

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

FEATURES

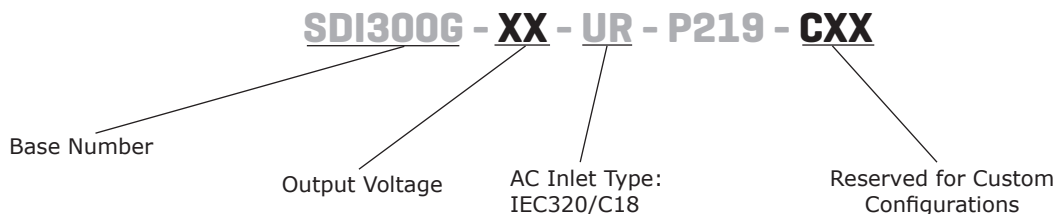
- GaN technology
- compact size
- 300 W power
- universal input (85~265 Vac)
- single regulated outputs
- over voltage, over current, over temperature and short circuit protections
- UL/cUL (62368-1)
- CE certified
- level VI efficiency
- power factor correction
- custom designs available



| MODEL | output voltage (Vdc) | output current max (A) | output power max (W) | ripple and noise ¹ max (mVp-p) | efficiency level |
|---------------|-------------------------|------------------------------|----------------------------|---|------------------|
| SDI300G-12-UR | 12 | 24.0 | 288.0 | 120 | VI |
| SDI300G-15-UR | 15 | 20.0 | 300.0 | 150 | VI |
| SDI300G-19-UR | 19 | 15.79 | 300.01 | 190 | VI |
| SDI300G-24-UR | 24 | 12.5 | 300.0 | 240 | VI |
| SDI300G-48-UR | 48 | 6.25 | 300.0 | 480 | VI |
| SDI300G-56-UR | 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 | 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 | | | | 0.25 | 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 | | | | |

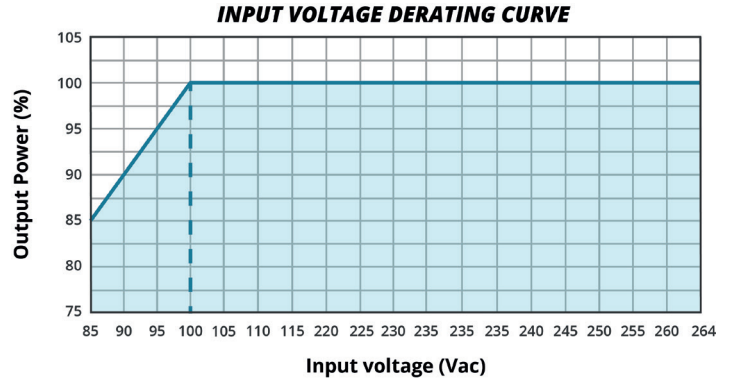
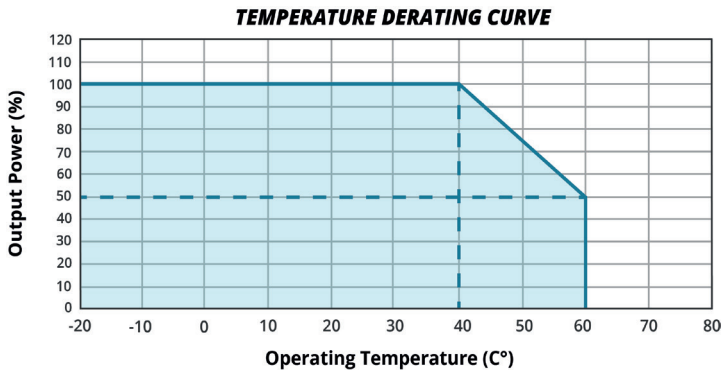
SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units |
|----------------------|--|---------|-------|-----|-------|
| isolation voltage | input to output at 10 mA for 1 minute | | 3,000 | | Vac |
| isolation resistance | input to output at 500 Vdc | 10 | | | MΩ |
| safety approvals | 62368: UL/cUL UKCA | | | | |
| EMI/EMC | CE, FCC Part 15 Class B, ICES-003, EN 55032, EN 55035, 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

