

**SERIES:** SMI5-USB | **DESCRIPTION:** AC-DC POWER SUPPLY

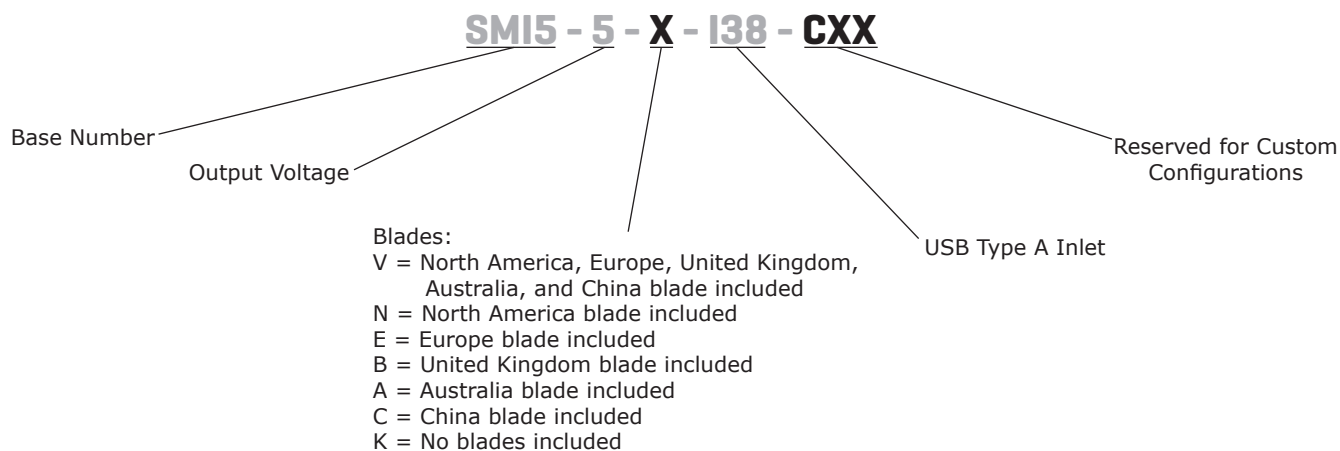
**FEATURES**

- up to 5 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- no load power consumption < 0.075 W
- universal input voltage range
- interchangeable Ac blades for global use
- over voltage and short circuit protections
- UL/cUL, RCM, CCC, PSE safety approvals
- UL/EN/IEC 62368 certified



| MODEL      | output voltage<br>(Vdc) | output current<br>max<br>(A) | output power<br>max<br>(W) | ripple and noise <sup>1</sup><br>max<br>(mVp-p) | efficiency level <sup>2</sup> |
|------------|-------------------------|------------------------------|----------------------------|-------------------------------------------------|-------------------------------|
| SMI5-5-I38 | 5                       | 1                            | 5                          | 300                                             | VI                            |

Notes: 1. At full load, nominal Vac input, 25 °C, 20 MHz bandwidth oscilloscope, each output terminated with 0.1  $\mu$ F and 10  $\mu$ F capacitors.  
 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                   | at 115/230 Vac           |     |     | 0.2   | A     |
| leakage current           |                          |     |     | 0.02  | mA    |
| no load power consumption | at 115/230 Vac, 60/50 Hz |     |     | 0.075 | W     |
|                           | Level VI<br>CoC Tier 2   |     |     | 0.075 | W     |

## OUTPUT

| parameter       | conditions/description | min | typ | max | units |
|-----------------|------------------------|-----|-----|-----|-------|
| line regulation |                        |     | ±5  |     | %     |
| load regulation |                        |     | ±5  |     | %     |
| turn on time    |                        |     |     | 3   | s     |

## PROTECTIONS

| parameter                | conditions/description          | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection  |                                 |     |     | 10  | Vdc   |
| over current protection  | output shut down, auto recovery |     |     | 1.5 | A     |
| short circuit protection |                                 |     |     |     |       |

## 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 |
| safety approvals  | UL/cUL, RCM, CCC, PSE, UKCA                                          |        |                |     |            |
| EMI/EMC           | FCC Part 15B Class B, CE                                             |        |                |     |            |
| MTBF              | as per Telcordia SR-332 Issue 2, at 115/230 Vac, full load, 0 ~ 40°C | 50,000 |                |     | hours      |
| RoHS              | 2011/65/EU                                                           |        |                |     |            |

## ENVIRONMENTAL

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| storage temperature   |                        | -20 |     | 60  | °C    |
| operating humidity    | non-condensing         | 20  |     | 85  | %     |
| storage humidity      | non-condensing         | 5   |     | 95  | %     |

