

AMM Series



- CEC2008 & EISA2007 Compliant
- Worldwide Medical Approvals
- Class I
- High Power Density
- High Efficiency
- Operating Temperature up to +60 °C
- 3 Year Warranty

Specification

Input

| | |
|--|---|
| Input Voltage | • 90 W: 80-264 VAC, derate output power 10% <90 VAC & 15% <85 VAC, 120/150 W: 80-264 VAC, derate output power 15% <90 VAC & 20% <85 VAC |
| Input Frequency | • 47-63 Hz |
| Input Current | • 90 W: 1.2 A at 115 VAC, 0.6 A at 230 VAC 120 W: 1.6 A at 115 VAC, 0.8 A at 230 VAC 150 W: 2 A at 115 VAC, 1.0 A at 230 VAC |
| Inrush Current | • 60 A max at 115 VAC, 120 A max 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 | • 90 W: Internal T2.5 A/250 V fuse in line and neutral lines, 120 W: Internal T3.15 A/250 V fuse in line and neutral lines, 150 W: Internal T4 A/250 V fuse in line and neutral lines |
| No Load Input Power | • <0.5 W |

Output

| | |
|----------------------------|--|
| Output Voltage | • See tables |
| Output Voltage Trim | • Not user-adjustable |
| Initial Set Accuracy | • ±2%, set at 60% load |
| Minimum Load | • No minimum load required |
| Start Up Delay | • 90/120 W: 2 s max at 115 VAC, 150 W: 3 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 | • See tables |
| 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 | • 90/150 W: Unit shuts down, auto recovery 120 W: Unit shuts down, recycle input to reset |
| Overload Protection | • 110-180%, 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 500 VAC Output to Ground |
| Switching Frequency | • 50-110 kHz variable |
| Power Density | • 90 W: 3.4 W/In ³ , 120 W: 3.7 W/In ³ 150 W: 2.9 W/In ³ |
| MTBF | • 150 kHrs typical to MIL-HDBK-217F at 25 °C, GB |

Environmental

| | |
|-----------------------|--|
| Operating Temperature | • 0 °C to +60 °C, derate linearly from 100% power at +40 °C to 50% power at +60 °C |
| Cooling | • Convection-cooled |
| Operating Humidity | • 5-95% RH, non-condensing |
| Storage Temperature | • -40 °C to +85 °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, Class A |
| 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 90/120 W: 70% 10 ms, 40% 100 ms, <5% 5000 ms, Perf Criteria A, B, B (Perf Criteria A, A, B with 70% load) 150 W: >95% 10 ms, 60% 100 ms, <30% 500 ms, Perf Criteria A, B, B |
| Safety Approvals | • EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL |

