



# Zhita Group

ZHITAO GROUP

Industrial Din rail power supply

## product specifications

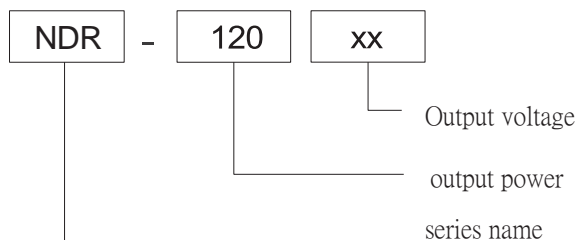
# NDR-120

- Product Category: 120W Single Output Din Rail Switching Power Supply
- Version No.: ZTAO3.0
- Release date: 1st May 2025

## Product Overview

NDR-120-XX series products for a 120W rail industrial power supply, the whole series of products with a wide voltage AC and DC input, output voltage including 12V/24V/36V/48V, etc., can be adapted to different load application requirements to meet the needs of most industrial applications, high conversion efficiency, compact housing design, good heat dissipation, as well as a full range of protection, to ensure that this series of products of high reliability and stability. High conversion efficiency, compact housing design, good heat dissipation, and all-round protection guarantee the high reliability and stability of this series of products.

## Model encoding



## product characteristics

- International full range AC input
- Mounting rail: TS35/7.5 or 15
- Type of protection: short
- circuit/overload/overvoltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- 3-year warranty
- 

## Areas of Application

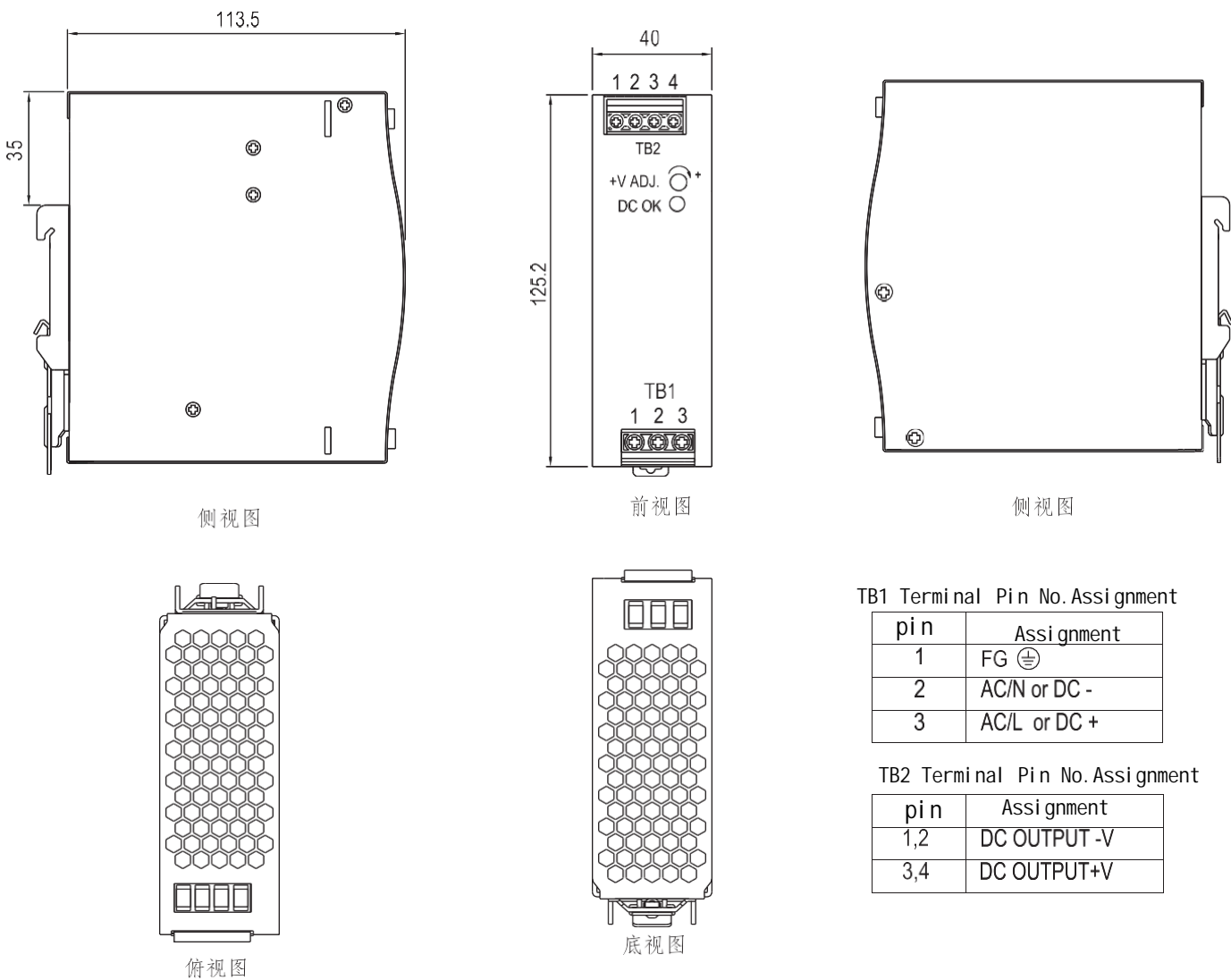
Industrial control, mechanical and electrical, electronic instruments, industrial automation, electronic equipment, semiconductor equipment, etc. (except information technology equipment)



