



Zhitao group
ZHITAO GROUP

Industria Din rail power supply

Product Specifications

DR-120

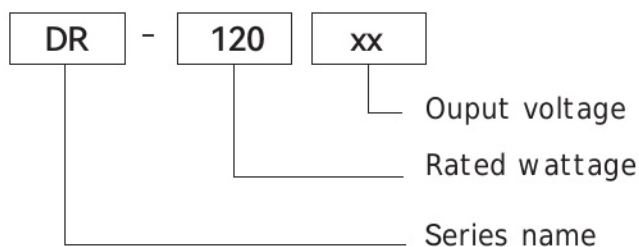
- Product category: 120W single-output Din rail switching power supply
- Version Number: ZTAO3.0
- Release date: May 1st, 2025



Product Overview

The DR-120-XX series products are 120W industrial power supplies for rail mounting. They feature wide-range AC/DC input voltages and output voltages including 12V, 24V, 36V, and 48V, catering to various load application requirements and meeting the needs of most industrial applications. With high conversion efficiency, excellent heat dissipation, and comprehensive protection, this series ensures high reliability and stability.

Model encoding



Product features

- International full-range A C input
- Install guide rails: TS35/7.5 or TS35/15
- Protection types: Short circuit / Overload / Overvoltage
- Cooling by free air convection
- LED indicator for power on
- 100% full-load burn-in test
- Three-year warranty

Application fields

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



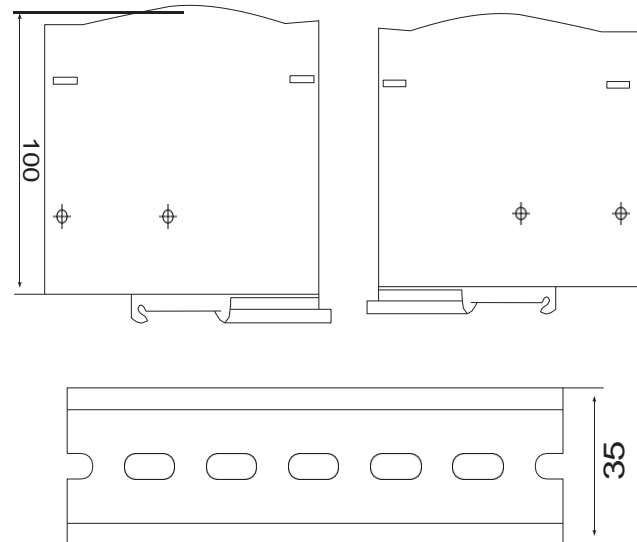
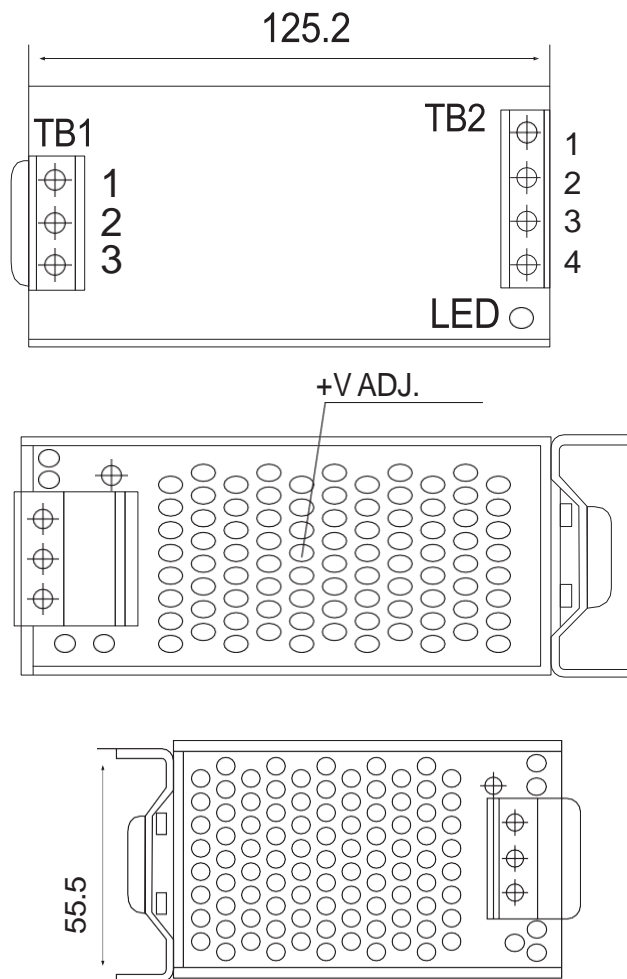
RoHS



