.2N.m)			
Ν	AC NETURAL				
$\bigcirc$	EARTH				
-Vo	DC output -				
+Vo	DC output +				
		螺丝: M4*9.5 扭力: 22Kgf.cn (2.2N.m)			

Terminal Pin No. Assignment

Pin	Assignm ent	Pin	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N –	5	DC OUTPUT +V
3	FG =		

8-M4 客户系统安装孔 安装螺丝: M4 安装扭力: 8Kgf.cn (0.8N.m) 螺丝伸入机壳不大于 3mm 备注: 单位: mm[inch]; 未标注公差为 ±0.5[±0.020]

01-03

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## characteristic curve

## Input voltage VS Output load



## AMBIENT TEMPERATURE VS Output Load



### Note:

1.If you need to know more detailed test data when applying, 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 to be used in a closed environment, please contact our technical support personne

01-04

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