

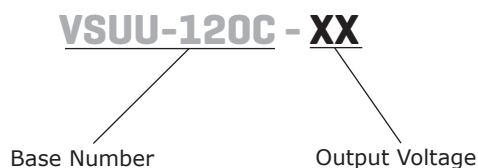
**SERIES:** VSUU-120C | **DESCRIPTION:** AC-DC POWER SUPPLY
**FEATURES**

- universal input (90 ~ 264 Vac)
- up to 120 W continuous power
- active power factor correction
- IEC/EN/UL 62368 certified
- over voltage, over current, short circuit protection



| MODEL        | output voltage <sup>1</sup> | output current | output power | ripple and noise | efficiency |
|--------------|-----------------------------|----------------|--------------|------------------|------------|
|              | (Vdc)                       | max (A)        | max (W)      | max (mVp-p)      | typ (%)    |
| VSUU-120C-9  | 9                           | 13.33          | 120          | 100              | 75         |
| VSUU-120C-12 | 12                          | 10.0           | 120          | 130              | 75         |
| VSUU-120C-15 | 15                          | 8.0            | 120          | 150              | 78         |
| VSUU-120C-24 | 24                          | 5.0            | 120          | 200              | 82         |

Note: 1. Factory adjustable.

**PART NUMBER KEY**

## INPUT

| parameter      | conditions/description                  | min  | typ | max  | units |
|----------------|---|------|-----|------|-------|
| voltage        |   | 90   |     | 264  | Vac   |
| frequency      |   | 47   |     | 63   | Hz    |
| current        | at 100 Vac, full load                   |      |     | 1.75 | A     |
|                | at 240 Vac, full load                   |      |     | 0.72 | A     |
| inrush current | at 100 Vac, 25°C, full load, cold start |      |     | 37   | A     |
|                | at 240 Vac, 25°C, full load, cold start |      |     | 88   | A     |
| power factor   | 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 models, 100 ~ 240 Vac  |     |     | ± 0.04 | %/°C  |
| transient response      | full load to half load at 110 Vac |     |     | 4      | ms    |
| start-up                | full load at 100 ~ 240 Vac        |     |     | 3      | s     |
| hold-up                 | full load at 100 Vac              | 16  |     |        | ms    |

## PROTECTIONS

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

## SAFETY & COMPLIANCE

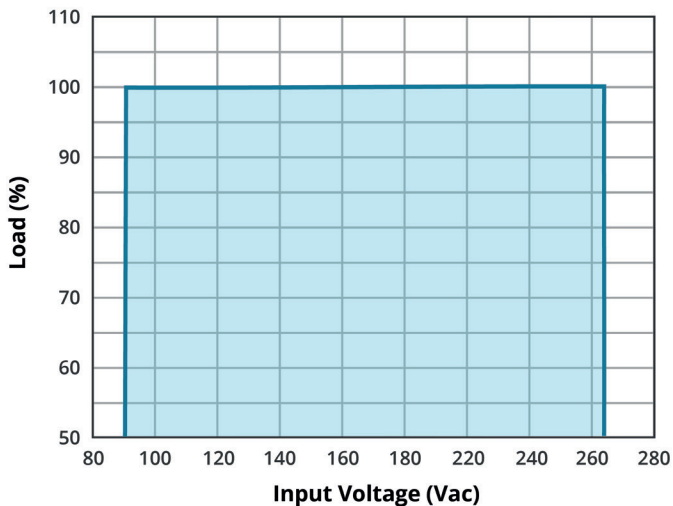
| parameter         | conditions/description   | min   | typ | max  | units |
|-------------------|--|-------|-----|------|-------|
| isolation voltage | input to output  | 4,242 |     |      | Vdc   |
|                   | input to earth ground  | 2,121 |     |      | Vdc   |
| safety approvals  | certified to 62368: IEC/EN/UL<br>UKCA  |       |     |      |       |
| EMI/EMC           | CISPR-32/EN 55032:2012/AC:2013 Class B<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013 |       |     |      |       |
| leakage current   | full load at 240 Vac   |       |     | 0.75 | mA    |
| RoHS compliant    | yes  |       |     |      |       |

