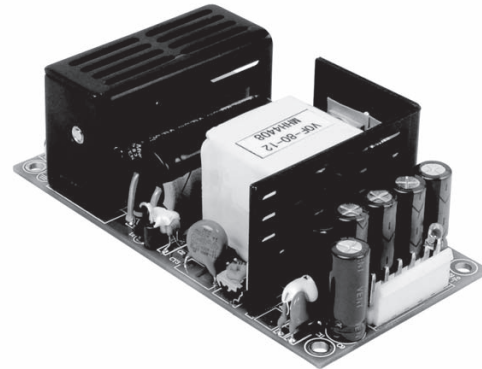


PART NUMBER: VOF-80

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

| MODEL | output voltage (V dc) | output current (A) | total regulation ^{1,2} (%) | ripple & noise ³ (mVp-pmax.) | efficiency (%) |
|------------|--------------------------|-----------------------|--|--|-------------------|
| VOF-80-3.3 | 3.3 | 8 ~ 10 | ±5 | 120 | 75 |
| VOF-80-5 | 5 | 8 ~ 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 110 V ac.
 3. Ripple & noise are measured at 20MHz of bandwidth with a 0.1 µf ceramic cap. & a 10 µf electrolytic cap. on the output. The two earth ground pads are connected to input earth ground.

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 |

PART NUMBER: VOF-80

DESCRIPTION: switching power supply

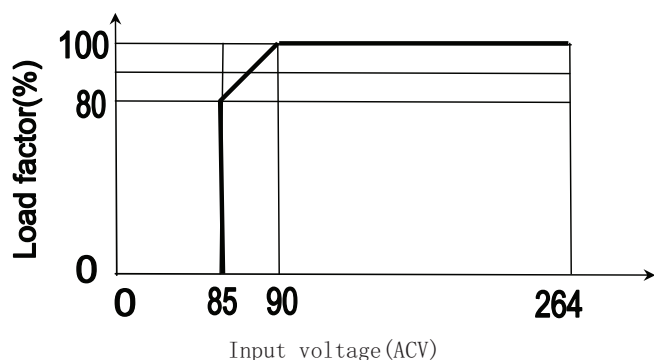
PROTECTION CIRCUIT

| 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 |

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, 264 V ac | | | 1.5 | mA |
| isolation voltage | primary to secondary | 3000 | | | V ac |
| (for 1 minute) | primary to transformer core | 1500 | | | V ac |
| | primary to ground | 1500 | | | V ac |
| RoHS | yes | | | | |
| 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 |

INPUT VOLTAGE VS LOAD

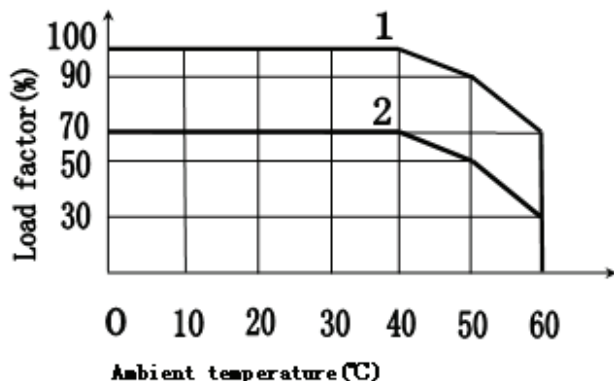


PART NUMBER: VOF-80

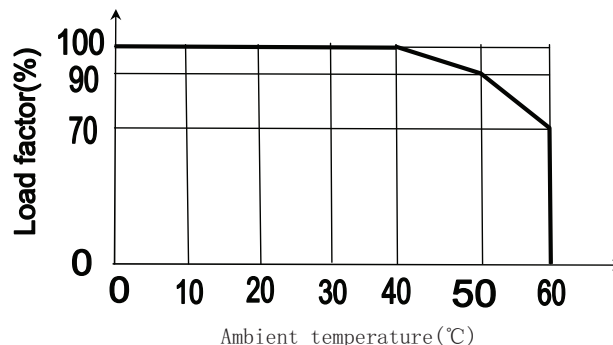
DESCRIPTION: switching power supply

TEMPERATURE VS LOAD

*for 3.3, 5 V models



*for 12, 15, 24, 48 V models



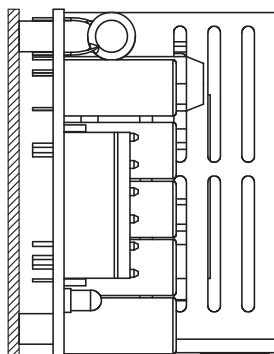
1. forced air with velocity of 1m/s
2. free air convection

