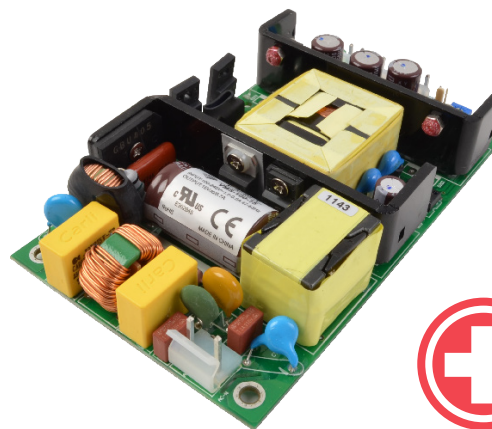


**SERIES:** VMS-100 | **DESCRIPTION:** AC-DC POWER SUPPLY

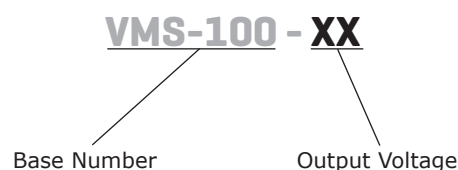
**FEATURES**

- up to 100 W continuous power
- industry standard 3" x 5" footprint
- universal input (90~264 Vac)
- single output from 5 to 48V
- no load power consumption < 0.5W
- over voltage and short circuit protections
- full medical approvals
- built-in active PFC function
- built-in remote sense function
- no minimum load required
- efficiency up to 91%



| MODEL      | output<br>voltage<br>(Vdc) | output<br>current<br>max<br>(A) | output<br>power<br>max<br>(W) | ripple and<br>noise <sup>1,2</sup><br>max<br>(mVp-p) | efficiency<br>typ<br>(%) |
|------------|----------------------------|---------------------------------|-------------------------------|------------------------------------------------------|--------------------------|
| VMS-100-5  | 5                          | 20                              | 100                           | 100                                                  | 85                       |
| VMS-100-9  | 9                          | 11.2                            | 100                           | 90                                                   | 88                       |
| VMS-100-12 | 12                         | 8.4                             | 100                           | 120                                                  | 89                       |
| VMS-100-15 | 15                         | 6.7                             | 100                           | 150                                                  | 89                       |
| VMS-100-18 | 18                         | 5.6                             | 100                           | 180                                                  | 90                       |
| VMS-100-24 | 24                         | 4.2                             | 100                           | 240                                                  | 91                       |
| VMS-100-28 | 28                         | 3.6                             | 100                           | 280                                                  | 91                       |
| VMS-100-36 | 36                         | 2.8                             | 100                           | 360                                                  | 91                       |
| VMS-100-48 | 48                         | 2.1                             | 100                           | 480                                                  | 91                       |

Notes: 1. VMS-100-5: Measured at 20MHz, with 0.1µF ceramic and 220µF electrolytic capacitors  
 2. All other models: Measured at 20MHz, with 0.1µF ceramic and 10µF electrolytic capacitors

**PART NUMBER KEY**


## INPUT

| parameter      | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| voltage        |                        | 90  |     | 264 | Vac   |
| frequency      |                        | 47  |     | 63  | Hz    |
| inrush current | at 240 Vac             |     |     | 80  | A     |

## OUTPUT

| parameter               | conditions/description           | min | typ   | max | units |
|-------------------------|----------------------------------|-----|-------|-----|-------|
| line regulation         | low line to high line, full load |     | ±0.5  |     | %     |
| load regulation         | 10% to 100% full load            |     | ±1    |     | %     |
| temperature coefficient |                                  |     | ±0.05 |     | %/°C  |
| hold-up time            |                                  |     | 16    |     | ms    |
| adjustability           |                                  |     |       | ±5  | %     |
| switching frequency     |                                  | 80  |       | 100 | kHz   |

## PROTECTIONS

| parameter                | conditions/description              | min | typ | max | units |
|--------------------------|-------------------------------------|-----|-----|-----|-------|
| over voltage protection  | recycle ac input to restart         |     |     |     |       |
| short circuit protection | hiccup mode, recovers automatically |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter         | conditions/description                                                                                                                                   | min     | typ | max | units |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----|-----|-------|
| isolation voltage | input to output                                                                                                                                          | 5,656   |     |     | Vdc   |
| safety approvals  | IEC 60601-1, EN 60601-1, UL 60601-1                                                                                                                      |         |     |     |       |
| EMI/EMC           | EN 55024, EN 61000-6-1, EN 61204-3, EN 60601-1-2, EN 61000-3-2 Class (A, B, C, D), EN 61000-3-3, EN 55011 Class B, EN 55022 Class B, FCC Part 15 Class B |         |     |     |       |
| leakage current   |                                                                                                                                                          |         |     | 0.3 | mA    |
| RoHS compliant    | yes                                                                                                                                                      |         |     |     |       |
| MTBF              | MIL-HDBK-217F, GB, at 25°C, 115 Vac                                                                                                                      | 200,000 |     |     | hrs   |

