Zhitaogroup
ZHITAO GROUP

Industrial DIN rail power supply

Product Specification

HDR-15

- Product category: 15W single-output Din rail switching power supply
- Version Number: ZTAO3.0
- Release date: May 1st, 2025

Product Overview

The HDR-15-XX series is a 15W self-cooling rail-mounted industrial power supply. The entire series features wide-voltage AC/DC input and output voltages including 5V, 12V, 15V, 24V, and 48V, which can be adapted to different load application requirements to meet the majority of industrial application needs. It boasts high conversion efficiency, a compact housing design, excellent heat dissipation, and comprehensive protection, ensuring the high reliability and stability of this series of products.

Model Encoding

HDR - 15 - xx

- xx: 输出电压 Output voltage
- 15: 输出功率 Rated wattage
- HDR: 系列名称 Series name

Product features

- Ultra-Slim design with 17.5mm (1SU)
- International full-range AC input
- Din rail installation: TS35/7 or 15
- No-load power consumption < 0.35W
- Protection : Short circuit / Overload / Overvoltage
- Cooling by free air convection
- LED indicator for power on
- 100% full-load burn-in test
- 3-year warranty

Application fields

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

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Electrical Specifications

	Model number	HDR-15-5	HDR-15-12	HDR-15-15	HDR-15-24	HDR-15-36	HDR-15-48
Output	DC output voltage	5V	12V	15V	24V	36V	48V
	Rated current	2.4A	1.25 amps	1A	0.63 A	0.42 A	0.32 A
	Current range	0 to 2.4 A	0 to 1.25 A	0~1A	0 to 0.63 A	0 to 0.42 A	0 to 0.32 A
	Rated power	12W	15W	15W	15.2 watts	15.12 watts	15.4 watts
	Ripple & Noise (Max	80mVp-p	100mVp-p	100mVp-p	120mVp-p	150mVp-p	150mVp-p
	Voltage adj.range	4.5 to 5.5 volts	10.2 to 13.8 volts	13.5 to 16.5 volts	21.6 to 26.4 volts	32.4 to 39.6 volts	43.2 to 52.8 volts
	Voltage accuracy	±1%	±1%	±1%	±1%	±1%	±1%
	Linear regulation rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Startup & Rise Time	2000ms,80ms/230VAC 2000 ms, 80 ms / 115 VAC (under full load)					
	Retention time	30mS/230VAC; 15mS/115VAC (full load)					
Input	Input voltage	88~264VAC 124~370VDC					
	Input frequency	50~60HZ					
	efficiency	80%	85%	85%	85.5%	86%	87%
	Input current	0.5A / 115VAC 0.25A / 230VAC					
	Leakage current	< 1 mA / 240 VAC					
protection	Overload protection	125% to 150% of the rated power					
		Protection mode: hiccup protection, which can automatically resume after abnormal conditions are removed.					
	Overvoltage protection	5.9 to 7.3 volts	13.8 to 16.2 volts	18.7 to 21.7 volts	28.8 to 33.6 volts	41.4 to 48.6 volts	55.2 to 64.8 volts
		Protection mode: Turn off output voltage, restart to restore.					
environment	Working temperature	-20℃ to +65℃					
	Working humidity	20% to 90% RH No condensation					
	Storage temp/ humidity	-40~+80℃, 10 to 95% RH, no condensation					
	Anti-vibration	10 - 500 Hz, 5G for 10 minutes per cycle, 60 minutes each for X, Y, and Z.					
Safety	Pressure resistance	Input to output: 1.5 kV AC					
	Insulation impedance	Input to output: 100 Ohms / 500 VDC / 25℃ / 70% RH					
Others	Product dimensions	17.5 * 90 * 54.5 mm (W * H * D)					
	Packaging	0.05 kg per piece					
Note		1. Unless otherwise specified, all parameters are measured under the conditions of 230VAC input voltage, rated load and 25℃.2. The ripple and noise voltage are measured with a 20MHz bandwidth oscilloscope, a 12-inch twisted pair wire at the end of which 0.1μF and 47μF capacitors are added, and the measurement is conducted within a 20MHz bandwidth. 3. Accuracy: It includes setting error, linearity adjustment rate and load adjustment rate. 4. Linear regulation measurement method: Test from low voltage to high voltage under rated load. 5. Load regulation measurement method: from 0% to 100% of rated load The startup time is measured under cold start conditions. Frequent and rapid on/off cycles may increase the startup time. 7. When operating at an altitude above 2000 meters (6500 ft): The operating environment temperature needs to be reduced by 5℃ for every 1000 meters.					

