

AEH Series



- Non-Standard Outputs
- Low Output Voltages
- Universal Input
- Class 1 Earthing
- Single Output Versions from 5 V to 48 V
- +70 ° C Operating Temperature
- International Safety Approvals

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 0.46 A for AEH24, at 230 VAC 1.0 A for AEH60, at 230 VAC
Inrush Current	• AEH24: 15/30 A max at 115/230 VAC 100% load, cold start AEH60: 30/60 A max at 115/230 VAC 100% load, cold start
Earth Leakage Current	• <0.5 mA max at 115 VAC/60Hz <0.75 mA max at 230 VAC/50Hz
Power Factor	• EN61000-3-2, class A

Output

Output Voltage	• See tables, non-standard voltages available - contact sales
Initial Set Accuracy	• 5%
Start Up Delay	• 2 s max
Hold Up Time	• AEH24: >12 ms AEH60: >16 ms
Line Regulation	• See tables
Load Regulation	• See tables
Transient Response	• 4% max. deviation, recovery to within 1% in 500 μ s for a 25% load change
Ripple & Noise	• 1% pk-pk, 20 MHz bandwidth
Overvoltage Protection	• 112-132% Vnom, auto reset
Overload Protection	• 110-150% of nominal
Temperature Coefficient	• $\pm 0.04\%$ /°C max

General

Efficiency	• Up to 80%
Isolation	• 4242 VDC Input to Output 2121 VDC Input to Ground 500 VDC Output to Ground
Switching Frequency	• 58 kHz typical
MTBF	• 100 kHrs per MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• AEH24: 0 °C to +70 °C, derate linearly from full load at +40 °C to half load at +70 °C AEH60: 0 °C to +70 °C, derate linearly from full load at +25 °C to half load at +70 °C
Operating Humidity	• 5-95 % RH, non-condensing
Storage Temperature	• AEH24: -20 °C to +70 °C AEH60: -40 °C to +85 °C
Vibration	• 2 G on 3 axes

EMC & Safety

Emissions	• EN55022 level B, conducted and radiated
Harmonic Currents	• EN61000-3-2, Class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 2 Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 3 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 2 Perf Criteria A
Surge	• EN61000-4-5, level 3 Perf Criteria A
Conducted Immunity	• EN61000-4-6, level 2 Perf Criteria A
Dips & Interruptions	• EN61000-4-11 30% 10 ms, 60% 100 ms, 100% 5000 ms Perf Criteria A, B, B
Safety Approvals	• EN60950-1, UL60950-1, CSA C22.2 No. 950 per cUL,

Models and Ratings

AEH24/60 **XP**

Output Power	Output Voltage Nominal ⁽¹⁾	Output Current		Total Regulation ⁽²⁾	Model Number
		Minimum	Maximum		
15.00 W	5.0 V	0.0 A	3.00 A	5%	AEH24US05
20.00 W	7.0 V	0.0 A	2.80 A	5%	AEH24US07
22.00 W	10.0 V	0.0 A	2.20 A	5%	AEH24US10
24.00 W	12.0 V	0.0 A	2.00 A	5%	AEH24US12
24.00 W	15.0 V	0.0 A	1.60 A	5%	AEH24US15
24.00 W	18.0 V	0.0 A	1.30 A	5%	AEH24US18
24.00 W	24.0 V	0.0 A	1.00 A	3%	AEH24US24
24.00 W	30.0 V	0.0 A	0.80 A	3%	AEH24US30
24.00 W	36.0 V	0.0 A	0.66 A	3%	AEH24US36
24.00 W	48.0 V	0.0 A	0.50 A	2%	AEH24US48
50 W	5.0 V	0.0 A	10.0 A	5%	AEH60US05
56 W	7.0 V	0.0 A	8.0 A	5%	AEH60US07
60 W	10.0 V	0.0 A	6.0 A	5%	AEH60US10
60 W	12.0 V	0.0 A	5.0 A	5%	AEH60US12
60 W	15.0 V	0.0 A	4.0 A	5%	AEH60US15
60 W	18.0 V	0.0 A	3.3 A	5%	AEH60US18
60 W	24.0 V	0.0 A	2.5 A	5%	AEH60US24
60 W	30.0 V	0.0 A	2.0 A	5%	AEH60US30
60 W	36.0 V	0.0 A	1.6 A	5%	AEH60US36
60 W	48.0 V	0.0 A	1.2 A	5%	AEH60US48

