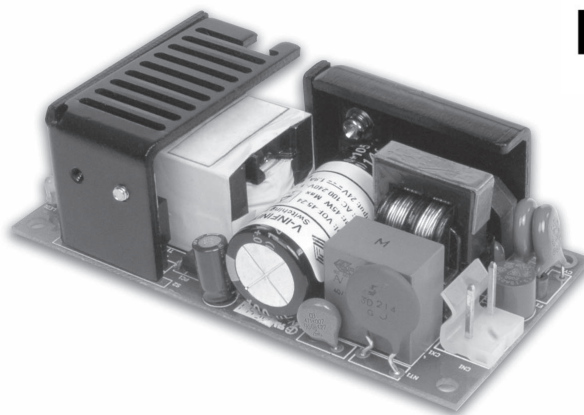


PART NUMBER: VOF-65

DESCRIPTION: switching power supply

features

- RoHS compliant
- universal input 85~264 Vac
- output over-current protected
- output over-voltage protected
- industry standard foot-print
- efficiency up to 88%
- safety approved to TUV, CE; UL/cUL
- conducted EMI meets EN55022 class B and FCC class B



| model | voltage (Vdc) | current (A) | total ^{1, 2} regulation | ripple & noise ³ (mVp-p max) | efficiency |
|------------|------------------|----------------|-------------------------------------|--|------------|
| VOF-65-3.3 | 3.3 | 8.0 | ±5% | 50 | 74% |
| VOF-65-5 | 5 | 8.0 | ±5% | 50 | 78% |
| VOF-65-7.5 | 7.5 | 6.6 | ±5% | 75 | 78% |
| VOF-65-9 | 9 | 6.6 | ±5% | 90 | 82% |
| VOF-65-12 | 12 | 5.4 | ±5% | 120 | 84% |
| VOF-65-15 | 15 | 4.3 | ±5% | 150 | 85% |
| VOF-65-24 | 24 | 2.7 | ±5% | 240 | 86% |
| VOF-65-48 | 48 | 1.35 | ±5% | 480 | 88% |

notes:

1. measured from high line to low line at full load.
2. measured from full load to 10% load at 110 VAC.
3. ripple & noise measured at 20 MHz BW, with a 0.1 μ F ceramic cap and a 10 μ F electrolytic cap on the output and the two earth ground pads are connected to input earth ground.

PART NUMBER: VOF-65

DESCRIPTION: switching power supply

INPUT

| parameter | conditions/description | min | nom | max | units |
|-----------------|--|-----|------|-----|-------|
| input frequency | | 47 | | 63 | Hz |
| input voltage | output power derated from 85-90 VAC | 85 | | 264 | VAC |
| input current | AC input of 110 VAC | | 1400 | | mA |
| | AC input of 210 VAC | | 700 | | mA |
| inrush current | measured at 110 VAC at full load, cold start | | | 25 | A |
| | measured at 220 VAC at 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 VAC, full load. | | | | |
| hold up time | at 115 VAC, full load | 8 | | | mS |
| adjustability | adjustable with built-in trim pot. | - 5 | | +5 | % |
| temp. coefficient | | -0.05 | | +0.05 | %/°C |

PROTECTION CIRCUIT

| parameter | conditions/description |
|---------------------|---|
| overload | current limiting starts at 105% of the rated output current and recovers automatically. |
| output over-voltage | output voltage is limited to 115% by TVS clamping. |
| short circuit | protected. long term short circuit may reduce reliability. |

