

AHM Series



- Energy Star Level V
- CEC2008 & EISA2007 Compliant
- Medical & ITE Approvals
- Class I and Class II Versions 85 & 100 W
- High Efficiency
- IP (x) 1 Environmental Rating
- 3 Year Warranty

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 85 W: 0.9 A at 115 VAC, 0.45 A at 230 VAC 100 W: 1.1 A at 115 VAC, 0.6 A at 230 VAC 150 W: 1.5 A at 115 VAC, 0.8 A at 230 VAC 180 W: 1.7 A at 115 VAC, 0.9 A at 230 VAC 250 W: 2.4 A at 115 VAC, 1.25 A at 230 VAC
Inrush Current	• 60 A max at 115 VAC, 120 A max at 230 VAC, cold start +25 °C
Power Factor	• ≥0.9 at 115 VAC, 60 Hz
Earth Leakage Current (Class I Versions)	• 250 µA max at 264 VAC/60 Hz
Input Protection	• 85/100 W: Internal T2.5 A/250 V fuse in line and neutral lines, 150/180 W: Internal T4 A/250 V fuse in line and neutral lines, 250 W: Internal T6.3 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	• TBA
Minimum Load	• No minimum load required
Start Up Delay	• 3 s maximum
Start Up Rise Time	• <25 ms maximum
Hold Up Time	• 10 ms minimum at full load & 90 VAC
Line Regulation	• 1.0% maximum
Load Regulation	• 5% maximum
Transient Response	• 5% max. deviation, recovery to within 1% in 500 µs for a 50% load change
Ripple & Noise	• 1.5% max pk-pk (see note 1)
Overvoltage Protection	• Recycle input to reset
Overtemperature Protection	• Unit shuts down, auto recovery
Overload Protection	• 150%, auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• TBA

General

Efficiency	• 90% 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	• TBA
Power Density	• TBA
MTBF	• 100 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	• TBA
Vibration	• TBA

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
Safety Approvals	• EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL, EN60950, UL60950

Models and Ratings

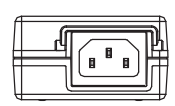
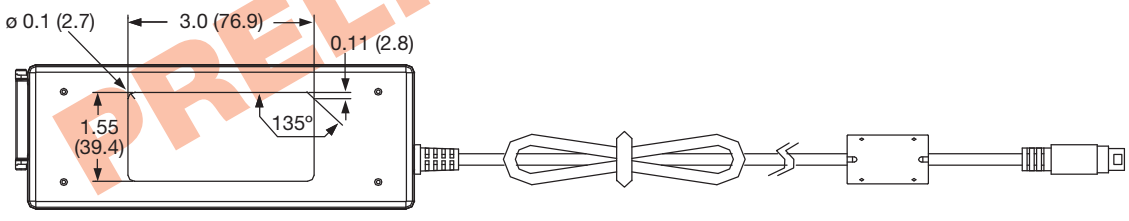
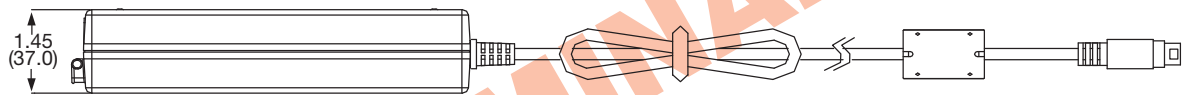
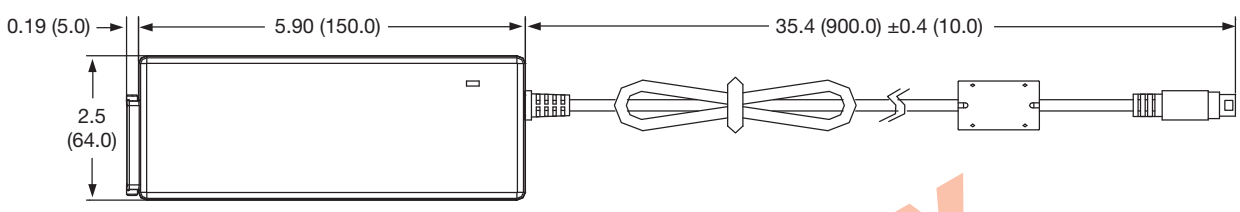
Output Power	Output Voltage	Output Current	Total Regulation ⁽²⁾	Model Number
85 W	12.0 V	7.08 A	5%	AHM85PS12
85 W	15.0 V	5.67 A	5%	AHM85PS15
85 W	19.0 V	4.47 A	5%	AHM85PS19
85 W	24.0 V	3.54 A	5%	AHM85PS24

