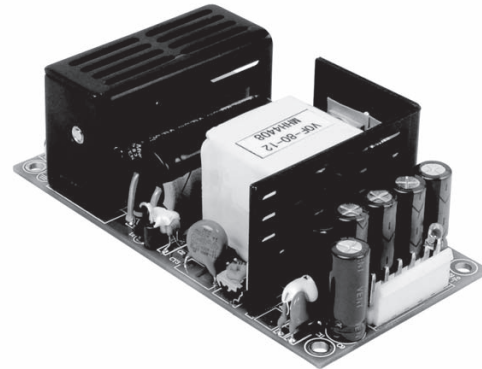


PART NUMBER: VOF-80

DESCRIPTION: switching power supply

features

- no-load power consumption < 0.5W
- universal input 85~264 V ac
- over current, over voltage protected
- industry standard footprint
- efficiency up to 89%
- safety approved to CB, TUV, CE, UL/cUL
- conducted EMI meets EN55022 class B and FCC class B



MODEL	output voltage	output current ⁴	total regulation ^{1,2}	ripple & noise ³	efficiency
	(V dc)	(A)	(%)	(mVp-pmax.)	(%)
VOF-80-3.3	3.3	10	±5	120	75
VOF-80-5	5	10	±5	120	76
VOF-80-12	12	6.66	±5	120	85
VOF-80-15	15	5.33	±5	150	86
VOF-80-24	24	3.33	±5	240	87
VOF-80-48	48	1.66	±5	480	89

- notes:
1. Measured from high line to low line at rated load.
 2. Measured from full load to 10% load at 115 V ac.
 3. Ripple & noise are measured at 20MHz bandwidth with 0.1 µf ceramic & 10 µf electrolytic capacitors on the output. The two earth ground pads are connected to input earth ground.
 4. See derating curves

INPUT

parameter	conditions/description	min	nom	max	units
input frequency		47		63	Hz
input voltage	output power derated from 85-90 V ac	85		264	V ac
input current	AC input of 110 V ac		1500		mA
	AC input of 220 V ac		800		mA
inrush current	AC input of 110 V ac, full load, cold start			25	A
	AC input of 220 V ac, full load, cold start			50	A
input fuse	built-in, non-user serviceable				

OUTPUT

parameter	conditions/description	min	nom	max	units
efficiency	see table above, typical values measured at 115 V ac, full load				
hold up time	at 115 V ac, full load	8			mS
adjustability		-10		+5	%
temp. coefficient		-0.05		+0.05	%/°C

PROTECTION CIRCUIT

parameter	conditions/description
output overload	current limiting starts at 105% of the rated output current and recovers automatically
output over voltage	output voltage is limited by TVS clamping to: 6.8 V for 3.3 & 5 V models, 135% for all other models
output short circuit	protected, long-term short circuit may reduce reliability

PART NUMBER: VOF-80

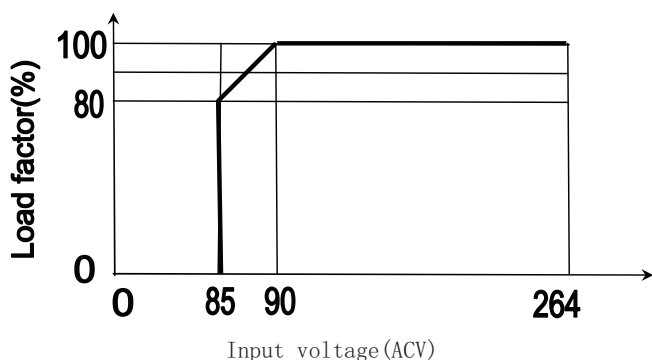
DESCRIPTION: switching power supply

GENERAL AND SAFETY

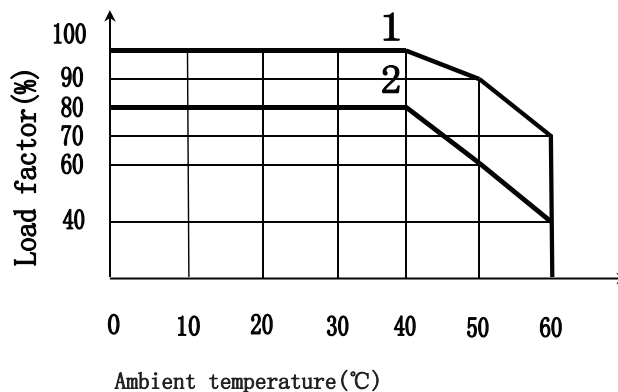
parameter	conditions/description	min	nom	max	units
switching frequency			65		kHz
operating temp.		0		60	°C
storage temp.		-20		85	°C
operating humidity	non-condensing	20		90	% RH
storage humidity	non-condensing	20		95	% RH
operating altitude			10000 / 3000		ft / m
storage altitude			30000 / 9000		ft / m
leakage current	per EN60950, at 264 V ac			1.5	mA
isolation voltage (for 1 minute)	primary to secondary	3000			V ac
	primary to transformer core	1500			V ac
	primary to ground	1500			V ac
RoHS	compliant				
safety	approved to CB, TUV EN60950, CE, UL/cUL 60950-1				
EMI	conducted emission comply with FCC class B, EN55022 class B				
insulation resistance	measured at 500 V dc, room temperature	50			MΩ

