


CUI INC

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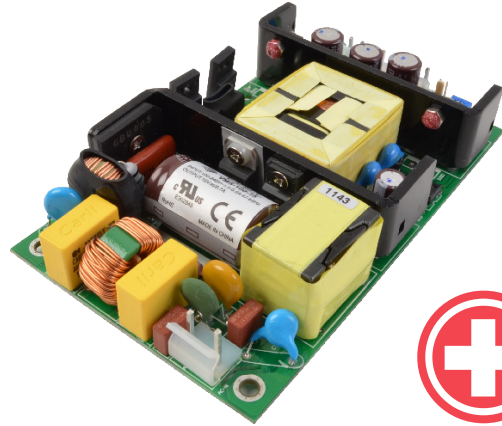
date 01/11/2024

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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%

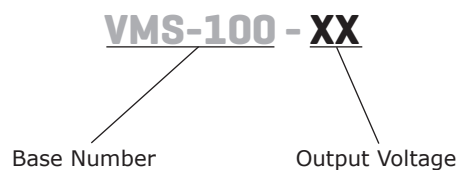


MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise ^{1,2} max (mVp-p)	efficiency typ (%)
VMS-100-5*	5	20	100	100	85
VMS-100-9*	9	11.2	100	90	88
VMS-100-12*	12	8.4	100	120	89
VMS-100-15*	15	6.7	100	150	89
VMS-100-18*	18	5.6	100	180	90
VMS-100-24	24	4.2	100	240	91
VMS-100-28*	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
3. * Discontinued model.

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

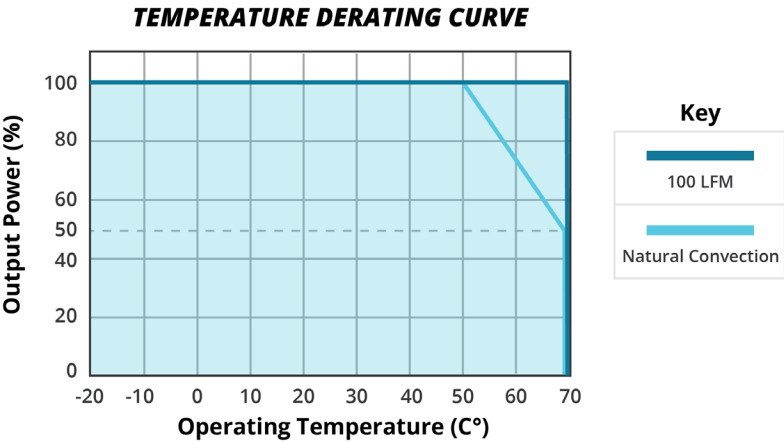
ENVIRONMENTAL

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



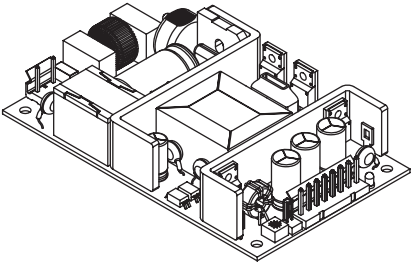
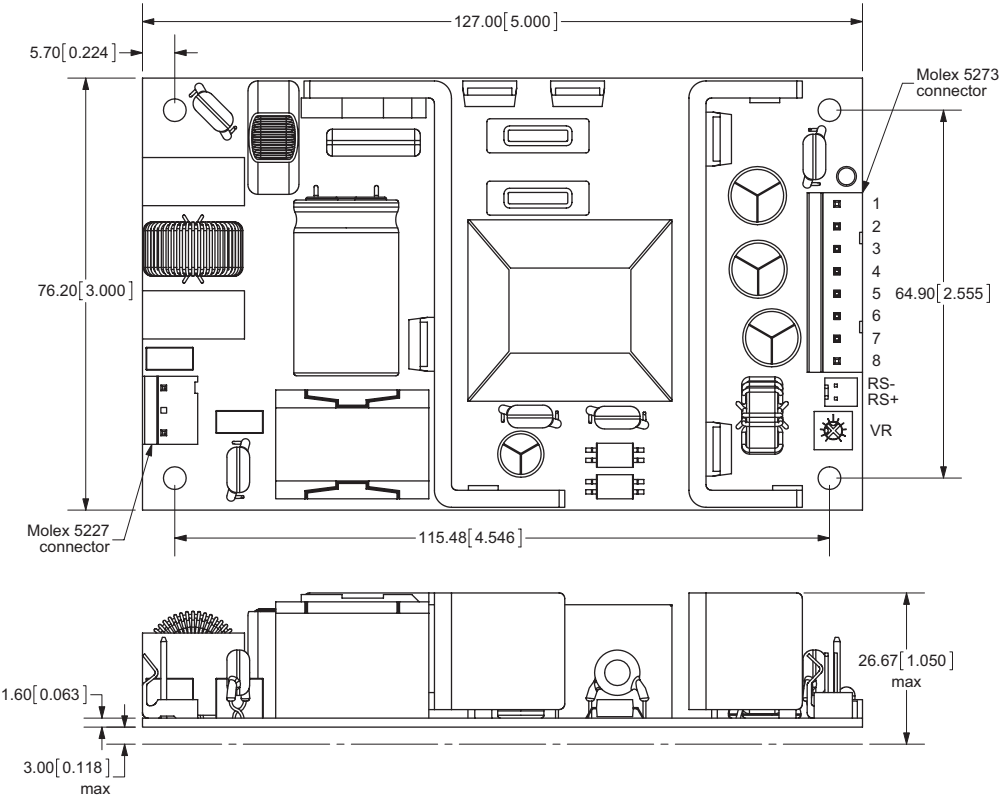
MECHANICAL DRAWING

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
1.03	company logo updated	12/21/2020
1.04	derating curve updated	05/06/2021
1.05	discontinued models VMS-100-5, VMS-100-9, VMS-100-12, VMS-100-15, VMS-100-18, VMS-100-28, VMS-100-36 & VMS-100-48	01/11/2024

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.

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.