

# AHM150-250 SERIES

AC/DC Single Output: 150 ~ 250 Watts



GREEN•POWER

## Specification

### Input

Input Voltage	• 80-264 VAC (see derating curve)
Input Frequency	• 47-63 Hz
Input Current	• 85 W: 0.8 A at 115 VAC, 0.4 A 100 W: 1.0 A at 115 VAC, 0.5 A 150 W: 1.5 A at 115 VAC, 0.75 A 180 W: 1.7 A at 115 VAC, 0.9 A 250 W: 2.3 A at 115 VAC, 0.9 A at 230 VAC
Inrush Current	• 70 A typical, 120 A max at 230 VAC, cold start at 25 °C
Power Factor	• >0.9 at 115 VAC, 60 Hz at 250 VAC
Earth Leakage Current	• 85 W: 70 µA typical, 180 µA max 100 W: 70 µA typical, 180 µA max 150 W: 80 µA typical, 200 µA max 180 W: 80 µA typical, 200 µA max 250 W: 80 µA typical, 200 µA max at 264 VAC/60 Hz
Input Protection	• 85 W: Internal T2.5 A/250 V 100 W: Internal T2.5 A/250 V 150 W: Internal T4.0 A/250 V 180 W: Internal T4.0 A/250 V 250 W: Internal T6.3 A/250 V fuse in line and neutral
No Load Input Power	• <0.5 W

### Output

Output Voltage	• See tables
Output Voltage Trim	• Not user-adjustable
Minimum Load	• No minimum load required
Start Up Delay	• 100-300 ms typical, model dependant <sup>(1)</sup>
Hold Up Time	• 20 ms typical
Line Regulation	• ±1.5% maximum
Load Regulation	• ±3.0% maximum
Transient Response	• 5% max. deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	• Typically less than 1%, 1.5% max pk-pk <sup>(2)</sup>
Overvoltage Protection	• 125% typical, Recycle input to reset
Overtemperature Protection	• Unit shuts down, auto recovery
Overload Protection	• 115-175%, auto recovery
Short Circuit Protection	• Trip and restart (hiccup mode)
Temperature Coefficient	• 0.05 %/°C

## Features

- Five power levels: 85W, 100W, 150W, 180W & 250W
- IT & Medical Approvals
- Energy Efficiency Level V, CEC2008 & EISA 2007
- <0.5 W No Load Input Power
- Class I (and Class II Models 85 W & 100 W)
- Very High Efficiency
- IPX1 Environmental Rating
- AS/NZ 60950 approval- N25469



## General

Efficiency	• 92% typical
Energy Efficiency	• Level V
Isolation	• 4000 VAC In to Out, 2 x MOPP 1500 VAC In to Earth, 1 x MOPP 500 VAC Out to Earth, 1 x MOPP
Switching Frequency	• 45-200 KHz variable
Power Density	• 4.4-5.7 W/in <sup>3</sup>
MTBF	• 153 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 60% 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	• 3 x 30 g/11 ms shocks in both +ve & -ve directions along the 3 orthogonal axis, total 18 shocks.
Vibration	• Three axis 5-500 Hz at 2 g x 10 sweeps

## EMC & Safety

Emissions	• EN55011/22, class B conducted EN55011/22, 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 3, 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, level 3, Perf Criteria A
Magnetic Field	• EN61000-4-8, level 3, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, EN60601-1-2
Safety Approvals	• EN60601-1, ANSI/AAMI ES60601-1, CSA22.2 No. 60601-1 per cUL, Including Risk Management, EN60950, UL60950

## Notes

1. See longform datasheet for further information.
2. Measured at the end of the output cable with 10 µF electrolytic and 0.1 µF ceramic capacitor.

