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/24V36V/48V, etc., can be adapted to meet different load application requirements to meet most of the industrial applications, with high conversion efficiency, compact housing design, good heat dissipation, and a full range of protection, to protect the High conversion efficiency, compact housing design, good heat dissipation, and all-round protection to ensure the high reliability and stability of this series of products.

Model Encoding

HDR - 100 - xx N

- N — performance differences
- xx — Output voltage
- 100 — Rated wattage
- HDR — series name

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

CE FC RoHS ISO ISO9001

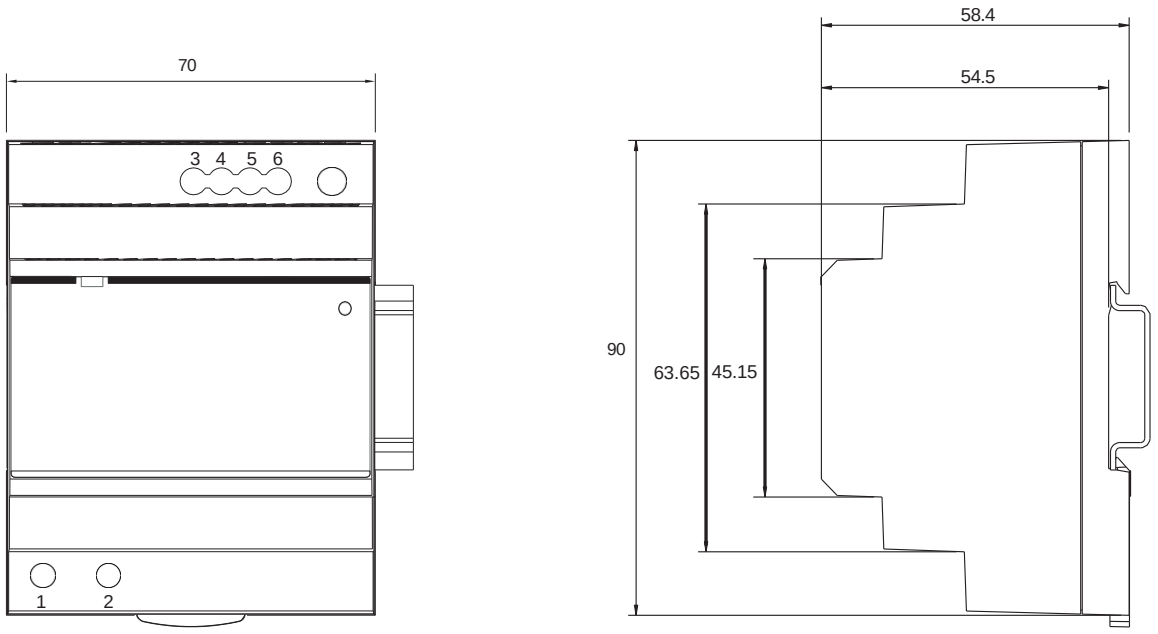
Areas of Application

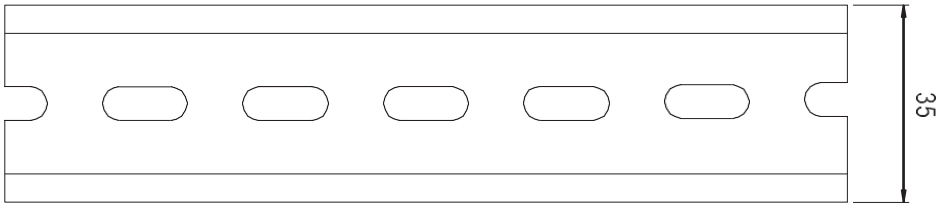
Industrial control, mechanical and electrical, electronic instruments, industrial automation, electronic equipment, semiconductor equipment, etc. (except information technology equipment)

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	30mS/230VAC 15ms/115VAC (at full load)									
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									
protection	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	
		Protection mode: Turn off the output voltage and restart the recovery									
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									
	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.cn (0.4N.m)
N	AC NETURAL	
⏚	EARTH	
-V	DC output -	Screw:M2.5*8.5 Torque:4Kgf.cn (0.4N.m)
-V	DC output -	
+V	DC output +	
+V	DC output +	

mounting holes for rail-type customer systems

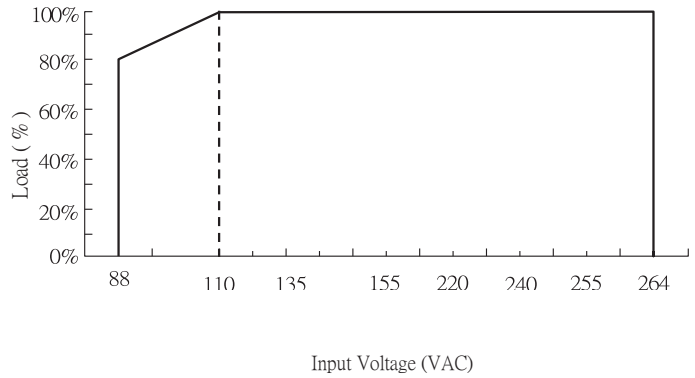
Rail mounting: TS35/7.5 or TS35/15

Remarks:

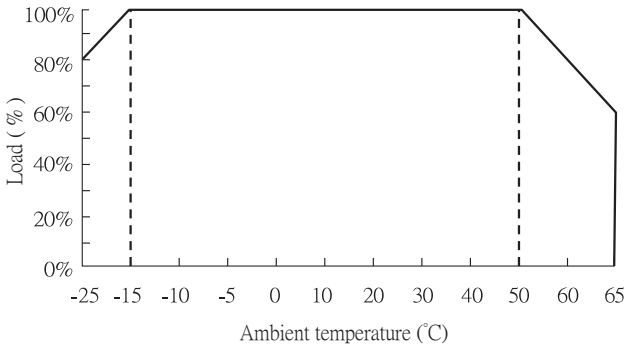
Unit: mm [inch]; unlabelled tolerances are ±0.5 [±0.020].

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.