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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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#### **DESCRIPTION:** AC-DC POWER SUPPLY SERIES: SDI40-U

#### **FEATURES**

- up to 40 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- universal input voltage range
- compact size
- no load power consumption < 0.075 W
- over voltage and short circuit protections
- UL/cUL, GS, and PSE safety approvals
- custom designs available









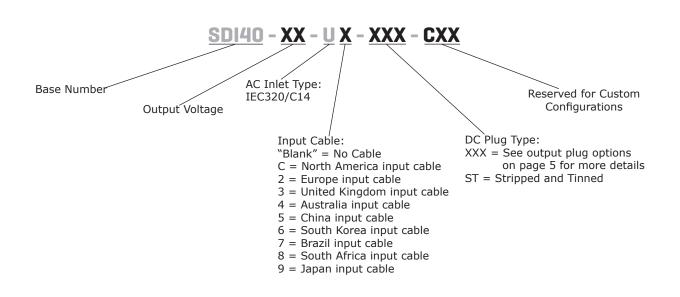


MODEL	output voltage	output current	output power	ripple and noise¹	efficiency level <sup>2</sup>
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	
SDI40-12-U	12	3	36	200	VI
SDI40-15-U	15	2.7	40.5	200	VI
SDI40-19-U	19	2.1	40	300	VI
SDI40-24-U	24	1.7	40.8	300	VI

1. Measured at  $100\sim240$  Vac input, full load, 20 MHz bandwidth oscilloscope, output terminated with a  $10~\mu F$  aluminum electrolytic and  $0.1~\mu F$  ceramic capacitor. Notes:

2. CoC Tier 2 compliant

#### **PART NUMBER KEY**



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## **INPUT**

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				1	А
leakage current				3.5	mA
no load power consumption	Level VI CoC Tier 2			0.1 0.075	W

## **OUTPUT**

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

#### **PROTECTIONS**

parameter	conditions/description	min	typ	max	units
	12 Vdc output model			16	Vdc
	15 Vdc output model			22	Vdc
over voltage protection	19 Vdc output model			27	Vdc
	24 Vdc output model	32	32	Vdc	
	12 Vdc output model			5	Α
	15 Vdc output model			4.3	Α
over current protection	19 Vdc output model			5	Α
	24 Vdc output model			2.8	Α
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			1,500 2,121		Vac Vdc
isolation resistance	input to output at 500 Vdc	100		MΩ	
safety approvals	UL/cUL, GS, PSE				
EMI/EMC	FCC Part 15B Class B, CE				
RoHS	2011/65/EU				

## **ENVIRONMENTAL**

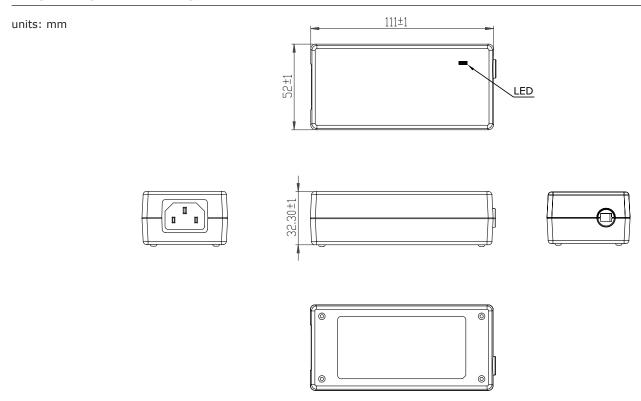
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-10		70	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

CUI Inc | SERIES: SDI40-U | DESCRIPTION: AC-DC POWER SUPPLY

## **MECHANICAL**

parameter	conditions/description	min	typ	max	units
dimensions	111 x 52 x 32.3				mm
inlet plug	IEC320/C14				
weight	with AC cord without AC cord		396 247		g g

