

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

**FEATURES**

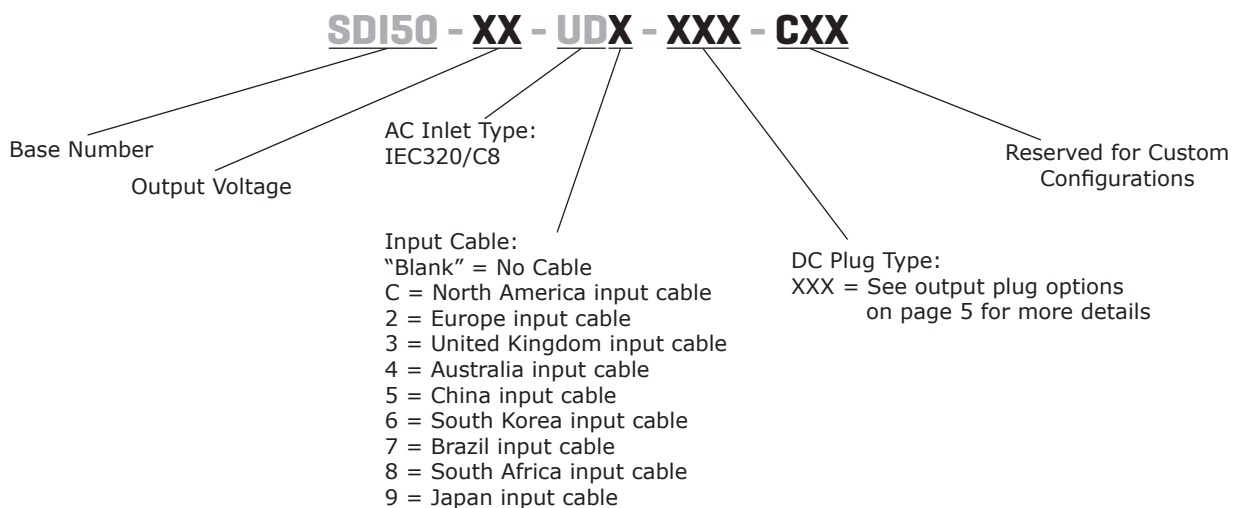
- DoE Level VI, CoC Tier 2 efficiency
- 50 W power
- universal input (90~264 Vac)
- compact size
- single regulated output from 9~48 Vdc
- over voltage and short circuit protections
- UL/cUL and PSE safety approvals
- custom designs available
- certified to 60950-1 and 62368-1 standards



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-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 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				0.25	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		3,000		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
safety approvals	UL/cUL (60950-1, 62368-1), PSE, LPS				
EMI/EMC	FCC Part 15B Class B, CE				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
RoHS	yes				

## 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  
tolerance: ±1.0 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

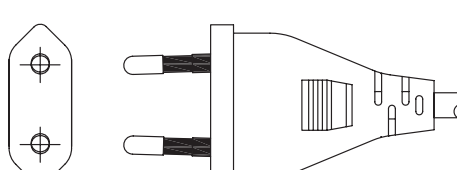
units: mm



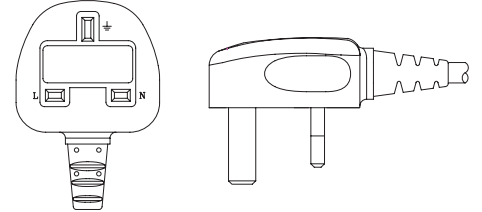
### NORTH AMERICA



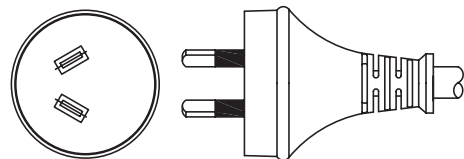
### EUROPE



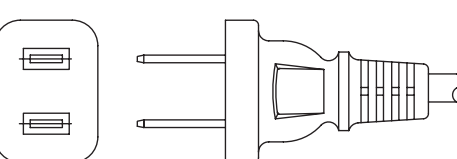
### UNITED KINGDOM



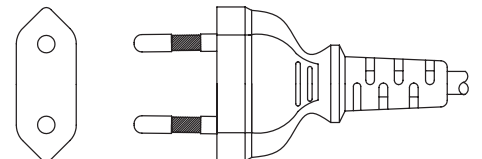
### AUSTRALIA



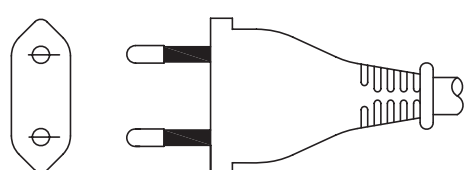
### CHINA



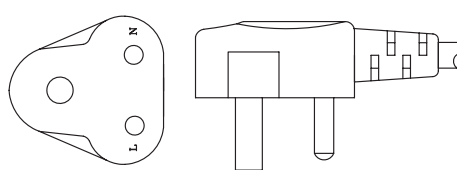
### SOUTH KOREA



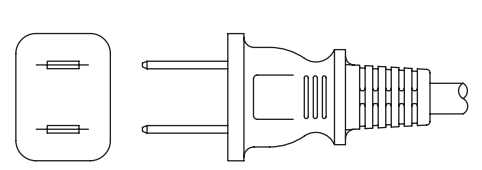
### BRAZIL



### SOUTH AFRICA



### JAPAN



**Table 2**

AC INPUT	CORD LENGTH
North America	1,830 mm ±50
Europe	1,830 mm ±50
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 ±50

## DC PLUG TYPE PART NUMBER KEY



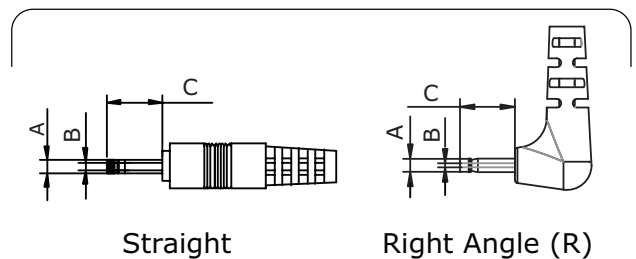
Plug Polarity		Code		Dimensions (mm)			Plug Angle	
Center Pos.	Center Neg.	Option	Type	A	B	C	Straight	Right
•	•	5	Standard	5.5	2.1	9.5	•	•
•	•	6	Standard	5.5	2.5	9.5	•	•
•	•	7	Standard	3.5	1.35	9.5	•	•
•	•	8	Standard	3.8	1.35	9.5	•	•
•	•	9	Standard	3.8	1.05	9.5	•	•
•	•	10	Locking	5.5	2.1	9.5	•	N/A
•	•	11	Locking	5.5	2.5	9.5	•	N/A
•	•	12	EIAJ-1	2.35	0.7	9.5	•	•
•	•	13	EIAJ-2	4.0	1.7	9.5	•	•
•	•	14	EIAJ-3	4.75	1.7	9.5	•	•
N/A	N/A	ST	Stripped & Tinned			N/A	N/A	

Note: 1. Contact CUI for additional plug options

### Standard



### EIAJ



### Locking



### Stripped & Tinned



## REVISION HISTORY

---

rev.	description	date
1.0	initial release	05/13/2015
1.01	updated datasheet	09/15/2016
1.02	added 62368-1 standard	08/31/2018
1.03	removed GS safety approval	03/02/2020

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



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

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

CUI offers a two (2) 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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.