



SERIES: SDI50-UD | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

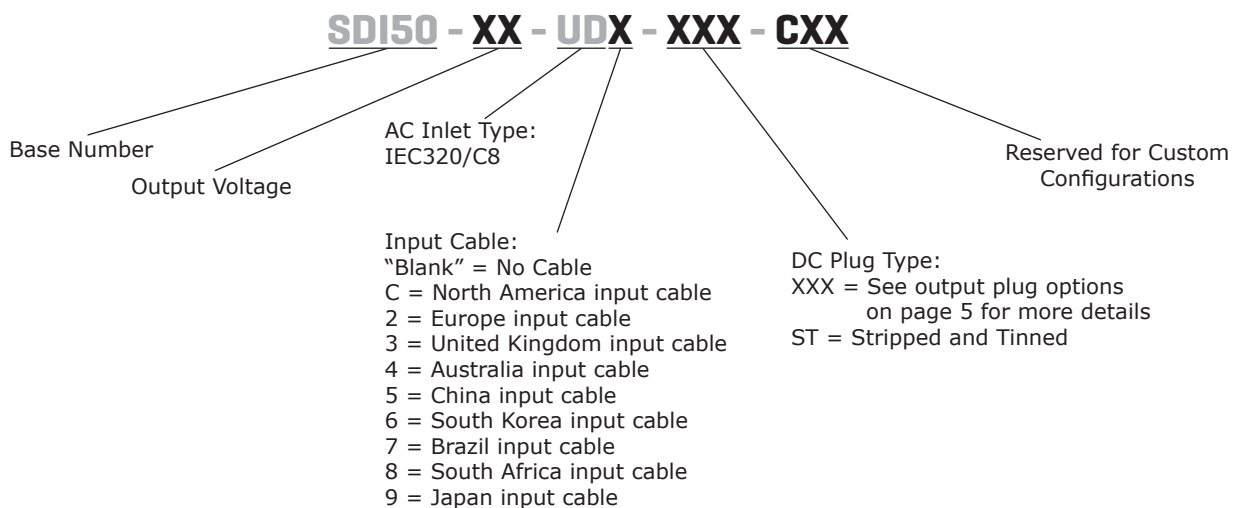
- DoE Level VI, CoC Tier 2 efficiency
- 50 W power
- universal input (90~264 Vac)
- compact size
- single regulated output from 9~48 Vdc
- over voltage and short circuit protections
- UL/cUL, GS, and PSE safety approvals
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise ¹ max (mVp-p)	efficiency level ²
SDI50-9-UD	9	5	45	100	VI
SDI50-12-UD	12	4.2	50	120	VI
SDI50-15-UD	15	3.34	50	150	VI
SDI50-18-UD	18	2.78	50	180	VI
SDI50-19-UD	19	2.64	50	190	VI
SDI50-24-UD	24	2.1	50	240	VI
SDI50-48-UD	48	1.05	50	480	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 μ F multilayer ceramic and 10 μ F 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				0.25	mA
no load power consumption	at 230 Vac			0.10	W
	9 Vdc model all other models			0.15	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		3,000		Vac
isolation resistance	input to output at 500 Vdc	10			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

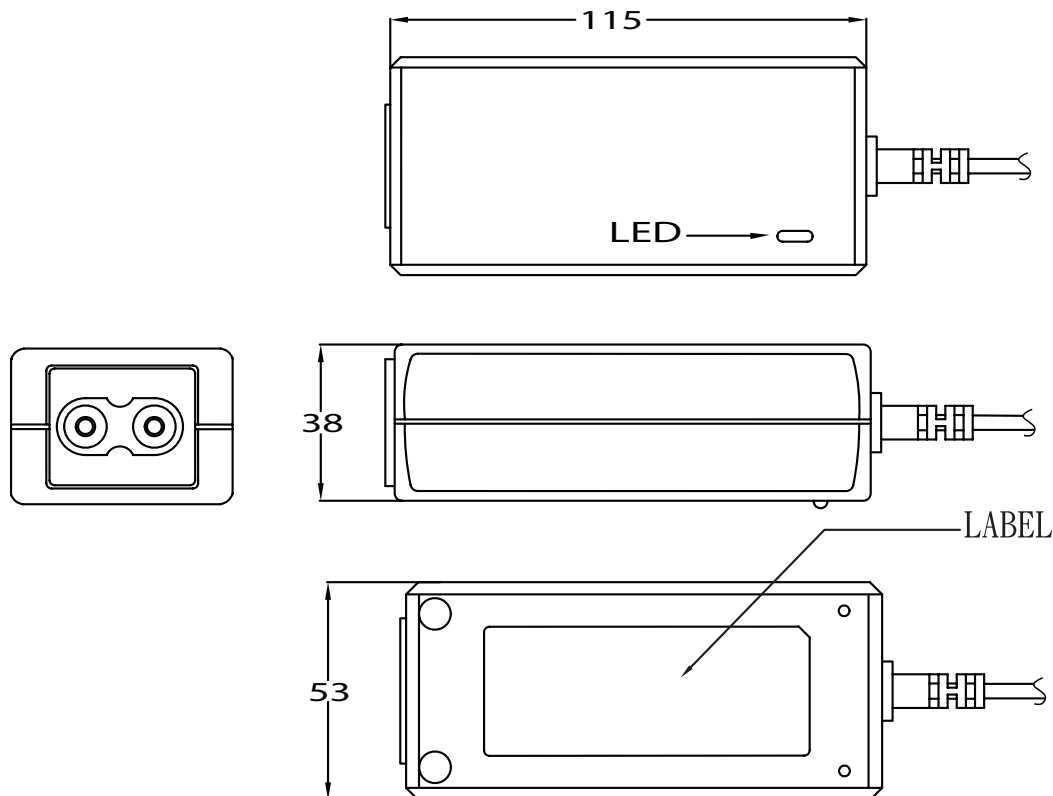
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	115 x 53 x 38				mm
inlet plug	IEC320/C8				
weight	without ac cord		310		g

