

DPSD100S SERIES | STEP SHAPE

100W DIN Rail AC-DC Power Supply

MODEL: DPSD100S | CATEGORY: AC-DC | RATED POWER: 100W | FORM: DIN Rail

PRODUCT OVERVIEW



Key Product Features

- Ultra-slim step shape design for space-saving installation
- Wide input range with AC and DC compatibility
- Class II isolation
- Adjustable DC output voltage
- High efficiency with low standby consumption
- Built-in protections: overload, over voltage, short circuit

PRODUCT DESCRIPTION

The DPSD100S series DIN-rail power supplies are designed for reliable mid-power industrial applications, delivering up to 100W of stable AC/DC conversion. Featuring a wide input range and multiple output voltage options, these units provide high efficiency, low noise, and consistent performance in demanding environments. The compact DIN-rail form factor enables easy installation, while built-in protections ensure safe and continuous operation across automation, control, and industrial systems.

SAFETY CERTIFICATES



- UL62368-1, BS EN/EN62368-1 compliant
- EMC compliance: EN55032 Class B, EN61000 series
- Withstand voltage up to 4KVAC
- High insulation resistance (100M Ohms / 500VDC)
- Over-voltage category II

Applications

- Industrial automation systems
- Control panels and PLC systems
- Building automation and smart infrastructure
- Household and general industrial equipment
- Power distribution in DIN rail cabinets

ELECTRICAL SPECIFICATIONS

Model Information

Part Number	DC Voltage	Rated Current	Rated Power
DPSD100S-12	12V	7.1A	85.2W
DPSD100S-24	24V	3.83A	92W
DPSD100S-48	48V	1.92A	92.2W

Input Specifications

Parameter	Value	Model
Voltage Range	90~264VAC / 127~370VDC	All Models
Frequency Range	47~63Hz	All Models
Inrush Current	Cold Start 35A/115VAC, 70A/230VAC	All Models
AC Current	3A/115VAC, 1.6A/230VAC	All Models
Efficiency	88%	DPSD100S-12
	90%	DPSD100S-24
	90%	DPSD100S-48

Output Specifications

Parameter	Value	Model
Ripple & Noise	120mVp-p	DPSD100S-12
	150mVp-p	DPSD100S-24
	240mVp-p	DPSD100S-48
Voltage Adj. Range	12~13V	DPSD100S-12
	24~25.5V	DPSD100S-24
	48~48.7V	DPSD100S-48
Voltage Tolerance	±2.0%	All Models
Line Regulation	±1.0%	All Models
Load Regulation	±1.0%	All Models
Setup, Rise Time	500ms, 50ms / 100~240VAC at full load	All Models
Hold Up Time (Typ.)	30ms / 100~240VAC at full load	All Models

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ELECTRICAL SPECIFICATIONS

Protection

Parameter	Value	Model
Over Load	102~110% rated output power (Below 92.2W)	All Models
	105~150% rated output power (Above 92.2W)	All Models
	Hiccup mode when output voltage <50%, auto recovery	All Models
	Constant current limiting (50%~100%), auto recovery	All Models
Over Voltage	14.2~16.2V	YSD100S-12
	30~36V	YSD100S-24
	56.5~64.8V	YSD100S-48
	Shutdown o/p voltage, re-power on to recover	All Models

Environment

Parameter	Value
Working Temp.	-20°C ~ +70°C
Working Humidity	20~90% RH non-condensing
Storage Temp., Humidity	-40°C ~ +85°C, 10~95% RH non-condensing
Temp. Coefficient	±0.03%/°C (0~50°C) RH non-condensing
Vibration	10~500Hz, 2G 10min./1cycle, 60min along X,Y,Z axes; IEC60068-2-6
Operating Altitude	5000 meters
Over Voltage Category	II; According to EN62368-1 altitude up to 2000 meters
MTBF	800K hrs min. MIL-HDBK-217F (25°C)

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ELECTRICAL SPECIFICATIONS

Safety&EMC

Parameter	Value
Safety Regulations	UL62368-1, BS EN/EN62368-1
Withstand Voltage	I/P-O/P:4KVAC
Insulation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH
EMC Emission	BS EN/EN 55032 class B, BS EN/EN IEC 61000-3-2,3
EMC Immunity	BS EN/EN61000-4-2,3,4,5,6,8,11

Note

1. All parameters NOT specially mentioned at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured from peak to peak with bandwidth limit of 20MHz (0.1uF and 47uF/50V parallel capacitor under DC output full load, AC nominal input 25°C ambient temperature).
3. Installation clearances: top with 40mm, bottom with 20mm, left and right with 5mm. Increase the space to 10~15mm when the adjacent device is heat source.
4. Derating may be needed under low input voltage. Please check the derating curve for more details.
5. Efficiency test after 30 minutes of burn-in.
6. The ambient temperature derating of 3.5°C/1000m for operating altitude higher than 2000m (6500ft).

