

07/17/2013

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SERIES: VBM-100 **DESCRIPTION:** AC-DC POWER SUPPLY

FEATURES

- up to 100 W isolated output
- · baseplate cooling
- active PFC meets EN61000-3-2 Class D
- 17mm ultra low profile encapsulated packaging
- universal input (90~264 Vac)
- no load power consumption < 0.5 W
- single output from 12~48 Vdc
- 4,242 Vdc isolation
- wide operating temperature range (-20°C~85°C)
- over temperature, over voltage, and short circuit protections
- high efficiency up to 92%



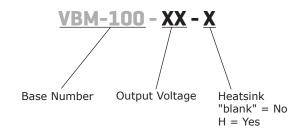




MODEL	output voltage	output current	output power	ripple and noise¹	efficiency
	(Vdc)	max (A)	max (W)	max (mVp-p)	typ (%)
VBM-100-12	12	8.4	100	120	90
VBM-100-24	24	4.2	100	240	91
VBM-100-28	28	3.6	100	280	91
VBM-100-36	36	2.8	100	360	91
VBM-100-48	48	2.1	100	480	92

Notes: $1.\ ripple\ and\ noise\ are\ measured\ at\ 20\ MHz\ BW\ with\ 10\mu F\ electrolytic\ capacitor\ and\ 0.1\mu F\ ceramic\ capacitor\ across\ output$

PART NUMBER KEY



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CUI Inc | SERIES: VBM-100 | DESCRIPTION: AC-DC POWER SUPPLY

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
inrush current	at 240 Vac			100	А
leakage current	at 264 Vac			3.5	mA
no load power consumption				0.5	W

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	high line to low line, full load			±0.5	%
load regulation	60% ±40% rated load			±1	%
voltage accuracy	set at 60% rated load and 25°C			±1	%
hold-up time			16		ms
switching frequency			130		kHz
temperature coefficient			±0.05		%/°C

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	recycle ac input to restart				
short circuit protection	hiccup mode, recovers automatically				
over temperature protection auto recovery					

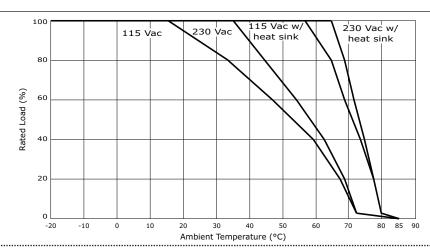
SAFETY AND COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output	4,242			Vdc
safety approvals	IEC 60950-1, EN 60950-1, UL 60950-1				
EMI/EMC	EN 55022 Class B, FCC Part 15 Class B, I	EN 61000-6-(1,3), EN 610	000-3-(2,3),	EN 55024, E	N 61204-3
RoHS compliant	yes				

ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curves	-20		85	°C
storage temperature		-40		100	°C
humidity	non-condensing			93	%

DERATING CURVES



MECHANICAL

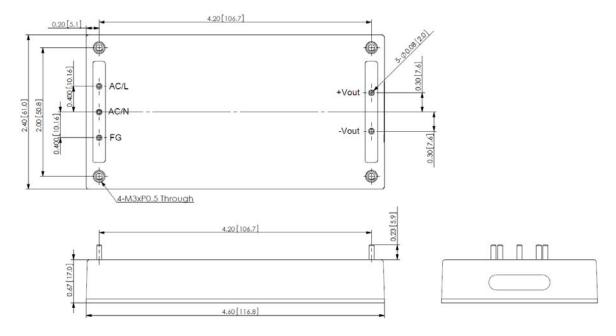
parameter	conditions/description	min	typ	max	units
dimensions	4.598 x 2.402 x 0.669 (116.80 x 61.00 x 17.00 mm)				inch
weight	without heatsink		220 0.5		g Ibs

MECHANICAL DRAWING

units: inch[mm]

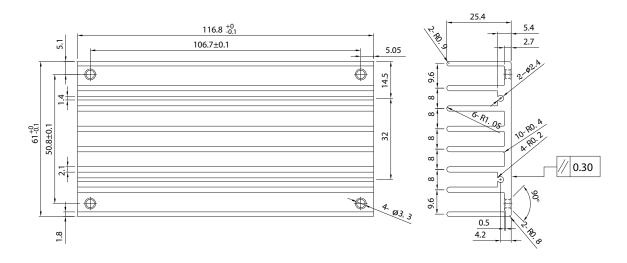
tolerance: inches: $x.xx = \pm 0.02$, $x.xxx = \pm 0.010$ mm: $x.x = \pm 0.5$, $x.xx = \pm 0.25$

PIN CONNECTIONS				
PIN	FUNCTION			
1	AC(L)			
2	AC(N)			
3	FG			
4	+Vout			
5	-Vout			



HEATSINK

units: mm



All specifications measured at: Ta=25°C, 230 Vac input voltage and 60% rated output load, unless otherwise specified.

REVISION HISTORY

rev.	description	date
1.0	initial release	06/10/2013
1.01	updated derating curves	07/08/2013
1.02	added features	07/17/2013

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.

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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.