

**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	50 120	77
	Vo2	12	0.8	6.0			
VSBU-120C-D524A	Vo1	5	1.5	15.0	120	50 240	80
	Vo2	24	0.4	3.5			
VSBU-120C-D285	Vo1	28	0.4	3.92	120	280 50	80
	Vo3	5	0.0	2.0			

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

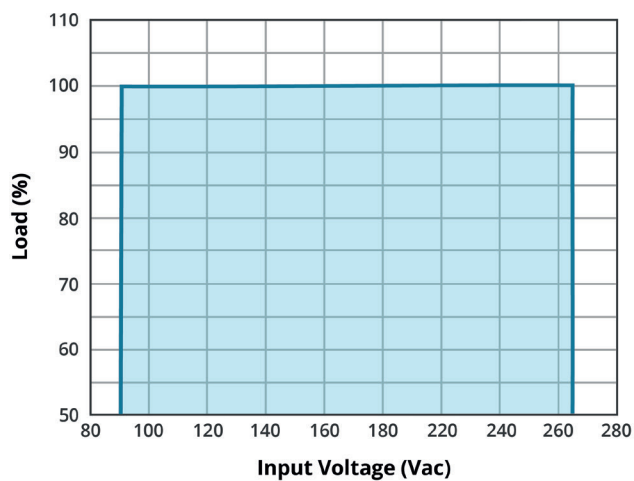
parameter	conditions/description	min	typ	max	units
isolation voltage	input to output	4,242			Vdc
	input to earth ground	2,121			Vdc
safety approvals	certified to 62368: IEC/EN/UL UKCA				
EMI/EMC	CISPR-32/EN 55032:2012/AC:2013 Class B EN 61000-3-2:2014 EN 61000-3-3:2013				
leakage current	full load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

## ENVIRONMENTAL

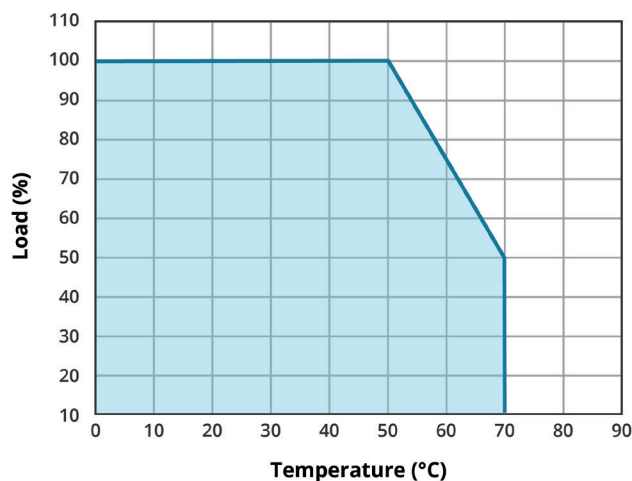
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		70	°C
storage temperature		-40		85	°C
operating humidity	non-condensing	0		95	%
storage humidity		0		95	%

## DERATING CURVES

**INPUT VOLTAGE DERATING CURVE**



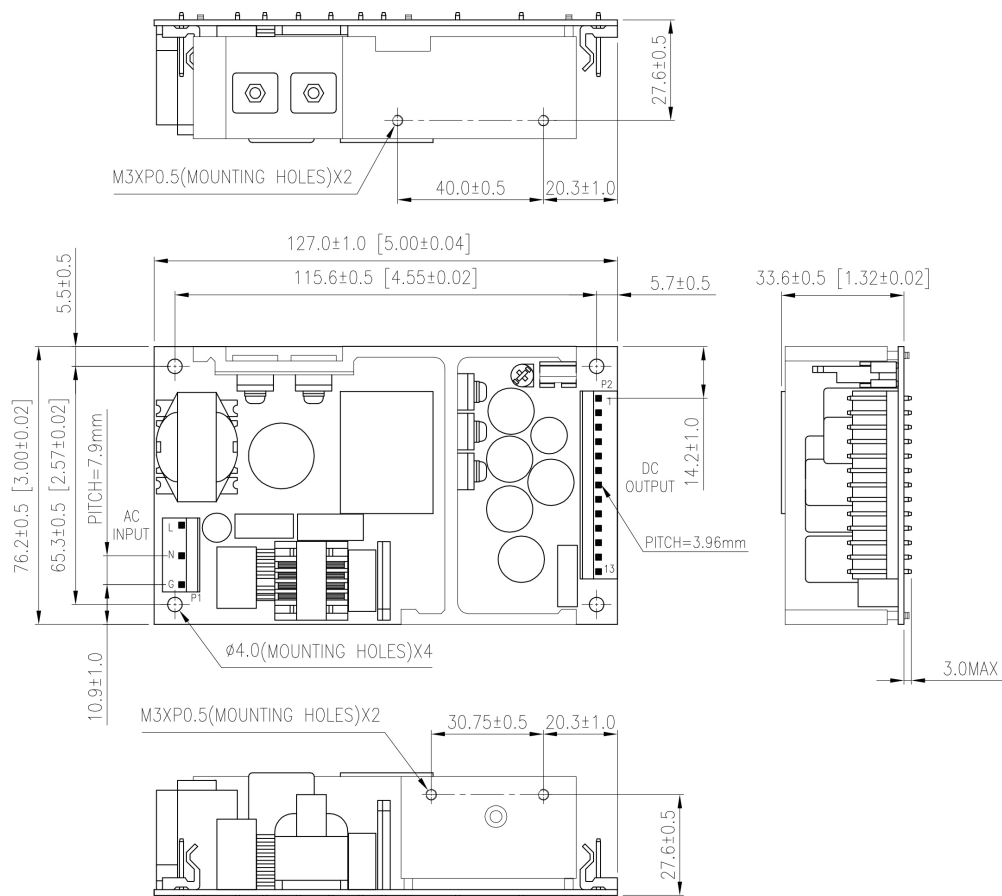
**TEMPERATURE DERATING CURVE**



## 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

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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.



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