



Zhitaogroup
ZHITAO GROUP

Industrial power supply

Product Specifications

LRS-120

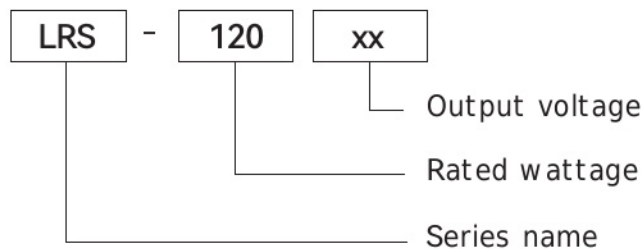
- Product category: 120W single-output power supply
- Version Number: ZTAO3.0
- Release date: May 1st, 2025



Product Overview

International full-range AC input, no-load power consumption < 1.5W, small 1U low-profile design, protection types: short circuit / overload / overcurrent protection, natural air cooling, power-on LED indicator, 100% full-load burn-in test, 3-year warranty.

Model encoding



Product features

- International full-range communication input
- No-load power consumption < 1.5W
- Compact size, 1U low profile
- Protection types: Short circuit / Overload / Overvoltage
- Cooling by free air convection
- LED indicator for power on
- 100% full-load burn-in test
- 3-year warranty



Application fields

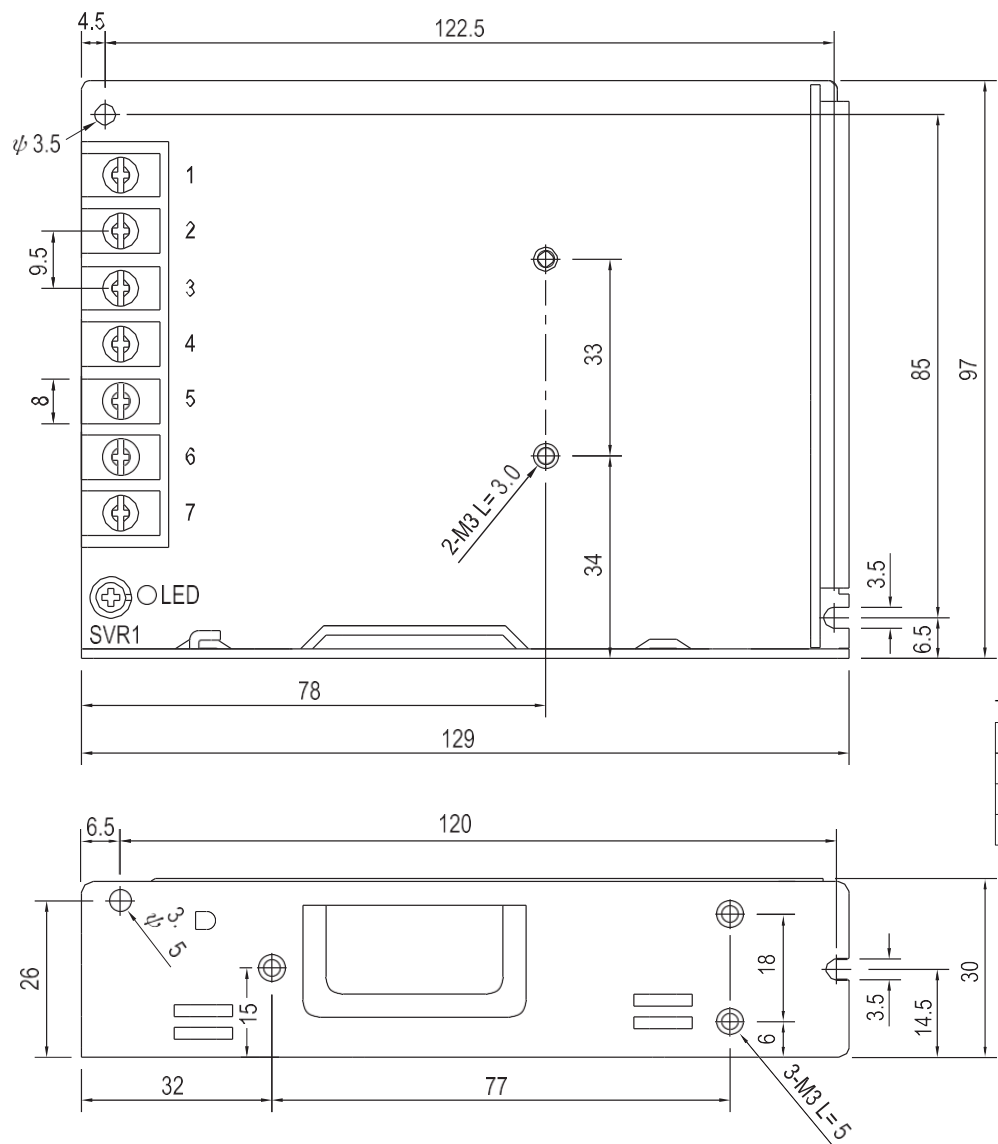
Industrial control, mechanical and electrical, electronic instruments, industrial automation, electronic equipment, semiconductor equipment, etc.
(excluding information technology equipment)