GENERAL AND SAFETY

| parameter | conditions/description | min | nom | max | units |
|-----------------------|--|------|-----|--------|-------|
| switching frequency | | | 60 | | KHz |
| operating temp. | see derating curves. | 0 | | 50 | °C |
| storage temp. | | -20 | | 85 | °C |
| operating humid. | non-condensing | 20% | | 90% | RH |
| storage humid. | non-condensing | 20% | | 95% | RH |
| operating altitude | | | | 3,000 | m |
| | | | | 10,000 | ft |
| storage altitude | | | | 9,000 | m |
| | | | | 30,000 | ft |
| EMI | conducted emissions comply with FCC class B, EN55022 class B | | | | |
| safety | approved to TUV EN60950, CE, CB; UL/cUL 60950-1 | | | | |
| RoHS | 2002/95/EC | | | | |
| leakage current | per EN60950, 264 VAC | | | 1.5 | mA |
| isolation voltage | applied for 1 minute. | | | | |
| (HI-POT) | primary to secondary: | 3000 | | | VAC |
| | primary to transformer core: | 1500 | | | VAC |
| | primary to earth ground: | 1500 | | | VAC |
| insulation resistance | measured at 500 VDC, at room temp. | 50 | | | MΩ |
| MTBF (@ 25°C) | MIL-HDBK-217F | 250K | | | hours |
| warranty | standard warranty length | | | 2 | years |

PART NUMBER: VOF-65

DESCRIPTION: switching power supply

MECHANICAL

| parameter | conditions/description | min | nom | max | units |
|----------------|---|-----|-----|------|-------|
| dimensions | 4"(102mm) x 2"(51mm) x 1.26"(32mm) | | | | |
| weight | | | | 0.17 | kg |
| cooling method | free air convection (see derating curves below) | | | | |

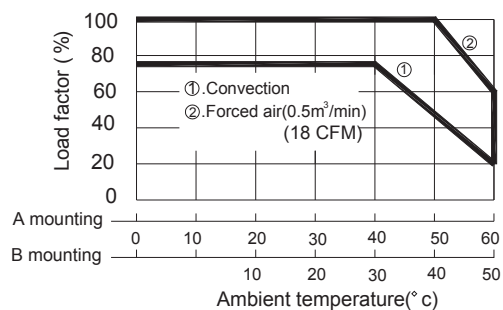
MATING CONNECTORS

| 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 09-50-3041 with Molex 2878 series crimp contact. |

