PRODUCT SPECIFICATION

DPDN150 SERIES | METAL CASE

120W DIN Rail AC-DC Power Supply

MODEL: DPDN150 | CATEGORY: AC-DC | RATED POWER: 120W | FORM: DIN Rail

PRODUCT OVERVIEW

Key Product Features

- 120W high-efficiency DIN rail AC-DC power supply
- Wide input range 90–264VAC / 127–370VDC
- Class I isolation
- Compact DIN rail mounting design for control cabinets
- High efficiency up to 89%
- Built-in protections: overload, over-voltage, and over-temperature
- Hiccup mode auto-recovery for overload protection

PRODUCT DESCRIPTION

The DPDN150 Series is a compact 120W DIN-rail mounted AC-DC switching power supply designed for industrial control systems, automation equipment, and distributed power applications. The unit supports a wide AC input range and provides reliable DC output with built-in protection functions and high efficiency.

SAFETY CERTIFICATES

- UL508 safety certified
- Designed to meet EN55032 EMC emission standards
- Compliant with EN61000-4 immunity standards
- Industrial-grade electrical isolation and protection design

Applications

- Industrial automation and control systems
- PLCs and factory control panels
- Building automation and HVAC systems
- Power distribution in control cabinets
- Security and surveillance systems
- Industrial networking and communication equipment

ELECTRICAL SPECIFICATIONS

Model Information

Part Number	DC Voltage	Rated Current (Max.)	Rated Power	Voltage Adj. Range
DPDN150-12	12V	10A	120W	12–14V
DPDN150-24	24V	5A	120W	24–28V
DPDN150-48	48V	2.5A	120W	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
EFFICIENCY (Typ.)	85.5% DPDN150-12
	88% DPDN150-24
	89% DPDN150-48
AC CURRENT (Typ.)	2.25A / 115VAC
	1.3A / 230VAC
INRUSH CURRENT (Typ.)	20A / 115VAC
	35A / 230VAC
LEAKAGE CURRENT	<1mA / 240VAC

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ELECTRICAL SPECIFICATIONS

Output Specifications

Parameter	Specification
RIPPLE & NOISE (max.)	100mVp-p DPDN150-12
	120mVp-p DPDN150-24
	150mVp-p DPDN150-48
VOLTAGE TOLERANCE	±2.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±1.0%
SETUP, RISE TIME	1200ms, 60ms / 230VAC at full load
	2500ms, 60ms / 115VAC at full load
HOLD UP TIME (Typ.)	16ms / 230VAC at full load
	10ms / 115VAC at full load
OVER LOAD	105 ~ 130% rated output power
	Protection type: Hiccup mode recovers automatically after fault condition is removed
OVER VOLTAGE	14 ~ 17V DPDN150-12
	29 ~ 33V DPDN150-24
	56 ~ 65V DPDN150-48
OVER TEMPERATURE	Protection type: Shut down o/p voltage re-power on to recover

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	450K hrs min. MIL-HDBK-217F (25°C)

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ELECTRICAL SPECIFICATIONS

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 (BS EN/EN50082-2)

Dimensions and Weight, Packing

Parameter	Specification
Width	40mm / 1.57in
Height	125mm / 4.92in
Depth	113mm / 4.45in
Weight	0.6kg
Carton Size	31.5 × 30 × 30 CM
Carton Size	12.4 × 11.8 × 11.81 in
Master Carton Quantities	20pcs / Carton

Note

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

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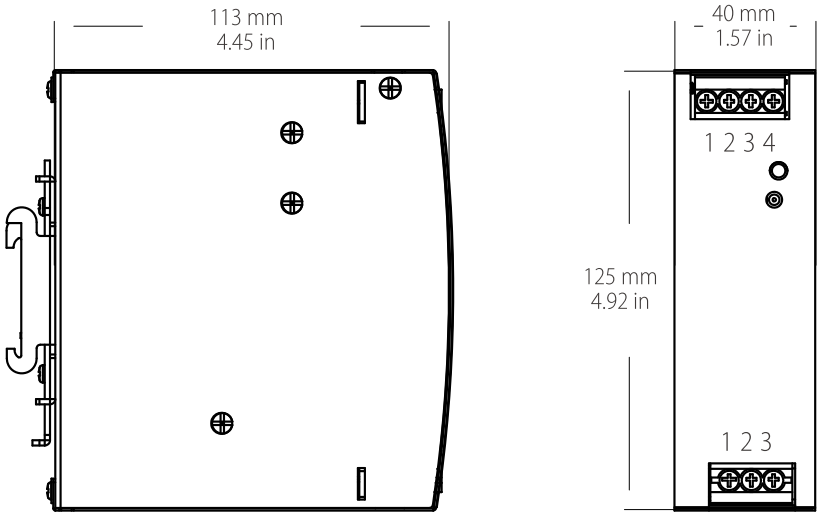
MECHANICAL SPECIFICATIONS



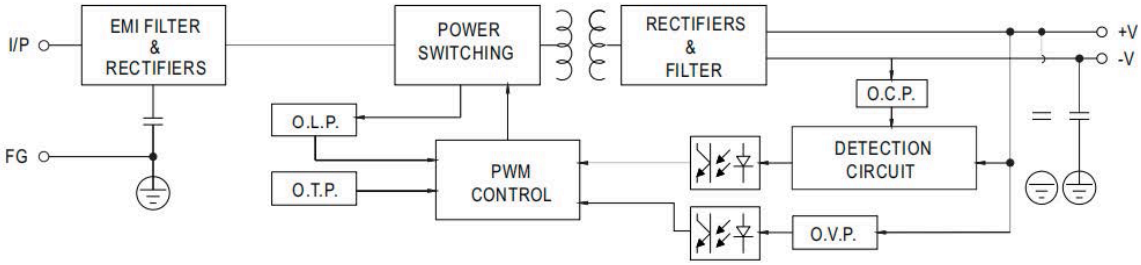
Input

No.	Description
1	FG ⏚
2	AC/N
3	AC/L

Output

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

Block Diagram



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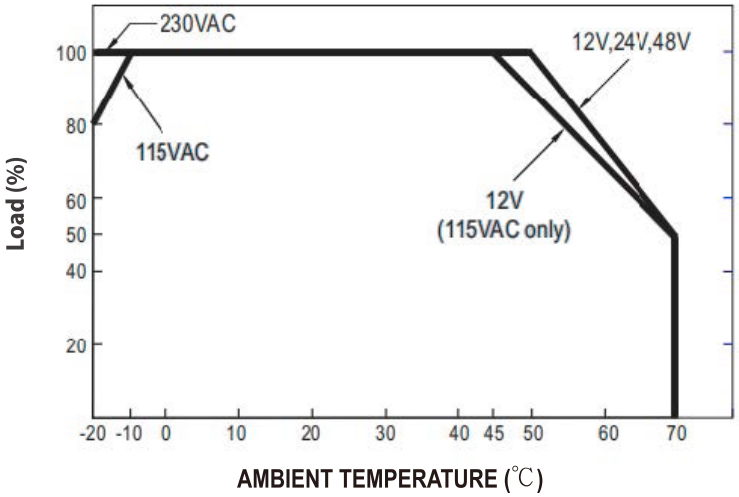
MECHANICAL SPECIFICATIONS

Deduction Curve and Temperature



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