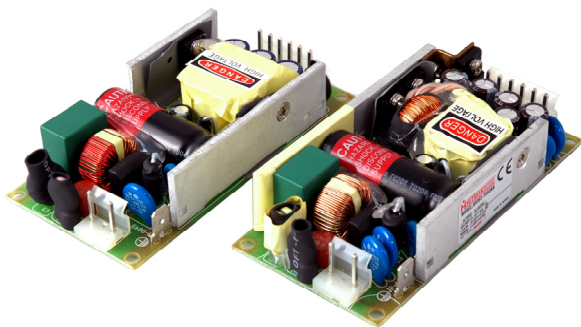




## UNIVERSAL INPUT AC-DC OPEN FRAME SINGLE & TRIPLE OUTPUT 43 WATTS INTERNAL SWITCHING POWER SUPPLIES HVI43 SERIES



### FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- COMPACT 4"x2"x1" PCB FORMAT
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR PUB. 22 & FCC CLASS B
- CE MARKING COMPLIANCE

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** Range typ. 90-264Vac.  
Rating 100 to 240Vac.

**Input Connector:** V-M connector.

**Input Frequency:** 47-63Hz.

**Inrush Current:**  $\leq 12A$  rms cold start @230Vac.

**Input Current:** Typ. 0.7A@115Vac, 0.35A@230Vac.

**Dielectric Withstand:** Meet IEC 60950-1.

**EMI:** Meet CISPR PUB. 22 & FCC Class B.

**Hold-up Time:** Typ. 20mS @115Vac, 100mS @ 230Vac.

**Earth Leakage:** Less than 0.4mA @230Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.

**Output Current:** See Ratings Chart.

**Output Connector:** V-M connector.

**Output Wattage:** Typ. 42 watts.

**Line Regulation:** Typ. 0.2%.

**Load Regulation:** Main VO1 typ.  $\pm 2-3\%$ .  
Aux. VO2 typ.  $\pm 4-6\%$  (Common choke).  
Aux. VO3 typ.  $\pm 3.0\%$  (P.R.).

**Noise & Ripple:** Typ. 1.0% peak to peak.

**OVP:** Built-in at main output VO1 (Latch).

**Adjustability:** Not available.

**Overload Protection (OLP):** Fully protected against outputs overload and short circuit.  
Typ. OLP set at 105-120% of rating output power.  
Consult the factory for OLP setting

#### GENERAL SPECIFICATION

**Efficiency:** Typ. 75-80% (Various with output voltage).

**Switching Frequency:** 130 KHz or 70KHz.

**Circuit Topology:** Fixed frequency forward circuit for triple output and 5V/3.3V of single output.  
Fixed frequency flyback circuit for high voltage of single output.

**Transient Response:** Output voltage returns in less than 0.5mS following a 50% load change.

**Safety Standard:** IEC 60950-1 Class I.

**Power Density:** 5.5Watts / Cubic Inch.

**Operating Temperature:** 0 to +50 °C under forced air flow for full load. Derate by 1.3W/ °C from 40°C to 50 °C.

**Storage Temperature:** -20 to +85°C.

**Temperature Coefficient:** Typ. 0.04%/°C.

**Cooling:** At least 5 cfm(100LFM) direct forward air flow is required to achieve full rating power.

**Construction:** 4"x2"x1" PCB format.

Note: Due to requests in market and advances in technology, specifications subject to change without notification.



In application

## OUTPUT VOLTAGE / CURRENT RATINGS CHART

### SINGLE OUTPUT

| MODEL NO.     | MAIN VO1 ★ |       |       |       |      |
|---------------|------------|-------|-------|-------|------|
|               | Min.       | Typ.  | Volt. | Max.  | Peak |
| HVI43-S033800 | 0.2A       | 8.00A | 3.3V  | 8.00A | 10A  |
| HVI43-S050800 | 0.2A       | 8.00A | 5.0V  | 8.00A | 10A  |
| HVI43-S120340 | 0.0A       | 3.40A | 12.0V | 3.40A | 4A   |
| HVI43-S150270 | 0.0A       | 2.70A | 15.0V | 2.70A | 3A   |
| HVI43-S240170 | 0.0A       | 1.70A | 24.0V | 1.70A | 2A   |
| HVI43-S480085 | 0.0A       | 0.85A | 48.0V | 0.85A | 1A   |

