120W Desktop C14 Adapter Series

Features

- Non-Vented Case
- US DoE Level VI Efficiency Compliance
- Ecodesign/ErP Lot 7 (EU) 2019/1782 Compliance
- EU CoC Ver 5 Tier 2 Compliance
- Class B EMI
- 5,000 Meter Operating Altitude

Applications

- Industrial
- Test and Measurement
- Peripherals
- Networking

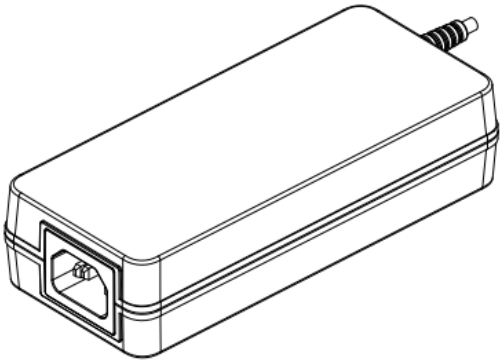
AA120U Series Specifications[1]

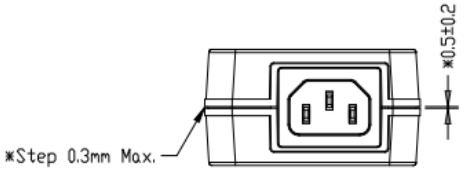
Model		AA120U-120B-R	AA120U-120B1-R	AA120U-240B-R
Output	DC Output Voltage	12.0V	12.0V	24.0V
	Max Current	9.0A (11.0A peak @10 Sec.)	10.0A (11.0A peak @10 Sec.)	5.0A (6.0A peak @10 Sec.)
	Output Power	108.0W	120.0W	120.0W
	Regulation	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max)[2]	200mV@9A	250mV@10A	380mV
Input	AC Input Voltage Range	90 to 264VAC		
	AC Input Frequency	47 to 63Hz		
	Input Current	1.5A (RMS) max @115VAC, 0.75A (RMS) max @230VAC		
	Inrush Current	220A max @115VAC (Cold start at ambient 25ºC)		
	No Load Power Consumption	0.0452W @115VAC 0.0738W @230VAC	0.0444W @115VAC 0.0677W @230VAC	0.071W @115VAC 0.074W @230VAC
	115VAC Average Efficiency[3]	88.54%	88.43%	89.9%
	230VAC Average Efficiency[3]	89.09%	89.10%	90.34%
	230VAC 10% Load Efficiency[3]	87.14%	87.31%	86.85%
	Leakage Current	250uA Max		
Protection	Over-Voltage	13.2V ~17V Latch mode		25.2V ~32V Latch mode
	Short Circuit	Auto recover and no component damage		
	Over-Current	<15A, Auto recover and no component damage		<8A, Auto recover and no component damage
	Over-Temperature	Latch mode		
Environmental	Operating Temperature	0ºC to +40ºC		
	Non-Operating Temperature	-40º to +85ºC		
	Operating Humidity	5 to +95% Relative Humidity		
Safety Approvals and EMC	Dielectric Withstand (HI-POT)	Primary to Secondary: 3000VAC for 1min, 10mA Primary to PE: 1500VAC for 1min, 10mA		
	Insulation Resistance	Primary to Secondary: >50M ohm for 500VDC Primary to PE: >50M ohm for 500VDC		
	Standards	cULus /IEC/EN62368-1		
	EMI Emissions	FCC Part 15 Class B, EN 55032/CISPR 32 Class B Conducted and Radiated		
	Harmonic Current Emissions	IEC 61000-3-2		
	Voltage Fluctuations & Flicker	IEC 61000-3-3		
	Immunity	EN 55035/CISPR 35: IEC 61000-4-2 (+/- 15kV air, +/- 8kV contact), IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5 (+/- 1kV L-L, +/- 2kV L-E), IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11		
Mechanical	Dimensions (L x W x H)	150mm (5.90in) x 65mm (2.56in) x 35mm (1.38in)		
	Cable Length	1000mm	1000mm	1500mm
	DC Output Connector	4 pin Mini DIN	4 pin Mini DIN	2.5mm x 5.5mm x 10.0mm Right Angle
	DC Wire Type	15 AWG	15 AWG	18 AWG
	DC Plug Pin Assignment	Pins 2 & 4: V+ Pins 1 & 3: V-	Pins 2 & 4: V+ Pins 1 & 3: V-	Inner (V+) / Outer GND (V-)
	Input Connector	IEC 60320 C14		
Notes	1. The specifications defined are at ambient temperature of 25ºC, unless otherwise specified. 2. Measuring is done by 20MHz bandwidth oscilloscope and terminated each output with a 10uF aluminum electrolytic capacitor and a 0.1uF ceramic capacitor. 3. Efficiency is measured after 30 minutes burn-in.			

