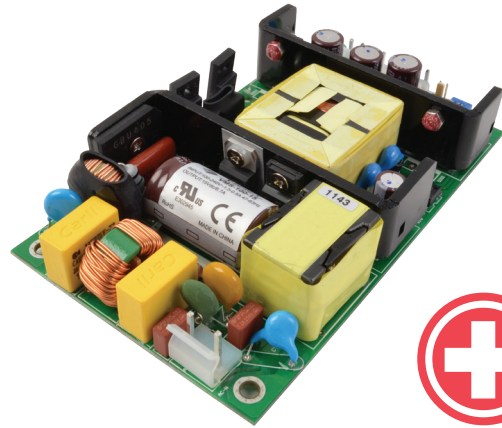




## SERIES: VMS-100 | DESCRIPTION: AC-DC POWER SUPPLY

### FEATURES

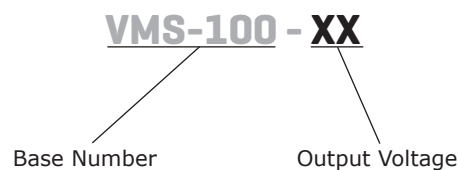
- up to 100 W continuous power
- industry standard 3" x 5" footprint
- universal input (90~264 Vac)
- single output from 5 to 48V
- no load power consumption < 0.5W
- over voltage and short circuit protections
- full medical approvals
- built-in active PFC function
- built-in remote sense function
-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

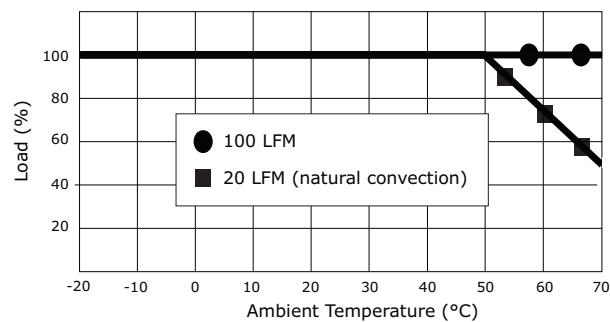
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve     | -20 |     | 70  | °C    |
| storage temperature   |                        | -20 |     | 85  | °C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

output power vs. ambient temperature



## MECHANICAL DRAWING

units: mm [inch]

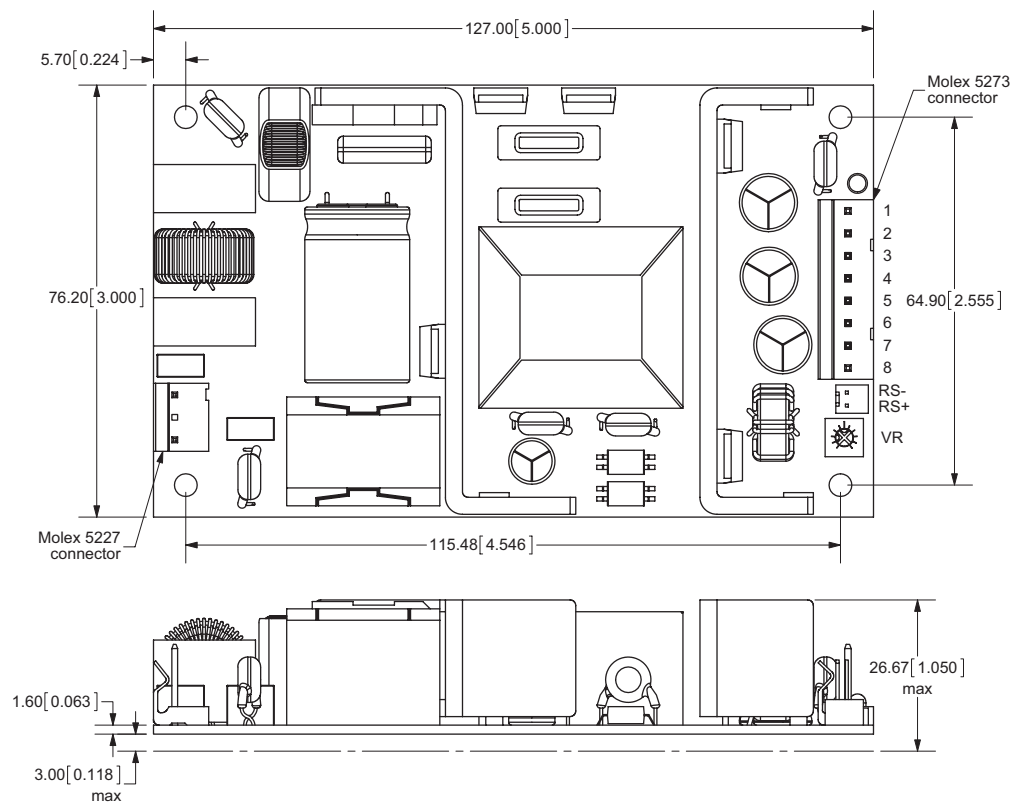
tolerance: mm:  $\pm 0.5$

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 |

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



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