## **MECHANICAL DRAWING**



#### DC CORD

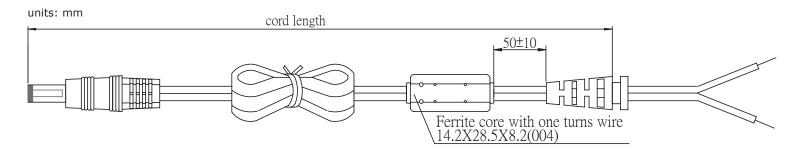
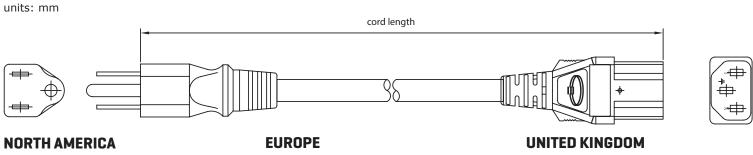
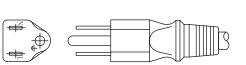


Table 1

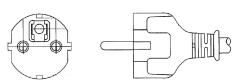
MODEL NO.	CABLE	CORD LENGTH
SDI40-12-U	UL2468, 16 AWG	1,530 mm ±100
SDI40-15-U	UL2468, 16 AWG	1,530 mm ±100
SDI40-19-U	UL2468, 18 AWG	1,530 mm ±100
SDI40-24-U	UL2468, 18 AWG	1,530 mm ±100

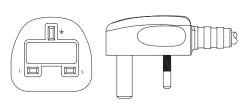
#### **AC CORD**



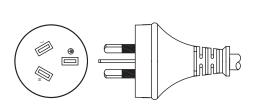




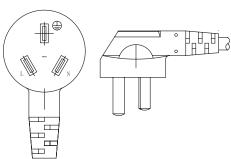




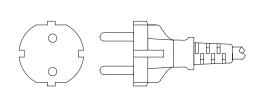
**AUSTRALIA** 



**CHINA** 

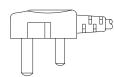


**SOUTH KOREA** 

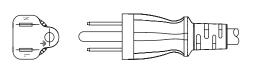


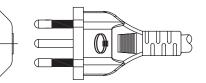
**BRAZIL** 

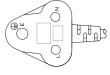




**JAPAN** 







**SOUTH AFRICA** 

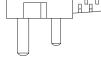
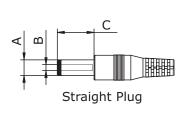


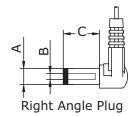
Table 2

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

## **OUTPUT PLUG OPTIONS**

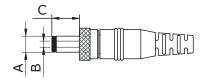
## **Standard DC Plug**





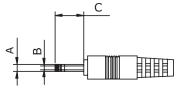
Size	Α	В	С	Unit
5	5.5	2.1	9.5	mm
6	5.5	2.5	9.5	mm
7	3.5	1.35	9.5	mm
8	3.8	1.35	9.5	mm
9	3.8	1.05	9.5	mm

## **Locking DC Plug**

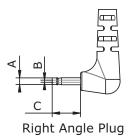


Size	А	В	С	Unit
10	5.5	2.1	9.5	mm
11	5.5	2.5	9.5	mm

#### **EIAJ DC Plug**

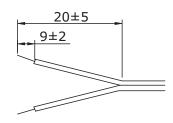




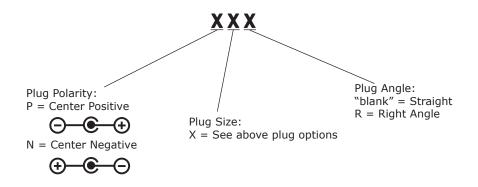


Size	EIAJ	Α	В	С	Unit
12	EIAJ-1	2.35	0.7	9.5	mm
13	EIAJ-2	4.0	1.7	9.5	mm
14	EIAJ-3	4.75	1.7	9.5	mm

# **Stripped and Tinned**



# **DC Plug Type**



<sup>\*</sup>Contact CUI for additional plug options

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#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	09/27/2016

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.