

## SERIES: VSUU-150C | DESCRIPTION: AC-DC POWER SUPPLY

### FEATURES

- up to 150 W continuous power
- active power factor correction
- IEC/EN/UL 62368 certified
- over voltage, over current, short circuit protection
- class B emissions



| MODEL        | output<br>voltage<br>(Vdc) | output<br>current<br>max<br>(A) | output<br>power<br>max<br>(W) | ripple and<br>noise<br>max<br>(mVp-p) | efficiency<br>typ<br>(%) |
|--------------|----------------------------|---------------------------------|-------------------------------|---------------------------------------|--------------------------|
| VSUU-150C-12 | 12                         | 12.5                            | 150                           | 120                                   | 85                       |
| VSUU-150C-24 | 24                         | 6.25                            | 150                           | 200                                   | 86                       |

### PART NUMBER KEY

**VSUU-150C - XX**

Base Number

Output Voltage

## INPUT

| parameter               | conditions/description                  | min  | typ | max | units |
|-------------------------|-----------------------------------------|------|-----|-----|-------|
| voltage                 |                                         | 90   |     | 264 | Vac   |
| frequency               |                                         | 47   |     | 63  | Hz    |
| current                 | at 100 Vac, full load                   |      | 2.0 |     | A     |
|                         | at 240 Vac, full load                   |      | 0.8 |     | A     |
| inrush current          | at 100 Vac, 25°C, full load, cold start |      |     | 40  | A     |
|                         | at 240 Vac, 25°C, full load, cold start |      |     | 100 | A     |
| power factor correction | full load at 240 Vac                    | 0.95 |     | 1.0 |       |

## OUTPUT

| parameter               | conditions/description            | min | typ | max   | units |
|-------------------------|-----------------------------------|-----|-----|-------|-------|
| line regulation         | full load at 100 ~ 120 Vac        |     |     | 1     | %     |
| load regulation         | at 230 Vac, 10 ~ 90% load         |     |     | 5     | %     |
| temperature coefficient | all output, 100 ~ 240 Vac         |     |     | ±0.04 | %/°C  |
| transient response      | full load to half load at 110 Vac |     |     | 4     | ms    |
| start-up                | full load at 100 Vac              |     |     | 3     | s     |
| hold-up                 | full load at 100 ~ 240 Vac        | 16  |     |       | ms    |

## PROTECTIONS

| parameter                | conditions/description | min | typ | max | units |
|--------------------------|------------------------|-----|-----|-----|-------|
| over voltage protection  |                        | 112 |     | 132 | %     |
| over current protection  | auto recovery          | 110 |     | 150 | %     |
| short circuit protection | auto recovery          |     |     |     |       |

## SAFETY & COMPLIANCE

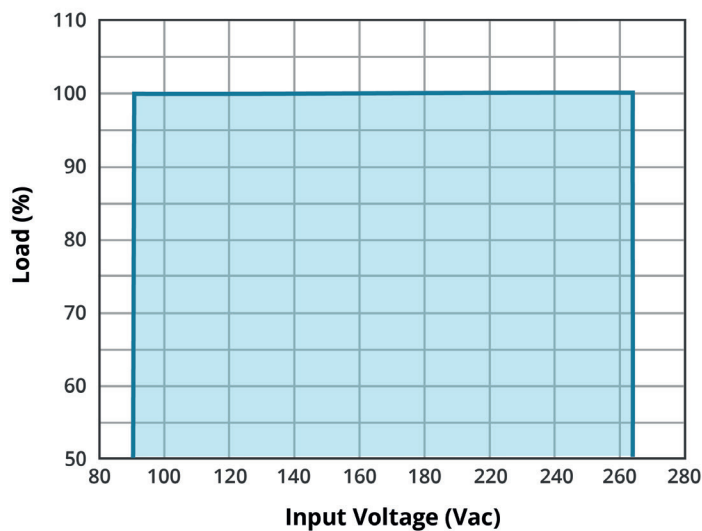
| parameter         | conditions/description                 | min     | typ | max  | units |
|-------------------|----------------------------------------|---------|-----|------|-------|
| isolation voltage | input to output                        | 4,242   |     |      | Vdc   |
|                   | input to earth ground                  | 2,121   |     |      | Vdc   |
| safety approvals  | certified to 62368: IEC/EN/UL          |         |     |      |       |
| EMI/EMC           | CISPR-32/EN 55032:2012/AC:2013 Class B |         |     |      |       |
| leakage current   | full load at 240 Vac                   |         |     | 0.75 | mA    |
| RoHS compliant    | yes                                    |         |     |      |       |
| MTBF              | as per MIL-HDBK-217F at 25°C           | 100,000 |     |      | hrs   |

