CUI INC®

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

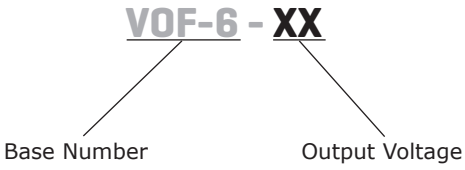
FEATURES

- 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
- UL/cUL and TUV 60950-1 safety approvals
- no load power consumption < 0.5 W
- efficiency up to 80%

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	TUV EN 60950, UL/cUL 60950-1				
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

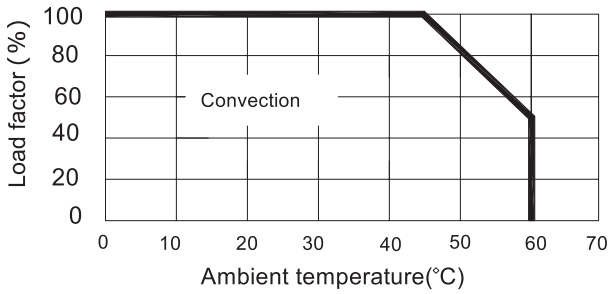
ENVIRONMENTAL

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	%

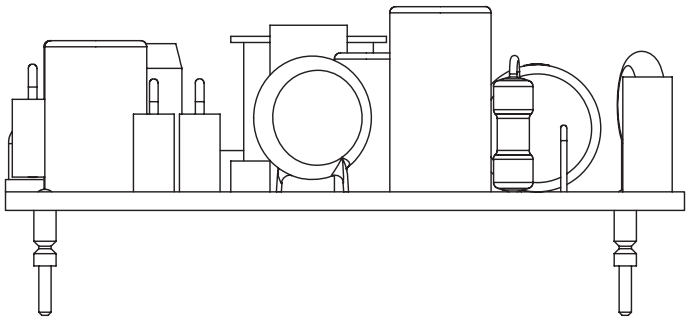
MECHANICAL

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



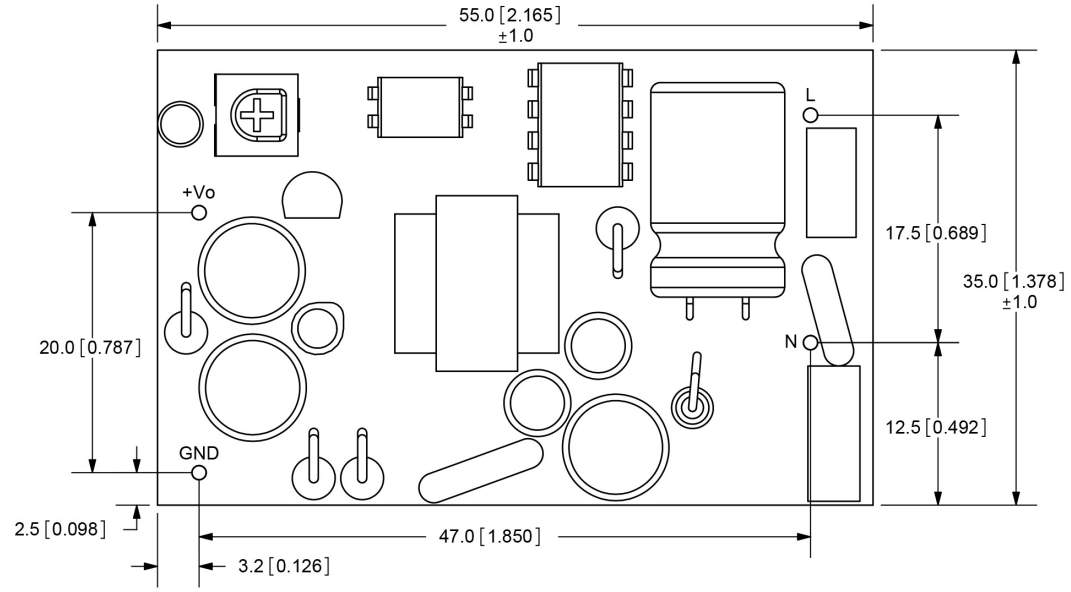
MOUNTING METHOD

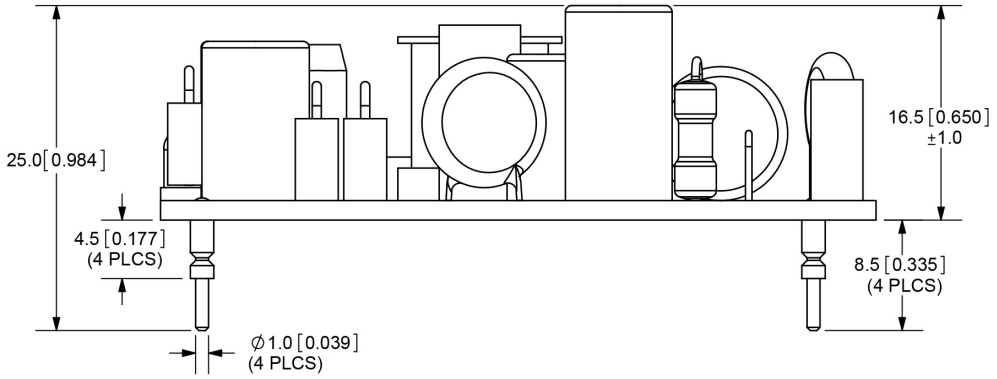


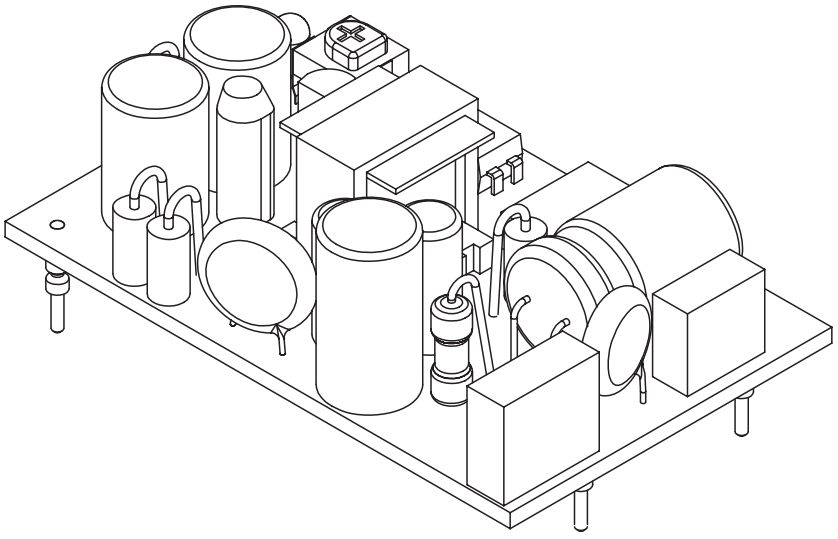
Horizontal
(performance evaluations conducted under this mounting method)

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

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

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