

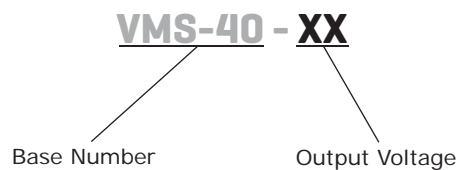
**SERIES: VMS-40 | DESCRIPTION: AC-DC POWER SUPPLY**
**FEATURES**

- up to 40 W continuous power
- compact size
- universal input (90~264 Vac)
- single output from 3.3~48 V
- no load power < 0.3W
- over voltage and short circuit protections
- full medical safety approvals
- efficiency up to 88%



| MODEL      | output<br>voltage | output<br>current<br>max | output<br>power<br>max | ripple<br>and noise <sup>1</sup><br>max | efficiency |
|------------|-------------------|--------------------------|------------------------|---|------------|
|            | (Vdc)             | (A)                      | (W)                    | (mVp-p)                                 | typ<br>(%) |
| VMS-40-3.3 | 3.3               | 6                        | 19.8                   | 50                                      | 76         |
| VMS-40-5   | 5                 | 6                        | 30                     | 50                                      | 80         |
| VMS-40-9   | 9                 | 4.45                     | 40                     | 90                                      | 84         |
| VMS-40-12  | 12                | 3.34                     | 40                     | 120                                     | 86         |
| VMS-40-15  | 15                | 2.67                     | 40                     | 150                                     | 87         |
| VMS-40-24  | 24                | 1.67                     | 40                     | 240                                     | 88         |
| VMS-40-30  | 30                | 1.33                     | 40                     | 300                                     | 88         |
| VMS-40-36  | 36                | 1.11                     | 40                     | 360                                     | 88         |
| VMS-40-48  | 48                | 0.834                    | 40                     | 480                                     | 88         |

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     |
| input current  | at 100 Vac<br>at 240 Vac |     |     | 1<br>0.55 | A<br>A |
| inrush current | at 240 Vac               |     |     | 60        | 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 |                                  |     | 65   |     | KHz   |

## PROTECTIONS

| parameter                | conditions/description              | min | typ | max | units |
|--------------------------|-------------------------------------|-----|-----|-----|-------|
| over voltage protection  | TVS component to clamp              |     |     |     |       |
| short circuit protection | hiccup mode, recovers automatically |     |     |     |       |

## SAFETY & COMPLIANCE

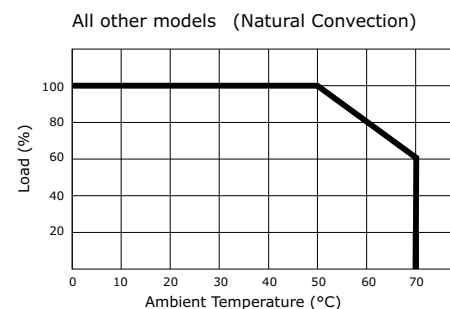
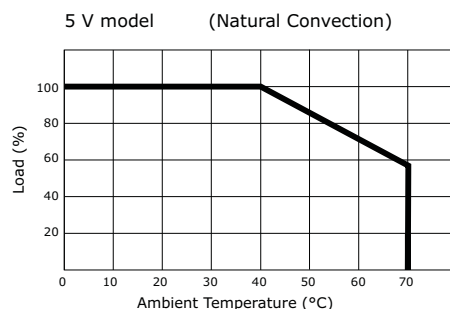
| parameter         | conditions/description  | min     | typ | max | units |
|-------------------|---|---------|-----|-----|-------|
| isolation voltage | input to output   | 5,656   |     |     | Vdc   |
| safety approvals  | UL 60601-1, EN 60601-1, IEC 60601-1, CAN/CSA-C22.2 60601-1, ANSI/AAMI ES 60601-1  |         |     |     |       |
| EMI/EMC           | FCC CFR 47 Part 15 Subpart B, CISPR 22 Class B, EN 55011 Class B, EN 61000-3-(2, 3), IEC 61000-4-(2, 3, 4, 5, 6, 8, 11) |         |     |     |       |
| leakage current   |   |         |     | 0.1 | 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     | 0   |     | 70  | °C    |
| storage temperature   |                        | -20 |     | 85  | °C    |
| operating humidity    | non-condensing         |     |     | 93  | %     |

