SERIES: SDI120G-U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 120 W continuous power
- gallium nitride (GaN) technology
- universal input
- over voltage, over current and short cicuit protections
- IEC 62368-1 compliant
- compact design
- custom design available

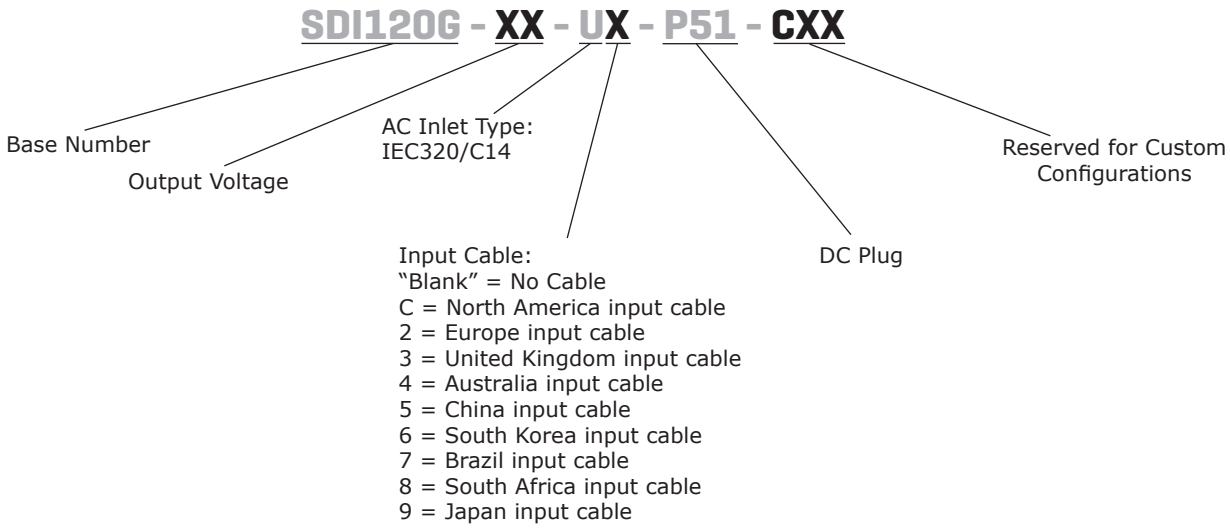


MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SDI120G-12-U	12	9.0	108.0	150	VI
SDI120G-19-U	19	6.3	119.7	190	VI
SDI120G-20-U	20	6.0	120.0	200	VI
SDI120G-24-U	24	5.0	120.0	240	VI
SDI120G-48-U	48	2.5	120.0	480	VI
SDI120G-56-U	56	2.14	119.8	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.

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				1.6	A
inrush current	at 230 Vac, full load, 25°C, cold start			80	A
leakage current				3.5	mA
power factor correction	at 115 & 230 Vac, full load	0.9			
no load power consumption	at 115 & 230 Vac, no load			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 with latch			150	%
over current protection	output shut down, auto recovery			150	%
short circuit protection	output shut down, auto recovery				
over temperature protection	latch				

SAFETY & COMPLIANCE

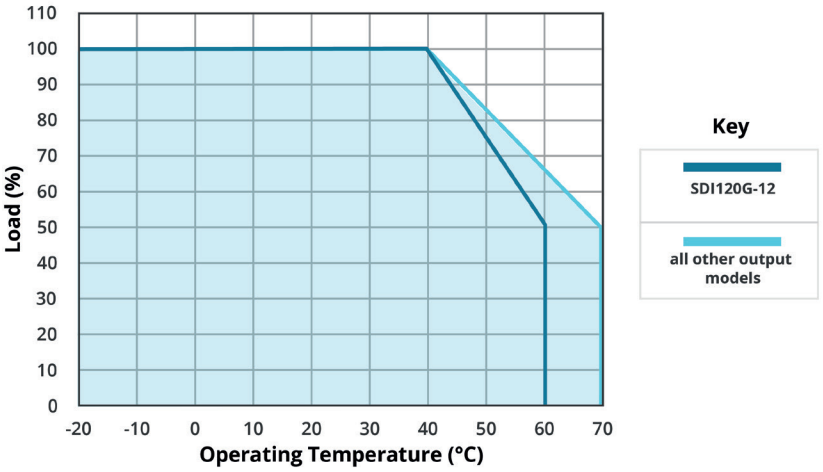
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute input to frame ground at 10 mA for 1 minute		3,000 1,770		Vac Vac
isolation resistance	input to output at 500 Vdc input to frame ground at 500 Vdc	10 10			MΩ MΩ
safety approvals	62368: UL/cUL, UKCA, PSE				
EMI/EMC	FCC Part 15 subpart B, class B ANSI C63.4-2014 ICES-003 issue 6 EN55032: 2015 EN 55035: 2017 EN 61000-3-2 AS/NZS CISPR 32: 2015				
MTBF	as per Telcordia SR-332, 25°C	300,000			hrs
RoHS	yes				

