

**date** 06/27/2022

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# **SERIES:** SDM300G-U | **DESCRIPTION:** AC-DC POWER SUPPLY

#### **FEATURES**

- GaN technology
- compact size
- 300 W power
- universal input (90~264 Vac)
- single regulated outputs
- over voltage, over current, over temperature and short circuit protections
- UL/cUL (60601), TUV
- level VI efficiency
- power factor correction
- custom designs available







MODEL	output voltage	output current	output power	ripple and noise¹	efficiency level
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	
SDM300G-12-U	12	24.0	288	120	VI
SDM300G-15-U	15	20.0	300	150	VI
SDM300G-19-U	19	15.79	300	190	VI
SDM300G-24-U	24	12.5	300	240	VI
SDM300G-48-U	48	6.25	300	480	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**

Base Number AC Inlet Type: Reserved for Custom IEC320/C14 Output Voltage Input Cable: Configurations "Blank" = No Cable C = North America input cable 2 = Europe input cable 3 = United Kingdom input cable 4 = Australia input cable 5 = China input cable 6 = South Korea input cable 7 = Brazil input cable 8 = South Africa input cable 9 = Japan input cable

### **INPUT**

parameter	conditions/description	min	typ	max	units
voltage		100		240	Vac
frequency		50		60	Hz
current		1.5		3.5	А
inrush current	at 240 Vac, full load, 25°C, cold start			150	А
leakage current				0.1	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				

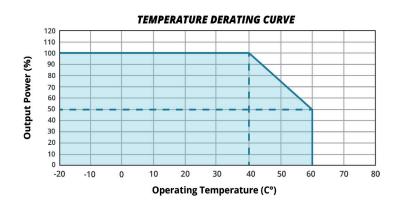
# **SAFETY & COMPLIANCE**

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		4,000 1,770		Vac Vac
isolation resistance	input to output at 500 Vdc input to ground at 500 Vdc	10 10			MΩ MΩ
safety approvals	UL/cUL 60601, TUV, UKCA, CB				
EMI/EMC	CE, FCC				
MTBF	as per Telcordia SR-332, 25°C	300,000			hours
RoHS	yes				

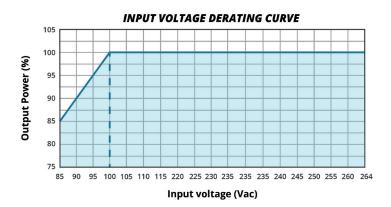
### **ENVIRONMENTAL**

parameter	conditions/description	min	typ	max	units
operating temperature	60°C max at 50% load, 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**



CUI Inc | SERIES: SDM300G-U | DESCRIPTION: AC-DC POWER SUPPLY



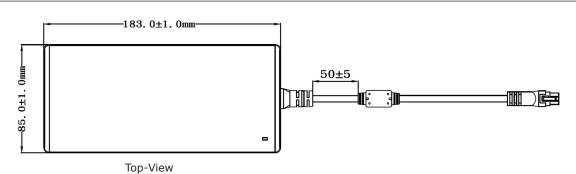
### **MECHANICAL**

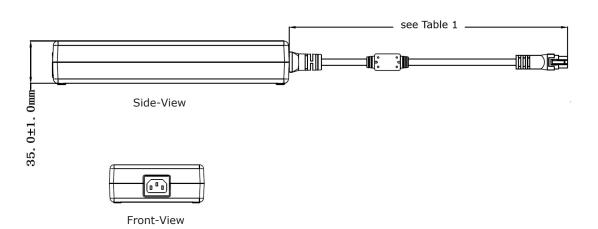
parameter	conditions/description	min	typ	max	units
dimensions	183.0 (L) x 85.0 (W) x 35.0 (H)				mm
dc output plug	6 pin housing				
weight	12, 15, 19 Vdc output models 24, 48 Vdc output models		1100 1000		g g

### **MECHANICAL DRAWING**

units: mm

tolerance: ±1.0 mm





# **DC CORD**

units: mm

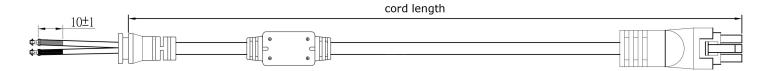
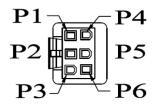


Table 1

MODEL NO.	CABLE	CORD LENGTH
SDM300G-12-U	Black, UL2464, 16 AWG	1,000 mm ±50
SDM300G-15-U	Black, UL2464, 16 AWG	1,000 mm ±50
SDM300G-19-U	Black, UL2464, 16 AWG	1,000 mm ±50
SDM300G-24-U	Black, UL2464, 16 AWG	1,200 mm ±50
SDM300G-48-U	Black, UL2464, 18 AWG	1,200 mm ±50

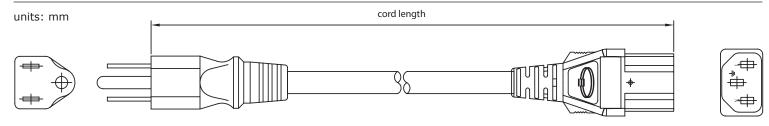


Output cable plug pin assignment

Table 2

PIN ASSIGNMENT					
PIN	OUTPUT VOLTAGE				
PIN	12V/15V/19V	24V/48V			
P1	+Vout	+Vout			
P2	+Vout	NC			
Р3	+Vout	+Vout			
P4	-Vout	-Vout			
P5	-Vout	NC			
P6	-Vout	-Vout			

### **AC CORD**

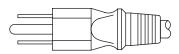


#### **NORTH AMERICA**

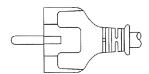
**EUROPE** 

**UNITED KINGDOM** 

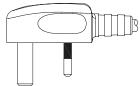




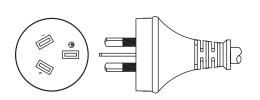




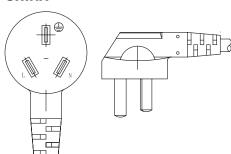




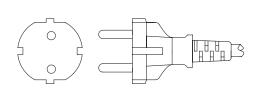
**AUSTRALIA** 



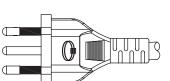




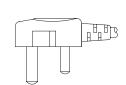
**SOUTH KOREA** 



**BRAZIL** 









**JAPAN** 

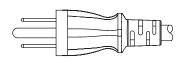


Table 2

Palas

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

Additional Resources: Product Page | 3D Model

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#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	06/27/2022

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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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.

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