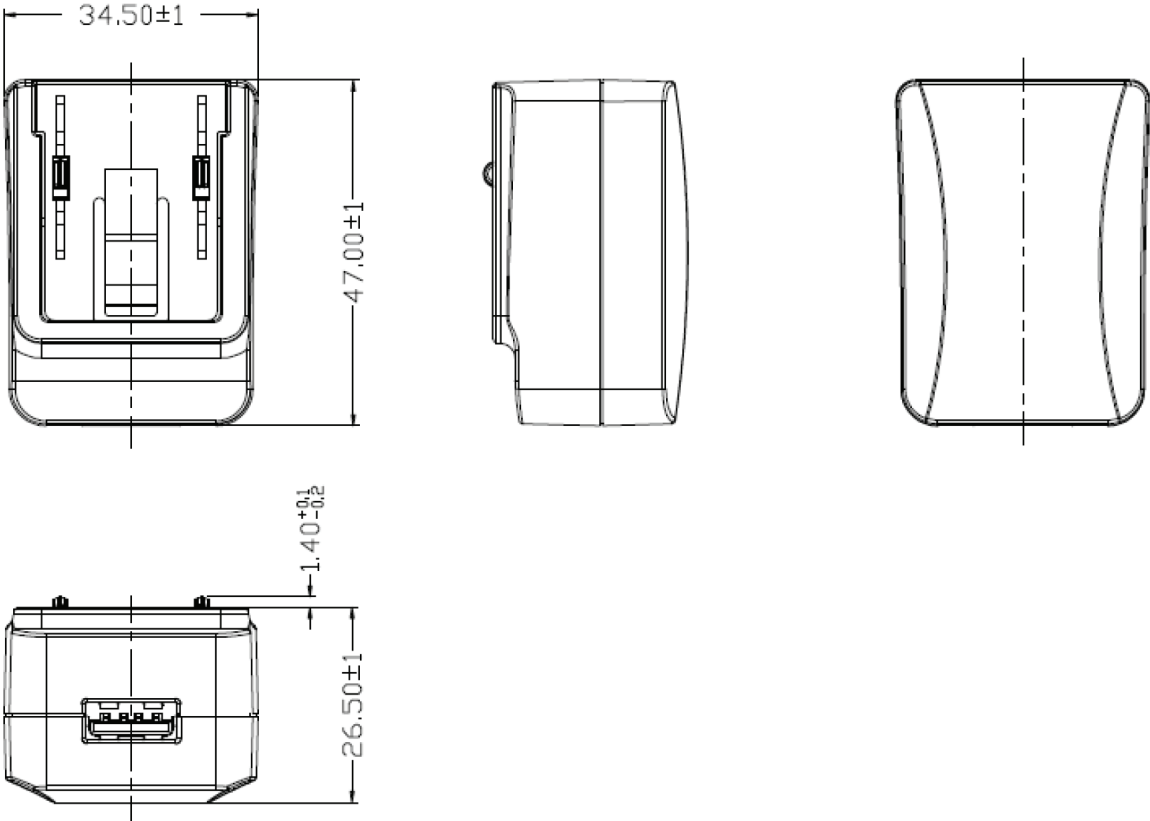
MECHANICAL

| parameter          | conditions/description                                               | min | typ | max | units |
|--------------------|----------------------------------------------------------------------|-----|-----|-----|-------|
| dimensions         | 47 x 34.5 x 26.5                                                     |     |     |     | mm    |
| inlet plug         | interchangeable blades (North America, Europe, UK, Australia, China) |     |     |     |       |
| ac blade clip type | hidden clip                                                          |     |     |     |       |
| weight             |                                                                      |     |     | 80  | g     |

MECHANICAL DRAWING

units: mm

| PIN                                                            | Output Voltage |
|----------------------------------------------------------------|----------------|
| 1                                                              | +5V            |
| 2                                                              | short          |
| 3                                                              | short          |
| 4                                                              | GND            |
| <div><div>+5</div><div>GND</div><div>1</div><div>4</div></div> |                |



| INTERCHANGEABLE BLADES |               |          |          |           |          |
|------------------------|---------------|----------|----------|-----------|----------|
| BLADE DESIGNATOR       | N             | E        | B        | A         | C        |
| REGION                 | North America | Europe   | UK       | Australia | China    |
| BLADE ACCESSORY        | SMI-US-3      | SMI-EU-3 | SMI-UK-3 | SMI-AU-3  | SMI-CN-3 |
| BLADE                  |               |          |          |           |          |

## REVISION HISTORY

| rev. | description                 | date       |
|------|-----------------------------|------------|
| 1.0  | initial release             | 08/07/2015 |
| 1.01 | updated datasheet           | 02/08/2016 |
| 1.02 | updated datasheet           | 09/15/2016 |
| 1.03 | updated datasheet           | 08/02/2018 |
| 1.04 | updated features            | 07/23/2020 |
| 1.05 | GS removed                  | 04/16/2021 |
| 1.06 | UKCA added to specification | 08/12/2021 |
| 1.08 | ac blade clip type added    | 06/23/2022 |

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.