Notes

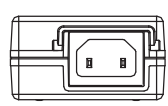
1. Ripple and noise measured at 20 MHz bandwidth with a 10 μF tantalum and 0.1 μF ceramic cap connected at the measurement point.
2. Total regulation includes initial set accuracy, line and load regulation.
3. For class II versions, add 'C2' to model number e.g. AHM85PS12C2.

Mechanical Details

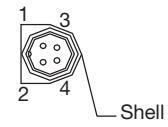
Dimensions shown in inches (mm).



AC Input
IEC 320-C14 Inlet
for Class I version



AC Input
IEC 320-C18 Inlet
for Class II version



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

Notes

1. Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight: 0.9 lb (400 g).
3. For Class I versions shell is connected to earth. For Class II versions shell is capacitively coupled to input.

Models and Ratings

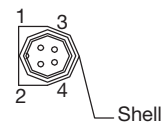
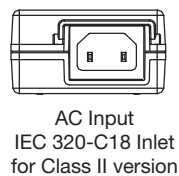
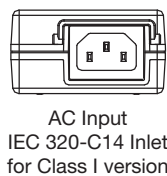
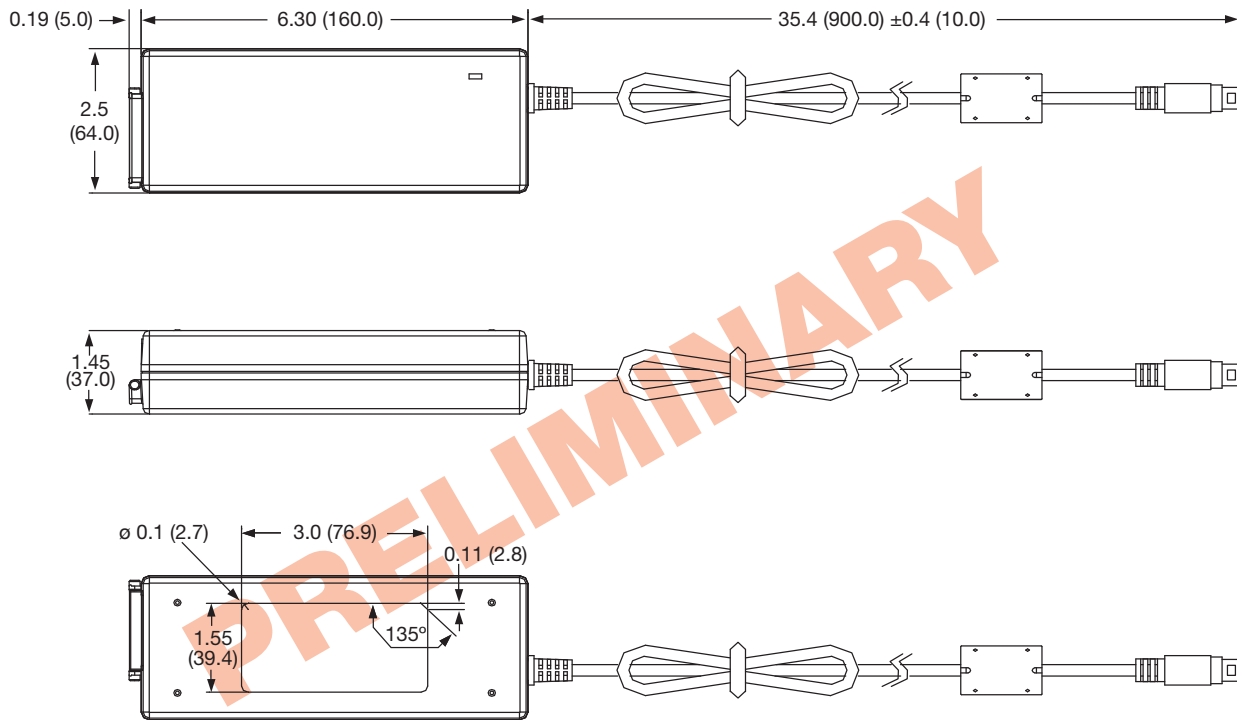
Output Power	Output Voltage	Output Current	Total Regulation ⁽²⁾	Model Number
100 W	12 V	8.33 A	5%	AHM100PS12
100 W	15 V	6.67 A	5%	AHM100PS15
100 W	19 V	5.26 A	5%	AHM100PS19
100 W	24 V	4.16 A	5%	AHM100PS24
100 W	48 V	2.08 A	5%	AHM100PS48

