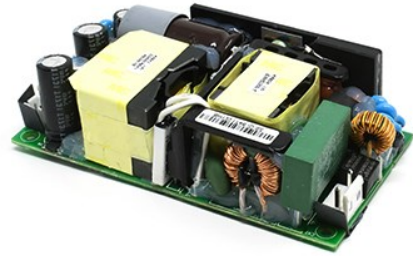


Features:

- 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 |

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 |

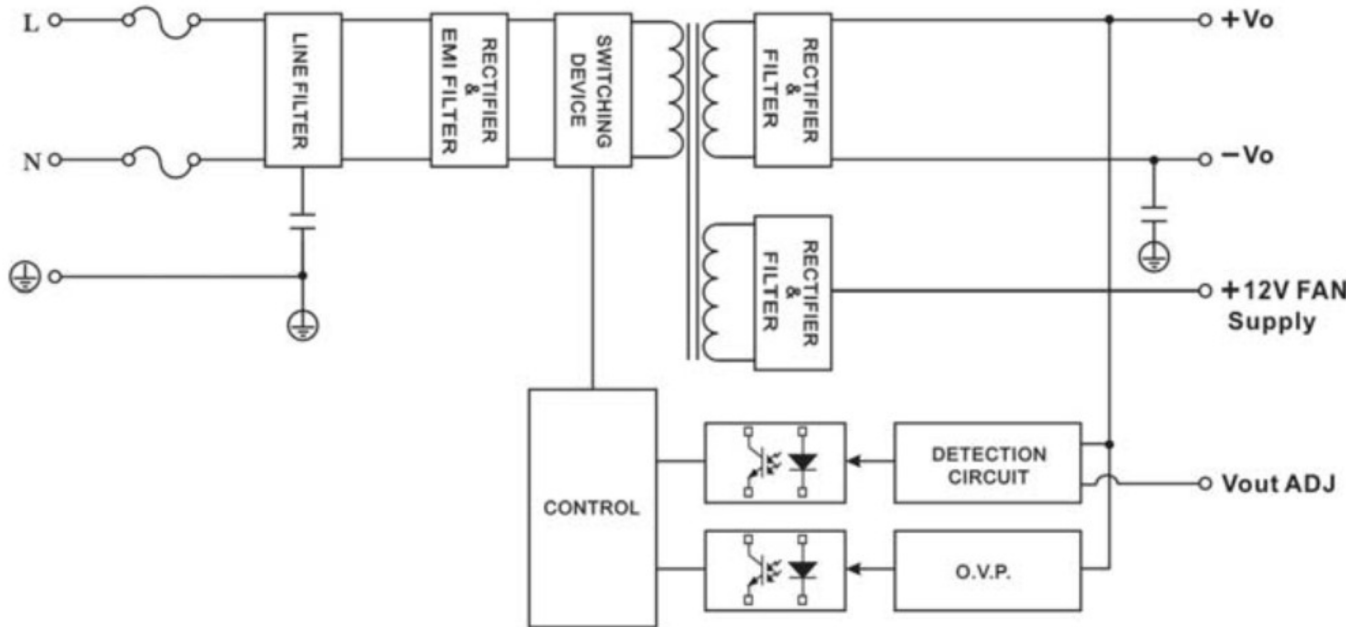
*Consult with TT Electronics for information on additional country safety approvals

