PDAM240 Power Supply Series (240W)

Features:

- Open Frame of Enclosed Versions Available
- UL/IEC/EN 60601 3.1 Edition
- UL/IEC/EN 62368-1 Safety Approvals
- 4th Edition UL/IEC/EN 60601 EMC Compliant
- 4000VAC Input to Output Isolation (2x MOPP)
- Class I and Class II Input Configurations
- Suitable for BF Application with appropriate system consideration
- High Efficiency up to 94%
- <500mW No Load Input Power

Description:

The PDAM240 series of compact, open-framed AC-DC switching power supplies offers a high power density to fit in a small space. This dense 4" x 2" platform offers up to 240W of continuous power across a wide range of operating temperatures, all while maintaining a low emissions profile. All models meet FCC, EN55011, and EN55022 class B emission limits, and comply with UL, IEC, CE, and more.

Model Number	Output Voltage	Maximum Load Convection	Maximum Load with 10CFM Forced Air	Output Load Regulation	Ripple & Noise (Vp-p)	Average Efficiency @115/230 Vac	Fan Output
PDAM240-12A-H	12V	13.33A	20A	±2%	120mV	92.5%	12V/0.5A
PDAM240-14A-H	24V	6.67A	10A	±2%	240mV	93%	12V/0.5A
PDAM240-18A-H	48V	3.33A	5A	±2%	480mV	94%	12V/0.5A

NOTES:

1. All models are available in an enclosed version (e.g. PDAM240-12A would be PDAM240-12C)
2. All models are available with terminal block type output. Remove the –H extension (indicating header type output) when ordering.
3. We strongly recommend conducting isolation testing with a DC voltage.
4. Hold-up Time measured at 90% Vout.
5. Ripple and noise measured at 20MHz bandwidth with a 47uF electrolytic and 0.1uF ceramic capacitor in parallel with the output, at the DC connector.
6. Please secure the PSU to your assembly using the four mounting holes in the corners for Class I and Class II equipment.

Specifications	
Input	
Input Voltage	90-264VAC
Input Frequency	47-63Hz
Input Current	<3.0A at 115VAC; <1.5A at 230VAC
Inrush Current	<45A at 115VAC; 90A at 230VAC
Power Factor	>0.9 Full load (230VAC)
Leakage Current	<100µA max.
Output	
Total Output Power	240W
Output Voltage	See table
Hold Up Time	10ms min (Vout = 90% Vnominal)
Efficiency	Up to 94%. See Table for details.
Minimum Load	No Minimum Load
Protection Features	
Overvoltage Protection	Auto Recovery
Overload Protection	Auto Recovery
Short Circuit Protection	Auto Recovery
Environmental	
Operating Temperature	-30°C to +70°C (with derating)
Storage Temperature	-30°C to +85°C
Humidity	20%-90% RH
Operating Altitude	<5000 meters
General Specifications	
Dimensions	2.05” x 4.10” x 1.087”
Weight	234g Typical
MTBF	>250k hours per MIL-HDBK-217F at full load and 25°C ambient temperature

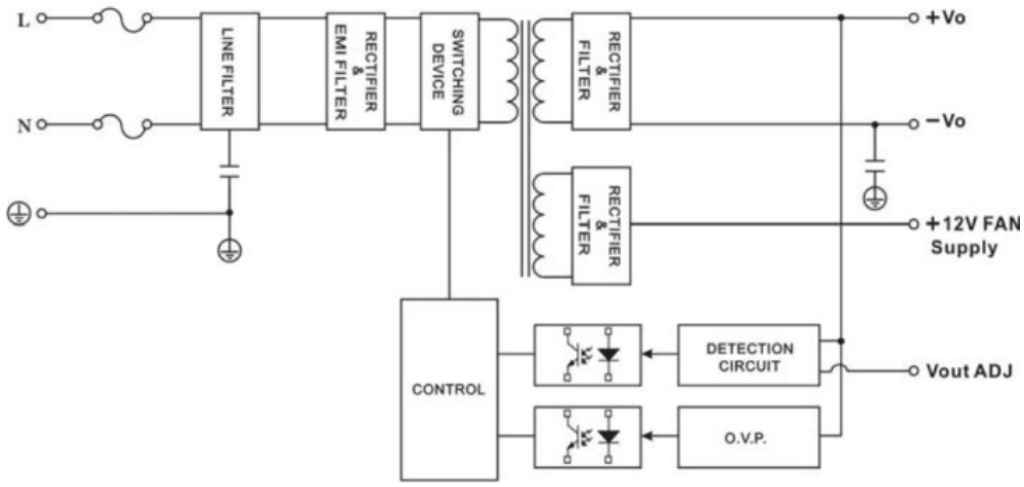
TT Electronics | Power Partners, Inc
43 Broad Street Suite B206, Hudson, MA 01749, USA. t: +1 (978) 567-9600

