

date 12/29/2015

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# SERIES: VOF-10 | DESCRIPTION: AC-DC POWER SUPPLY

#### **FEATURES**

- up to 10 W continuous power
- compact size
- universal input (85~264 Vac / 120~375 Vdc)
- single output from 3.3~48 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 78%



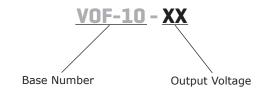




MODEL	output voltage	output current	output power	ripple¹ and noise	efficiency
	(Vdc)	max (A)	max (W)	<b>max</b> (mVp-p)	<b>typ</b> (%)
VOF-10-3.3	3.3	2.4	8	100	70
VOF-10-5	5	2.0	10	100	75
VOF-10-9*	9	1.11	10	120	75
VOF-10-12	12	0.83	10	120	75
VOF-10-15	15	0.67	10	150	75
VOF-10-24	24	0.42	10	240	78
VOF-10-48*	48	0.21	10	480	78

Notes:

#### **PART NUMBER KEY**



<sup>1.</sup> Ripple & noise are measured at 20 MHz BW with 47  $\mu F$  ceramic and 100 nF electrolytic capacitors on the output \*. Discontinued.

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# **INPUT**

parameter	conditions/description	min	typ	max	units
voltage		85		264	Vac
		120		375	Vdc
frequency		47		63	Hz
input current				0.6	А
inrush current	110 Vac, full load, cold start			15	А
illrusii current	220 Vac, full load, cold start			30	Α
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		16		ms
adjustability	adjustable with built-in trim pot		±5		%
switching frequency			100		kHz
no load power consumption	48 Vdc model all other models			0.7 0.5	W 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, EN 55022 class B, CE				
leakage current				0.25	mA
RoHS	2011/65/EU				
MTBF	according to MIL-HDBK-217F	250,000			hours

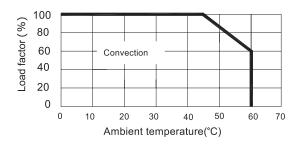
# **ENVIRONMENTAL**

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	%

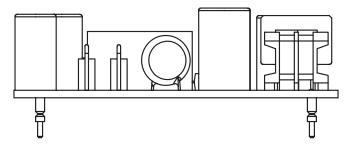
# **MECHANICAL**

parameter	conditions/description	min	typ	max	units
dimensions	65 x 45 x 18.5 (2.56 x 1.77 x 0.73 inches)				mm
cooling method	free air convection (see derating curve below)				

### **DERATING CURVES**



# **MOUNTING METHOD**

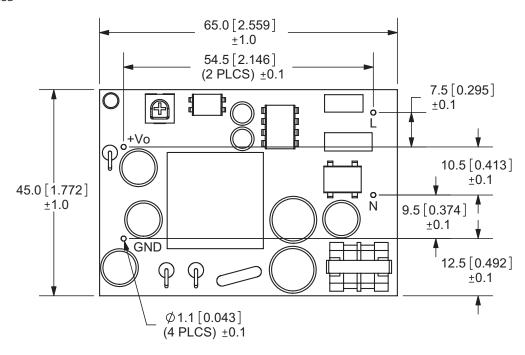


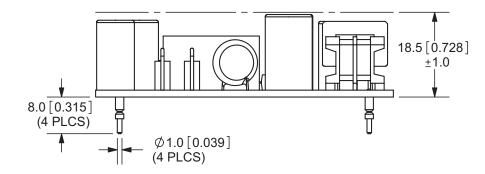
**Horizontal** 

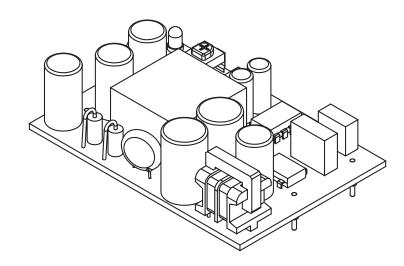
(performance evaluations conducted under this mounting method)

# **MECHANICAL DRAWING**

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







### **REVISION HISTORY**

rev.	description	date
1.0	initial release	03/18/2010
1.01	new template applied	05/13/2011
1.02	added MTBF data	09/20/2011
1.03	V-Infinity branding removed	08/21/2012
1.04	discontinued 9 & 48 Vdc models	12/29/2015

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



**Headquarters** 20050 SW 112th Ave. Tualatin, OR 97062 **800.275.4899** 

Fax 503.612.2383 **cui**.com techsupport@cui.com

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