EMC

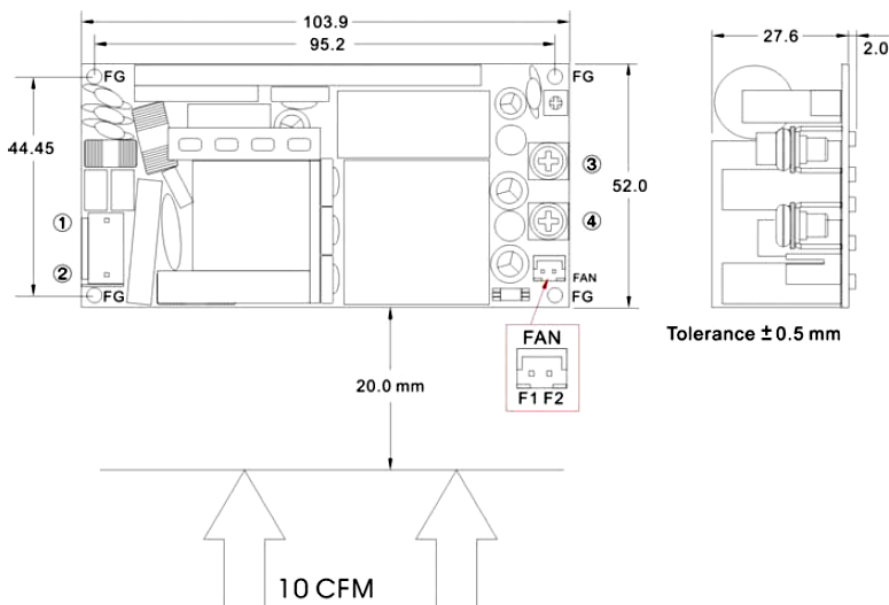
| | |
|--|--|
| EMC (IEC60601-1-2:2014) | FCC Class B Radiated & Conducted EN55011/55022 Class B Radiated & Conducted (Class A Radiated for Class II Configuration) |
| Harmonic Currents Voltage Flicker Electrostatic Discharge Radiated Immunity EFT Surge Immunity Conducted Immunity Power Frequency Magnetic 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. |

Diagrams

Block Diagram



Mechanical Outline—Terminal Block



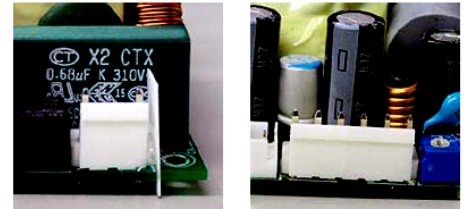
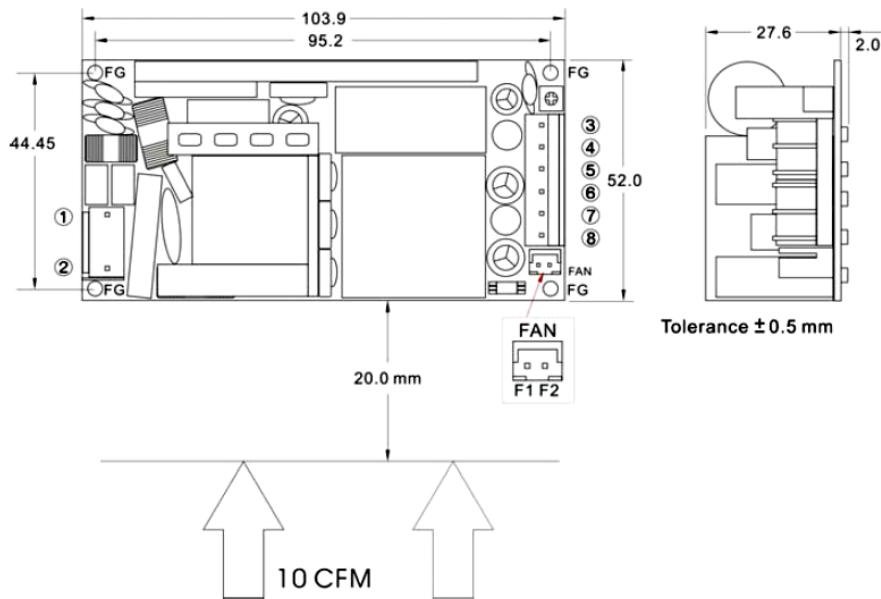
| PIN# | Single |
|------|-----------|
| 1 | AC IN (N) |
| 2 | AC IN (L) |
| 3 | +DC OUT |
| 4 | -DC OUT |

