CUI INC®



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

## FEATURES

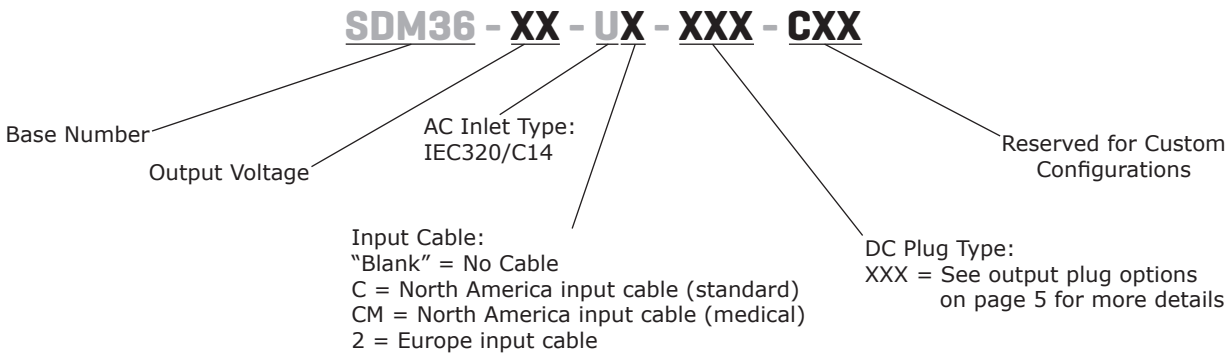
- up to 36 W continuous power
- meets DoE Level VI efficiency
- universal input voltage range
- compact size
- no load power consumption < 0.10 W
- over voltage and short circuit protections
- UL/cUL, TUV, and PSE safety approvals
- LED indicator
- custom designs available

## MODEL

| 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<br>ITE: PSE | | | | |
| EMI/EMC | FCC Part 15B Class B, CE | | | | |
| MTBF | as per Telcordia SR-332, 25°C | 300,000 | | | hours |
| RoHS | 2011/65/EU | | | | |

## ENVIRONMENTAL

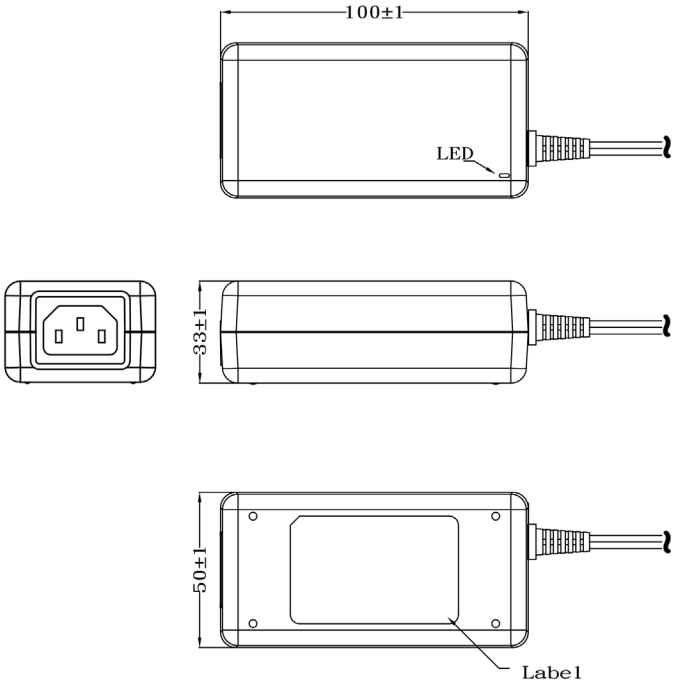
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 80 | °C |
| operating humidity | non-condensing | 20 | | 80 | % |
| storage humidity | non-condensing | 10 | | 90 | % |