## ENVIRONMENTAL

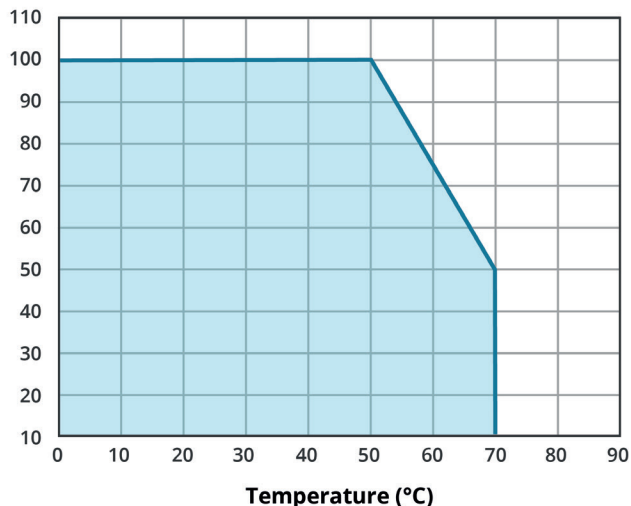
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve     | 0   |     | 70  | °C    |
| storage temperature   |                        | -40 |     | 85  | °C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

## DERATING CURVES

**INPUT VOLTAGE DERATING CURVE**



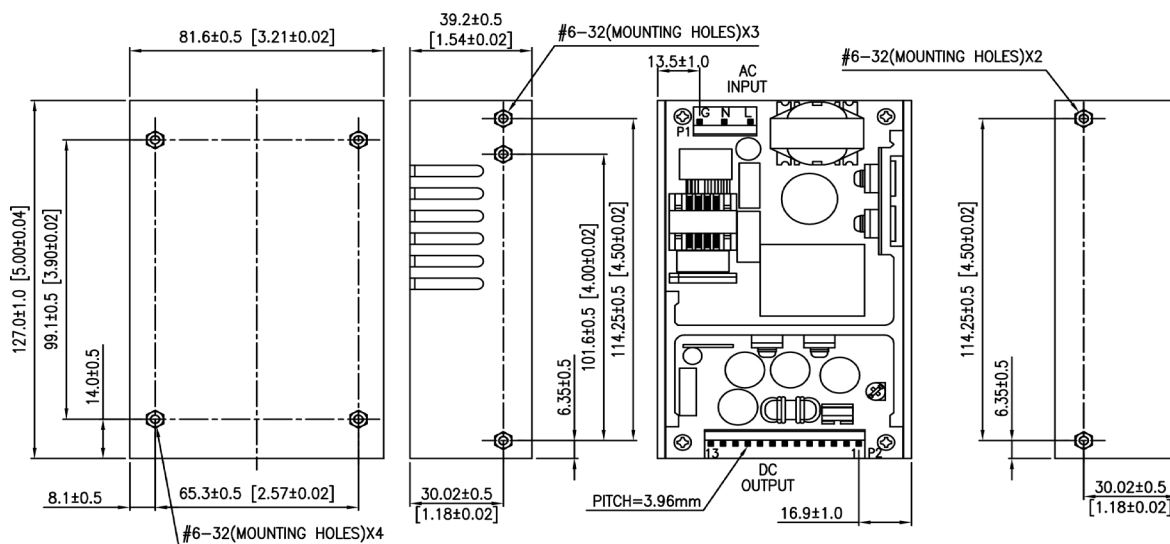
**TEMPERATURE DERATING CURVE**



## MECHANICAL DRAWING

units: mm[inches]  
tolerance: ±0.5mm

| 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 |



Note:  
1. Input connector mates with Molex housing 09-52-4054 and Molex 2478 series crimp terminal.  
2. Output connector mates with Molex housing 09-52-4134 and Molex 2478 series crimp terminal.

## REVISION HISTORY

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| rev. | description                 | date       |
|------|-----------------------------|------------|
| 1.0  | initial release             | 12/14/2020 |
| 1.01 | mechanical drawing updated  | 04/20/2021 |
| 1.02 | mechanical drawing updated  | 08/27/2021 |
| 1.03 | derating curves updated     | 02/02/2022 |
| 1.04 | UKCA added to specification | 02/24/2022 |

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



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