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

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

Diagrams

Mechanical Outline - Header



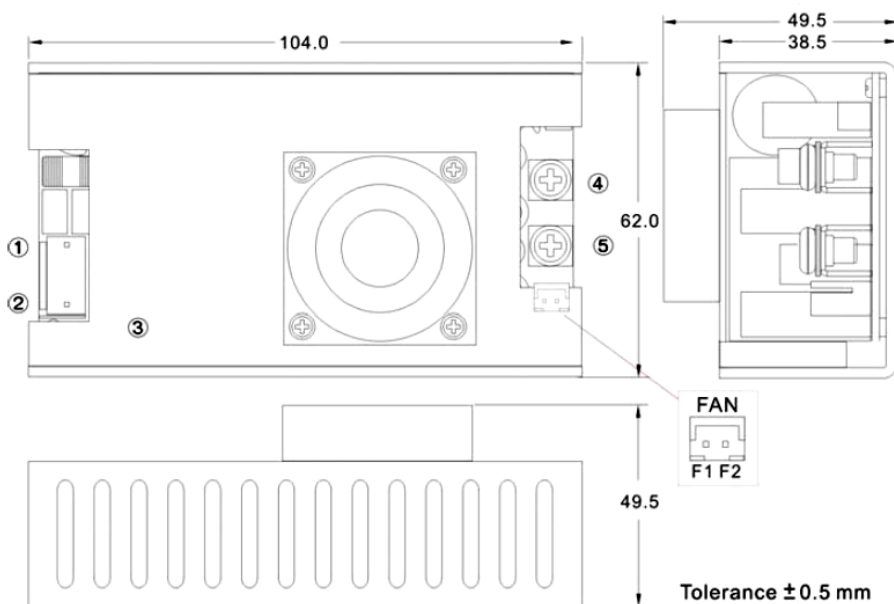
| PIN# | Single |
|------|-----------|
| 1 | AC IN (N) |
| 2 | AC IN (L) |
| 3~5 | +DC OUT |
| 6~8 | -DC OUT |

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)



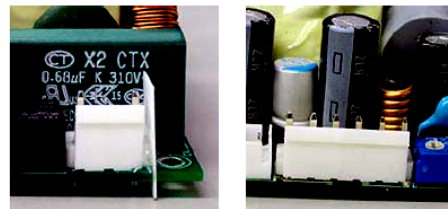
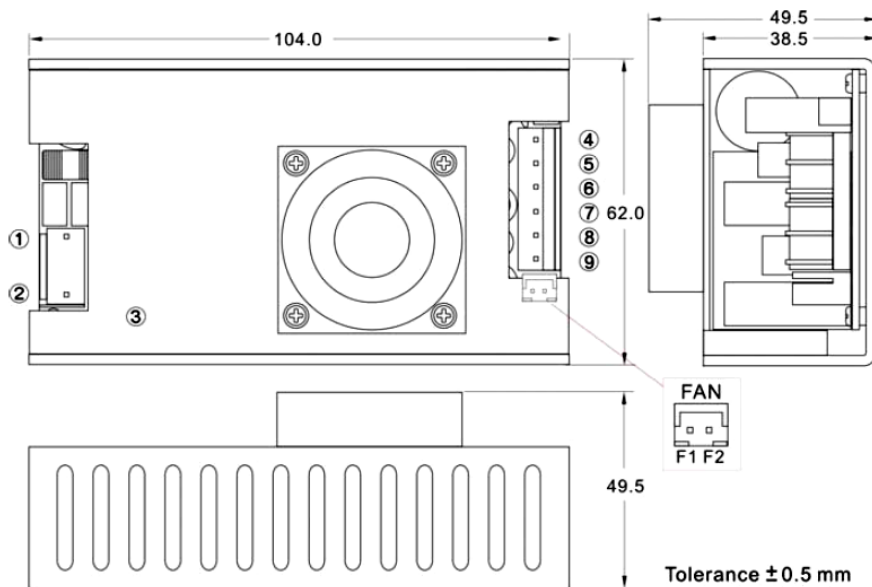
| PIN# | Single |
|------|-----------|
| 1 | AC IN (N) |
| 2 | AC IN (L) |
| 3 | PF / FG |
| 4 | +DC OUT |
| 5 | -DC OUT |

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 |

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

Diagrams

Power Derating Curves

