

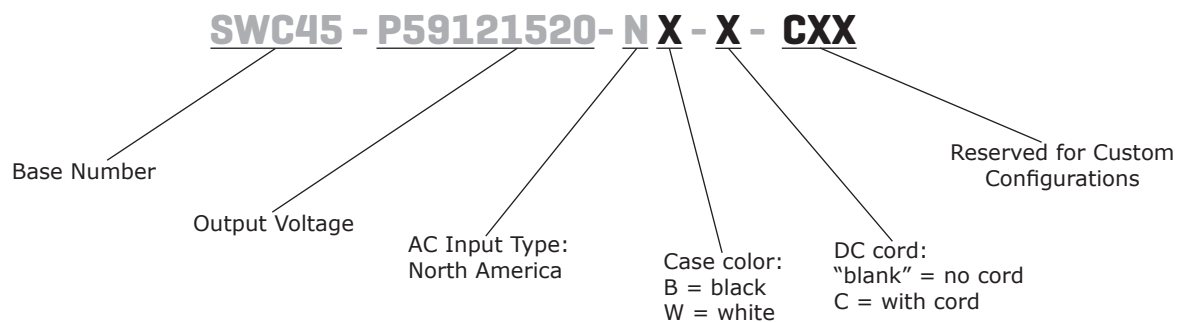
**SERIES:** SWC45-N | **DESCRIPTION:** AC-DC POWER SUPPLY
**FEATURES**

- up to 45 W continuous power
- DoE Level VI compliant
- flip Ac pins
- universal input voltage range
- integrated USB Type C connector
- USB Power Delivery (PD) 3.0
- UL/cUL safety approvals
- Class II construction

**MODEL**

| MODEL             | output<br>voltage | output<br>current<br>max | output<br>power<br>max | ripple<br>and noise <sup>1</sup><br>max | efficiency<br>level <sup>2</sup> |
|-------------------|-------------------|--------------------------|------------------------|-----------------------------------------|----------------------------------|
|                   | (Vdc)             | (A)                      | (W)                    | (mVp-p)                                 |                                  |
| SWC45-P59121520-N | 5                 | 3                        | 15                     | 100                                     | VI                               |
|                   | 9                 | 3                        | 27                     | 120                                     | VI                               |
|                   | 12                | 3                        | 36                     | 150                                     | VI                               |
|                   | 15                | 3                        | 45                     | 200                                     | VI                               |
|                   | 20                | 2.25                     | 45                     | 300                                     | 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.

**PART NUMBER KEY**

## INPUT

| parameter                 | conditions/description                | min | typ | max  | units |
|---------------------------|---------------------------------------|-----|-----|------|-------|
| voltage                   |                                       | 90  |     | 264  | Vac   |
| frequency                 |                                       | 47  |     | 63   | Hz    |
| current                   | at nominal input                      |     |     | 1.5  | A     |
| leakage current           | at nominal AC input and frequency     |     |     | 0.25 | mA    |
| no load power consumption | at 115/230 Vac, 60/50 Hz (5 Vdc mode) |     |     | 0.1  | W     |

## OUTPUT

| parameter         | conditions/description      | min | typ | max | units |
|-------------------|-----------------------------|-----|-----|-----|-------|
| output regulation |                             |     | ±5  |     | %     |
| start-up time     |                             |     |     | 3   | s     |
| rise time         | at nominal input            |     |     | 100 | ms    |
| hold-up time      | at nominal input, full load | 5   |     |     | ms    |

## PROTECTIONS

| parameter                | conditions/description         | min | typ | max  | units |
|--------------------------|--------------------------------|-----|-----|------|-------|
| over voltage protection  | output shutdown, auto recovery |     |     |      |       |
|                          | 5 Vdc output                   |     |     | 8    | Vdc   |
|                          | 9 Vdc output                   |     |     | 11.5 | Vdc   |
|                          | 12 Vdc output                  |     |     | 15   | Vdc   |
|                          | 15 Vdc output                  |     |     | 19   | Vdc   |
|                          | 20 Vdc output                  |     |     | 25   | Vdc   |
| over current protection  | hiccup, auto recovery          |     |     |      |       |
|                          | 20 Vdc output                  |     |     | 3.2  | A     |
|                          | all other outputs              |     |     | 4    | A     |
| short circuit protection | hiccup, auto recovery          |     |     |      |       |

## 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 |
| insulation resistance | input to output at 500 Vdc, 10 mA for 1 minute                  | 20     |                |     | MΩ         |
| safety approvals      | UL/cUL (UL 60950-1)                                             |        |                |     |            |
| EMI/EMC               | FCC Part 15 Class B                                             |        |                |     |            |
| MTBF                  | as per Telcordia SR-332, Issue 2 at 115/230 Vac 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         | 20  |     | 85  | %     |
| storage humidity      | non-condensing         | 5   |     | 90  | %     |

