

DPSD30S SERIES | STEP SHAPE

30W DIN Rail AC-DC Power Supply

MODEL: DPSD30S | CATEGORY: AC-DC | RATED POWER: 30W | FORM: DIN Rail

PRODUCT OVERVIEW



Key Product Features

- Wide input range: 90–264VAC / 127–370VDC
- High efficiency up to ~90%
- Adjustable DC output voltage
- Ultra-slim DIN rail design
- Class II isolation
- Low no-load power consumption
- Built-in protections: overload, overvoltage, short circuit
- Wide operating temperature range

PRODUCT DESCRIPTION

Compact 30W DIN-rail power supply with wide input range, high efficiency, and adjustable DC output. Designed for reliable operation in industrial and automation environments with low no-load consumption and stable performance.

SAFETY CERTIFICATES



- UL62368-1, BS EN/EN62368-1 compliant
- EMC: EN55032 Class B, EN61000 series
- Overvoltage Category II
- Isolation Class II design
- High insulation resistance and dielectric strength

Applications

- Building automation systems
- Industrial control panels
- PLC and I/O modules
- Smart home and lighting systems
- Security and surveillance systems
- HVAC control systems
- Distributed power systems

ELECTRICAL SPECIFICATIONS

Model Information

Model Number	DC Voltage	Rated Current	Rated Power
DPSD30S-5	5V	3A	15W
DPSD30S-12	12V	2A	24W
DPSD30S-15	15V	2A	30W
DPSD30S-24	24V	1.5A	36W
DPSD30S-48	48V	0.63A	30W

Input Specifications

CATEGORY	SPECIFICATION	
VOLTAGE RANGE	90 ~ 264VAC	
VOLTAGE RANGE	127 ~ 370VDC	
FREQUENCY RANGE	47 ~ 63Hz	
INRUSH CURRENT	COLD START 25A/115VAC 45A/230VAC	
AC CURRENT	0.88A/115VAC	
	0.48A/230VAC	
EFFICIENCY	82%	DPSD30S-5
	88%	DPSD30S-12
	89%	DPSD30S-15
	89%	DPSD30S-24
	90%	DPSD30S-48

For quotes and customization requests, contact Digital Power sales at (877) 634-0982 or sales@digipwr.com.

ELECTRICAL SPECIFICATIONS

Output Specifications

CATEGORY	SPECIFICATION	MODEL
RIPPLE & NOISE	80mVp-p	DPSD30S-5
	120mVp-p	DPSD30S-12
	120mVp-p	DPSD30S-15
	150mVp-p	DPSD30S-24
	240mVp-p	DPSD30S-48
VOLTAGE ADJ. RANGE	4.5 ~ 5.5V	DPSD30S-5
	10.8 ~ 13.8V	DPSD30S-12
	13.5 ~ 18V	DPSD30S-15
	21.6 ~ 29V	DPSD30S-24
	43.2 ~ 55.2V	DPSD30S-48
VOLTAGE TOLERANCE	±2.0%	DPSD30S-5
	±2.0%	DPSD30S-12
	±2.0%	DPSD30S-15
	±2.0%	DPSD30S-24
	±2.0%	DPSD30S-48
LINE REGULATION	±1.0%	
LOAD REGULATION	±1.0%	
SETUP, RISE TIME	500ms, 50ms / 230VAC at full load	
	500ms, 50ms / 115VAC at full load	
HOLD UP TIME (Typ.)	30ms / 230VAC at full load	
	12ms / 115VAC at full load	
	2000ms, 80ms/115VAC at full load	
Hold Up Time	30ms/230VAC at full load	
	12ms/115VAC at full load	

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ELECTRICAL SPECIFICATIONS

Protection

CATEGORY	SPECIFICATION	MODEL
OVER LOAD	105 ~ 160% rated output power	
OVER LOAD	Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed	
OVER LOAD	Constant current limiting within 50%~100% rated output voltage, recovers automatically after fault condition is removed	
OVER VOLTAGE	5.75 ~ 7.5V	DPSD30S-5
OVER VOLTAGE	15 ~ 18V	DPSD30S-12
OVER VOLTAGE	18.8 ~ 22.5V	DPSD30S-15
OVER VOLTAGE	30 ~ 36V	DPSD30S-24
OVER VOLTAGE	57.6 ~ 67.2V	DPSD30S-48
OVER VOLTAGE	Protection type: Shutdown o/p voltage, re-power on to recover	
Protection Type	Shut off o/p voltage, clamping by zener diode	

Environment

CATEGORY	SPECIFICATION
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/cycle, period for 60min, each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6
OPERATING ALTITUDE	5000 meters
OVER VOLTAGE CATEGORY	II; According to EN62368-1, altitude up to 2000 meters
MTBF	900K hrs min. MIL-HDBK-217F (25°C)

Safety&EMC

CATEGORY	SPECIFICATION
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/EN55032 Class B, BS EN/EN IEC61000-3-2,3
EMC IMMUNITY	BS EN/EN61000-4-2,3,4,5,6,8,11

