SERIES: SDI160-U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- meets Level VI and CoC Tier 2 efficiency
- up to 160 W power
- universal input (100~240 Vac)
- single regulated outputs
- over voltage and short circuit protections
- meets UL/cUL 62368 & EN 62368
- power factor correction
- custom designs available

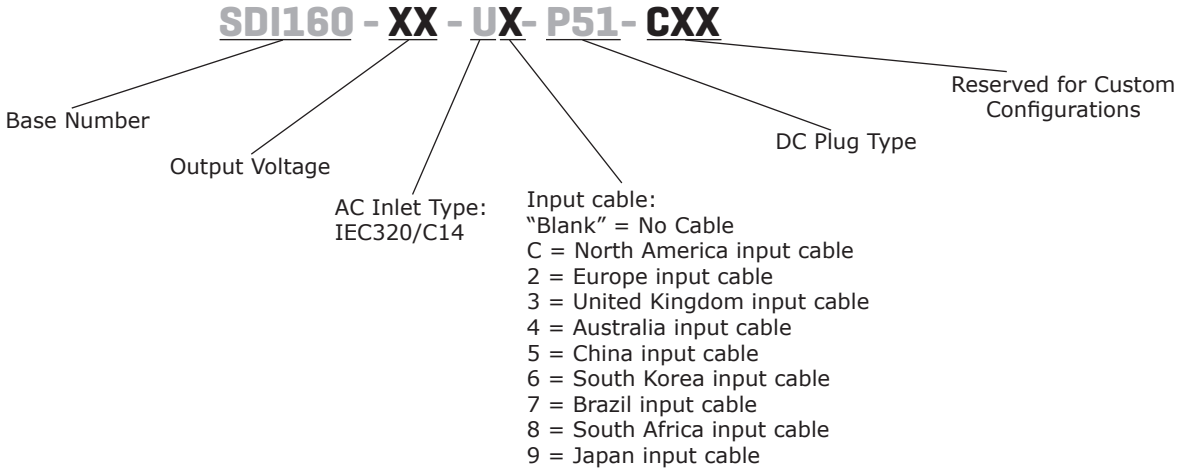


MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level[2]
SDI160-12-U-P51	12	12.5	150.0	120	VI
SDI160-19-U-P51	19	8.4	159.6	190	VI
SDI160-24-U-P51	24	6.6	158.4	240	VI
SDI160-48-U-P51	48	3.3	158.4	480	VI
SDI160-56-U-P51	56	2.86	160.1	560	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



Please read our datasheet & drawing disclaimer here.

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90	100~240	264	Vac
frequency		47	50~60	63	Hz
current				2.2	A
inrush current	at 230 Vac, full load, 25°C, cold start			100	A
leakage current				3.5	mA
power factor	full load	0.9			
no load power consumption	at 230 Vac			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 shut down, latch			150	%
over current protection	output shut down, auto recovery			150	%
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 marks	UL/cUL (North America), CE (Europe), FCC (USA)				
safety approvals	62368: UL/cUL, EN UKCA				
EMI/EMC	FCC Part 15 Class B, EN 55032:2012 +AC:2013 Class B, AS/NZS CISPR 32:2015 Class B, EN55024:2010				
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	%

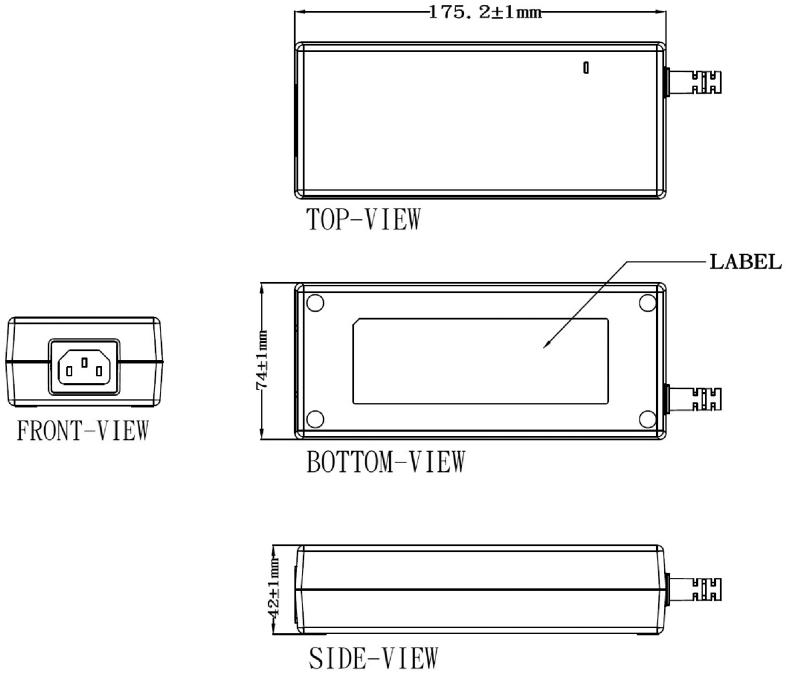
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MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	175.2 x 74.0 x 42.0				mm
inlet plug	IEC320/C14				
weight			700		g

MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



DC CORD

units: mm

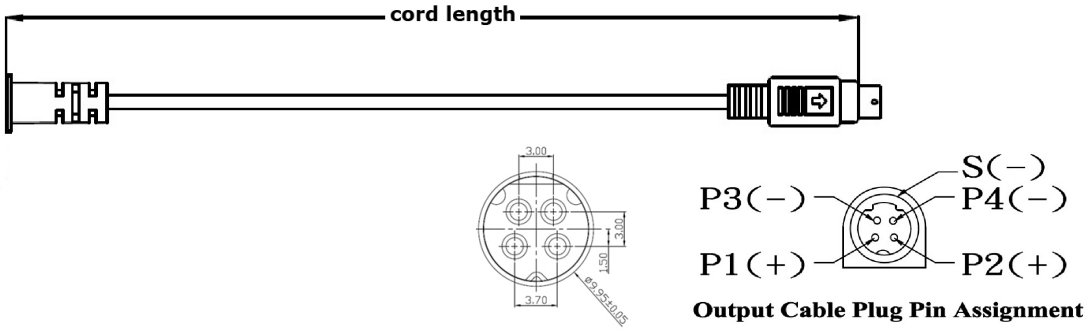


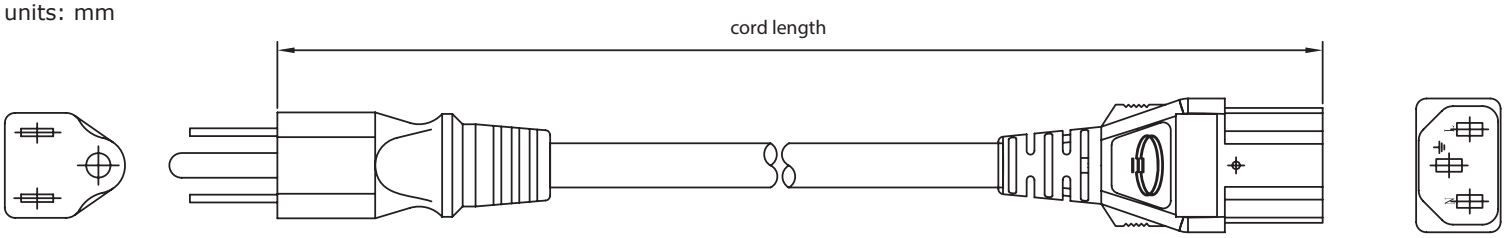
Table 1

MODEL NO.	CABLE	CORD LENGTH
SDI160-12-U-P51	UL2464, 16 AWG	1,200 mm ±50
SDI160-19-U-P51	UL2464, 16 AWG	1,500 mm ±50
SDI160-24-U-P51	UL2464, 16 AWG	1,500 mm ±50
SDI160-48-U-P51	UL2464, 18 AWG	1,500 mm ±50
SDI160-56-U-P51	UL2464, 18 AWG	1,500 mm ±50

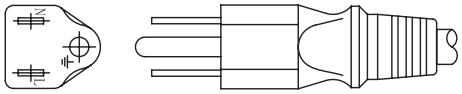
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AC CORD

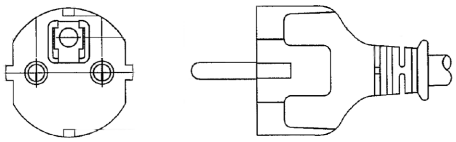
units: mm



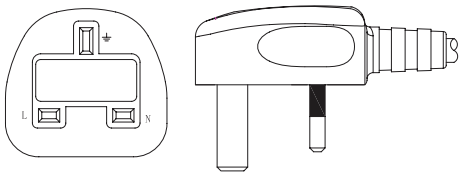
NORTH AMERICA



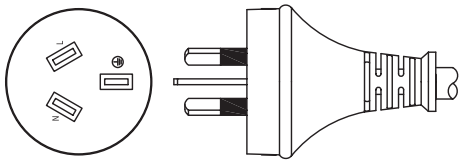
EUROPE



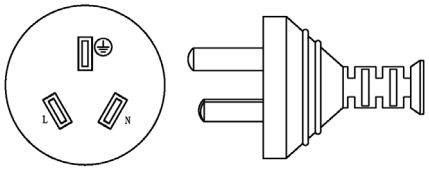
UNITED KINGDOM



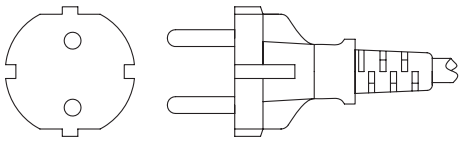
AUSTRALIA



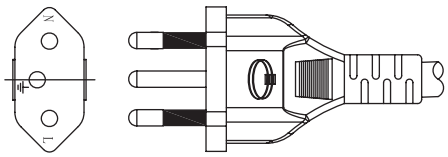
CHINA



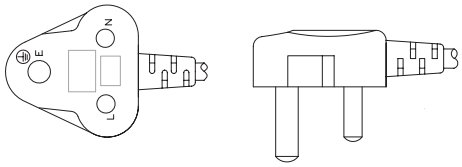
SOUTH KOREA



BRAZIL



SOUTH AFRICA



JAPAN

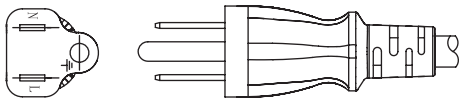


Table 2

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

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REVISION HISTORY

rev.	description	date
1.0	initial release	09/28/2020
1.01	dc cord drawing update	10/14/2020
1.02	output plug polarity added	01/12/2021
1.03	UKCA added to specification	08/11/2021
1.04	dc cord tolerance updated for 48V model	06/07/2022
1.05	input voltage updated	01/18/2023

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.

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.

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