

## Excellent Integrated System Limited

Stocking Distributor

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[CUI Inc.](#)  
[SDI120-12-UC-P51](#)

For any questions, you can email us directly:  
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



**SERIES:** SDI120-U | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

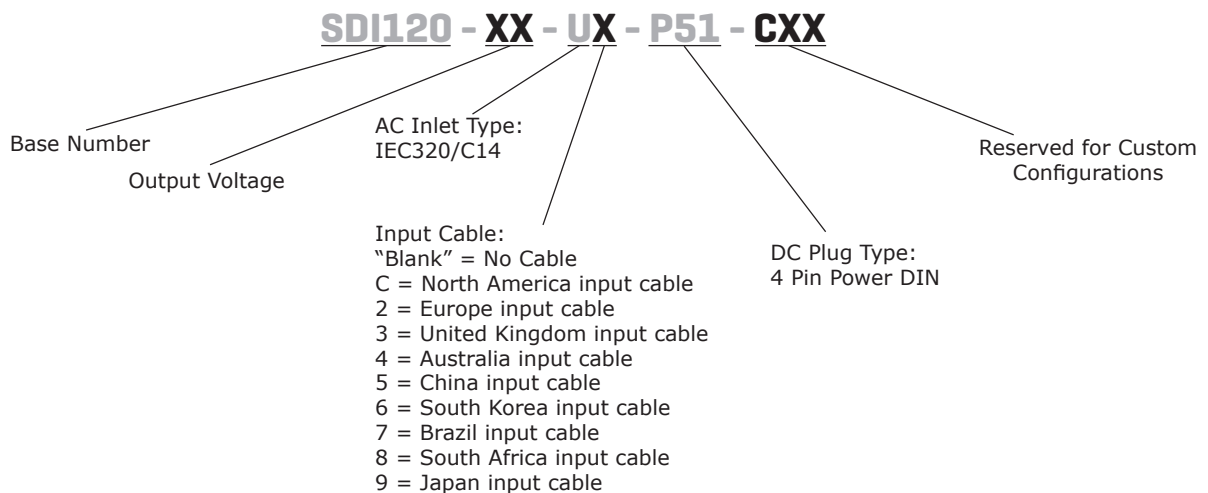
- level VI efficiency
- 120 W power
- universal input (90~264 Vac)
- single regulated outputs
- over voltage and short circuit protections
- UL/cUL, GS, PSE safety approvals
- power factor correction
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise <sup>1</sup> max (mVp-p)	efficiency level
SDI120-12-U	12	9	108	120	VI
SDI120-16-U	16	7.5	120	160	VI
SDI120-19-U	19	6.3	120	190	VI
SDI120-24-U	24	5	120	240	VI
SDI120-48-U	48	2.5	120	480	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 μF multilayer ceramic and 10 μF low ESR electrolytic capacitors.

**PART NUMBER KEY**



## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				1.6	A
inrush current	at 230 Vac, full load, 25°C, cold start			80	A
leakage current				3.5	mA
power factor correction	at full load	0.9			
no load power consumption	at 230 Vac			0.21	W

## OUTPUT

parameter	conditions/description	min	typ	max	units
regulation			±5		%

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output latch			150	%
over current protection	output shut down, auto recovery			170	%
short circuit protection	output shut down, auto recovery				

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute		3,000		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
safety approvals	UL/cUL, GS, PSE				
EMI/EMC	FCC Part 15B Class B, CE				
MTBF	as per Telcordia SR-332, 25°C	300,000			hrs
RoHS	2011/65/EU				