# Models and Ratings

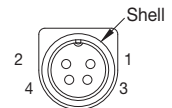
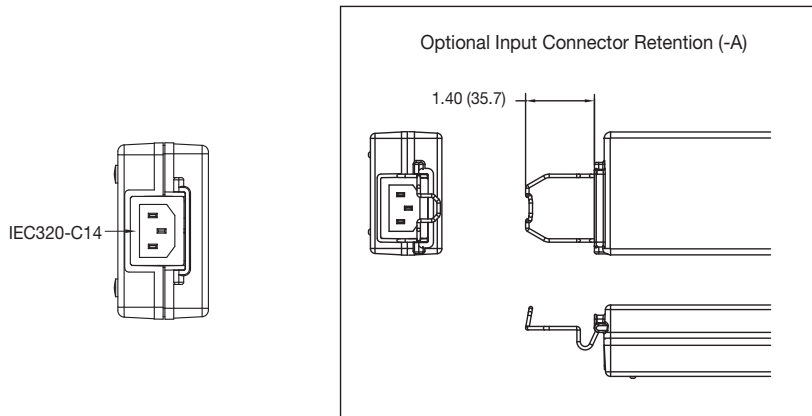
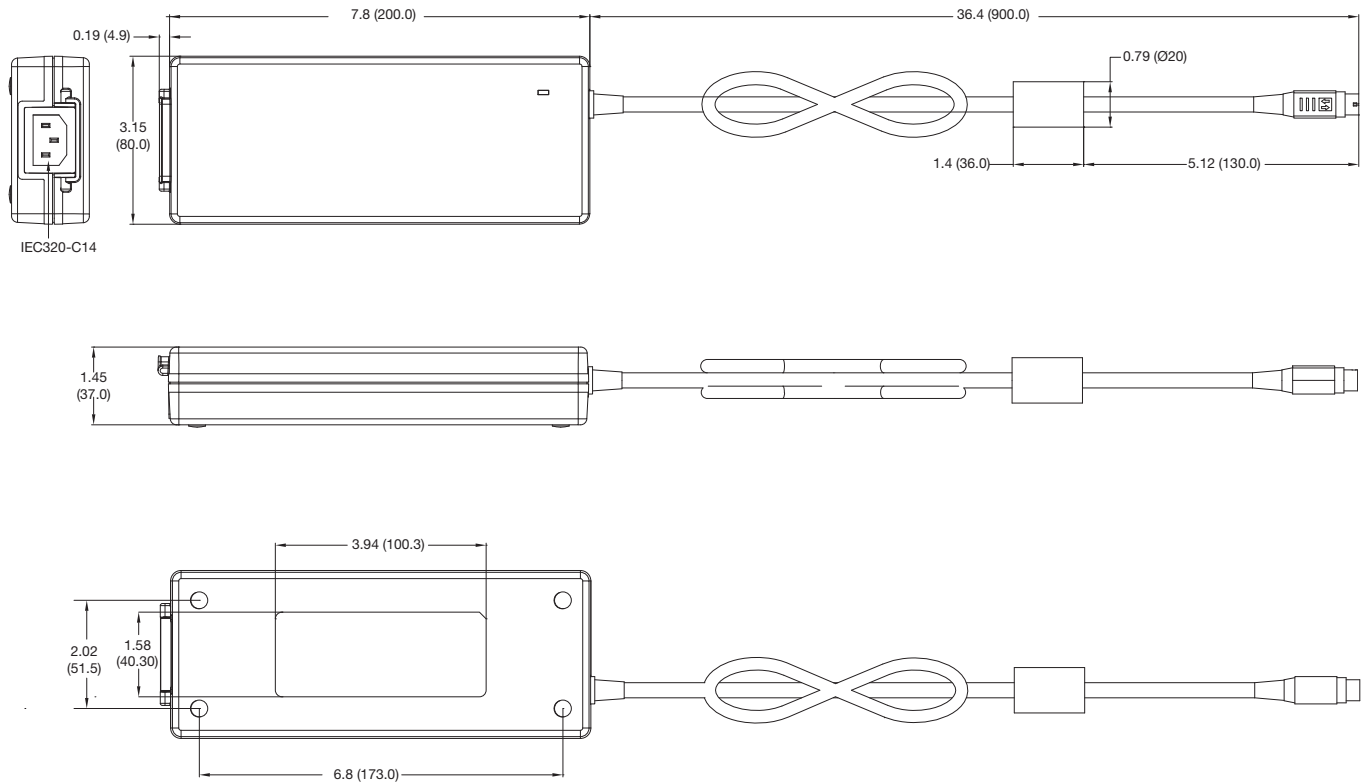
Output Power	Output Voltage	Output Current	Model Number <sup>(1)</sup>
150 W	12.0 VDC	12.50 A	AHM150PS12†^
150 W	15.0 VDC	10.00 A	AHM150PS15†^
150 W	19.0 VDC	7.89 A	AHM150PS19†^
150 W	24.0 VDC	6.25 A	AHM150PS24†^
150 W	48.0 VDC	3.13 A	AHM150PS48†^

## Notes

1. For optional input connector retention clip, add suffix '-A' to the model number e.g. AHM150PS24-A.

## Mechanical Details

Dimensions shown in inches (mm).



