

TECHNICAL DATASHEET

120W Desktop C14 Adapter Series



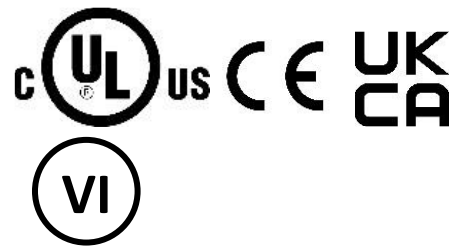
Applications

- Industrial
- Test and Measurement
- Peripherals
- Networking

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

Safety Standards



Dimensions

150 x 65 x 35 mm
(5.90 x 2.56 x 1.38 inch)

Specifications

AA120U Series Specifications¹

Model		AA120U-120B-R	AA120U-240B-R
Output	DC Output Voltage	12.0V	24.0V
	Max Current	9.0A (11.0A peak@10 Sec.)	5.0A (6.0A peak@10 Sec.)
	Output Power	108.0W	120.0W
	Regulation	± 5%	
	Ripple & Noise P-P(max) ²	200mV@9A	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 @ 115VAC (Cold start at ambient 25C)	
	No Load Power Consumption	0.0452W @115VAC 0.0738W @230VAC	0.071W @115VAC 0.074W @230VAC
	115VAC Average Efficiency ³	88.54%	89.9%
	230VAC Average Efficiency ³	89.09%	90.34%
	230VAC 10% Load Efficiency ³	87.14%	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	Operation Temperature	0°C to +40°C	
	Non-Operating Temperature	-40° to +85°C	
	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	Dimension(LxWxH)	150mm (5.90in) x 65mm (2.56in) x 35mm (1.38in)	
	Cable Length	1000mm	1500mm
	DC Output Connector	4 pin Mini DIN	2.5mm x 5.5mm x 10.0mm Right Angle
	DC Wire Type	15 AWG	18 AWG

	DC Plug Pin Assignment	Pins 2 & 4: V+ Pins 1 & 3: V-	Inner (V+) / Outer GND (V-)
	Input Connector	IEC 60320 C14	
Notes	<ol style="list-style-type: none"> 1. The specifications defined are at ambient temperature of 25°C, unless otherwise specified. 2. 20MHz bandwidth frequency oscilloscope, add a 0.1μF multilayer Cap. and Low ESR Electrolytic Cap. (10μF) at output connector terminals (nominal line voltage, full load). 3. Efficiency is measured after 30 minutes burn-in. 		

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	
	Regulation	± 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 @ 115VAC (Cold start at ambient 25C)	
	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% Average 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	Operation Temperature	0°C to +40°C	
	Non-Operating Temperature	-40° to +85°C	
	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	Dimension(LxWxH)	150mm (5.90in) x 65mm (2.56in) x 35mm (1.38in)	
	Cable Length	1500mm	
	DC Output Connector	2.5mm x 5.5mm x 10.0mm	2.5mm x 5.5mm x 10.0mm

		Right Angle	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	<ol style="list-style-type: none"> 1. The specifications defined are at ambient temperature of 25°C, unless otherwise specified. 2. 20MHz bandwidth frequency oscilloscope, add a 0.1μF multilayer Cap. and Low ESR Electrolytic Cap. (10μF) at output connector terminals (nominal line voltage, full load). 3. Efficiency is measured after 30 minutes burn-in. 		

