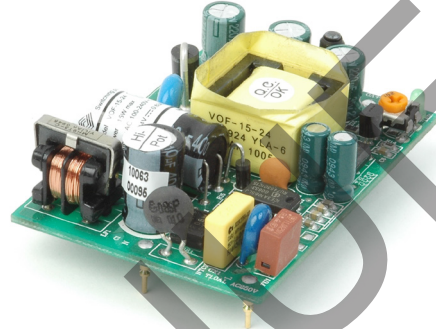


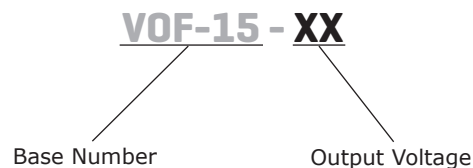
**SERIES:** VOF-15 | **DESCRIPTION:** AC-DC POWER SUPPLY**FEATURES**

- up to 15 W continuous power
- compact size
- universal input (85~264 Vac / 120~375 Vdc)
- single output from 3.3~48 Vdc
- no minimum load required
- 3000 Vac isolation
- over current, over voltage, and short circuit protections
- UL/cUL and TUV 60950-1 safety approvals
- no load power consumption < 0.5 W
- efficiency up to 83%



| MODEL      | output voltage | output current | output power | ripple <sup>1</sup> and noise | efficiency |
|------------|----------------|----------------|--------------|-------------------------------|------------|
|            | (Vdc)          | max (A)        | max (W)      | max (mVp-p)                   | typ (%)    |
| VOF-15-3.3 | 3.3            | 3.0            | 9.9          | 100                           | 70         |
| VOF-15-5   | 5              | 3.0            | 15           | 100                           | 75         |
| VOF-15-9*  | 9              | 1.67           | 15           | 120                           | 78         |
| VOF-15-12  | 12             | 1.25           | 15           | 120                           | 80         |
| VOF-15-15  | 15             | 1.0            | 15           | 150                           | 80         |
| VOF-15-24  | 24             | 0.63           | 15           | 240                           | 82         |
| VOF-15-48  | 48             | 0.31           | 15           | 480                           | 83         |

Notes: 1. Ripple & noise are measured at 20 MHz BW with 47  $\mu$ F ceramic and 100 nF electrolytic capacitors on the output  
 \*. Discontinued

**PART NUMBER KEY**

## INPUT

| parameter      | conditions/description         | min | typ | max | units |
|----------------|--------------------------------|-----|-----|-----|-------|
| voltage        |                                | 85  |     | 264 | Vac   |
|                |                                | 120 |     | 375 | Vdc   |
| frequency      |                                | 47  |     | 63  | Hz    |
| current        |                                |     |     | 0.6 | A     |
| inrush current | 110 Vac, full load, cold start |     |     | 20  | A     |
|                | 220 Vac, full load, cold start |     |     | 40  | A     |
| input fuse     | built-in, non-user serviceable |     |     |     |       |

## OUTPUT

| parameter                 | conditions/description            | min | typ   | max | units |
|---------------------------|-----------------------------------|-----|-------|-----|-------|
| line regulation           | 3.3 Vdc model                     |     | ±0.6  |     | %     |
|                           | all other models                  |     | ±0.5  |     | %     |
| load regulation           | 3.3 Vdc model                     |     | ±1.2  |     | %     |
|                           | all other models                  |     | ±1    |     | %     |
| temperature coefficient   |                                   |     | ±0.05 |     | %/°C  |
| hold-up time              | at 115 Vac, full load             |     | 16    |     | ms    |
| adjustability             | adjustable with built-in trim pot |     | ±5    |     | %     |
| switching frequency       |                                   |     | 100   |     | kHz   |
| no load power consumption |                                   |     |       | 0.5 | W     |

## PROTECTIONS

| parameter                | conditions/description  | min | typ | max | units |
|--------------------------|---|-----|-----|-----|-------|
| over voltage protection  | clamped by TVS  |     |     |     |       |
| over current protection  | 5 Vdc model latches off<br>all other models automatically recover |     | 105 |     | %     |
| short circuit protection | protected, long term short circuit may reduce reliability         |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter            | conditions/description                | min     | typ   | max  | units |
|----------------------|---------------------------------------|---------|-------|------|-------|
| isolation voltage    | input to output at 20 mA for 1 minute |         | 3,000 |      | Vac   |
| isolation resistance | input to output at 500 Vdc at 25°C    | 50      |       |      | MΩ    |
| safety approvals     | TUV EN 60950, UL/cUL 60950-1          |         |       |      |       |
| EMI/EMC              | FCC class B, EN 55022 class B, CE     |         |       |      |       |
| leakage current      |                                       |         |       | 0.25 | mA    |
| RoHS                 | 2011/65/EU                            |         |       |      |       |
| MTBF                 | according to MIL-HDBK-217F            | 250,000 |       |      | hours |

## ENVIRONMENTAL

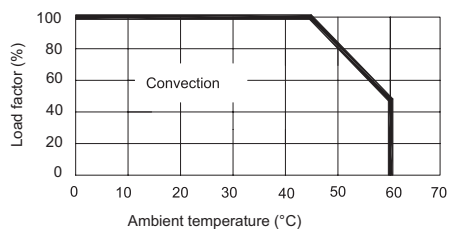
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve     | 0   |     | 60  | °C    |
| storage temperature   |                        | -25 |     | 75  | °C    |
| operating humidity    | non-condensing         | 20  |     | 90  | %     |
| storage humidity      | non-condensing         | 20  |     | 90  | %     |

## MECHANICAL

| parameter      | conditions/description                         | min | typ | max | units |
|----------------|--|-----|-----|-----|-------|
| dimensions     | 70 x 48.6 x 18 (2.76 x 1.91 x 0.71 inches)     |     |     |     | mm    |
| cooling method | free air convection (see derating curve below) |     |     |     |       |

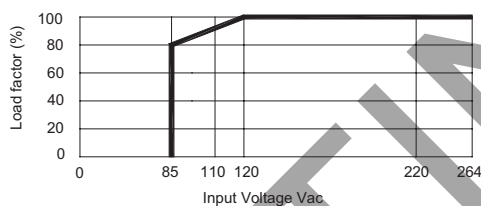
## DERATING CURVES

1. output power vs. ambient temp.