## 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

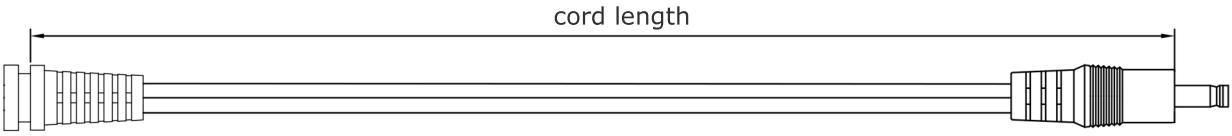


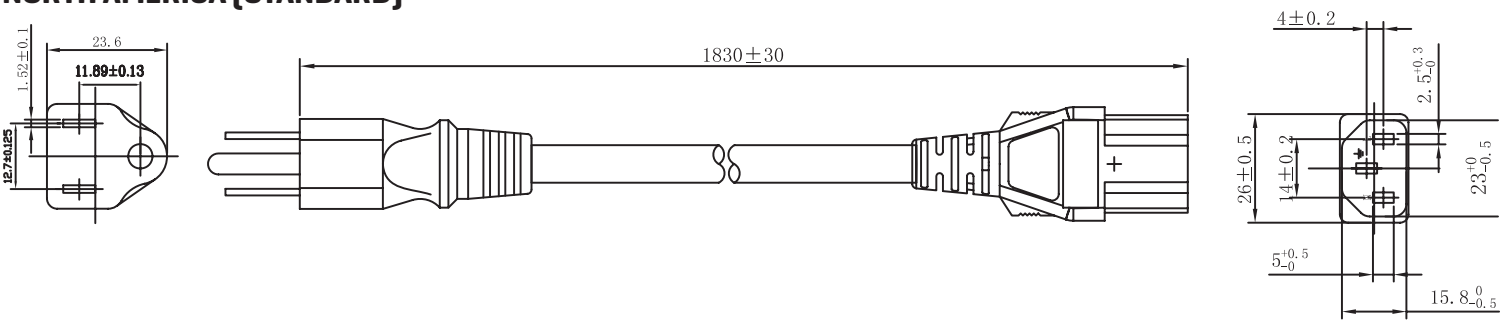

**Table 1**

| 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 |

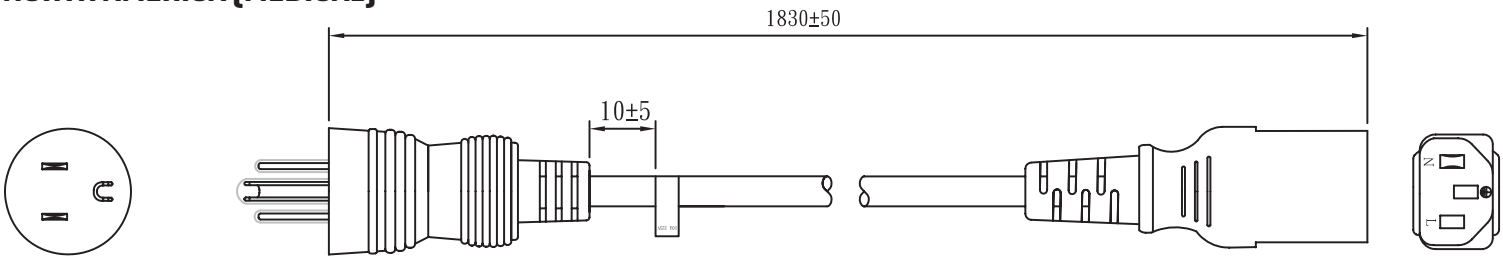
## AC CORDS

units: mm

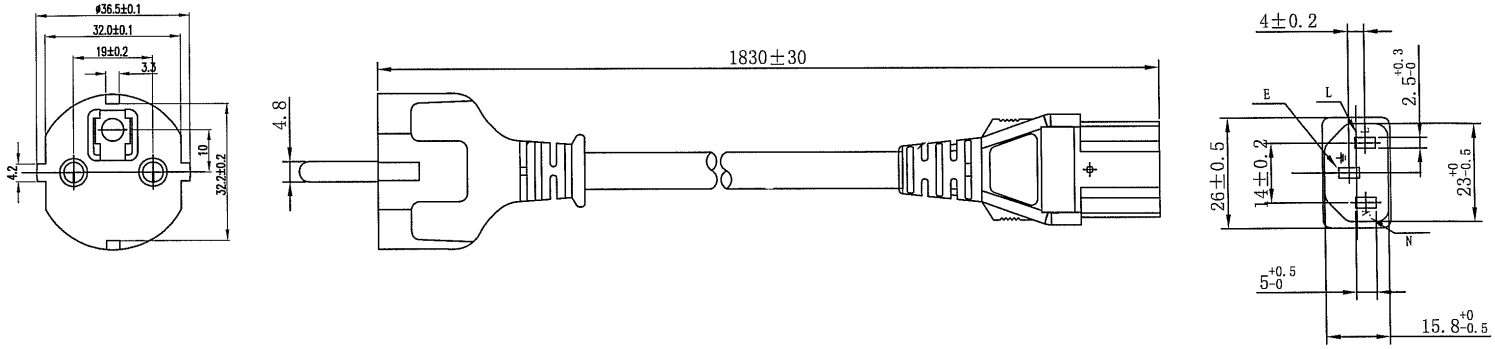
### NORTH AMERICA (STANDARD)




### NORTH AMERICA (MEDICAL)




### EUROPE



## DC PLUG TYPE PART NUMBER KEY

**X X X**

**Plug Polarity:**
P = Center Positive

N = Center Negative

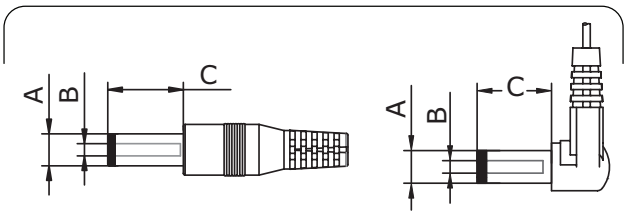
**Plug Code:**
X = Choose a code from the options below

**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 | 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 |
| N/A | N/A | MUB | USB | Micro USB Type B | | | • | N/A |

