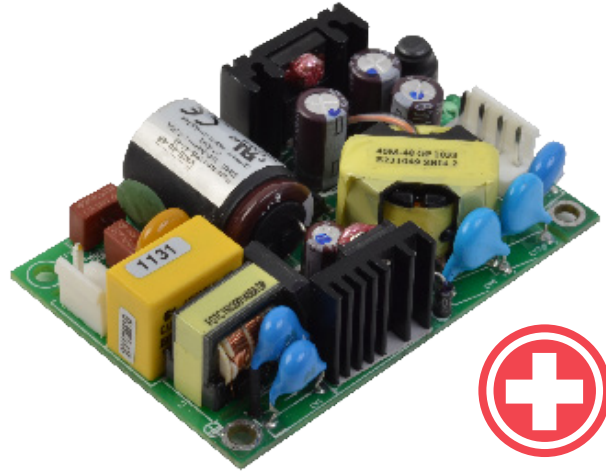


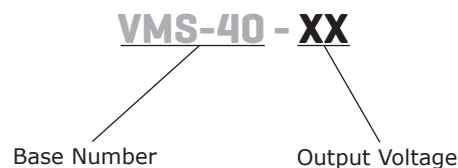
**SERIES: VMS-40 | DESCRIPTION: AC-DC POWER SUPPLY**
**FEATURES**

- 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 voltage	output current	output power	ripple and noise <sup>1</sup>	efficiency <sup>2</sup>
	(Vdc)	max (A)	max (W)	max (mVp-p)	typ (%)
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.  
 2. Measured at full load, 230 Vac, and 25°C

**PART NUMBER KEY**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
input current	at 100 Vac at 240 Vac			1 0.55	A 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		%
initial set point accuracy			±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

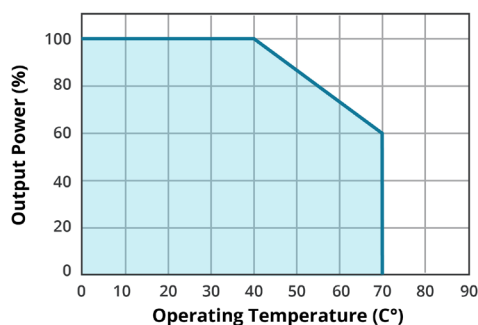
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output	5,656			Vdc
safety approvals	UL 60601-1, EN 60601-1, IEC 60601-1, CAN/CSA-C22.2 60601-1, ANSI/AAMI ES 60601-1				
EMI/EMC	FCC CFR 47 Part 15 Subpart B, CISPR 22 Class B, EN 55011 Class B, EN 61000-3-(2, 3), IEC 61000-4-(2, 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

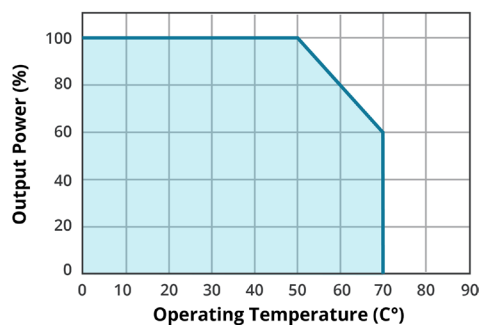
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		70	°C
storage temperature		-20		85	°C
operating humidity	non-condensing			93	%

## DERATING CURVES

**TEMPERATURE DERATING CURVE**  
**5 Vdc model**



**TEMPERATURE DERATING CURVE**  
**all other models**



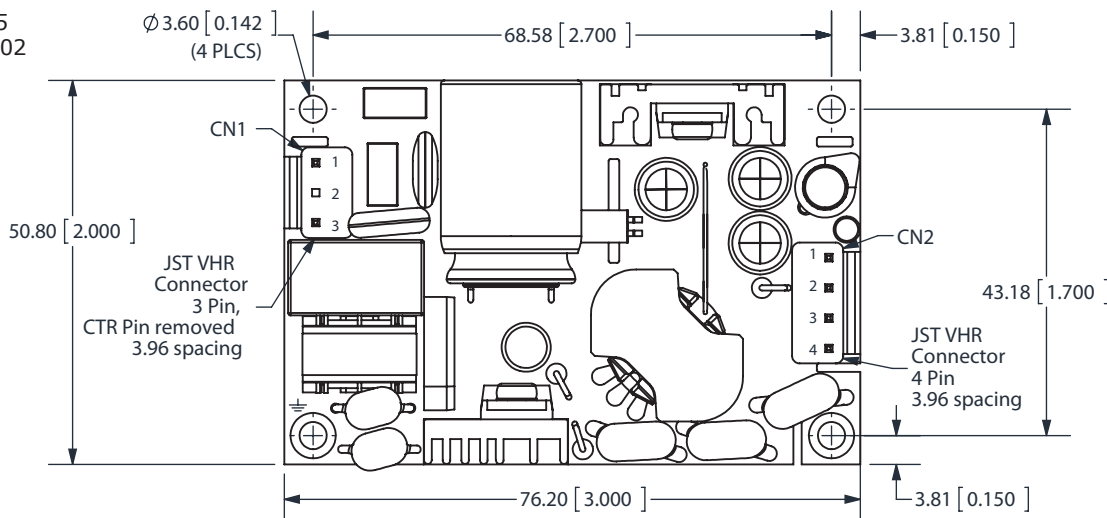
## MECHANICAL

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

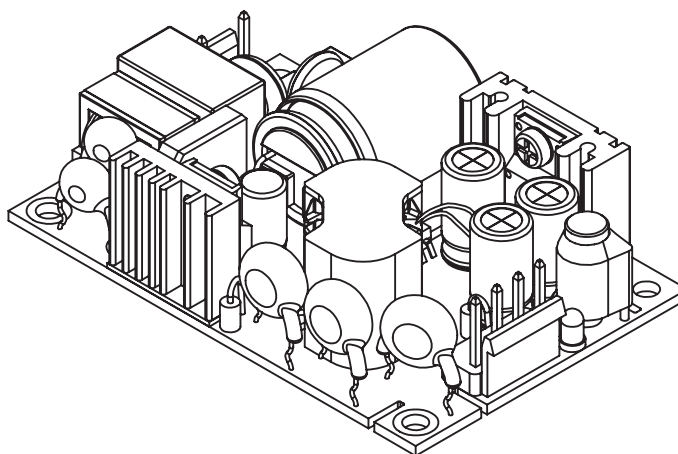
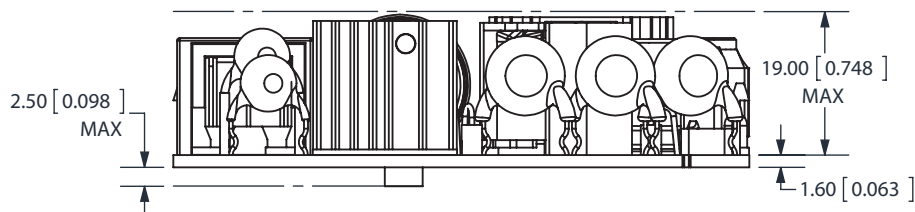
## MECHANICAL DRAWING

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



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	10/26/2011
1.01	V-Infinity branding removed	08/27/2012
1.02	updated spec	07/22/2013
1.03	company logo updated	12/22/2020
1.04	output section updated	01/27/2021
1.05	updated spec	03/04/2021
1.06	derating curves updated	05/10/2021

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



**CUI INC**

a bel group

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

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

CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.