



**SERIES:** SDI50-U | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

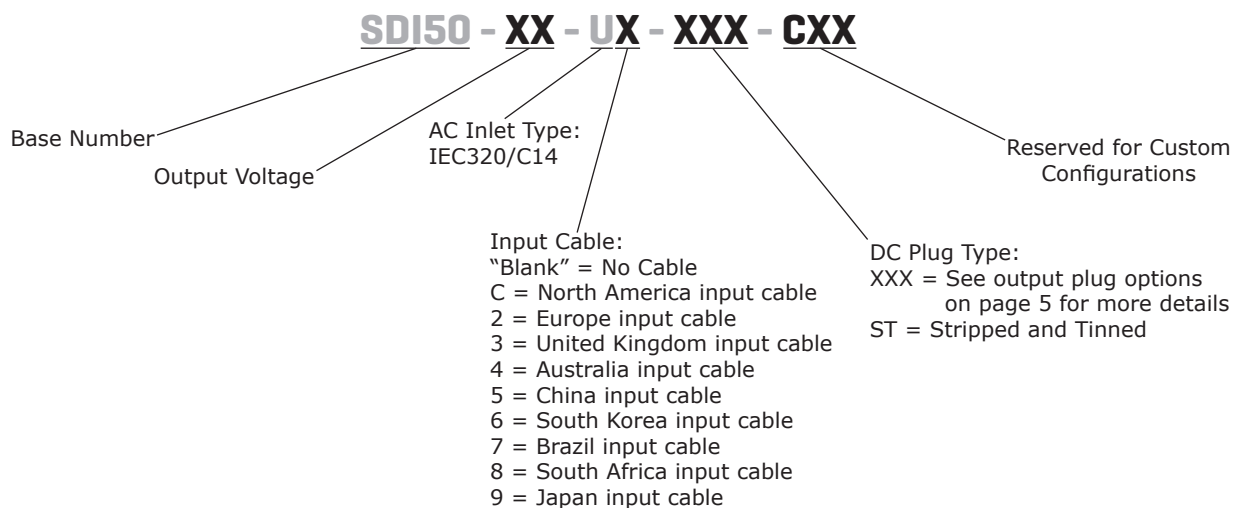
- DoE Level VI, CoC Tier 2 efficiency
- 50 W power
- universal input (90~264 Vac)
- compact size
- single regulated output from 9~48 Vdc
- over voltage and short circuit protections
- UL/cUL, GS, and PSE safety approvals
- custom designs available



MODEL	output voltage	output current max	output power max	ripple and noise <sup>1</sup> max	efficiency level <sup>2</sup>
	(Vdc)	(A)	(W)	(mVp-p)	
SDI50-9-U	9	5	45	100	VI
SDI50-12-U	12	4.2	50	120	VI
SDI50-15-U	15	3.34	50	150	VI
SDI50-18-U	18	2.78	50	180	VI
SDI50-19-U	19	2.64	50	190	VI
SDI50-24-U	24	2.1	50	240	VI
SDI50-48-U	48	1.05	50	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.  
2. CoC Tier 2 compliant

**PART NUMBER KEY**



## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current				1.2	A
inrush current	at 230 Vac, full load, 25°C, cold start			70	A
leakage current				3.5	mA
no load power consumption	at 230 Vac 9 Vdc model all other models			0.10 0.15	W W

## OUTPUT

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

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	output latch off			180	%
over current protection	output shut down, auto recovery			180	%
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 input to frame ground at 10 mA for 1 minute		3,000 1,500		Vac Vac
isolation resistance	input to output at 500 Vdc input to frame ground at 500 Vdc	10 10			MΩ MΩ
safety approvals	UL/cUL, GS, PSE, LPS				
EMI/EMC	FCC Part 15B Class B, CE				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
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	115 x 53 x 38				mm
inlet plug	IEC320/C14				
weight	without ac cord		310		g

