

**SERIES:** SDI250-U | **DESCRIPTION:** AC-DC POWER SUPPLY

**FEATURES**

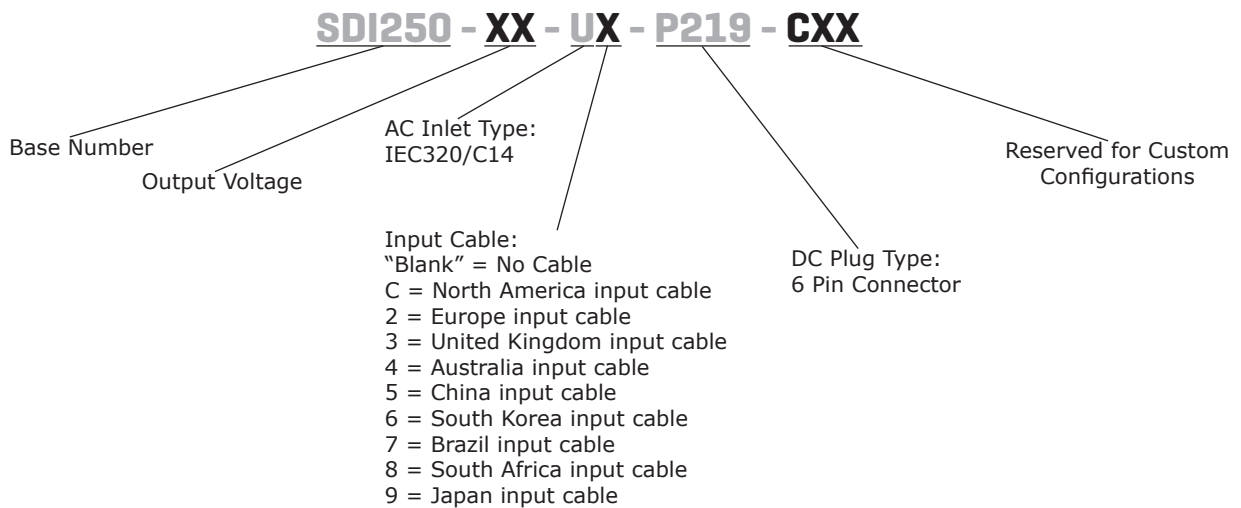
- level VI efficiency
- 250 W power
- universal input (90~264 Vac)
- single regulated outputs
- over voltage and short circuit protections
- UL/cUL (60950-1 & 62368-1), PSE safety approvals
- power factor correction
- custom designs available



MODEL	output voltage	output current max	output power max	ripple and noise <sup>1</sup> max	efficiency level
	(Vdc)	(A)	(W)	(mVp-p)	
SDI250-12-U	12	20	240	120	VI <sup>2</sup>
SDI250-19-U	19	13.2	250	190	VI
SDI250-24-U	24	10.4	250	240	VI <sup>2</sup>
SDI250-48-U	48	5.2	250	480	VI
SDI250-56-U	56	4.48	250	560	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, 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				3.3	A
inrush current	at 230 Vac, full load, 25°C, cold start			120	A
leakage current				3.5	mA
power factor correction	at full load	0.9			
no load power consumption	12, 24 Vdc output models			0.15	W
	all other models			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			150	%
short circuit protection	output shut down				
over temperature protection	output latch				

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute		3,000		Vac
	input to ground at 10 mA for 1 minute		1,500		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
	input to ground at 500 Vdc	10			MΩ
safety approvals	UL/cUL (60950-1, 62368-1), PSE, UKCA				
EMI/EMC	FCC Part 15B Class B, CE				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
RoHS	yes				

