



SERIES: SDI250-U | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

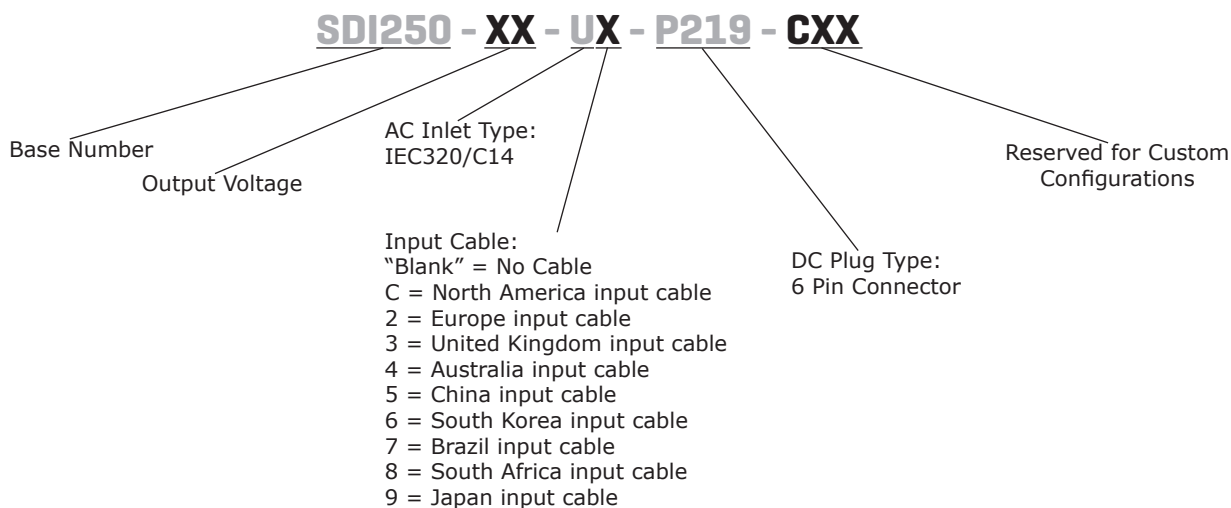
- level VI efficiency
- 250 W power
- universal input (90~264 Vac)
- single regulated outputs
- over voltage and short circuit protections
- UL/cUL (60950-1 & 62368-1), PSE safety approvals
- power factor correction
- custom designs available



| MODEL | output voltage | output current max | output power max | ripple and noise ¹ max | efficiency level |
|-------------|----------------|--------------------|------------------|-----------------------------------|------------------|
| | (Vdc) | (A) | (W) | (mVp-p) | |
| SDI250-12-U | 12 | 20 | 240 | 120 | VI ² |
| SDI250-19-U | 19 | 13.2 | 250 | 190 | VI |
| SDI250-24-U | 24 | 10.4 | 250 | 240 | VI ² |
| SDI250-48-U | 48 | 5.2 | 250 | 480 | VI |
| SDI250-56-U | 56 | 4.48 | 250 | 560 | VI |

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, output terminated with 0.1 μF multilayer ceramic and 10 μF low ESR 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 | | | | 3.3 | A |
| inrush current | at 230 Vac, full load, 25°C, cold start | | | 120 | A |
| leakage current | | | | 3.5 | mA |
| power factor correction | at full load | 0.9 | | | |
| no load power consumption | 12, 24 Vdc output models all other models | | | 0.15 0.21 | W W |

OUTPUT

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

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|-----------------------------|---------------------------------|-----|-----|-----|-------|
| over voltage protection | output latch | | | 150 | % |
| over current protection | output shut down, auto recovery | | | 150 | % |
| short circuit protection | output shut down | | | | |
| over temperature protection | output latch | | | | |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units |
|----------------------|--|----------|----------------|-----|------------|
| isolation voltage | input to output at 10 mA for 1 minute input to ground at 10 mA for 1 minute | | 3,000 1,500 | | Vac Vac |
| isolation resistance | input to output at 500 Vdc input to ground at 500 Vdc | 10 10 | | | MΩ MΩ |
| safety approvals | UL/cUL (60950-1, 62368-1), PSE | | | | |
| EMI/EMC | FCC Part 15B Class B, CE | | | | |
| MTBF | as per Telcordia SR-332, 25°C | 300,000 | | | hours |
| RoHS | yes | | | | |

