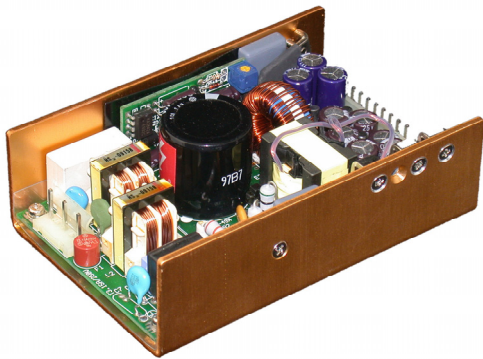


# HiTRON

## UNIVERSAL INPUT AC-DC OPEN FRAME SINGLE & MULTI-OUTPUT 100 WATTS INTERNAL SWITCHING POWER SUPPLIES HVI102 SERIES



### FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- LOW-PROFILE U-BRACKET 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:**  $\leq 30.6A$  peak @230Vac.  
**Input Current:** Typ. 1.8A @115Vac, 0.8A @230Vac.  
**Dielectric Withstand:** Meet IEC 60950-1.  
**EMI:** Meet CISPR PUB. 22 & FCC Class B.  
**Hold-up Time:** Typ. 11mS @115Vac, 60mS @ 230Vac.  
**Power Fail Signal:** Installed.  
**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. 100 watts.  
**Line Regulation:** Typ. 0.1%.  
**Load Regulation:** Main VO1 typ.  $\pm 1-2\%$ .  
Aux.VO2/VO3/VO4 typ.  $\pm 3-5\%$  (Common choke).  
**Noise & Ripple:** Typ. 1.0% peak to peak.  
**OVP:** Built-in at main output.  
**UVP:** Built-in at main output.  
**Remote Sensing:** Installed in main output VO1.  
**Adjustability:** Available at main output 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. 80-82%.  
**Switching Frequency:** 63K Hz.  
**Circuit Topology:** Fixed frequency forward circuit.  
**Transient Response:** Output voltage returns in less than 3mS following a 25% load change.  
**Safety Standard:** IEC 60950-1/UL 60950-1 Class I.  
**Power Density:** 4.10Watts / Cubic Inch.

**Operating Temperature:** 0 to +50 °C under forced air flow for full load.  
**Storage Temperature:** -20 to +85°C.  
**Temperature Coefficient:** Typ. 0.04%/°C.  
**Cooling:** At least 25 cfm direct forward air flow is required to achieve full rating power.  
**Construction:** U-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.
HV1102-19	25.0A	3.3V
HV1102-10	20.0A	5.0V
HV1102-11	8.5A	12.0V
HV1102-12	6.8A	15.0V
HV1102-13	4.2A	24.0V
HV1102-13B	3.0A	24.0V
HV1102-14	3.6A	28.0V
HV1102-15	2.8A	36.0V
HV1102-16	2.0A	48.0V
HV1102-17	1.3A	58.0V

## DUAL OUTPUT

MODEL NO.	MAIN VO1 ★@#		AUX. ±VO2 ■		MODEL NO.
	Typ.	Volt.	Typ.	Volt.	
HV1102-20	10.0A	+5.0V	10.0A	-5.0V(+)	(HV1102-20P)
HV1102-21	10.0A	+5.0V	4.0A	-12.0V(+)	(HV1102-21P)
HV1102-22	10.0A	+5.0V	3.0A	-15.0V(+)	(HV1102-22P)
HV1102-23	10.0A	+5.0V	2.0A	-24.0V(+)	(HV1102-23P)
HV1102-23E	7.5A	+6.5V	2.0A	-24.0V(+)	(HV1102-23EP)
HV1102-24	4.0A	+12.0V	4.0A	-12.0V(+)	(HV1102-24P)
HV1102-25	3.4A	+15.0V	3.4A	-15.0V(+)	(HV1102-25P)
HV1102-290	10.0A	+3.3V	10.0A	-5.0V(+)	(HV1102-290P)
HV1102-291	12.0A	+3.3V	4.0A	-12.0V(+)	(HV1102-291P)
HV1102-292	12.0A	+3.3V	3.0A	-15.0V(+)	(HV1102-292P)
HV1102-293	12.0A	+3.3V	2.0A	-24.0V(+)	(HV1102-293P)

## TRIPLE OUTPUT

MODEL NO.	MAIN +VO1 ★@#		AUX. +VO2 ■		AUX. -VO3 ■	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HV1102-30	10.0A	+5.0V	3.4A	+12.0V	0.6A	-12.0V
HV1102-31	10.0A	+5.0V	3.4A	+12.0V	0.6A	-5.0V
HV1102-32	10.0A	+5.0V	1.5A	+24.0V	0.6A	-12.0V
HV1102-33	10.0A	+5.0V	2.5A	+15.0V	0.6A	-15.0V
HV1102-390B	18.0A	+3.3V	4.0A	+5.0V	1.0A	+12.0V
HV1102-393	12.0A	+3.3V	3.4A	+12.0V	0.6A	-12.0V
HV1102-394	12.0A	+3.3V	2.8A	+15.0V	0.6A	-15.0V

