



Zhitao Group
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Industrial Din rail power supply

product specification

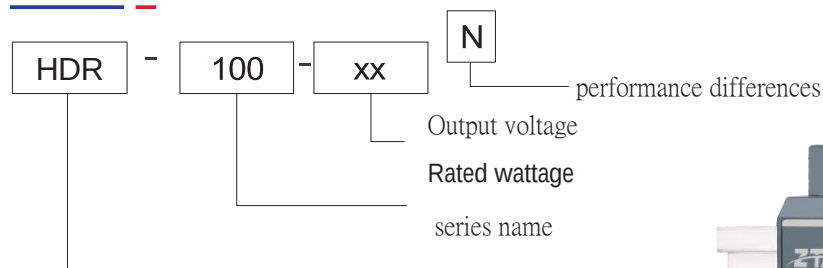
HDR-100

- Product Category: 100W Single Output Din Rail switching Power Supply
- Version No.: ZTAO3.0
- Release date: May 1st, 2025

Product Overview

HDR-100-XX series products for a 100W self-cooling rail industrial power supply, the whole series of products with a wide voltage AC and DC input, output voltage including 12V/15V/24V/36V/48V, etc., can be adapted to meet different load application requirements to meet most of the industrial applications, with good conversion efficiency, compact housing design, good heat dissipation, and all-round protection to ensure the reliability and stability of this series of products.

Model Encoding



Product Features

- Ultra-slim design: Width 70mm (4SU)
- International full range AC input
- Mounting rail: TS35/7.5 or 15
- No-load power consumption <0.7W
- 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)

