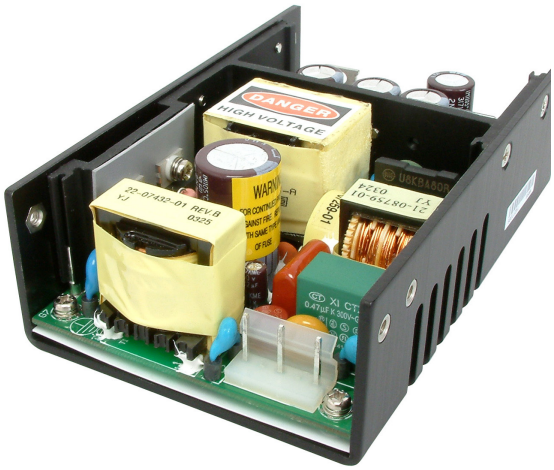
CUI INC
a bel group

SERIES: VSUU-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 / 130-370 Vdc)
- dual output
- active power correction
- internal EMI filter
- no minimum load required
- class I
- efficiency 80%
- input surge current, over voltage, over load, and over current protections



RoHS c UL us

MODEL

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

PART NUMBER KEY

VSUU-120 -DXXX - X

- VSUU-120: Base Number
- XXX: Output Voltage
- X: Power Fail Detect "Blank" = No, P = Yes

INPUT

parameter	conditions/description	min	typ	max	units
voltage		90 130		260 370	Vac Vdc
frequency		47		63	Hz
current	at 115 Vac, full load at 230 Vac, full load			1.7 1.0	A A
inrush current	at 115 Vac, 25°C, full load, cold start at 230 Vac, 25°C, full load, cold start		12 26	15 30	A A
power factor	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		%/°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

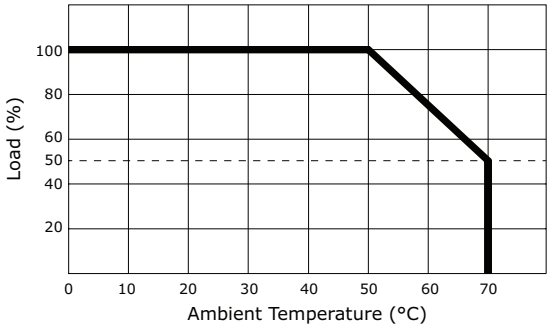
parameter	conditions/description	min	typ	max	units
isolation voltage	primary to secondary primary to earth ground	4,242 2,121			Vdc Vdc
isolation resistance	test voltage of 500 Vdc	50			MΩ
safety approvals	UL 60950-1 2nd edition, EN 60950-1 2nd edition				
EMI/EMC	CISPR 22 class B, FCC part-15 class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

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		5		95	%

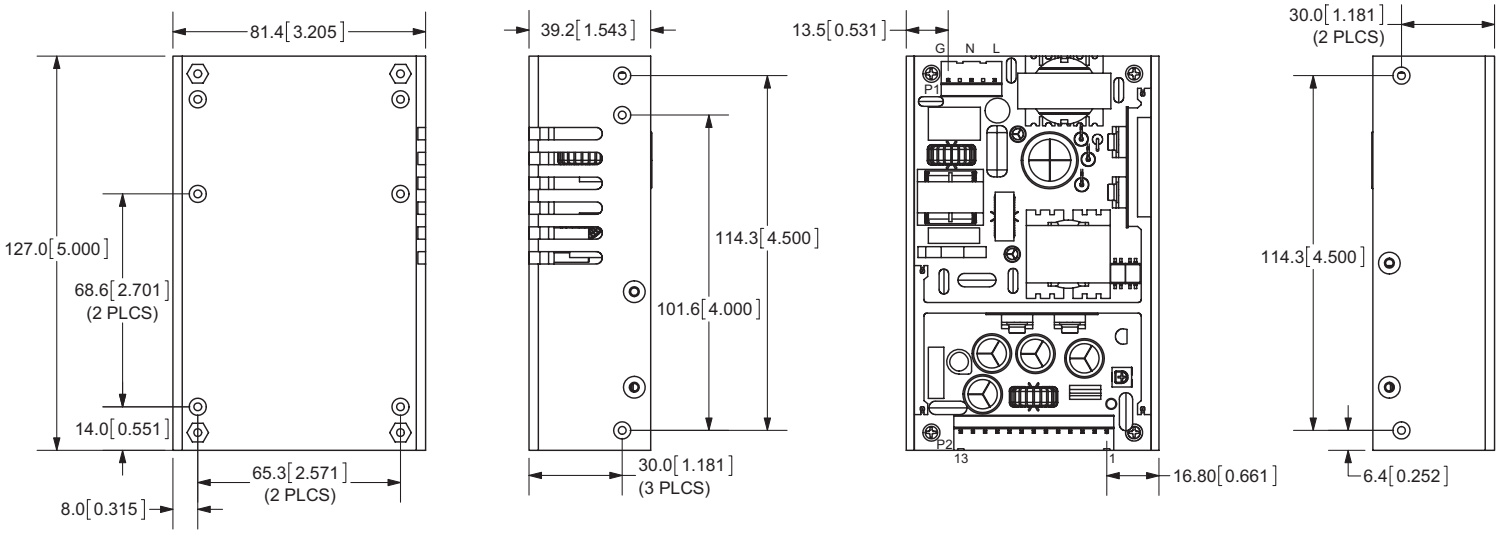
DERATING CURVES

output power vs. ambient temperature



MECHANICAL DRAWING

units: mm[inches]
tolerance: ±0.5mm



note:
1. Weight: 330~380 g (approx.)
2. Input connector mates with Molex housing 09-50-3051 and Molex 2478 or 2578 series crimp terminal.
3. Output connector mates with Molex housing 09-50-3131 and Molex 2478 or 2578 series crimp terminal.

CN2													
Model No.	1	2	3	4	5	6	7	8	9	10	11	12	13
VSUU-120-D524B	n/c	n/c	V1	V1	V1	V1	com	com	com	V2	com	com	n/c
VSUU-120-D285	n/c	n/c	V1	V1	V1	V1	com	com	com	V2	com	com	n/c
VSUU-120-DXXX	V2	V2	V1	V1	V1	V1	com	com	com	n/c	com	com	n/c

*pin 13 for optional
power fail detect

REVISION HISTORY

rev.	description	date
1.0	initial release	11/19/2010
1.01	new template applied	12/19/2011
1.02	V-Infinity branding removed	08/16/2012
1.03	updated derating curve	07/10/2018
1.04	company logo updated	10/02/2020
1.05	updated safety marks and features	04/27/2021

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.

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.