

# 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

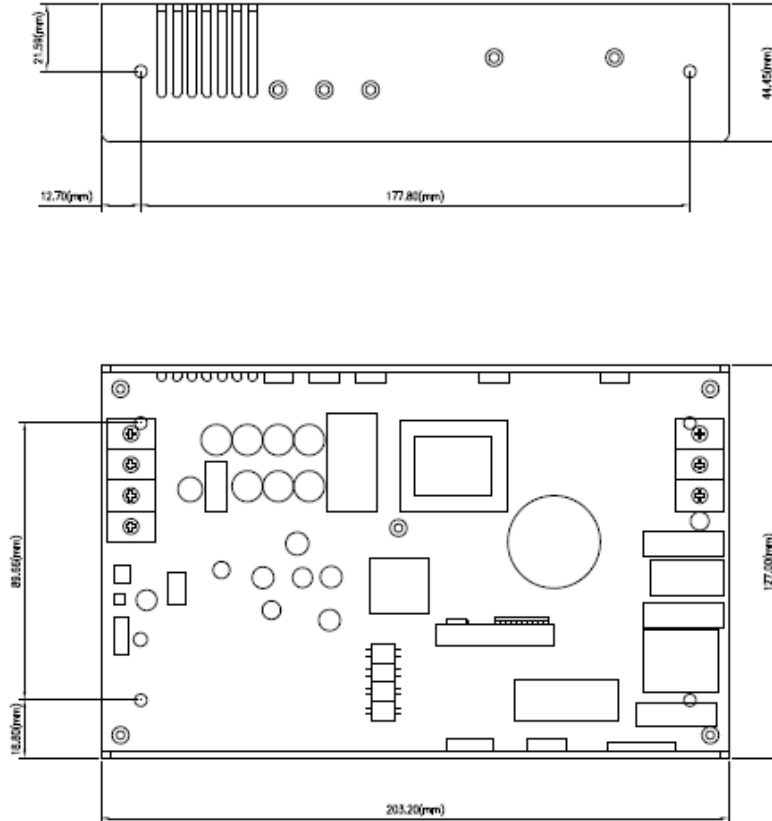


## COMPLIANCE

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 seams 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	+