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ELECTRICAL SPECIFICATIONS

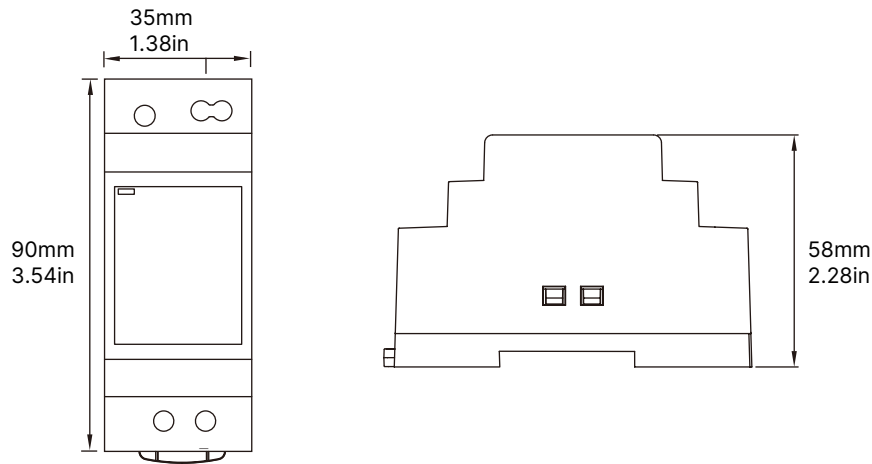
Dimensions and Weight

CATEGORY	SPECIFICATION
Length	35mm / 1.38in
Width	90mm / 3.54in
Height	58mm / 2.28in
Weight	120g

Packing

CATEGORY	SPECIFICATION
Carton Size	37 × 22 × 25CM
Carton Size	14.57 × 8.66 × 9.84in
Master Carton Quantities	50pcs / Carton

Dimensions and Installation



Output

No.	Description
1	AC/L
2	AC/N

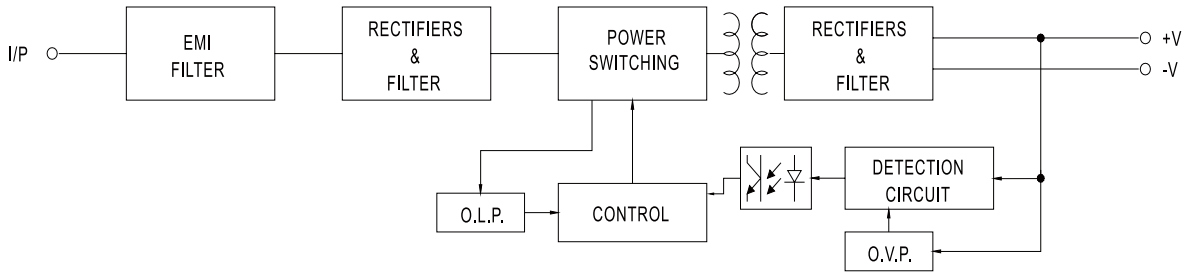
Input

No.	Description
3	+V
4	-V

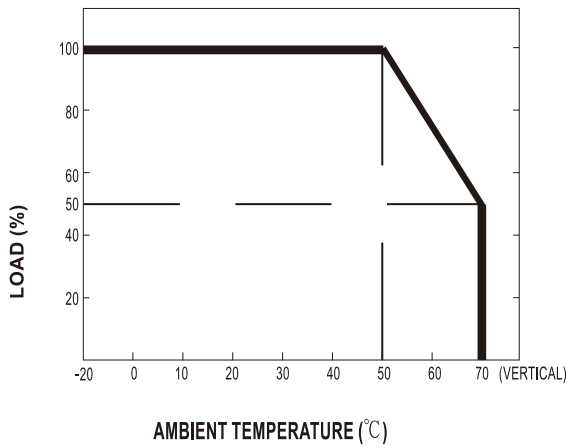
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MECHANICAL SPECIFICATIONS

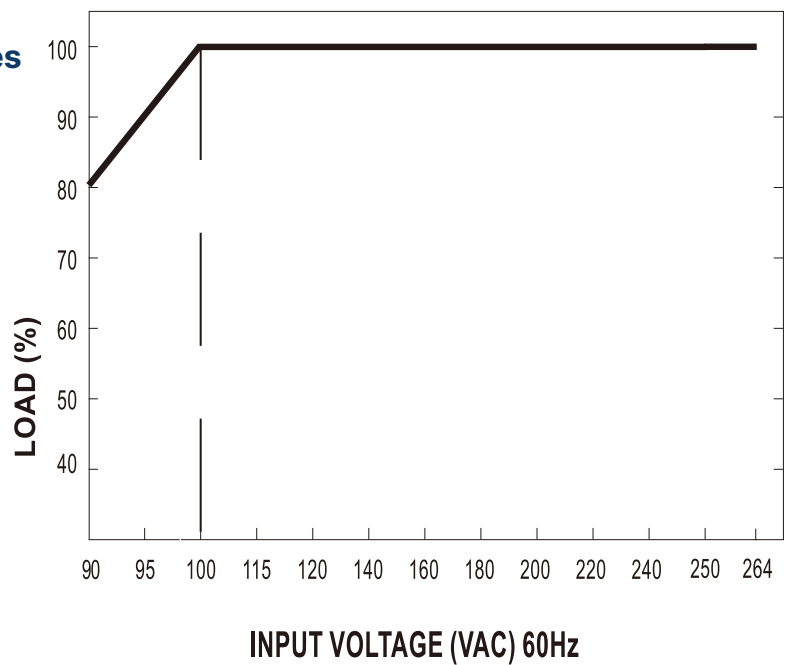
Block Diagram



Deduction Curve and Temperature



Minus Output and Input Voltage Curves



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