

KEY FEATURES

- U Bracket Medical Switching Power Supply
- 160 Watt with Free Air Convection
- 240 Watt with 10CFM FAN
- 4000VAC Input to Output 2MOPP Insulation
- High Efficiency up to 94%
- With P.F.C. Function >0.9
- <0.5W No Load Input Power
- Low Leakage Current under 100uA
- ANSI/AAMI ES60601-1, EN60601-1, & IEC60601-1 3.1st Edition Safety Approvals
- 3-Year Product Warranty


ELECTRICAL SPECIFICATIONS

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

| Model No. | MQF240U-12S | MQF240U-24S | MQF240U-48S | |
|--|---------------------------------------|---|-------------|---------|
| Max Output Wattage (with 10CFM FAN) (W) | 240 W | | | |
| Max Output Wattage (Free air Convection) (W) | 160 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 | 24V | 48V |
| | Voltage Adj Range (V.DC.) | ±5% Output Voltage | | |
| | Voltage Accuracy | ±2% | | |
| | Current (with 10CFM FAN) (A) max | 20 | 10 | 5 |
| | Current (Free air Convection) (A) max | 13.3 | 6.66 | 3.33 |
| | Line Regulation | ±1% | | |
| | Load Regulation (0-100%) | ±1% | | |
| | Minimum Load | — | | |
| | Maximum Capacitive Load (Note 1) | Pending | Pending | Pending |
| | Ripple & Noise max. | 150mV | 1% Vout | |
| | Efficiency (at 230VAC) (Note 2) | 92% | 93% | 94% |
| Hold-up Time (at 115 VAC) | 10 ms min. | | | |
| Protection | Over Power Protection | Auto recovery, Hiccup mode | | |
| | Over Voltage Protection | Zener diode clamp | | |
| | Short Circuit Protection | Auto recovery, Hiccup mode | | |
| Isolation | Input-Output | 4000VAC or 5656VDC | | |
| | Input-FG | 2000VAC or 2828VDC | | |
| | Output-FG | 1500VAC or 2121VDC | | |
| Environment | Operating Temperature | -30°C...+70°C (with derating) | | |
| | Storage Temperature | -30°C...+85°C | | |
| | Temperature Coefficient | ±0.05%/°C | | |
| | Humidity | 95% RH | | |
| | MTBF | >250,000 h @ 25°C (MIL-HDBK-217F, Notice 1) | | |
| Physical | Vibration | 10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes. | | |
| | Dimension (L x W x H) | 4.29 x 2.44 x 1.5 Inches (109.0 x 62.0 x 38.1 mm) Tolerance ±0.5 mm | | |
| | Weight | Pending | | |
| | Cooling Method | Free convection | | |

