CUI INC
a bel group

SERIES: VOF-6 | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

- up to 6 W continuous power
- compact size
- universal input (85~264 Vac / 120~375 Vdc)
- single output from 3.3~24 Vdc
- no minimum load required
- 3000 Vac isolation
- over current, over voltage, and short circuit protections
- certified to 60950: UL/cUL
- no load power consumption < 0.5 W
- efficiency up to 80%



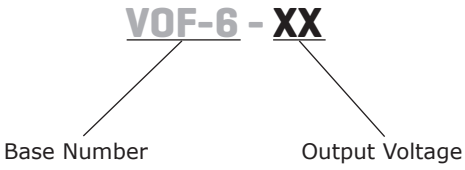
RoHS c UL us

MODEL

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple[1] and noise max (mVp-p)	efficiency typ (%)
VOF-6-3.3	3.3	1.20	3.96	100	66
VOF-6-5	5	1.20	6	100	73
VOF-6-12	12	0.50	6	120	77
VOF-6-15	15	0.40	6	150	78
VOF-6-24	24	0.25	6	240	80

Notes: 1. Ripple & noise are measured at 20 MHz BW with 47 µF ceramic and 100 nF electrolytic capacitors on the output

PART NUMBER KEY



INPUT

parameter	conditions/description	min	typ	max	units
voltage		85 120		264 375	Vac Vdc
frequency		47		63	Hz
current				0.6	A
inrush current	at 110 Vac, full load, cold start at 220 Vac, full load, cold start			10 20	A A
input fuse	built-in, non-user serviceable				

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	3.3 Vdc model all other models			±0.6 ±0.5	% %
load regulation	3.3 Vdc model all other models			±1.2 ±1	% %
temperature coefficient			±0.05		%/°C
hold-up time	at 115 Vac, full load		6		ms
adjustability	adjustable with built-in trim pot		±5		%
switching frequency			67		kHz
no load power consumption				0.5	W

PROTECTIONS

parameter	conditions/description	min	typ	max	units
over voltage protection	clamped by TVS				
over current protection	automatically recovers		105		%
short circuit protection	protected, long term short circuit may reduce reliability				

SAFETY & COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output at 10 mA for 1 minute			3,000	Vac
isolation resistance	input to output at 500 Vdc at 25°C	50			MΩ
safety approvals	certified to 60950: UL/cUL				
EMI/EMC	FCC class B, EN55022 class B, CE				
leakage current				0.25	mA
RoHS	2011/65/EU				
MTBF	according to MIL-HDBK-217F	250,000			hours

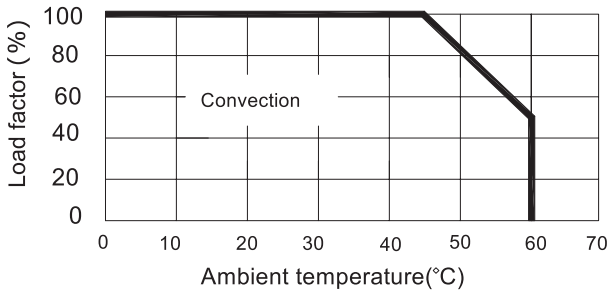
ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		60	°C
storage temperature		-20		85	°C
operating humidity	non-condensing	20		90	%
storage humidity	non-condensing	20		90	%

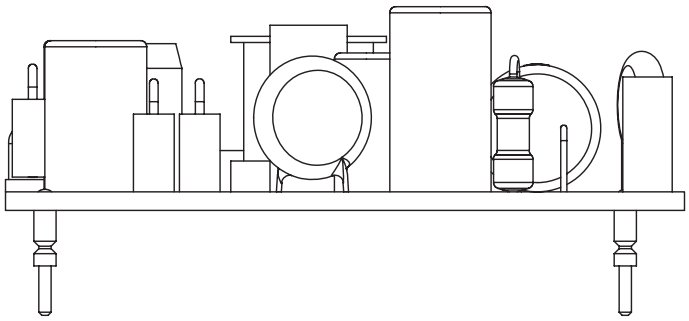
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	55 x 35 x 16.5 (2.17 x 1.38 x 0.65 inches)				mm
cooling method	free air convection (see derating curve below)				

