

# DPDN240 SERIES | METAL CASE

240W DIN Rail AC-DC Power Supply

MODEL: DPDN240 | CATEGORY: AC-DC | RATED POWER: 240W | FORM: DIN Rail

## PRODUCT OVERVIEW



### Key Product Features

- 240W industrial DIN-rail AC-DC power
- Active PFC circuit with high power factor
- Wide input voltage range 90–264VAC / 127–370VDC
- Class I isolation
- High efficiency up to 88%
- Built-in protections: overload, over-voltage, over-temperature
- Hiccup mode overload protection with auto recovery
- Designed for industrial control cabinets and automation systems

## PRODUCT DESCRIPTION

The DPDN240 Series is a high-performance 240W DIN-rail mounted AC-DC switching power supply designed for industrial automation and control applications. It supports a wide input range and incorporates active power factor correction (PFC) for improved efficiency and compliance with industrial power standards. The compact DIN-rail design and built-in protection functions ensure reliable operation in demanding environments.

## SAFETY CERTIFICATES



- UL508 certified for industrial control equipment safety
- EN55032 compliant for electromagnetic emission control
- EN61000-4 series compliant for EMC immunity (ESD, surge, EFT, etc.)
- High input-output isolation for safe operation in industrial systems
- Designed to meet global industrial safety and EMC standards

## Applications

- |                                      |   |
|--------------------------------------|---|
| Industrial automation systems        | Distributed power systems in control cabinet      |
| PLC and factory control panels       | Security and surveillance systems                 |
| Building automation and HVAC control | Industrial networking and communication equipment |

# ELECTRICAL SPECIFICATIONS

## Model Information

Part Number	DC Voltage	Rated Current (Max.)	Rated Power	Voltage Adj. Range
DPDN240-24	24V	10A	240W	24-28V
DPDN240-48	48V	5A	240W	48-55V

## Input Specifications

Parameter	Specification
RATED INPUT (Certified Voltage)	100 ~ 240VAC
NOMINAL INPUT VOLTAGE RANGE	90 ~ 264VAC or 127-370VDC DC input by connecting AC/L(+), AC/N(-)
FREQUENCY RANGE	47~63Hz
POWER FACTOR (Typ.)	>0.98 / 115VAC at full load >0.95 / 230VAC at full load
EFFICIENCY (Typ.)	87% DPDN240-24 88% DPDN240-48
AC CURRENT (Typ.)	2.5A / 115VAC 1.3A / 230VAC
INRUSH CURRENT (Typ.)	20A / 115VAC 35A / 230VAC
LEAKAGE CURRENT	<1mA / 240VAC

## Output Specifications

Parameter	Specification
RIPPLE & NOISE (max.)	150mVp-p
VOLTAGE TOLERANCE	±2.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±1.0%
SETUP, RISE TIME	3000ms / 100ms (115VAC / 60Hz full load) 1500ms / 100ms (230VAC / 50Hz full load)
HOLD UP TIME (Typ.)	16ms (230VAC / 50Hz full load) 12ms (115VAC / 60Hz full load)

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

## ELECTRICAL SPECIFICATIONS

### Protection

Parameter	Specification
OVER LOAD	105 ~ 130% rated output power
OVER LOAD	Protection type: Hiccup mode recovers automatically after fault condition is removed
OVER VOLTAGE	29 ~ 33V DPDN240-24
OVER VOLTAGE	56 ~ 65V DPDN240-48
OVER VOLTAGE	Protection type: Shut down o/p voltage re-power on to recover
OVER TEMPERATURE	Shut down o/p voltage recovers automatically after temperature goes down

### Environment

Parameter	Specification
WORKING TEMP.	-20 ~ +70°C Refer to "Derating Curve"
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGE TEMP.	-40 ~ +85°C 10 ~ 95% RH
STORAGE HUMIDITY	10 ~ 95% RH
MTBF	200K hrs min. MIL-HDBK-217F (25°C)

### Safety&EMC

Parameter	Specification
SAFETY STANDARDS	UL508
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG >100M Ohms / 500VDC / 25°C / 70% RH
EMC EMISSION	Compliance to BS EN/EN55032 BS EN/EN61000-3-2,-3
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11 BS EN/EN55035, BS EN/EN61000-6-2

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# ELECTRICAL SPECIFICATIONS

## Dimensions and Weight, Packing

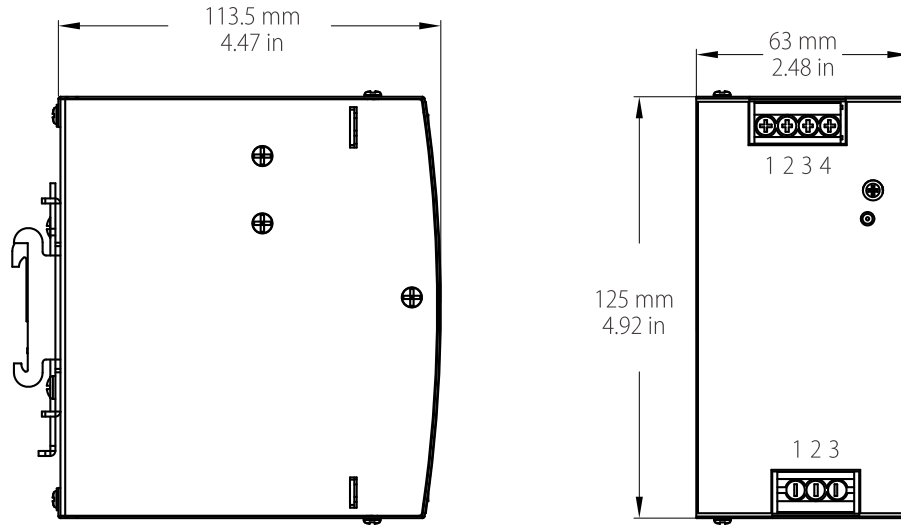
Parameter	Specification
Width	63mm / 2.48in
Height	125mm / 4.92in
Depth	113.5mm / 4.47in
Weight	1kg
Carton Size	52.5 × 33 × 17.5 CM
Carton Size	20.67 × 12.99 × 6.9 in
Master Carton Quantities	10pcs / Carton

