# **SERIES:** SDM36-U | **DESCRIPTION:** AC-DC POWER SUPPLY

## FEATURES

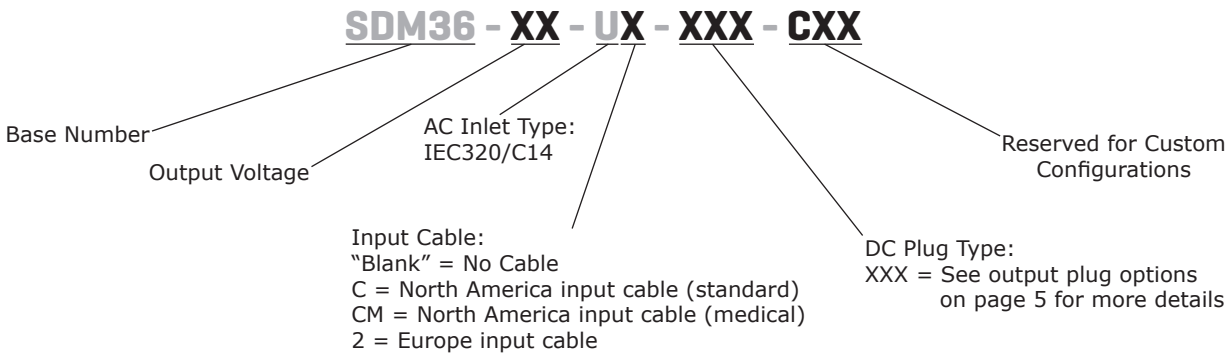
- up to 36 W continuous power
- meets DoE Level VI efficiency
- universal input voltage range
- compact size
- no load power consumption < 0.10 W
- over voltage and short circuit protections
- UL/cUL, TUV (60601-1), and PSE safety approvals
- LED indicator
- custom designs available



| MODEL | output voltage (Vdc) | output current max (A) | output power max (W) | ripple and noise[1] max (mVp-p) | efficiency level |
|---|---|---|---|---|---|
| SDM36-5-U | 5 | 5 | 25 | 80 | VI |
| SDM36-7.5-U | 7.5 | 4 | 30 | 80 | VI |
| SDM36-9-U | 9 | 4 | 36 | 90 | VI |
| SDM36-12-U | 12 | 3 | 36 | 120 | VI |
| SDM36-15-U | 15 | 2.4 | 36 | 150 | VI |
| SDM36-18-U | 18 | 2 | 36 | 180 | VI |
| SDM36-24-U | 24 | 1.5 | 36 | 240 | VI |

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, output terminated with 0.1 µF multilayer ceramic and 10 µF low ESR electrolytic capacitors.

## PART NUMBER KEY



## INPUT

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| voltage | | 90 | | 264 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | | | | 1 | A |
| inrush current | at 230 Vac, full load, 25°C, cold start | | | 70 | A |
| leakage current | | | | 0.3 | mA |
| no load power consumption | at 230 Vac | | | 0.10 | W |

## OUTPUT

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| regulation | 5 Vdc model<br>all other models | | ±6<br>±5 | | %<br>% |

## PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| over voltage protection | output shut down | | | 200 | % |
| over current protection | output shut down, auto recovery | | | 200 | % |
| 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<br>input to frame ground at 10 mA for 1 minute | | 4,000<br>2,000 | | Vac<br>Vac |
| isolation resistance | input to output at 500 Vdc<br>input to frame ground at 500 Vdc | 10<br>10 | | | MΩ<br>MΩ |
| safety approvals | Medical: UL/cUL, TUV (60601-1)<br>ITE: PSE<br>UKCA | | | | |
| EMI/EMC | FCC Part 15B Class B, CE | | | | |
| MTBF | as per Telcordia SR-332, 25°C | 300,000 | | | hours |
| RoHS | 2011/65/EU | | | | |

## ENVIRONMENTAL

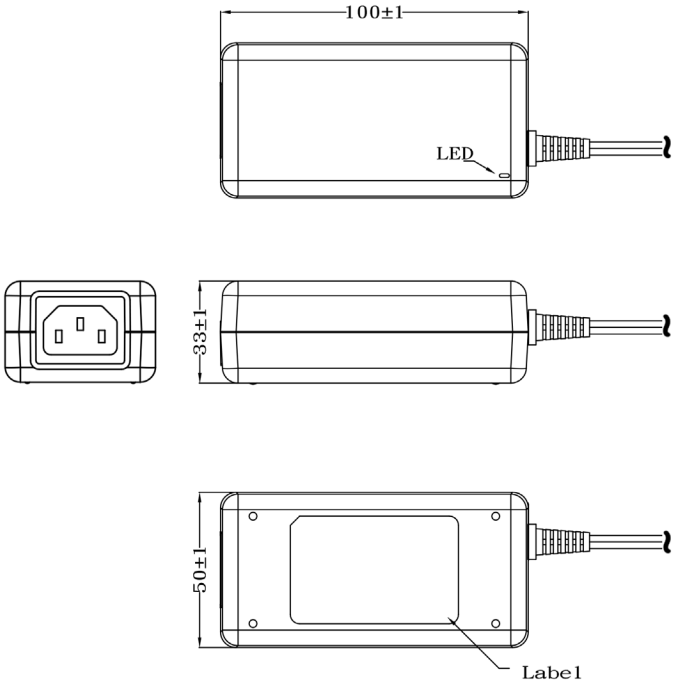
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 80 | °C |
| operating humidity | non-condensing | 20 | | 80 | % |
| storage humidity | non-condensing | 10 | | 90 | % |

## MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| dimensions | 100 x 50 x 33 | | | | mm |
| inlet plug | IEC320/C14 | | | | |
| weight | without ac cord | | 170 | | g |

## MECHANICAL DRAWING

units: mm
tolerance:±1.0 mm




## DC CORD

units: mm

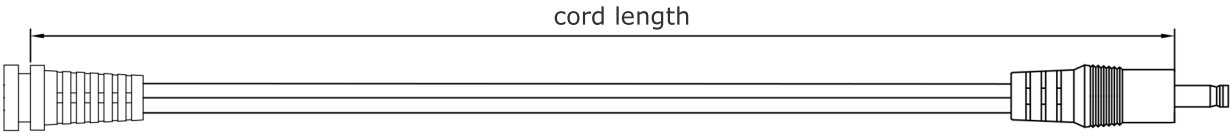


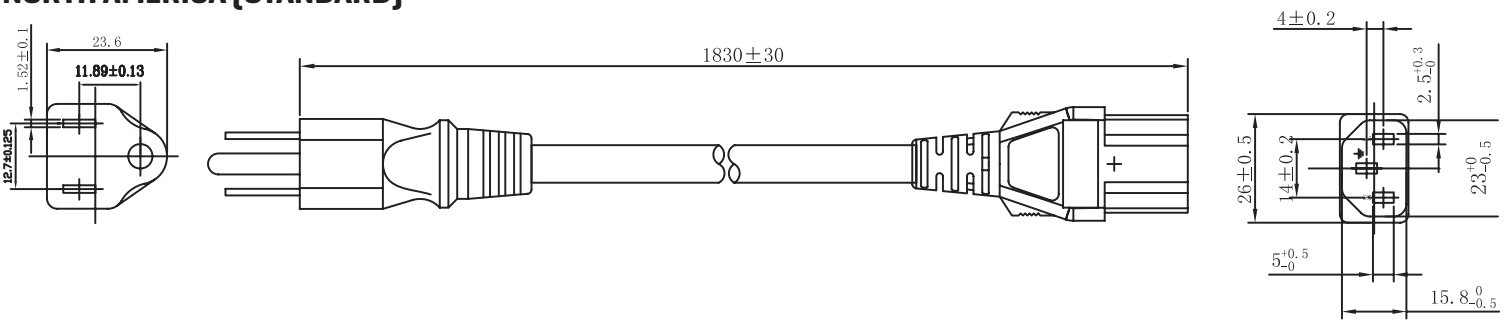

**Table 1**

| MODEL NO. | CABLE | CORD LENGTH |
|---|---|---|
| SDM36-5-U | UL2468, 16 AWG | 1,500 mm ±30 |
| SDM36-7.5-U | UL2468, 18 AWG | 1,500 mm ±30 |
| SDM36-9-U | UL2468, 18 AWG | 1,500 mm ±30 |
| SDM36-12-U | UL2468, 18 AWG | 1,500 mm ±30 |
| SDM36-15-U | UL2468, 18 AWG | 1,500 mm ±30 |
| SDM36-18-U | UL2468, 20 AWG | 1,500 mm ±30 |
| SDM36-24-U | UL2468, 20 AWG | 1,500 mm ±30 |

