

Data Sheet

TRU Components – Din Rail Power Supply

Last updated: 7 January 2025



Features



Isolation Class II



Class 2/Pass LPS



Ultra Slim Step Shape



DC Output Voltage Adjustable



Protection: Short Circuit/Overload/
Over Voltage



Over Voltage Category II

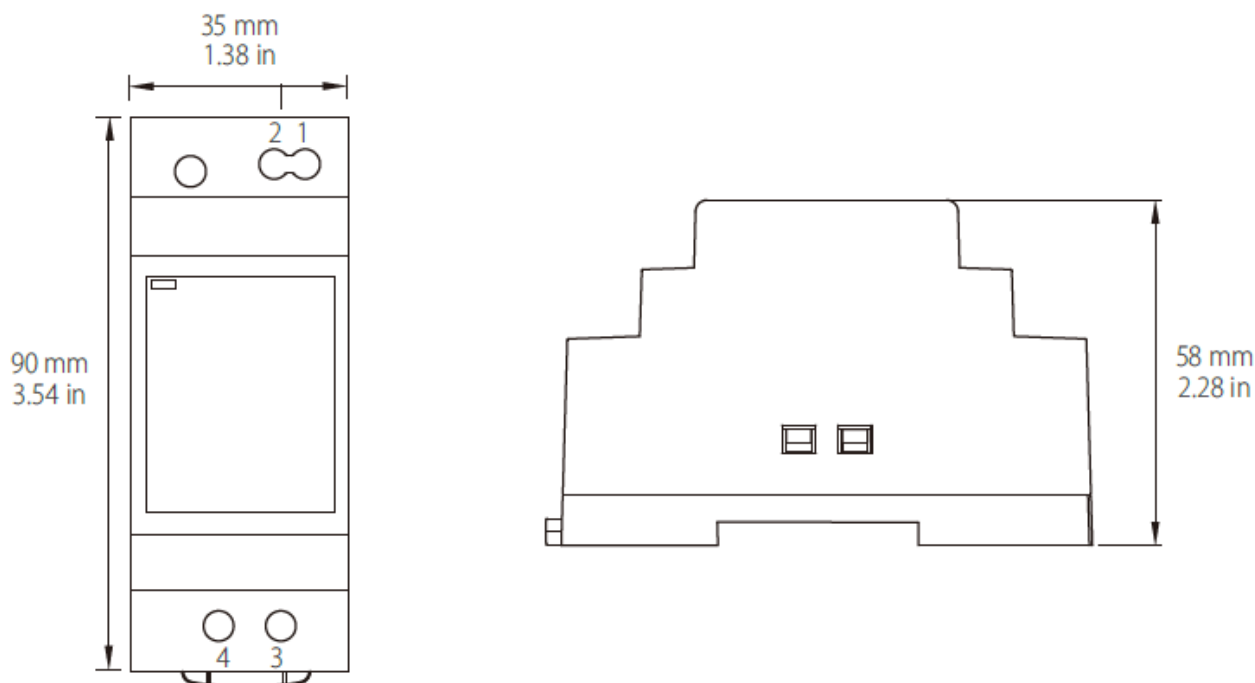
Technical Data

BN		2645202	2645203	2645204	2645205
MODEL		DPH-12024	DPH-24030	DPH-12054	DPH-24060
INPUT	VOLTAGE RANGE	100~240 VAC			
	FREQUENCY RANGE	47~63 Hz			
	POWER FACTOR (Typ.)	>0.45			
	AC CURRENT (Typ.)	0.48 A/115 VAC, 0.88 A/230 VAC		1.2 A/115 VAC, 0.8 A/230 VAC	
	INRUSH CURRENT (Typ.)	COLD START 25 A/115 VAC, 45 A/230 VAC		COLD START 30 A/115 VAC, 60 A/230 VAC	
	LEAKAGE CURRENT	<1 mA/243 VAC	<1 mA/244 VAC	<1 mA/245 VAC	<1 mA/246 VAC
OUTPUT	DC VOLTAGE	12 VDC	24 VDC	12 VDC	24 VDC
	RATED CURRENT	2 A	1.5 A	4.5 A	2.5 A
	CURRENT RANGE	0~2 A	0~1.5 A	0~4.5 A	0~2.5 A
	RATED POWER	24 W	36 W	54 W	60 W
	PEAK POWER	N/A			
	RIPPLE & NOISE	120 mVp-p	150 mVp-p	120 mVp-p	150 mVp-p
	VOLTAGE ADJ. RANGE	10.8-13.8 V	21.6-29 V	10.8-13.8 V	21.6-29 V
	VOLTAGE TOLERANCE	±2 %			
	LINE REGULATION	±1 %			
	LOAD REGULATION	±1 %			
	SETUP, RISE TIME	500 ms, 50 ms/230 VAC at full load; 500 ms, 50 ms/115 VAC at full load			
	HOLD UP TIME (Typ.)	30 ms/230 VAC at full load; 12 ms/115 VAC at full load			
