# **SERIES:** SDI160G-UD | **DESCRIPTION:** AC-DC POWER SUPPLY

## FEATURES

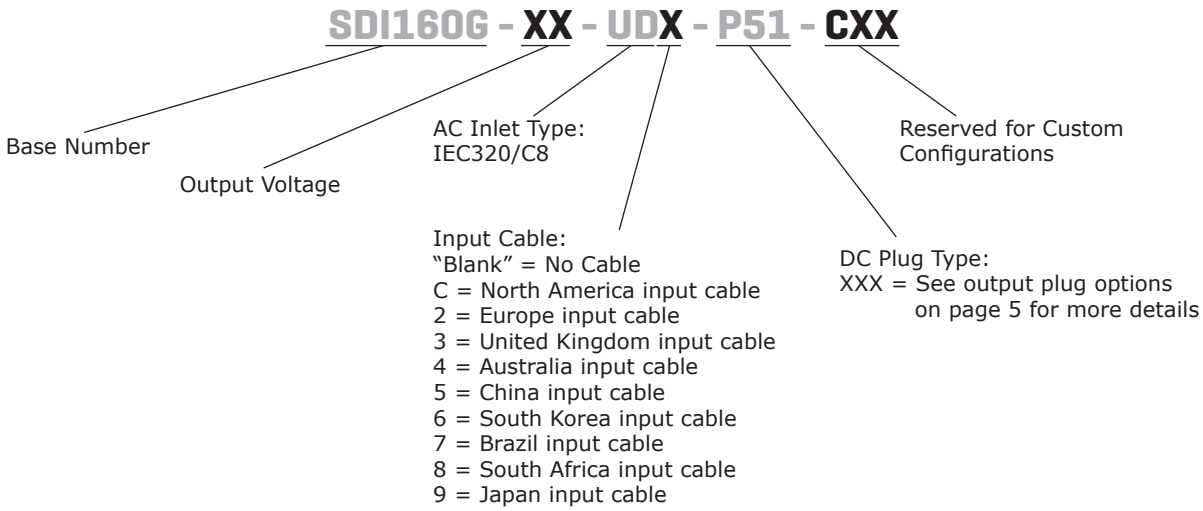
- up to 160 W continuous power
- gallium nitride (GaN) technology
- universal input (90~264 Vac)
- over voltage, over current, over temperature and short circuit protections
- IEC 62368-1 compliant
- power factor correction
- compact design
- custom design available




| MODEL | output voltage (Vac) | output current max (A) | output power max (W) | ripple and noise[1] max (mVp-p) | efficiency[2] typ (%) |
|---|---|---|---|---|---|
| SDI160G-12-UD-P51 | 12 | 12.5 | 150 | 120 | 90 |
| SDI160G-19-UD-P51 | 19 | 8.4 | 160 | 190 | 90 |
| SDI160G-24-UD-P51 | 24 | 6.6 | 160 | 240 | 90 |
| SDI160G-48-UD-P51 | 48 | 3.3 | 160 | 480 | 90 |
| SDI160G-56-UD-P51 | 56 | 2.86 | 160 | 560 | 90 |

Notes: 1. Ripple & noise measurement, use a 20 MHz bandwidth frequency oscilloscope and add 0.1 µF ceramic and 10 µF electrolytic capacitor at output terminals.
2. Average efficiency measured at 25, 50, 75 & 100% load.

## PART NUMBER KEY






Please read our datasheet & drawing disclaimer here.

## INPUT

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| voltage | | 90 | 100~240 | 264 | Vac |
| frequency | | 47 | 50~60 | 63 | Hz |
| current | at full load | | | 2.2 | A |
| inrush current | at 230 Vac, full load, 25°C, cold start | | | 100 | A |
| leakage current | | | 0.25 | | mA |
| power factor correction | at 115 Vac & 230 Vac, at full load | 0.9 | | | |
| no load power consumption | at 115 Vac, 230 Vac & no load | | | 0.15 | W |

## OUTPUT

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

## PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| over voltage protection | shut down, latch | | | 180 | % |
| over current protection | shut down, auto recover | | | 180 | % |
| short circuit protection | shut down, auto recover | | | | % |

## SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| isolation voltage | input to output | 3000 | | | Vac |
| isolation resistance | primary to secondary, 500 Vdc | | | 10 | MΩ |
| safety approvals | UL & CUL, UKCA | | | | |
| EMI/EMC | CE / FCC Class B | | | | |
| MTBF | as per Telcordia SR-332, 25°C | 300,000 | | | hours |