## MECHANICAL DRAWING

units: mm



## DC CORD

units: mm

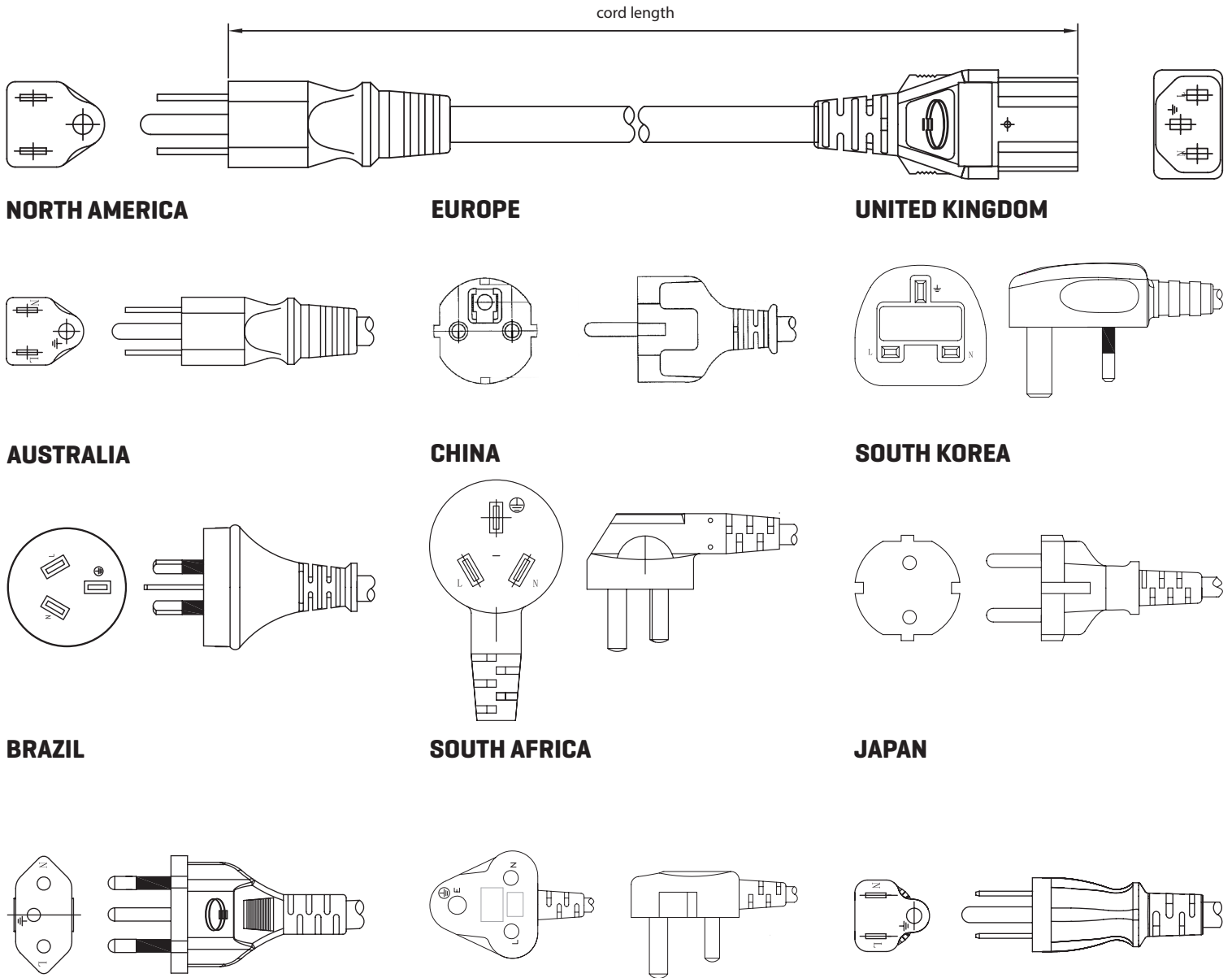


**Table 1**

MODEL NO.	CABLE	CORD LENGTH
SDI50-9-U	UL2468, 18 AWG	1,500 mm ±30
SDI50-12-U	UL2468, 18 AWG	1,500 mm ±30
SDI50-15-U	UL2468, 18 AWG	1,500 mm ±30
SDI50-18-U	UL2468, 18 AWG	1,500 mm ±30
SDI50-19-U	UL2468, 18 AWG	1,500 mm ±30
SDI50-24-U	UL2468, 18 AWG	1,500 mm ±30
SDI50-48-U	UL2468, 20 AWG	1,500 mm ±30

## AC CORD

units: mm



**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	A	B	C	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	A	B	C	Unit
10	5.5	2.1	9.5	mm
11	5.5	2.5	9.5	mm

### EIAJ DC Plug



Size	EIAJ	A	B	C	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



\*Contact CUI for additional plug options

## REVISION HISTORY

rev.	description	date
1.0	initial release	05/13/2015
1.01	updated datasheet	09/15/2016

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



**CUI INC**<sup>®</sup>

**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

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.

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