120 Watts

AMM120 Series



- Energy Star Level V ≥ 24 V
- CEC 2008 & EISA 2007 Compliant
- Worldwide Medical Approvals
- Small Size/High Power Density
- Class I and Class II Versions
- Operating Temperature up to +60 °C
- Locking Output Connector

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.6 A rms at 115 VAC, 0.8 A rms at 230 VAC
Inrush Current	• 60 A at 115 VAC, 120 A at 230 VAC, cold start +25 °C
Power Factor	• 0.98 typical
Earth Leakage Current (Class I Versions)	• 90 µA max at 115 VAC/60 Hz, 150 µA max at 230 VAC/50 Hz
Input Protection	• Internal 3 A fuse in live and neutral lines

Output

Output Voltage	• 12 to 48 VDC
Output Voltage Trim	• Not user-adjustable
Initial Set Accuracy	• ±2 %
Minimum Load	• No minimum load required
Start Up Delay	• 2 s max at 115 VAC
Start Up Rise Time	• <80 ms at 115 VAC
Hold Up Time	• 15 ms minimum at full load & 115 VAC
Line Regulation	• 0.5% maximum
Load Regulation	• Total regulation <±5%
Transient Response	• 4% max. deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	• 2% 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	• 85% typical
Isolation	• 4000 VAC Input to Output 1500 VAC Input to Ground (Class I only) 500 VAC Output to Ground (Class I only)
Switching Frequency	• 40-120 kHz variable
Power Density	• 3.7 W/In^3
MTBF	• >175 kHrs per MIL-HDBK-217F

Environmental

Operating Temperature	• 0 °C to +60 °C, derate from 100% power at +40 °C to 50% power at +60 °C
Cooling	• Convection-cooled
Operating Humidity	• 10-95% RH, non-condensing
Storage Temperature	• -20 °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	• EN55011/FCC/VCCI, Class B conducted EN55011/FCC/VCCI, Class B radiated
Harmonic Currents	• EN61000-3-2
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 3 Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 2 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, level 3 Perf Criteria A
Conducted Immunity	• EN61000-4-6, 3 V Perf Criteria A
Magnetic Field	• EN61000-4-8, 3 A/m Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 70% U_T for 10 ms, 40% U_T for 100 ms, <5% U_T for 5000 ms Perf Criteria A, B, B (Perf Criteria A, A, B with 70% load)
Safety Approvals	• EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL, CE Mark

