

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

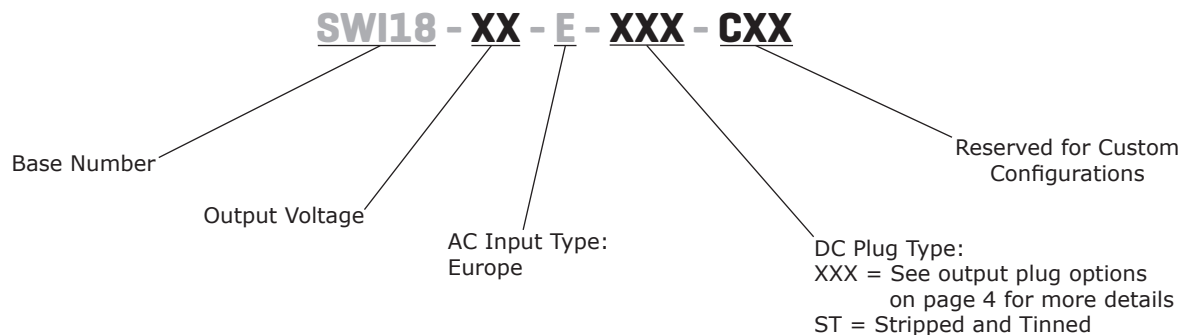
FEATURES

- up to 18 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- no load power consumption < 0.075 W
- compact size
- universal input voltage range
- over voltage, over current, and short circuit protections
- CE safety approvals
- EN 62368 certified



| MODEL | input voltage | input frequency | output voltage | output current | output power | ripple and noise ¹ | efficiency level ² | | no load power consumption |
|------------|---------------|-----------------|----------------|----------------|--------------|-------------------------------|-------------------------------|---------|---------------------------|
| | range (Vac) | range (Hz) | nom (Vdc) | max (A) | max (W) | max (mVp-p) | average ³ (%) | 10% (%) | typ (W) |
| SWI18-5-E | 90 ~ 264 | 47 ~ 63 | 5 | 3.0 | 15.0 | 100 | 82.2 | 79.0 | 0.07 |
| SWI18-9-E | 90 ~ 264 | 47 ~ 63 | 9 | 2.2 | 19.8 | 100 | 86.5 | 80.7 | 0.07 |
| SWI18-12-E | 90 ~ 264 | 47 ~ 63 | 12 | 1.6 | 19.2 | 120 | 85.8 | 80.5 | 0.06 |
| SWI18-24-E | 90 ~ 264 | 47 ~ 63 | 24 | 0.8 | 19.2 | 240 | 87.9 | 82.0 | 0.07 |

Notes: 1. At full load, nominal AC input voltage, 25°C, 20 MHz bandwidth oscilloscope, output terminated with 0.1 μ F and 10 μ F capacitors to ground.
 2. CoC Tier 2 compliant.
 3. Average efficiency is measured at 25%, 50%, 75%, and 100% load.

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 Level VI CoC Tier 2 | | | 0.1 0.075 | W 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 | certified to 62368: EN | | | | |
| EMI/EMC | CE | | | | |
| MTBF | as per Telcordia SR-332, 25°C | 300,000 | | | hours |
| RoHS | 2011/65/EU | | | | |