Electrical Specifications

Model		DR-120-12	DR-120-15	DR-120-24	DR-120-36	DR-120-48
Output	DC output voltage	12V	15V	24V	36V	48V
	Rated current	10A	8A	5A	3.4A	2.5A
	Current range	0~10A	0~8A	0~5A	0~3.4A	0~2.5A
	Rated power	120W	120W	120W	122.4W	120W
	Ripple & Noise (Max)	120mVp-p	120mVp-p	150mVp-p	240mVp-p	240mVp-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	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Adjustment Ratio	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	start-up & rise time	500 ms,70ms/230VAC 500ms,70ms/115VAC (at full load)				
	Holding time	36mS/230VAC 32mS/115VAC (at full load)				
Input	Input Voltage	90~264VAC 127~370VDC				
	Input frequency	50~60HZ				
	Efficiency	86%	86%	89%	89%	90%
	Input current	2.25A/115VAC 1.3A/230VAC				
	Leakage current	< 1mA/240VAC				
Protection	overload protection	120~150% of rated power				
		Protection mode: hiccup protection, automatic recovery after removal of abnormal conditions				
	Overvoltage protection	13.8~16.2V	18.7~21.7V	28.8~33.6V	41.4~48.6V	55.2~64.8V
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	65.5*125.2*100mm (W*H*D)				
	Packaging	0.6kg/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 0.1 μ and 47 μ 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 (6500ft): the operating environment needs to be reduced by 5°C / 1000 metres 				

Appearance and Installation Dimensions (mm)



Terminal Block Foot Definition (TB1) Terminal Block Foot Definition (TB2)

pin number	Pin Function
1	FG (⊕)
2	AC/N(DC+)
3	AC/L(DC-)

pin number	Pin Function
1, 2	DC OUTPUT+V
3, 4	DC OUTPUT -V

(TB2)

Pinout	Function	
L	AC LINE	Screw:M3*9.0 Torque:5Kgf.cm (0.5N.m)
N	AC NETURAL	
⊕	EARTH	
-V	DC output -	Screw:M3*9.0 Torque:5Kgf.cm (0.5N.m)
-V	DC output -	
+V	DC output +	
+V	DC output +	

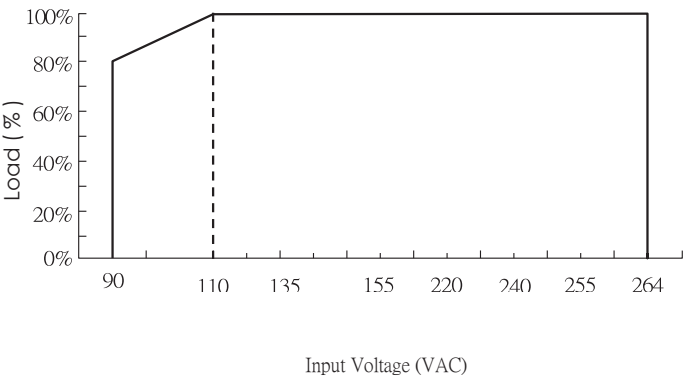
mounting holes for rail-type customer systems

Rail mounting: TS35/7.5 or TS35/15 Remarks:

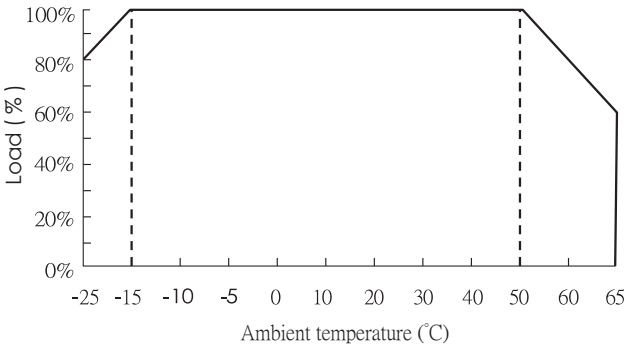
Unit: mm [inch]; unlabelled tolerances are ± 0.5 [± 0.020].

Characteristic Curve

Input Voltage VS Output Load



Ambient Temperature VS Output Load



Remarks:

- 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.