ENVIRONMENTAL

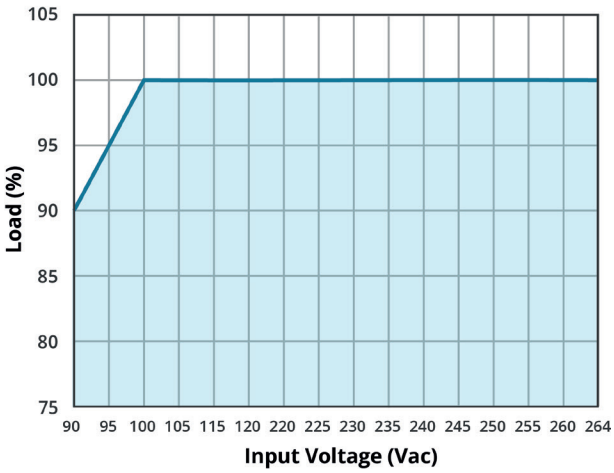
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	-20		40	°C
storage temperature		-20		80	°C
operating humidity	non-condensing	20		80	%
storage humidity	non-condensing	10		90	%

DERATING CURVES

TEMPERATURE DERATING CURVE



INPUT VOLTAGE DERATING CURVE

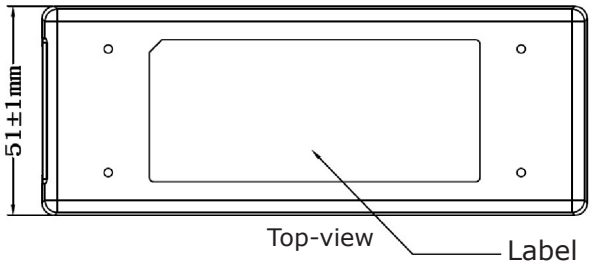


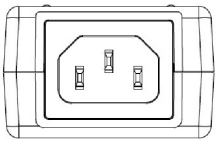
MECHANICAL

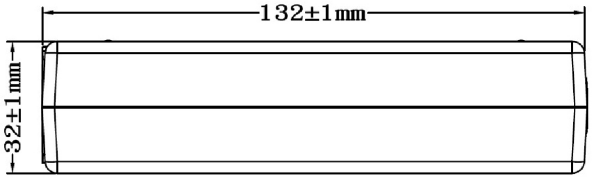
parameter	conditions/description	min	typ	max	units
dimensions	132 x 51 x 32				mm
inlet plug	IEC320/C14				
weight			336		g

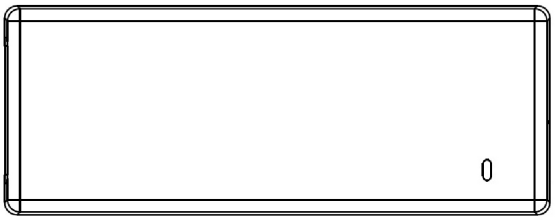
MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



