

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

**FEATURES**

- universal input (90 ~ 264 Vac)
- up to 120 W continuous power
- industry standard 3" x 5" footprint
- active power factor correction
- IEC/EN/UL 62368 certified
- over voltage, over current, short circuit protection



MODEL		output <sup>1</sup> voltage (Vdc)	output current		output power max (W)	ripple and noise max (mVp-p)	efficiency typ (%)
			min (A)	max (A)			
VSBU-120C-D512	Vo1	5	1.5	15.0	120	50	77
	Vo2	12	0.8	6.0		120	
VSBU-120C-D524A	Vo1	5	1.5	15.0	120	50	80
	Vo2	24	0.4	3.5		240	
VSBU-120C-D285	Vo1	28	0.4	3.92	120	280	80
	Vo3	5	0.0	2.0		50	

Note: 1. Factory adjustable.

**PART NUMBER KEY**


## INPUT

parameter	conditions/description	min	typ	max	units
voltage		90		264	Vac
frequency		47		63	Hz
current	at 100 Vac, full load			1.75	A
	at 240 Vac, full load			0.72	A
inrush current	at 100 Vac, 25°C, full load, cold start			37	A
	at 240 Vac, 25°C, full load, cold start			88	A
power factor correction	at 240 Vac, full load	0.95		1.0	

## OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	full load			1	%
load regulation	at 230 Vac, 10 ~ 90% load			5	%
temperature coefficient	all output models, full load, 100 ~ 240 Vac	-0.04		0.04	%/°C
transient response	full load to half load at 110 Vac			4	ms
start-up	full load at 100~240 Vac			3	s
hold-up	full load at 100 Vac	16			ms

## PROTECTIONS

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

## SAFETY & COMPLIANCE

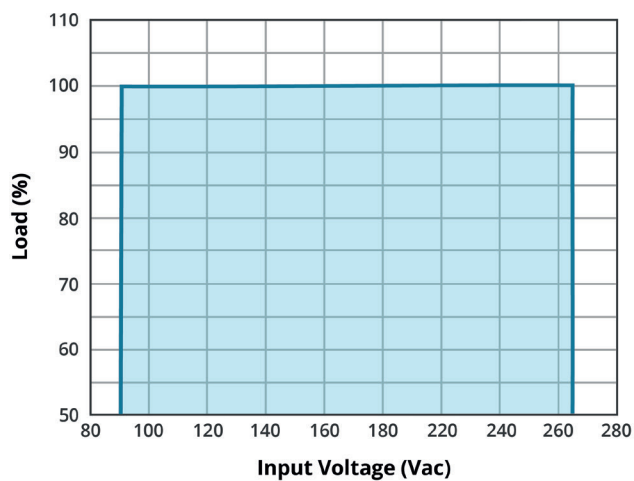
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output	4,242			Vdc
	input to earth ground	2,121			Vdc
safety approvals	certified to 62368: IEC/EN/UL UKCA				
EMI/EMC	CISPR-32/EN 55032:2012/AC:2013 Class B EN 61000-3-2:2014 EN 61000-3-3:2013				
leakage current	full load at 240 Vac			0.75	mA
RoHS compliant	yes				
MTBF	as per MIL-HDSK-217F, 25°C	100,000			hrs

## ENVIRONMENTAL

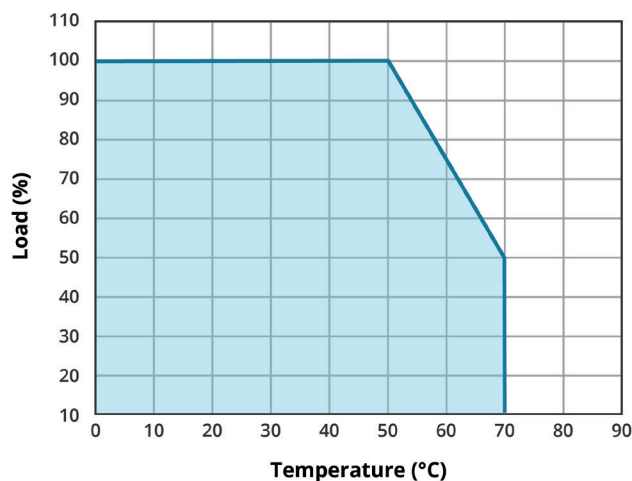
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	0		95	%
storage humidity		0		95	%