AA120U Series Specifications[1]

Model		AA120U-480B-R	AA120U-540B-R
Output	DC Output Voltage	48.0V	54.0V
	Max Current	2.5A (3.0A peak @10 Sec.)	2.22A (2.66A peak @10 Sec.)
	Output Power	120.0W	120.0W
	Regulation	± 5%	± 5%
	Ripple & Noise P-P(max)[2]	480mV	500mV
Input	AC Input Voltage Range	90 to 264VAC	
	AC Input Frequency	47 to 63Hz	
	Input Current	1.5A (RMS) max @115VAC, 0.75A (RMS) max @230VAC	
	Inrush Current	220A max @115VAC (Cold start at ambient 25ºC)	
	No Load Power Consumption	0.073W @115VAC 0.074W @230VAC	0.0713W @115VAC 0.0741W @230VAC
	115VAC Average Efficiency[3]	89.9%	91.05%
	230VAC Average Efficiency[3]	90.34%	91.19%
	230VAC 10% Load Efficiency[3]	86.85%	87.1%
	Leakage Current	250uA Max	
Protection	Over-Voltage	60V Max Latch mode	60V Max Latch mode
	Short Circuit	Auto recover and no component damage	
	Over-Current	<4A, Auto recover and no component damage	<3.5A, Auto recover and no component damage
	Over-Temperature	Latch mode	
Environmental	Operating Temperature	0ºC to +40ºC	
	Non-Operating Temperature	-40º to +85ºC	
	Operating Humidity	5 to +95% Relative Humidity	
Safety Approvals and EMC	Dielectric Withstand (HI-POT)	Primary to Secondary: 3000VAC for 1min, 10mA Primary to PE: 1500VAC for 1min, 10mA	
	Insulation Resistance	Primary to Secondary: >50M ohm for 500VDC Primary to PE: >50M ohm for 500VDC	
	Standards	cULus /IEC/EN62368-1	
	EMI Emissions	FCC Part 15 Class B, EN 55032/CISPR 32 Class B Conducted and Radiated	
	Harmonic Current Emissions	IEC 61000-3-2	
	Voltage Fluctuations & Flicker	IEC 61000-3-3	
	Immunity	EN 55035/CISPR 35: IEC 61000-4-2 (+/- 15kV air, +/- 8kV contact), IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5 (+/- 1kV L-L, +/- 2kV L-G), IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11	
Mechanical	Dimensions (L x W x H)	150mm (5.90in) x 65mm (2.56in) x 35mm (1.38in)	
	Cable Length	1500mm	1500mm
	DC Output Connector	2.5mm x 5.5mm x 10.0mm Right Angle	2.5mm x 5.5mm x 10.0mm Right Angle
	DC Wire Type	18 AWG	18 AWG
	DC Plug Pin Assignment	Inner (V+) / Outer GND (V-)	Inner (V+) / Outer GND (V-)
	Input Connector	IEC 60320 C14	
Notes	1. The specifications defined are at ambient temperature of 25ºC, unless otherwise specified. 2. Measuring is done by 20MHz bandwidth oscilloscope and terminated each output with a 10uF aluminum electrolytic capacitor and a 0.1uF ceramic capacitor. 3. Efficiency is measured after 30 minutes burn-in.		