## ENVIRONMENTAL

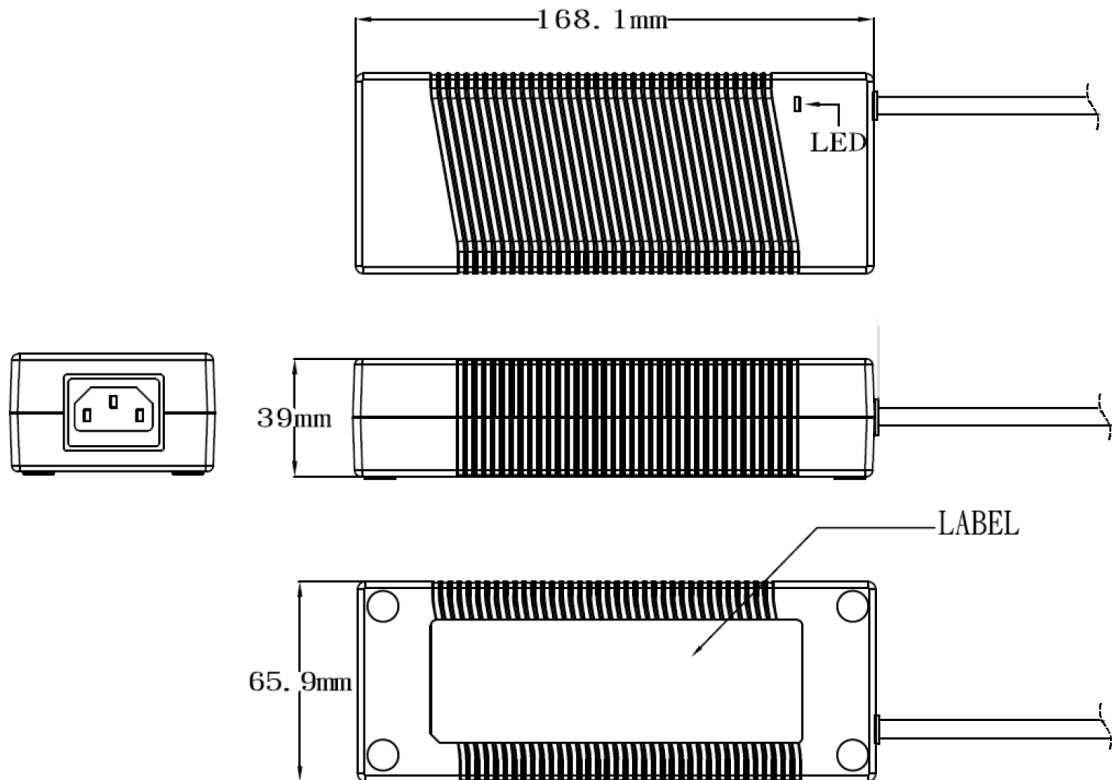
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

## MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	168.1 x 65.9 x 39				mm
inlet plug	IEC320/C14				
weight	without ac cord: 19 Vdc model		560		g
	without ac cord: 16, 24 Vdc models		580		g
	without ac cord: 12, 48 Vdc models		630		g