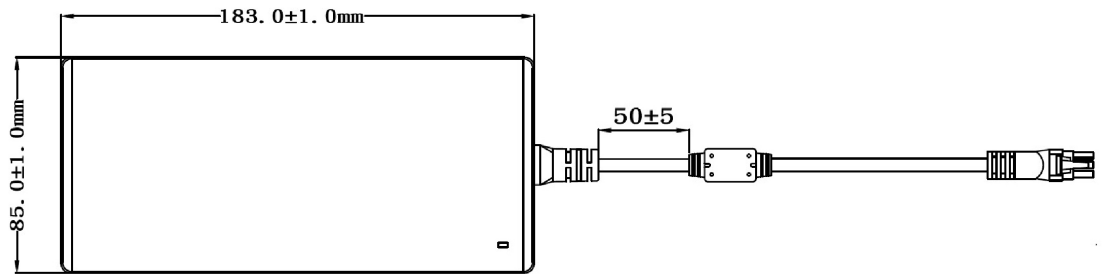


MECHANICAL

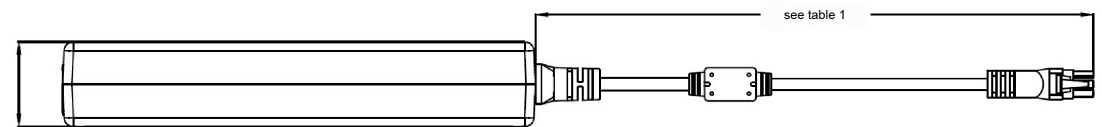
| parameter | conditions/description | min | typ | max | units |
|-------------|-------------------------------------|-----|------|-----|-------|
| dimensions | 183.0 (L) x 85.0 (W) x 35.0 (H) | | | | mm |
| inlet plug | C17 | | | | |
| output plug | 6 pin housing: Molex p/n 39-01-2065 | | | | |
| weight | 12, 15, 19 Vdc output models | | 1100 | | g |
| | 24, 48, 56 Vdc output models | | 1000 | | g |

MECHANICAL DRAWING

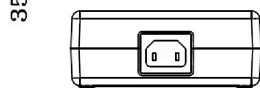
units: mm
tolerance: ±1.0 mm



Top-View



Side-View



Front-View

DC CORD

units: mm

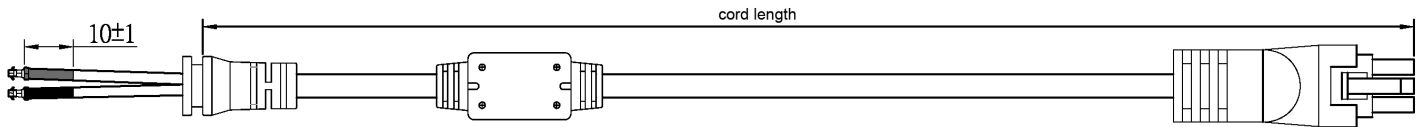
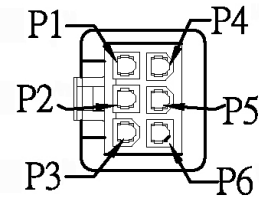


Table 1

| MODEL NO. | CABLE | CORD LENGTH |
|---------------|-----------------------|--------------|
| SDI300G-12-UR | Black, UL2464, 16 AWG | 1,000 mm ±50 |
| SDI300G-15-UR | Black, UL2464, 16 AWG | 1,000 mm ±50 |
| SDI300G-19-UR | Black, UL2464, 16 AWG | 1,000 mm ±50 |
| SDI300G-24-UR | Black, UL2464, 16 AWG | 1,200 mm ±50 |
| SDI300G-48-UR | Black, UL2464, 18 AWG | 1,200 mm ±50 |
| SDI300G-56-UR | 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 | 07/26/2021 |
| 1.01 | UKCA added to specification | 08/12/2021 |
| 1.02 | part numbers updated in the model table | 10/14/2021 |
| 1.03 | inlet & output plug updated | 03/11/2022 |
| 1.04 | CE added | 04/07/2022 |
| 1.05 | inlet plug updated | 08/12/2022 |
| 1.06 | input voltage and frequency updated | 01/18/2023 |
| 1.07 | dc cord connector updated | 04/20/2023 |

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

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