


**SERIES:** SWI24-N | **DESCRIPTION:** AC-DC POWER SUPPLY

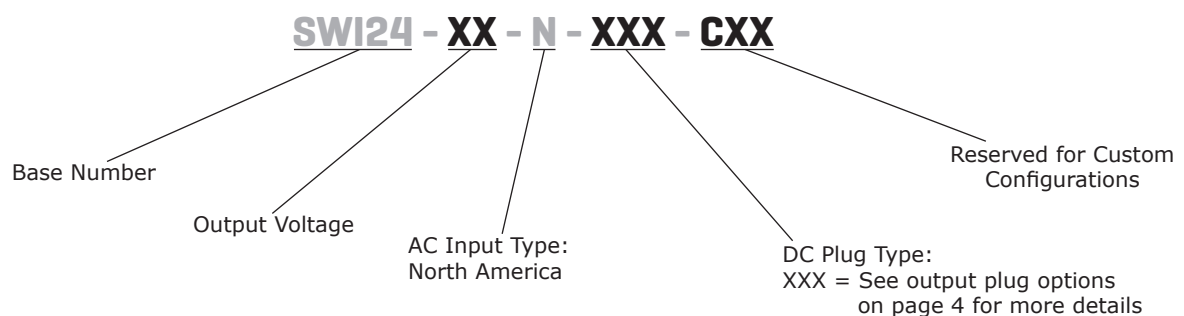
**FEATURES**

- up to 24 W continuous power
- DOE Level VI, CEC, ErP Stage 2
- no load power consumption < 0.1 W
- compact size
- universal input voltage range
- over voltage, over current, and short circuit protections
- UL/cUL, PSE safety approvals
- certified to 60950-1 and 62368-1 standards



| 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 |
|------------|-------------------|--------------------------|------------------------|-----------------------------------------|---------------------|
|            | (Vdc)             | (A)                      | (W)                    | (mVp-p)                                 |                     |
| SWI24-12-N | 12                | 2                        | 24                     | 120                                     | VI                  |
| SWI24-15-N | 15                | 1.6                      | 24                     | 150                                     | VI                  |
| SWI24-24-N | 24                | 1                        | 24                     | 240                                     | VI                  |

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1  $\mu$ F multilayer ceramic and 10  $\mu$ F low ESR electrolytic capacitors.

**PART NUMBER KEY**


## INPUT

| parameter                 | conditions/description                  | min | typ | max  | units |
|---------------------------|-----------------------------------------|-----|-----|------|-------|
| voltage                   |                                         | 90  |     | 264  | Vac   |
| frequency                 |                                         | 47  |     | 63   | Hz    |
| current                   |                                         |     |     | 0.58 | A     |
| inrush current            | at 230 Vac, full load, 25°C, cold start |     |     | 60   | A     |
| leakage current           |                                         |     |     | 0.25 | mA    |
| no load power consumption |                                         |     |     | 0.1  | W     |

## OUTPUT

| parameter    | conditions/description | min | typ | max | units |
|--------------|------------------------|-----|-----|-----|-------|
| regulation   |                        |     | ±5  |     | %     |
| hold-up time | at full load           | 10  |     |     | ms    |

## PROTECTIONS

| parameter                | conditions/description          | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection  | output shut down                |     |     |     |       |
|                          | 12 Vdc output model             |     |     | 22  | Vdc   |
|                          | 15 Vdc output model             |     |     | 32  | Vdc   |
|                          | 24 Vdc output model             |     |     | 45  | Vdc   |
| over current protection  | output shut down, auto recovery |     |     |     |       |
|                          | 12 Vdc output model             |     |     | 5   | A     |
|                          | 15 Vdc output model             |     |     | 4   | A     |
|                          | 24 Vdc output model             |     |     | 2.5 | A     |
| 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 |         | 3,000 |     | Vac   |
| isolation resistance | input to output at 500 Vdc            | 10      |       |     | MΩ    |
| safety approvals     | UL/cUL (60950-1, 62368-1), PSE        |         |       |     |       |
| EMI/EMC              | FCC Part 15B Class B                  |         |       |     |       |
| MTBF                 | as per Telcordia SR-332, 25°C         | 300,000 |       |     | hours |
| RoHS                 | yes                                   |         |       |     |       |