DERATING CURVES

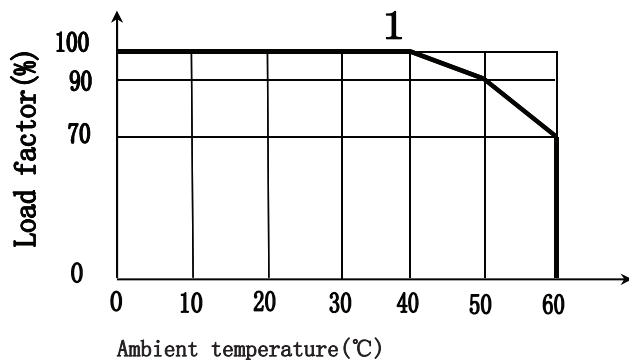
input vs. load (for all models)



temperature vs. load (for 3.3, 5 V models)



temperature vs. load (for 12, 15, 24, 48 V models)



1. forced air with velocity of 1M/S
2. free air convection

1. forced air with velocity of 1M/S

PART NUMBER: VOF-80

DESCRIPTION: switching power supply

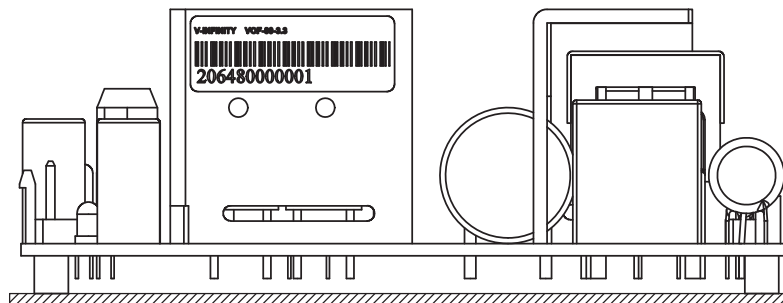
MECHANICAL

parameter	conditions/description
dimensions	4" (102 mm) x 2" (51 mm) x 1.28" (32.6 mm)
weight	0.2 Kg
cooling method	free air convection or forced air (see derating curves below)

MATING CONNECTORS

parameter	conditions/description
ac input (CN1)	mates with Molex housing 09-50-7031 with Molex 2878 series crimp contact
dc output (CN2)	mates with Molex housing 09-50-7061 with Molex 2878 series crimp contact

