CUI INC
a bel group



# **SERIES:** SWI20C-N | **DESCRIPTION:** AC-DC POWER SUPPLY

## FEATURES

- USB PD 3.0; 5V, 15W; 9V, 20W; 12V, 20W
- North America fixed blade input
- USB Type-C output connector
- black or white case
- UL 62368-1; LPS
- FCC and J55032 compliant
- 90~264 Vac input
- 0~40 °C operating temperature
- overcurrent, overvoltage, and short circuit protection
- USB PPS 3.3~11 Vdc

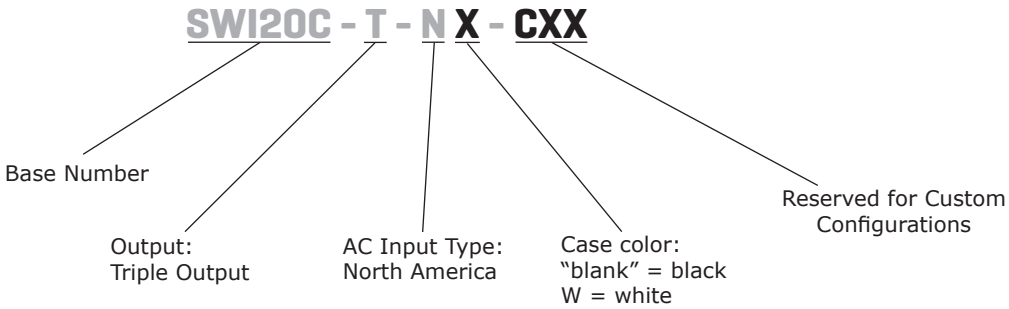
c UL us FC LPS PSE

## MODEL

| MODEL | output voltage (Vdc) | output current max (A) | output power max (W) | ripple and noise[1] max (mVp-p) | efficiency level[2] typ (%) |
|---|---|---|---|---|---|
| SWI20C-N | 5 | 3 | 15 | 300 | 82 |
| | 9 | 2.22 | 20 | 300 | 86 |
| | 12 | 1.66 | 20 | 300 | 86 |

Notes:
1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 μF multilayer ceramic and 10 μF low ESR electrolytic capacitors.
2. Testing at 100%, 75%, 50%, 25% of rated current output and then computing the arithmetic average of these four values.
The efficiency measurement at cable end with 2468 AWG 18, 30 min at full load.

## PART NUMBER KEY



## INPUT

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| voltage | | 90 | 100~240 | 264 | Vac |
| frequency | | 47 | 50~60 | 63 | Hz |
| current | | | | 0.6 | A |
| leakage current | | | | 0.25 | mA |
| no load power consumption | at 230 Vac, 50 Hz | | | 0.075 | W |

## OUTPUT

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| regulation | | | ±5 | | % |
| start-up time | | | | 3 | s |
| rise time | at 90 ~ 264 Vac input voltage | | | 300 | ms |
| hold-up time | at full load | 5 | | | ms |

## PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| over voltage protection | 5 Vdc output<br>9 Vdc output<br>12 Vdc output | | | 10<br>16<br>16 | Vdc<br>Vdc<br>Vdc |
| over current protection | 5 Vdc output<br>9 Vdc output<br>12 Vdc output | | | 4.5<br>3.3<br>2.5 | A<br>A<br>A |
| short circuit protection | 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 |
| isolation resistance | input to output at 500 Vdc | 20 | | | MΩ |
| safety class | class II, LPS | | | | |
| safety approvals | designed to meet 62368-1: UL/CUL<br>designed to meet J62368-1: PSE | | | | |
| EMI/EMC | designed to meet FCC (PART 15 CLASS B, ICES-003 Issue 7 Class B), PSE (J55032) | | | | |
| MTBF | as per Telcordia SR-332 (Issue 2), 25°C | 50,000 | | | hours |
| RoHS | yes | | | | |

