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

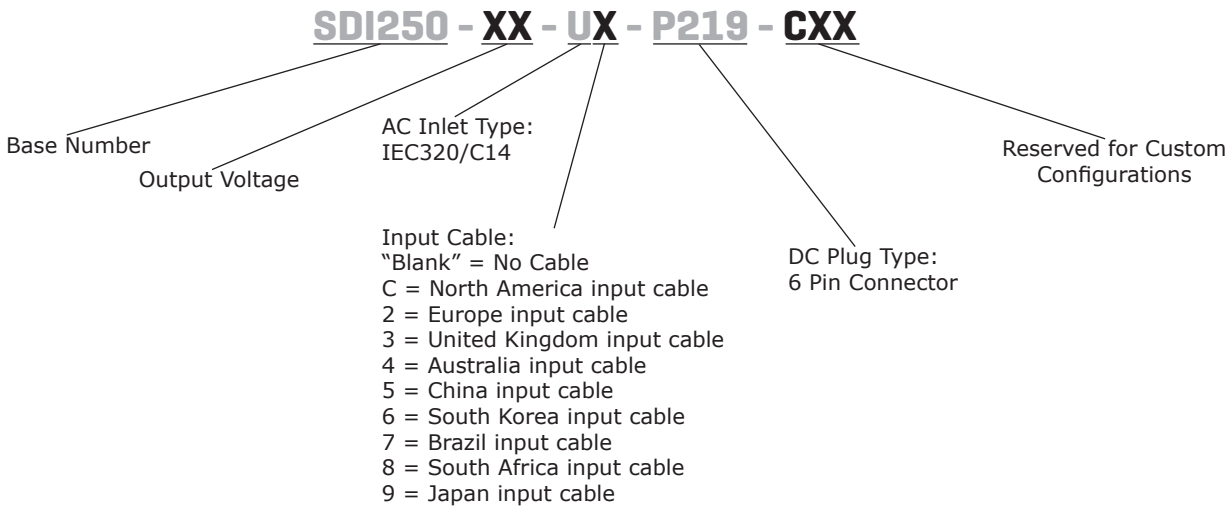


MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SDI250-12-U	12	20	240	120	VI[2]
SDI250-19-U	19	13.2	250	190	VI
SDI250-24-U	24	10.4	250	240	VI[2]
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



Please read our datasheet & drawing disclaimer here.

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 all other models			0.15 0.21	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			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 input to ground at 10 mA for 1 minute		3,000 1,500		Vac Vac
isolation resistance	input to output at 500 Vdc input to ground at 500 Vdc	10 10			MΩ 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

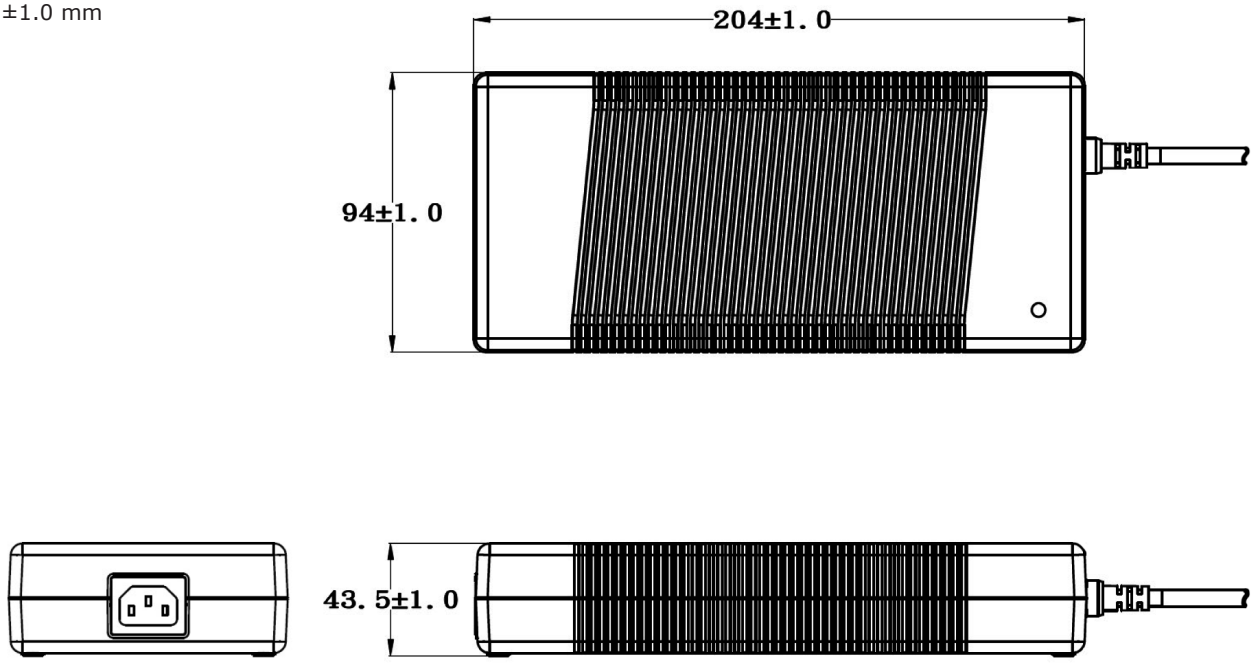
parameter	conditions/description	min	typ	max	units
operating temperature		0		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

