



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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

FEATURES

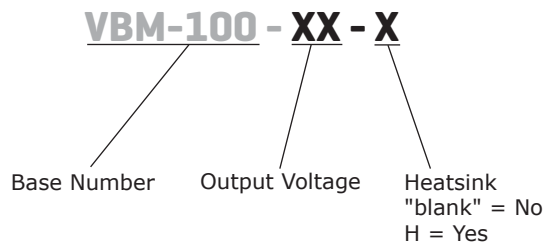
- up to 100 W isolated output
- baseplate cooling
- active PFC meets EN61000-3-2 Class D
- 17mm ultra low profile encapsulated packaging
- universal input (90~264 Vac)
- no load power consumption < 0.5 W
- single output from 12~48 Vdc
- 4,242 Vdc isolation
- wide operating temperature range (-20°C~85°C)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



MODEL	output voltage	output current	output power	ripple and noise ¹	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 10µF electrolytic capacitor and 0.1µF ceramic capacitor across output

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
inrush current	at 240 Vac			100	A
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				

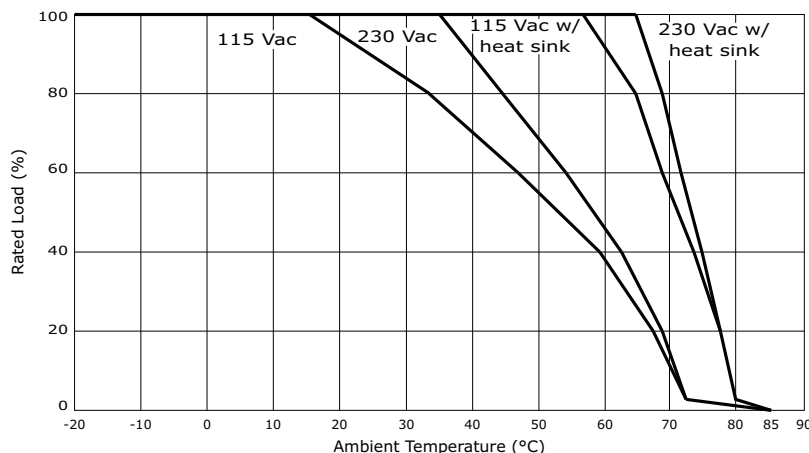
SAFETY AND COMPLIANCE

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, EN 61000-6-(1,3), EN 61000-3-(2,3), EN 55024, EN 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 lbs

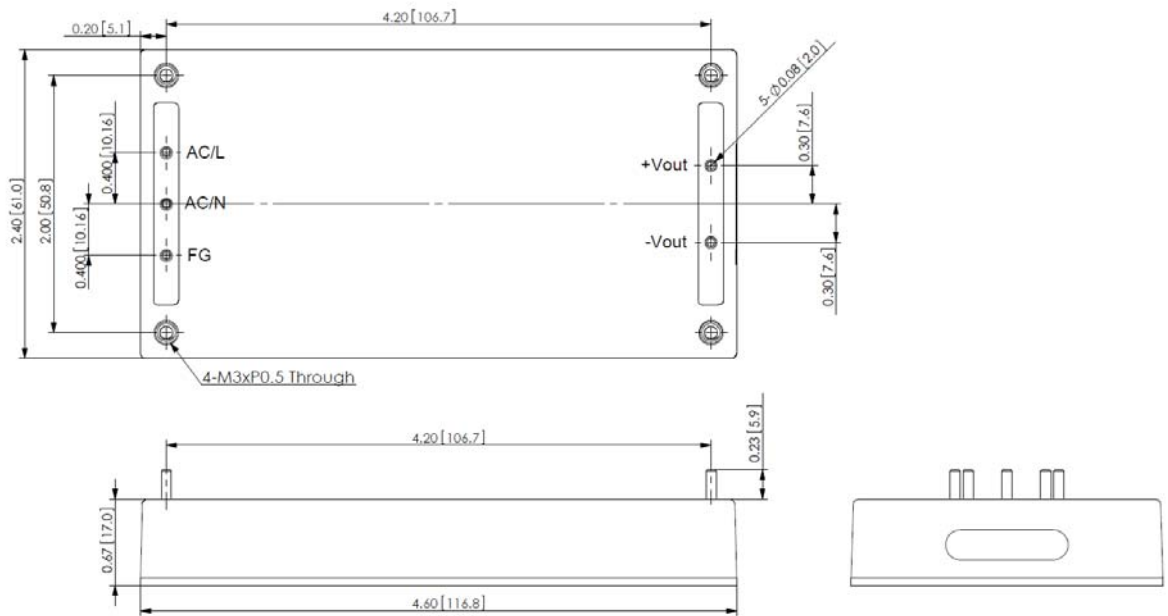
MECHANICAL DRAWING

units: inch[mm]

tolerance: inches: x.xx = ±0.02, x.xxx = ±0.010

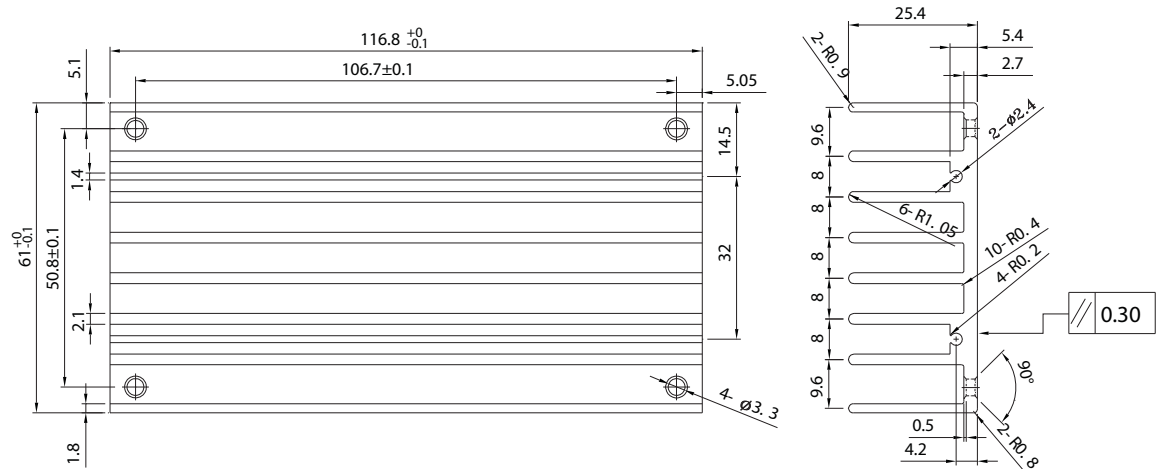
mm: x.x = ±0.5, x.xx = ±0.25

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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