



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

### FEATURES

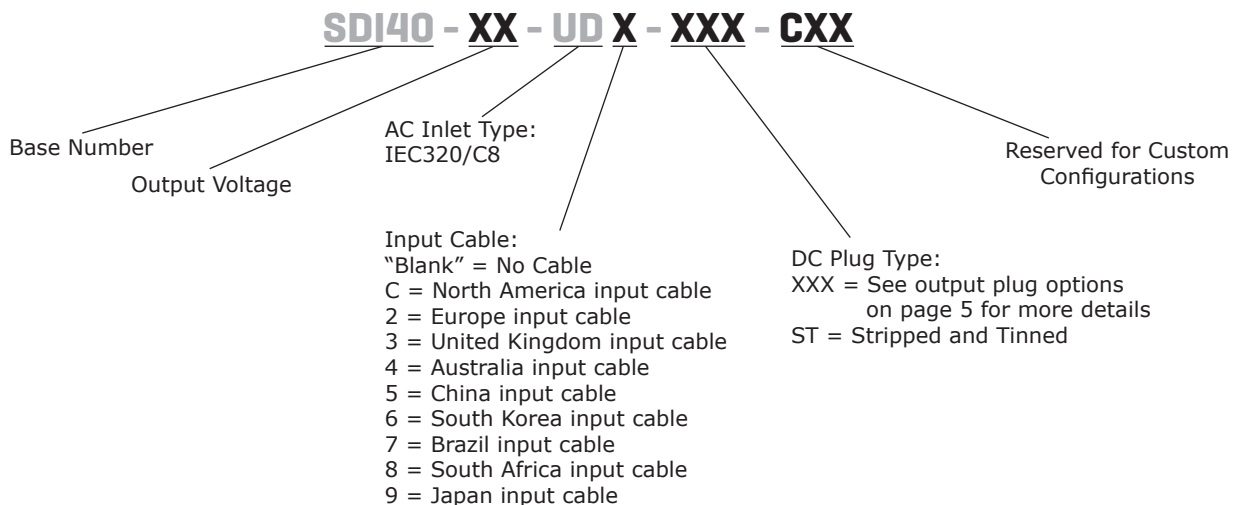
- up to 40 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- universal input voltage range
- compact size
- no load power consumption < 0.075 W
- over voltage and short circuit protections
- UL/cUL, GS, and PSE safety approvals
- custom designs available
- class II construction



| MODEL       | output voltage<br>(Vdc) | output current max<br>(A) | output power max<br>(W) | ripple and noise <sup>1</sup> max<br>(mVp-p) | efficiency level <sup>2</sup> |
|-------------|-------------------------|---------------------------|-------------------------|----------------------------------------------|-------------------------------|
| 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 | Level VI               |     |     | 0.1   | W     |
|                           | CoC Tier 2             |     |     | 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<br>4,242 |     | Vac<br>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

