



SERIES: SWI18-N | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

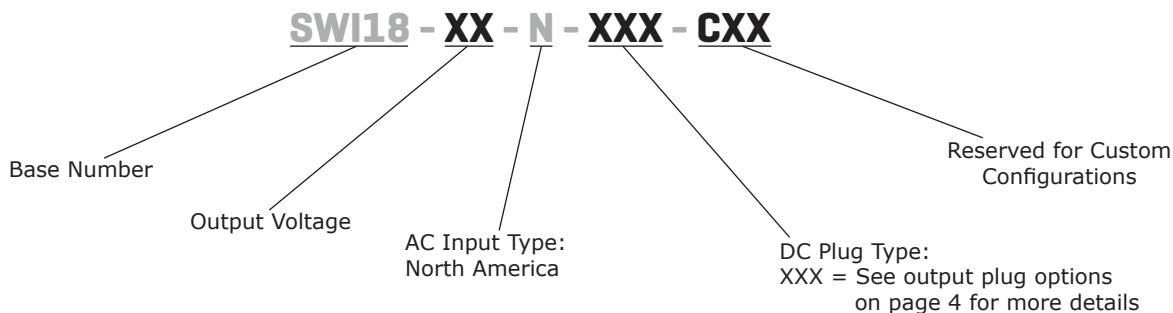
- up to 18 W continuous power
- DOE Level VI, CEC, ErP Stage 2
- no load power consumption < 0.1 W
- compact size
- universal input voltage range
- over voltage, over current, and short circuit protections
- UL/cUL, PSE safety approvals
- certified to 60950-1 and 62368-1 standards



| MODEL | output voltage | output current max | output power max | ripple and noise ¹ max | efficiency level |
|------------|----------------|--------------------|------------------|-----------------------------------|------------------|
| | (Vdc) | (A) | (W) | (mVp-p) | |
| SWI18-5-N | 5 | 3 | 15 | 100 | VI |
| SWI18-9-N | 9 | 2.2 | 19.8 | 100 | VI |
| SWI18-12-N | 12 | 1.6 | 19.2 | 120 | VI |
| SWI18-24-N | 24 | 0.8 | 19.2 | 240 | VI |

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.

PART NUMBER KEY



INPUT

| parameter | conditions/description | min | typ | max | units |
|---------------------------|--|-----|-----|----------|--------|
| voltage | | 90 | | 264 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | | | | 0.48 | A |
| inrush current | at 100 Vac, full load, 25°C, cold start at 230 Vac, full load, 25°C, cold start | | | 50 60 | A A |
| leakage current | | | | 0.25 | mA |
| no load power consumption | at 230 Vac | | | 0.1 | W |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|--------------|--|-----|----------|-----|--------|
| regulation | 5 Vdc output model all other models | | ±6 ±5 | | % % |
| hold-up time | at full load | 10 | | | ms |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|---|-----|-----|----------------------|--------------------------|
| over voltage protection | output shut down 5 Vdc output model 9 Vdc output model 12 Vdc output model 24 Vdc output model | | | 12 16 22 45 | Vdc Vdc Vdc Vdc |
| over current protection | output shut down, auto recovery 5 Vdc output model 9 Vdc output model 12 Vdc output model 24 Vdc output model | | | 7 5 5 2.5 | A A A 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

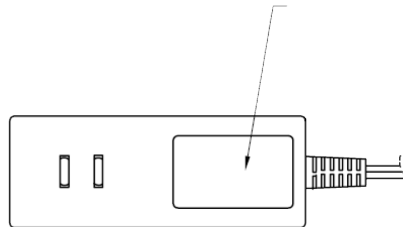
| parameter | conditions/description | min | typ | max | units |
|------------|------------------------|-----|-----|-----|-------|
| dimensions | 72 x 34 x 69 | | | | mm |
| inlet plug | North America, 2-pin | | | | |
| weight | | | 170 | | g |

MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



LABEL



DC CORD

units: mm



Table 1

| MODEL NO. | CABLE | CORD LENGTH |
|------------|----------------|--------------|
| SWI18-5-N | UL2468, 18 AWG | 1,500 mm ±30 |
| SWI18-9-N | UL2468, 18 AWG | 1,500 mm ±30 |
| SWI18-12-N | UL2468, 20 AWG | 1,500 mm ±30 |
| SWI18-24-N | UL2468, 22 AWG | 1,500 mm ±30 |

DC PLUG TYPE PART NUMBER KEY



| 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 | updated datasheet | 01/29/2016 |
| 1.02 | 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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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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