



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:** VSBU-120-D | **DESCRIPTION:** AC-DC POWER SUPPLY

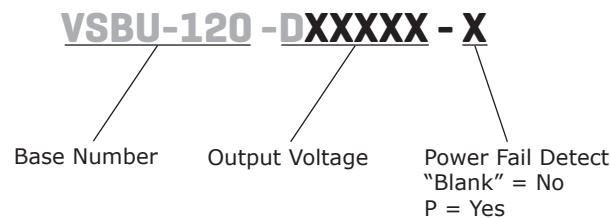
**FEATURES**

- up to 120 W continuous power
- industry standard 3" x 5" footprint
- universal input 90~260 Vac
- dual output
- active power correction
- internal EMI filter
- no minimum load required
- input surge current, over voltage, over load, and over current protections
- UL/cUL and TUV safety approvals
- efficiency 80%



MODEL		output voltage	output current	output power	ripple and noise	efficiency
		(Vdc)	max (A)	max (W)	max (mVp-p)	typ (%)
VSBU-120-D305	Vo1	3.3	15	79.5	66	80
	Vo2	5	6	79.5	50	80
VSBU-120-D312	Vo1	3.3	15	120	66	80
	Vo2	12	6	120	120	80
VSBU-120-D512	Vo1	5	15	120	50	80
	Vo2	12	6	120	120	80
VSBU-120-D515	Vo1	5	15	120	50	80
	Vo2	15	6	120	150	80
VSBU-120-D524A	Vo1	5	15	120	50	80
	Vo2	24	3.5	120	240	80
VSBU-120-D524B	Vo1	5	15	120	50	80
	Vo3	-24	2	120	-240	80
VSBU-120-D285	Vo1	28	3.92	120	280	80
	Vo3	5	2	120	50	80

**PART NUMBER KEY**



## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		260	Vac
frequency		47		63	Hz
current	at 115 Vac, full load			1.7	A
	at 230 Vac, full load			1.0	A
inrush current	at 115 Vac, 25°C, full load, cold start		30	37	A
	at 230 Vac, 25°C, full load, cold start		65	75	A
power factor correction	full load at 90 ~ 260 Vac	0.95	0.97	1.0	

## OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	full load		0.5	1	%
load regulation	at 230 Vac		3	5	%
temperature coefficient	all output	-0.04		0.04	%/°C
transient response	full load to half load at 100 Vac			4	ms
start-up	full load at 100 Vac	0.3	1	2	s
hold-up	full load at 110 Vac	16			ms

## PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection		112		132	%
over current protection		110		150	%

## SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	primary to secondary	4,242			Vdc
	primary to earth ground	2,121			Vdc
isolation resistance	test voltage of 500 Vdc	50			MΩ
safety approvals	UL 60950-1 2nd edition, EN 60950-1 2nd edition				
EMI/EMC	CISPR 22 class B, FCC part-15 class B				
leakage current	full load at 240 Vac		0.4	0.75	mA
RoHS compliant	yes				
MTBF	MIL-HDSK-217F, 25°C ambient	100,000			hrs

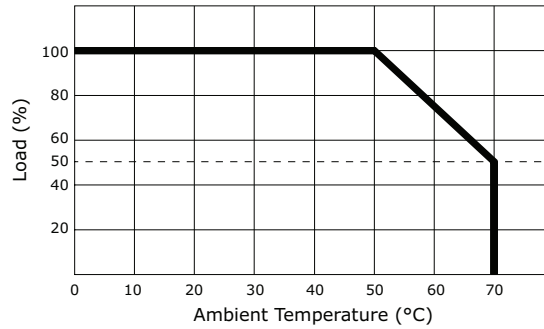
## ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		0		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	5		95	%
storage humidity		0		75	%



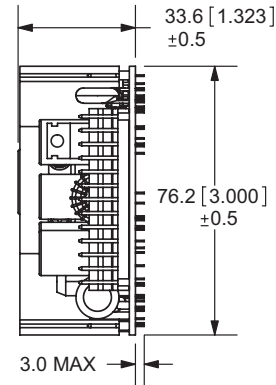
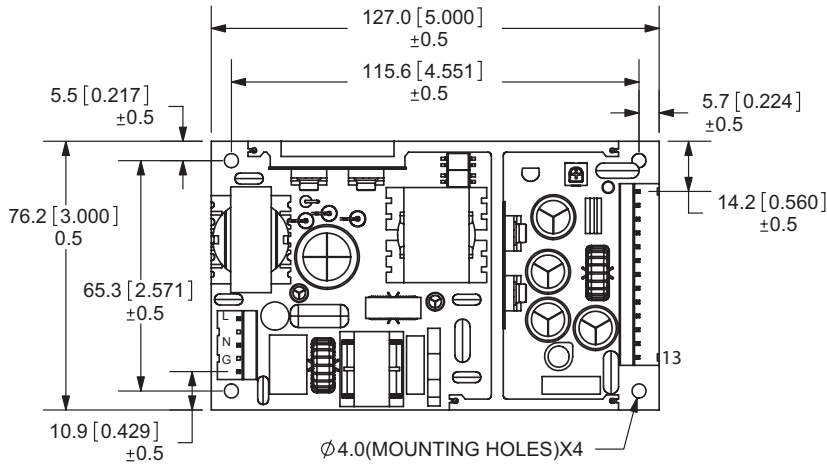
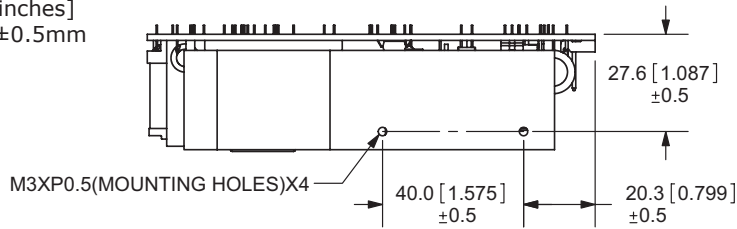
## DERATING CURVES

output power vs. ambient temperature



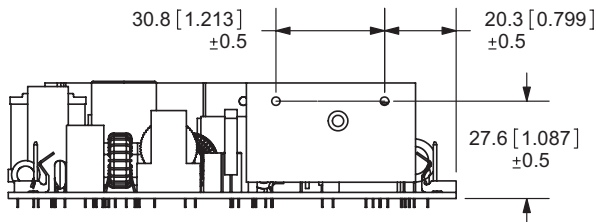
## MECHANICAL DRAWING

units: mm[inches]  
tolerance: ±0.5mm



CN2			
	VSBU-120-DXXX	VSBU-120-D285	VSBU-120-D524B
1	V2	N/C	N/C
2	V2	N/C	N/C
3	V1	V1	V1
4	V1	V1	V1
5	V1	V1	V1
6	V1	V1	V1
7	com	com	com
8	com	com	com
9	com	com	com
10	n/c	V3	V3
11	com	com	com
12	com	com	com
13	n/c	n/c	n/c

CN1	
1	ac line
2	ac neutral
3	ground



note:

- Input connector mates with Molex housing 09-50-3051 and Molex 2478 or 2578 series crimp terminal.
- Output connector mates with Molex housing 09-50-3031 and Molex 2478 or 2578 series crimp terminal.

\*pin 13 for optional power fail detect

## REVISION HISTORY

rev.	description	date
1.0	initial release	11/19/2010
1.01	applied new spec template	02/29/2012
1.02	corrected model number	04/23/2012
1.03	V-Infinity branding removed	08/14/2012
1.04	updated derating curve	02/12/2013

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



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