## ENVIRONMENTAL

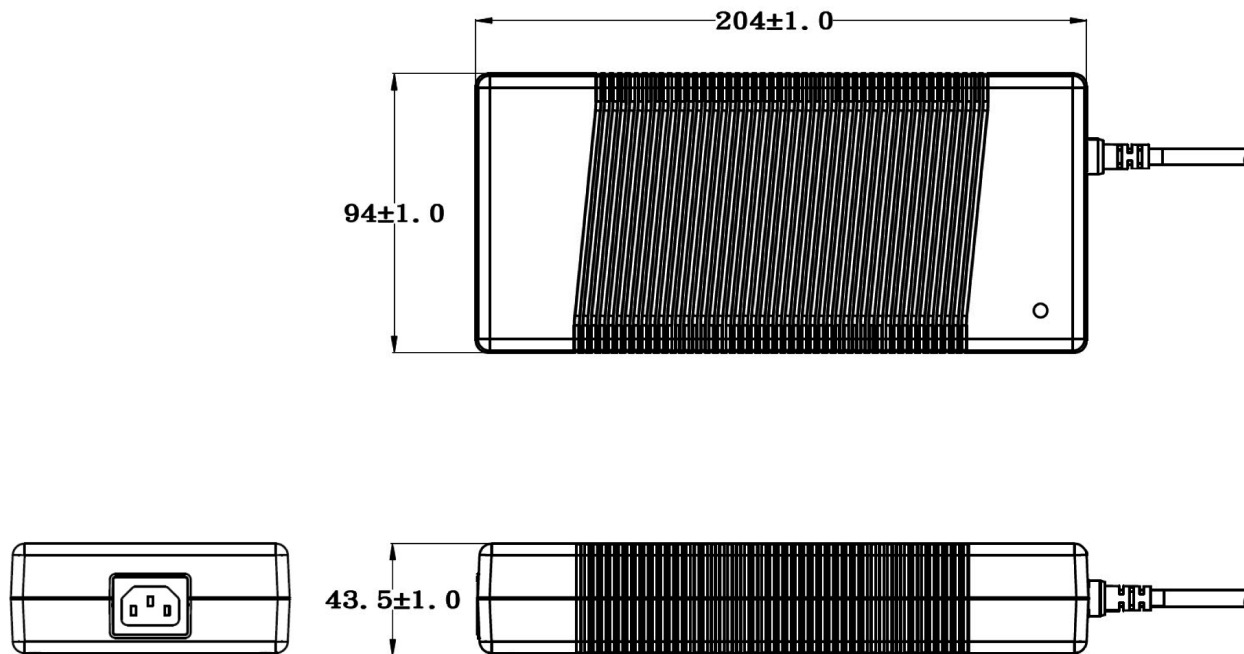
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

## MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	204.0 x 94.0 x 43.5				mm
inlet plug	IEC320/C14				
weight	without ac cord: 12 Vdc output model		1,110		g
	without ac cord: 19, 24 Vdc output models		1,040		g
	without ac cord: 48, 56 Vdc output models		1,020		g

## MECHANICAL DRAWING

units: mm  
tolerance: ±1.0 mm



## DC CORD

units: mm

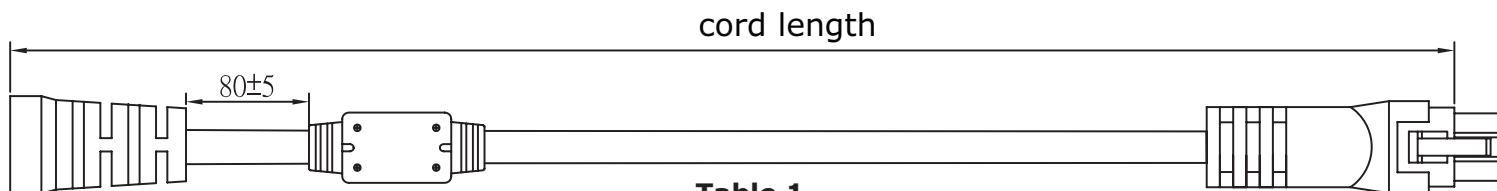
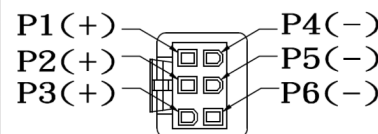


Table 1

Plug: Molex 39-01-2060

MODEL NO.	CABLE	CORD LENGTH
SDI250-12-U	UL2464, 16 AWG, 6C	1,200 mm ±30
SDI250-19-U <sup>3</sup>	UL2464, 16 AWG, 4C	1,200 mm ±30
SDI250-24-U <sup>3</sup>	UL2464, 16 AWG, 4C	1,200 mm ±30
SDI250-48-U <sup>3</sup>	UL2464, 18 AWG, 4C	1,200 mm ±30
SDI250-56-U <sup>3</sup>	UL2464, 18 AWG, 4C	1,200 mm ±30



Note: 3. P2 and P5 are not connected on 19, 24, 48, and 56 Vdc output models.

## 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

## REVISION HISTORY

rev.	description	date
1.0	initial release	08/28/2018
1.01	company logo updated	07/23/2020
1.02	UKCA added to the specification	05/25/2021

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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