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. AHM100PS12C2.

Mechanical Details

Dimensions shown in inches (mm).



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

Notes

1. Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight 1.0 lbs (450 g).
3. For Class I versions shell is connected to earth. For Class II versions shell is capacitively coupled to input.

Models and Ratings

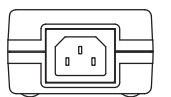
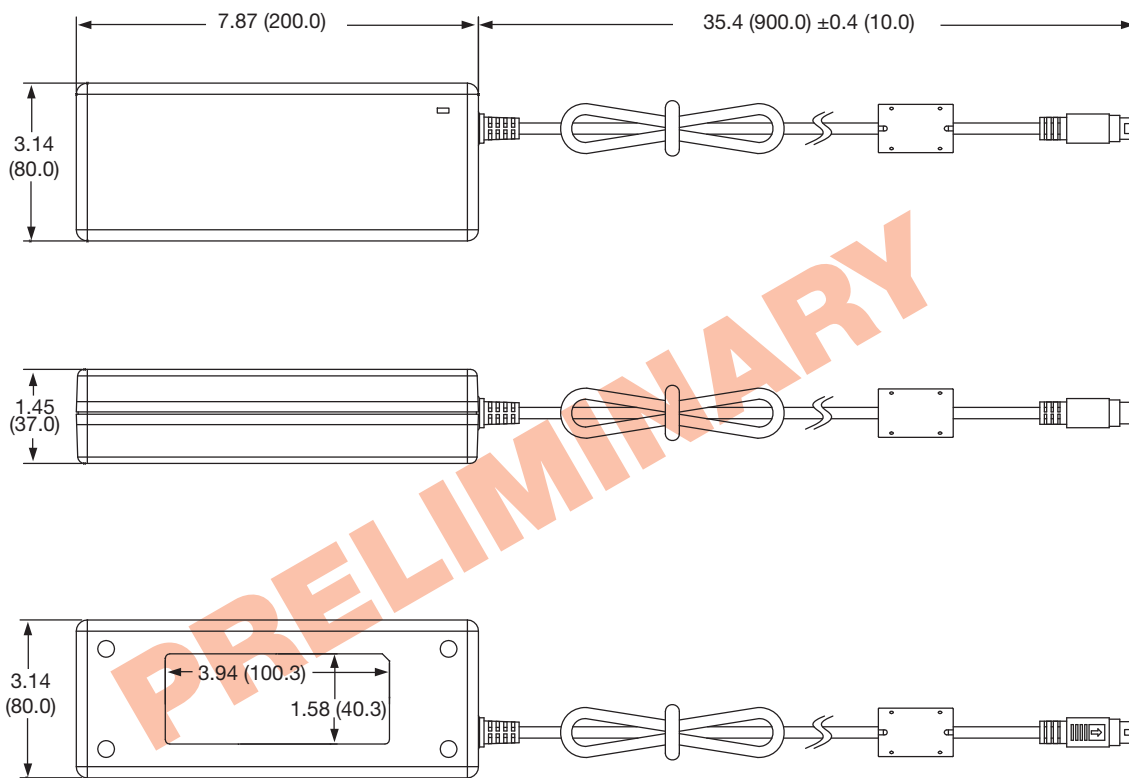
Output Power	Output Voltage	Output Current	Total Regulation ⁽²⁾	Model Number
150 W	12 V	12.50 A	5%	AHM150PS12
150 W	15 V	10.00 A	5%	AHM150PS15
150 W	19 V	7.89 A	5%	AHM150PS19
150 W	24 V	6.25 A	5%	AHM150PS24
150 W	48 V	3.13 A	5%	AHM150PS48

Notes

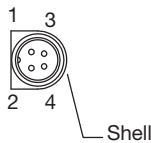
1. Ripple and noise measured at 20 MHz bandwidth with a 10 μF tantalum and 0.1 μF ceramic capacitor connected at the measurement point.
2. Total regulation includes set accuracy, line and load regulation.

