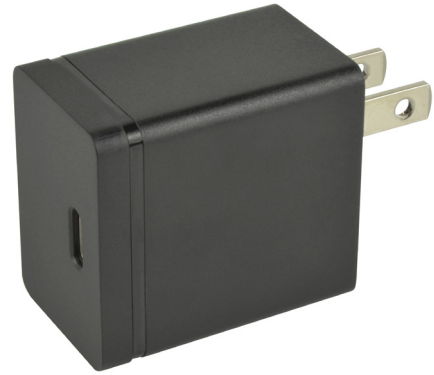


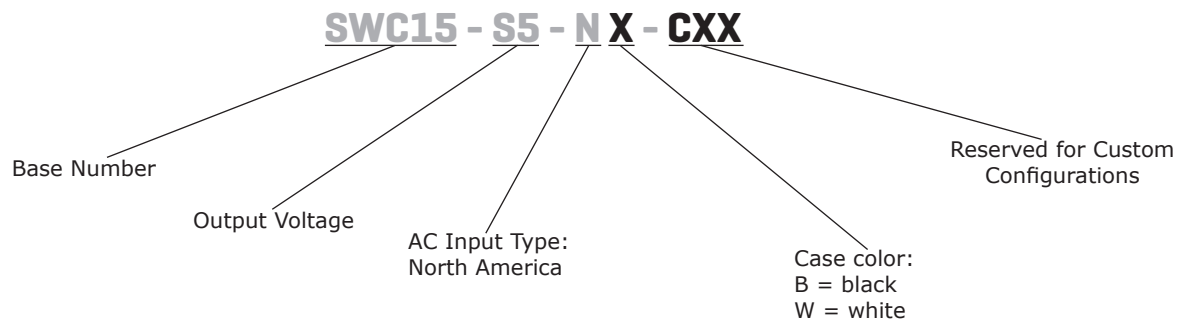
**SERIES:** SWC15-N | **DESCRIPTION:** AC-DC POWER SUPPLY
**FEATURES**

- up to 15 W power
- compact design
- DoE Level VI compliant
- UL/cUL and PSE safety approvals
- universal input voltage range
- USB type C inlet

**MODEL**

|            | output<br>voltage<br>(Vdc) | output<br>current<br>max<br>(A) | output<br>power<br>max<br>(W) | ripple<br>and noise <sup>1</sup><br>max<br>(mVp-p) | efficiency<br>level <sup>2</sup> |
|------------|----------------------------|---------------------------------|-------------------------------|----------------------------------------------------|----------------------------------|
| SWC15-S5-N | 5                          | 3                               | 15                            | 150                                                | VI                               |

Notes: 1. At full load, nominal AC input voltage, 25°C, 20 MHz bandwidth oscilloscope, output terminated with 0.1  $\mu$ F ceramic and 10  $\mu$ F aluminum electrolytic 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 100 Vac                      |     |     | 0.5   | A     |
| inrush current            | at 240 Vac, cold start, 25°C    |     |     | 60    | A     |
| leakage current           | at max input voltage, full load |     |     | 0.1   | mA    |
| no load power consumption | at 115/230 Vac                  |     |     | 0.075 | W     |

## OUTPUT

| parameter        | conditions/description              | min  | typ | max  | units |
|------------------|-------------------------------------|------|-----|------|-------|
| voltage accuracy |                                     | 4.75 |     | 5.25 | Vdc   |
| line regulation  |                                     |      | ±2  |      | %     |
| load regulation  |                                     |      | ±5  |      | %     |
| start-up time    |                                     |      |     | 3    | s     |
| hold-up time     | at 115/230 Vac, 60/50 Hz, full load | 10   |     |      | ms    |

## PROTECTIONS

| parameter                | conditions/description          | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection  | output shut down, auto recovery |     |     | 9   | Vdc   |
| over current protection  | output shut down, auto recovery |     |     | 130 | %     |
| short circuit protection | output shut down, auto recovery |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter             | conditions/description                  | min    | typ   | max | units |
|-----------------------|-----------------------------------------|--------|-------|-----|-------|
| isolation voltage     | input to output at 3.5 mA for 1 minute  |        | 4,242 |     | Vdc   |
| insulation resistance | input to output at 500 Vdc for 1 minute | 50     |       |     | MΩ    |
| safety approvals      | UL/cUL (UL 60950-1), PSE                |        |       |     |       |
| EMI/EMC               | FCC Part 15 Class B, EN 55032 Class B   |        |       |     |       |
| MTBF                  | as per MIL-HDBK-217F, full load, 25°C   | 50,000 |       |     | hours |
| RoHS                  | yes                                     |        |       |     |       |

## ENVIRONMENTAL

| parameter             | conditions/description | min | typ | max   | units |
|-----------------------|------------------------|-----|-----|-------|-------|
| operating temperature |                        | 0   |     | 40    | °C    |
| storage temperature   |                        | -20 |     | 60    | °C    |
| operating humidity    | non-condensing         | 10  |     | 90    | %     |
| storage humidity      | non-condensing         | 5   |     | 90    | %     |
| altitude              |                        |     |     | 5,000 | m     |