ENVIRONMENTAL

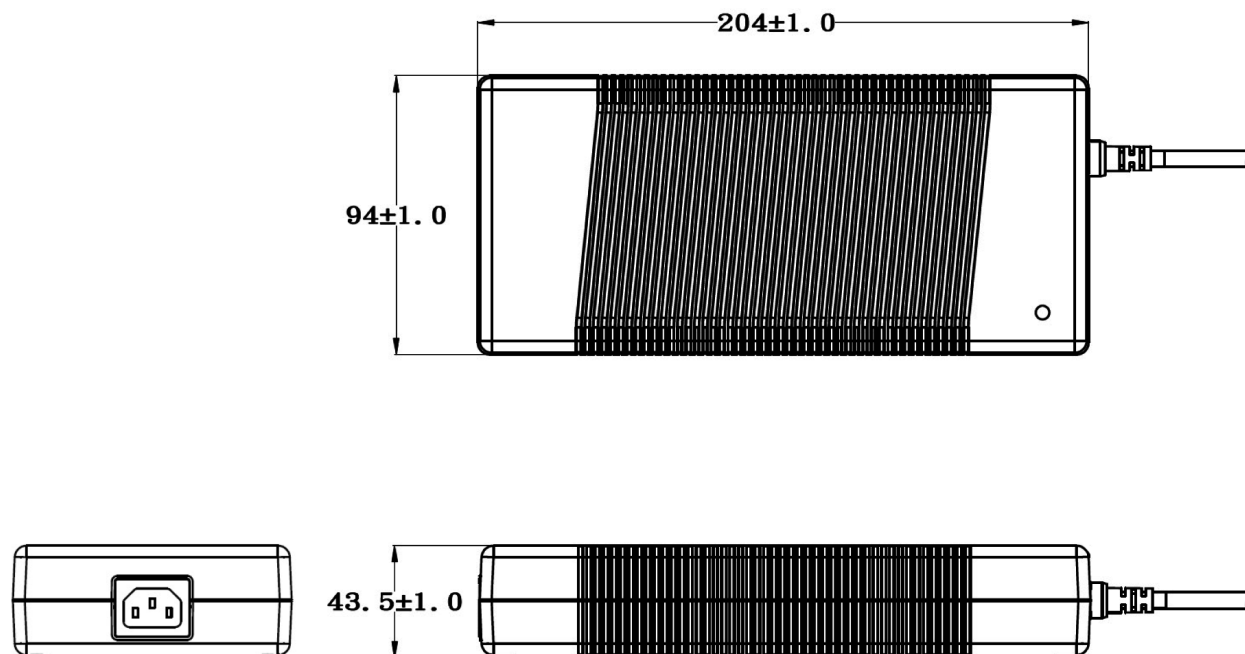
| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 80 | °C |
| operating humidity | non-condensing | 20 | | 80 | % |
| storage humidity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

MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|------------|---|-----|-------|-----|-------|
| dimensions | 204.0 x 94.0 x 43.5 | | | | mm |
| inlet plug | IEC320/C14 | | | | |
| weight | without ac cord: 12 Vdc output model | | 1,110 | | g |
| | without ac cord: 19, 24 Vdc output models | | 1,040 | | g |
| | without ac cord: 48, 56 Vdc output models | | 1,020 | | g |

MECHANICAL DRAWING

units: mm
tolerance: ±1.0 mm



DC CORD

units: mm

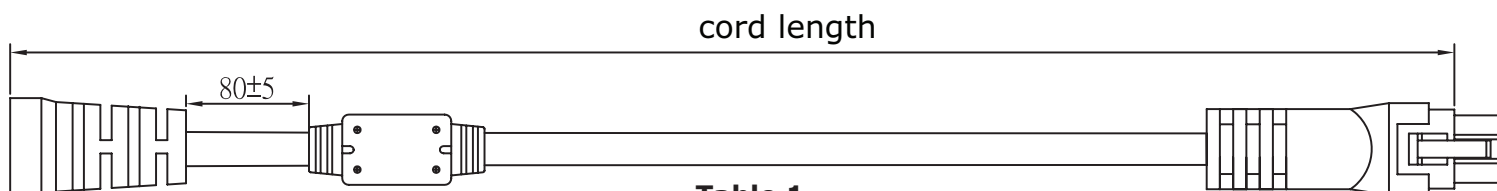
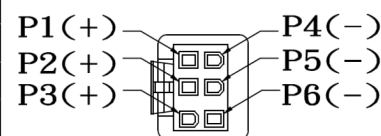


