

AFM120 Series



- Energy Star Level V
- CEC2008 & EISA2007 Compliant
- Medical & ITE Approvals
- High Efficiency
- 0 °C to +70 °C Operating Temperature
- Optional IEC320-C6 Inlet
- 3 Year Warranty

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 2.0 A rms at 115 VAC, 1.0 A rms at 230 VAC
Inrush Current	• 40 A at 115 VAC, 60 A at 230 VAC, cold start +25 °C
Power Factor	• 0.9 minimum
Earth Leakage Current	• 250 µA max at 240 VAC
No Load Input Power	• <0.5 W

Output

Output Voltage	• See table
Output Voltage Trim	• Not user-adjustable
Initial Set Accuracy	• ±2%
Minimum Load	• No minimum load required
Start Up Delay	• 3 s max at 115 VAC
Hold Up Time	• 8 ms minimum at 115 VAC
Line Regulation	• ±1.0% maximum
Load Regulation	• See table
Transient Response	• 4% max. deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	• 1% max pk-pk (see note 1)
Overvoltage Protection	• 110-140% Vnom, recycle input to reset
Overtemperature Protection	• Unit shuts down, recycle input to reset
Overload Protection	• 110-150%, auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 0.04%/°C

General

Efficiency	• >87%, see note 6
Isolation	• 4000 VAC Input to Output 1500 VAC Input to Ground Output 0 V is electrically connected to Input Ground
Switching Frequency	• 65-100 kHz variable
Power Density	• 4.5 W/In ³
MTBF	• >100 kHrs per MIL-HDBK-217F (+25 °C ambient at full load)

Environmental

Operating Temperature	• 0 °C to +70 °C, derate from 100% power at +40 °C to 60% power at +70 °C
Operating Humidity	• 10-95% RH, non-condensing
Storage Temperature	• -40 °C to +80 °C
Operating Altitude	• 3000 m
Shock	• 30 g, 10 ms on 3 axes
Vibration	• 5-100 Hz, 2.31 m/s ² , 20 mins, 3 axes

EMC & Safety

Emissions	• EN55022/FCC/Class B conducted EN55022/FCC/Class B radiated
Harmonic Currents	• EN61000-3-2, Class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, 4 kV contact and 8 kV air discharge
Radiated Immunity	• EN61000-4-3, 3 V/m Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, Installation Class 3 Perf Criteria A
Conducted Immunity	• EN61000-4-6, 3 Vrms Perf Criteria A
Magnetic Field	• EN61000-4-3, 3 A/m, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% for 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B EN60601-1-2, 30% 500 ms, 60% 100 ms, 100% 10 ms, 100% 5000 ms, Perf AAAB
Safety Approvals	• EN60950-1, UL60950-1, IEC60950-1 EN60601-1, UL60601-1, IEC60601-1