Output Connector equivalent to KPPX-4P (Non Locking)	
Pin 1	Output +
Pin 2	Output +
Pin 3	Return
Pin 4	Return
Outer Shell	GND

## Notes

1. Tolerance is 0.02 (0.5) maximum, except output cable length.

2. Weight 1.3 lbs (600 g).

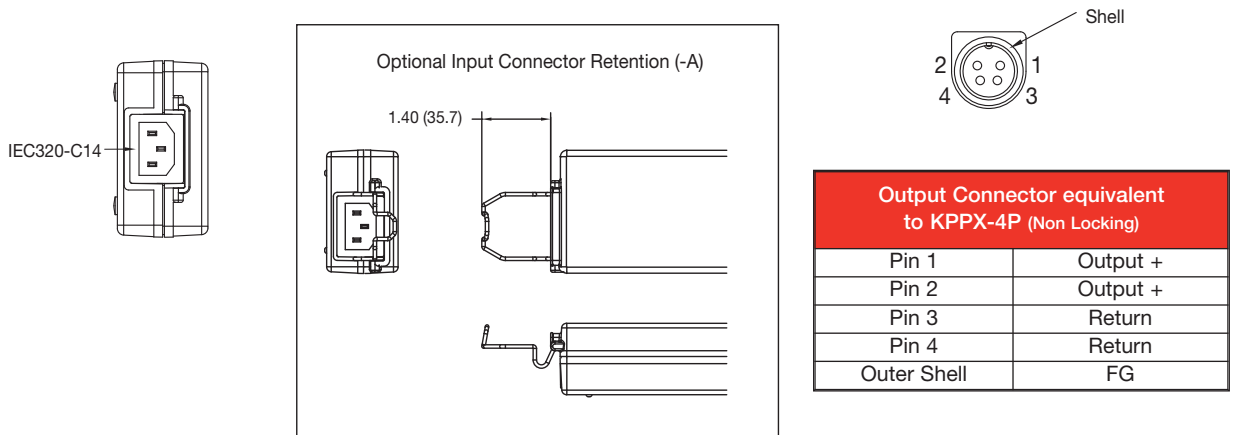
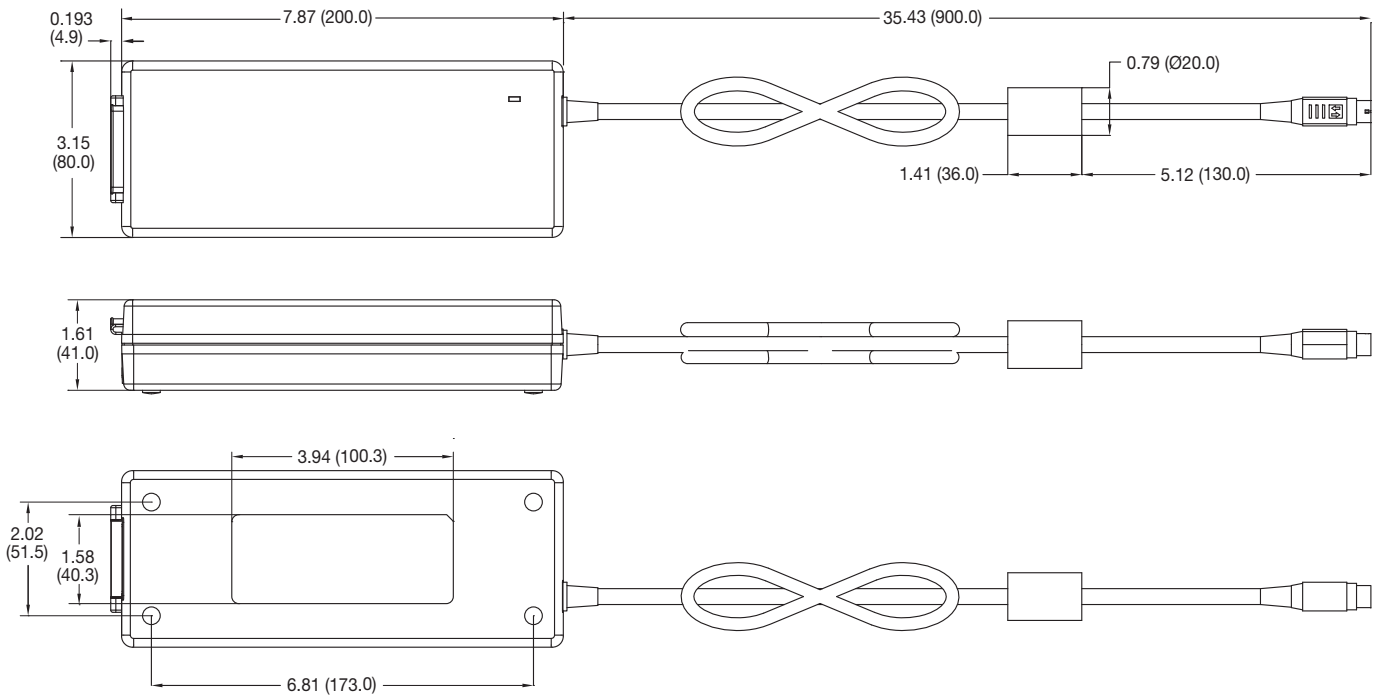
Output Power	Output Voltage	Output Current	Model Number
165 W	12.0 VDC	13.50 A	AHM180PS12†^
180 W	15.0 VDC	12.00 A	AHM180PS15†^
180 W	19.0 VDC	9.47 A	AHM180PS19†^
180 W	24.0 VDC	7.50 A	AHM180PS24†^
180 W	48.0 VDC	3.75 A	AHM180PS48†^