MECHANICAL

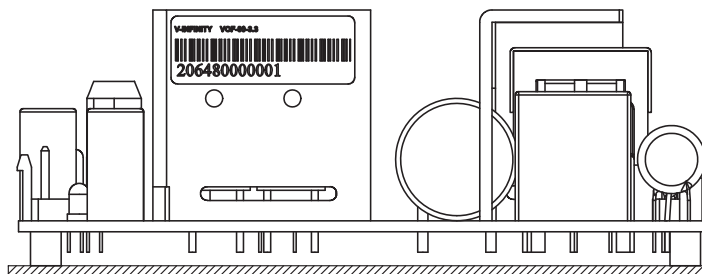
| parameter | conditions/description |
|----------------|---|
| dimensions | 4" (102 mm) x 2" (51 mm) x 1.28" (32.6 mm) |
| weight | 0.2 Kg |
| cooling method | free air convection or forced air (see derating curves below) |

MATING CONNECTORS

| parameter | conditions/description |
|-----------------|--|
| ac input (CN1) | mates with Molex housing 09-50-3031 with Molex 2878 series crimp contact |
| dc output (CN2) | mates with Molex housing 09-50-3061 with Molex 2878 series crimp contact |

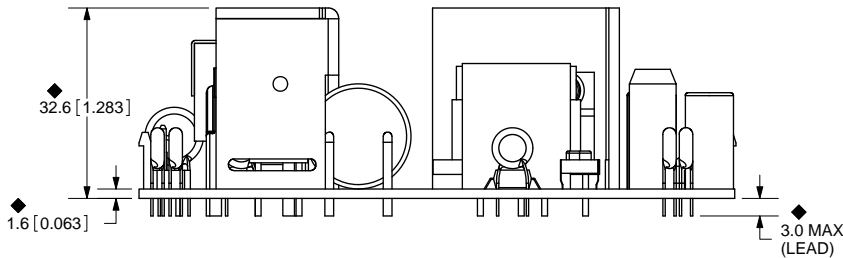
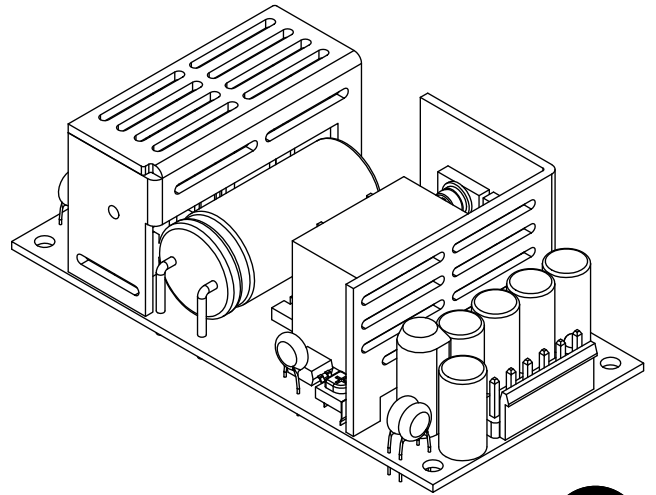
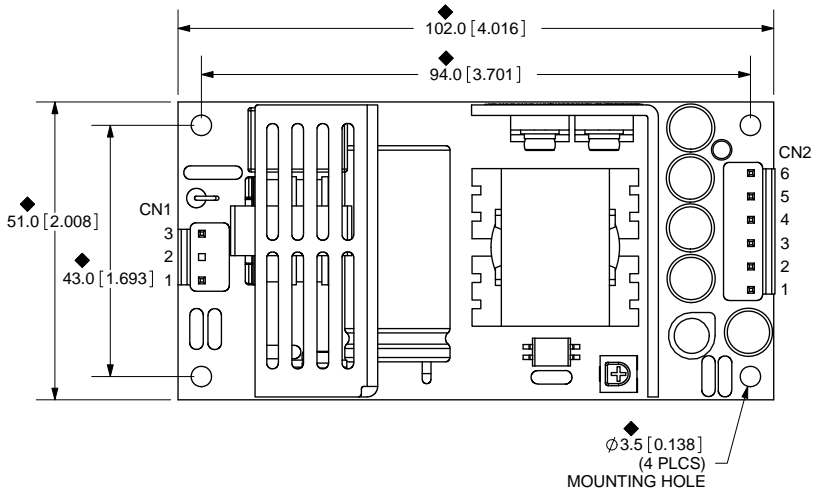
MOUNTING METHOD


A. Vertical



B. Horizontal

| REV. | DESCRIPTION | DATE |
|------|-------------|-----------|
| A | NEW DRAWING | 9/15/2009 |



◆ NOTES:
CRITICAL DIMENSIONS
FOR INSPECTION
TOLERANCE: ±1.0mm



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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 |

TITLE: VOF-80 MECHANICAL DRAWING REV: A

PART NO. VOF-80-mech UNITS: MM [INCHES]

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

DRAWN BY: ZRJ APPROVED BY: SCALE: 1:1

PC FILE NAME:
VOF-80-mech

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