

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

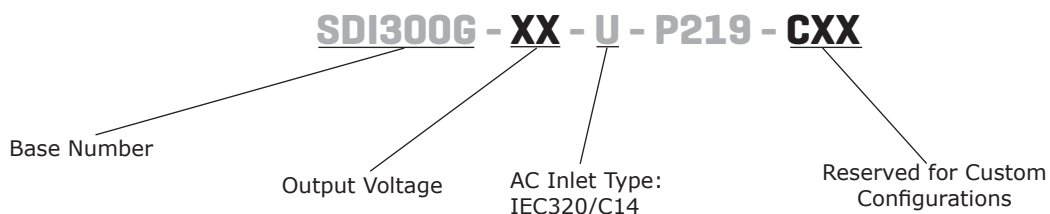
**FEATURES**

- GaN technology
- compact size
- 300 W power
- universal input (85~265 Vac)
- single regulated outputs
- over voltage, over current, over temperature and short circuit protections
- UL/cUL (62368-1)
- level VI efficiency
- power factor correction
- custom designs available



MODEL	output voltage	output current max	output power max	ripple and noise <sup>1</sup> 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 µF multilayer ceramic and 47 µF low ESR electrolytic capacitors.

**PART NUMBER KEY**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage	see derating curve	85		264	Vac
frequency		50		60	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				

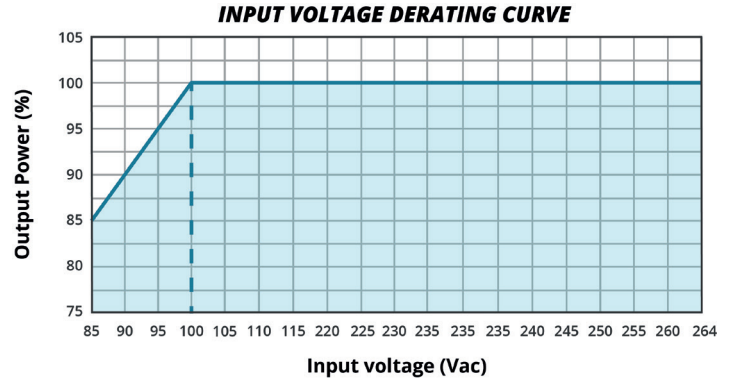
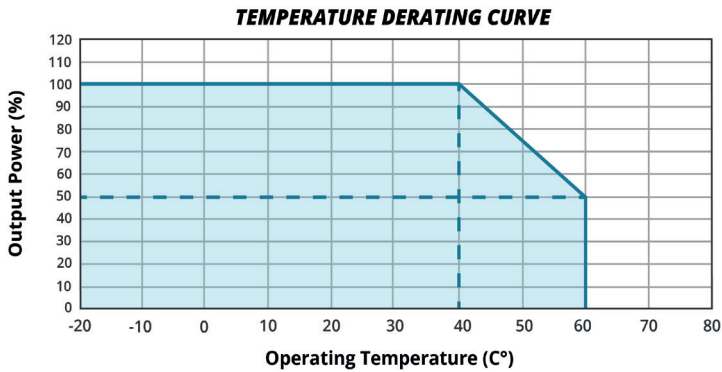
## SAFETY & COMPLIANCE

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	62368: UL/cUL UKCA				
EMI/EMC	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

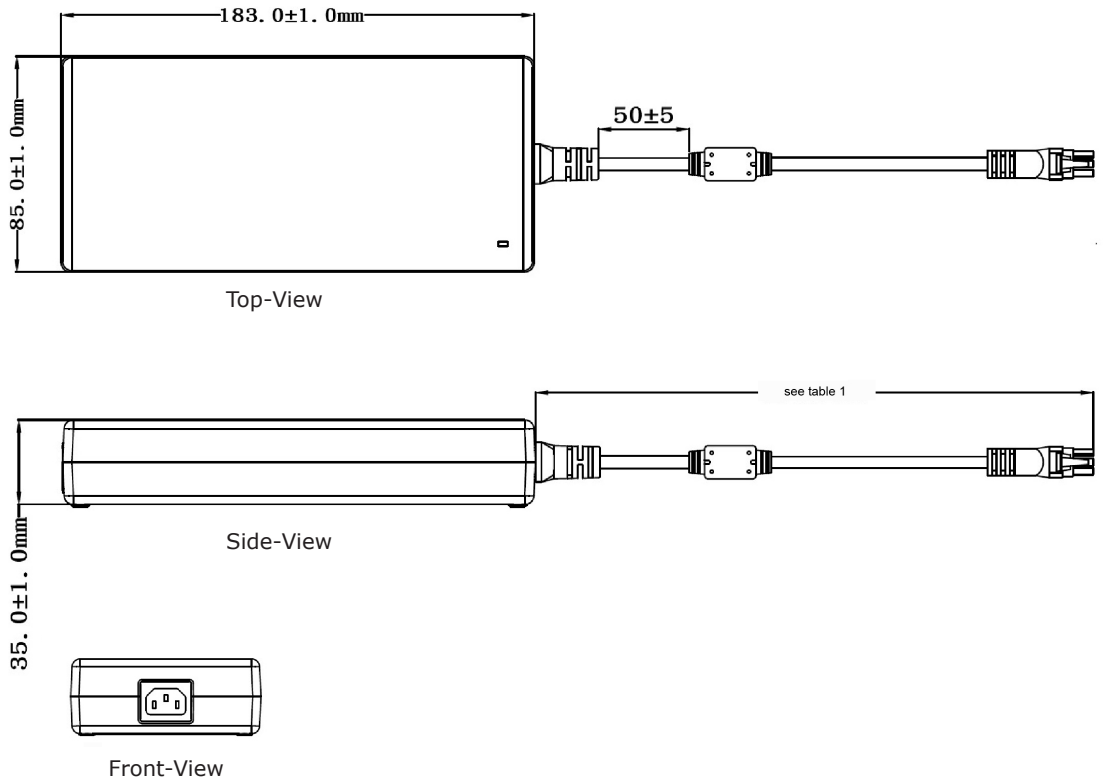


## MECHANICAL

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: 39012060				
weight	12, 15, 19 Vdc output models		1100		g
	24, 48, 56 Vdc output models		1000		g

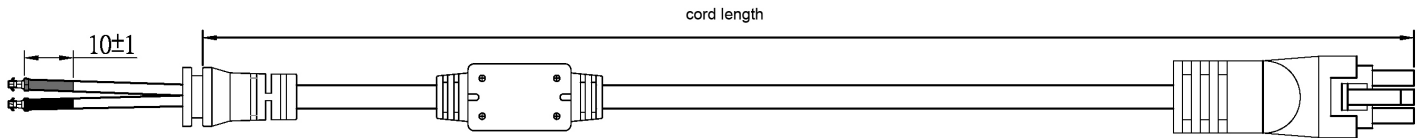
## MECHANICAL DRAWING

units: mm  
tolerance:  $\pm 1.0$  mm



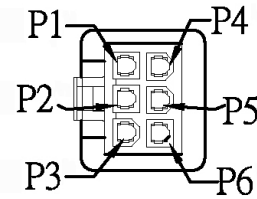
## DC CORD

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

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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

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



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