

240 Watts

PFMUIE240 SERIES**KEY FEATURES**

- Enclosed Medical Switching Power Supply
- 4000VAC Input to Output 2MOPP Insulation
- High Efficiency up to 93%
- With P.F.C. Function >0.9
- <0.5W No Load Input Power
- EMI for Both Class I (with PE) and Class II (without PE) Configuration
- Suitable for BF Application with Appropriate System Consideration
- UL / IEC / EN 60601 3.1 Edition & UL / IEC / EN 60950 AM2 Safety Approvals
- 3-Year Product Warranty



(except for 15S)

ELECTRICAL SPECIFICATIONS

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No. | PFMUIE240-12S | PFMUIE240-15S | PFMUIE240-24S | PFMUIE240-48S | |
|---|------------------------------------|---|---------------|---------------|-------|
| Max Output Wattage (with 10CFM FAN) (W) | 240 W | | | | |
| Input | Voltage (Note 4) | 90-264 VAC | | | |
| | Frequency (Hz) | 47-63 Hz | | | |
| | Current (Full load) | < 3.0 A max. (115 VAC) / < 1.5 A max. (230 VAC) | | | |
| | Inrush Current (<2ms) | < 45 A max. (115 VAC) / < 90 A max. (230 VAC) | | | |
| | Leakage Current | < 0.1mA / 264 VAC (Touch Current) | | | |
| | Power Factor | PF>0.9 at Full Load | | | |
| Output | Voltage (V.DC.) | 12V | 15 V | 24V | 48V |
| | Voltage Adj Range (V.DC.) | ±4% Output Voltage | | | |
| | Voltage Accuracy | ±2% | | | |
| | Current (A) (max.) | 20 | 16 | 10 | 5 |
| | Line Regulation | ±1% | | | |
| | Load Regulation (0-100%) | ±1% | | | |
| | Minimum Load | 0% | | | |
| | Maximum Capacitive Load | 8000µF | 2000µF | 3000µF | 470µF |
| | Ripple & Noise (max.) (Note 1) | 1% Vout | | | |
| | Efficiency (at 230VAC) (Note 6) | 92% | 92% | 92.5% | 93% |
| | Hold-up Time (at 115 VAC) (Note 2) | 10 ms min. | | | |
| Protection | Over Power Protection | Auto recovery, Hiccup mode | | | |
| | Over Voltage Protection | Auto recovery | | | |
| | Overt Temperature Protection | Auto recovery | | | |
| | Short Circuit Protection | Protection level 1 (nominal) : Continuous, Auto recovery Protection level 2 (instantaneous high current) : Latch | | | |
| Isolation | Input-Output (Note 5) | 4000VAC or 5656VDC | | | |
| | Input-PE (Note 5) | 2000VAC or 2828VDC | | | |
| | Output-PE (Note 5) | 1500VAC or 2121VDC | | | |
| Environment | Operating Temperature | -30°C...+70°C (with derating) | | | |
| | Storage Temperature | -30°C...+85°C | | | |
| | Temperature Coefficient | ±0.05%/°C | | | |
| | Altitude During Operation | 5000m | | | |
| | Humidity | 20~90% RH | | | |
| | Atmospheric Pressure | 56 kPa to 106 kPa | | | |
| | MTBF | >250,000 h @ 25°C (MIL-HDBK-217F, Notice 1) | | | |
| | Vibration | IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) | | | |
| Shock | IEC60068-2-27 | | | | |