## DERATING CURVES

**INPUT VOLTAGE DERATING CURVE**



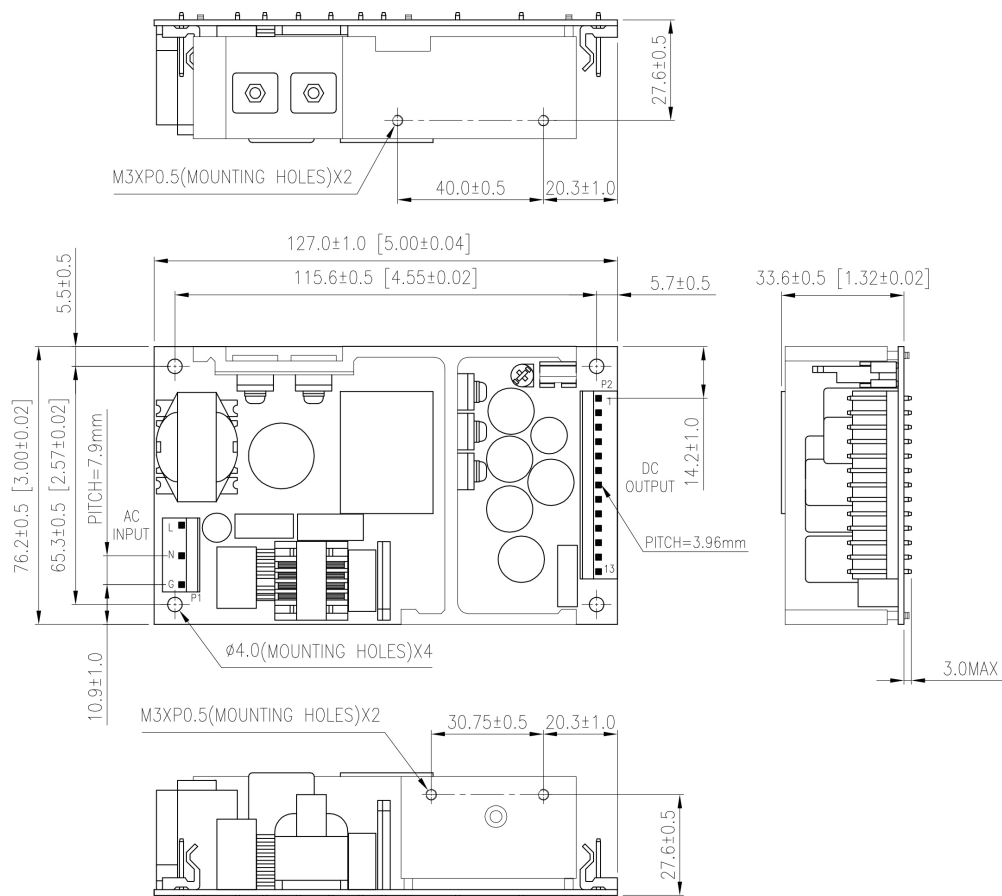
**TEMPERATURE DERATING CURVE**



## MECHANICAL DRAWING

units: mm[inches]  
tolerance: ±0.5mm

PIN	Model no.	
	VSBU-120C-D285	VSBU-120C-D5XX
1	N/C	V2
2	N/C	V2
3	V1	V1
4	V1	V1
5	V1	V1
6	V1	V1
7	COM	COM
8	COM	COM
9	COM	COM
10	V3	N/C
11	COM	COM
12	COM	COM
13	no connect	no connect



- Note:
1. Input connector mates with Molex housing 09-52-4054 and Molex 2478 series crimp terminal.
  2. Output connector mates with Molex housing 09-52-4134 and Molex 2478 series crimp terminal.

## REVISION HISTORY

rev.	description	date
1.0	initial release	12/10/2020
1.01	mechanical drawing updated	08/16/2021
1.02	derating curves updated	02/07/2022
1.03	UKCA added to specification	02/23/2022

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.