

SERIES: SMI6 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- DoE Level VI, CoC Tier 2 efficiency
- up to 6 W power
- interchangeable AC blades
- universal input (90~264 Vac)
- single regulated output from 5~15 Vdc
- over voltage and short circuit protections
- UL/cUL, GS, RCM, CCC, PSE safety approvals
- custom designs available



| MODEL | output voltage | output current max | output power max | ripple and noise ¹ max | efficiency level ² |
|-----------|----------------|--------------------|------------------|-----------------------------------|-------------------------------|
| | (Vdc) | (A) | (W) | (mVp-p) | |
| SMI6-5 | 5 | 1.2 | 6 | 150 | VI |
| SMI6-5.95 | 5.95 | 1 | 6 | 150 | VI |
| SMI6-9 | 9 | 0.67 | 6 | 150 | VI |
| SMI6-12 | 12 | 0.5 | 6 | 200 | VI |
| SMI6-15 | 15 | 0.4 | 6 | 200 | VI |

Notes: 1. At full load, 100-240 Vac input, 20 MHz bandwidth oscilloscope, output terminated with 0.1 µF ceramic and 10 µF electrolytic capacitors.
 2. CoC Tier 2 compliant

PART NUMBER KEY



INPUT

| parameter | conditions/description | min | typ | max | units |
|---------------------------|------------------------|-----|-----|-------|-------|
| voltage | | 90 | | 264 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | | | | 0.3 | A |
| leakage current | | | | 0.25 | mA |
| no load power consumption | | | | 0.075 | W |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|-----------------|--|-----|----------|-----|--------|
| line regulation | | | ±1 | | % |
| load regulation | 5 Vdc output model all other models | | ±6 ±5 | | % % |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection | output shut down, auto recovery | | | | |
| 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 4,242 | | Vac Vdc |
| isolation resistance | input to output at 500 Vdc | 100 | | | MΩ |
| safety approvals | UL/cUL, GS, RCM, CCC, PSE | | | | |
| EMI/EMC | FCC Part 15B Class B, CE | | | | |
| RoHS | yes | | | | |

ENVIRONMENTAL

| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -10 | | 70 | °C |
| operating humidity | non-condensing | 20 | | 80 | % |
| storage humidity | non-condensing | 10 | | 90 | % |

MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|------------|--|-----|------|-----|-------|
| dimensions | 64 x 40.5 x 30 | | | | mm |
| inlet plug | interchangeable blades (North America, Europe, UK, Australia, China) | | | | |
| weight | 5.95 Vdc model (without interchangeable blades) | | 69 | | g |
| | all other models (without interchangeable blades) | | 68.5 | | g |

MECHANICAL DRAWING

units: mm
tolerance: ±1 mm



| INTERCHANGEABLE BLADES | | | | | |
|------------------------|---------------|----------|----------|-----------|----------|
| BLADE DESIGNATOR | N | E | B | A | C |
| REGION | North America | Europe | UK | Australia | China |
| BLADE ACCESSORY | SMI-US-1 | SMI-EU-1 | SMI-UK-1 | SMI-AU-1 | SMI-CN-1 |
| BLADE | | | | | |

DC CORD

units: mm

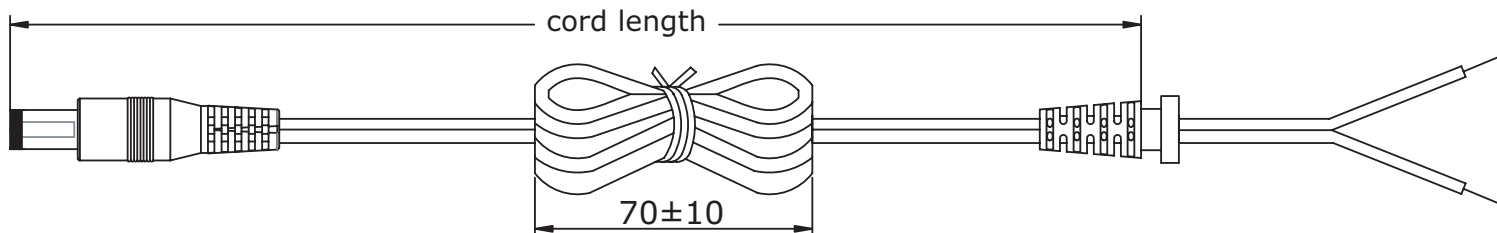


Table 1

| MODEL NO. | CABLE | CORD LENGTH |
|-----------|----------------|---------------|
| SMI6-5 | UL2468, 20 AWG | 1,530 mm ±100 |
| SMI6-5.95 | UL2468, 20 AWG | 1,530 mm ±100 |
| SMI6-9 | UL2468, 22 AWG | 1,530 mm ±100 |
| SMI6-12 | UL2468, 22 AWG | 1,530 mm ±100 |
| SMI6-15 | UL2468, 22 AWG | 1,530 mm ±100 |

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 |

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 | 07/01/2015 |
| 1.01 | updated datasheet | 02/08/2016 |
| 1.02 | updated datasheet | 09/14/2016 |
| 1.03 | Australia blade housing changed, and blade orientation rotated 90 degrees | 10/02/2018 |

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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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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