Mechanical Details

Dimensions shown in inches (mm).



AC Input
IEC 320-C14 inlet



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

Notes

1. Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight: 1.3 lbs (600 g).
3. Shell is connected to earth.

Models and Ratings

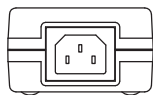
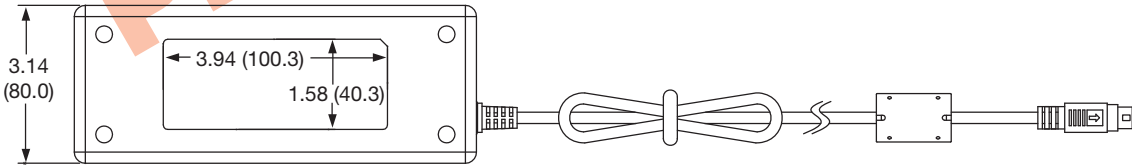
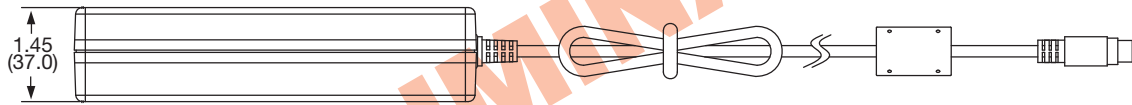
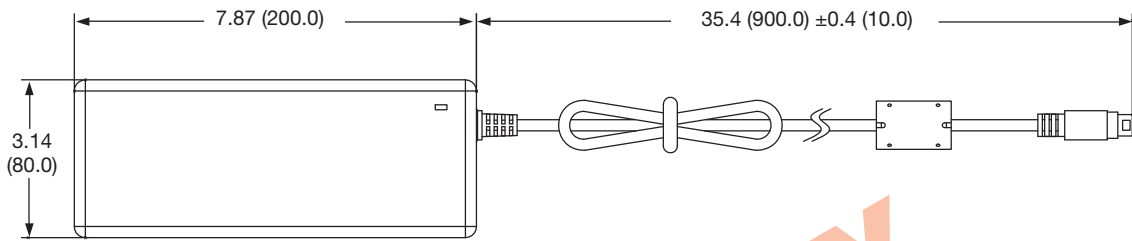
Output Power	Output Voltage	Output Current	Total Regulation ⁽²⁾	Model Number
165 W	12 V	13.75 A	5%	AHM180PS12
180 W	15 V	12.00 A	5%	AHM180PS15
180 W	19 V	9.47 A	5%	AHM180PS19
180 W	24 V	7.50 A	5%	AHM180PS24
180 W	48 V	3.75 A	5%	AHM180PS48

Notes

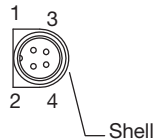
1. Ripple and noise measured at 20 MHz bandwidth with a 10 μF tantalum and 0.1 μF ceramic cap connected at the measurement point.
2. Total regulation includes initial set accuracy, line and load regulation.

Mechanical Details

Dimensions shown in inches (mm).



AC Input
IEC 320-C14 inlet



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

Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight 1.4 lbs (620 g).
3. Shell is connected to earth.