Table 1

Plug: Molex 39-01-2060

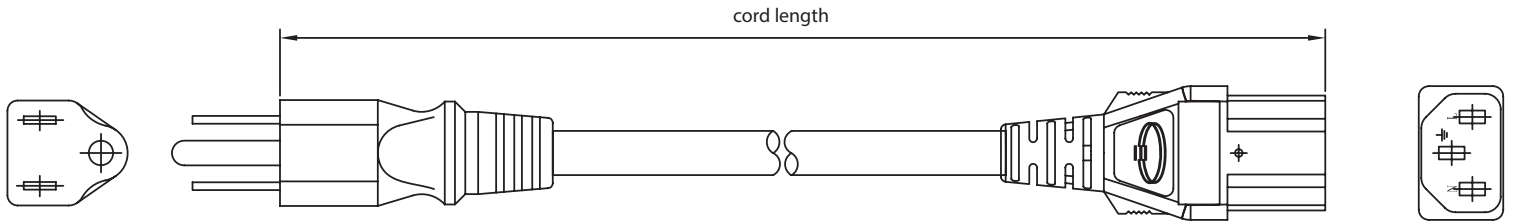
| MODEL NO. | CABLE | CORD LENGTH |
|--------------------------|--------------------|--------------|
| SDI250-12-U | UL2464, 16 AWG, 6C | 1,200 mm ±30 |
| SDI250-19-U ³ | UL2464, 16 AWG, 4C | 1,200 mm ±30 |
| SDI250-24-U ³ | UL2464, 16 AWG, 4C | 1,200 mm ±30 |
| SDI250-48-U ³ | UL2464, 18 AWG, 4C | 1,200 mm ±30 |
| SDI250-56-U ³ | UL2464, 18 AWG, 4C | 1,200 mm ±30 |



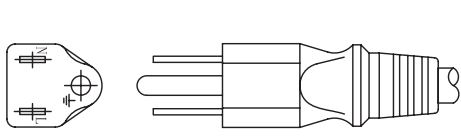
Note: 3. P2 and P5 are not connected on 19, 24, 48, and 56 Vdc output models.

AC CORD

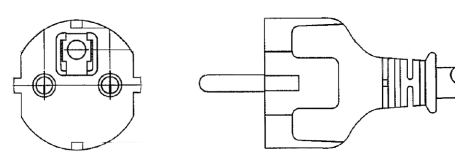
units: mm



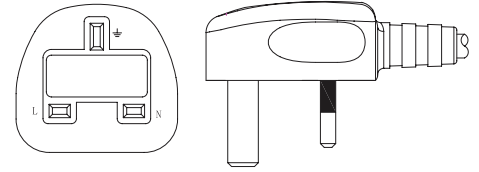
NORTH AMERICA



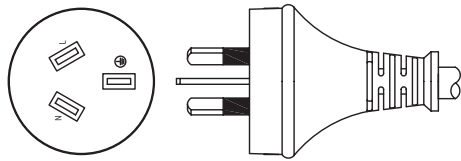
EUROPE



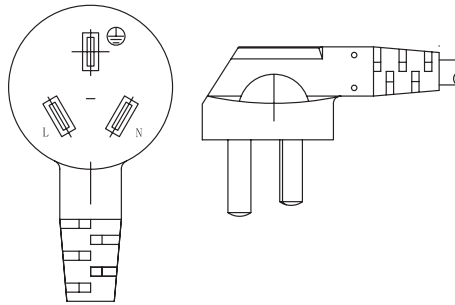
UNITED KINGDOM



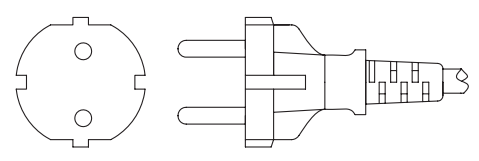
AUSTRALIA



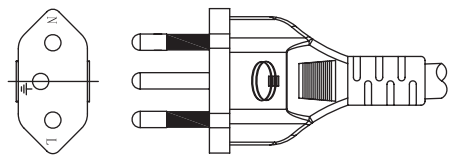
CHINA



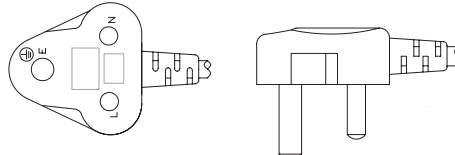
SOUTH KOREA



BRAZIL



SOUTH AFRICA



JAPAN

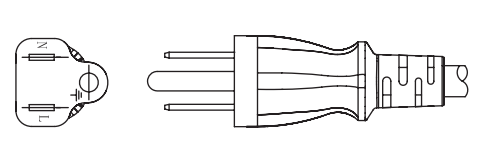


Table 2

| 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 |

REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 08/28/2018 |

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.

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.

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