## ENVIRONMENTAL

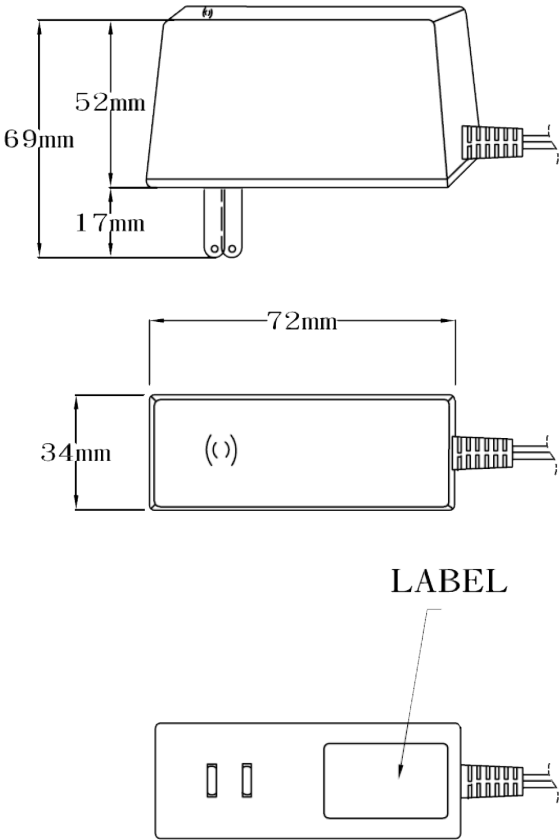
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 40  | °C    |
| storage temperature   |                        | -20 |     | 80  | °C    |
| operating humidity    | non-condensing         | 20  |     | 80  | %     |
| storage humidity      | non-condensing         | 10  |     | 90  | %     |

MECHANICAL

| parameter  | conditions/description | min | typ | max | units |
|------------|------------------------|-----|-----|-----|-------|
| dimensions | 72 x 34 x 69           |     |     |     | mm    |
| inlet plug | North America, 2-pin   |     |     |     |       |
| weight     |                        |     | 148 |     | g     |

MECHANICAL DRAWING

units: mm  
tolerance: ±1.0 mm



DC CORD

units: mm

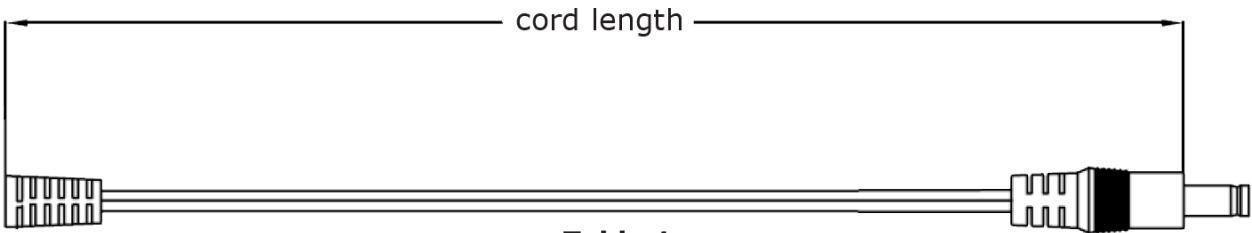


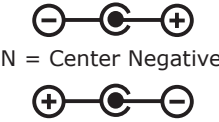
Table 1

| MODEL NO.  | CABLE          | CORD LENGTH  |
|------------|----------------|--------------|
| SWI24-12-N | UL2468, 20 AWG | 1,500 mm ±30 |
| SWI24-15-N | UL2468, 20 AWG | 1,500 mm ±30 |
| SWI24-24-N | UL2468, 22 AWG | 1,500 mm ±30 |

## 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   |

Note: 1. Contact CUI for additional plug options

### Standard



### EIAJ



### Locking



### Stripped & Tinned



## REVISION HISTORY

| rev. | description            | date       |
|------|------------------------|------------|
| 1.0  | initial release        | 08/07/2015 |
| 1.01 | added 62368-1 standard | 08/31/2018 |

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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