## ENVIRONMENTAL

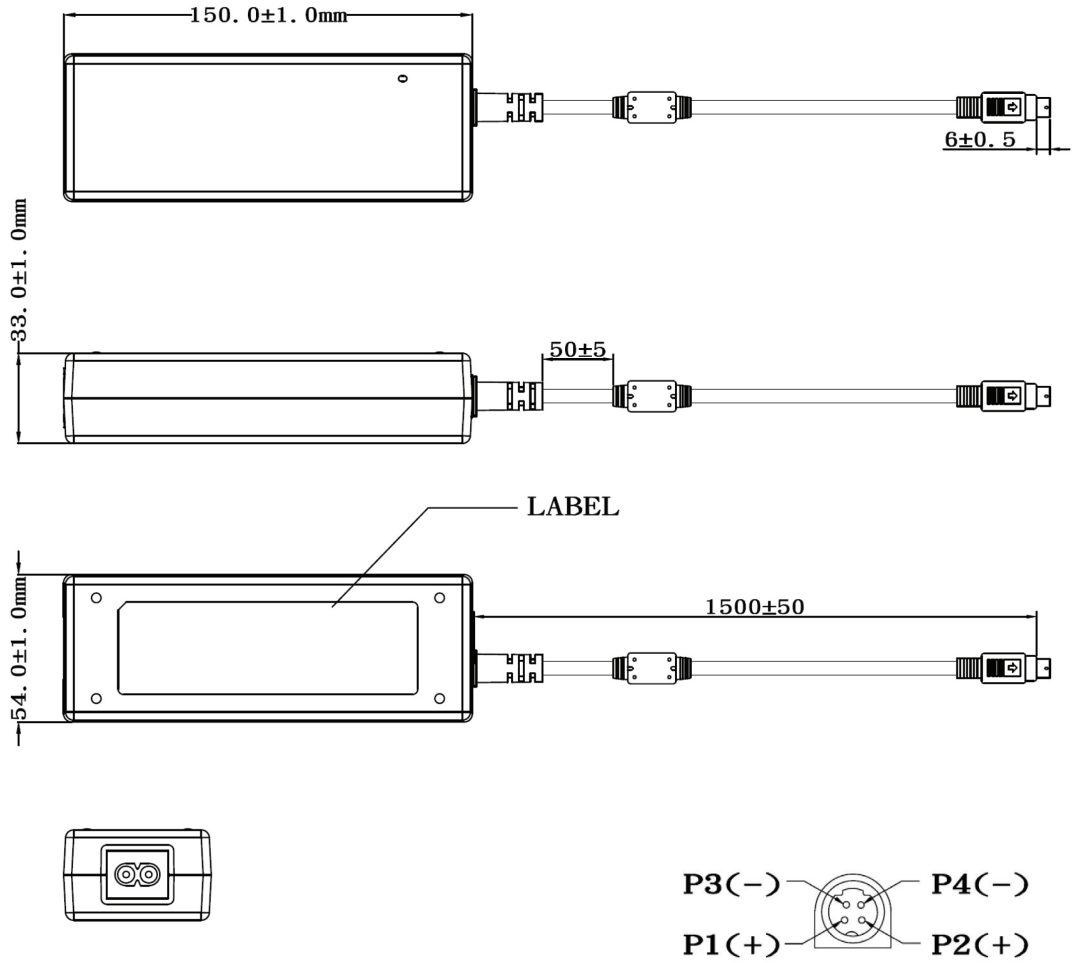
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| operating temperature | | 0 | | 40 | °C |
| storage temperature | | -20 | | 80 | °C |
| operating humidity | non-condensing | 20 | | 80 | % |
| storage humidity | non-condensing | 10 | | 90 | % |

## MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| dimensions | 150 x 54 x 33 | | | | mm |
| weight | | | 495 | | g |
| cooling | by natural air | | | | |

