



## SERIES: SDI40-UD | DESCRIPTION: AC-DC POWER SUPPLY

### FEATURES

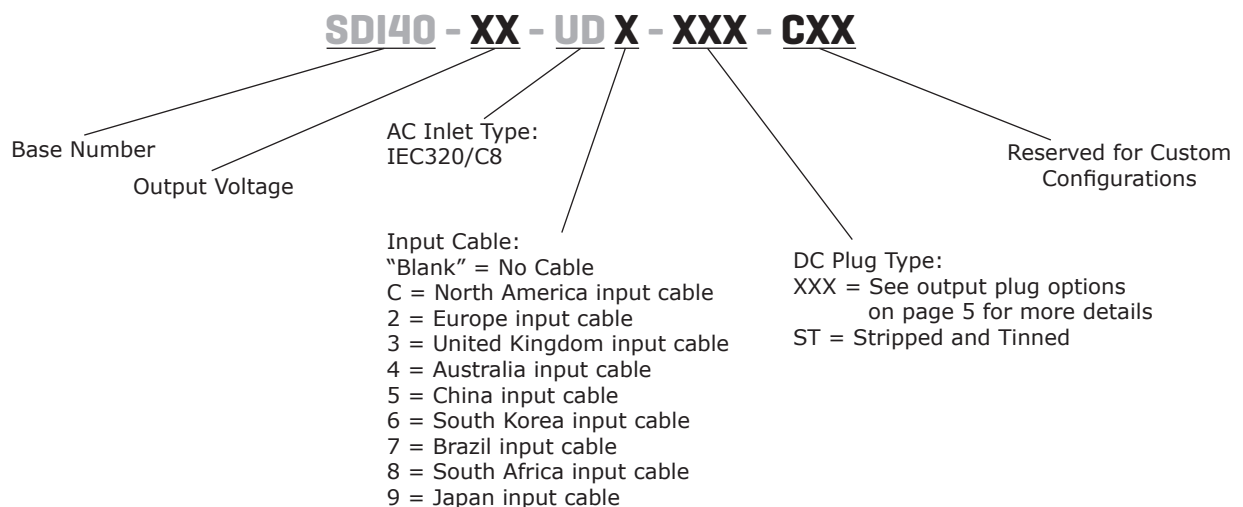
- up to 40 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- universal input voltage range
- compact size
- no load power consumption < 0.075 W
- over voltage and short circuit protections
- UL/cUL, GS, and PSE safety approvals
- custom designs available
- class II construction



| MODEL       | output voltage | output current max | output power max | ripple and noise <sup>1</sup> max | efficiency level <sup>2</sup> |
|-------------|----------------|--------------------|------------------|-----------------------------------|-------------------------------|
|             | (Vdc)          | (A)                | (W)              | (mVp-p)                           |                               |
| SDI40-12-UD | 12             | 3                  | 36               | 200                               | VI                            |
| SDI40-15-UD | 15             | 2.7                | 40.5             | 200                               | VI                            |
| SDI40-19-UD | 19             | 2.1                | 40               | 300                               | VI                            |
| SDI40-24-UD | 24             | 1.7                | 40.8             | 300                               | VI                            |

Notes: 1. Measured at 100~240 Vac input, full load, 20 MHz bandwidth oscilloscope, output terminated with a 10  $\mu$ F aluminum electrolytic and 0.1  $\mu$ F ceramic capacitor.  
2. CoC Tier 2 compliant

### PART NUMBER KEY



**INPUT**

| parameter                 | conditions/description | min | typ | max   | units |
|---------------------------|------------------------|-----|-----|-------|-------|
| voltage                   |                        | 90  |     | 264   | Vac   |
| frequency                 |                        | 47  |     | 63    | Hz    |
| current                   |                        |     |     | 1     | A     |
| leakage current           |                        |     |     | 0.25  | mA    |
| no load power consumption |                        |     |     | 0.075 | W     |

