

DPDH240 SERIES | SINGLE PHASE

240W DIN Rail AC-DC Power Supply

MODEL: DPDH240 | CATEGORY: AC-DC | RATED POWER: 240W | FORM: DIN Rail

PRODUCT OVERVIEW



Key Product Features

- Universal 90-264VAC input range
- 240W continuous output power
- High efficiency up to ~93%
- Active PFC design
- Class I isolation
- DC OK relay contact for system monitoring
- Compact DIN rail mounting
- Wide operating temperature range

PRODUCT DESCRIPTION

The Digital Power DPDH240 Series is a compact 240W DIN rail AC-DC power supply designed for industrial automation and control applications.







It features active PFC, high efficiency, and robust protection circuitry to ensure stable DC output in demanding environments. The unit supports wide universal AC input and includes a DC OK relay signal for remote monitoring and system integration.

SAFETY CERTIFICATES



- UL 61010-1 / UL 61010-2-201 certified for electrical safety.
- EN / BS EN 61010-1 compliant for measurement and control equipment.
- High isolation protection up to 3 kVAC withstand voltage.
- >100MΩ insulation resistance at 500 VDC for reliable operation.
- EMC compliant with EN55032 and EN61000 industrial standards.

Applications

- | | |
|--|---|
|  Industrial automation equipment |  Telecommunications equipment |
|  Factory control systems |  Test and measurement systems |
|  PLC and distributed control systems |  Security and monitoring systems |

ELECTRICAL SPECIFICATIONS

Spec Table Title

Part Number	DC Voltage	Rated Current	Rated Power	Peak Power (Note 4)	Voltage Adj Range
DPDH240-12	12V	16A	192W	288W (3 sec.)	12–14V
DPDH240-24	24V	10A	240W	360W (3 sec.)	24–28V
DPDH240-48	48V	5A	240W	360W (3 sec.)	48–55V

Input Specifications

Parameter	Specification
Rated Input Voltage	100–240VAC
Input Voltage Range	90–264VAC / 124–370VDC
Frequency Range	47–63Hz
Power Factor (Typ.)	0.94 @230VAC Full Load
	0.99 @115VAC Full Load
Efficiency (Typ.)	90% @115VAC
	93% @230VAC
AC Current (Typ.)	2.6A @115VAC
	1.3A @230VAC
Inrush Current (Typ.)	33A @115VAC
	55A @230VAC
Leakage Current	<1mA / 240VAC

Output Specifications

Parameter	DPDH240-12	DPDH240-24	DPDH240-48
Ripple & Noise (max)	100mVp-p	100mVp-p	120mVp-p
Voltage Tolerance	±2.0%	±2.0%	±2.0%
Line Regulation	±0.5%	±0.5%	±0.5%
Load Regulation	±1.0%	±1.0%	±1.0%
Setup Time	650ms, 60ms @230VAC at full load		
Rise Time	1300ms, 60ms@115VAC at full load		
Hold Up Time (Typ.)	20ms @230VAC at full load		
	20ms @115VAC at full load		

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

ELECTRICAL SPECIFICATIONS

Protection

Protection	Specification
Over Load	110–150% rated output power for >5s then shutdown with auto recovery
	>150% rated power constant current limiting with auto recovery
Over Voltage	14–17V DPDH240-12
	29–33V DPDH240-24
	56–65V DPDH240-48
	Shutdown output voltage, re-power on to recover
Over Temperature	95°C ±5°C (detect on heatsink)
	Shutdown output voltage, auto recovery after temperature drops

Function

DC OK Relay Contact Ratings	60Vdc / 0.3A
	30Vdc / 1A
	30Vac / 0.5A resistive load

Environment

Operating Temperature	–25°C to +70°C (refer to derating curve)
Operating Humidity	20–95% RH non-condensing
Storage Temperature	–40°C to +85°C
Storage Humidity	10–95% RH
Cold Start	–40°C
MTBF	150K hrs min (MIL-HDBK-217F, 25°C)
Temperature Coefficient	±0.03% / °C (0–50°C)
Vibration	Component: 10–500Hz, 2G 10min/cycle, 60min each axis (X,Y,Z)
	Mounting: Compliance to IEC 60068-2-6

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ELECTRICAL SPECIFICATIONS

Safety & EMC

Parameter	Specification
Safety Standards	UL61010-1, UL61010-2-201, BS EN/EN61010-1
Withstand Voltage	I/P-O/P 3KVAC
	I/P-FG 2KVAC
	O/P-FG 0.5KVAC
	O/P-DC OK 0.5KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG >100MΩ / 500VDC / 25°C / 70%RH
EMC Emission	BS EN/EN55032
	BS EN/EN61000-3-2
	BS EN/EN61000-3-3
EMC Immunity	BS EN/EN61000-4-2,3,4,5,6,8,11
	BS EN/EN61000-6-2
	BS EN/EN61000-4-3 heavy industry level

