CUI INC®

SERIES: VOF-15 | **DESCRIPTION:** AC-DC POWER SUPPLY

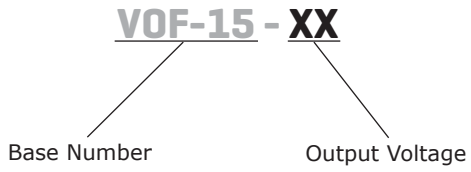
FEATURES

- up to 15 W continuous power
- compact size
- universal input (85~264 Vac / 120~375 Vdc)
- single output from 3.3~24 V
- no minimum load required
- 3000 V 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 83%

MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple[1] and noise max (mVp-p)	efficiency typ (%)
VOF-15-3.3	3.3	3.0	9.9	100	70
VOF-15-5	5	3.0	15	100	75
VOF-15-9	9	1.67	15	120	78
VOF-15-12	12	1.25	15	120	80
VOF-15-15	15	1.0	15	150	80
VOF-15-24	24	0.63	15	240	82
VOF-15-48	48	0.31	15	480	83

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	110 Vac, full load, cold start 220 Vac, full load, cold start			20 40	A A
input fuse	built-in, non-user serviceable				

OUTPUT

parameter	conditions/description	min	typ	max	units
line regulation	3.3 V model all other models		±0.6 ±0.5		% %
load regulation	3.3 V model all other models		±1.2 ±1		% %
temperature coefficient			±0.05		%/°C
hold-up time	115 Vac at full load		16		ms
adjustability	adjustable with built-in trim pot		±5		%
switching frequency			100		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	primary to secondary 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, EN 55022 class B, CE				
leakage current				0.25	mA
RoHS compliant	yes				
MTBF	according to MIL-HDBK-217F	250,000			hours

ENVIRONMENTAL

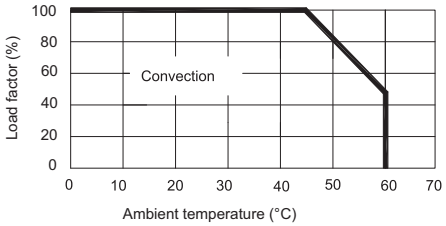
parameter	conditions/description	min	typ	max	units
operating temperature	see derating curve	0		60	°C
storage temperature	see derating curve	-25		75	°C
operating humidity	non-condensing	20		90	%
storage humidity	non-condensing	20		90	%

MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	2.76 x 1.91 x 1.02 (70 x 49 x 26 mm)				inch
cooling method	free air convection (see derating curve below)				

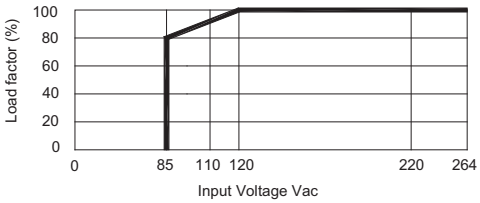
DERATING CURVES

1. output power vs. ambient temp.

