



Zhitao Group
ZHITAO GROUP

Industrial DIN-Rail Power Supplies

product specification

DR-45

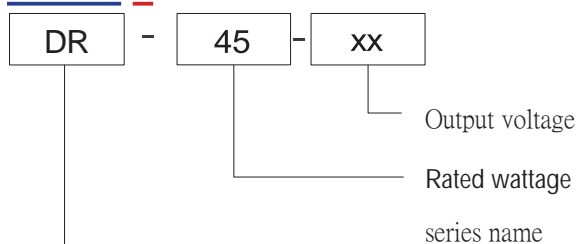
- Product Category: 45W Single Output Din Rail Switching Power Supply
- Version No.: ZTAO3.0
- Release date: May 1st, 2025



Product Overview

DR-45-XX series products for a 45W self-cooling rail industrial power supply, the product has a wide voltage AC and DC input, output voltage including 5V/12V/15V/24V/48V, etc., can be adapted to different load application requirements to meet the needs of most industrial applications, with high conversion efficiency, good heat dissipation and a full range of protections to ensure that this series of products of high reliability and stability. High conversion efficiency, good heat dissipation and all-round protection guarantee the high reliability and stability of this series of products.

Model Encoding



product Features

- International full range AC input
- rail mounted: TS35/7 or 15
- no-load power
- consumption <0.6W
- Protection type: short circuit / overload / overcurrent protection
- 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)

