


**SERIES:** SDI30-UD | **DESCRIPTION:** AC-DC POWER SUPPLY

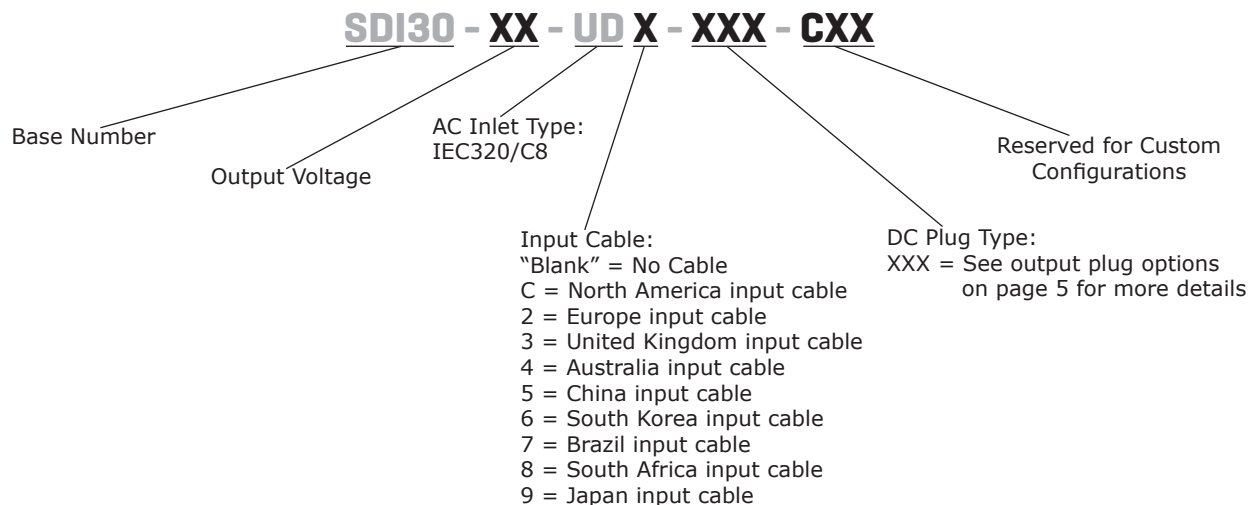
**FEATURES**

- up to 30 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



| MODEL       | output<br>voltage<br>(Vdc) | output<br>current<br>max<br>(A) | output<br>power<br>max<br>(W) | ripple<br>and noise <sup>1</sup><br>max<br>(mVp-p) | efficiency<br>level <sup>2</sup> |
|-------------|----------------------------|---------------------------------|-------------------------------|----------------------------------------------------|----------------------------------|
| SDI30-12-UD | 12                         | 2.5                             | 30                            | 200                                                | VI                               |
| SDI30-15-UD | 15                         | 2                               | 30                            | 200                                                | VI                               |
| SDI30-19-UD | 19                         | 1.6                             | 30                            | 300                                                | VI                               |
| SDI30-24-UD | 24                         | 1.25                            | 30                            | 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             |     |     | 4   | A     |
|                          | 15 Vdc output model             |     |     | 4   | A     |
|                          | 19 Vdc output model             |     |     | 4   | 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

