



**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       | output voltage | output current max | output power max | ripple and noise <sup>1</sup> max | efficiency level |
|-------------|----------------|--------------------|------------------|-----------------------------------|------------------|
|             | (Vdc)          | (A)                | (W)              | (mVp-p)                           |                  |
| 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

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

Note: 1. Contact CUI for additional plug options

### Standard



### EIAJ



### Locking



### Stripped & Tinned



### USB



## REVISION HISTORY

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| 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.

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