ENVIRONMENTAL

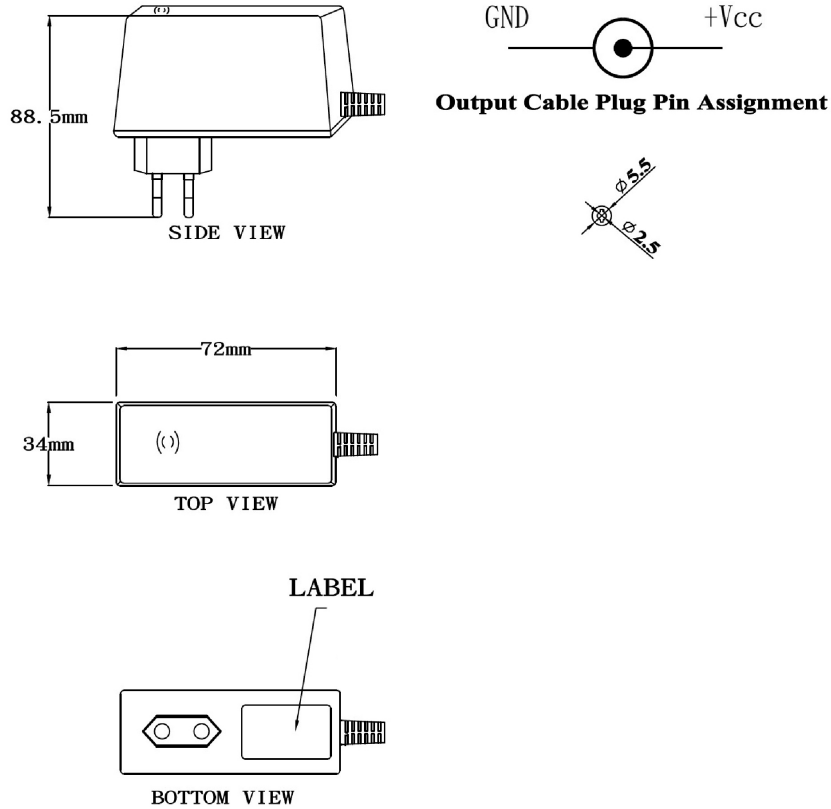
| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 80 | °C |
| operating humidity | non-condensing | 20 | | 80 | % |
| storage humidity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

MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|------------|------------------------|-----|-----|-----|-------|
| dimensions | 72 x 34 x 88.5 | | | | mm |
| inlet plug | Europe | | | | |
| weight | | | 170 | | g |

MECHANICAL DRAWING

units: mm



DC CORD

units: mm

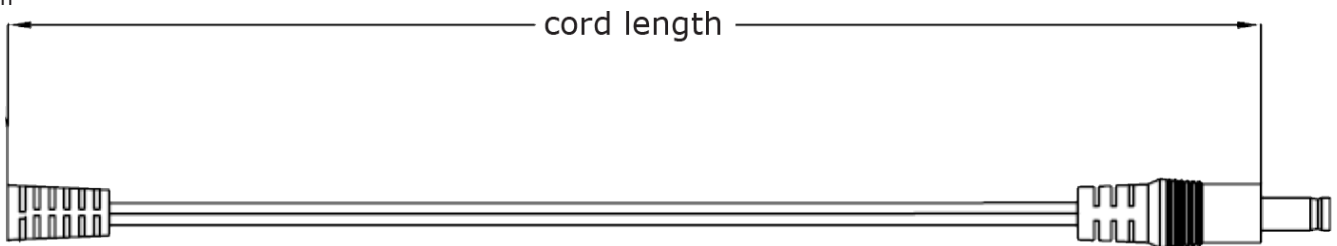
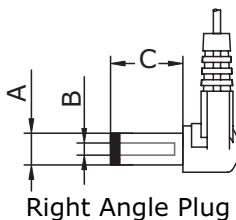
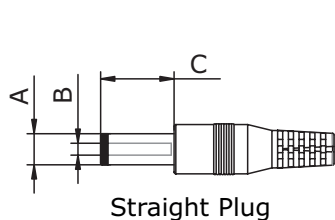


Table 1

| MODEL NO. | CABLE | CORD LENGTH |
|------------|----------------|-------------------|
| SWI18-5-E | UL2468, 16 AWG | 1,500 mm \pm 30 |
| SWI18-9-E | UL2468, 18 AWG | 1,500 mm \pm 30 |
| SWI18-12-E | UL2468, 20 AWG | 1,500 mm \pm 30 |
| SWI18-24-E | UL2468, 22 AWG | 1,500 mm \pm 30 |

