

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

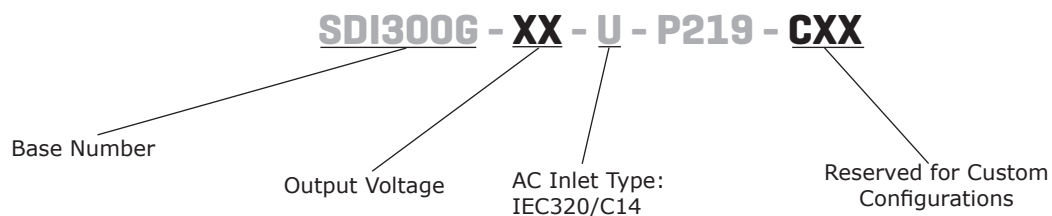
FEATURES

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



MODEL	output voltage	output current max	output power max	ripple and noise ¹ max	efficiency level
	(Vdc)	(A)	(W)	(mVp-p)	
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 μ F multilayer ceramic and 47 μ F low ESR electrolytic capacitors.

PART NUMBER KEY


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				

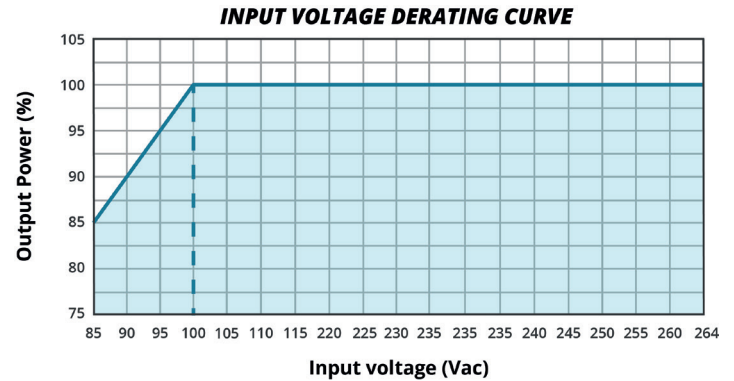
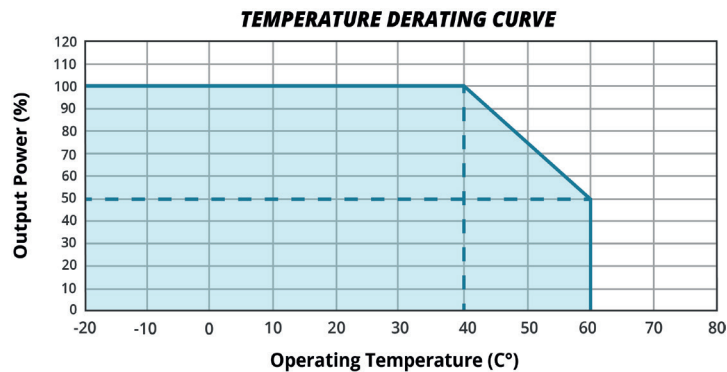
SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute		3,000		Vac
	input to ground at 10 mA for 1 minute		1,770		Vac
isolation resistance	input to output at 500 Vdc	10			MΩ
	input to ground at 500 Vdc	10			MΩ
safety approvals	62368: UL/cUL 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

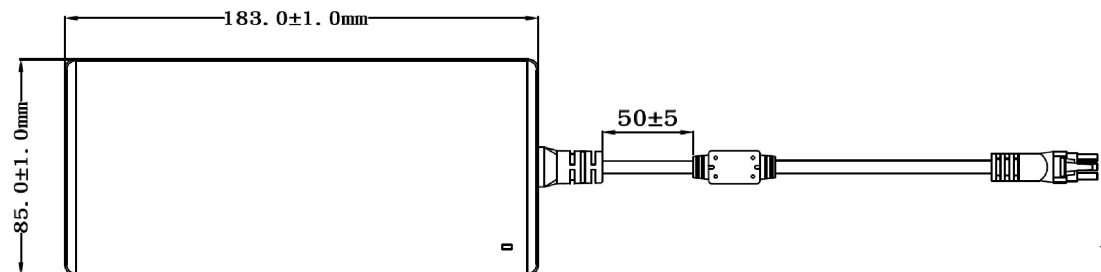


MECHANICAL

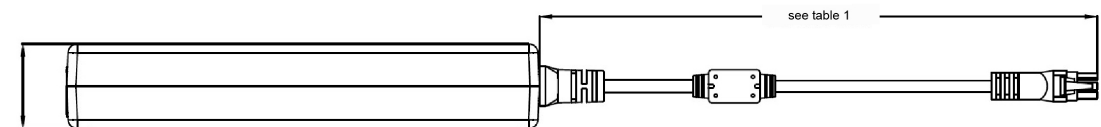
parameter	conditions/description	min	typ	max	units
dimensions	183.0 (L) x 85.0 (W) x 35.0 (H)				mm
dc output plug	6 pin housing, Molex p/n: 39-01-2065				
inlet plug	C13				
weight	12, 15, 19 Vdc output models		1100		g
	24, 48, 56 Vdc output models		1000		g

MECHANICAL DRAWING

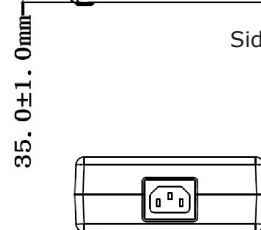
units: mm
tolerance: ± 1.0 mm



Top-View



Side-View



Front-View

DC CORD

units: mm

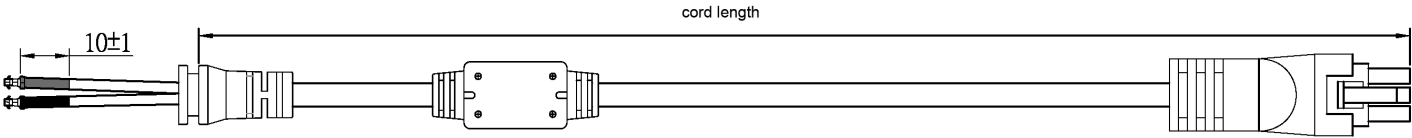
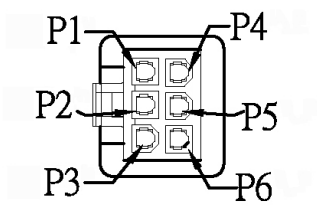


Table 1

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



Output cable plug pin assignment

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

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



Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

CUI offers a two (2) 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.