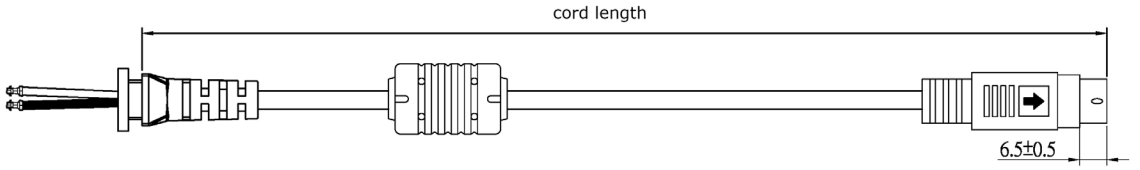

Front-view




Bottom-view

DC CORD

units: mm

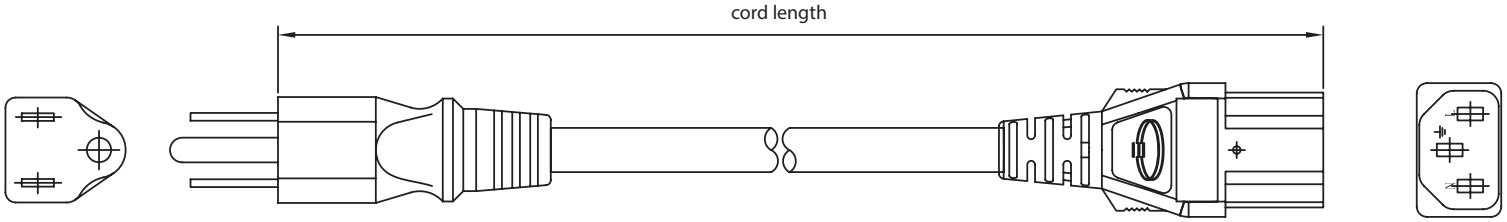


MODEL NO.	CABLE	CORD LENGTH
SDI120G-12	UL11352, 14 AWG	1,200 mm ±30
SDI120G-19	UL11352, 16 AWG	1,500 mm ±30
SDI120G-20	UL11352, 16 AWG	1,500 mm ±30
SDI120G-24	UL11352, 16 AWG	1,500 mm ±30
SDI120G-48	UL2464, 18 AWG	1,500 mm ±30
SDI120G-56	UL2464, 18 AWG	1,500 mm ±30

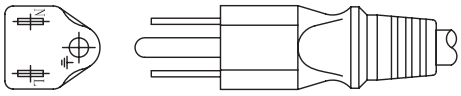


AC CORD

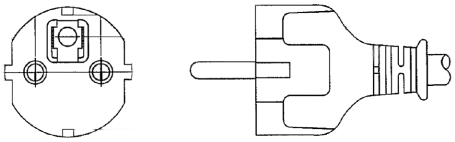
units: mm



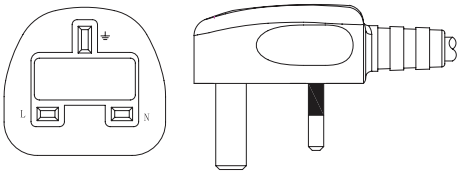
NORTH AMERICA



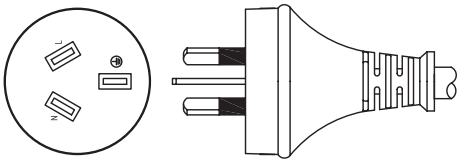
EUROPE



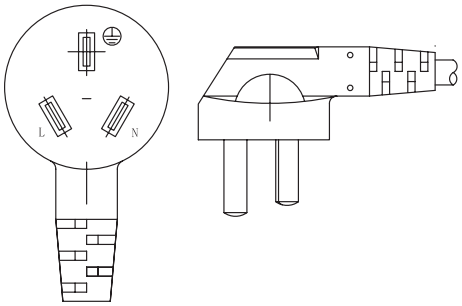
UNITED KINGDOM



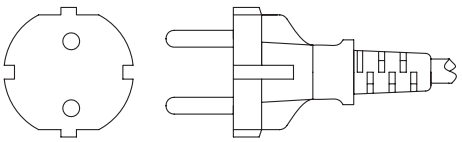
AUSTRALIA



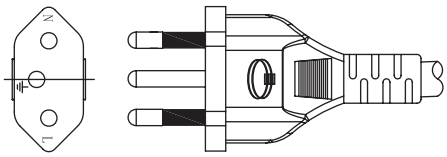
CHINA



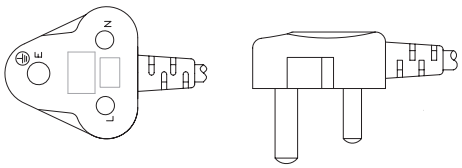
SOUTH KOREA



BRAZIL



SOUTH AFRICA



JAPAN

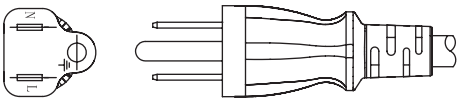


Table 2

AC INPUT	CORD LENGTH
North America	1,830 mm ±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	09/13/2021
1.01	input voltage updated	01/18/2023
1.02	pn key updated	07/11/2023
1.03	safety marks updated	09/22/2023

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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