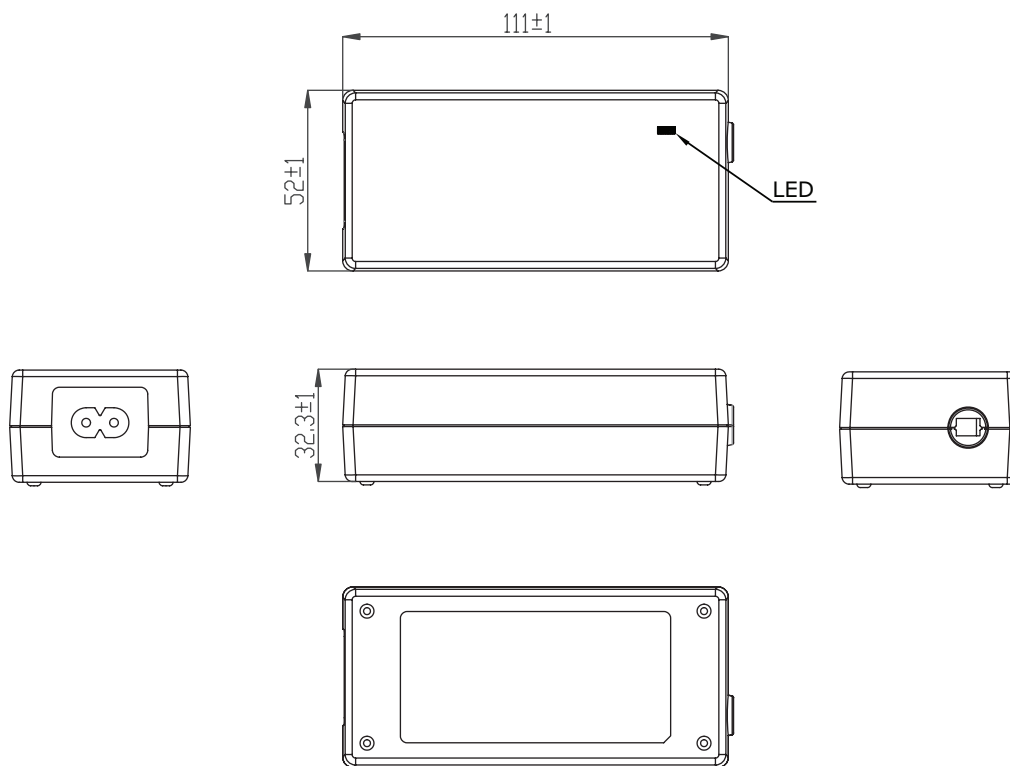
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| storage temperature   |                        | -10 |     | 70  | °C    |
| 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     | with AC cord           |     | 319 |     | g     |
|            | without AC cord        |     | 241 |     | g     |

