



Zhitao Group
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Industria Din rail power supply

Product Specifications

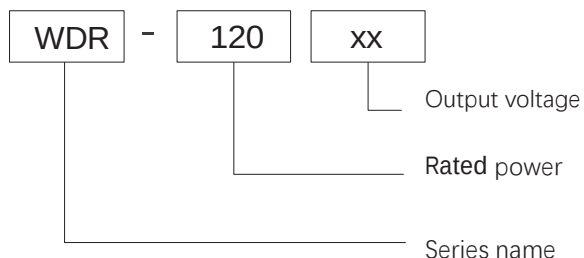
WDR-120

- Product Category: 120W Single Output Din rail switching power supply
- Version No.: ZTAO3.0
- Release date: 1st May 2025

product overview

SDR-120-XX series of products for a 120W rail industrial power supply, the whole series can accept 200 ~ 500 VAC wide voltage input range, output voltage including 12V/24V/36V/48V, etc., can be adapted to different load application requirements to meet the needs of most industrial applications, **good** conversion efficiency, compact housing design, good heat dissipation, as well as a full range of protection to ensure the reliability and stability of this series of products.

Model encoding



product characteristics

- Wide voltage input of 200~500VAC in one or two phases
- Mounting rail: TS35/7.5 or 15
- Protection type: short circuit/overload/overvoltage with built-in DC OK relay contacts
- Natural air-cooled
- Power on LED indicator
- 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)