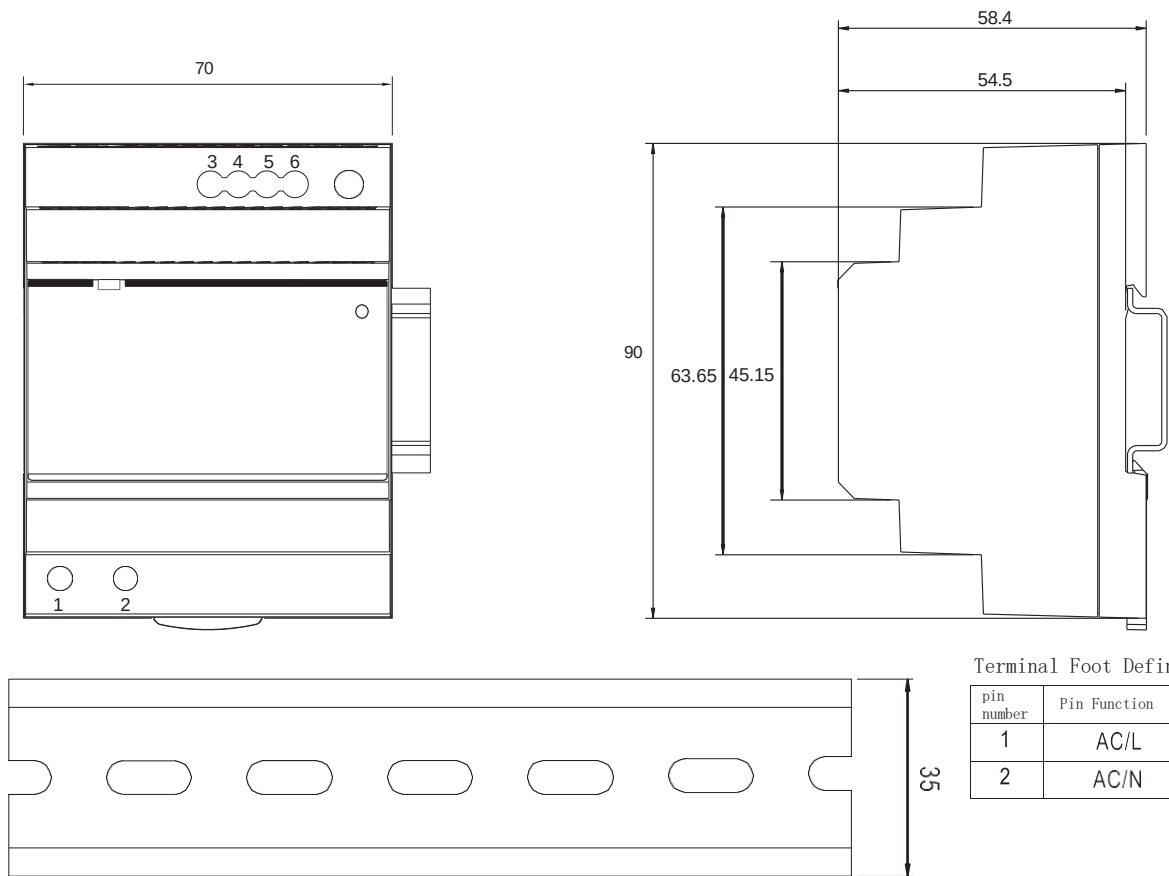


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Electrical Specifications

Model		HDR-100-12	HDR-100-12N	HDR-100-15	HDR-100-15N	HDR-100-24	HDR-100-24N	HDR-100-36	HDR-100-36N	HDR-100-48	HDR-100-48N
Output	DC output voltage	12V		15V		24V		36V		48V	
	Current rating	7.1A	7.5A	6.13A	6.5A	3.83A	4.2A	2.6A	2.7A	1.92A	2.1A
	Current range	0~7.1A	0~7.5A	0~6.13A	0~6.5A	0~3.83A	0~4.2A	0~2.6A	0~2.7A	0~1.92A	0~2.1A
	Rated power	85.2W	90W	92W	97.5W	92W	100.8W	93.6W	100.8W	92.2W	100.8W
	Ripple & Noise (Max)	100mVp-p		100mVp-p		120mVp-p		150mVp-p		150mVp-p	
	Voltage regulation 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 regulation	±0.5%		±0.5%		±0.5%		±0.5%		±0.5%	
	Load regulation	±0.5%		±0.5%		±0.5%		±0.5%		±0.5%	
	Startup & Rise Time	500ms,60ms/230VAC 500ms, 60ms/115VAC (at full load)									
	Hold time	<u>30mS/230VAC 15ms/115VAC (at full load)</u>									
input	Input voltage	88~264VAC		125~370VDC							
	Enter the frequency	50~60HZ									
	efficiency	86%		87%		88.5%		88%		88%	
	Input current	3A/115VAC 1.6A/230VAC									
	Leakage current	< 1mA/240VAC									
protec tion	Overload protection	120~150% of rated power									
		Protection mode: Hiccup protection, which can be automatically restored after 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	
Enviro nment	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									
	Insulation impedance	Input to Output :100 Ohms/500VDC/25℃ /70%RH									
Others	Product dimensions	70*90*54.5mm (W*H*D)									
	Packaging	0.2kg/pcs									
Remarks		1. All parameters are measured at 230VAC input, rated load and 25℃ 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℃ / 1000 metres									

Mechanical Specification and installation size (mm)



Terminal Foot Definition

pin number	Pin Function	pin number	Pin Function
1	AC/L	3,4	-V
2	AC/N	5,6	+V

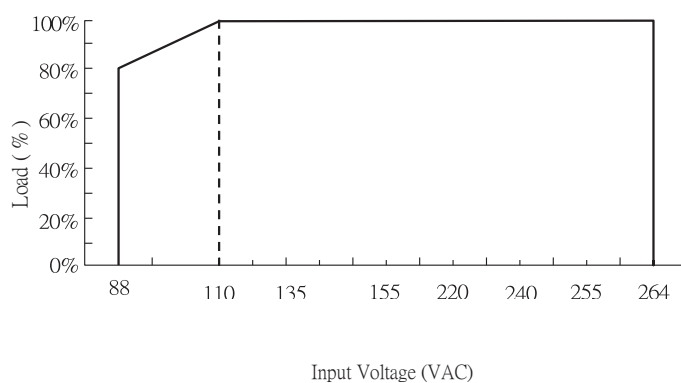
Pinout	Function	
L	AC LINE	Screw:M2.5*8.5 Torque:4Kgf.cm (0.4N.m)
N	AC NETURAL	
	EARTH	
-V	DC output -	Screw:M2.5*8.5 Torque:4Kgf.cm (0.4N.m)
-V	DC output -	
+V	DC output +	
+V	DC output +	

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

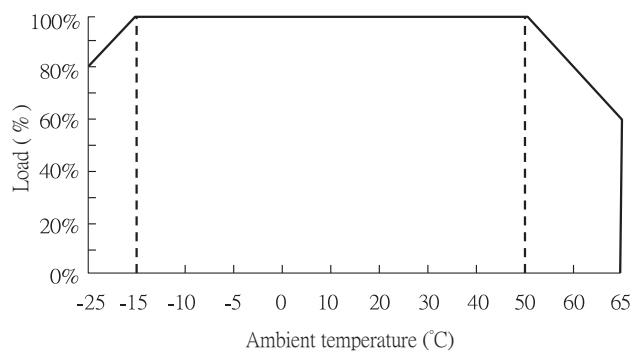
Remarks:
Unit: mm [inch]; unlabelled tolerances are ± 0.5 [± 0.020].

Characteristic Curve

Input Voltage VS Output Load



Ambient Temperature VS Output Load



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.