ELECTRICAL SPECIFICATIONS

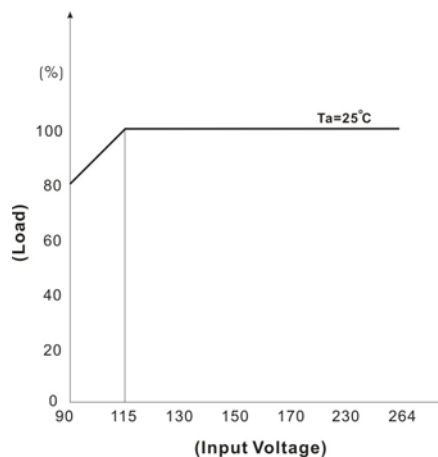
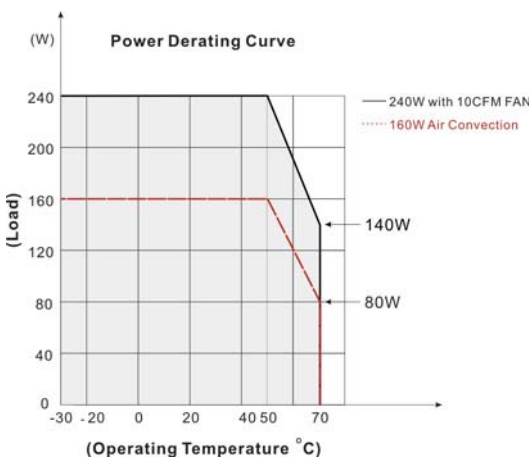
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No. | | MQF240U-12S | MQF240U-24S | MQF240U-48S |
|-----------|----------------------------|--|-------------|-------------|
| Safety | Approval | cUL / UL Standard: UL 60950-1, CAN/CSA C22.2 No. 60950-1-07 ANSI/AAMI ES60601-1 (2005 + C1:09 + A2:10), CAN/CSA-C22.2 No. 60601-1 (2008), 2 x MOPP (Input to Output) | | |
| | Conducted and radiated EMI | EN55011 class B (Pending) | | |
| EMC | ESD | EN61000-4-2 air ± 8kV , Contact ± 4Kv (Pending) | | |
| | Radiated Immunity | EN61000-4-3 10V/m (Pending) | | |
| | Fast Transient | EN61000-4-4 ± 2kV (Pending) | | |
| | Surge | EN61000-4-5 ±1kV (Pending) | | |
| | Conducted Immunity | EN61000-4-6 10Vrms (Pending) | | |
| | PFMF | EN61000-4-8 30A/m (Pending) | | |
| | Dips | EN61000-4-11 30% 10ms (Pending) | | |
| | Interruption | EN61000-4-11 >95% 5000ms (Pending) | | |

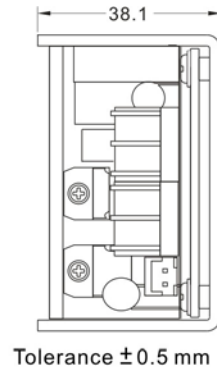
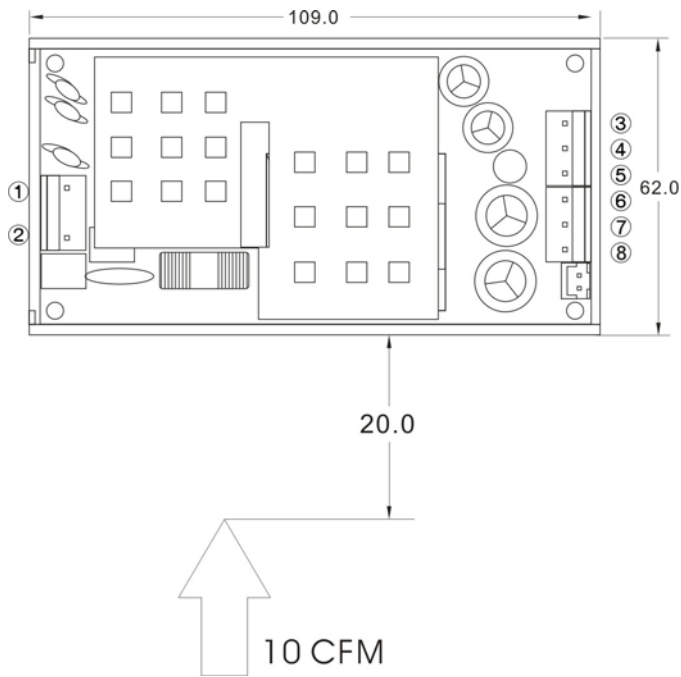
NOTE

- 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 within Arch power supply.

DERATING



ECHANICAL DIMENSION (Top View)



| PIN# | Single |
|------|-----------|
| 1 | AC IN (N) |
| 2 | AC IN (L) |
| 3 | +DC OUT |
| 4 | +DC OUT |
| 5 | -DC OUT |
| 6 | -DC OUT |
| 7 | -AUX OUT |
| 8 | +AUX OUT |

BLOCK DIAGRAM

Pending