Specifications Continued	
Safety	
Approved to USA/CANADA	UL60601-1 3.1 Edition UL/Cul60950-1 AM2 UL62368-1
Approved to Europe	IEC/EN60601-1 3rd Edition TUV EN60950-1 CB Report IEC/EN62368-1
Isolation	4000VAC input to output, 2 x MOPP 2000VAC input to ground, 1 x MOPP 1500VAC output to ground, 1 x MOPP
*Consult with TT Electronics for information on additional country safety approvals	
EMC	
EMC (IEC60601-1-2:2014)	FCC Class B Radiated & Conducted EN55011/55022 Class B Radiated & Conducted (Class A Radiated for Class II Configuration)
Harmonic Currents Voltage Flicker Electrostatic Discharge Radiated Immunity EFT Surge Immunity Conducted Immunity Power Frequency Magnetic Field Immunity Dips/Interruptions	IEC 61000-3-2 IEC 61000-3-3 IEC 61000-4-2: 15kV Air, 8kV contact IEC 61000-4-3: 10V/m IEC 61000-4-4: ±2kV IEC 61000-4-5: 2005 1kV diff, 2kV com IEC 61000-4-6: 10Vrms IEC 61000-4-8: 30A/m IEC 61000-4-11: 30% reduction for 500ms, 100% reduction for 10ms.

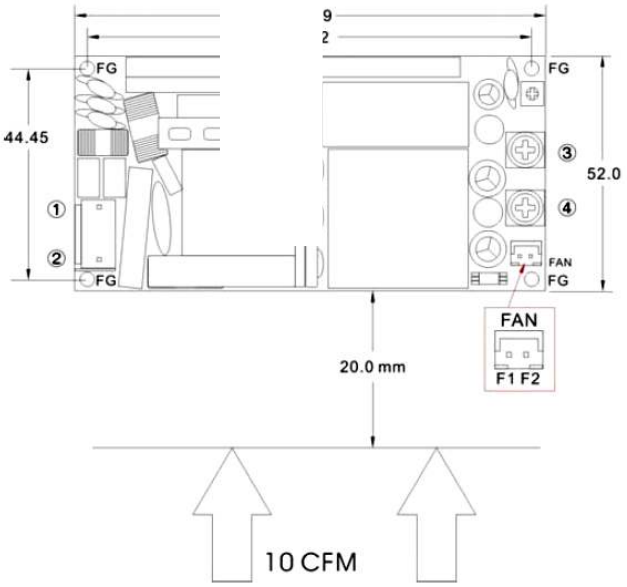
TT Electronics | Power Partners, Inc
43 Broad Street Suite B206, Hudson, MA 01749, USA. t: +1 (978) 567-9600

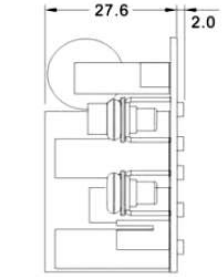
Diagrams

Block Diagram



Mechanical Outline—Terminal Block





PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

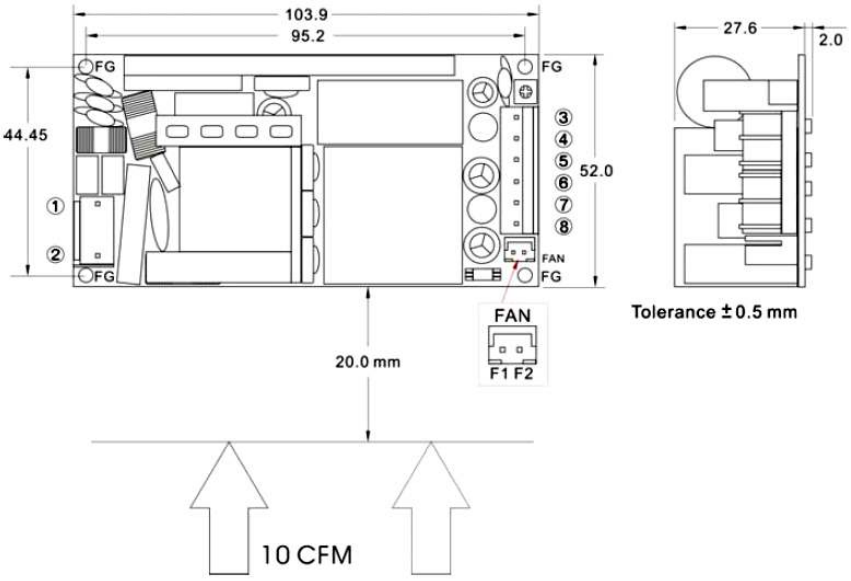
Connector Pin (FAN)	
PIN#	Single
F1	+AUX OUT
F2	-AUX OUT

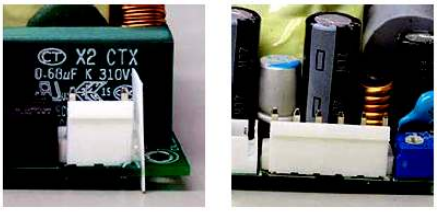
		Brand: JST	
		Mating Housing	Terminal
F1	+AUX OUT	XHP-2	SXH-002T-P0.6
F2	-AUX OUT		

For Terminal Block Output, Part Number is PDAM240-XXA. (ex. PDAM240-12A)