AA120U Outline Drawing

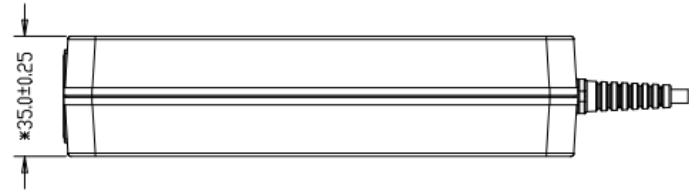
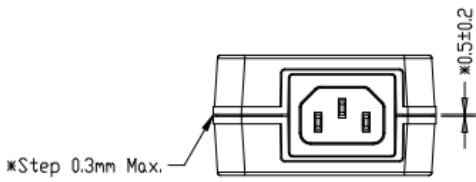
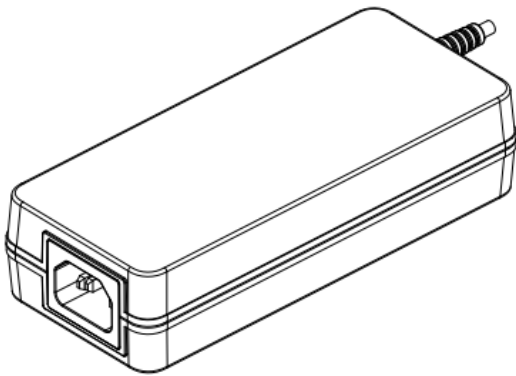
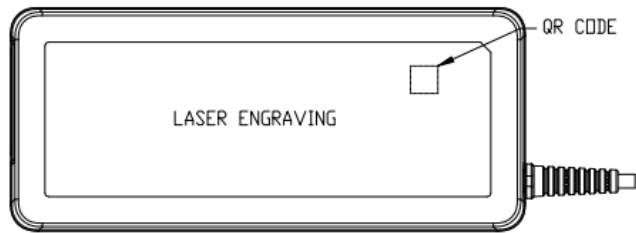


TABLE 1

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



4 pin DN



FLUG	POLAR
2,4	+
1,3	-

Barrel connector

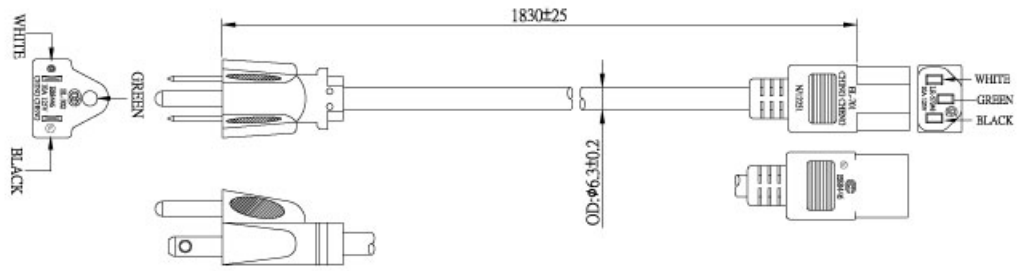


Line Cord - Sold Separately

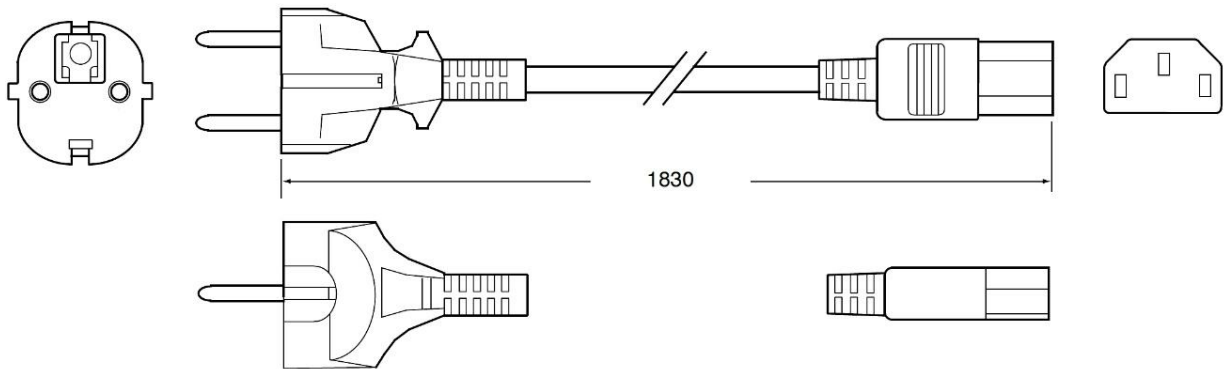
Model		AC30UNA-R	AC30UEU-R	AC30UUK-R
Specifications	Plug Type	North America NEMA 5-15P	Continental Europe CEE 7VIII	United Kingdom BS 1363
	Connector	IEC320 C13	IEC320 C13	IEC320 C13
	Wire Size	18 AWG	0.75mm	1.0mm
	Temperature	60°C	70°C	70°C
	Amperage Rating	10A	6A	10A
	Voltage Rating	125V	250V	250V
	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