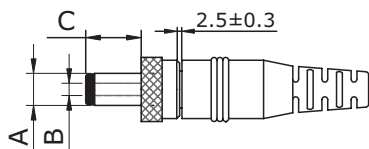
OUTPUT PLUG OPTIONS

Standard DC Plug



| Size | A | B | C | Unit |
|------|-----|------|-----|------|
| 5 | 5.5 | 2.1 | 9.5 | mm |
| 6 | 5.5 | 2.5 | 9.5 | mm |
| 7 | 3.5 | 1.35 | 9.5 | mm |
| 8 | 3.8 | 1.35 | 9.5 | mm |
| 9 | 3.8 | 1.05 | 9.5 | mm |

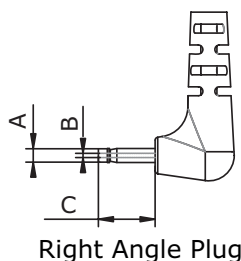
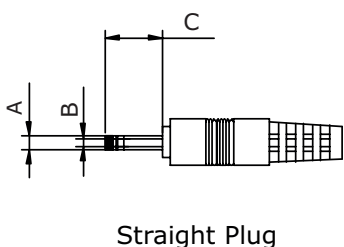
Locking DC Plug



| Size | A | B | C | Unit |
|------|-----|-----|-----|------|
| 10 | 5.5 | 2.1 | 9.5 | mm |
| 11 | 5.5 | 2.5 | 9.5 | mm |

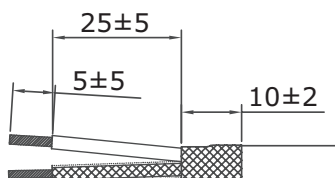
Note: Maximum insertion depth is 10mm

EIAJ DC Plug

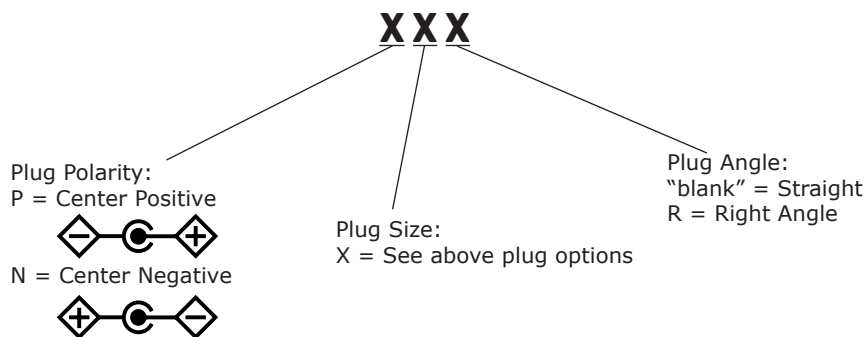


| Size | EIAJ | A | B | C | Unit |
|------|--------|------|-----|-----|------|
| 12 | EIAJ-1 | 2.35 | 0.7 | 9.5 | mm |
| 13 | EIAJ-2 | 4.0 | 1.7 | 9.5 | mm |
| 14 | EIAJ-3 | 4.75 | 1.7 | 9.5 | mm |

Stripped and Tinned



DC Plug Type



*Contact CUI for additional plug options

REVISION HISTORY

| rev. | description | date |
|------|---|------------|
| 1.0 | initial release | 08/07/2015 |
| 1.01 | updated datasheet | 05/18/2016 |
| 1.02 | changed wire gauge on 5 Vdc models, updated datasheet | 09/15/2016 |
| 1.03 | drawing update | 07/13/2020 |
| 1.04 | 62368 added to safety approvals | 09/09/2020 |
| 1.05 | model table updated | 11/27/2020 |
| 1.06 | plug polarity symbols updated | 09/16/2021 |
| 1.07 | dc plugs updated | 04/29/2022 |

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.