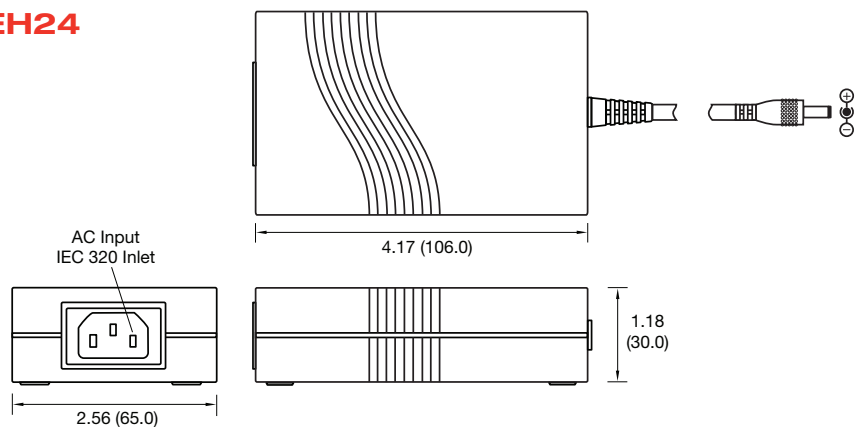
Notes

1. Factory-set non-standard outputs available.

2. Total regulation includes initial set accuracy, line and load regulation.

Mechanical Details

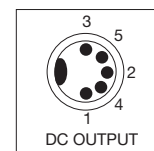
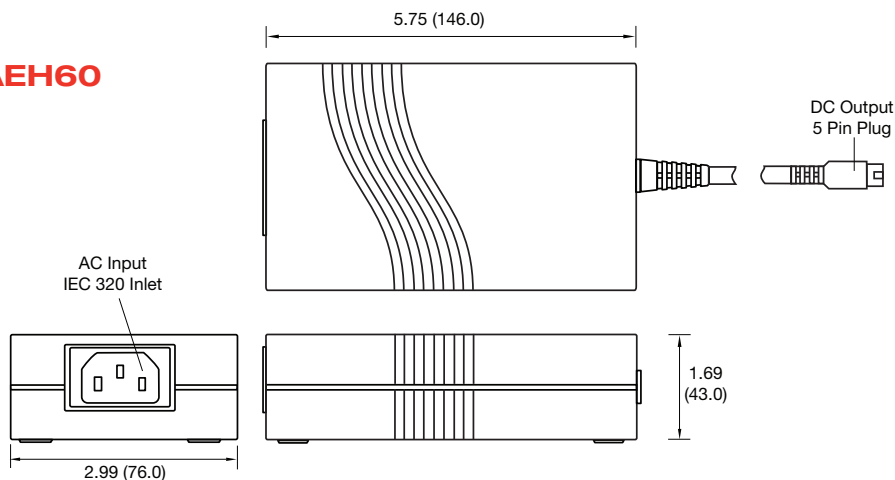
AEH24



Notes

1. Dimensions shown in inches (mm).
2. Tolerance 0.02 (0.5) max.
3. AEH24 Output connector is 5.5mm outer diameter barrel. Inner diameter is 2.5mm with centre positive (+) and outer shell negative (-).
4. Output cable length: AEH24: 72.0 (1830). AEH60: 48.0 (1220)
5. Optional output connectors available, contact sales for details.
6. Weight: AEH24: 0.47 lb (215 g) approx. AEH60: 1.07-1.30 lb (488-596 g) approx.
7. For UK mains lead order part: UK-MAINS-IEC. For European mains lead order part: EU-MAINS-IEC.
8. For mating DIN connector, use standard 5 pin 180° socket.

AEH60



PIN CONNECTIONS	
Pin	Connection
Shell	GND
1	Common
2	Common
3	Output
4	Common
5	Output