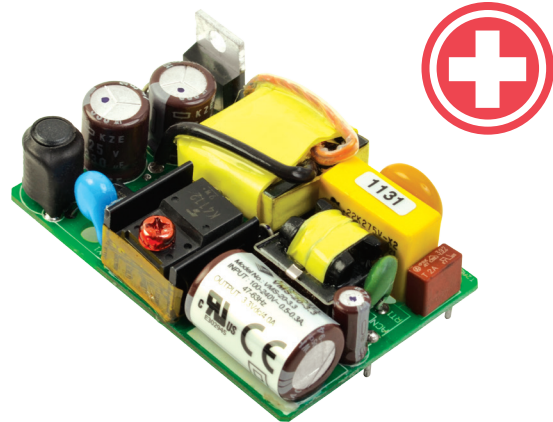




SERIES: VMS-20 | **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

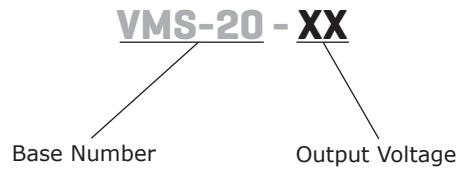
- up to 21.6 W continuous power
- compact size
- universal input (90~264 Vac)
- single output from 3.3~24 V
- no load power < 0.3W
- over voltage and short circuit protections
- full medical safety approvals
- efficiency up to 85%



| MODEL | output voltage | output current | output power | ripple and noise ¹ | efficiency |
|------------|----------------|----------------|--------------|-------------------------------|------------|
| | (Vdc) | max (A) | max (W) | max (mVp-p) | typ (%) |
| VMS-20-3.3 | 3.3 | 4.0 | 13.2 | 50 | 75 |
| VMS-20-5 | 5 | 4.0 | 20.0 | 50 | 80 |
| VMS-20-9 | 9 | 2.3 | 20.7 | 90 | 81 |
| VMS-20-12 | 12 | 1.7 | 20.4 | 100 | 83 |
| VMS-20-15 | 15 | 1.4 | 21.0 | 100 | 84 |
| VMS-20-24 | 24 | 0.9 | 21.6 | 100 | 85 |

Notes: 1. Measured at 20MHz, with 0.1uF ceramic and 10uF electrolytic capacitors

PART NUMBER KEY



INPUT

| parameter | conditions/description | min | typ | max | units |
|----------------|---------------------------------|-----|-----|-----|-------|
| voltage | | 90 | | 264 | Vac |
| frequency | | 47 | | 63 | Hz |
| current | | | | 0.5 | A |
| inrush current | at 230 Vac, cold start at 25 °C | | | 40 | 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 | % |
| hold-up time | 115 Vac | | 10 | | ms |
| switching frequency | | | 100 | | KHz |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|------------------------|-----|-----|-----|-------|
| over voltage protection | | 115 | | 140 | % |
| short circuit protection | continuous | | | | |

SAFETY & COMPLIANCE

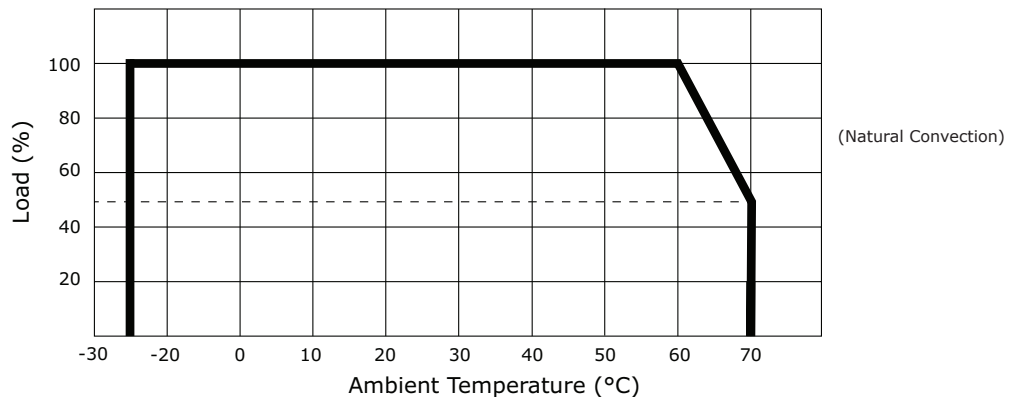
| parameter | conditions/description | min | typ | max | units |
|-------------------|--|---------|-----|-----|-------|
| isolation voltage | input to output | 5,656 | | | Vdc |
| safety approvals | UL 60601-1, IEC 60601-1, EN 60601-1 | | | | |
| EMI/EMC | EN 60601-1/EN 61204-3/EN 55022/CISPR Class B, EN 55024 | | | | |
| leakage current | | | | 0.1 | mA |
| RoHS compliant | yes | | | | |
| MTBF | MIL-HDBK-217F, GB | 400,000 | | | hrs |