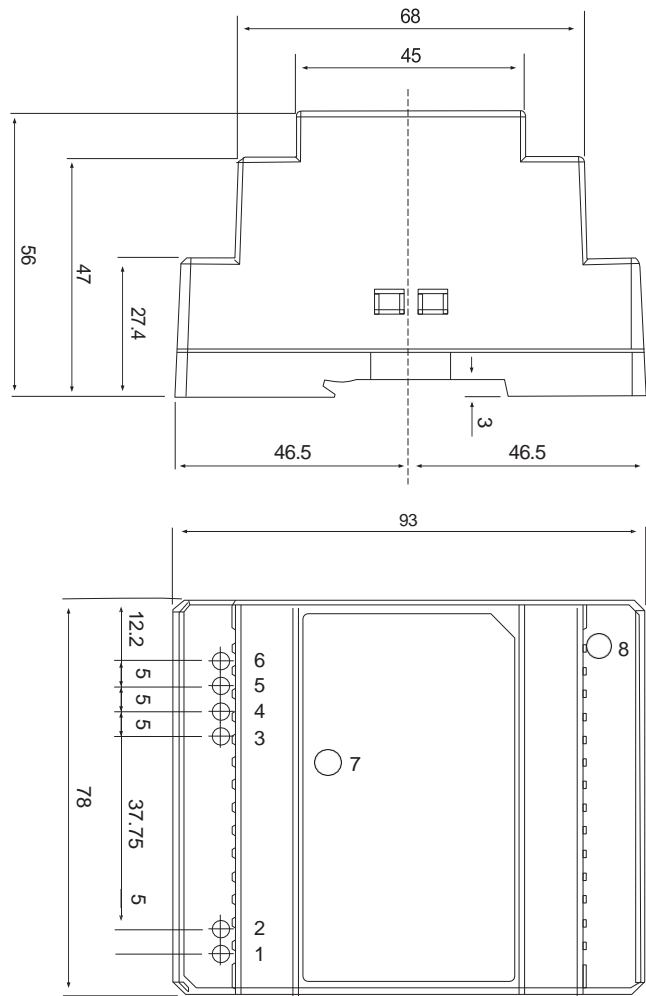


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Electrical Specifications

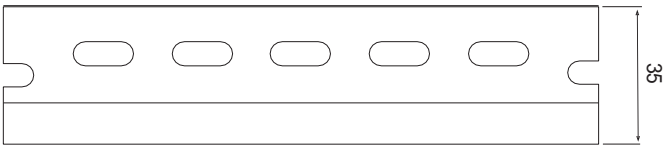
Model		DR-45-5	DR-45-12	DR-45-15	DR-45-24	DR-45-36	DR-45-48
Output	DC output voltage	5V	12V	15V	24V	36V	48V
	Rated current	5A	3.5A	2.8A	2A	1.25A	1A
	Current range	0~5A	0~3.5A	0~2.8A	0~2A	0~1.25A	0~1A
	Rated power	25W	42W	42W	48W	45W	48W
	Ripple & Noise (Max)	80mVp-p	80mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p
	voltage adjustment range	4.5~5.5V	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%	±1%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Adjustment Ratio	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	start-up & rise time	100ms,40ms/230VAC 150ms,40ms/115VAC (at full load)					
	Holding time	100ms/230VAC; 20ms/115VAC (at full load)					
Input	Input Voltage	90~264VAC 127~370VDC					
	Input frequency	50~60HZ					
	Efficiency	83%	86%	86%	88.5%	88%	89%
	Input current	1.5A/115VAC 0.75A/230VAC					
	Leakage current	< 1mA/240VAC					
Protection	overload protection	125~150% of rated power Protection mode: hiccup protection, automatic recovery after removal of abnormal conditions					
	Overvoltage protection	5.9~7.3V	13.8~16.2V	18.7~21.7V	28.8~33.6V	41.4~48.6V	55.2~64.8V
		Protect mode: shut down the output voltage, restart to recover					
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					
	Resistant to vibration	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°C/70%RH					
Others	Product dimensions	78*93*56mm (W*H*D)					
	Packaging	0.25kg/pcs					
Remarks		<ol style="list-style-type: none"> All parameters are measured at 230VAC input, rated load and 25°C unless otherwise specified. 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. Accuracy: Includes setting error, linear adjustment ratio and load adjustment ratio. Linear Adjustment Ratio Measurement Method: Test from low voltage to high voltage at rated load Load Adjustment Ratio Measurement Method: From 0% to 100% of rated load Start-up time is measured at cold start, fast and frequent switching on and off may increase the start-up time. When operating at altitudes higher than 2000 metres (6500ft): the operating environment needs to be reduced by 5°C / 1000 metres 					


Appearance and Installation Dimensions (mm)



Terminal Pin Definition

pin number	Pin Function	pin number	Pin Function
1	AC/N	5,6	DC OUTPUT-V
2	AC/L	7	LED
3,4	DC OUTPUT+V	8	+V ADJ.



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 +	

rail-guided customer system installation

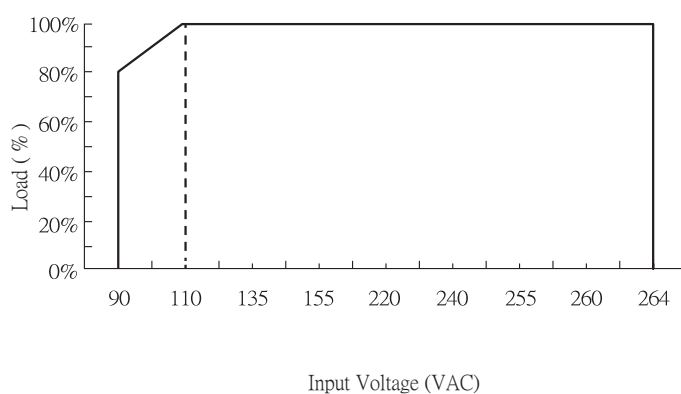
Rail mounting: TS35/7.5 or TS35/15

Remarks:

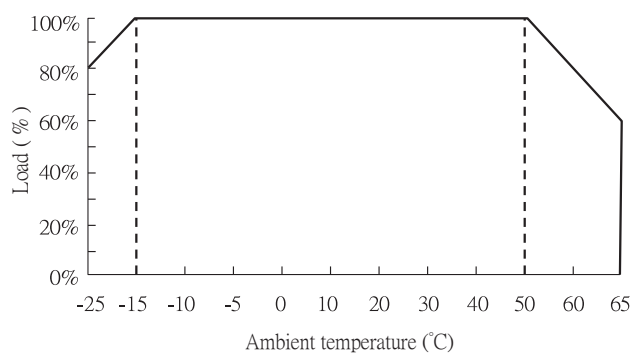
Unit: mm [inch]; unlabelled tolerances are ± 0.5 [± 0.020].

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.