## ENVIRONMENTAL

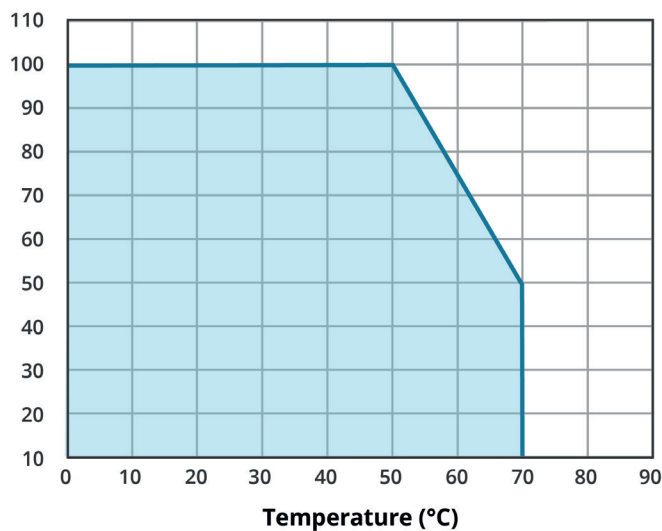
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve     | 0   |     | 70  | °C    |
| storage temperature   |                        | -40 |     | 85  | °C    |
| operating humidity    |                        | 0   |     | 95  | %     |
| storage humidity      |                        | 0   |     | 95  | %     |

## DERATING CURVES

**INPUT VOLTAGE DERATING CURVE**



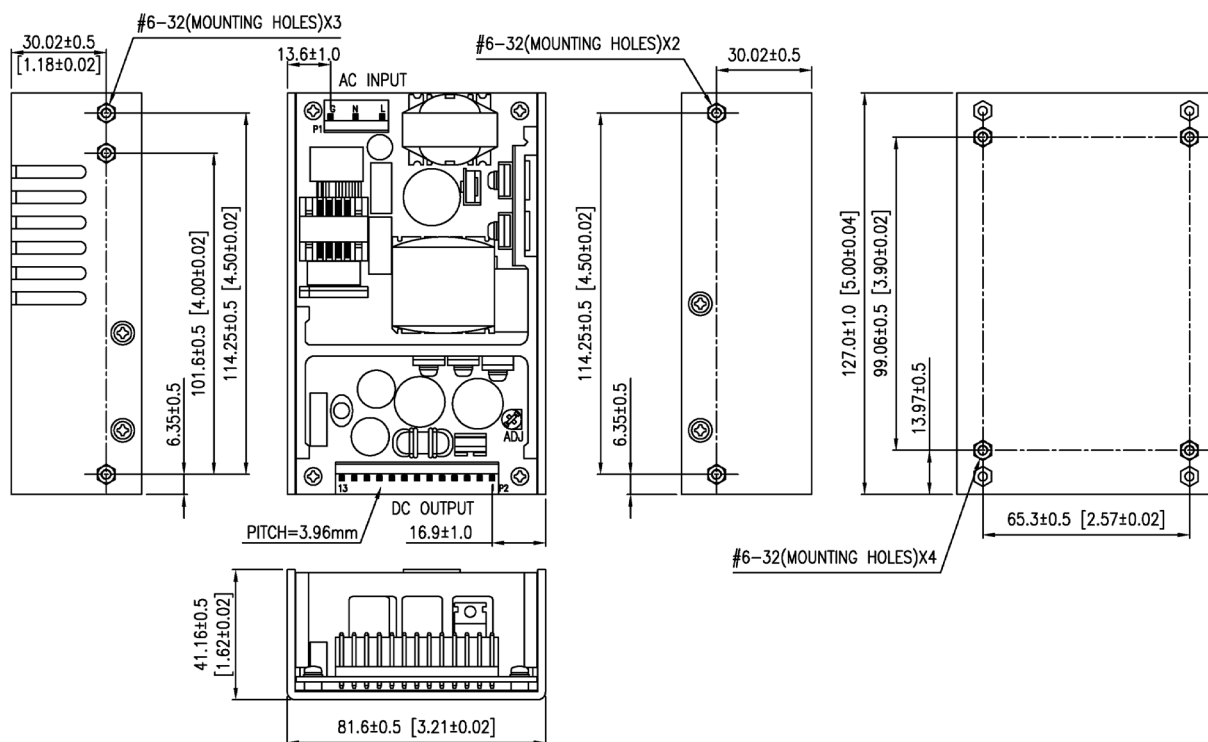
**TEMPERATURE DERATING CURVE**



## MECHANICAL DRAWING

units: mm[inches]  
tolerance:  $\pm 0.5$ mm

| PIN | FUNCTION   |
|-----|------------|
| 1   | OUT        |
| 2   | OUT        |
| 3   | OUT        |
| 4   | OUT        |
| 5   | OUT        |
| 6   | OUT        |
| 7   | RTN        |
| 8   | RTN        |
| 9   | RTN        |
| 10  | RTN        |
| 11  | RTN        |
| 12  | RTN        |
| 13  | no connect |



## REVISION HISTORY

| rev. | description                | date       |
|------|----------------------------|------------|
| 1.0  | initial release            | 12/14/2020 |
| 1.01 | TUV mark added             | 07/23/2021 |
| 1.02 | mechanical drawing updated | 08/27/2021 |
| 1.03 | derating curves updated    | 02/01/2022 |

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



**CUI INC**  
a bel group

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

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

CUI offers a two (2) 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.