

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









09/15/2016

page 1 of 5

DESCRIPTION: AC-DC POWER SUPPLY **SERIES:** SMI24

FEATURES

- up to 24 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- no load power consumption < 0.075 W
- universal input voltage range
- interchangeable Ac blades for global use
- over voltage, over current, and short circuit protections
- UL/cUL, RCM, CCC, and PSE safety approvals











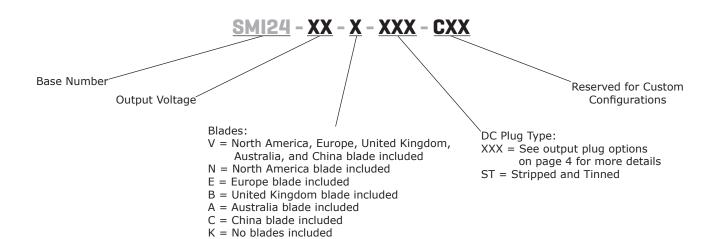


| MODEL | output voltage | output current | output power | ripple and noise¹ | efficiency level ² |
|----------|-------------------|-------------------|-----------------|-----------------------|----------------------------------|
| | (Vdc) | max (A) | max (W) | max (mVp-p) | |
| SMI24-5 | 5 | 4 | 20 | 100 | VI |
| SMI24-9 | 9 | 2.5 | 22.5 | 100 | VI |
| SMI24-12 | 12 | 2 | 24 | 120 | VI |
| SMI24-15 | 15 | 1.6 | 24 | 150 | VI |
| SMI24-24 | 24 | 1 | 24 | 240 | VI |
| SMI24-48 | 48 | 0.5 | 24 | 480 | VI |

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. Notes:

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 | | | | 0.58 | А |
| 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 |

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 mi | | typ | max | units |
|--------------------------|---------------------------------|--|-----|-----|-------|
| | output shut down | | | | |
| | 5 Vdc output model | | | 12 | Vdc |
| | 9 Vdc output model | | | 16 | Vdc |
| over voltage protection | 12 Vdc output model | | | 22 | Vdc |
| . | 15 Vdc output model | | | 32 | Vdc |
| | 24 Vdc output model | | | 45 | Vdc |
| | 48 Vdc output model | | | 75 | Vdc |
| | output shut down, auto recovery | | | | |
| | 5 Vdc output model | | | 8 | Α |
| | 9 Vdc output model | | | 5 | Α |
| over current protection | 12 Vdc output model | | | 5 | Α |
| · | 15 Vdc output model | | | 4 | Α |
| | 24 Vdc output model | | | 2.5 | Α |
| | 48 Vdc output model | | | 1.2 | Α |
| 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, RCM, CCC, PSE | | | | |
| EMI/EMC | FCC Part 15B Class B, 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 | % |

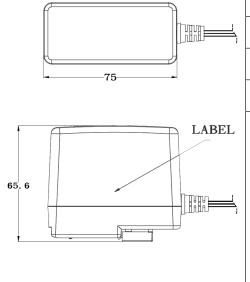
MECHANICAL

| parameter | conditions/description | min | typ | max | units | |
|------------|--|--|-----|-----|-------|--|
| dimensions | 75 x 35.8 x 65.6 | | | | mm | |
| inlet plug | interchangeable blades (North America, Eur | interchangeable blades (North America, Europe, UK, Australia, China) | | | | |
| weight | without blades 170 | | | g | | |

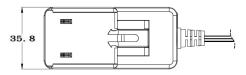
MECHANICAL DRAWING

units: mm

tolerance: ±0.5 mm

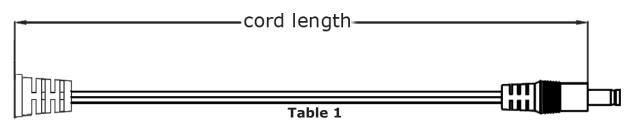


| ſ | | | | | | | | |
|---|------------------------|------------------|----------|----------|-----------|----------|--|--|
| | INTERCHANGEABLE BLADES | | | | | | | |
| | BLADE DESIGNATOR | N | Е | В | Α | С | | |
| | REGION | North America | Europe | UK | Australia | China | | |
| | BLADE ACCESSORY | SMI-US-2 | SMI-EU-2 | SMI-UK-2 | SMI-AU-2 | SMI-CN-2 | | |
| | BLADE | | | | | | | |



DC CORD

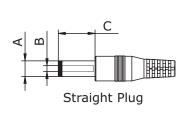
units: mm

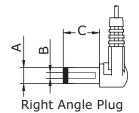


| MODEL NO. | CABLE | CORD LENGTH |
|-----------|----------------|--------------|
| SMI24-5 | UL2468, 18 AWG | 1,000 mm ±30 |
| SMI24-9 | UL2468, 18 AWG | 1,500 mm ±30 |
| SMI24-12 | UL2468, 20 AWG | 1,500 mm ±30 |
| SMI24-15 | UL2468, 20 AWG | 1,500 mm ±30 |
| SMI24-24 | UL2468, 22 AWG | 1,500 mm ±30 |
| SMI24-48 | UL2468, 22 AWG | 1,500 mm ±30 |

OUTPUT PLUG OPTIONS

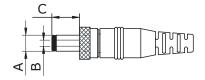
Standard DC Plug





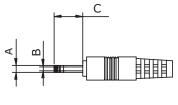
| Size | А | В | С | Unit |
|------|-----|------|-----|------|
| 5 | 5.5 | 2.1 | 9.5 | mm |
| 6 | 5.5 | 2.5 | 9.5 | mm |
| 7 | 3.5 | 1.35 | 9.5 | mm |
| 8 | 3.8 | 1.35 | 9.5 | mm |
| 9 | 3.8 | 1.05 | 9.5 | mm |

Locking DC Plug

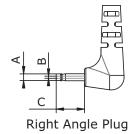


| Size | А | В | С | Unit |
|------|-----|-----|-----|------|
| 10 | 5.5 | 2.1 | 9.5 | mm |
| 11 | 5.5 | 2.5 | 9.5 | mm |

EIAJ DC Plug

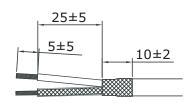




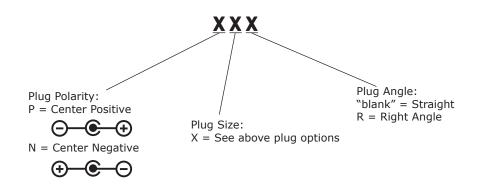


| Size | EIAJ | Α | В | С | Unit |
|------|--------|------|-----|-----|------|
| 12 | EIAJ-1 | 2.35 | 0.7 | 9.5 | mm |
| 13 | EIAJ-2 | 4.0 | 1.7 | 9.5 | mm |
| 14 | EIAJ-3 | 4.75 | 1.7 | 9.5 | mm |

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 | 11/04/2015 |
| 1.02 | housing width changed to 35.8 mm | 01/27/2016 |
| 1.03 | updated datasheet | 09/15/2016 |

The revision history provided is for informational purposes only and is believed to be accurate.



Headquarters 20050 SW 112th Ave. Tualatin, OR 97062 800.275.4899

Fax 503.612.2383 cui.com techsupport@cui.com

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.