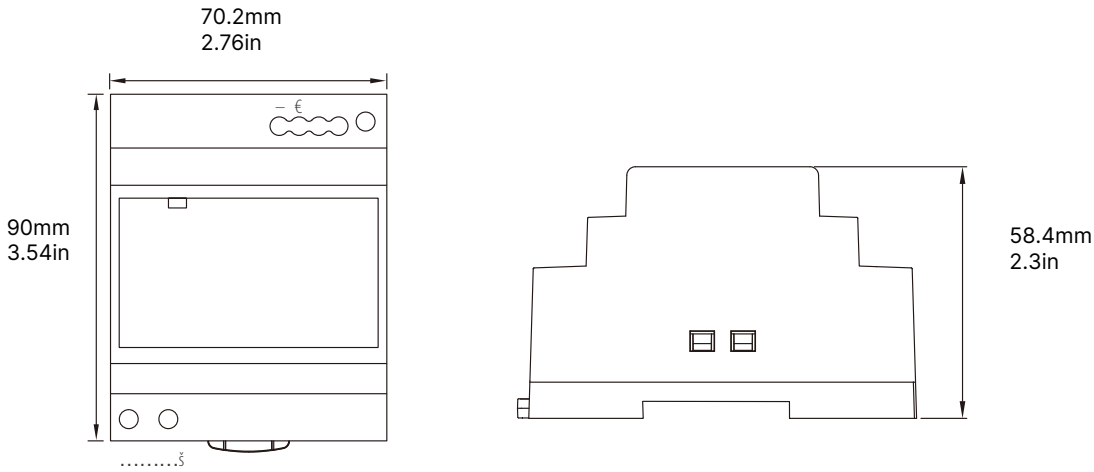
Dimensions and Weight, Packing

Parameter	Value
Length	90mm / 3.54in
Width	70.2mm / 2.76in
Height	58.4mm / 2.3in
Weight	270g
Carton Size	420 × 22 × 35 CM
Carton Size	15.75 × 8.66 × 13.78 in
Master Carton Quantities	50pcs / Carton

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MECHANICAL SPECIFICATIONS

Dimensions and Installation



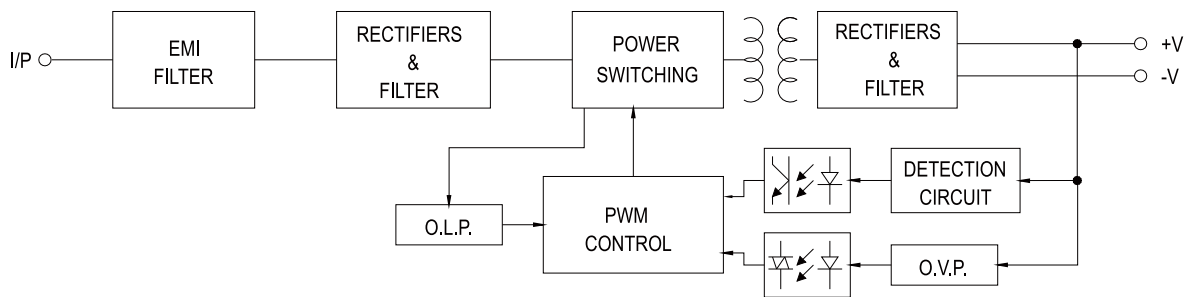
Input

No.	Description
1	AC/L
2	AC/N

Output

No.	Description
3,4	-V
5,6	+V

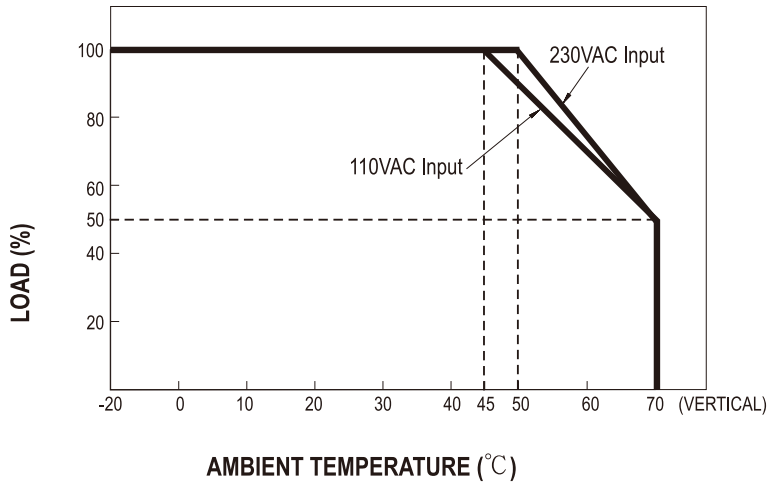
Block Diagram



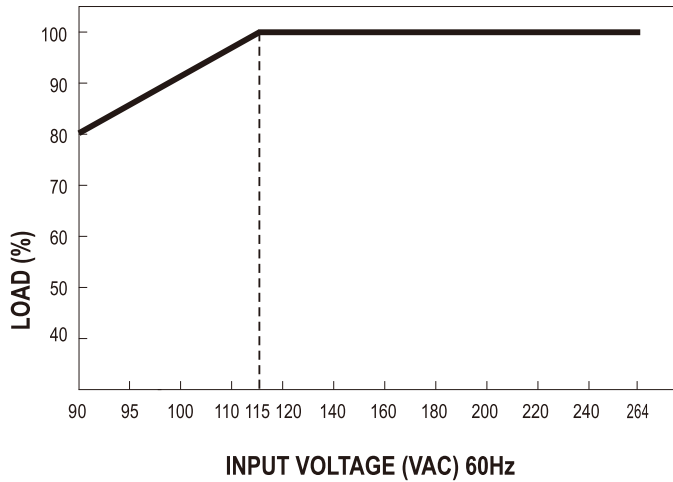
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MECHANICAL SPECIFICATIONS

Deduction Curve and Temperature



Minus Output and Input Voltage Curves



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