SERIES: SDI300G-U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

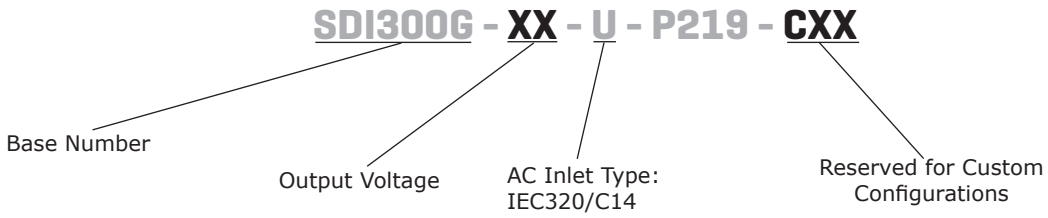
- GaN technology
- compact size
- 300 W power
- single regulated outputs
- over voltage, over current, over temperature and short circuit protections
- certified to UL 62368-1
- CE certified
- level VI efficiency
- power factor correction
- custom designs available



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise[1] max (mVp-p)	efficiency level
SDI300G-12-U	12	24.0	288.0	120	VI
SDI300G-15-U	15	20.0	300.0	150	VI
SDI300G-19-U	19	15.79	300.01	190	VI
SDI300G-24-U	24	12.5	300.0	240	VI
SDI300G-48-U	48	6.25	300.0	480	VI
SDI300G-56-U	56	5.36	300.16	560	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 µF multilayer ceramic and 47 µF low ESR electrolytic capacitors.

PART NUMBER KEY



Please read our datasheet & drawing disclaimer here.

INPUT

parameter	conditions/description	min	typ	max	units
voltage	see derating curve	85	100~240	264	Vac
frequency		47	50~60	63	Hz
current				3.5	A
inrush current	at 240 Vac, full load, 25°C, cold start			150	A
leakage current				3.5	mA
no load power consumption	at 115 & 230 Vac			0.5	W
power factor	at 115 & 230 Vac, full load	0.9			

OUTPUT

parameter	conditions/description	min	typ	max	units
regulation			±5		%

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	latch			150	%
over current protection	auto recovery			180	%
short circuit protection	auto recovery				
over temperature protection	output shut down				

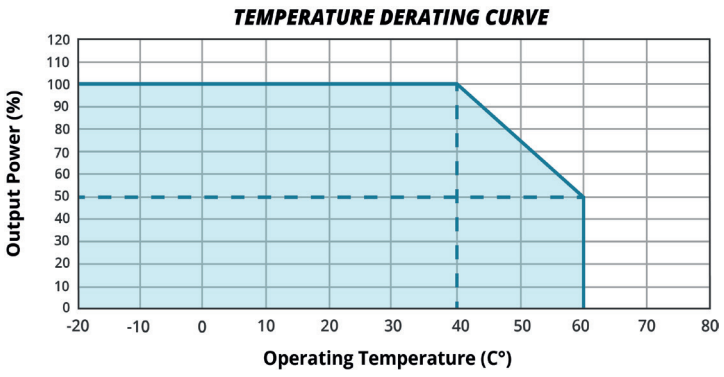
SAFETY & COMPLIANCE

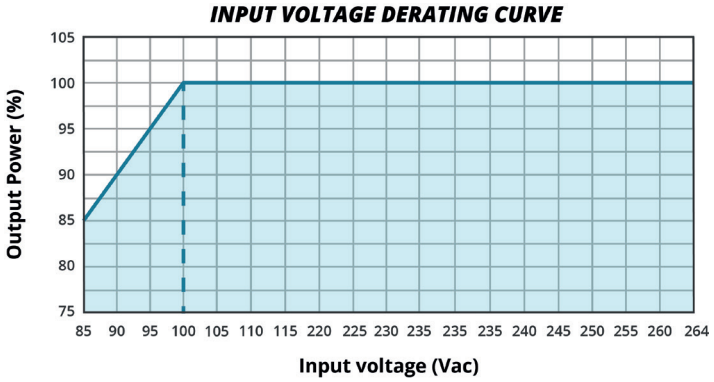
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute input to ground at 10 mA for 1 minute		3,000 1,770		Vac Vac
isolation resistance	input to output at 500 Vdc input to ground at 500 Vdc	10 10			MΩ MΩ
safety approvals	certified to 62368-1: UL UKCA, PSE				
EMI/EMC	CE, FCC Part 15 Class B, ICES-003, EN 55032, EN 55036, EN 61000-3-2, EN 61000-3-3				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
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