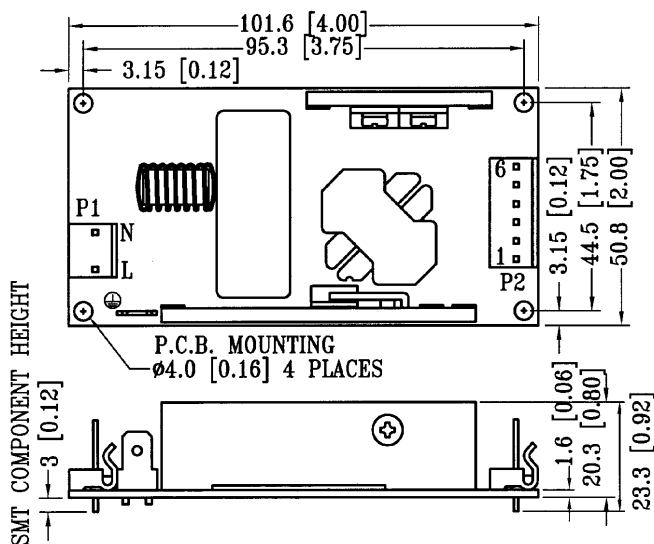
### TRIPLE OUTPUT

| MODEL NO.    | MAIN +VO1 ★ |      |       |      |      | AUX. +VO2■ |      |       |      |      | AUX. -VO3● |      |       |      |      |
|--------------|-------------|------|-------|------|------|------------|------|-------|------|------|------------|------|-------|------|------|
|              | Min.        | Typ. | Volt. | Max. | Peak | Min.       | Typ. | Volt. | Max. | Peak | Min.       | Typ. | Volt. | Max. | Peak |
| HVI43-T050H  | 0.5A        | 4.0A | +5.0V | 6A   | 8A   | 0.1A       | 1.5A | +12V  | 2.0A | 3.0A | 0A         | 0.5A | -12V  | 0.5A | 1A   |
| HVI43-T050MI | 0.5A        | 4.0A | +5.0V | 6A   | 8A   | 0.1A       | 0.7A | +24V  | 1.0A | 1.5A | 0A         | 0.5A | -12V  | 0.5A | 1A   |
| HVI43-T050KK | 0.5A        | 4.0A | +5.0V | 6A   | 8A   | 0.1A       | 1.0A | +15V  | 1.5A | 2.0A | 0A         | 0.5A | -15V  | 0.5A | 1A   |
| HVI43-T033EI | 0.5A        | 6.0A | +3.3V | 6A   | 8A   | 0.2A       | 3.0A | +5V   | 3.0A | 4.0A | 0A         | 0.5A | -12V  | 0.5A | 1A   |

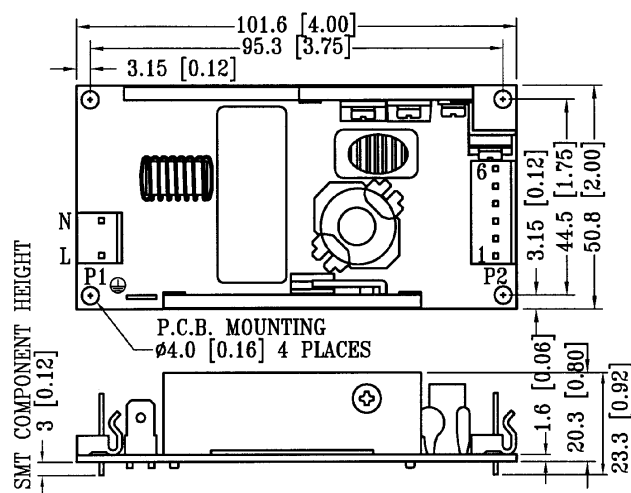
Symbol: "★" OVP built-in. "■" Couple common choke. "●" Post-Regulated.

### MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 145g (5.12 Oz.)



SINGLE OUTPUT



TRIPLE OUTPUT

### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

| ASSIGNMENT<br>CNTR/PIN# | AC INPUT |      |      | SINGLE OUTPUT |        | TRIPLE OUTPUT |      |      |        |
|-------------------------|----------|------|------|---------------|--------|---------------|------|------|--------|
|                         | AC-L     | AC-N | AC-G | VO1           | DC COM | VO1           | VO2  | VO3  | DC COM |
|                         | P1-L     | P1-N | G    | P2-1,2        | P2-3,4 | P2-1,2        | P2-6 | P2-5 | P2-3,4 |

Mating connector: P1,2 Molex # 5195 or 5239 series.