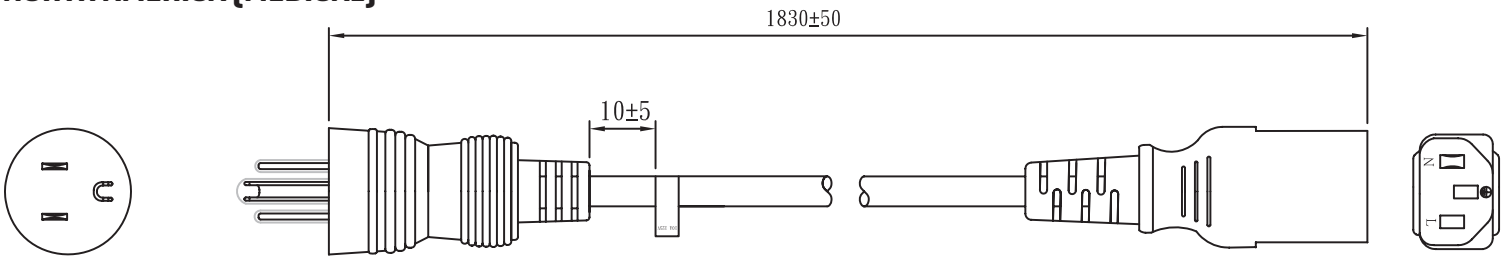
## AC CORDS

units: mm

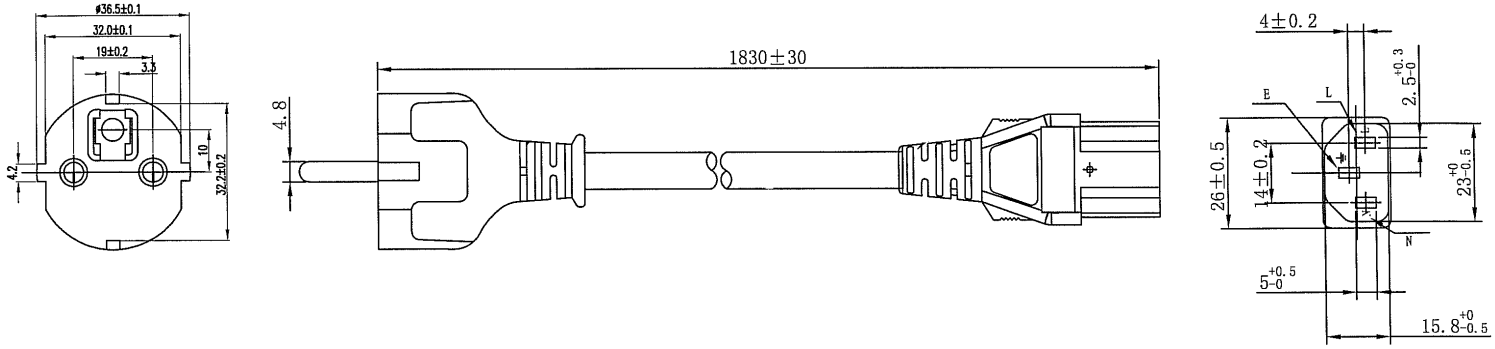
### NORTH AMERICA (STANDARD)




### NORTH AMERICA (MEDICAL)




### EUROPE



## DC PLUG TYPE PART NUMBER KEY

**X X X**

**Plug Polarity:**
P = Center Positive



N = Center Negative



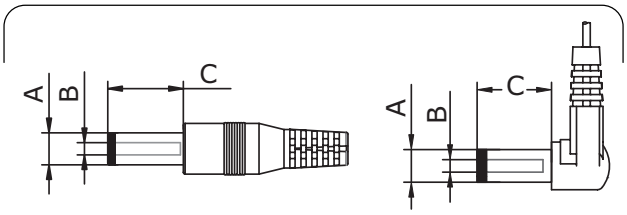
**Plug Code:**
X = Choose a code from the options below

**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[2] | 5.5 | 2.1 | 9.5 | • | N/A |
| • | • | 11 | Locking[2] | 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 |
| N/A | N/A | MUB | USB | Micro USB Type B | | | • | N/A |

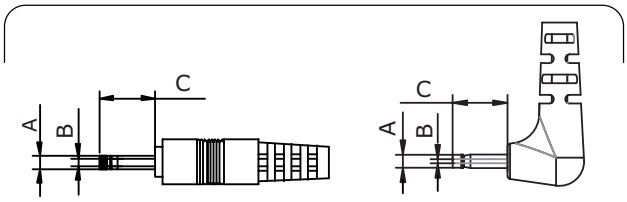
Note: 1. Contact CUI for additional plug options
2. Maximum insertion depth is 10mm

### Standard



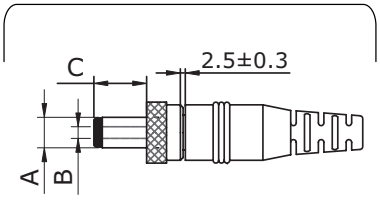

Straight Right Angle (R)

### EIAJ

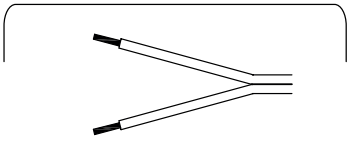



Straight Right Angle (R)

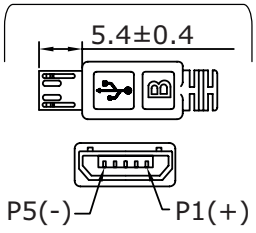
### Locking




### Stripped & Tinned



### USB



## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 01/29/2018 |
| 1.01 | updated datasheet | 06/14/2019 |
| 1.02 | company logo update | 07/23/2020 |
| 1.03 | UKCA added to safety | 05/20/2021 |
| 1.04 | dc plugs updated | 05/23/2022 |

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

CUI INC
a bel group

**Headquarters**
20050 SW 112th Ave.
Tualatin, OR 97062
**800.275.4899**

Fax 503.612.2383
**cui**.com
techsupport@cui.com

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.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

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