ELECTRICAL SPECIFICATIONS

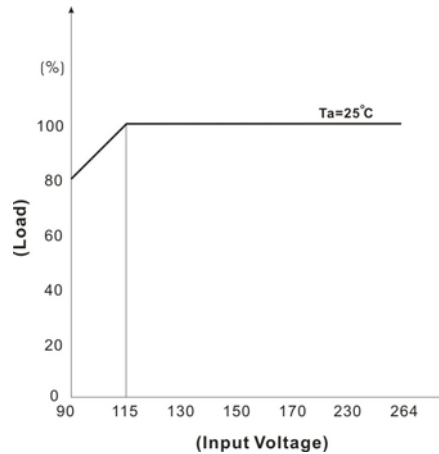
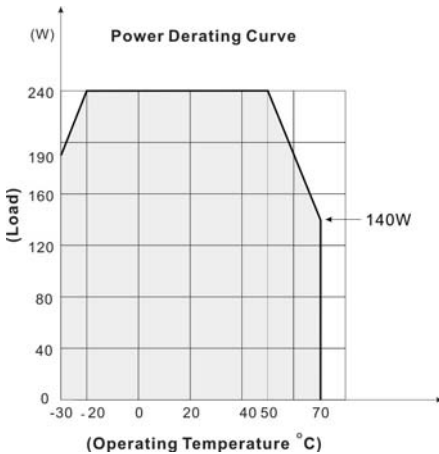
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No. | PFMUIE240-12S | PFMUIE240-15S | PFMUIE240-24S | PFMUIE240-48S |
|-----------|---|--|---------------|---------------|
| Physical | Dimensions (L x W x H) 4.1 x 2.44 x 1.99 Inches (104.0 x 62.0 x 50.5 mm) Tolerance ±0.5 mm | | | |
| | Weight 328 g | | | |
| Safety | Approval Others: UL / IEC / EN 60601 3.1 rd Edition & UL / IEC / EN 60950 AM2 | | | |
| | Approval / Meet 15S: UL / IEC / EN 60601 3.1 rd Edition / UL / IEC / EN 60950 AM2 (meet) | | | |
| EMC | Conducted EMI (Note 7) | EN55011 Conducted Class B | | |
| | Radiated EMI (Note 7) | EN55011 Class I class B / Class II class A | | |
| | EMS | EN60601-1-2 4th edition | | |

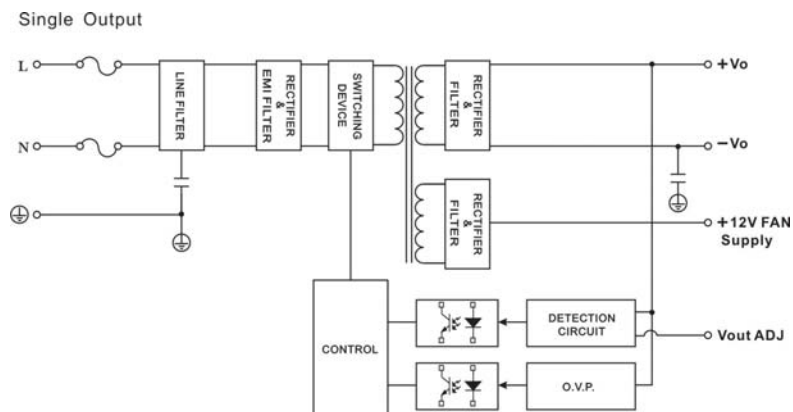
NOTE

- Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
- Hold-up Time measured at 90% Vout.
- Main Vout must be >50% Load, 12V (Aux) / 0.5A.
- Please check the derating curve for more details.
- Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Polytron Devices.
- After 30 minutes of burn-in
- Please secure the power supply unit to your metal case by using the four screw holes in the corners for either Class I or Class II equipment
- CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.**