## electrical specifications

Model		NDR-120-12	NDR-120-15	NDR-120-24	NDR-120-36	NDR-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)	90mVp-p	90mVp-p	100mVp-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	1200 ms,60ms/230VAC      2500ms,60ms/115VAC (at full load)				
	Holding time	16mS/230VAC 12mS/115VAC (at full load)				
Input	Input Voltage	90~264VAC      127~370VDC				
	Input frequency	50~60HZ				
	Efficiency	86%	86%	88%	88.5%	89%
	Input current	2.25A/115VAC      1.3A/230VAC				
	Leakage current	< 1mA/240VAC				
Protection	overload protection	120~150% of rated power				
		Protection Mode: Vo drops to undervoltage point and automatically recovers when abnormal conditions are removed				
	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℃ ~+65℃				
	Operating humidity	20~90%RH No condensation				
	Storage temperature/humidity	-40~+80℃ 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℃ /70%RH				
Others	Product dimensions	40*125.2*113.5mm ( W*H*D )				
	Packaging	0.5kg/pcs				
Remarks		<ol style="list-style-type: none"> <li>All parameters are measured at 230VAC input, rated load and 25℃ when not otherwise specified.</li> <li>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.</li> <li>Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio.</li> <li>Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load</li> <li>Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load</li> <li>Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time.</li> <li>When operating at altitudes higher than 2000 metres (6500ft): the operating environment needs to be reduced by 5℃ / 1000 metres</li> </ol>				

Appearance and Installation Dimensions (mm)



TB1 Terminal Pin No. Assignment

pin	Assignment
1	FG $\oplus$
2	AC/N or DC -
3	AC/L or DC +

TB2 Terminal Pin No. Assignment

pin	Assignment
1,2	DC OUTPUT -V
3,4	DC OUTPUT+V

Pin	Function	
L	AC LINE	Screw:M3*9.0 Torque:5Kgf.cn (0.5N.m)
N	AC NETURAL	
$\oplus$	EARTH	
-V	DC output -	Screw:M3*9.0 Torque:5Kgf.cn (0.5N.m)
-V	DC output -	
+V	DC output +	
+V	DC output +	

mounting holes for rail-type customer systems

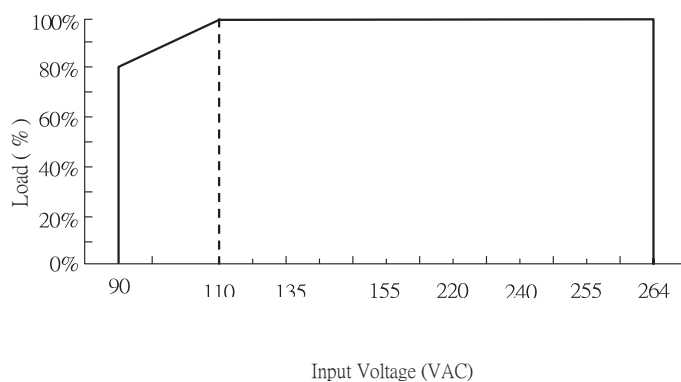
Rail mounting: TS35/7.5 or TS35/15

Notes:

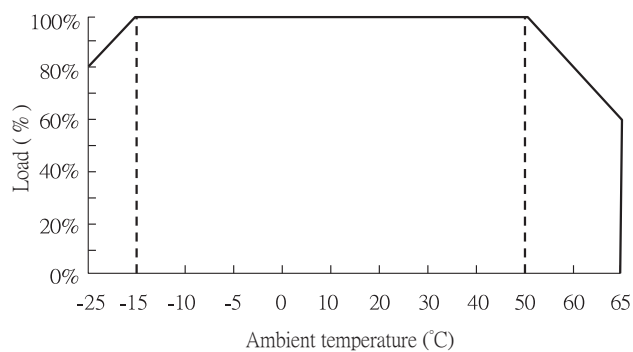
Unit: mm [inch]; unlabelled tolerances are  $\pm 0.5$  [ $\pm 0.020$ ].

## 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.