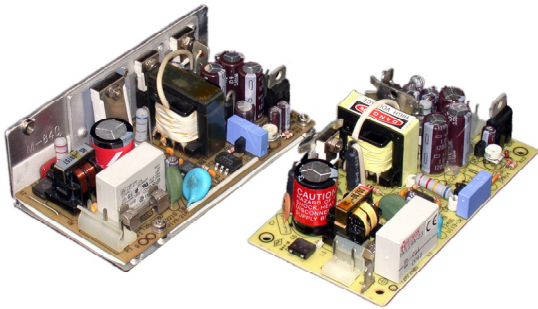


# HiTRON

## UNIVERSAL INPUT AC-DC OPEN FRAME SINGLE & MULTI-OUTPUT 19-20 WATTS INTERNAL SWITCHING POWER SUPPLIES HVI19 SERIES



### FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- COMPACT OPEN FRAME 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:** Molex 5273(vertical).  
**Mating Connector:** Molex 5195 or equivalent.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** Typ. 20A @ 230Vac.  
**Input Current:** Typ. 0.70A @115Vac, 0.3A@230Vac.  
**Dielectric Withstand:** Meet IEC 60950-1.  
**EMI:** Meet CISPR PUB. 22 & FCC Class B.  
**Hold-up Time:** Typ. 40mS @115Vac, 150mS @230Vac.  
**Earth Leakage:** Less than 0.3mA @230Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Connector:** Molex 5273 or 41671.  
**Mating Connector:** Molex 5195 or 3069.  
**Output Wattage:** PCB 19 watts, L-Bracket 25 watts.  
**Line Regulation:** Typ. 0.1%.  
**Load Regulation:** Main VO1 typ.  $\pm 1-2\%$   
Aux. VO2 typ.  $\pm 3-5\%$  (stacked on).  
Aux. VO3 typ.  $\pm 2-3\%$  (P.R.).  
**Noise & Ripple:** Typ. 1.0% peak to peak.  
**OVP:** Built-in at Main VO1.  
**Adjustability:** Available at Main VO1.  
**Overload Protection (OLP):**  
Fully protected against output overload and short circuit.  
OLP set at about 125-150% rating output wattage.  
Consult the factory for OLP setting.

#### GENERAL SPECIFICATION

**Efficiency:** Typ. 70%.  
**Switching Frequency:** 40K Hz.  
**Circuit Topology:** Free-running flyback circuit.  
**Transient Response:** Output voltage returns in less than 3ms following a 25% load change.  
**Power Density:** 1.26-1.58 Watts /Cubic Inch.  
**Operating Temperature:** 0 to +50 °C.  
**Storage Temperature:** -20 to +85 °C.  
**Temperature Coefficient:** Typ. 0.04% / °C.  
**Cooling:** Free air convection cooling.  
**Safety Standard:** UL 60950-1/EN 60950-1 Class I.  
**Construction:** PCB or L-Bracket format.

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



For the details of safety approval, please consult the factory.

# OUTPUT VOLTAGE / CURRENT RATINGS CHART

## SINGLE OUTPUT

MODEL NO.	MAIN VO1 @★		
	Typ.	Volt.	Max.
HVI19-10	4.0A	5V	5.0A
HVI19-10(L-B)	4.6A	5V	5.0A
HVI19-11	1.5A	12V	1.5A
HVI19-11(L-B)	2.0A	12V	2.5A
HVI19-12	1.2A	15V	1.3A
HVI19-12(L-B)	1.6A	15V	1.7A
HVI19-13	0.8A	24V	1.0A
HVI19-13(L-B)	1.0A	24V	1.2A

## DUAL OUTPUT

MODEL NO.	MAIN VO1 @★			AUX. +VO2 † or -VO3 •		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HVI19-20	3.0A	+5V	4.0A	0.20A	-5V	1.0A
HVI19-20(L-B)	4.0A	+5V	5.0A	0.50A	-5V	1.0A
HVI19-21	2.6A	+5V	3.0A	0.50A	±12V	1.0A
HVI19-21(L-B)	4.0A	+5V	5.0A	0.50A	±12V	1.0A
HVI19-22	2.6A	+5V	3.0A	0.40A	±15V	0.8A
HVI19-22(L-B)	4.0A	+5V	5.0A	0.40A	±15V	0.8A
HVI19-23	2.6A	+5V	3.0A	0.25A	+24V	0.5A
HVI19-23(L-B)	4.0A	+5V	5.0A	0.25A	+24V	0.5A