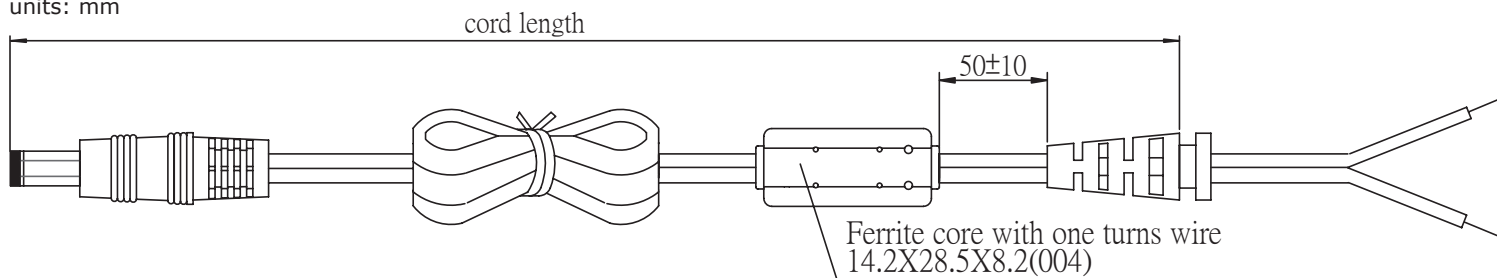
## MECHANICAL DRAWING

units: mm



## DC CORD

units: mm

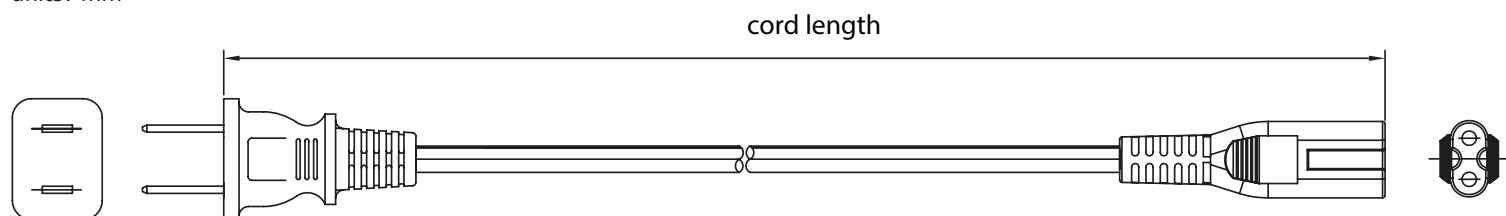


**Table 1**

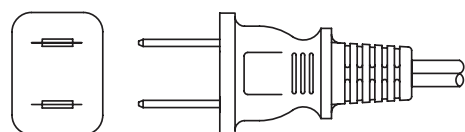
| MODEL NO.   | CABLE          | CORD LENGTH   |
|-------------|----------------|---------------|
| SDI40-12-UD | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI40-15-UD | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI40-19-UD | UL2468, 18 AWG | 1,530 mm ±100 |
| SDI40-24-UD | UL2468, 18 AWG | 1,530 mm ±100 |