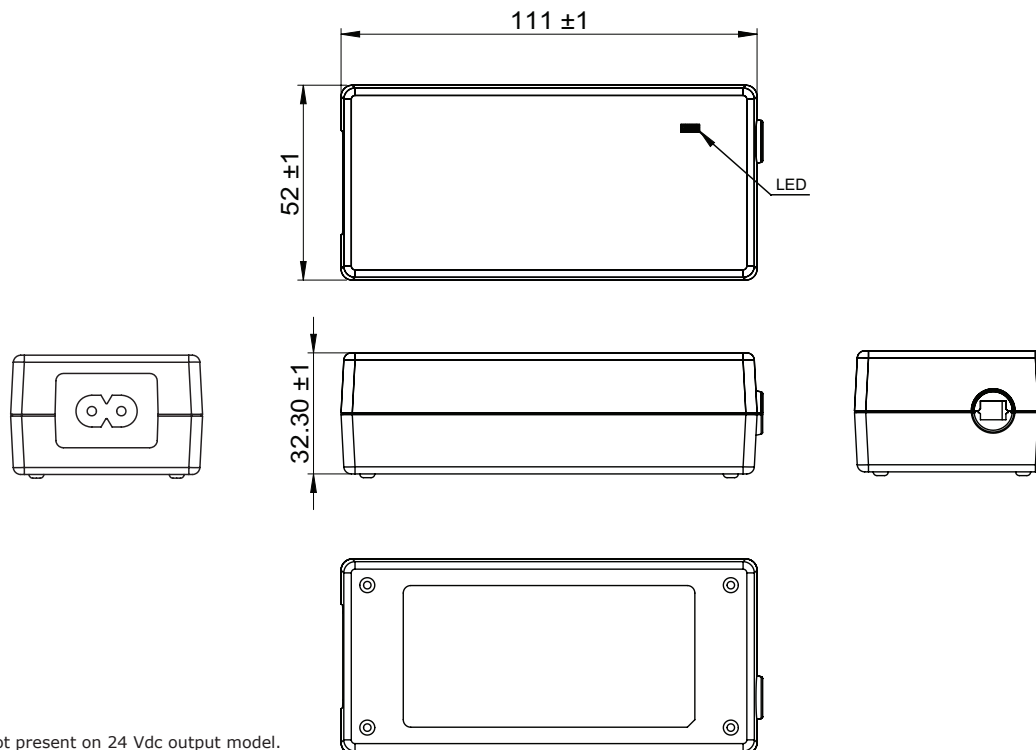
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| storage temperature   |                        | -10 |     | 70  | °C    |
| 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        |     | 240 |     | g     |
|            | with AC cord           |     | 270 |     | g     |

