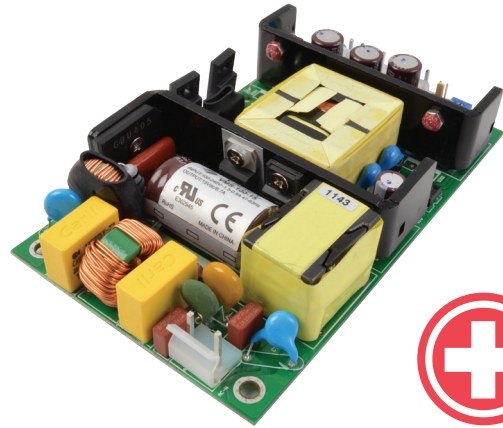




SERIES: VMS-100 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

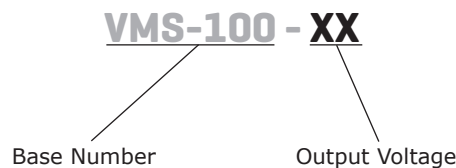
- up to 100 W continuous power
- industry standard 3" x 5" footprint
- universal input (90~264 Vac)
- single output from 5 to 48V
- no load power consumption < 0.5W
- over voltage and short circuit protections
- full medical approvals
- built-in active PFC function
- built-in remote sense function
-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



| MODEL | output voltage | output current | output power | ripple and noise ^{1,2} | efficiency |
|------------|----------------|----------------|--------------|---------------------------------|------------|
| | (Vdc) | max (A) | max (W) | max (mVp-p) | typ (%) |
| 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

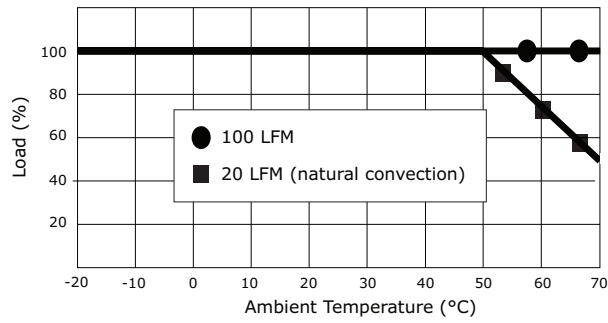
| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve | -20 | | 70 | °C |
| storage temperature | | -20 | | 85 | °C |
| operating humidity | non-condensing | | | 93 | %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

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



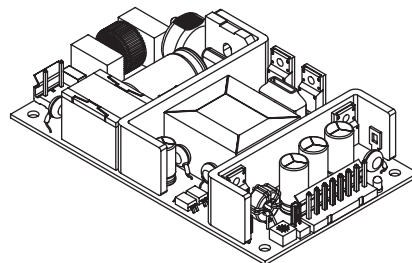
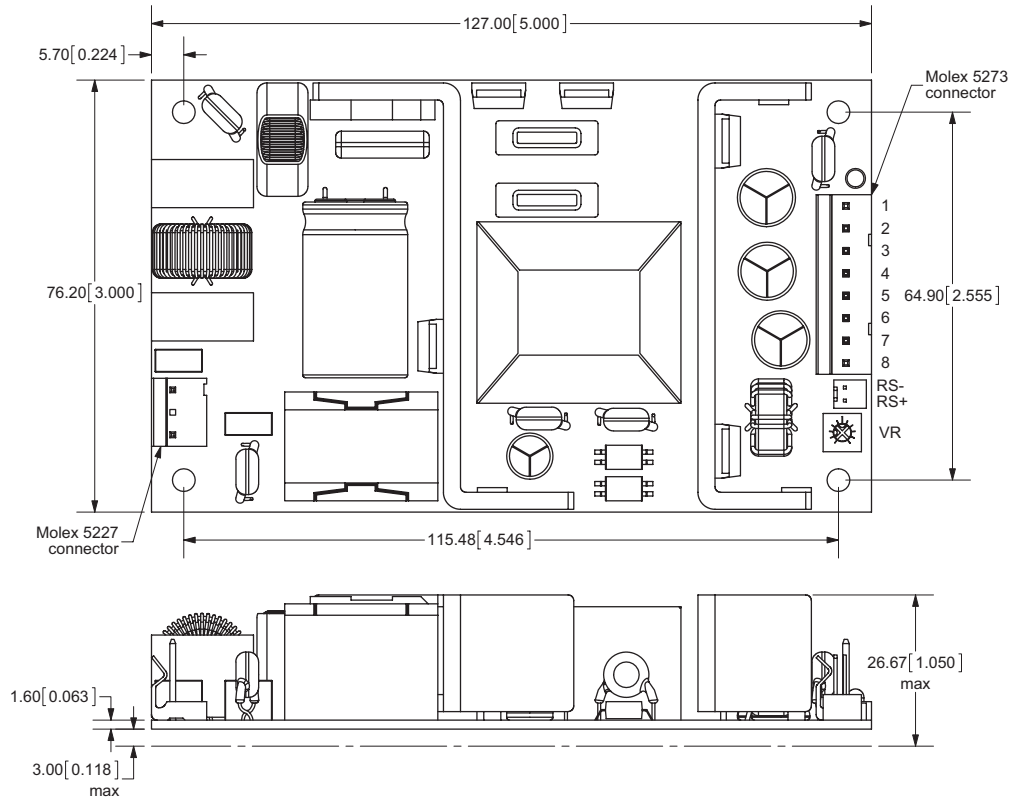
MECHANICAL DRAWING

units: mm [inch]
 tolerance: mm: ±0.5
 inch: ±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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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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