

Switching Power Supply

300 WATT / SINGLE OUTPUT

KEY FEATURES:

- 300 Watts output power
- 12Vdc and 24Vdc Single Output models
- Open Frame Package measuring only 3" x 5" x 1.4"
- High Density in excess of 10W/in³
- 90% Efficiency typical
- High Reliability in excess of 500,000 Hours
- Medical Safety Approvals
- Class B Radiated and Conducted Emissions
- 3 year warranty



MODEL	Output Voltage (V)	Regulation	Maximum Current (A)	Ripple/Noise (mVp-p)	Standby (Vsb)
ARFS-3011M-1205	+12.0	+/- 3%	25.0	120	+5V/2A
ARFS-3011M-2405	+24.0	+/- 3%	12.5	240	+5V/2A

INPUT SPECIFICATIONS

Input Voltage	90 – 264 VAC
Input Frequency	47 – 63 Hz
Input Current	Maximum 4.5A @ 100 VAC
Inrush Current	40A @ 230 VAC
Input Protection	Fuse
Leakage Current	Maximum 300 uA @ 264VAC, single fault
Normal (typical):	75uA @ 120VAC , 150uA @ 240VAC
Single Fault (typical):	150uA @ 120VAC , 250uA @ 240VAC
Power Factor Correction	Active PFC to meet or exceed EN61000-3-2

ENVIRONMENT SPECIFICATIONS

Operating Temperature	0 °C to +70 °C Derate linearly above 50 °C to 50% load @ 70 °C
Storage Temperature	-40 °C to +85 °C
Forced Air Cooling	15CFM from AC to DC side
MTBF	> 500 kHrs based on Telcordia SR-332 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	300W
Hold-up Time	16ms @ 200W load
Efficiency	90% typical
Minimum Load	No minimum load
Isolation (HiPot)	1500 VAC Input to Ground
Remote Sense	Compensates for up to 0.5V drop
PSON#	Turns on 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)
Overpower	Auto-recovery
Short Circuit	Auto-recovery
Thermal	Auto-recovery

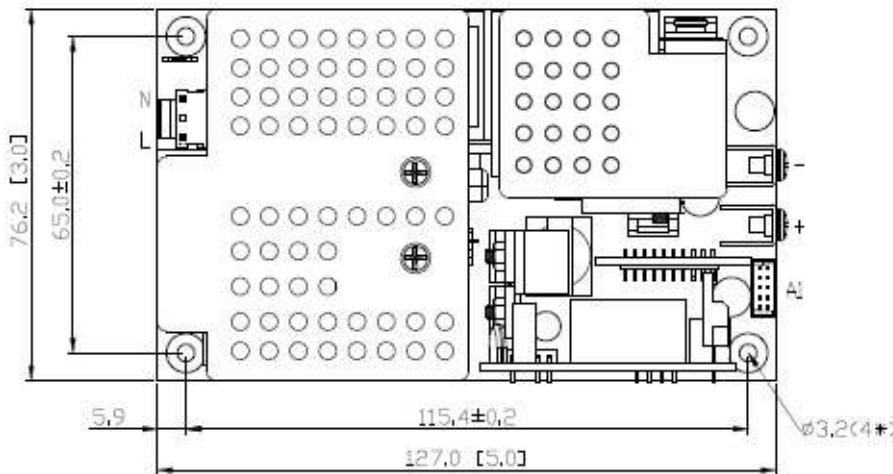


COMPLIANCE

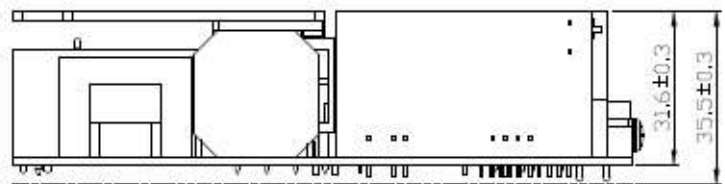
EMI	FCC Class B / EN55032 Class B under all rated input and load conditions
Electrostatic Discharge	EN61000-4-2: Contact Discharge- Contact discharge in 2kV increments to 6kV for metallic surfaces including connector bodies. 10 discharges pretest point at each voltage: 5 positive polarity and 5 negative 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 UL60601, CB Report IEC 60601, CE

Typical Outline Drawing:

(REFER TO PRODUCT MECHANICAL DRAWING FOR COMPLETE INFORMATION)



Airflow Direction



INPUT CONNECTOR (CN1)
MATES WITH MOLEX 26-0330-31

Pin	Signal
1	Line
2	N/A
3	Neutral

DC OUTPUT SCREW TERMINALS
MATES WITH M3.0 x 0.5 RINGS

SIGNALS CONNECTOR (A1)
MATES WITH MOLEX 104142-1000

Pin	Signal
1	DC Return
2	PSON#
3	DC Return
4	5Vsb
5	DC Return
6	5Vsb
7	DC Return
8	PowerGood
9	DC Return
10	Remote Sense +