## MECHANICAL DRAWING

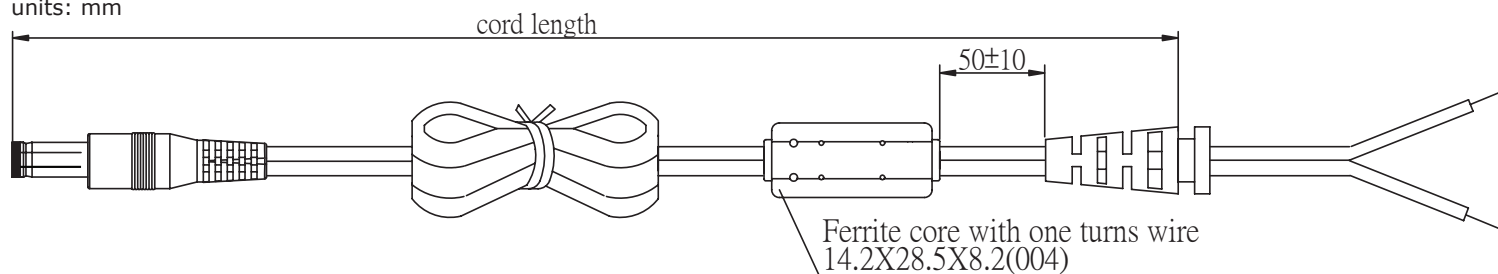
units: mm



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

## DC CORD

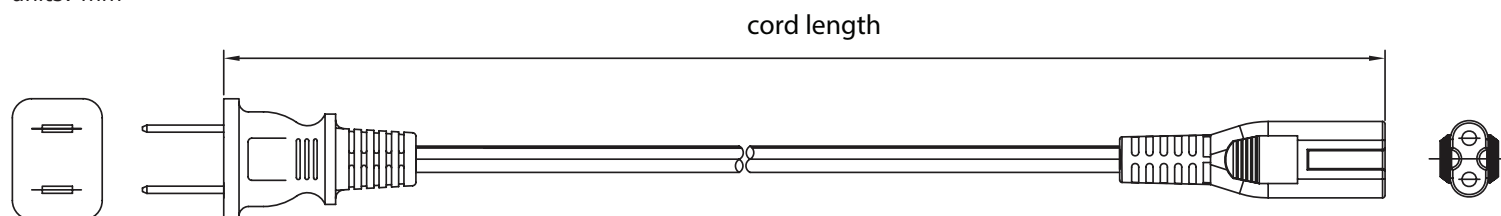
units: mm

**Table 1**

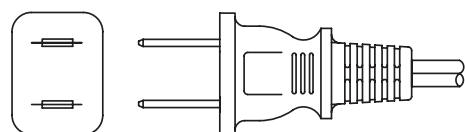
| MODEL NO.   | CABLE          | CORD LENGTH   |
|-------------|----------------|---------------|
| SDI30-12-UD | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI30-15-UD | UL2468, 18 AWG | 1,530 mm ±100 |
| SDI30-19-UD | UL2468, 20 AWG | 1,530 mm ±100 |
| SDI30-24-UD | UL2468, 20 AWG | 1,530 mm ±100 |

## AC CORD

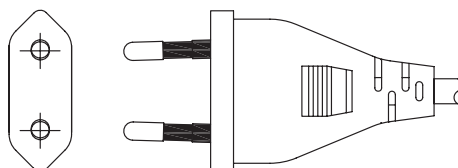
units: mm



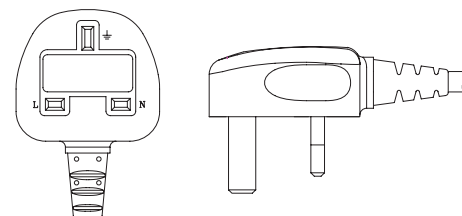
### NORTH AMERICA



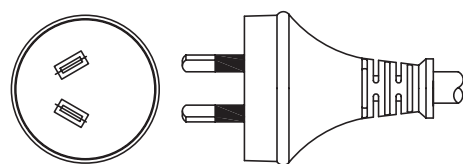
### EUROPE



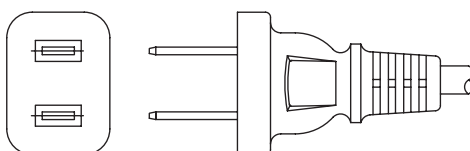
### UNITED KINGDOM



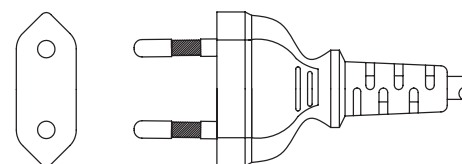
### AUSTRALIA



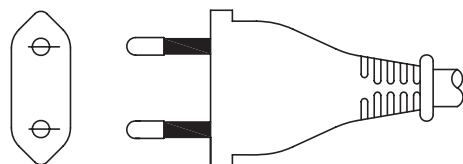
### CHINA



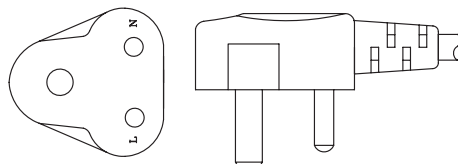
### SOUTH KOREA



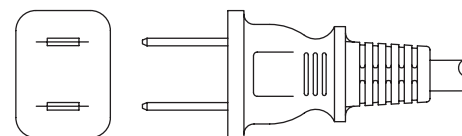
### BRAZIL



### SOUTH AFRICA



### JAPAN



**Table 2**

| AC INPUT       | CORD LENGTH       |
|----------------|-------------------|
| North America  | 1,830 mm $\pm$ 30 |
| Europe         | 1,830 mm $\pm$ 30 |
| United Kingdom | 1,830 mm $\pm$ 30 |
| Australia      | 1,830 mm $\pm$ 30 |
| China          | 1,830 mm $\pm$ 30 |
| South Korea    | 1,830 mm $\pm$ 30 |
| Brazil         | 1,830 mm $\pm$ 30 |
| South Africa   | 1,830 mm $\pm$ 30 |
| Japan          | 1,830 mm $\pm$ 30 |