## AC CORD

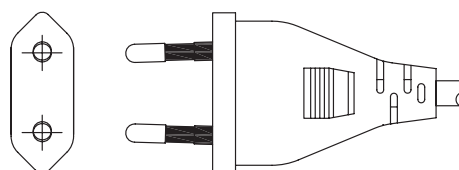
units: mm



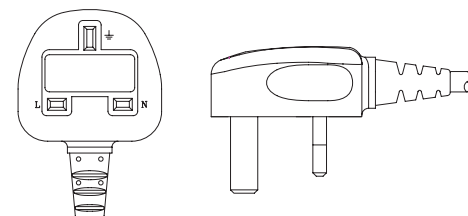
### NORTH AMERICA



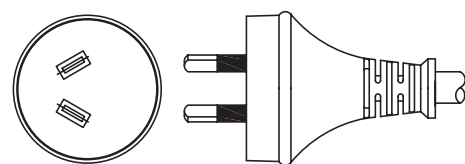
### EUROPE



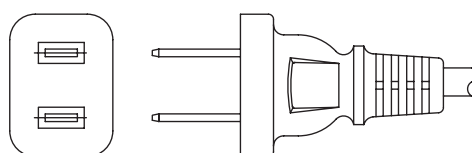
### UNITED KINGDOM



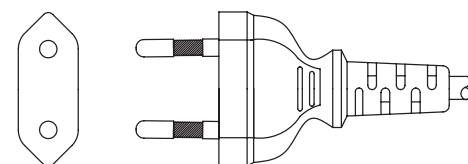
### AUSTRALIA



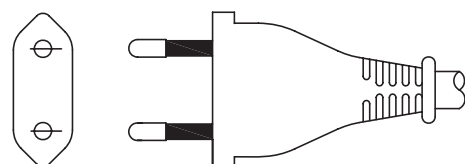
### CHINA



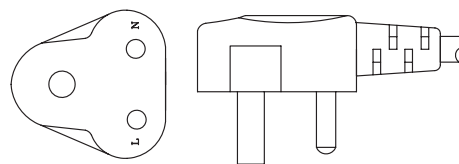
### SOUTH KOREA



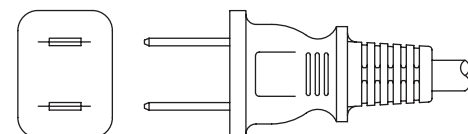
### BRAZIL



### SOUTH AFRICA



### JAPAN

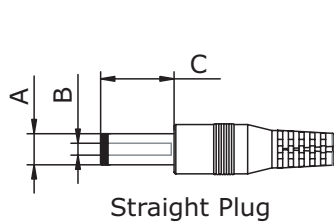


**Table 2**

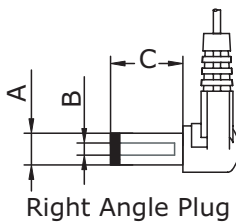
| AC INPUT       | CORD LENGTH       |
|----------------|-------------------|
| North America  | 1,830 mm $\pm$ 50 |
| Europe         | 1,830 mm $\pm$ 50 |
| United Kingdom | 1,830 mm $\pm$ 30 |
| Australia      | 1,830 mm $\pm$ 30 |
| China          | 1,830 mm $\pm$ 30 |
| South Korea    | 1,830 mm $\pm$ 50 |
| Brazil         | 1,830 mm $\pm$ 30 |
| South Africa   | 1,830 mm $\pm$ 50 |
| Japan          | 1,830 mm $\pm$ 50 |

## OUTPUT PLUG OPTIONS

### Standard DC Plug



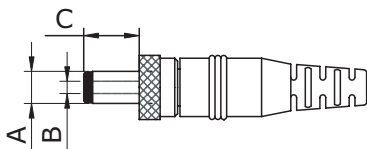
Straight Plug



Right Angle Plug

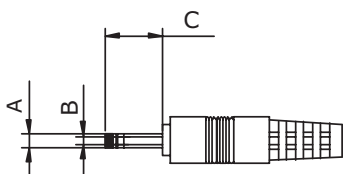
| Size | A   | B    | C   | Unit |
|------|-----|------|-----|------|
| 5    | 5.5 | 2.1  | 9.5 | mm   |
| 6    | 5.5 | 2.5  | 9.5 | mm   |
| 7    | 3.5 | 1.35 | 9.5 | mm   |
| 8    | 3.8 | 1.35 | 9.5 | mm   |
| 9    | 3.8 | 1.05 | 9.5 | mm   |

### Locking DC Plug

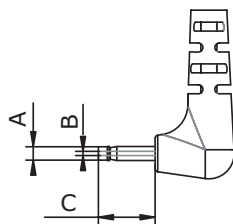


| Size | A   | B   | C   | Unit |
|------|-----|-----|-----|------|
| 10   | 5.5 | 2.1 | 9.5 | mm   |
| 11   | 5.5 | 2.5 | 9.5 | mm   |

### EIAJ DC Plug



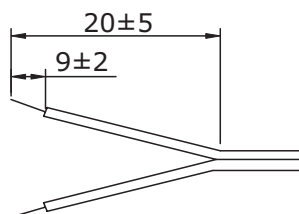
Straight Plug



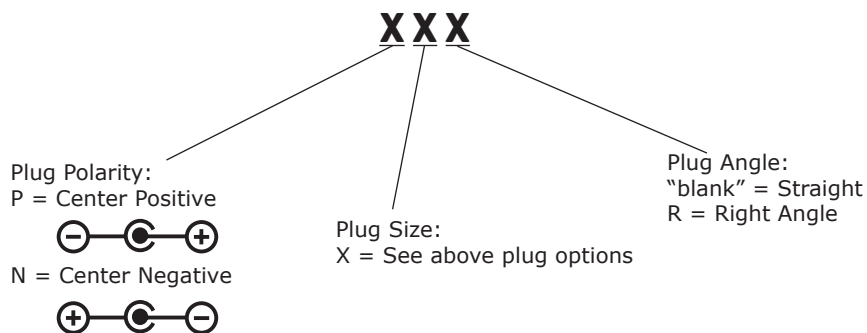
Right Angle Plug

| Size | EIAJ   | A    | B   | C   | Unit |
|------|--------|------|-----|-----|------|
| 12   | EIAJ-1 | 2.35 | 0.7 | 9.5 | mm   |
| 13   | EIAJ-2 | 4.0  | 1.7 | 9.5 | mm   |
| 14   | EIAJ-3 | 4.75 | 1.7 | 9.5 | mm   |

### Stripped and Tinned



### DC Plug Type



\*Contact CUI for additional plug options

## REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 09/27/2016 |

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.

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