## DERATING CURVES

output power vs. ambient temperature

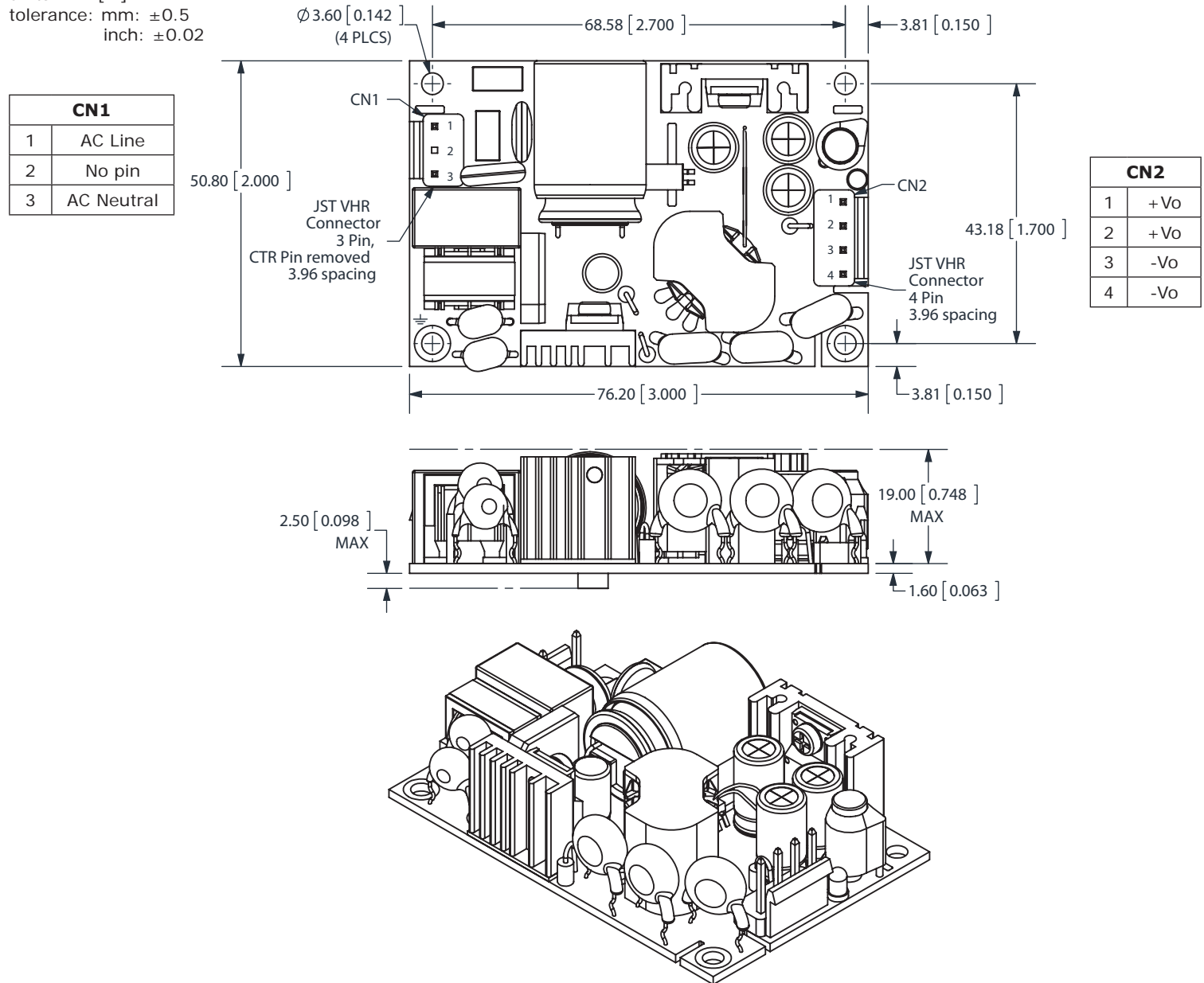


## MECHANICAL

| parameter      | conditions/description                             | min | typ | max | units |
|----------------|--|-----|-----|-----|-------|
| dimensions     | 3.00 x 2.00 x 0.91 (76.2 x 50.8 x 23.1 mm)         |     |     |     | inch  |
| weight         |  |     |     | 90  | g     |
| cooling method | free air convection<br>(see derating curves below) |     |     |     |       |

## MECHANICAL DRAWING

units: mm[in]

tolerance: mm:  $\pm 0.5$ inch:  $\pm 0.02$ 

## REVISION HISTORY

| rev. | description                 | date       |
|------|-----------------------------|------------|
| 1.0  | initial release             | 10/26/2011 |
| 1.01 | V-Infinity branding removed | 08/27/2012 |

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



**CUI INC®**

**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

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