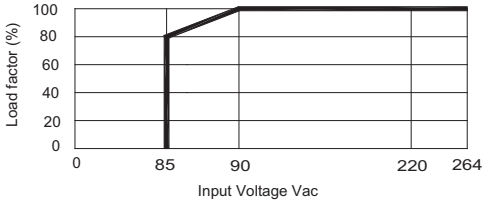


2. output power vs. input voltage

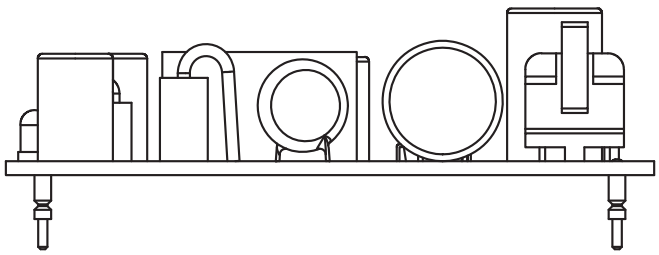
a. 3.3, 5 V models



b. all other models



MOUNTING METHOD

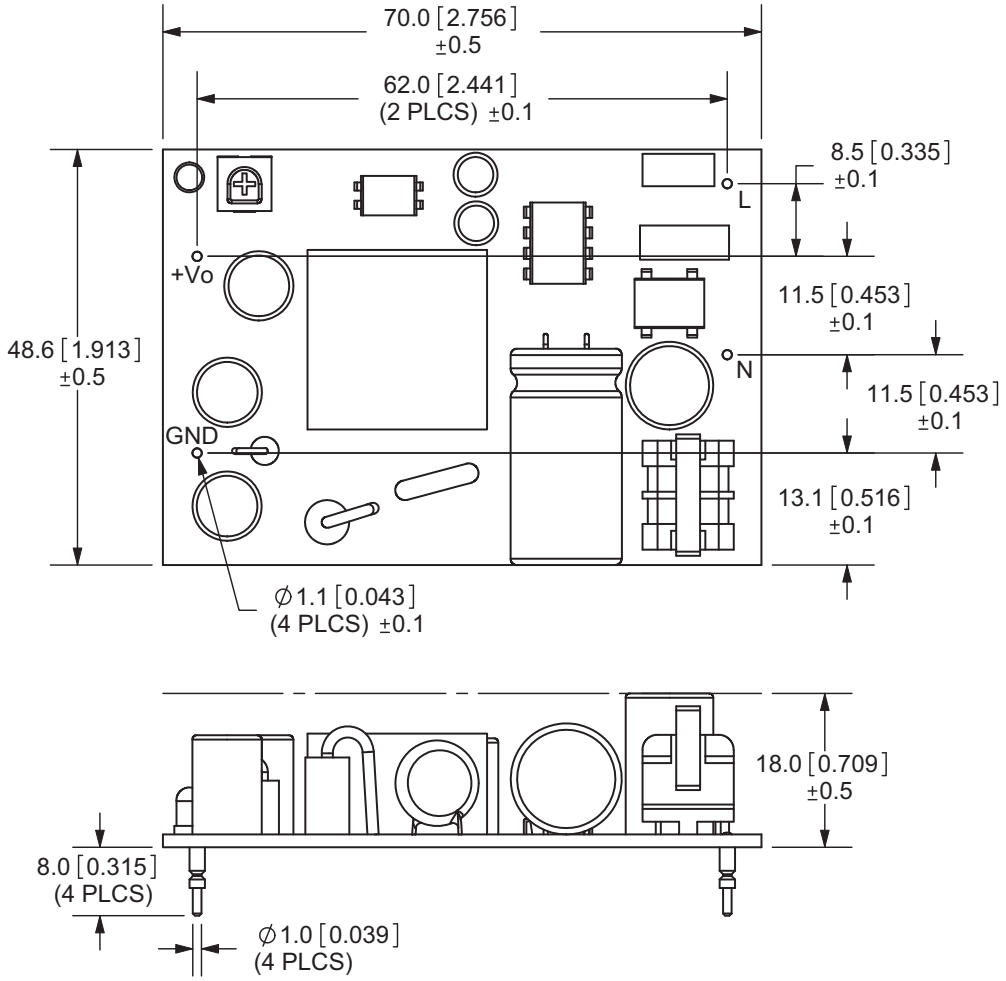


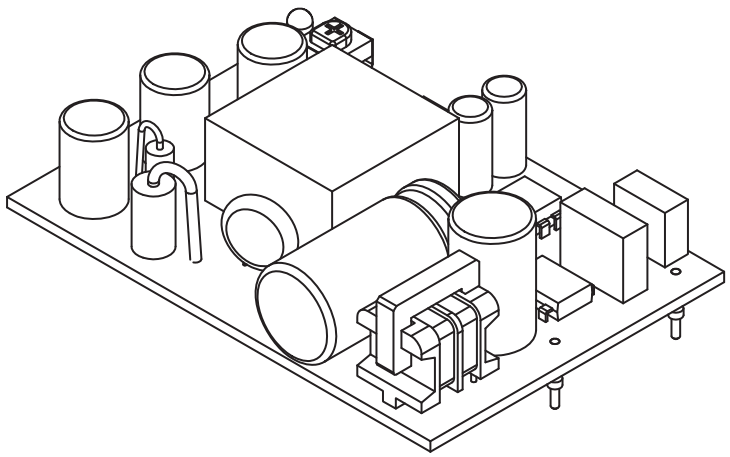
Horizontal

(performance evaluations conducted under this mounting method)

MECHANICAL DRAWING

units: mm [inches]
tolerance: ±0.3 [±0.01]





REVISION HISTORY

rev.	description	date
1.0	initial release	03/18/2010
1.01	applied new spec template	05/13/2011
1.02	added MTBF data	09/20/2011
1.03	V-Infinity branding removed	08/16/2012

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

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