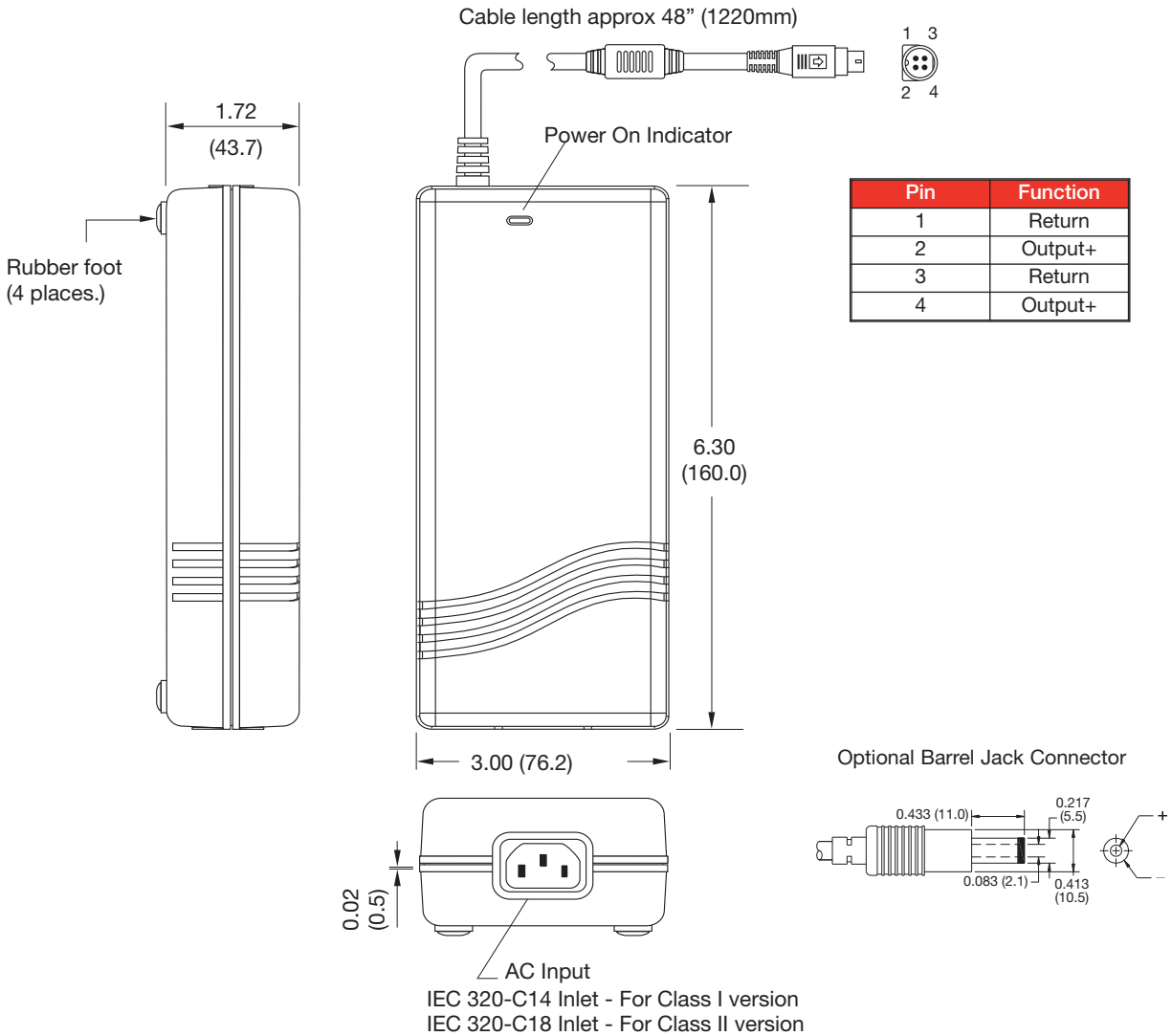
Models and Ratings

Output Power	Output Voltage	Output Current	Total Regulation[2]	Model Number[3, 4]
96 W	12 V	8.00 A	5%	AMM120PS12
105 W	15 V	7.00 A	5%	AMM120PS15
120 W	18 V	6.67 A	5%	AMM120PS18
120 W	19 V	6.32 A	5%	AMM120PS19
120 W	20 V	6.00 A	5%	AMM120PS20
120 W	24 V	5.00 A	5%	AMM120PS24
120 W	30 V	4.00 A	5%	AMM120PS30
120 W	36 V	3.34 A	5%	AMM120PS36
120 W	48 V	2.50 A	5%	AMM120PS48

Notes

1. Ripple and noise measured at 20 MHz bandwidth with a 10 µF tantalum and 0.1 µF ceramic cap connected at the measurement point.
2. Total regulation includes initial set accuracy, line and load regulation.
3. For class II versions, add '-C2' to model number e.g. AMM120PS24-C2.
4. For optional barrel jack connector add suffix 'B1' to model number e.g. AMM120PS24C2B1.

Mechanical Details



Pin	Function
1	Return
2	Output+
3	Return
4	Output+

Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Maximum load per pin on output connector is 5 A.
3. Output connector is KYCON KPP-4P locking type. For mating half, use KYCON KPJ-4S-S or equivalent.
4. For Class I versions shell is connected to ground. For Class II versions shell is capacitively coupled to input.
5. Weight 1.72 lbs (780 g).