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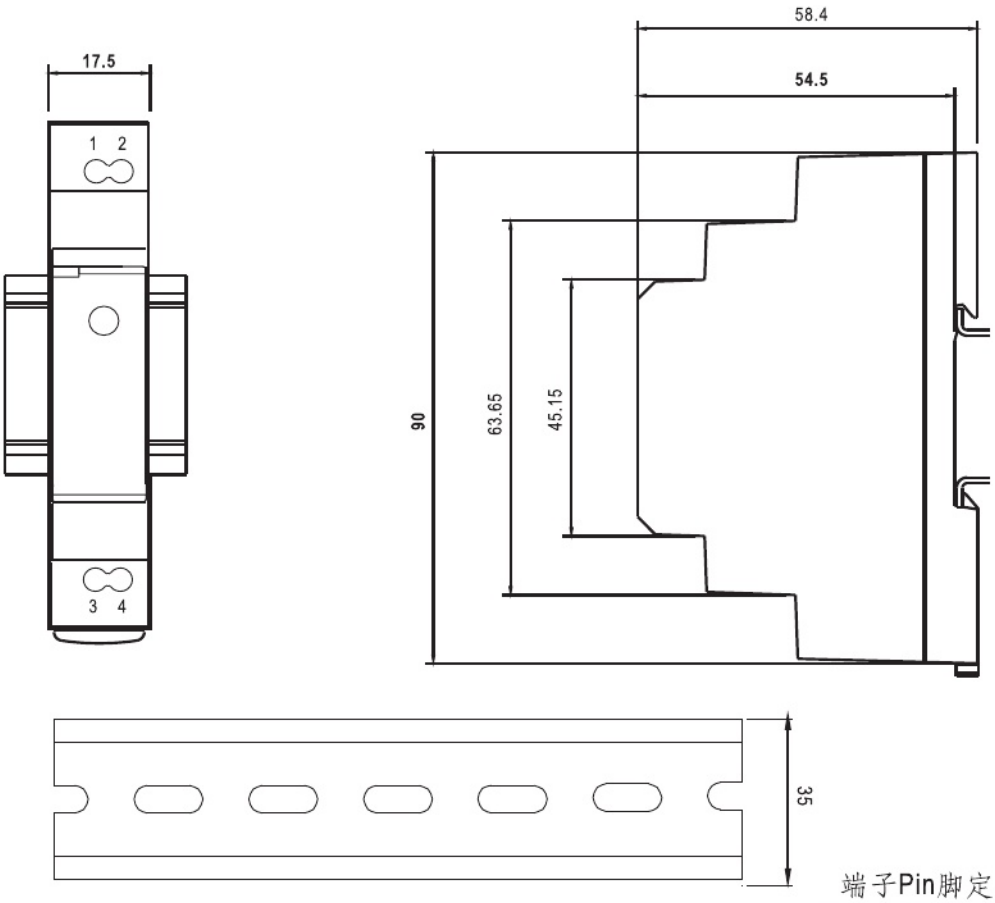
Mechanical Specification and installation size (mm)



端子Pin脚定义

Pin脚编号	Pin脚功能	Pin脚编号	Pin脚功能
1	+V	3	AC/N
2	-V	4	AC/L

Pin	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 +	

Installation of rail-type customer system

Guide rail installation: TS35/7.5 or TS35/15

Note:

Unit: mm [inch]; Unmarked tolerance is ±0.5 [±0.020]