AA120U Outline Drawing





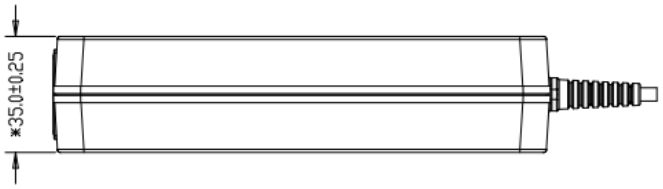
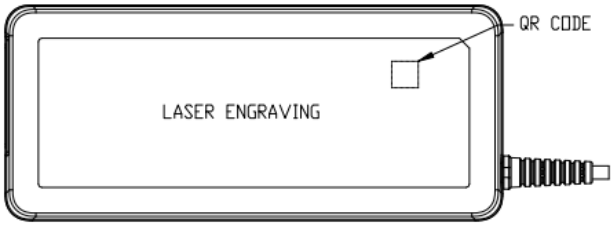
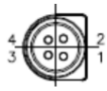


TABLE 1

MODEL NAME
AA120U-120B-R
AA120U-120B1-R
AA120U-240B-R
AA120U-480B-R
AA120U-540B-R



4 pin DN



PLUG	POLAR
2,4	+
1,3	–

Barrel connector

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Phihong USA Corporation
47800 Fremont Boulevard
Fremont, CA 94538
Telephone: (510) 445-0100
www.phihong.com

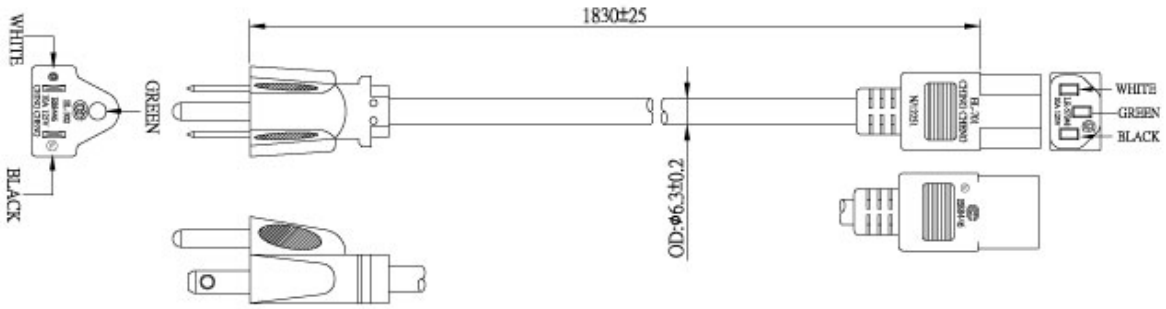
This device complies with/The devices in this product series comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Line Cord - Sold Separately

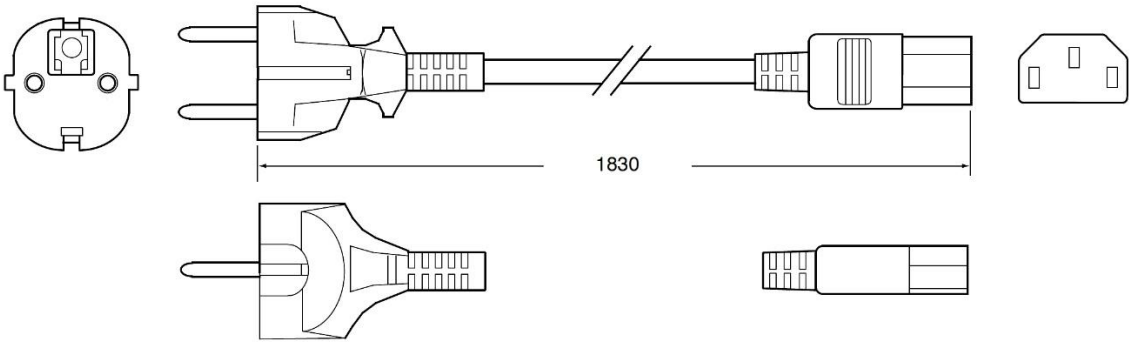
Model		AC30UNA-R	AC30UEU-R	AC30UUK-R
Specifications	Plug Type	North America NEMA 5-15P	Continental Europe CEE 7VIII	United Kingdom BS 1363
	Connector	IEC320 C13	IEC320 C13	IEC320 C13
	Wire Size	18 AWG	0.75mm	1.0mm
	Temperature	60ºC	70ºC	70 ºC
	Amperage Rating	10A	6A	10A
	Voltage Rating	125V	250V	250V
	Cable Length	1830mm	1830mm	2500mm
Safety Approvals		CSA; UL	CEBEC; DEMKO; DVE; FIMKO; GOST; IMQ; KEMA; NEMKO; NF; OVE; SEMKO	BSI; Safety Mark
Photos		 	 	 

Line Cords - Outline Drawing

AC30UNA-R



AC30UEU-R



AC30UUK-R