MECHANICAL DRAWING

units: mm



DC CORD

units: mm

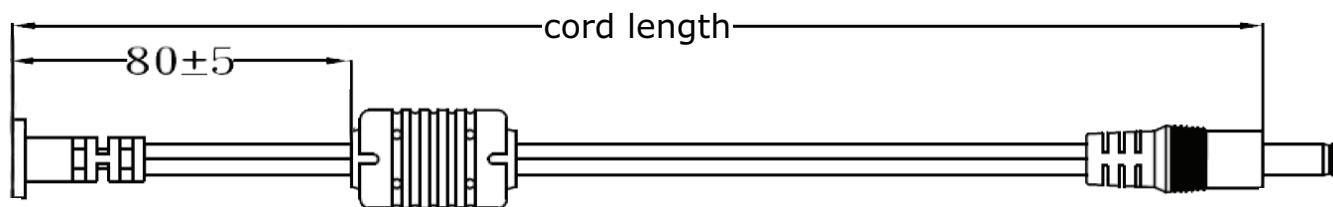
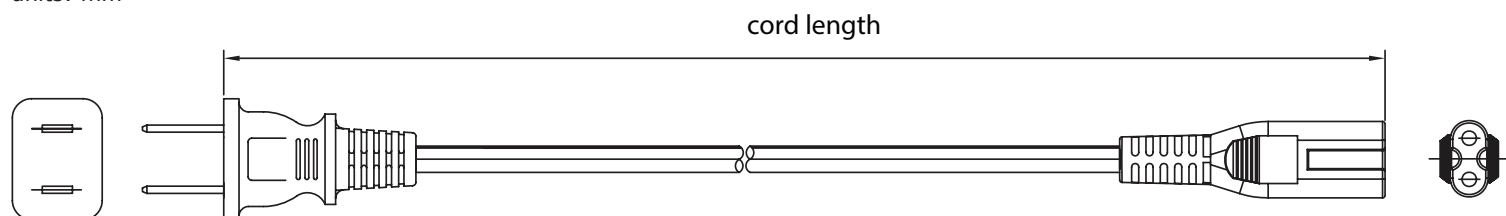


Table 1

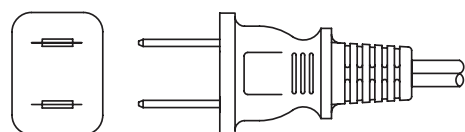
MODEL NO.	CABLE	CORD LENGTH
SDI50-9-UD	UL2468, 18 AWG	1,500 mm ±30
SDI50-12-UD	UL2468, 18 AWG	1,500 mm ±30
SDI50-15-UD	UL2468, 18 AWG	1,500 mm ±30
SDI50-18-UD	UL2468, 18 AWG	1,500 mm ±30
SDI50-19-UD	UL2468, 18 AWG	1,500 mm ±30
SDI50-24-UD	UL2468, 18 AWG	1,500 mm ±30
SDI50-48-UD	UL2468, 20 AWG	1,500 mm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

