

SERIES: SDI40-U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 40 W continuous power
- DoE Level VI, CoC Tier 2 efficiency
- universal input voltage range
- compact size
- no load power consumption < 0.075 W
- over voltage and short circuit protections
- UL/cUL, GS, and 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) | |
| SDI40-12-U | 12 | 3 | 36 | 200 | VI |
| SDI40-15-U | 15 | 2.7 | 40.5 | 200 | VI |
| SDI40-19-U | 19 | 2.1 | 40 | 300 | VI |
| SDI40-24-U | 24 | 1.7 | 40.8 | 300 | VI |

Notes: 1. Measured at 100~240 Vac input, full load, 20 MHz bandwidth oscilloscope, output terminated with a 10 μF aluminum electrolytic and 0.1 μF ceramic capacitor.
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 | | | | 1 | A |
| leakage current | | | | 3.5 | mA |
| no load power consumption | | | | 0.075 | W |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|-----------------|------------------------|-----|-----|-----|-------|
| load regulation | | | ±5 | | % |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection | 12 Vdc output model | | | 16 | Vdc |
| | 15 Vdc output model | | | 22 | Vdc |
| | 19 Vdc output model | | | 27 | Vdc |
| | 24 Vdc output model | | | 32 | Vdc |
| over current protection | 12 Vdc output model | | | 5 | A |
| | 15 Vdc output model | | | 4.3 | A |
| | 19 Vdc output model | | | 5 | A |
| | 24 Vdc output model | | | 2.8 | 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 | | 1,500 2,121 | | Vac Vdc |
| isolation resistance | input to output at 500 Vdc | 100 | | | MΩ |
| safety approvals | UL/cUL, GS, PSE | | | | |
| EMI/EMC | FCC Part 15B Class B, CE | | | | |
| RoHS | 2011/65/EU | | | | |

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 | 111 x 52 x 32.3 | | | | mm |
| inlet plug | IEC320/C14 | | | | |
| weight | without AC cord | | 247 | | g |
| | with AC cord | | 396 | | g |

MECHANICAL DRAWING

units: mm



Note: 1. LED indicator is not present on 24 Vdc output model.

DC CORD

units: mm



Table 1

| MODEL NO. | CABLE | CORD LENGTH |
|------------|----------------|---------------|
| SDI40-12-U | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI40-15-U | UL2468, 16 AWG | 1,530 mm ±100 |
| SDI40-19-U | UL2468, 18 AWG | 1,530 mm ±100 |
| SDI40-24-U | UL2468, 18 AWG | 1,530 mm ±100 |

AC CORD

units: mm



NORTH AMERICA



EUROPE



UNITED KINGDOM



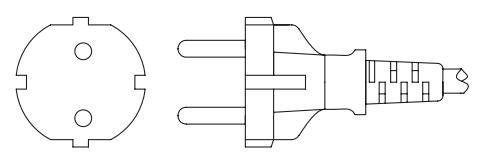
AUSTRALIA



CHINA



SOUTH KOREA



BRAZIL



SOUTH AFRICA



JAPAN

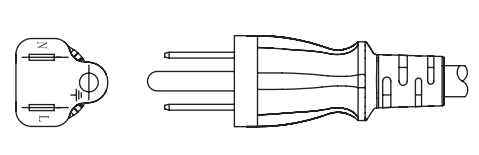


Table 2

| AC INPUT | CORD LENGTH |
|----------------|--------------|
| North America | 1,830 mm ±30 |
| Europe | 1,830 mm ±30 |
| United Kingdom | 1,830 mm ±30 |
| Australia | 1,830 mm ±30 |
| China | 1,830 mm ±30 |
| South Korea | 1,830 mm ±50 |
| Brazil | 1,830 mm ±30 |
| South Africa | 1,830 mm ±50 |
| Japan | 1,830 mm ±30 |

DC PLUG TYPE PART NUMBER KEY



Note: 1. Contact CUI for additional plug options



REVISION HISTORY

| rev. | description | date |
|------|-------------------|------------|
| 1.0 | initial release | 09/27/2016 |
| 1.01 | updated datasheet | 03/14/2018 |
| 1.02 | updated datasheet | 04/23/2018 |
| 1.03 | drawing update | 06/19/2020 |

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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