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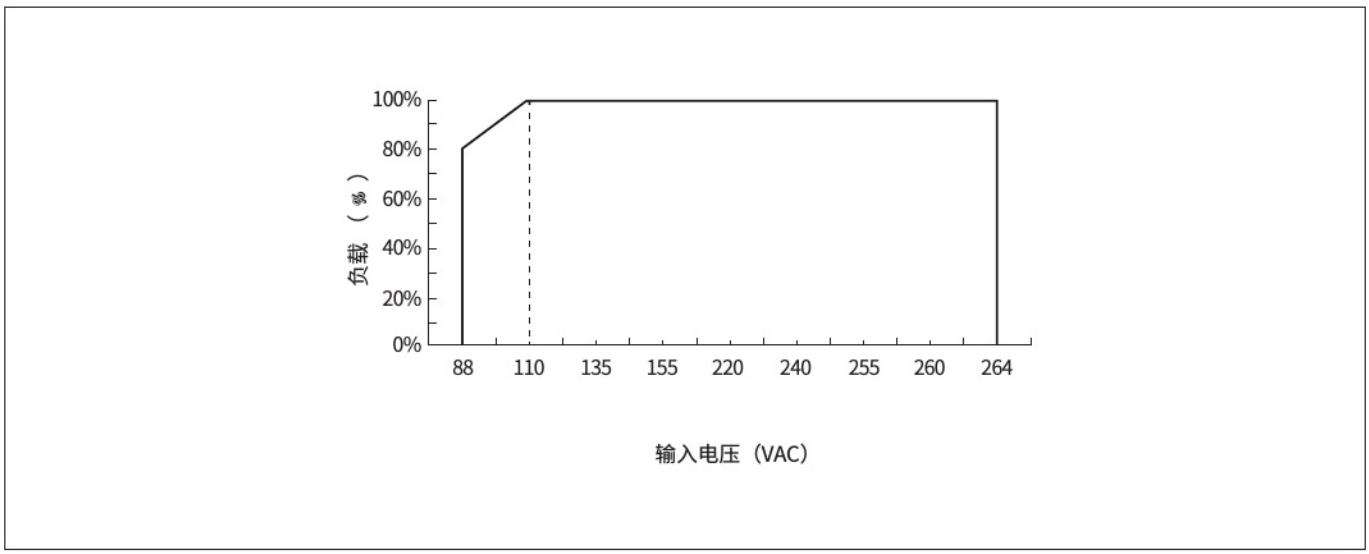
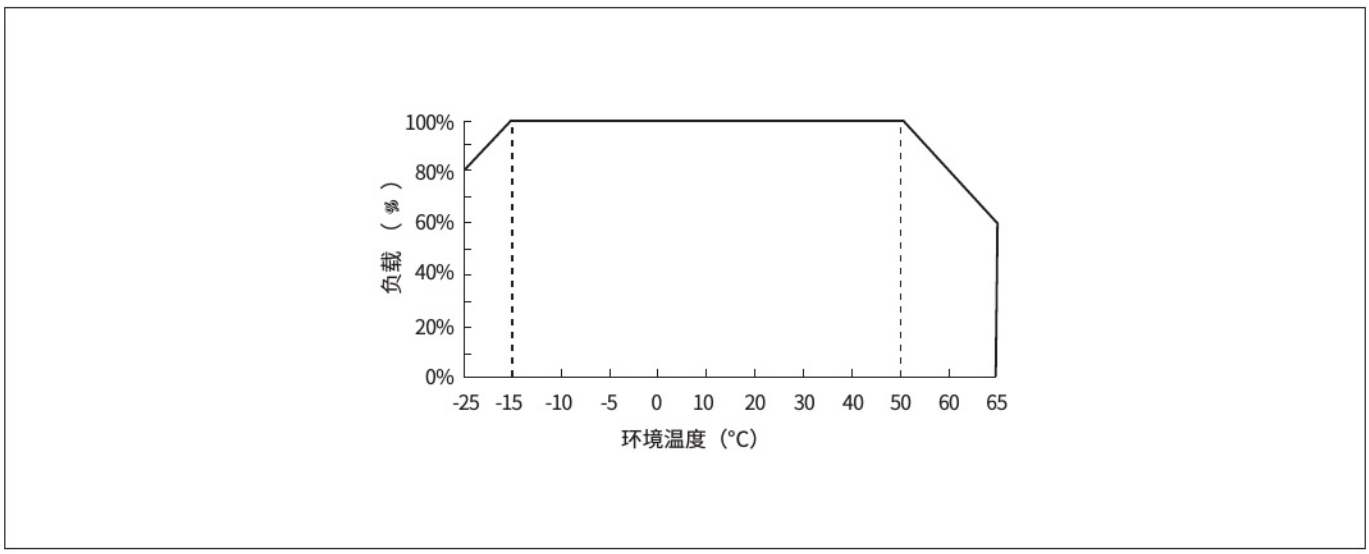
Characteristic curve

Input voltage VS Output load



Ambient Temperature vs Output Load



Note:

1.If you need to know more detailed test data when applying, please contact our technical support to obtain the application notes for the corresponding products.

2. This product is suitable for use in a natural air convection environment. If it is to be used in a closed environment, please contact our technical support staff.

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