**Notes**

1. For optional input connector retention clip, add suffix '-A' to the model number e.g. AHM180PS24-A.

**Mechanical Details**

Dimensions shown in inches (mm).



**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)

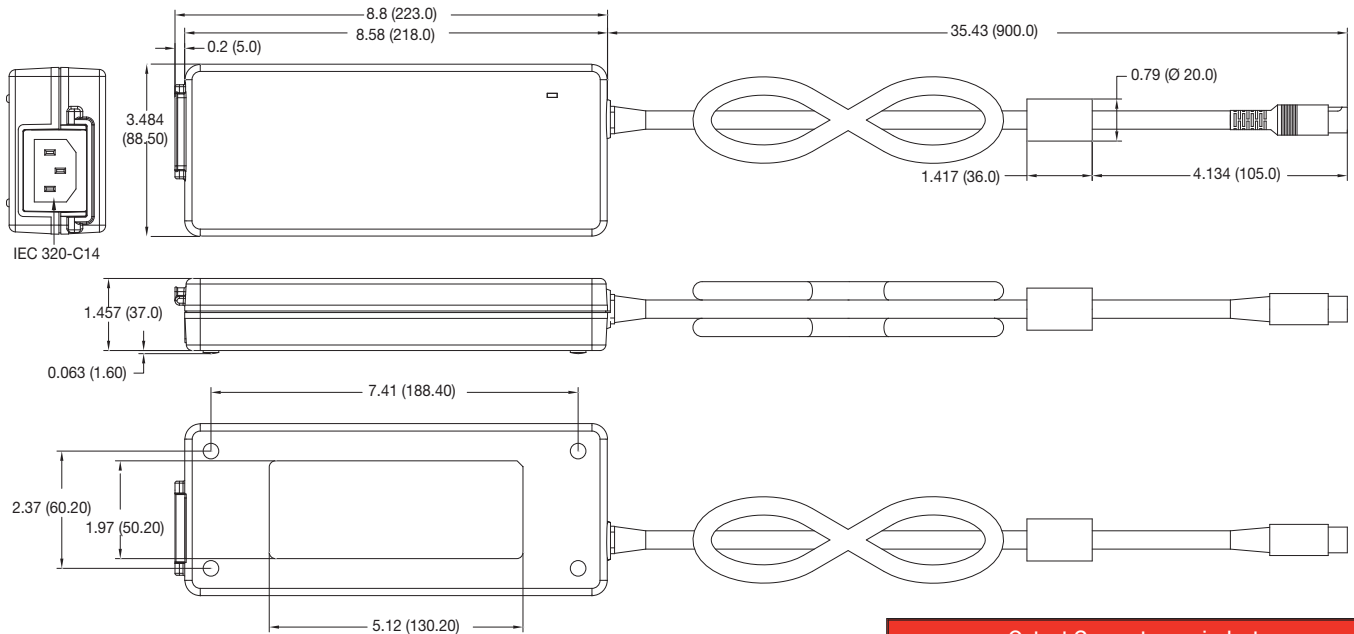
Output Power	Output Voltage	Output Current	Model Number
210 W	12.0 VDC	17.50 A	AHM250PS12†^
220 W	15.0 VDC	14.66 A	AHM250PS15†^
240 W	19.0 VDC	12.63 A	AHM250PS19†^
250 W	24.0 VDC	10.41 A	AHM250PS24†^
250 W	48.0 VDC	5.21 A	AHM250PS48†^

**Notes**

1. For optional input connector retention clip, add suffix '-A' to the model number e.g. AHM250PS24-A.

**Mechanical Details**

Dimensions shown in inches (mm).



Output Connector equivalent to DIN45322 (6 pin at 60 °) Male	
Pin 1	Output +
Pin 2	Return
Pin 3	Return
Pin 4	Return
Pin 5	Output +
Pin 6	Output +
Outer Shell	GND

**Notes**

- Dimensions shown in inches (mm). Tolerance is 0.02 (0.5) maximum, except output cable length.
- Weight 2.2 lbs (1000 g).

**Derating Curve**

