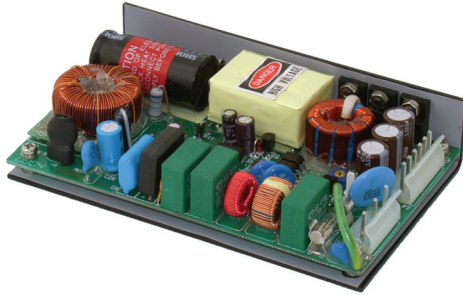


# HiTRON

## UNIVERSAL INPUT HARMONIC CORRECTION (PFC) AC-DC INTERNAL OPEN FRAME SWITCHING POWER SUPPLIES 100 WATTS SINGLE OUTPUT HVP103 SERIES



### FEATURES:

- 5" X 3" X 1" COMPACT SIZE & HIGH POWER DENSITY
- ACCOMMODATE UNIVERSAL AC SOURCES
- MEET IEC 61000-3-2 HARMONIC CORRECTION (PFC)
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET EN 55022 & FCC CLASS B
- CE MARKING COMPLIANCE

### SPECIFICATION

#### INPUT SPECIFICATION

**Input Voltage:** Typical 90-264Vac with PFC.  
**Input Connector:** V-M connector & GND tag.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** Typical 26A at 230Vac.  
**Input Current:** Typical 1.0A at 115Vac, 0.5A at 230Vac.  
**Dielectric Withstand:** Meet IEC 60950-1.  
**EMI:** Meet EN 55022 & FCC Class B.  
**Hold-up Time:** Typical 25mS at 115Vac & 230Vac.  
**Power Factor & Harmonic Correction:**  
 Meet IEC 61000-3-2, PF typ. 0.97-0.99 at full load.  
**Turn-on Delay/Rise Time:** 2 Sec./5mS.  
**Earth Leakage Current:** Less than 0.5mA at 230Vac.

#### OUTPUT SPECIFICATION

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Power:** 100W continuous. Various with output voltage & under forced air cooling.  
**Output Connector:** V-M Molex 0.156" connector for <12A output. M-T Mini Terminal Block for ≥12A output.  
**Line Regulation:** Typical 0.1%.  
**Load Regulation:** Typical ± 1.0%.  
**Noise & Ripple:** Typical 1.0% peak to peak.  
**OVP:** Built-in.  
**Adjustability:** Available.  
**Remote Sensing:** Available.  
**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:** Typical 75-84%.  
 various with output voltage.  
**Switching Frequency:** PWM 175K Hz. (PFC: 75K Hz.)  
**Circuit Topology:** Fixed Frequency Forward Circuit.  
**Transient Response:** 0.5mS following 25% load change.  
**Safety Standard:** IEC 60950-1/UL 60950-1 Class I.  
**Power Density:** 6.73 Watts / Cubic Inch.

**Operating Temperature:** 0 to +50°C under 20 CFM forced air cooling for full load.  
**Storage Temperature/Humidity:** -20 to +85°C, 95% non-condensing.  
**Temperature Coefficient:** ±0.04% /°C.  
**Cooling:** At least 20CFM moving air is required to achieve full rating power, ≥+50°C in a confined area.  
**Construction:** L-bracket format.

NOTE: (1)All measurement are at nominal input, full load and +25°C unless otherwise specifications.

(2)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

DEFINED OUTPUT VOLTAGE (Vdc)	OUTPUT VOLTAGE (Vdc) / CURRENT (A)
$3.3\text{Vdc} \leq \text{Any Voltage} \leq 12.0\text{Vdc}$	3.3-5.0Vdc/ 20.0-18.0A, 5.1-6.0Vdc/ 17.8-15.0A, 6.1-8.0Vdc/ 14.8-11.0A, 8.1-10.0Vdc/ 10.9-9.5A, 10.1-10.9Vdc/ 9.4-9.0A, 11.0-12.0Vdc/ 9.0-8.5A.
$12.0\text{Vdc} < \text{Any Voltage} \leq 24.0\text{Vdc}$	12.1-14.0Vdc/8.4-7.3A, 14.1-16.0Vdc/7.3-6.4A, 16.1-18.0Vdc/6.3-5.7A, 18.1-20.0Vdc/5.6-5.1A, 20.1-22.0Vdc/5.1-4.6A, 22.1-24.0Vdc/4.6-4.2A

### SINGLE OUTPUT *(Model No. for example)*

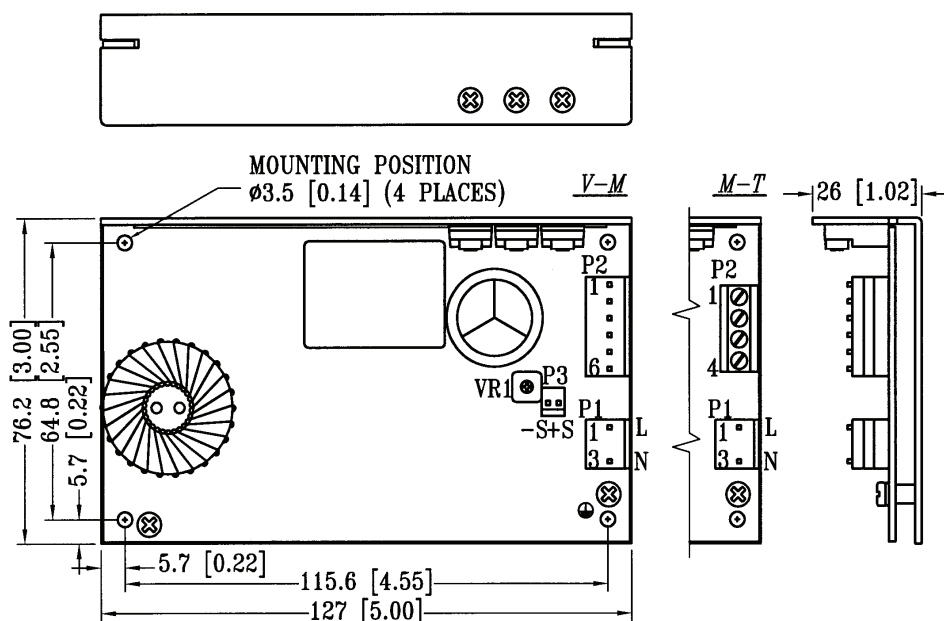
MODEL NO.	MAIN O/P VO1 ★@#				CONTINUOUS POWER
	Min.	Typ.	Volt.	Peak	
HVP103-033200	0.8A	20.0A	3.3V	25.0A	66W
HVP103-050180	0.6A	18.0A	5.0V	25.0A	90W
HVP103-120085	0.0A	8.5A	12.0V	11.0A	102W
HVP103-150068	0.5A	6.8A	15.0V	8.5A	103W
HVP103-240042	0.3A	4.2A	24.0V	5.0A	100W

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing.

Remark: Peak output, less than 60sec. with 10% duty cycle.

### MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 319.0g (11.25 Oz.)



### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT CONNECTOR & PIN #	AC INPUT			SINGLE OUTPUT		
	LINE	NEUTRAL	GROUND	VO1	DC-COM	Remote Sensing
	P1-1	P1-3	P1-5	P2-1,2( $\geq 12\text{A}$ ) P2-1,2,3( $< 12\text{A}$ )	P2-3,4( $\geq 12\text{A}$ ) P2-4,5,6( $< 12\text{A}$ )	P3-1(+S) P3-2(-S)

Mating connector: P1 & P2 Molex # 5195 or 41695 equivalent.

P3 Molex # 5051 series or equivalent.