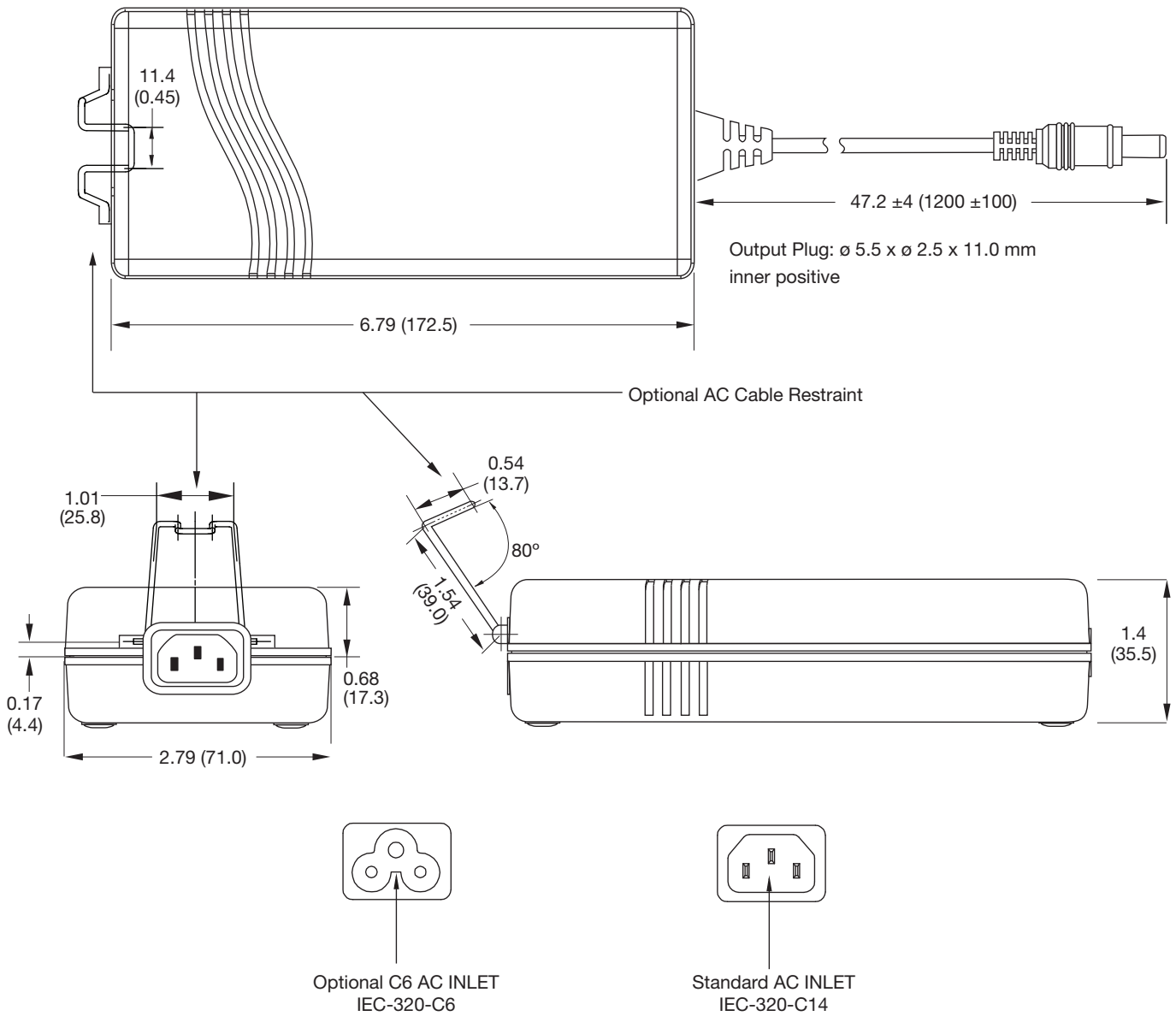
Models and Ratings

Output Power	Output Voltage ⁽⁴⁾	Output Current	Total Regulation ⁽²⁾	Model Number ^(3,5)
100 W	12 V	8.30 A	5%	AFM120PS12
100 W	15 V	6.66 A	5%	AFM120PS15
100 W	18 V	5.55 A	5%	AFM120PS18
120 W	24 V	5.00 A	5%	AFM120PS24
120 W	48 V	2.50 A	5%	AFM120PS48

Notes

1. Ripple and noise measured at 20 MHz bandwidth with a 10 μ F tantalum and 0.1 μ F ceramic cap connected at the measurement point.
2. Total regulation includes initial set accuracy, line and load regulation.
3. For alternative IEC320-C6 inlet, add suffix C6 to model number eg. AFM120PS24C6.
4. Other output voltages are available, contact sales for details.
5. For optional AC cable restraint on the standard input version, add suffix 'A' to the model number e.g. AFM120PS24A. AC mains lead must be Interpower Corporation, part number 70006020300. Optional AC cable restraint is not available on IEC320-C6 inlet.
6. Minimum average of efficiencies measured at 25%, 50%, 75% & 100% load.

Mechanical Details



Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight: 1.57 lb (680 g) approx.
3. Case material is PC Class 94 V-0.
4. Output Lead: UL1185, 14 AWG