Diagrams

Mechanical Outline - Header



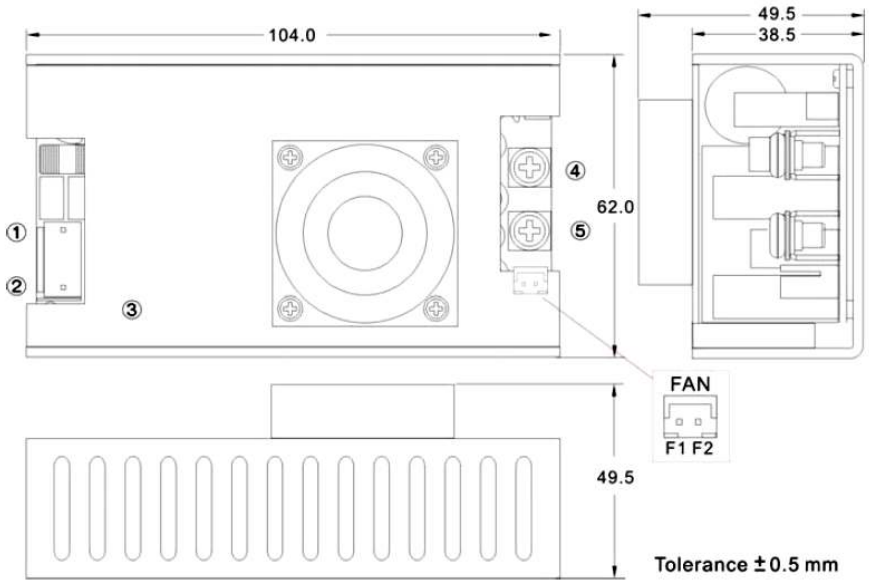


PIN#	Single
1	AC IN (N)
2	AC IN (L)
3~5	+DC OUT
6~8	-DC OUT

Connector Pin (FAN)	
PIN#	Single
F1	+AUX OUT
F2	-AUX OUT

For Header version, part number is PDAM240-XXA-H. For Example PDAM240-12A-H

Mechanical Outline (Enclosed Frame Standard Terminal Block)

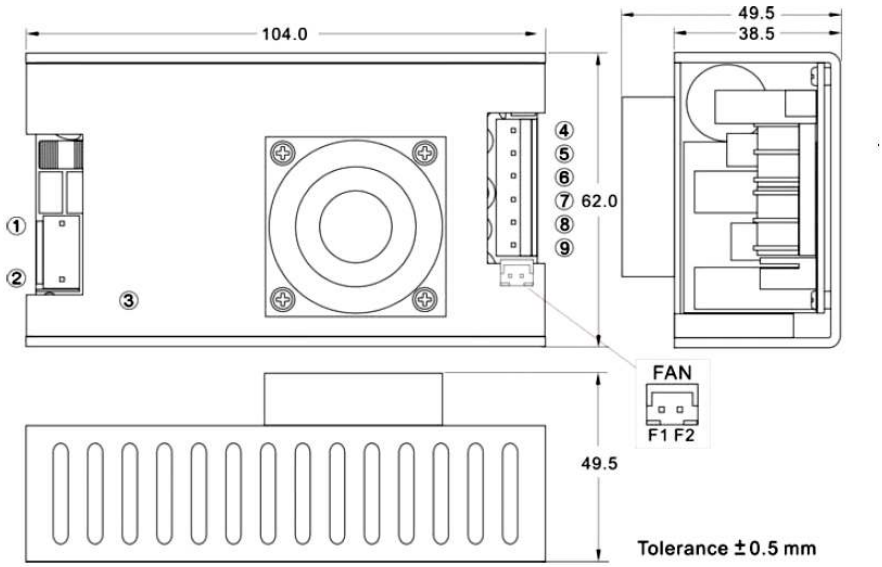


PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	PF / FG
4	+DC OUT
5	-DC OUT

Connector Pin (FAN)	
PIN#	Single
F1	+AUX OUT
F2	-AUX OUT

Diagrams

Header Version



PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	PF / FG
4~6	+DC OUT
7~9	-DC OUT

Connector Pin (FAN)

PIN#	Single
F1	+AUX OUT
F2	-AUX OUT

[1]For Header version, part number is PDAM240-XXC-H. For Example PDAM240-12C-H

Pin Specifications — Terminal Block

		Alex		JST	
1	AC IN (N)	9396-3	96T series	VHR-3N	SVH-41T-P1.1
2	NO PIN				
3	AC IN (L)				
4	+DC OUT	Terminal : M3.5 Pan HD screw in 2 positions Torque to 8 lbs-in(90 cNm) max.			
5	-DC OUT				
6	PE	—	—	—	—

Pin Specifications — Header

		Alex		JST	
1	AC IN (N)	9396-3	96T series	VHR-3N	SVH-41T-P1.1
2	NO PIN				
3	AC IN (L)				
4~6	+DC OUT	9396-6	96T series	VHR-6N	SVH-41T-P1.1
7~9	-DC OUT				
10	PE	—	—	—	—

Diagrams

Power Derating Curves