ENVIRONMENTAL

| parameter | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature | see derating curve | -25 | | 70 | °C |
| storage temperature | | -40 | | 85 | °C |
| operating humidity | non-condensing | | | 93 | % |

DERATING CURVE

output power vs. ambient temperature



MECHANICAL

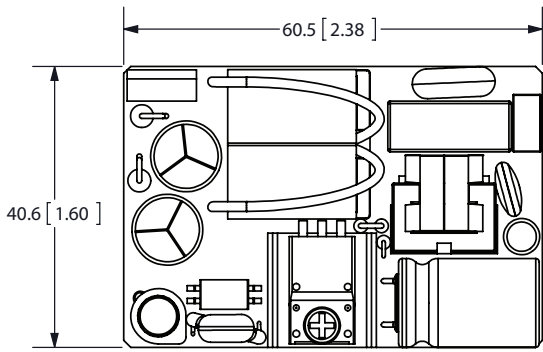
| parameter | conditions/description | min | typ | max | units |
|----------------|---|-----|-----|-----|-------|
| dimensions | 60.5 x 40.6 x 20.4 (2.382 x 1.598 x 0.803 inch) | | | | mm |
| weight | | | | 50 | g |
| cooling method | free air convection (see derating curve) | | | | |

MECHANICAL DRAWING

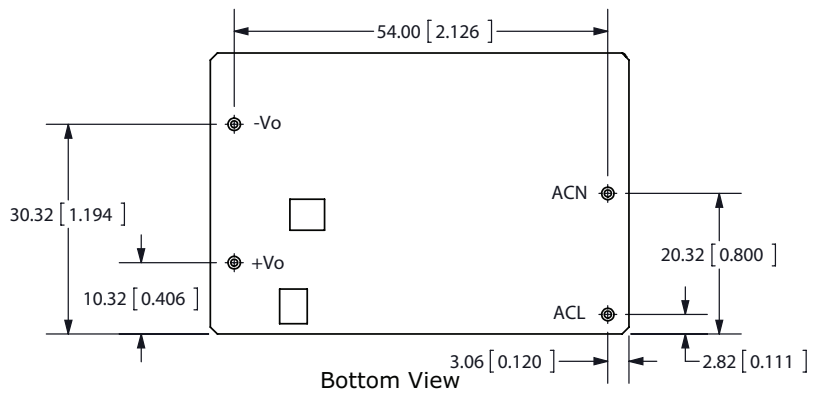
units: mm[inch]

tolerance: mm: X.X = ±0.5 ; X.XX = ±0.25

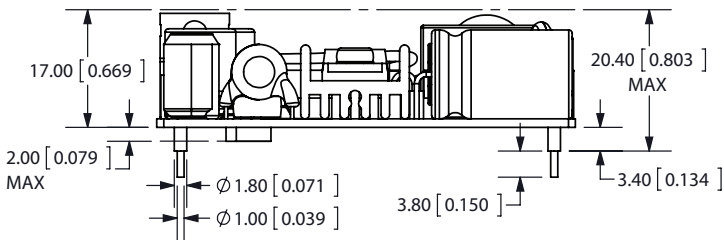
inch: X.XX = ±0.02 ; X.XXX = ±0.01



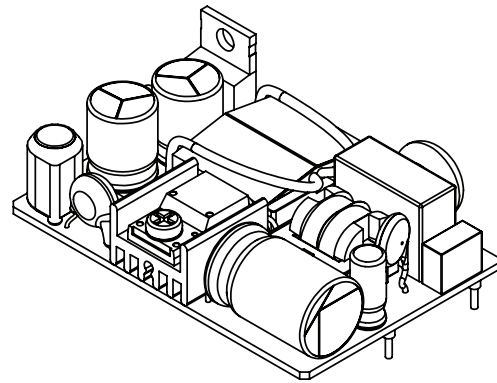
Top View



Bottom View



Front View



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

REVISION HISTORY

| rev. | description | date |
|------|-----------------------------|------------|
| 1.0 | initial release | 10/26/2011 |
| 1.01 | V-Infinity branding removed | 08/21/2012 |
| 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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