RoHS

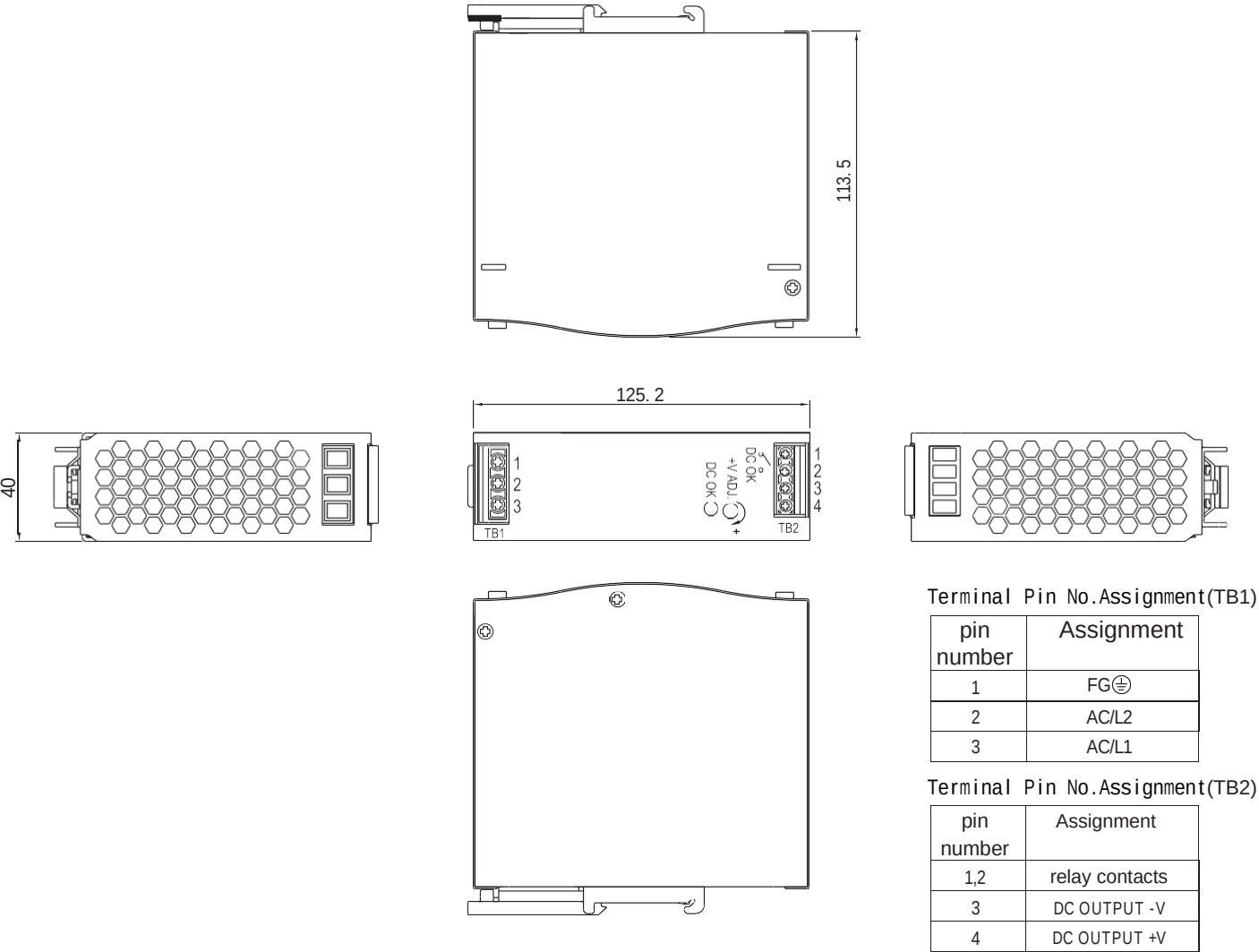


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electrical specifications

Model		WDR-120-12	WDR-120-15	WDR-120-24	WDR-120-36	WDR-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)	100mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-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	2000 ms, 70ms/400VAC 2000ms, 70ms/400VAC (at full load)				
Input	Holding time	20mS/400VAC 10mS/230VAC (at full load)				
	Input Voltage	200~ 500VAC 280~700VDC				
	Input frequency	50~60HZ				
	Efficiency	84%/400Vac	84%/400Vac	87.5%/400Vac	88.5%/400Vac	89%/400Vac
	Input current	0.7A/400VAC 1.2A/230VAC				
Protection	Leakage current	<2.5mA/240VAC				
	overload protection	115~150% 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
Function		Protect mode: shut down the output voltage, restart to recover				
	DC OK signal	Relay contact (max.): 30V/1A resistive load				
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	40*125.2*113.5mm (W*H*D)				
	Packaging	0.5kg/pcs				
Remarks		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 (6500ft): the operating environment needs to be reduced by 5°C / 1000 metres				

Outline and Mounting Dimensions
(mm)



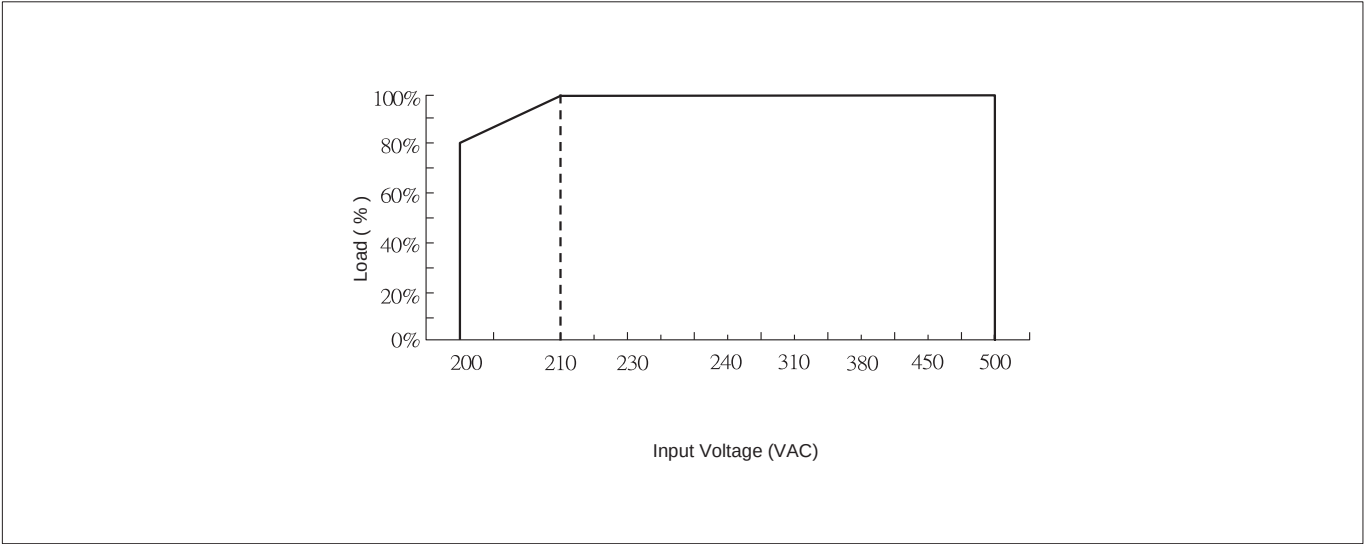
Pinout	Function	
L	AC LINE	Screw:M3*9.0 Torque:5Kgf.cm (0.5N.m)
N	AC NETURAL	
⊕	EARTH	
-V	DC output -	Screw:M3*9.0 Torque:5Kgf.cm (0.5N.m)
+V	DC output +	
DC OK	relay contacts	