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

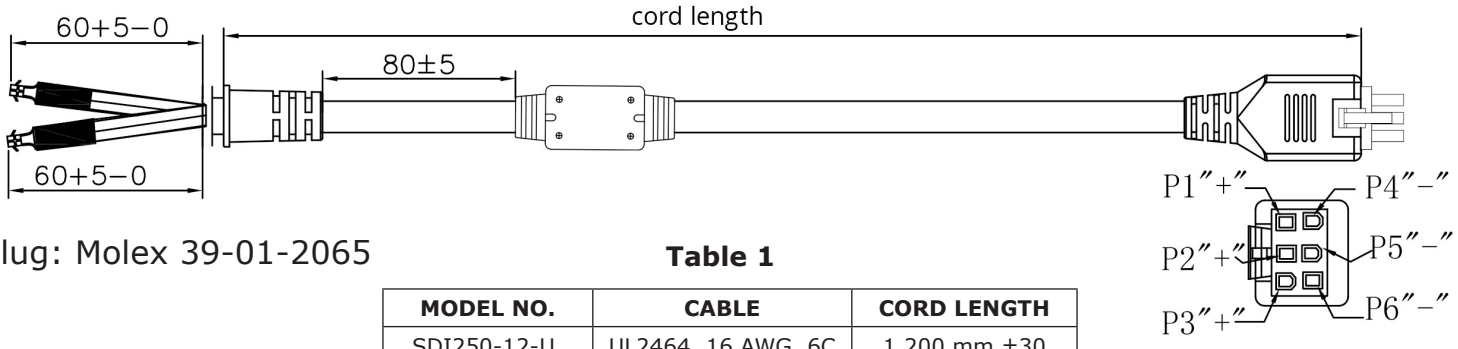
MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



DC CORD

units: mm



Plug: Molex 39-01-2065

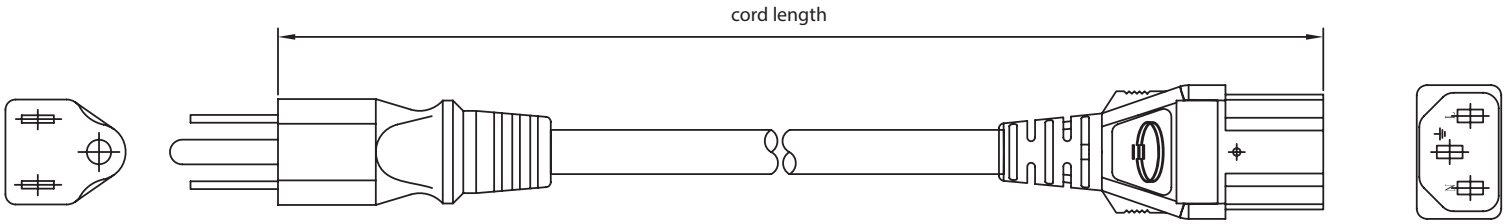
Table 1

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

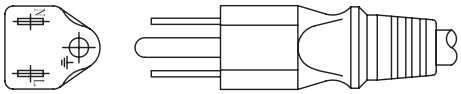
Note: 3. P2 and P5 are not connected on 19, 24, 48, and 56 Vdc output models.

AC CORD

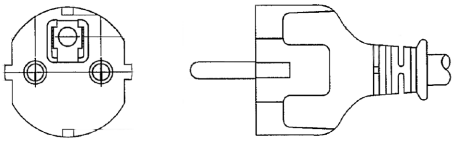
units: mm



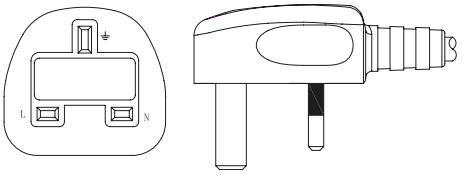
NORTH AMERICA



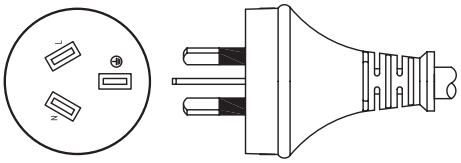
EUROPE



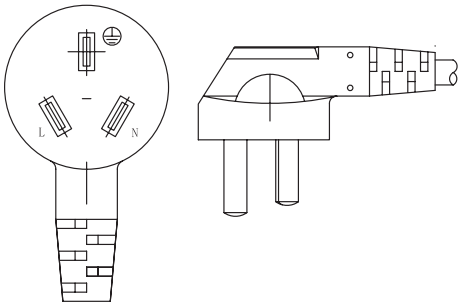
UNITED KINGDOM



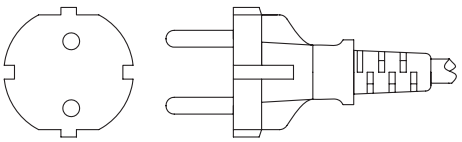
AUSTRALIA



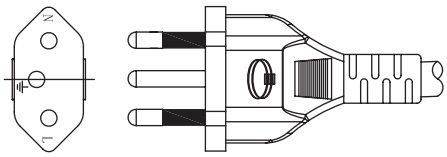
CHINA



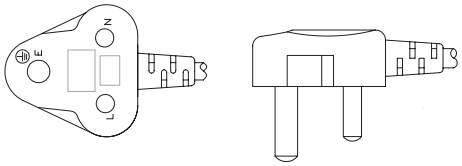
SOUTH KOREA



BRAZIL



SOUTH AFRICA



JAPAN

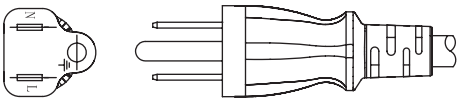


Table 2

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
1.03	dc cord updated	04/20/2023
1.04	dc cord updated	08/26/2025

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

CUI INC
a bel group

15575 SW Sequoia Pkwy #100
Portland, OR 97224
800.275.4899

Fax 503.612.2383
Belfuse.com
powersupport@belf.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.

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.