DERATING

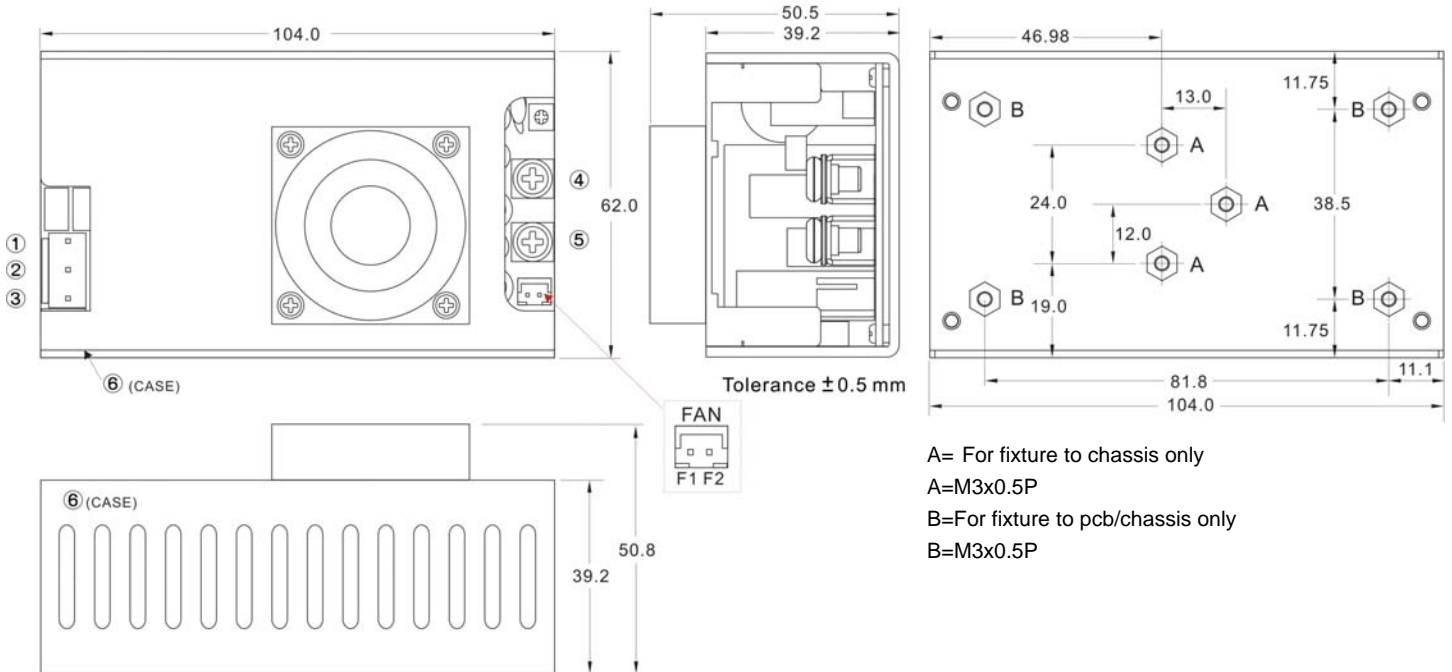


BLOCK DIAGRAM



MECHANICAL DIMENSIONS (Top View)

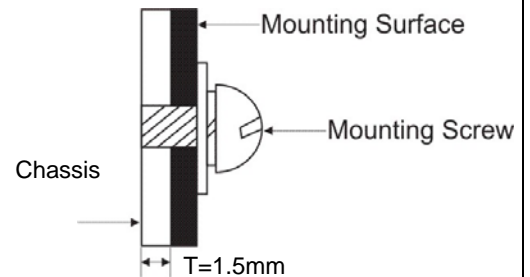
Standard



| Brands | | Alex | | JST | |
|--------|-----------|---|------------|----------------|--------------|
| PIN# | Single | Mating Housing | Terminal | Mating Housing | Terminal |
| 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 : M5 Pan HD screw in 2 positions Torque to 8 lbs-in(90 cNm) max. | | | |
| 5 | -DC OUT | | | | |
| 6 | PE | — | — | — | — |