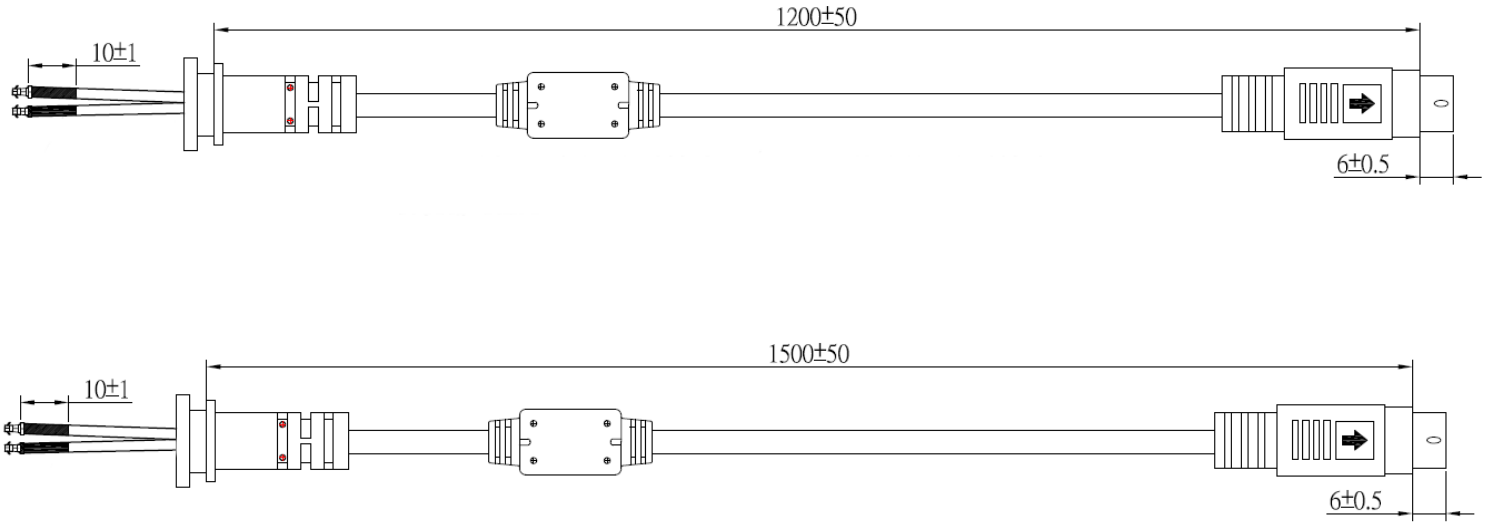
## MECHANICAL DRAWING

units: mm
tolerance: ±0.1 mm



## DC CORD

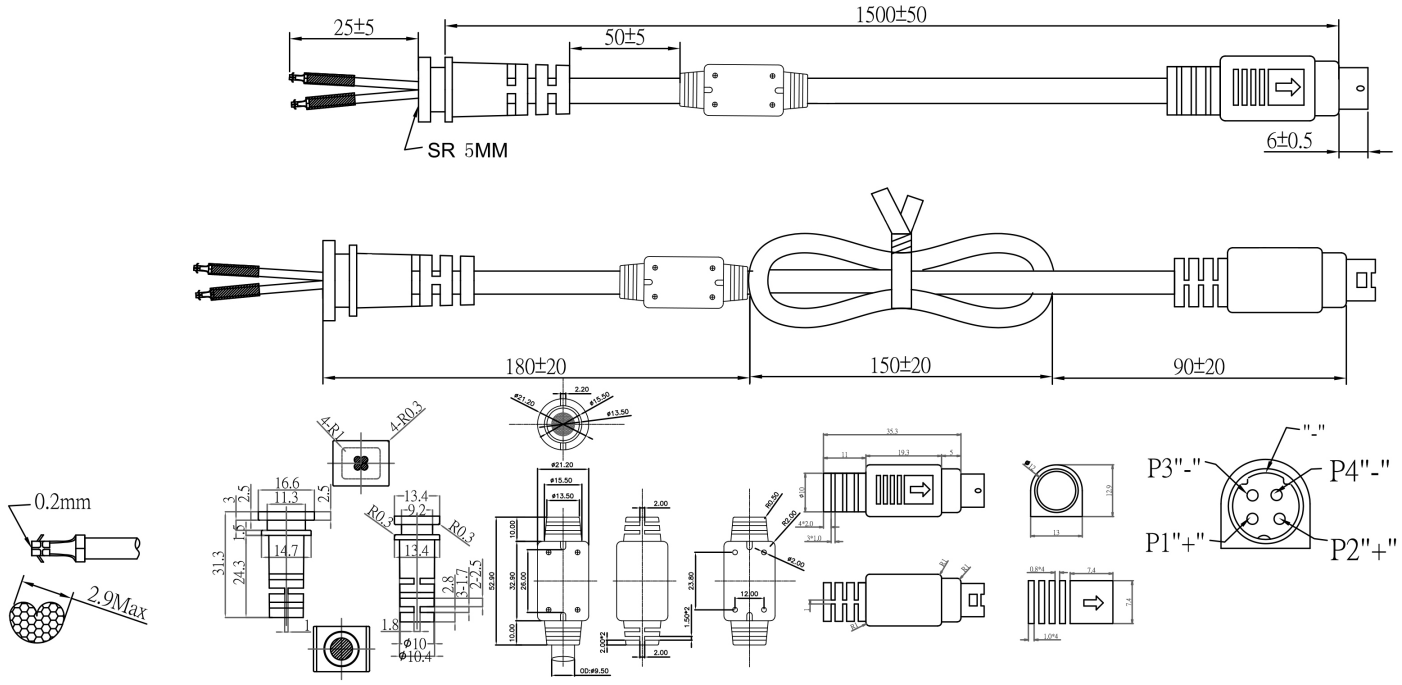
units: mm




| MODEL NO. | CABLE | CORD LENGTH |
|---|---|---|
| SDI160G-12 | UL2464, 16 AWG | 1,200 mm ±50 |
| SDI160G-19 | UL2095, 18 AWG | 1,500 mm ±50 |
| SDI160G-24 | UL2464, 18 AWG | 1,500 mm ±50 |
| SDI160G-48 | UL2095, 18 AWG | 1,500 mm ±50 |
| SDI160G-56 | UL2095, 18 AWG | 1,500 mm ±50 |

## AC CORDS

units: mm



## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 06/12/2020 |
| 1.01 | UKCA added to the specification | 05/25/2021 |
| 1.02 | dc cord updated | 06/15/2021 |
| 1.03 | cable table updated | 03/23/2022 |
| 1.04 | input voltage updated | 01/18/2023 |

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

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