## DC PLUG TYPE PART NUMBER KEY

**XXX**

**Plug Polarity:**  
P = Center Positive  
N = Center Negative

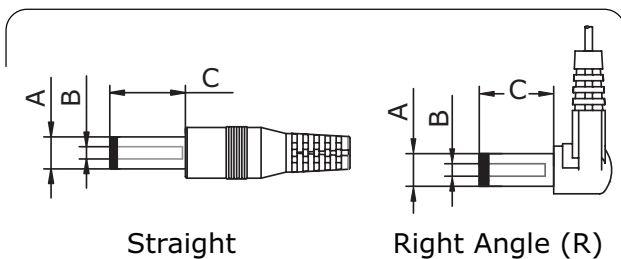
**Plug Code:**  
X = Choose a code from the options below

**Plug Angle:**  
"blank" = Straight  
R = Right Angle

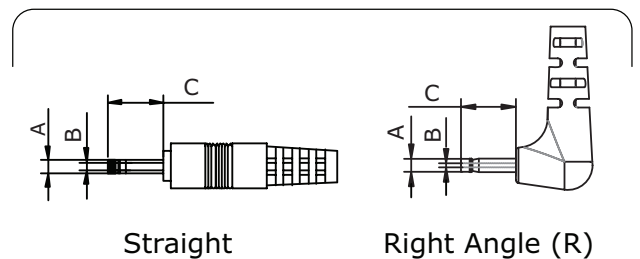
| Plug Polarity |             | Code   |                   | Dimensions (mm) |      |     | Plug Angle |       |
|---------------|-------------|--------|-------------------|-----------------|------|-----|------------|-------|
| Center Pos.   | Center Neg. | Option | Type              | A               | B    | C   | Straight   | Right |
| •             | •           | 5      | Standard          | 5.5             | 2.1  | 9.5 | •          | •     |
| •             | •           | 6      | Standard          | 5.5             | 2.5  | 9.5 | •          | •     |
| •             | •           | 7      | Standard          | 3.5             | 1.35 | 9.5 | •          | •     |
| •             | •           | 8      | Standard          | 3.8             | 1.35 | 9.5 | •          | •     |
| •             | •           | 9      | Standard          | 3.8             | 1.05 | 9.5 | •          | •     |
| •             | •           | 10     | Locking           | 5.5             | 2.1  | 9.5 | •          | N/A   |
| •             | •           | 11     | Locking           | 5.5             | 2.5  | 9.5 | •          | N/A   |
| •             | •           | 12     | EIAJ-1            | 2.35            | 0.7  | 9.5 | •          | •     |
| •             | •           | 13     | EIAJ-2            | 4.0             | 1.7  | 9.5 | •          | •     |
| •             | •           | 14     | EIAJ-3            | 4.75            | 1.7  | 9.5 | •          | •     |
| N/A           | N/A         | ST     | Stripped & Tinned |                 |      |     | N/A        | N/A   |

Note: 1. Contact CUI for additional plug options

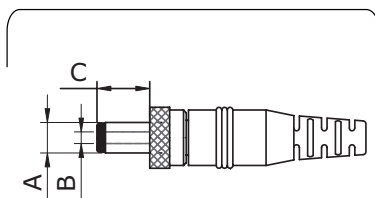
### Standard



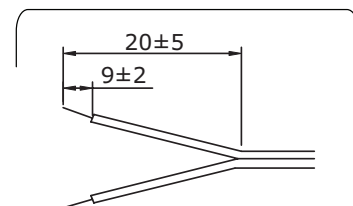
### EIAJ



### Locking



### Stripped & Tinned



## REVISION HISTORY

| rev. | description       | date       |
|------|-------------------|------------|
| 1.0  | initial release   | 11/15/2016 |
| 1.01 | updated datasheet | 03/14/2018 |

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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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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