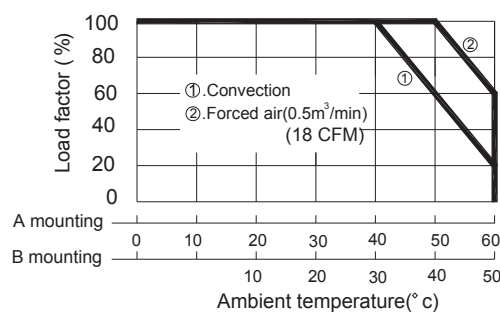
DERATING CURVES

1. output power vs. ambient temperature

a. 3.3, 5, 7.5 V models

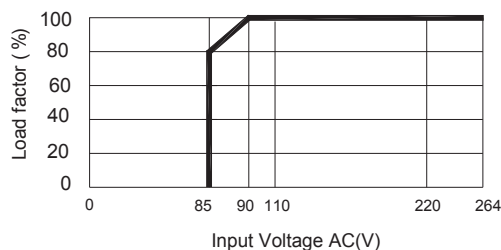


b. all other models

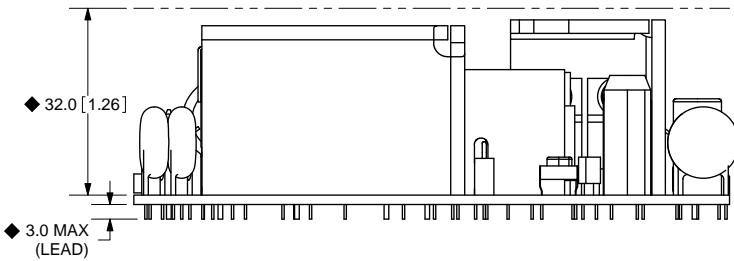
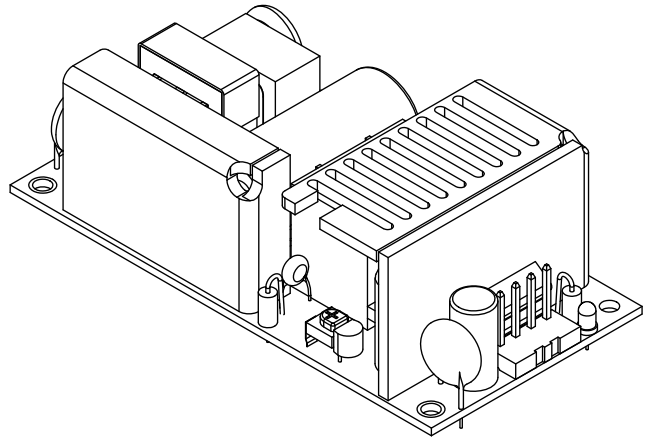
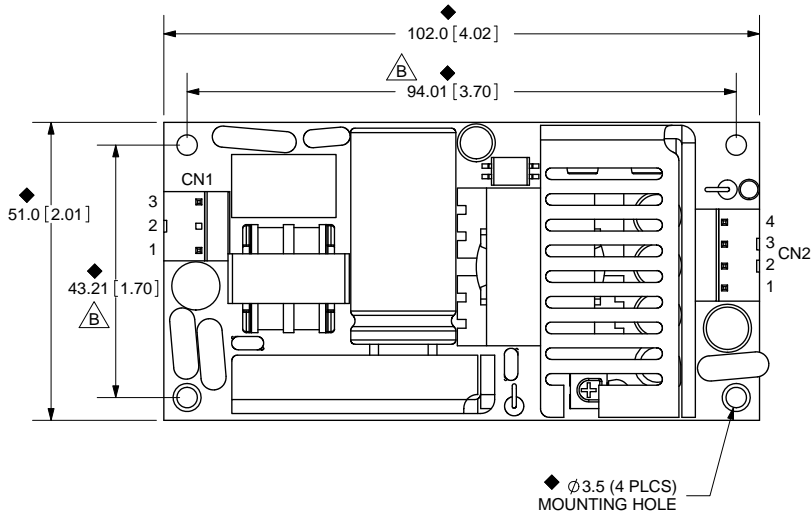


2. output power vs. input voltage

all models



| REV. | DESCRIPTION | DATE |
|------|-------------------|-----------|
| A | NEW DRAWING | 4/6/2007 |
| B | dimension updates | 8/20/2010 |



◆ NOTES:
CRITICAL DIMENSIONS
FOR INSPECTION
TOLERANCE: $\pm 1.0\text{mm}$



20050 SW 112th Ave.
Tualatin, OR 97062
Phone: 503-612-2332
866-372-1258
Fax: 503-612-2382
Website: www.v-infinity.com

| CN1 | | |
|-----|--------|---|
| 1 | 2 | 3 |
| L | no pin | N |

TITLE: VOF-65 MECHANICAL DRAWING REV: B

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

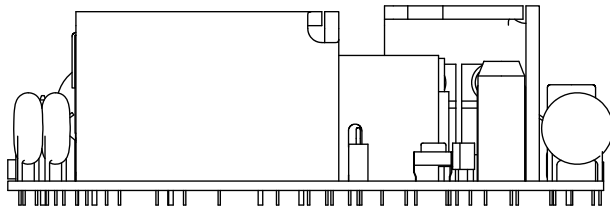
PART NO. VOF-65-mech UNITS: MM [INCHES]

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

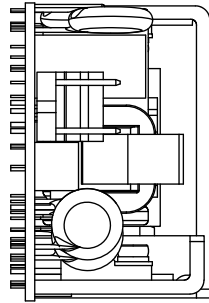
PC FILE NAME:
VOF-65-mech

COPYRIGHT 2010 BY CUI INC.

| REV. | DESCRIPTION | DATE |
|------|-------------|------|
| - | See Sheet1 | - |



B. Horizontal



A. Vertical



V-INFINITY

20050 SW 112th Ave.
Tualatin, OR 97062
Phone: 503-612-2332
866-372-1258
Fax: 503-612-2382
Website: www.v-infinity.com

| | | |
|-------------------------------|--------------------|------------|
| TITLE: SWITCHING POWER SUPPLY | | REV: B |
| PART NO: VOF-65-mech | UNITS: MM [INCHES] | |
| DRAWN BY: ZRJ | APPROVED BY: | SCALE: 1:1 |

PC FILE NAME:
VOF-65-mech

COPYRIGHT 2006 BY CUI INC.