### Note

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, and 25°C ambient temperature.
2. Ripple & noise measured from peak-to-peak with bandwidth limit of 20MHz, using 0.1μF and 47μF capacitors.
3. Installation clearance recommended: top 40mm, bottom 20mm, left/right 5mm. Increase spacing if adjacent device is heat source.
4. Derating may be required under low input voltage. Refer to derating curve.
5. Efficiency measured after 30 minutes burn-in.
6. Ambient temperature derating of 3.5°C per 1000m when operating above 2000m altitude.

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# MECHANICAL SPECIFICATIONS



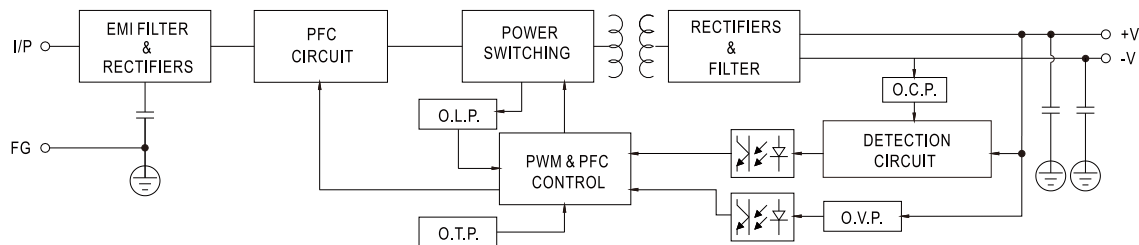
## Input

No.	Description
1	FG ⊕
2	AC/N or DC -
3	AC/L or DC +

## Output

No.	Description
1,2	DC OUTPUT -V
3,4	DC OUTPUT +V

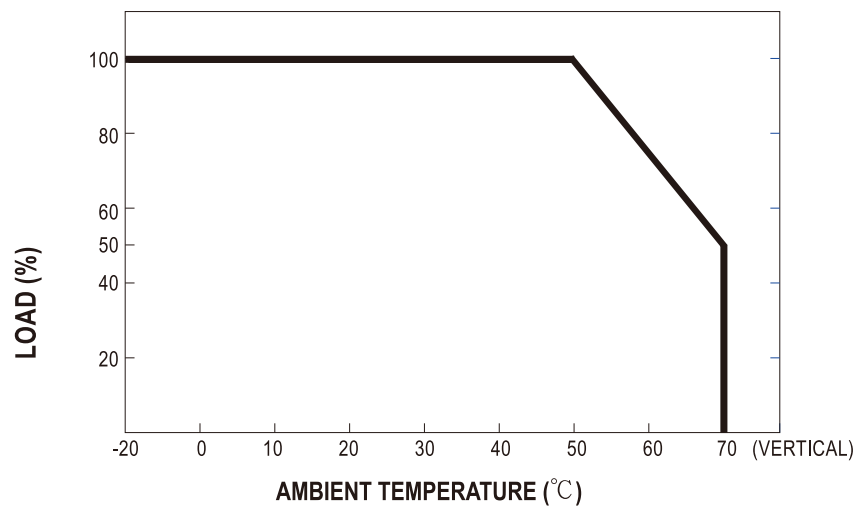
## Block Diagram



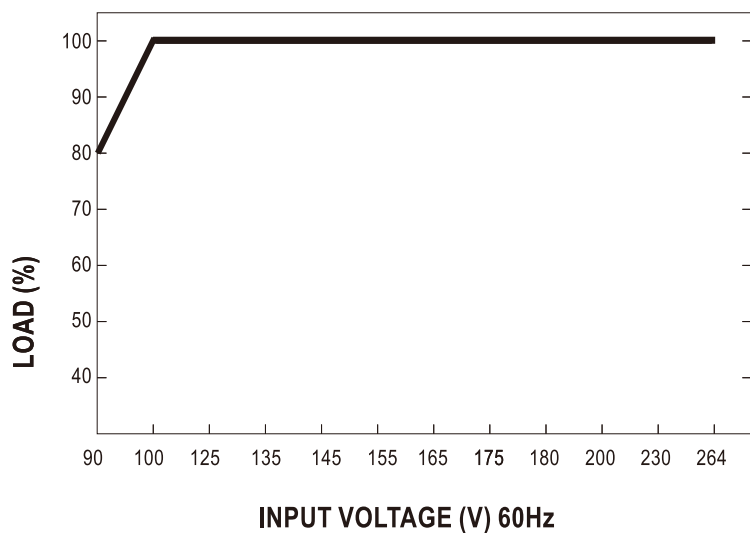
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# MECHANICAL SPECIFICATIONS

## Deduction Curve and Temperature



## Minus Output and Input Voltage Curves



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