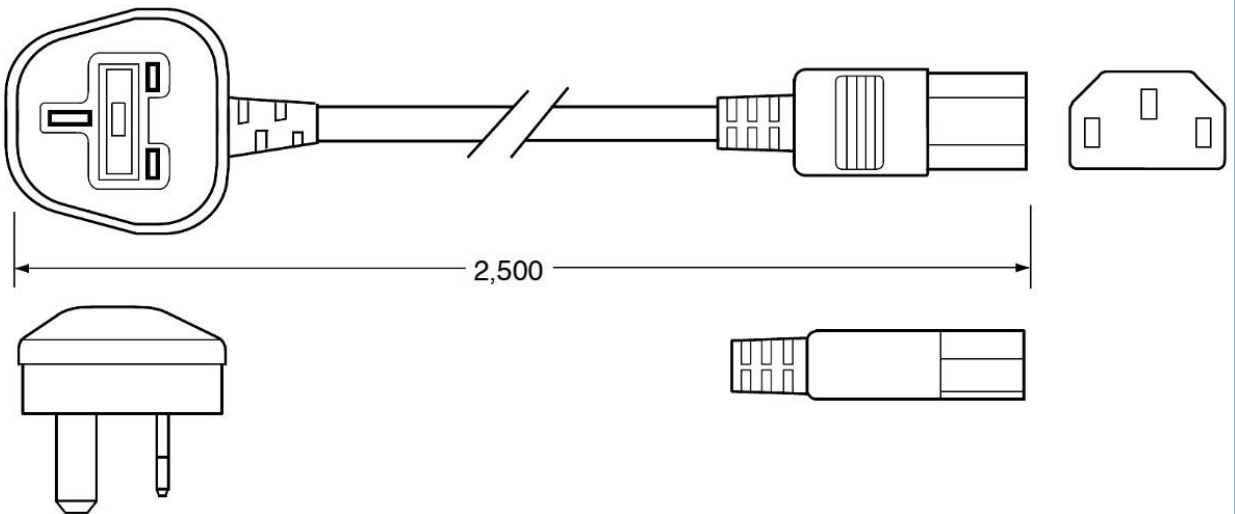
AC30UNA-R



AC30UEU-R



AC30UUK-R



Phihong Locations



Headquarters Phihong Technology Co., Ltd
 No.568, Fuxing 3rd Rd., Gueishan Dist., Taoyuan City (33383), Taiwan
 Tel : +886-3-3277288
 Fax : +886-3-3277622
 phsales@phihong.com.tw
 www.phihong.com.tw



Phihong Technology Co. Ltd. (Tainan R&D Center)
 No. 99, Zhengnan 1st. Street, Yongkang Dist., Tainan City 71046, Taiwan
 Tel : +886-6-254-7588
 Fax : +886-6-254-7288
 phsales@phihong.com.tw
 www.phihong.com.tw



Phihong China
 Room 101, Building 5, 133-1 Tiesong Road, Qingxi Town, Dong Guan City, Guangdong (523642), China
 Tel : +86-769-87736405
 phsales@phihong.com.tw



Phihong USA
 47800 Fremont Blvd., Fremont, CA 94538, U.S.A.
 Tel : +1-510-445-0100
 Fax : +1-510-445-1678
 usasales@phihongusa.com
 www.phihong.com



Phihong Japan
 PMOEX Nihonbashi Kayabacho 10F, 2-12-10
 Nihonbashi Kayabacho, Chuo City, Tokyo 103-0025 Japan
 Tel : +81-3-6626-5513
 Fax : +81-3-6629-0241
 phsales@phihong.com.tw
 www.phihong.co.jp



Phihong Vietnam
 Lot CN5 An Duong Industrial Zone, Hong Phong Commune, An Duong County, Hai Phong City, Vietnam
 Tel : +84-22588-31557