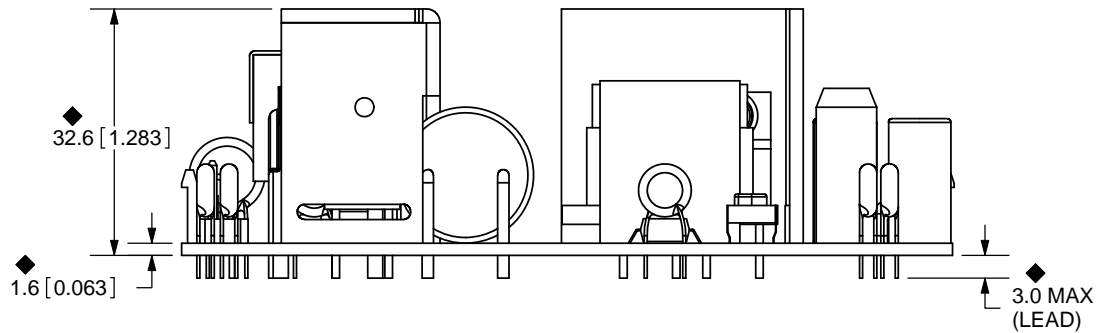
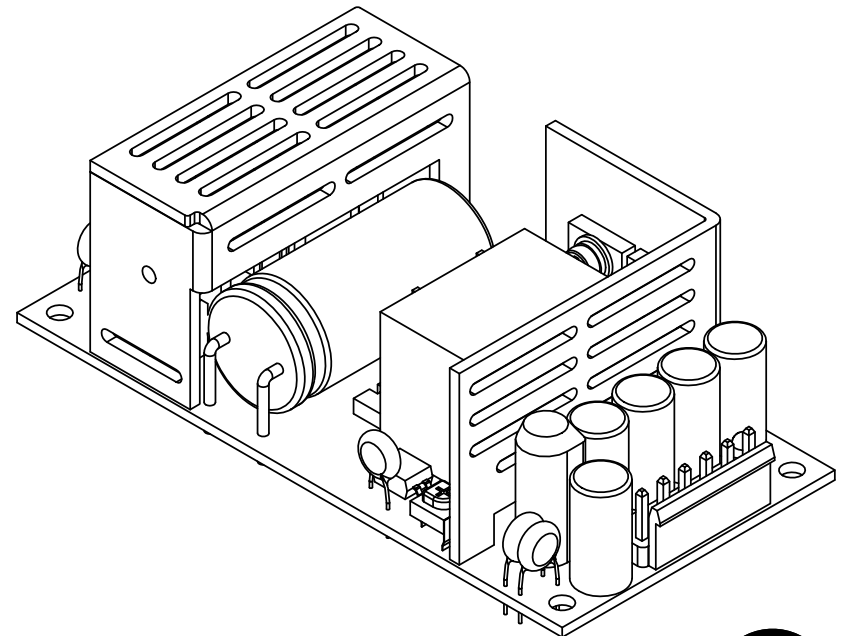
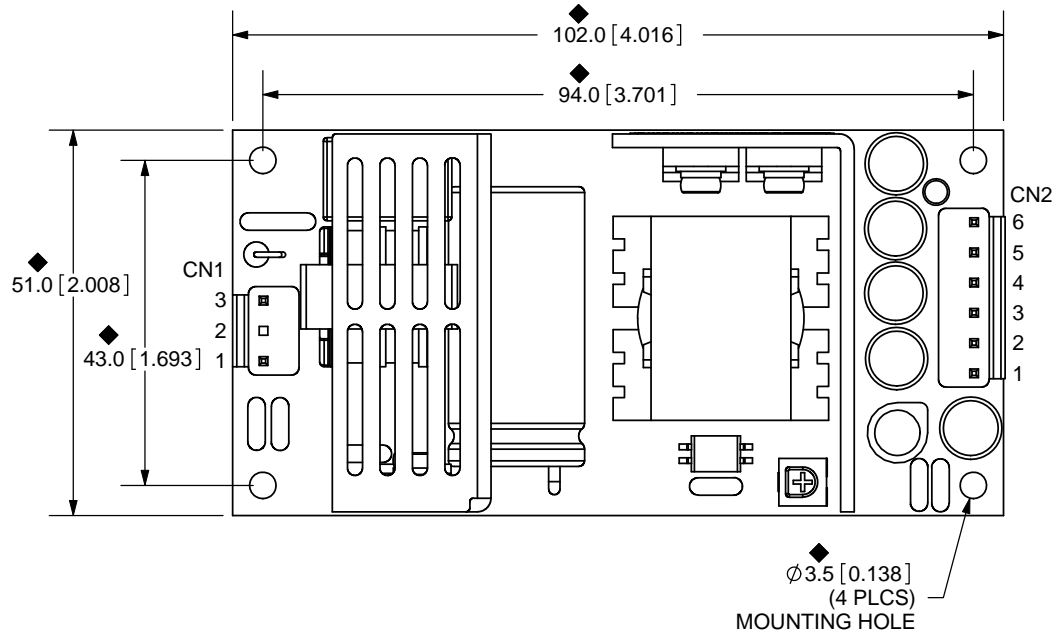
MOUNTING METHOD



Horizontal

(performance evaluations conducted under this mounting method)

REV.	DESCRIPTION	DATE
A	NEW DRAWING	9/15/2009
B	updated pin designation	4/1/2010



NOTES:
 CRITICAL DIMENSIONS
 FOR INSPECTION

TOLERANCE: $\pm 1.0\text{mm}$



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 Tualatin, OR 97062
 Phone: 503-612-2300
 800-275-4899
 Fax: 503-612-2383
 Website: www.cui.com

CN1		
1	2	3
L	no pin	N

CN2					
1	2	3	4	5	6
+V	+V	+V	-V	-V	-V

TITLE: VOF-80 MECHANICAL DRAWING		REV: B
PART NO. VOF-80-mech		UNITS: MM [INCHES]
DRAWN BY: ZRJ		APPROVED BY:
		SCALE: 1:1

PC FILE NAME:
 VOF-80-mech

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