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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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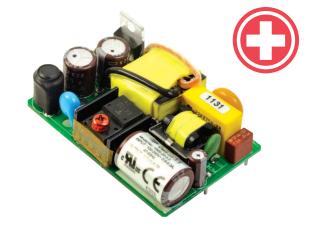
date 07/22/2013

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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%



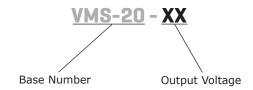




| MODEL | output voltage | output current | output power | ripple and noise¹ | efficiency |
|------------|-------------------|-------------------|-----------------|-----------------------|-------------------|
| | (Vdc) | max (A) | max (W) | max (mVp-p) | typ (%) |
| VMS-20-3.3 | 3.3 | 4.0 | 13.2 | 50 | 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 | А |
| inrush current | at 230 Vac, cold start at 25 °C | | | 40 | Α |

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 | | | | |

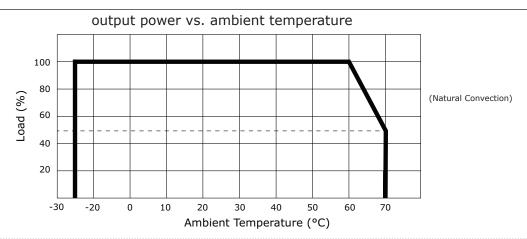
SAFETY & COMPLIANCE

| 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



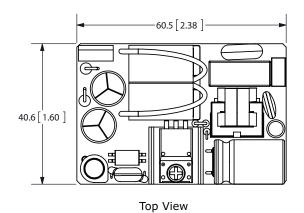
MECHANICAL

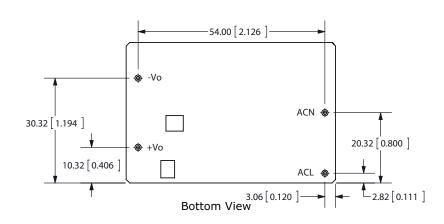
| parameter | conditions/description | min | typ | max | units |
|----------------|---|-----|-----|-----|-------|
| dimensions | 60.5 x 40.6 x 20.4 (2.382 x 1.598 x 0.803 inch) | | | | mm |
| weight | | | | 50 | g |
| cooling method | free air convection (see derating curve) | | | | |

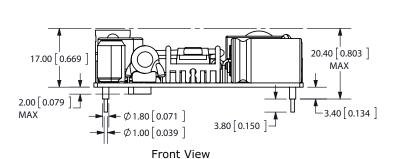
MECHANICAL DRAWING

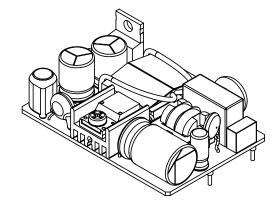
units: mm[inch]

tolerance: mm: $X.X = \pm 0.5$; $X.XX = \pm 0.25$ inch: $X.XX = \pm 0.02$; $X.XXX = \pm 0.01$









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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