mounting holes for rail-type customer systems
Rail mounting: TS35/7.5 or TS35/15
Notes:

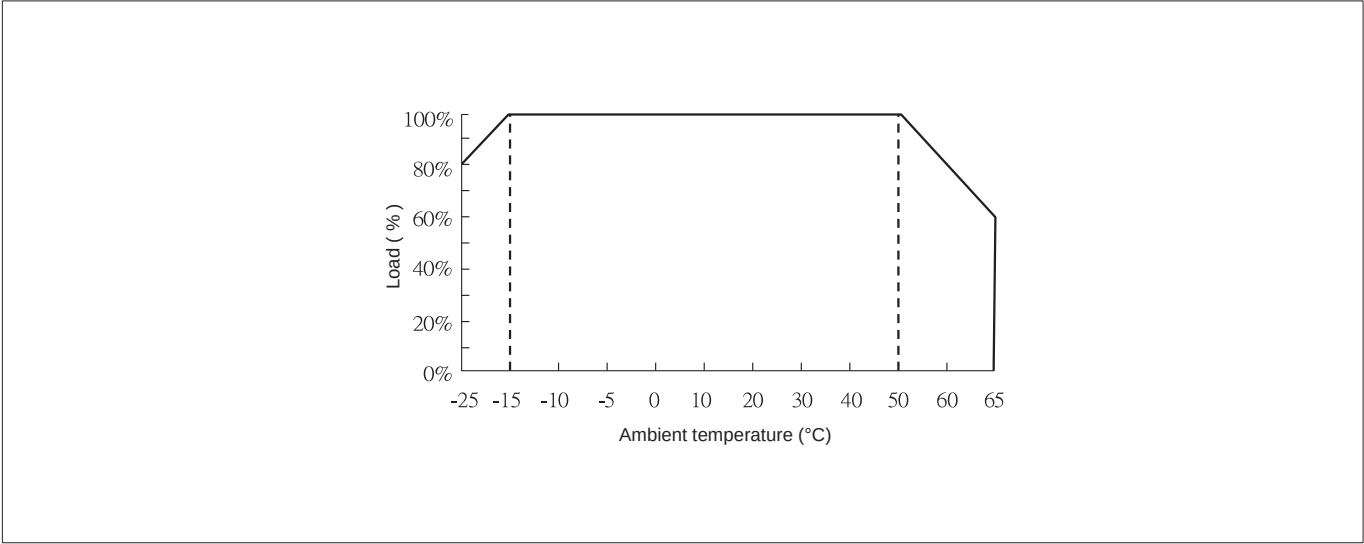
Unit: mm [inch]; unlabelled tolerances are ±0.5 [±0.020].

Characteristic Curve

Input Voltage VS Output Load



Ambient Temperature VS Output Load



Remarks:

- 1.If you need to know 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.