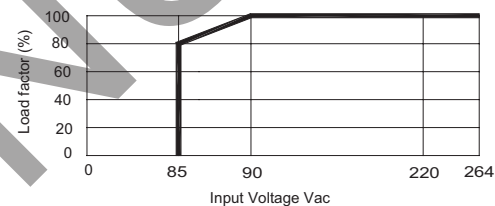


2. output power vs. input voltage

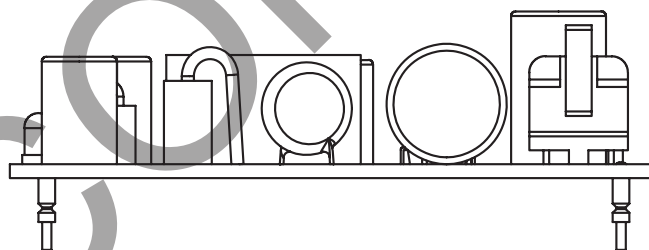
a. 3.3, 5 V models



b. all other models



## MOUNTING METHOD

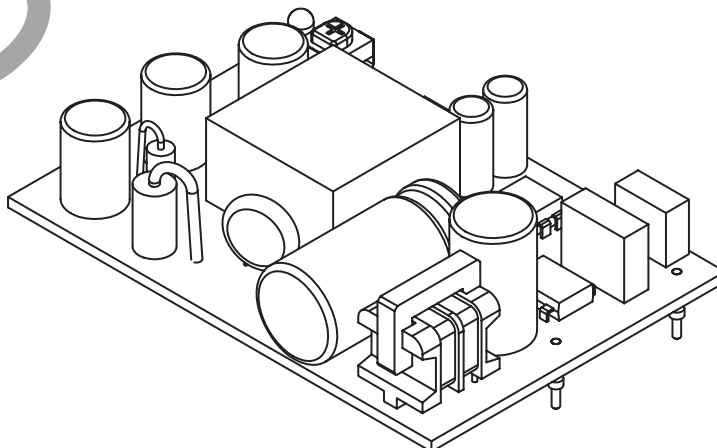
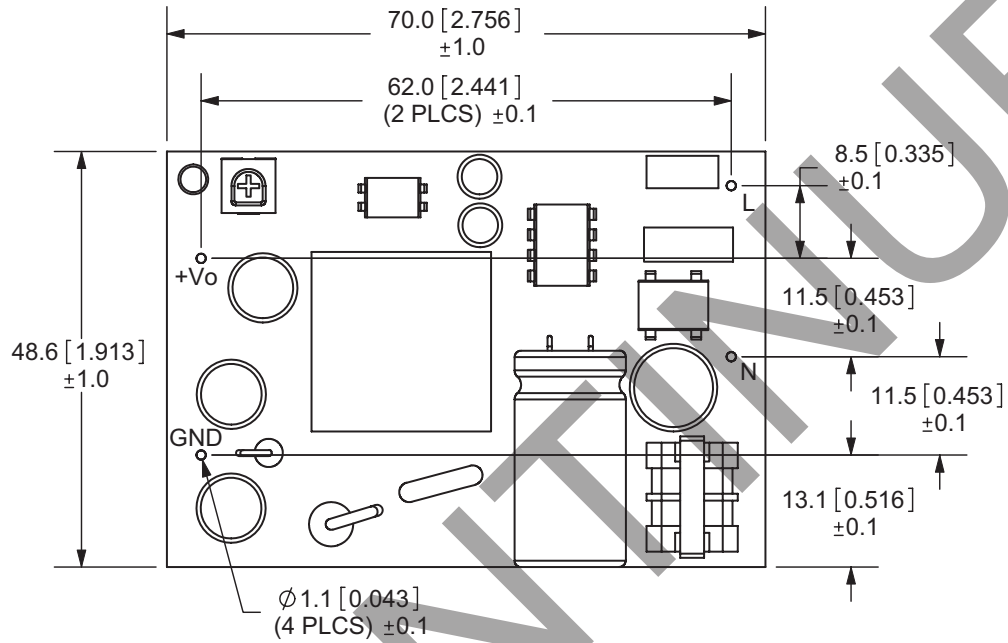


### Horizontal

(performance evaluations conducted under this mounting method)

## MECHANICAL DRAWING

units: mm [inches]  
 tolerance:  $\pm 0.3$  [ $\pm 0.01$ ]  
 unless otherwise noted



## REVISION HISTORY

| rev. | description   | date       |
|------|---|------------|
| 1.0  | initial release   | 03/18/2010 |
| 1.01 | applied new spec template   | 05/13/2011 |
| 1.02 | added MTBF data   | 09/20/2011 |
| 1.03 | V-Infinity branding removed   | 08/16/2012 |
| 1.04 | 5 Vdc model latches off during OCP, outer dimension tolerance changed, discontinued 9 Vdc model | 12/30/2015 |
| 1.05 | company logo updated  | 12/03/2020 |

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



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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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