**OUTPUT**

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

**PROTECTIONS**

| parameter                | conditions/description          | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection  | 12 Vdc output model             |     |     | 16  | Vdc   |
|                          | 15 Vdc output model             |     |     | 22  | Vdc   |
|                          | 19 Vdc output model             |     |     | 27  | Vdc   |
|                          | 24 Vdc output model             |     |     | 32  | Vdc   |
| over current protection  | 12 Vdc output model             |     |     | 5   | A     |
|                          | 15 Vdc output model             |     |     | 4.3 | A     |
|                          | 19 Vdc output model             |     |     | 5   | A     |
|                          | 24 Vdc output model             |     |     | 2.8 | A     |
| short circuit protection | output shut down, auto recovery |     |     |     |       |

**SAFETY & COMPLIANCE**

| parameter            | conditions/description                | min | typ   | max | units |
|----------------------|---------------------------------------|-----|-------|-----|-------|
| isolation voltage    | input to output at 10 mA for 1 minute |     | 3,000 |     | Vac   |
|                      |                                       |     | 4,242 |     | Vdc   |
| isolation resistance | input to output at 500 Vdc            | 100 |       |     | MΩ    |
| safety approvals     | UL/cUL, GS, PSE                       |     |       |     |       |
| EMI/EMC              | FCC Part 15B Class B, CE              |     |       |     |       |
| RoHS                 | 2011/65/EU                            |     |       |     |       |

**ENVIRONMENTAL**

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| storage temperature   |                        | -10 |     | 70  | °C    |
| operating humidity    | non-condensing         | 20  |     | 80  | %     |
| storage humidity      | non-condensing         | 10  |     | 90  | %     |

## MECHANICAL

| parameter  | conditions/description | min | typ | max | units |
|------------|------------------------|-----|-----|-----|-------|
| dimensions | 111 x 52 x 32.3        |     |     |     | mm    |
| inlet plug | IEC320/C8              |     |     |     |       |
| weight     | without AC cord        |     | 241 |     | g     |
|            | with AC cord           |     | 319 |     | g     |

## MECHANICAL DRAWING

units: mm



Note: 1. LED indicator is not present on 24 Vdc output model.

## DC CORD

units: mm



**Table 1**

| MODEL NO.   | CABLE          | CORD LENGTH   |
|-------------|----------------|---------------|
| SDI40-12-UD | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI40-15-UD | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI40-19-UD | UL2468, 18 AWG | 1,530 mm ±100 |
| SDI40-24-UD | UL2468, 18 AWG | 1,530 mm ±100 |

## AC CORD

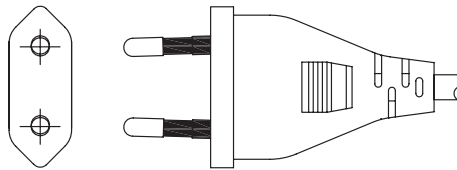
units: mm



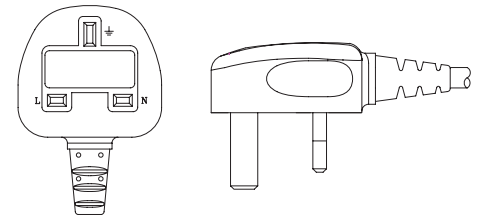
### NORTH AMERICA



### EUROPE



### UNITED KINGDOM



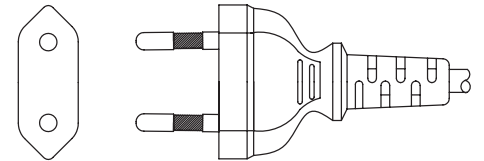
### AUSTRALIA



### CHINA



### SOUTH KOREA



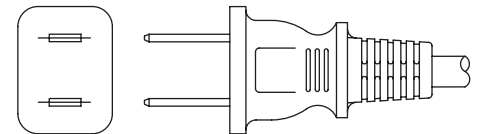
### BRAZIL



### SOUTH AFRICA



### JAPAN



**Table 2**

| AC INPUT       | CORD LENGTH  |
|----------------|--------------|
| North America  | 1,830 mm ±50 |
| Europe         | 1,830 mm ±50 |
| 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 ±50 |

## DC PLUG TYPE PART NUMBER KEY



Note: 1. Contact CUI for additional plug options



## REVISION HISTORY

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| rev. | description       | date       |
|------|-------------------|------------|
| 1.0  | initial release   | 09/27/2016 |
| 1.01 | updated datasheet | 03/14/2018 |
| 1.02 | updated datasheet | 04/23/2018 |

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



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This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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