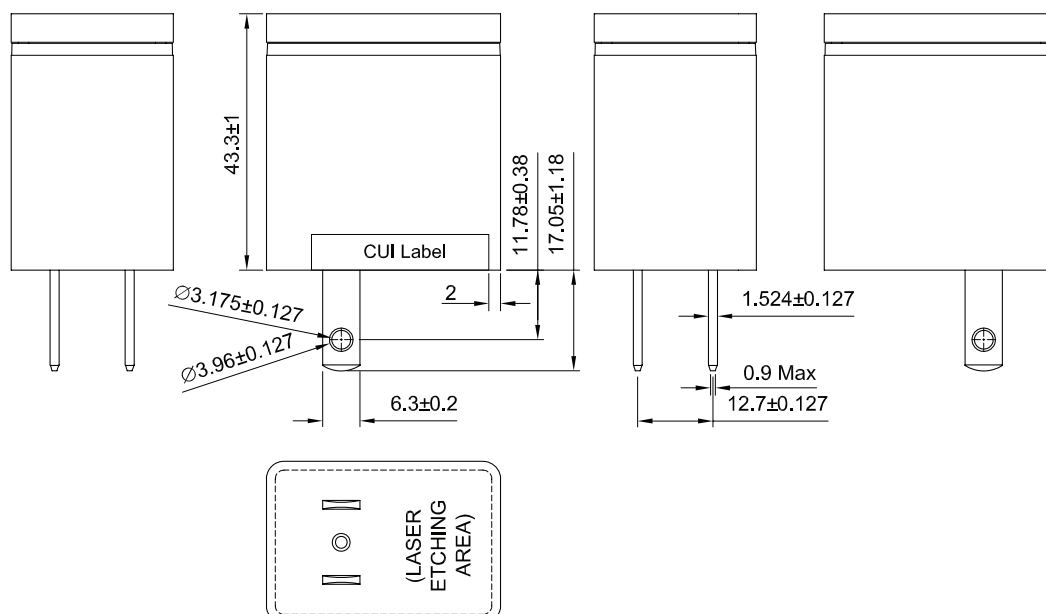
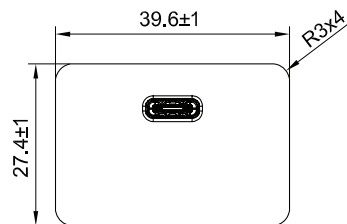
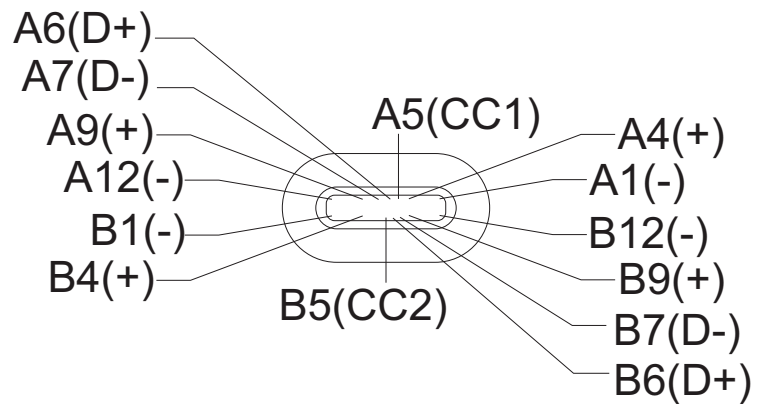
## MECHANICAL

| parameter  | conditions/description | min | typ | max | units |
|------------|------------------------|-----|-----|-----|-------|
| dimensions | 39.6 x 27.4 x 43.3     |     |     |     | mm    |
| inlet plug | North America, 2-pin   |     |     |     |       |
| DC output  | USB 3.1 Type C         |     |     |     |       |
| weight     |                        |     | 47  |     | g     |

## MECHANICAL DRAWING

units: mm

| PIN CONNECTIONS |                  |     |                  |
|-----------------|------------------|-----|------------------|
| PIN             | SIGNAL NAME      | PIN | SIGNAL NAME      |
| A1              | GND              | B12 | GND              |
| A2              | NC               | B11 | NC               |
| A3              | NC               | B10 | NC               |
| A4              | V <sub>BUS</sub> | B9  | V <sub>BUS</sub> |
| A5              | CC1              | B8  | CC2              |
| A6              | D+               | B7  | D+               |
| A7              | D-               | B6  | D-               |
| A8              | NC               | B5  | NC               |
| A9              | V <sub>BUS</sub> | B4  | V <sub>BUS</sub> |
| A10             | NC               | B3  | NC               |
| A11             | NC               | B2  | NC               |
| A12             | GND              | B1  | GND              |



## REVISION HISTORY

| rev. | description          | date       |
|------|----------------------|------------|
| 1.0  | initial release      | 08/23/2018 |
| 1.01 | company logo updated | 09/30/2020 |
| 1.02 | safety marks updated | 04/26/2021 |

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

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a bel group

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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.