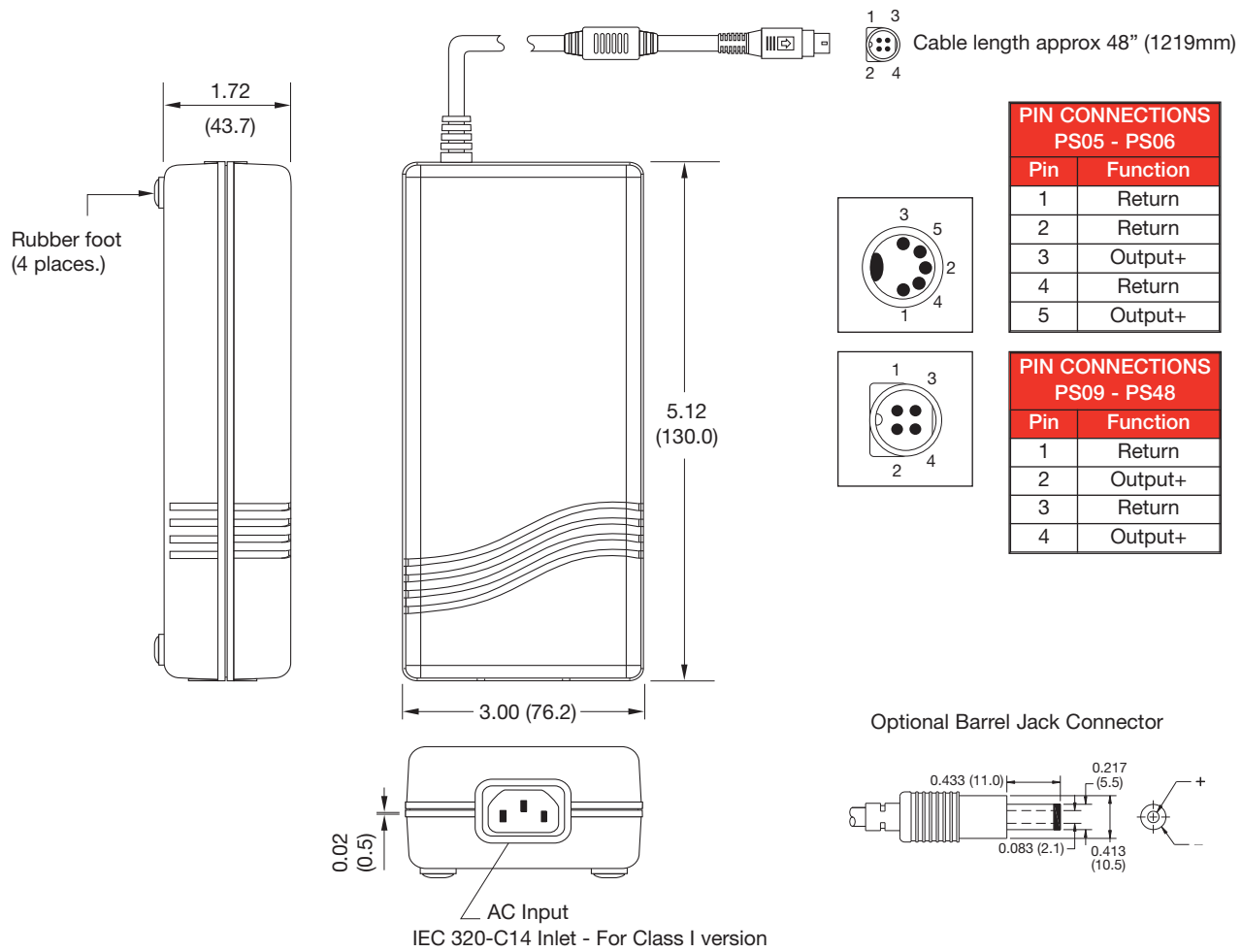
Models and Ratings

| Output Power | Output Voltage | Output Current | Total Regulation ⁽²⁾ | Model Number ⁽³⁾ |
|--------------|----------------|----------------|---------------------------------|-----------------------------|
| 60 W | 5.0V | 12.00 A | 5% | AMM90PS05 ⁽⁵⁾ |
| 60 W | 6.0V | 10.00 A | 5% | AMM90PS06 ⁽⁵⁾ |
| 70 W | 9.0V | 7.78 A | 5% | AMM90PS09 ⁽⁵⁾ |
| 80 W | 12.0V | 6.67 A | 5% | AMM90PS12 |
| 85 W | 13.5V | 6.30 A | 5% | AMM90PS13 |
| 85 W | 15.0V | 5.67 A | 5% | AMM90PS15 |
| 90 W | 18.0V | 5.00 A | 5% | AMM90PS18 |
| 90 W | 19.0V | 4.74 A | 5% | AMM90PS19 |
| 90 W | 24.0V | 3.75 A | 5% | AMM90PS24 |
| 90 W | 30.0V | 3.00 A | 5% | AMM90PS30 |
| 90 W | 48.0V | 1.87 A | 5% | AMM90PS48 |

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 optional Barrel Jack Connector, add 'B1' to model number e.g. AMM90PS24B1 (not available on 5 V or 6 V models).
4. Not CEC2008 or EISA2007 compliant.