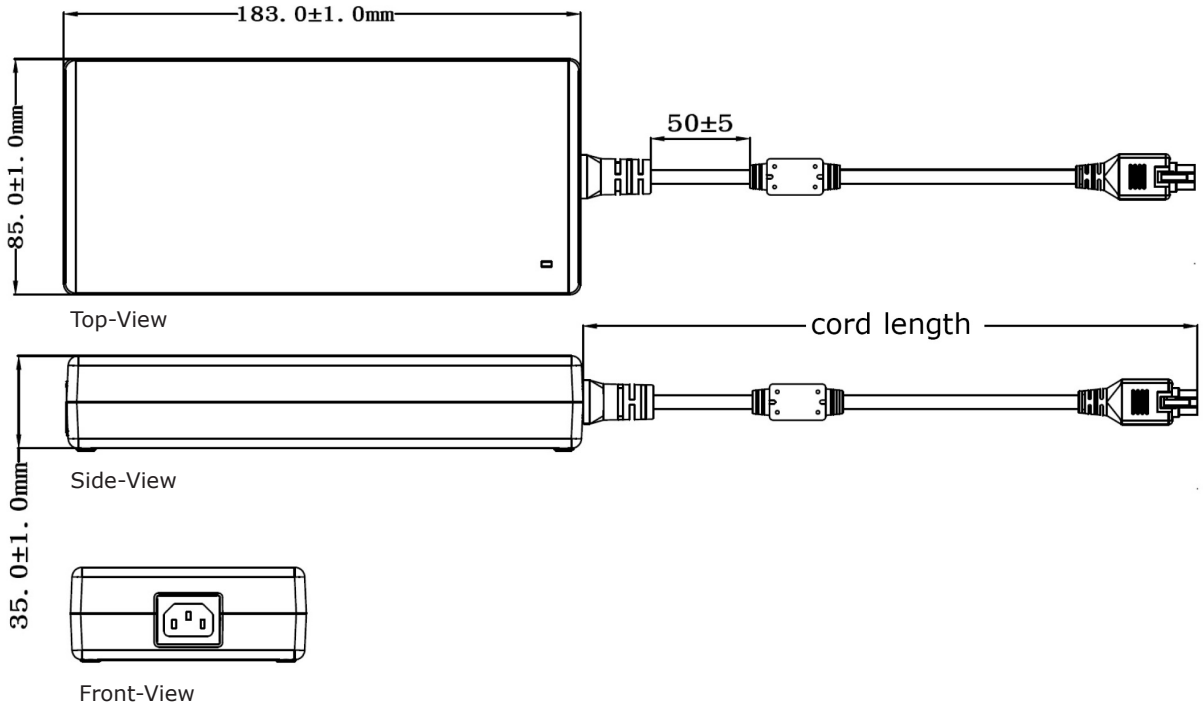


MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	183.0 (L) x 85.0 (W) x 35.0 (H)				mm
dc output plug	6 pin housing, Molex p/n: 39-01-2065				
inlet plug	C13				
weight	12, 15, 19 Vdc output models 24, 48, 56 Vdc output models		1100 1000		g g

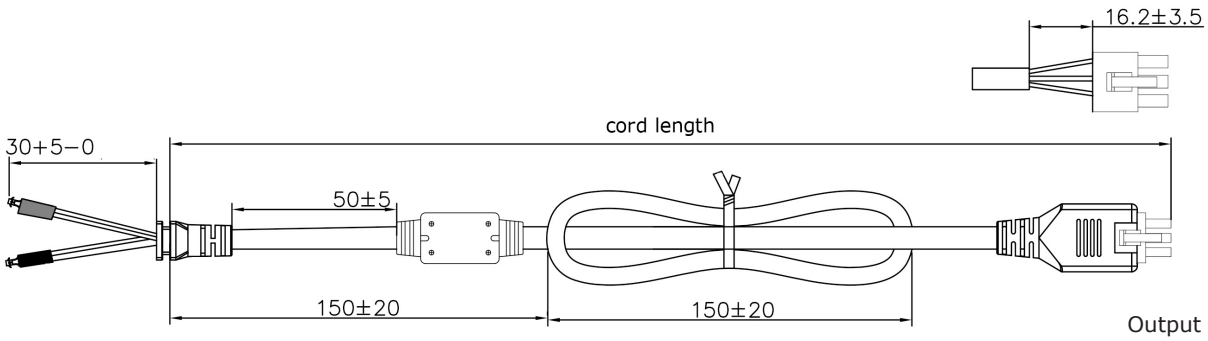
MECHANICAL DRAWING

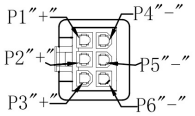
units: mm
tolerance: ±1.0 mm



DC CORD

units: mm





Output cable plug pin assignment

Table 1

MODEL NO.	CABLE	CORD LENGTH
SDI300G-12-U	Black, UL2464, 16 AWG	1,000 mm ±50
SDI300G-15-U	Black, UL2464, 16 AWG	1,000 mm ±50
SDI300G-19-U	Black, UL2464, 16 AWG	1,000 mm ±50
SDI300G-24-U	Black, UL2464, 16 AWG	1,200 mm ±50
SDI300G-48-U	Black, UL2464, 18 AWG	1,200 mm ±50
SDI300G-56-U	Black, UL2464, 18 AWG	1,200 mm ±50

Table 2

PIN ASSIGNMENT		
PIN	OUTPUT VOLTAGE	
	12V/15V/19V	24V/48V/56V
P1	+Vout	+Vout
P2	+Vout	n.c.
P3	+Vout	+Vout
P4	-Vout	-Vout
P5	-Vout	NC
P6	-Vout	-Vout

REVISION HISTORY

rev.	description	date
1.0	initial release	07/23/2021
1.01	UKCA added to specification	08/12/2021
1.02	output plug updated in the mechanical section	08/31/2021
1.03	part numbers updated in the model table	10/14/2021
1.04	CE added	04/07/2022
1.05	features updated	06/22/2022
1.06	inlet plug updated	08/12/2022
1.07	input voltage and frequency updated	01/18/2023
1.08	dc cord connector updated	04/20/2023
1.09	medical icon added	05/03/2023
1.10	PSE added to safeties	09/27/2023
1.11	mechanical drawing and dc cord updated	09/24/2025

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

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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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