

AML120 SERIES

AC/DC Single Output: 120Watts



Features

- High Power Density
- Single Outputs from 12 V to 48 V
- Universal Input
- High Efficiency
- 0 °C to +70 °C Operating Temperature
- Non-standard Connectors Available
- International Safety Approvals

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 at 115 VAC
Earth Leakage Current	• 150 µA max at 115 VAC, 60 Hz 250 µA max at 230 VAC, 50 Hz
Input Protection	• Internal 3 A fuse
Standby Power Consumption	• <0.75 W

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 and 115 VAC
Line Regulation	• ±0.5% maximum
Load Regulation	• See table
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	• 86% typical, 80% min for 12 V & 15 V models
Isolation	• 3000 VAC Input to Output 1500 VAC Input to Ground Output 0 V is electrically connected to Input Ground
Switching Frequency	• 20-110 kHz variable
Power Density	• 4.9 W/In ³
MTBF	• >100 kHrs per MIL-HDBK-217F

Environmental

Operating Temperature	• 0 °C to +70 °C, derate from 100% power at +50 °C to 60% power at +70 °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 axis
Vibration	• 5-100 Hz, 2.31 m/s ² , 20 mins, 3 axis

EMC & Safety

Emissions	• EN55022/FCC/VCCI, Class B conducted EN55022/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 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, 10 V Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% for 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B
Safety Approvals	• EN60950, UL60950, CSA22.2 No. 60950 per cUL, CE Mark

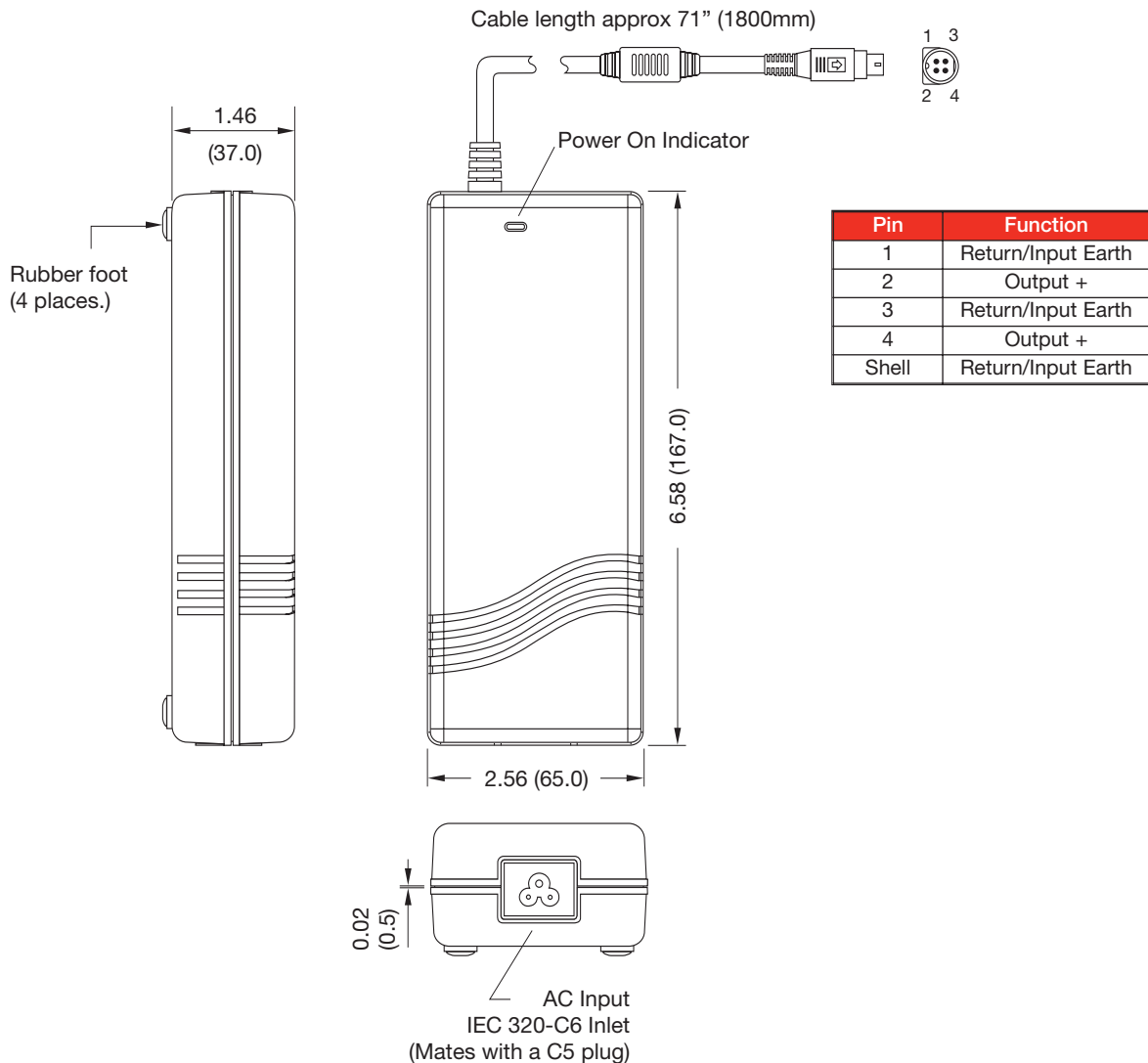
Models and Ratings

Output Power	Output Voltage	Output Current	Total Regulation ⁽²⁾	Model Number
96 W	12 V	8.00 A	5%	AML120PS12†
105 W	15 V	7.00 A	5%	AML120PS15†
120 W	18 V	6.67 A	5%	AML120PS18
120 W	19 V	6.32 A	5%	AML120PS19†
120 W	20 V	6.00 A	5%	AML120PS20
120 W	24 V	5.00 A	5%	AML120PS24†
120 W	30 V	4.00 A	5%	AML120PS30
120 W	36 V	3.34 A	5%	AML120PS36†
120 W	48 V	2.50 A	5%	AML120PS48†

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.

Mechanical Details



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. Optional output connectors available. Consult sales.
4. Output connector is Kycon part KPP-4P or equivalent. Mating connector Kycon part KPJ-4S.