Models and Ratings

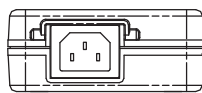
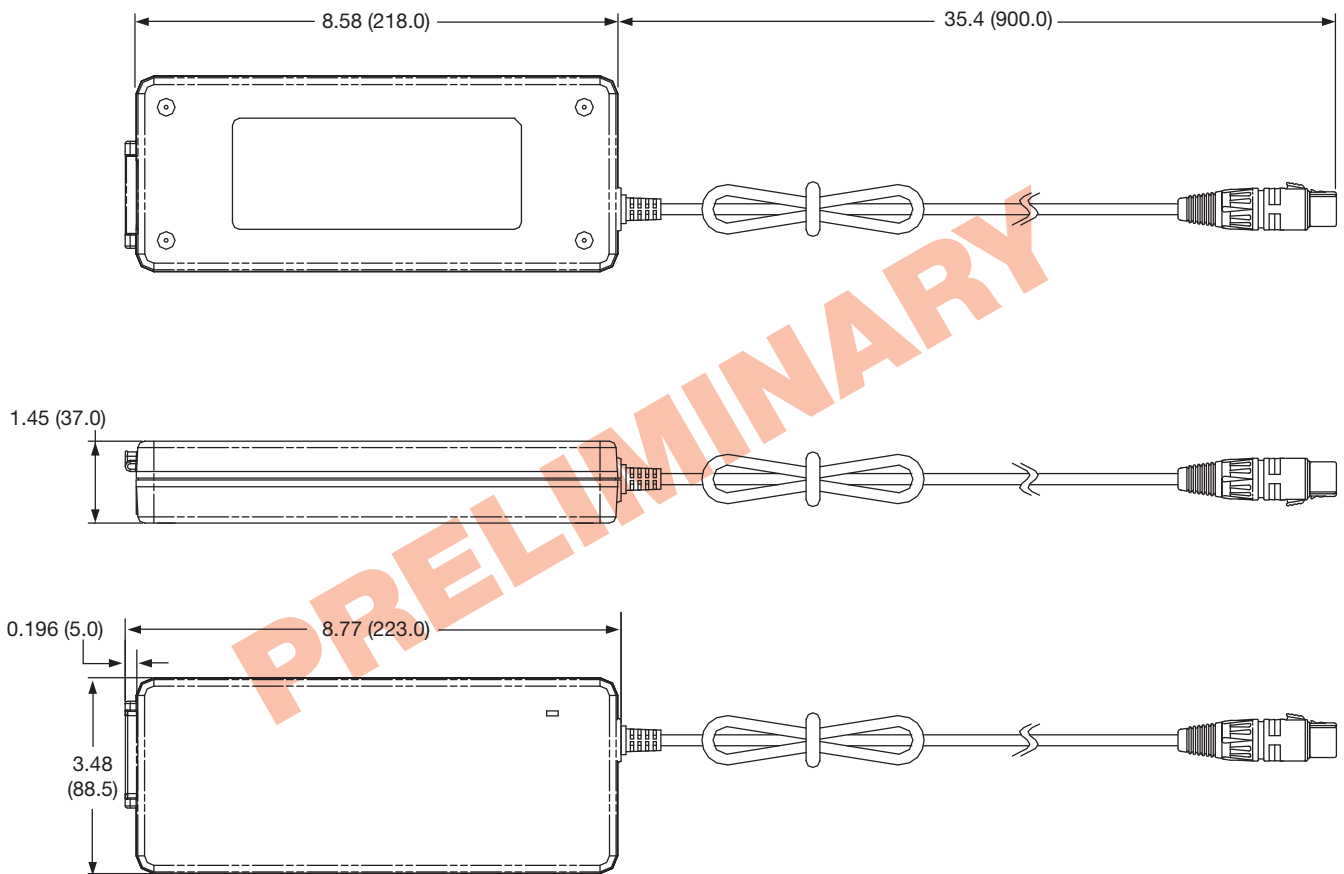
Output Power	Output Voltage	Output Current	Total Regulation ⁽²⁾	Model Number
210 W	12 V	17.50 A	5%	AHM250PS12
220 W	15 V	14.66 A	5%	AHM250PS15
240 W	19 V	12.63 A	5%	AHM250PS19
250 W	24 V	10.41 A	5%	AHM250PS24
250 W	48 V	5.21 A	5%	AHM250PS48

Notes

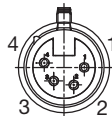
1. Ripple and noise measured at 20 MHz bandwidth with a 10 μF tantalum and 0.1 μF ceramic capacitor connected at the measurement point.
2. Total regulation includes set accuracy, line and load regulation.

Mechanical Details

Dimensions shown in inches (mm).



AC Input
IEC 320-C14 Inlet



PIN CONNECTIONS	
Pin	Function
1	Output+
2	Output+
3	Return
4	Return
Shell	Ground

Notes

1. Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
2. Weight: 2.2 lbs (1000 g).
3. Shell is connected to earth.