## ENVIRONMENTAL

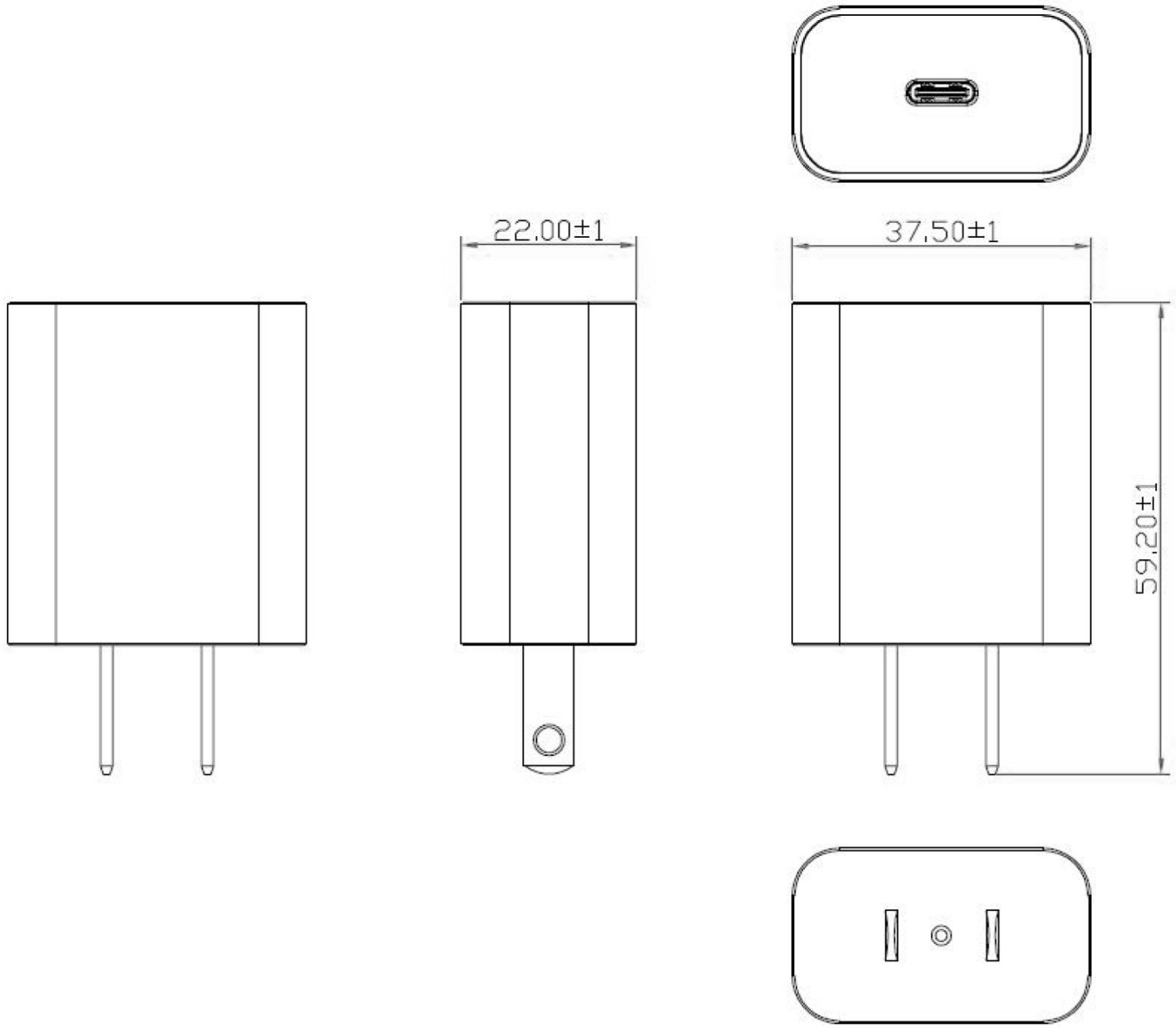
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 60 | °C |
| operating humidity | non-condensing | 20 | | 85 | % |
| storage humidity | non-condensing | 5 | | 90 | % |

## MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| dimensions | 60.2 x 38.5 x 23 | | | | mm |
| inlet plug | North America, 2-pin | | | | |
| weight | | | 43 | | g |

## MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 09/19/2023 |

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.