ASSEMBLY INSTRUCTIONS

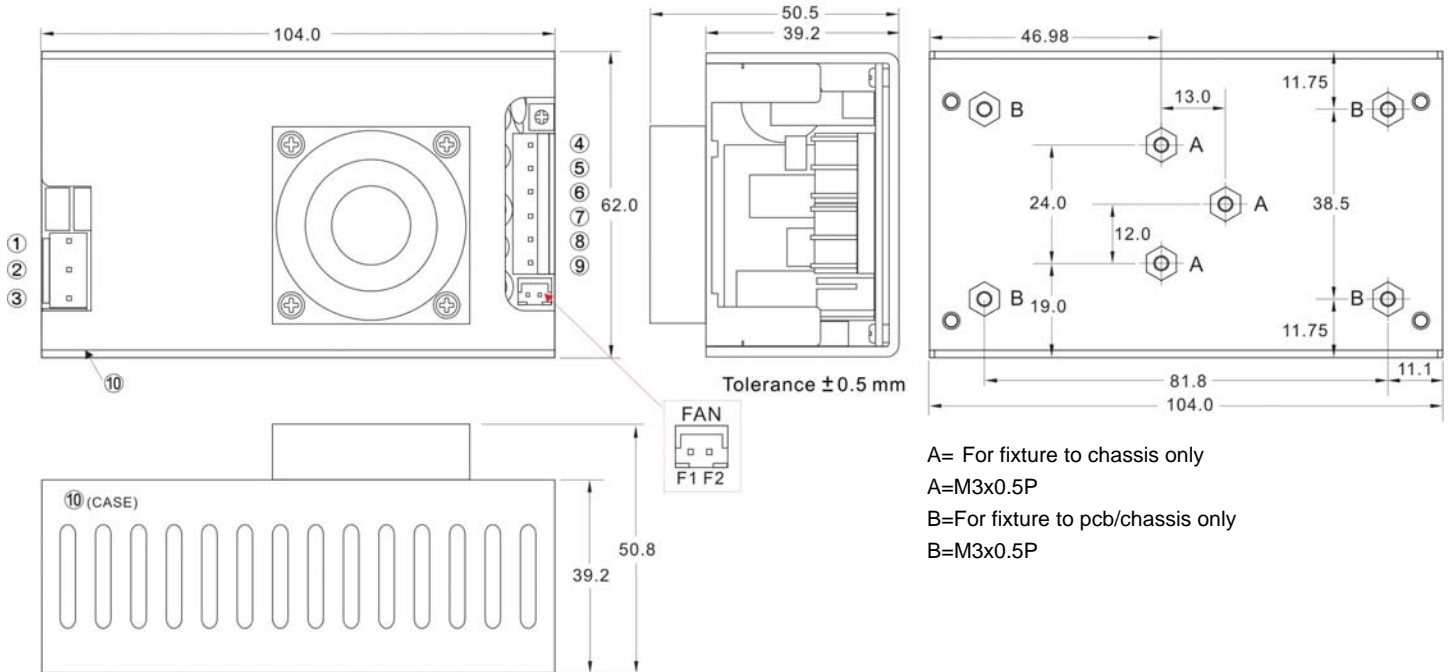
*U Case T=1.5mm
Customer is advised to screw into the threads no more than 1.5mm



| Connector Pin (FAN) | | | | | |
|---------------------|----------|----------------|----------|----------------|---------------|
| Brands | | Cheng Weei | | JST | |
| PIN# | Single | Mating Housing | Terminal | Mating Housing | Terminal |
| F1 | +AUX OUT | CX-H250-02 | CX-T2501 | XHP-2 | SXH-002T-P0.6 |
| F2 | -AUX OUT | | | | |

MECHANICAL DIMENSIONS (Top View)

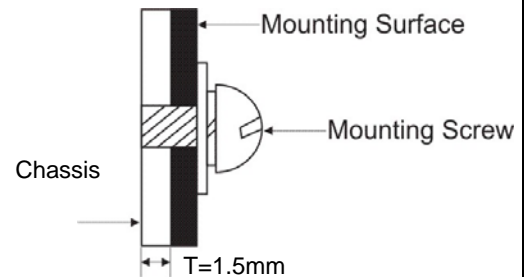
A Type



| Brands | | Alex | | JST | |
|--------|-----------|----------------|------------|----------------|--------------|
| PIN# | Single | Mating Housing | Terminal | Mating Housing | Terminal |
| 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 | — | — | — | — |

ASSEMBLY INSTRUCTIONS

*U Case T=1.5mm
Customer is advised to screw into the threads no more than 1.5mm



| Connector Pin (FAN) | | | | | |
|---------------------|----------|----------------|----------|----------------|---------------|
| Brands | | Cheng Weei | | JST | |
| PIN# | Single | Mating Housing | Terminal | Mating Housing | Terminal |
| F1 | +AUX OUT | CX-H250-02 | CX-T2501 | XHP-2 | SXH-002T-P0.6 |
| F2 | -AUX OUT | | | | |