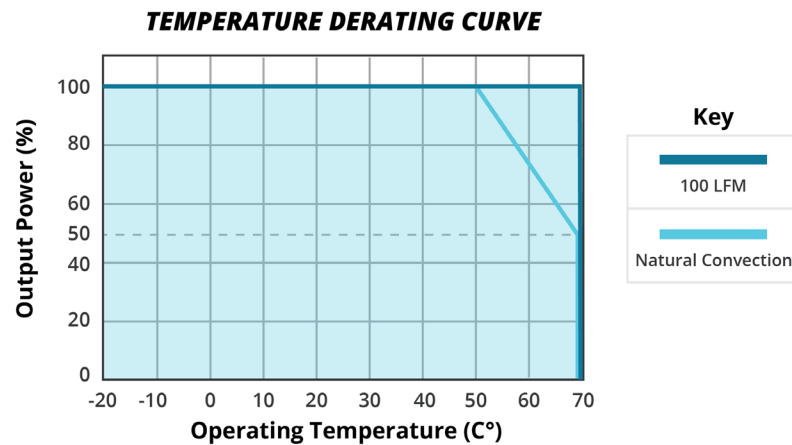
## ENVIRONMENTAL

| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve     | -20 |     | 70  | °C    |
| storage temperature   |                        | -20 |     | 85  | °C    |
| operating humidity    | non-condensing         |     |     | 93  | %     |

## MECHANICAL

| parameter      | conditions/description                           | min | typ | max | units |
|----------------|--------------------------------------------------|-----|-----|-----|-------|
| dimensions     | 127.00 x 76.20 x 26.67 (5.00 x 3.00 x 1.05 inch) |     |     |     | mm    |
| weight         |                                                  |     |     | 270 | g     |
| cooling method | free air convection (see derating curves below)  |     |     |     |       |

## DERATING CURVES



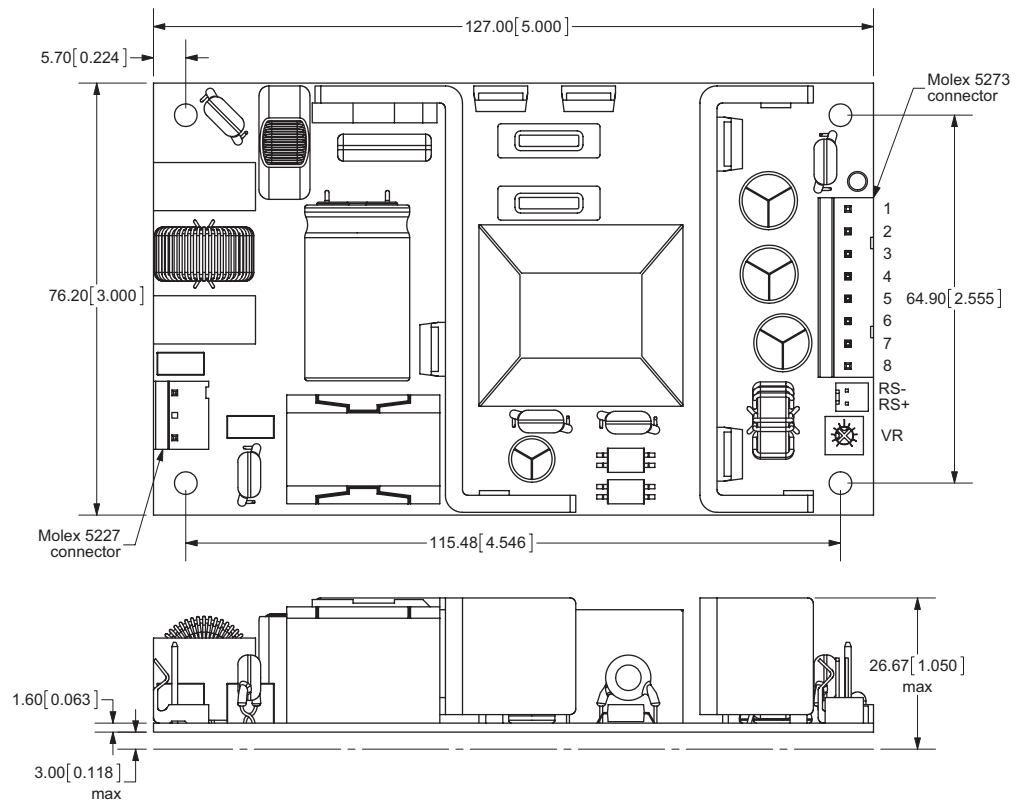
## MECHANICAL DRAWING

units: mm [inch]  
 tolerance: mm:  $\pm 0.5$   
 inch:  $\pm 0.02$

| CN1 |            |
|-----|------------|
| 1   | AC Line    |
| 2   | No pin     |
| 3   | AC Neutral |

| CN2 |     |
|-----|-----|
| 1   | -Vo |
| 2   | -Vo |
| 3   | -Vo |
| 4   | -Vo |
| 5   | +Vo |
| 6   | +Vo |
| 7   | +Vo |
| 8   | +Vo |

| CN3 |                        |
|-----|------------------------|
| RS- | Remote Voltage Sense - |
| RS+ | Remote Voltage Sense + |



Note: 1. All specifications measured at 25°C, 115/230Vac input voltage, and 75% load unless otherwise noted.

## REVISION HISTORY

| rev. | description                 | date       |
|------|-----------------------------|------------|
| 1.0  | initial release             | 11/03/2011 |
| 1.01 | V-Infinity branding removed | 08/22/2012 |
| 1.02 | updated spec                | 07/22/2013 |
| 1.03 | company logo updated        | 12/21/2020 |
| 1.04 | derating curve updated      | 05/06/2021 |

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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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.