AC CORD

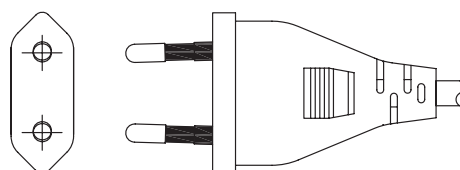
units: mm



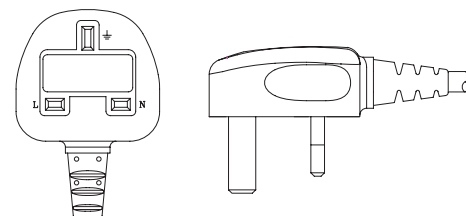
NORTH AMERICA



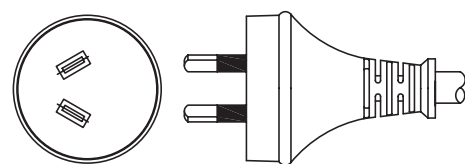
EUROPE



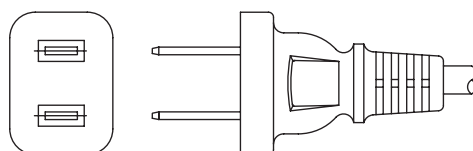
UNITED KINGDOM



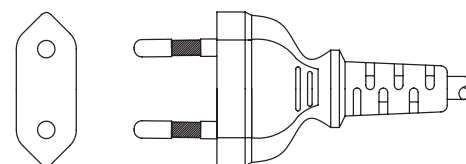
AUSTRALIA



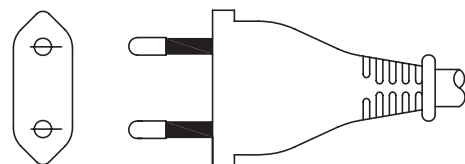
CHINA



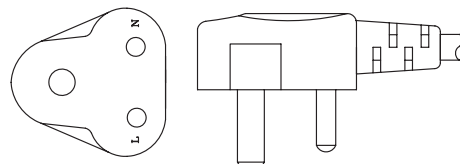
SOUTH KOREA



BRAZIL



SOUTH AFRICA



JAPAN

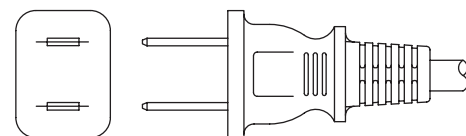
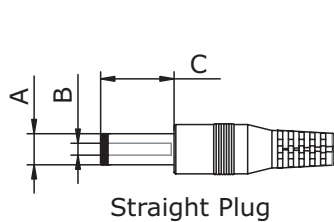


Table 2

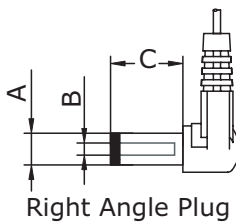
AC INPUT	CORD LENGTH
North America	1,830 mm $\pm$ 50
Europe	1,830 mm $\pm$ 50
United Kingdom	1,830 mm $\pm$ 30
Australia	1,830 mm $\pm$ 30
China	1,830 mm $\pm$ 30
South Korea	1,830 mm $\pm$ 50
Brazil	1,830 mm $\pm$ 30
South Africa	1,830 mm $\pm$ 50
Japan	1,830 mm $\pm$ 50

OUTPUT PLUG OPTIONS

Standard DC Plug



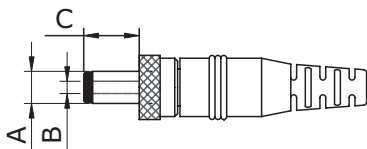
Straight Plug



Right Angle Plug

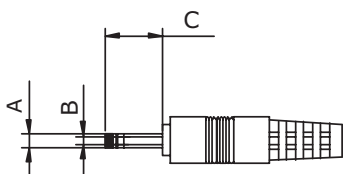
Size	A	B	C	Unit
5	5.5	2.1	9.5	mm
6	5.5	2.5	9.5	mm
7	3.5	1.35	9.5	mm
8	3.8	1.35	9.5	mm
9	3.8	1.05	9.5	mm

Locking DC Plug

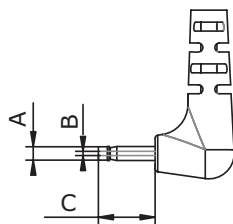


Size	A	B	C	Unit
10	5.5	2.1	9.5	mm
11	5.5	2.5	9.5	mm

EIAJ DC Plug



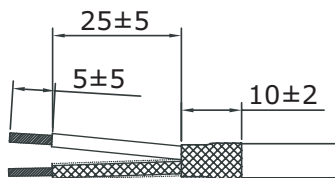
Straight Plug



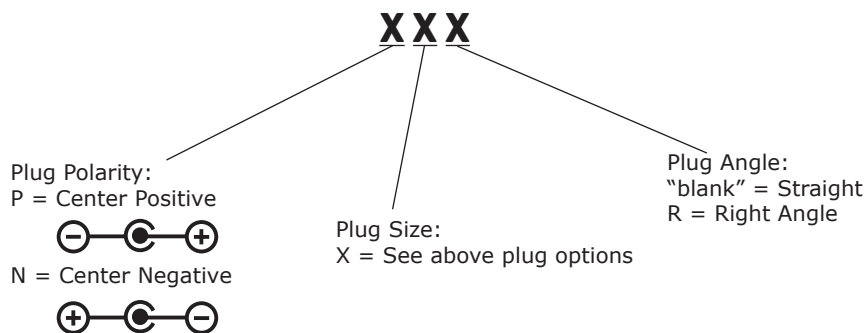
Right Angle Plug

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.



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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.

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[U-P6](#) [SDI50-15-U-P6](#) [SDI50-12-UC-P5](#) [SDI50-18-UD-P5](#) [SDI50-24-UD-P6R](#) [SDI50-12-U-P5R](#) [SDI50-24-UD-P5](#)
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