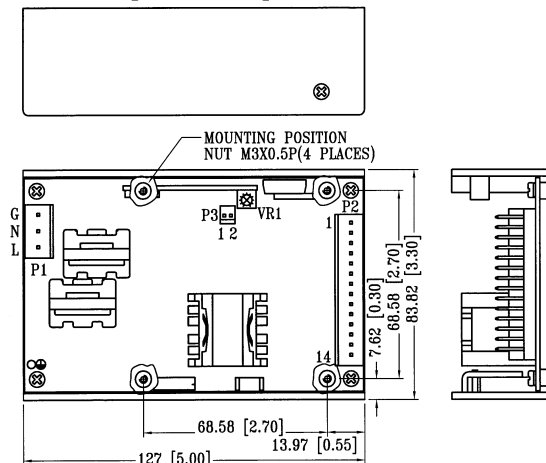
## QUAD OUTPUT

MODEL NO	MAIN +VO1 ★@#		AUX. +VO2 ■		AUX. -VO3 ■		AUX. VO4 ■	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HV1102-40	10.0A	+5.0V	3.0A	+12.0V	0.60A	-12.0V	0.60A	12.00V
HV1102-41	10.0A	+5.0V	3.0A	+12.0V	0.60A	-5.0V	0.60A	5.00V
HV1102-42	10.0A	+5.0V	1.5A	+24.0V	0.60A	-12.0V	0.60A	12.00V
HV1102-43	10.0A	+5.0V	2.5A	+15.0V	0.60A	-15.0V	0.60A	12.00V
HV1102-44	10.0A	+5.0V	1.5A	+24.0V	0.50A	-15.0V	0.50A	15.00V
HV1102-44E	3.0A	+5.0V	1.5A	+24.0V	0.50A	-15.0V	0.50A	15.00V
HV1102-490	12.0A	+3.3V	3.0A	+12.0V	0.60A	-12.0V	0.60A	5.00V
HV1102-490E	10.0A	+5.0V	7.5A	+3.3V	0.25A	-12.0V	0.25A	12.00V
HV1102-490B	12.0A	+3.3V	4.0A	+5.0V	0.60A	-12.0V	0.60A	12.00V
HV1102-491	12.0A	+3.3V	2.5A	+15.0V	0.60A	-15.0V	0.60A	5.00V
HV1102-491B	12.0A	+3.3V	4.0A	+5.0V	0.60A	-15.0V	0.60A	15.00V
HV1102-492	12.0A	+3.3V	3.0A	+12.0V	0.60A	-12.0V	0.60A	12.00V
HV1102-493	12.0A	+3.3V	2.5A	+15.0V	0.60A	-15.0V	0.60A	12.00V
HV1102-494	12.0A	+3.3V	1.5A	+24.0V	0.60A	-12.0V	0.60A	12.00V
HV1102-495	7.0A	+3.3V	1.0A	+5.0V	1.00A	-5.0V	2.50A	24.00V
HV1102-496E	15.0A	+3.3V	1.1A	+5.0V	1.25A	-48.0V	0.30A	6.25V

Symbol: "★" OVP built-in. "@# Adjustable. "■" Remote sensing. "■" Coupled choke. "●" Installed with Post Regulator. "◇" Floating(or isolated)output.

## MECHANICAL DIMENSIONS: MM [INCHES]

**WEIGHT: 448.5g (15.82 Oz.)**



## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT CONNECTOR & PIN#	AC INPUT			SINGLE OUTPUT		DUAL OUTPUT			TRIPLE OUTPUT				QUAD OUTPUT					ASSORTED SIGNAL			
	AC-L	AC-N	AC-G	VO1	DC-COM	VO1	VO2	DC-COM	VO1	VO2	VO3	DC-COM	VO1	VO2	VO3	+VO4	-VO4	DC-COM	-S	+S	P.F.S.
	P1-L	P1-N	P1-G	P2-1,2,3,4,5	P2-6,7,8,9,10,11	P2-1,2,3	P2-8,9	P2-4,5,6,7,10,13	P2-1,2,3	P2-8,9	P2-11	P2-4,5,6,7,10,13	P2-1,2,3	P2-8,9	P2-11	P2-14	P2-13	P2-4,5,6,7	P3-1	P3-2	P2-12

Mating connector: P1,2,3 Molex # 5195 or 5239 series.