01-01

electrical specifications

Model		LRS-120-5	LRS-120-12	LRS-120-15	LRS-120-24	LRS-120-36	LRS-120-48
Output	DC output voltage	5V	12V	15V	24V	36V	48V
	Rated current	18A	10A	8A	5A	3.4A	2.5A
	Current range	0~18A	0~10A	0~8A	0~5A	0~3.4A	0~2.5A
	Rated power	90W	120W	120W	120W	122.4W	120W
	Ripple & Noise (MAX)	120mVp-p	120mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	voltage adjustment 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	1200ms,30ms/230VAC 1800ms,30ms/115VAC (at full load)					
	Holding time	35ms/230VAC 15ms/115VAC (at full load)					
Input	Input Voltage	90~264VAC 127~370VDC					
	Input frequency	50~60HZ					
	Efficiency	80%	85%	86%	88%	88%	89%
	Input current	1.9A/115VAC 1.2A/230VAC					
	Leakage current	< 1mA/240VAC					
Protection	overload protection	125~150% of rated power Protection mode: hiccup protection, automatic recovery after removal of abnormal conditions					
	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					
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	129*97*30mm (L*W*H)					
	Packaging	0.3kg/pcs					
Remarks		<ol style="list-style-type: none"> All parameters are measured at 230VAC input, rated load and 25°C when not otherwise specified. Ripple and noise voltages were measured on a 20MHz bandwidth oscilloscope with 0.1 μ and 47 μ capacitors at the end of a 12-inch twisted pair cable, measured at 20MHz bandwidth. Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio. Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time. 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	Assignment	pin	Assignment
1	AC/L	4,5	DC OUTPUT -V
2	AC/N	6,7	DC OUTPUT +V
3	FG \perp		

Pinout	Function
L	AC LINE
N	AC NETURAL
\perp	EARTH
-Vo	DC output -
-Vo	DC output -
+Vo	DC output +
+Vo	DC output +

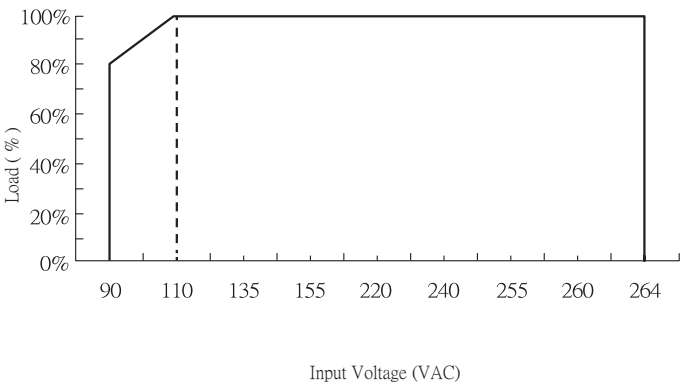
Screw:M4*9.5
Torque:22Kgf.cn(2..... 2N.m)

Screw:M4*9.5
Torque:22Kgf.cn(2..... 2N.m)

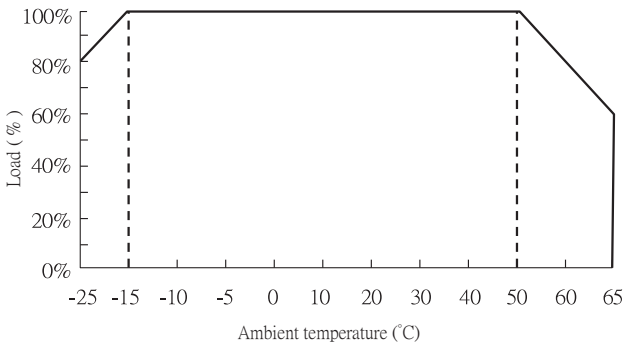
8-M3 Customer system
mounting holes mounting
screws:M3
Installation torque: 8Kgf.cn (0.8N.m)
screws into the housing is not more
than 3mm
Remarks:
Unit: mm [inch]; unlabelled tolerances are ± 0.5 [± 0.020].

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.