PROTECTION	OVERLOAD	105-160 % rated output power, Hiccup mode when output voltage <50 %, recovers automatically after fault condition is removed. Constant current limiting within 50-100 % rated output voltage, recovers automatically after fault condition is removed.			
	OVER VOLTAGE	15~18 V	30~36 V	14.2~16.2 V	30~36 V
	OVER TEMPERATURE	N/A			
ENVIRONMENT	WORKING TEMP.	-20~+70 °C (refer to derating curve)			
	WORKING HUMIDITY	20~95 % RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40~+85 °C, 10~95 %RH			
	TEMP. COEFFICIENT	±0.03 %/°C (0 ~ 50 °C)			
	VIBRATION	10~500 Hz, 2G, 10 min/1 cycle, period for 60 min. each along X,Y,Z axes Mounting: compliance to IEC60068-2-6			
SAFETY & EMC	SAFETY STANDARDS	UL62368-1, BS EN/EN62368-1			
	WITHSTAND VOLTAGE	I/P-O/P: 4 kVAC			
	ISOLATION RESISTANCE	I/P-O/P: 100 M ohms/500 VDC/25 °C/70 %RH			
	EMC EMISSION	BS EN/EN55032, class B, BS EN/EN61000-3-2,3			
	EMC IMMUNITY	BS EN/EN61000-4-2,3,4,5,6,8,11			
OTHERS	MTBF	774.4 K hrs min. MIL-HDBK-217F (25 °C)		742 K hrs min. MIL-HDBK-217F (25 °C)	
	DIMENSION (W x H x D)	35 x 90 x 58 mm		52 x 90 x 58 mm	

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Dimensions and Installation



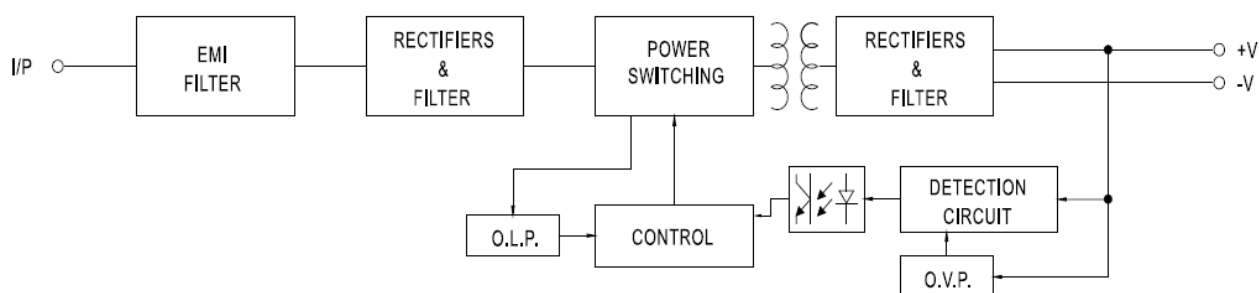
Input

No.	Description
1	+V
2	-V

Output

No.	Description
3	AC/L
4	AC/N

Functional Diagram

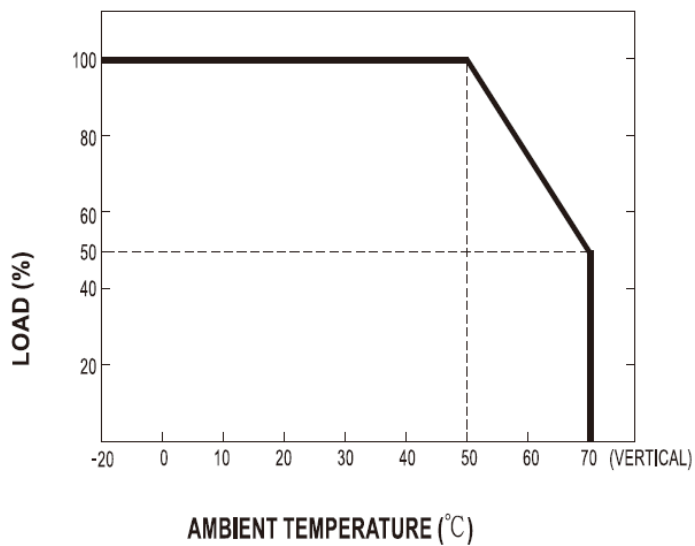




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Deduction Curve and Temperature



Minus Output and Input Voltage Curves