## TRIPLE OUTPUT

MODEL NO.	MAIN VO1 @★			AUX. VO2 †			AUX. VO3 •		
	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.	Max.
HVI19-30	2.2A	+5V	3.0A	0.5A	+12V	1.0A	0.2A	-12V	0.5A
HVI19-30(L-B)	3.0A	+5V	4.0A	0.5A	+12V	1.0A	0.4A	-12V	0.8A
HVI19-31	2.0A	+5V	3.0A	0.5A	+12V	1.0A	0.2A	-5V	0.5A
HVI19-31(L-B)	3.0A	+5V	4.0A	0.7A	+12V	1.5A	0.3A	-5V	0.6A
HVI19-32	2.0A	+5V	3.0A	0.3A	+24V	0.5A	0.2A	-12V	0.5A
HVI19-32(L-B)	3.0A	+5V	4.0A	0.3A	+24V	0.5A	0.3A	-12V	0.6A
HVI19-33	2.0A	+5V	3.0A	0.3A	+15V	0.6A	0.2A	-15V	0.5A
HVI19-33(L-B)	3.0A	+5V	4.0A	0.4A	+15V	0.8A	0.3A	-15V	0.6A

Symbol: "★" OVP built-in. "@" Adjustable. "†" Stacked on main O/P. "•" Installed with Post Regulator (P.R.).

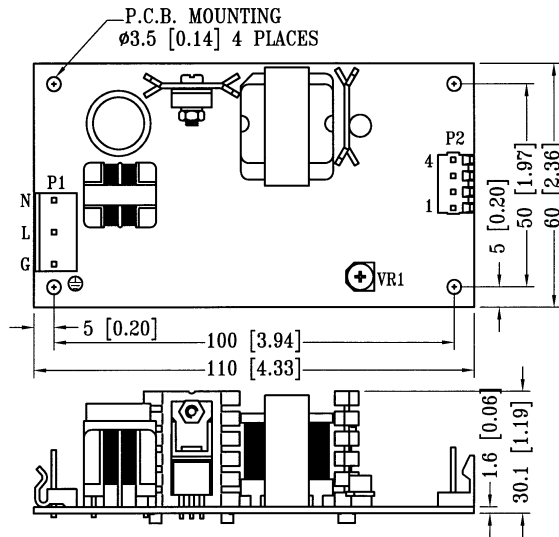
Remark: (1) At least 20% of typical main output current is required to maintain stated regulation.

(2) Max. current can't be drawn from all output at the same time.

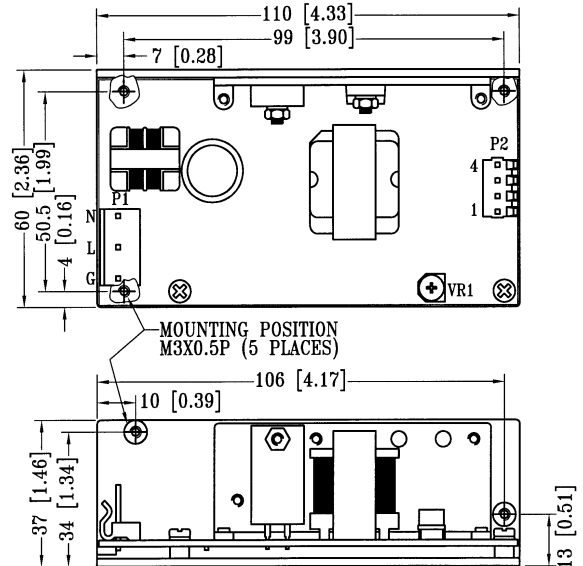
## MECHANICAL DIMENSIONS: MM [INCHES]

**WEIGHT: PCB 148.0g(5.2 Oz.)**

**L-B 223.0g(7.9 Oz.)**



**PCB FORMAT**



**L-B FORMAT**

## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			SINGLE		SINGLE/DUAL/TRIPLE OUTPUT			
	AC-L	AC-N	AC-G	VO1	DC COM	VO1	VO2	VO3	DC COM
CONNECTOR or PIN#	P1-L	P1-N	P1-G	P2-3,4	P2-1,2	P2-2	P2-3	P2-4	P2-1

Mating connector: P1 Molex 5195 or 5239 series.

P2 Molex 5195, 5239 or 3069 series.