Mechanical Details



Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight: 1.46 lb (660 g).
3. Maximum load per pin on output connector is 7.5 A.
4. Output connector for AMM90PS05 and PS06 is 5 pin 180° DIN.
5. Output connector for AMM90PS09-PS13 is 4 Pin DC Power Plug non locking type. For mating half, use KYCON KPJ-4S-S or equivalent.
6. Output connector for AMM90PS15-PS48 is 4 Pin DC Power Plug locking type. For mating half, use KYCON KPJ-4S-S or equivalent.
7. For Class I versions shell is connected to ground.
8. For European mains lead order part: EU-MAINS-IEC
9. For UK mains lead order part: UK-MAINS-IEC
10. For US mains lead order part: US-MAINS-IEC
11. Mains lead length is 76" (1930 mm) approx

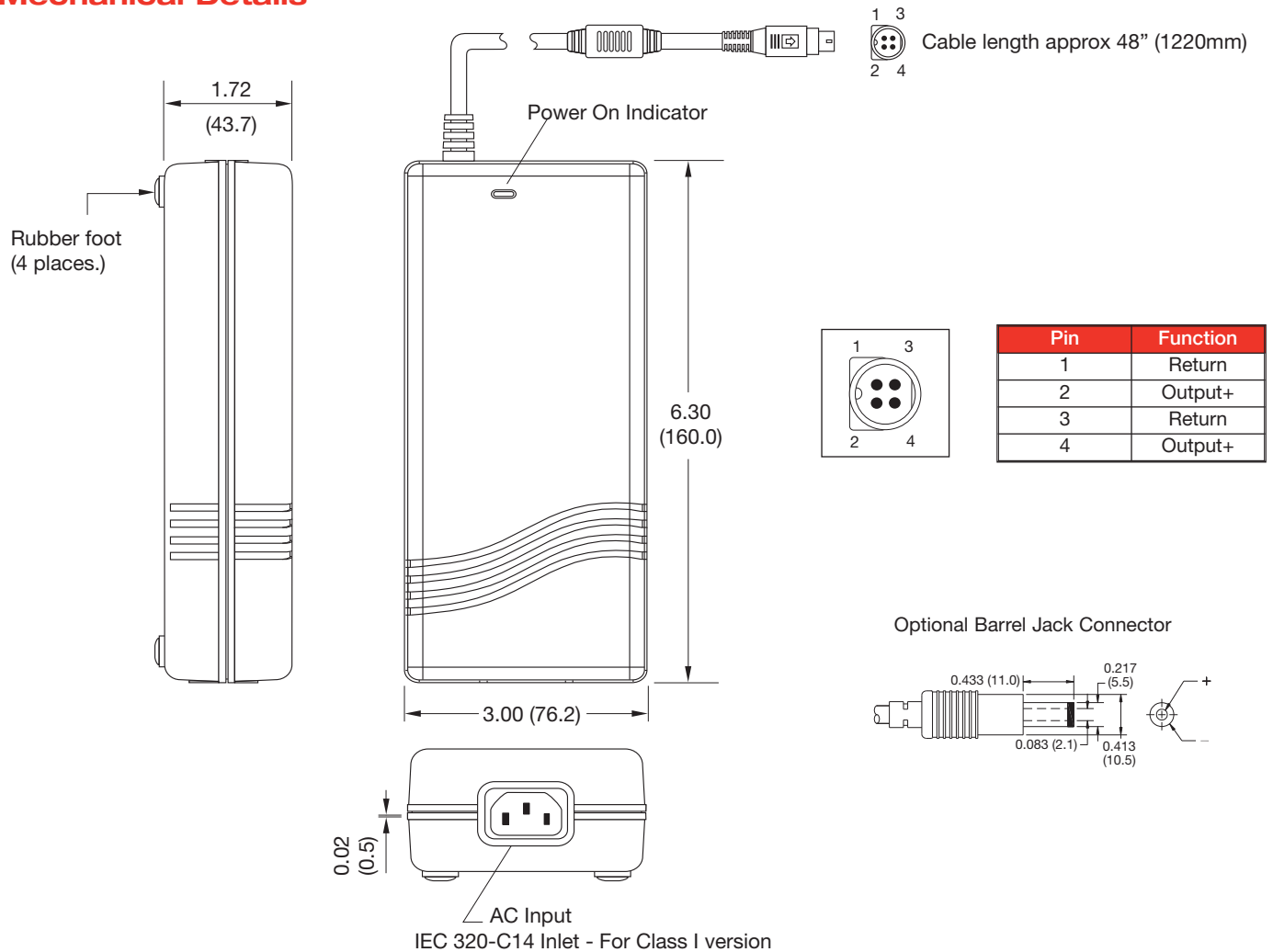
Models and Ratings

| Output Power | Output Voltage | Output Current | Total Regulation ⁽²⁾ | Model Number ⁽³⁾ |
|--------------|----------------|----------------|---------------------------------|-----------------------------|
| 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 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 optional barrel jack connector add suffix 'B1' to model number e.g. AMM120PS24B1.

Mechanical Details



Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight 1.72 lbs (780 g).
3. Maximum load per pin on output connector is 5 A.
4. Output connector for AMM120PS12 & PS15 is 4 Pin DC Power Plug, non-locking type. For mating half, use KYCON KPJ-4S-S or equivalent.
5. Output connector for AMM120PS18-PS48 is 4 Pin DC Power Plug, locking type. For mating half, use KYCON KPJ-4S-S or equivalent.
6. For Class I versions shell is connected to ground.
7. For European mains lead order part: EU-MAINS-IEC
8. For UK mains lead order part: UK-MAINS-IEC
9. For US mains lead order part: US-MAINS-IEC
10. Mains lead length is 76" (1930 mm) approx