DERATING CURVES



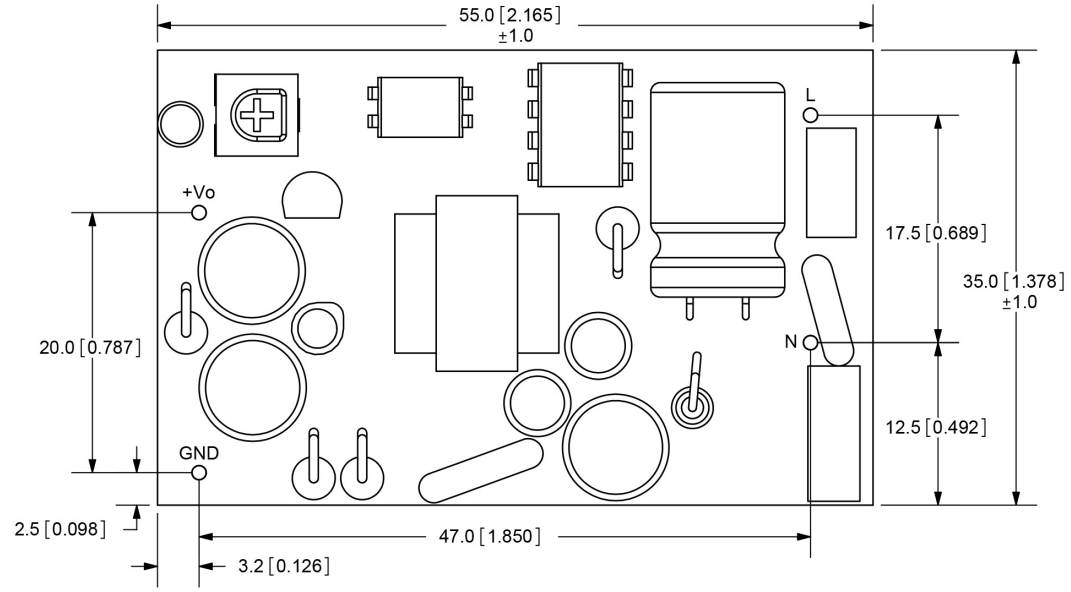
MOUNTING METHOD

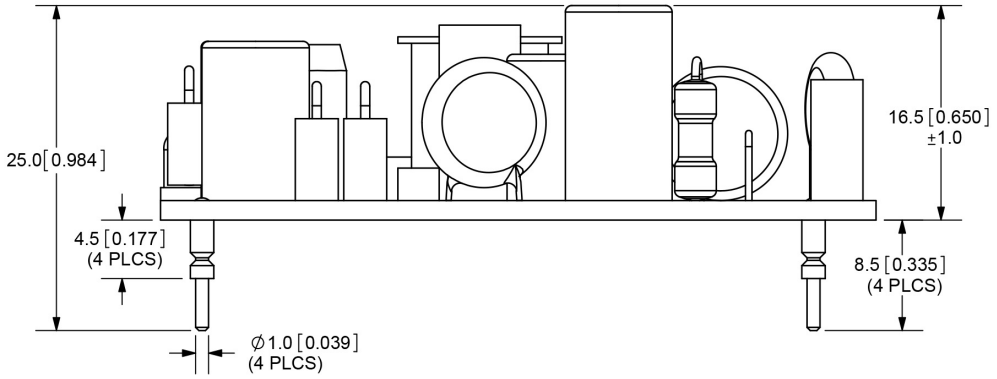


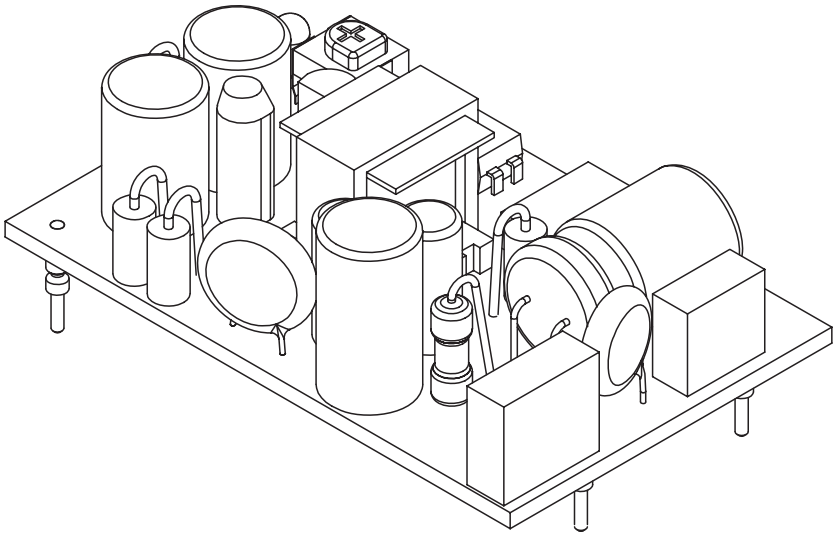
Horizontal
(performance evaluations conducted under this mounting method)

MECHANICAL DRAWING

units: mm [inches]
tolerance: ±0.3 [±0.01]
unless otherwise specified







REVISION HISTORY

rev.	description	date
1.0	initial release	10/19/2010
1.01	new template applied	05/13/2011
1.02	added MTBF data	09/20/2011
1.03	V-Infinity branding removed	09/06/2012
1.04	VOF-6-3.3 efficiency changed, outer dimension tolerance changed	12/28/2015
1.05	updated safety information	11/19/2020

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.