Dimensions and Weight, Packing

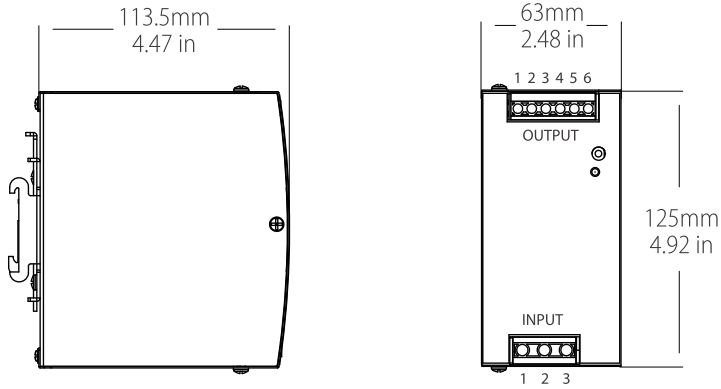
Parameter	Value
Width	63 mm (2.48 in)
Height	125 mm (4.92 in)
Depth	113.5 mm (4.47 in)
Weight	1 kg
Carton Size	52.5 × 33 × 17.5 cm
Carton Size (inch)	20.67 × 12.99 × 6.89 in
Master Carton Quantity	10 pcs/carton

Note

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C ambient temperature.
2. Ripple & noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF & 47μF parallel capacitor.
3. Tolerance includes setup tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
5. Derating may be needed under low input voltages. Please check the derating curve for details.
6. Peak power capability depends on input voltage and ambient temperature conditions.
7. The power supply should be installed in an environment where airflow is sufficient for cooling, and adequate spacing should be maintained around the unit.

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MECHANICAL SPECIFICATIONS



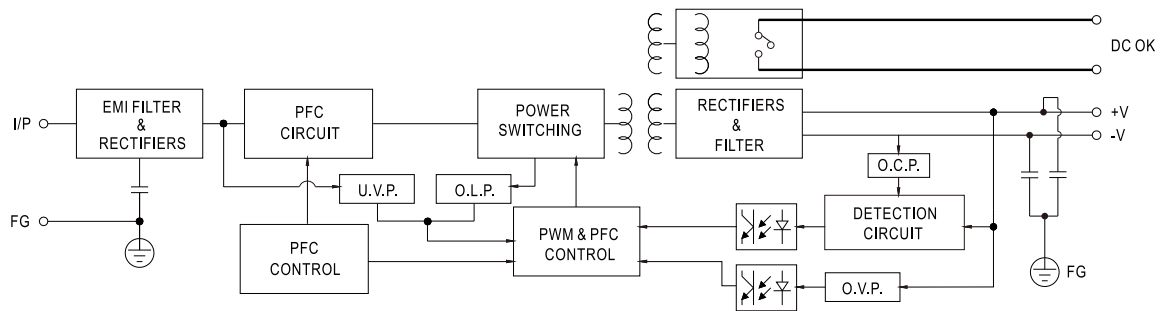
Input

No.	Description
1	FG ⊕
2	AC/N
3	AC/L

Output

No.	Description
1,2	Relay Contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V

Block Diagram



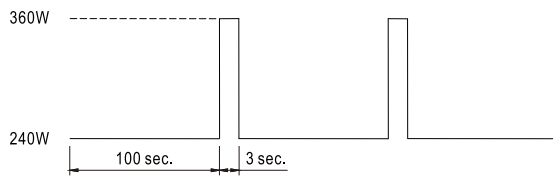
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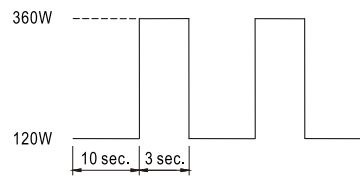
DC OK Relay Contact

Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max)	30V / 1A resistive load.

Peak Loading

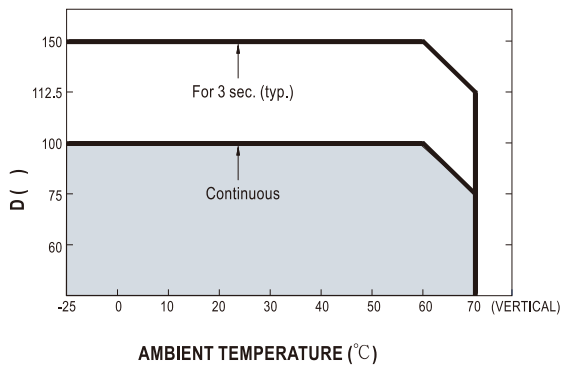


Full Load

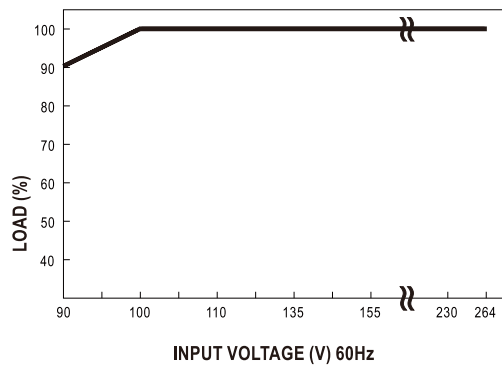


Half Load

Deduction Curve and Temperature



Minus Output and Input Voltage Curves



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