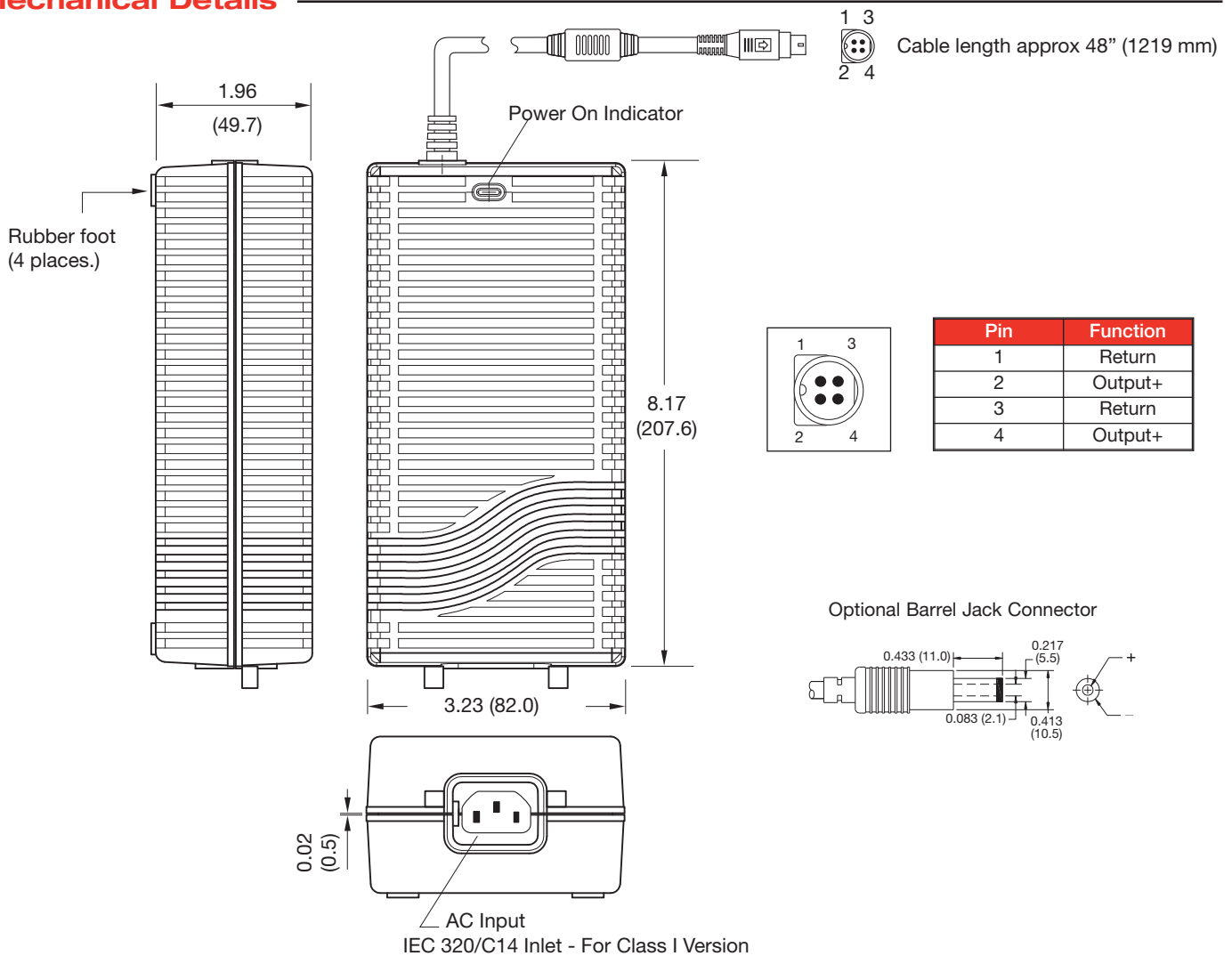
Models and Ratings

| Output Power | Output Voltage | Output Current | Total Regulation ⁽²⁾ | Model Number ⁽⁴⁾ |
|--------------|----------------|----------------|---------------------------------|-----------------------------|
| 132 W | 12 V | 11.00 A | 5% | AMM150PS12 |
| 144 W | 15 V | 9.60 A | 5% | AMM150PS15 |
| 150 W | 19 V | 7.90 A | 5% | AMM150PS19 ⁽⁶⁾ |
| 150 W | 24 V | 6.25 A | 5% | AMM150PS24 ^(3,6) |
| 150 W | 27 V | 5.56 A | 5% | AMM150PS27 ^(3,6) |
| 150 W | 48 V | 3.13 A | 5% | AMM150PS48 ^(3,6) |

Notes

1. Ripple and noise measured at 20 MHz bandwidth with a 10 µF tantalum and 0.1 µF ceramic capacitor connected at the measurement point.
2. Total regulation includes set accuracy, line and load regulation.
3. For optional barrel jack connector, add suffix 'B1' to the model number e.g. AMM150PS24B1 (not available on 12 V models)
4. For optional AC cable restraint, add suffix 'A' to the model number e.g. AMM150PS24A or AMM150PS24B1A. AC mains lead must be Interpower Corporation, part number: 70006020300.
5. Energy Star Level V.

Mechanical Details



Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight: 2.16 lbs (980 g).
3. Output connector is 4 Pin DC Power Plug, locking type. For mating half, use KYCON KPJX-4S-S or equivalent.
4. For Class I versions shell is connected to ground.
5. For European mains lead order part: EU-MAINS-IEC
6. For UK mains lead order part: UK-MAINS-IEC
7. For US mains lead order part: US-MAINS-IEC
8. Mains lead length is 78" (2000 mm) approx