

Switching Power Supply

250 WATT / SINGLE OUTPUT

KEY FEATURES:

- 250 Watts output Power
- 15V and 24V DC Single Output
- U Channel Package 5" x 8" x 1.4"
- 80% Efficiency typical
- Screw Terminal Input and Output
- Reliability in excess of 100,000 Hours
- International Safety Approvals
- Class B Radiated and Conducted Emissions
- 1 Year Warranty



| MODEL | Output Voltage (V) | Regulation | Maximum Current (A) | Ripple/Noise (mVp-p) | Standby (Vsb) |
|-------------|--------------------|------------|---------------------|----------------------|---------------------------------|
| ARF-2501-05 | +24.0 | +/- 1% | 10.5 | 120 | +12V / 0.25A (fan) +5Vs / 2A |
| ARF-2501-10 | +15.0 | +/- 1% | 16.7 | 120 | +12V / 0.25A (fan) |

| INPUT SPECIFICATIONS | |
|-------------------------|--|
| Input Voltage | 85 – 264 VAC |
| Input Frequency | 47 – 63 Hz |
| Input Current | Maximum 3.9A @ 100 VAC |
| Inrush Current | 37A @ 240 VAC |
| Input Protection | Fuse |
| Leakage Current | Maximum 500 uA |
| Power Factor Correction | Active PFC to meet or exceed EN61000-3-2 |

| ENVIRONMENT SPECIFICATIONS | |
|----------------------------|---|
| Operating Temperature | 0 °C to +50 °C |
| Storage Temperature | -40 °C to +85 °C |
| Forced Air Cooling | 15CFM from AC to DC side |
| MTBF | 100 kHrs to MIL-HDBK-217F at 25 °C |
| Shock | Storage: 30G , 11ms, 1/2 sine wave pulse, 6 axis Operation: 5G , 11ms, 1/2 sine wave pulse, 6 axis |
| Vibration | 2G rms, 5Hz to 500kHz, 3 axis |

| OUTPUT SPECIFICATIONS | |
|-----------------------|---|
| Setpoint Accuracy | +/- 1% |
| Total Output Power | 250W |
| Hold-up Time | 25ms |
| Efficiency | 80% typical |
| Minimum Load | No minimum load |
| Isolation (HiPot) | 1500 VAC Input to Ground |
| Remote Sense | Compensates for up to 0.25V drop |
| AC_Fail | Goes low (<0.4V) at least 6ms before output drops in the event of an AC input failure |
| ExtOff | Turns off the outputs when signal is pulled low. |
| PowerGood | Goes high (> 2.4V) within 100ms - 500ms of output in regulation. Goes low (<0.4V) at least 1ms before output out of regulation. |

| PROTECTION | |
|---------------|--|
| Overvoltage | Latch-mode (Cycle AC input or ExtOff/ PSON to reset) |
| Overpower | Auto-recover |
| Short Circuit | Auto-recover |
| Thermal | Auto-recover |

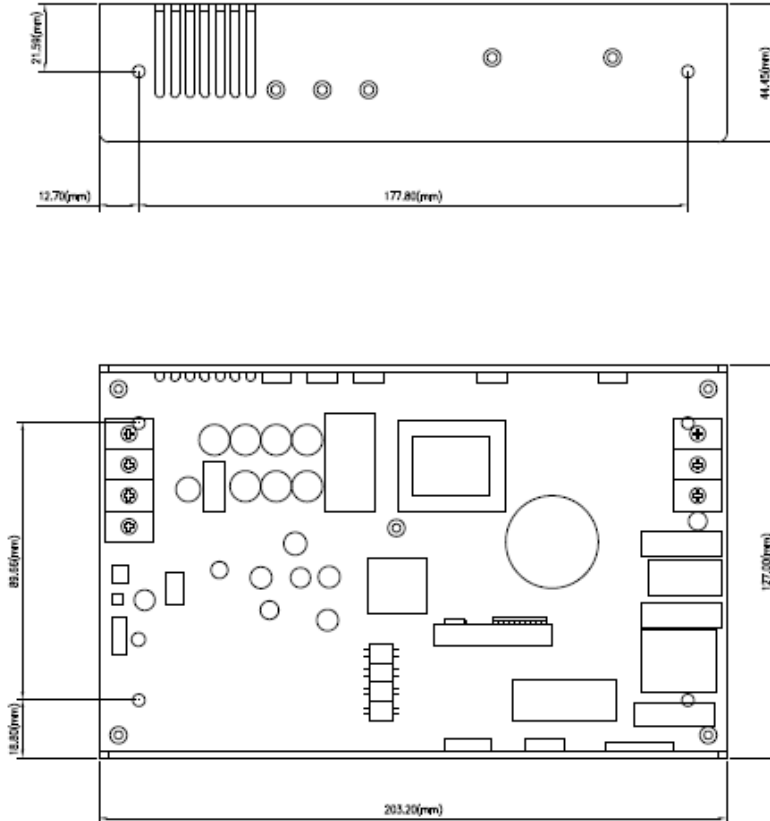


COMPLIANCE

| | |
|-------------------------|--|
| EMI | FCC Class B / EN55022 Class B under all rated input and load conditions |
| Electrostatic Discharge | EN61000-4-2: Contact Discharge- Contact discharge in 2kV increments to 6kV for metallic surfaces including connector bodies. 10 discharges pretest point at each voltage: 5 positive polarity and 5 negative polarity. Air discharge – Air discharge in 2kV increments to 8kV for scams and non-metallic user accessible surfaces. 10 discharges pretest point at each voltage: 5 positive polarity and 5 negative polarity. |
| Radiated Susceptibility | EN61000-4-3: Electromagnetic Field Strength 3V/m |
| EFT / Bursts | EN61000-4-4: Direct Coupling Line to Ground Reference Plane: 1kV increments up to 2kV for a minimum of 1 min. at each voltage. Direct Coupling Neutral to Ground Reference Plane: 1kV increments up to 2kV for a minimum of 1 min. at each voltage. Direct Coupling Ground to Ground Reference Plane: 1kV increments up to 2kV for a minimum of 1 min. at each voltage |
| Surges | EN61000-4-5: The peak value of the bi-directional surge waveform shall be 2kV for common mode and 1kV for differential modes of transient surge injection. No unsafe operation or no user noticeable degradation is allowed under any condition. |
| Conducted Immunity | EN61000-4-6: 0.15~800MHz, 10V, 80% AM |
| Voltage Dips | EN61000-4-10: 95% Dip & 10ms, 30% Dip & 500mS |
| Voltage Interruptions | EN61000-4-11, 95% reduction, 5s |
| Fluctuations & Flicker | EN61000-3-3 |
| Harmonic Distortion | EN61000-3-2 Class D |
| Safety Certifications | cTUVus UL60950-1, CB Report IEC 60950-1 |

Typical Outline Drawing:

(REFER TO PRODUCT MECHANICAL DRAWING FOR COMPLETE INFORMATION)



SIGNALS CONNECTOR

| Conn. | Pin | Signal |
|--------------------|-----|------------|
| Input | 1 | AC Line |
| | 2 | AC Neutral |
| | 3 | AC Ground |
| Output | 1 | +Vout |
| | 2 | +Vout |
| | 3 | Return |
| | 4 | Return |
| Signals | 1 | Power_Good |
| | 2 | AC_Fail |
| | 3 | Ext Off |
| | 4 | + Sense |
| | 5 | - Sense |
| +12V (fan) / +5Vsb | 1 | - |
| | 2 | + |