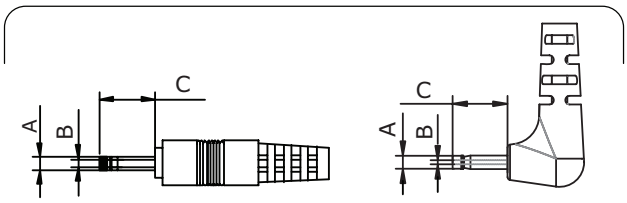
Note: 1. Contact CUI for additional plug options

### Standard



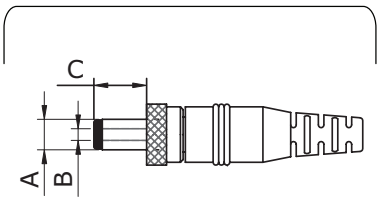

Straight Right Angle (R)

### EIAJ

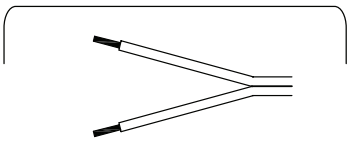



Straight Right Angle (R)

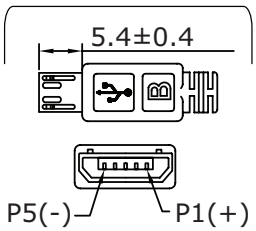
### Locking




### Stripped & Tinned



### USB



## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 01/29/2018 |

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.

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.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

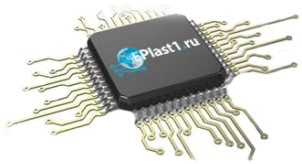
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

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