## MECHANICAL

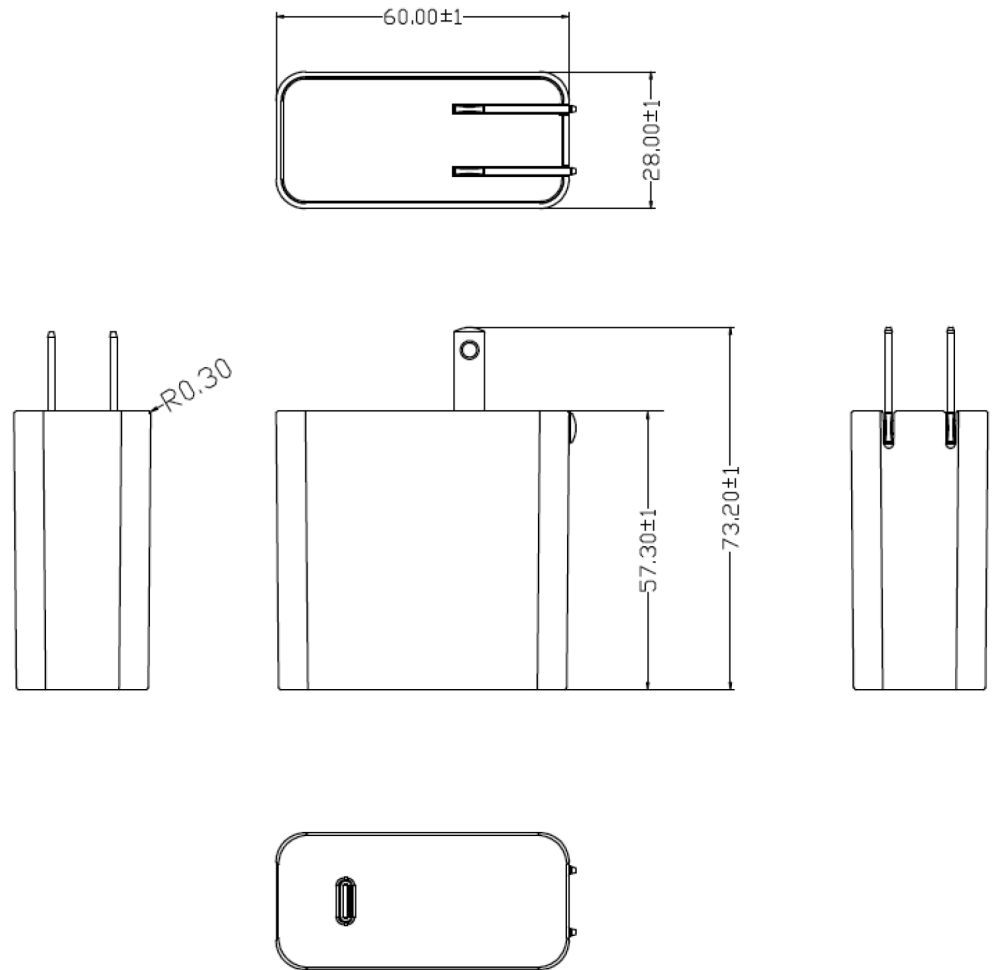
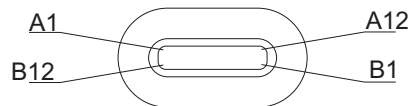
| parameter  | conditions/description              | min | typ | max | units |
|------------|-------------------------------------|-----|-----|-----|-------|
| dimensions | 60 x 28 x 57.3                      |     |     |     | mm    |
| inlet plug | North America, 2-pin (flip AC pins) |     |     |     |       |
| DC output  | USB 3.1 Type C                      |     |     |     |       |
| weight     |                                     |     | 106 |     | g     |

## MECHANICAL DRAWING

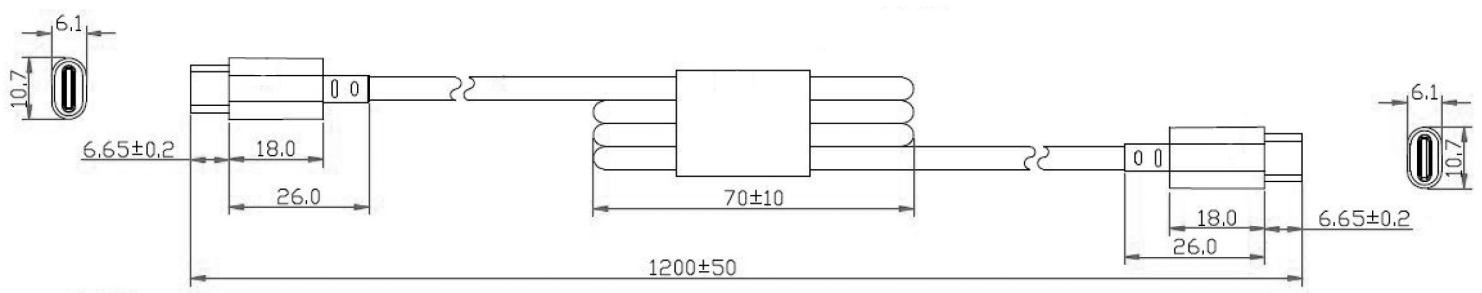
units: mm

| 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              | CC               | B8  | NC               |
| A6              | D+               | B7  | NC               |
| A7              | D-               | B6  | NC               |
| A8              | NC               | B5* | Vconn            |
| A9              | V <sub>BUS</sub> | B4  | V <sub>BUS</sub> |
| A10             | NC               | B3  | NC               |
| A11             | NC               | B2  | NC               |
| A12             | GND              | B1  | GND              |

Note: \*Not present on DC cord



## DC CORD



## REVISION HISTORY

| rev. | description          | date       |
|------|----------------------|------------|
| 1.0  | initial release      | 01/17/2019 |
| 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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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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