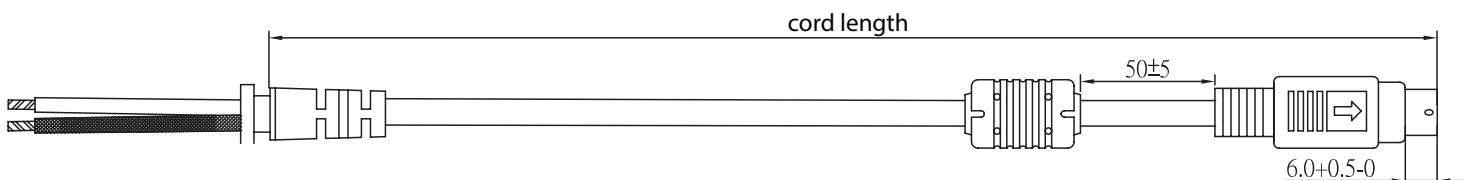
## MECHANICAL DRAWING

units: mm



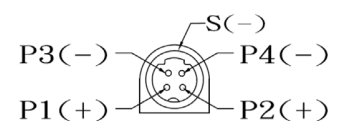
## DC CORD

units: mm



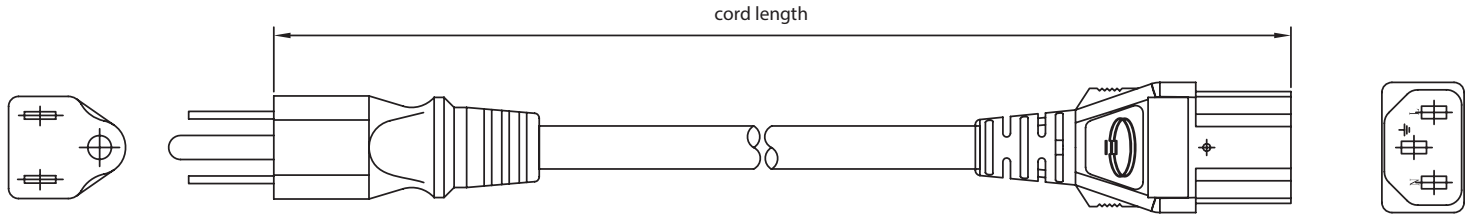
**Table 1**

MODEL NO.	CABLE	CORD LENGTH
SDI120-12-U	UL1185, 14 AWG	1,200 mm ±30
SDI120-16-U	UL1185, 14 AWG	1,500 mm ±30
SDI120-19-U	UL1185, 16 AWG	1,500 mm ±30
SDI120-24-U	UL1185, 16 AWG	1,500 mm ±30
SDI120-48-U	UL1185, 18 AWG	1,500 mm ±30

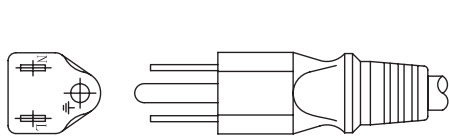


## AC CORD

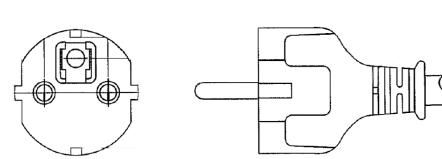
units: mm



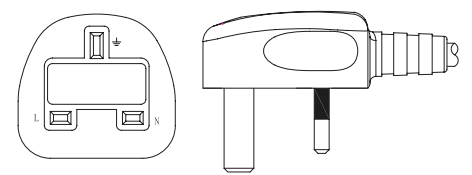
### NORTH AMERICA



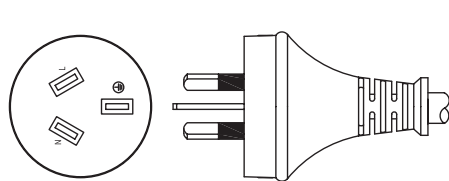
### EUROPE



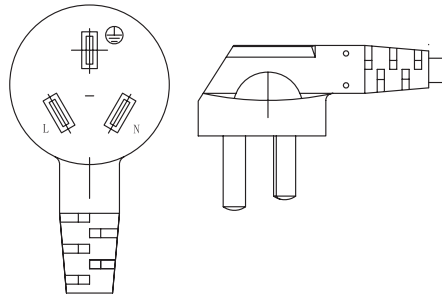
### UNITED KINGDOM



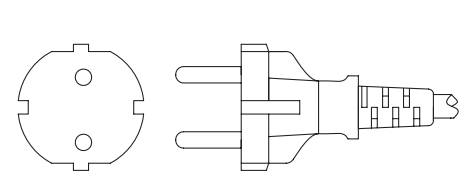
### AUSTRALIA



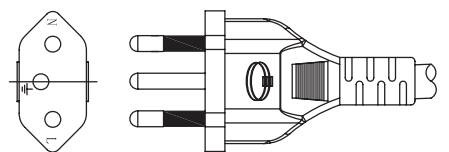
### CHINA



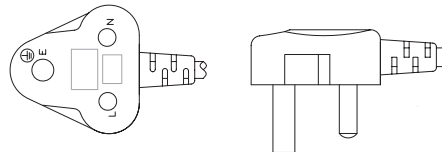
### SOUTH KOREA



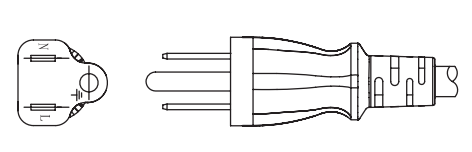
### BRAZIL



### SOUTH AFRICA



### JAPAN



**Table 2**

AC INPUT	CORD LENGTH
North America	1,830 mm ±30
Europe	1,830 mm ±30
United Kingdom	1,830 mm ±30
Australia	1,830 mm ±30
China	1,830 mm ±30
South Korea	1,830 mm ±50
Brazil	1,830 mm ±30
South Africa	1,830 mm ±50
Japan	1,830 mm ±30



## REVISION HISTORY

rev.	description	date
1.0	initial release	03/19/2015

The revision history provided is for informational purposes only and is believed to be accurate.



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This device complies 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.

CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.