

HiTRON

UNIVERSAL INPUT HARMONIC CORRECTION AC-DC OPEN FRAME SINGLE & MULTI-OUTPUT 100 WATTS INTERNAL SWITCHING POWER SUPPLIES HVP101 SERIES



FEATURES:

- ACCOMMODATE UNIVERSAL AC SOURCES
- PCB VERSION FORMAT
- MEET IEC 61000-3-2 HARMONIC CORRECTION
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR PUB. 22 & FCC CLASS B
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac with PFC.
Input Connector: V-M connector & GND tag.
Input Frequency: 47-63Hz.
Inrush Current: Typ. 29A@230Vac.
Input Current: Typ. 1.3A @115Vac, 0.65A @230Vac.
Dielectric Withstand: Meet IEC 60950-1.
EMI: Meet CISPR EN 55022 & FCC Class B.
Hold-up Time: Typ. 18-25mS @ 115Vac & 230Vac.
Power Factor & Harmonic Correction:
Meet IEC 61000-3-2, PF typ. 0.97-0.99 @ full load.
Power OK: Installed in VO1 & VO2.
Over Temperature Protection (OTP): By NTC at quad output only.
Earth Leakage: Less than 0.75mA @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 typ. $\pm 1-2\%$ (Magnetic Amp.).
Aux. VO3 typ. $\pm 1-2\%$ (Magnetic Amp.).
Aux. VO4 typ. $\pm 2-3\%$ (P.R.).
Noise & Ripple: Typ. 1% peak to peak.
OVP: Built-in at main VO1 & Aux. VO2 & VO3 (latch).
Remote Sensing: Available at VO1 & VO2.
Adjustability: Available at VO1, VO2 & VO3.
Over Current Protection: Built-in at all output.
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. 75-80%.
Switching Frequency: PFC ckt. 75K Hz.
PWM ckt. 170-180K Hz.
Circuit Topology: Fixed frequency forward circuit.
Transient Response: Output voltage returns in less than 0.3mS following a 25% load change.
Safety Standard: IEC 60950-1/UL 60950-1 Class I.
Operating Temperature: 0 to +50°C under forced air flow for full load.
Storage Temperature: -20 to +85°C.
Temperature Coefficient: 0.04% /°C.
Cooling: At least 30 cfm direct forward air flow is required to achieve full rating power.
Construction: PCB format.
Power Density: 5.6 Watts / Cubic Inch.

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 (Under forced air flow)

MODEL NO.	MAIN VO1 ★@#		
	Typ.	Volt.	Peak
HVP101-S033200	20.0A	3.3V	25.0A
HVP101-S050160	16.0A	5.0V	20.0A
HVP101-S120085	8.5A	12.0V	9.0A
HVP101-S150068	6.8A	15.0V	7.0A
HVP101-S240042	4.2A	24.0V	6.0A
HVP101-S280036	3.6A	28.0V	5.0A
HVP101-S360028	2.8A	36.0V	4.0A
HVP101-S480021	2.1A	48.0V	3.0A

DUAL OUTPUT (Under forced air flow)

MODEL NO.	MAIN VO1 ★@#		AUX. VO2 ▲#	
	Typ.	Volt.	Typ.	Volt.
HVP101-D050E	12.0A	+5.0V	6.0A	+5.0V
HVP101-D050I	12.0A	+5.0V	4.0A	+12.0V
HVP101-D050K	12.0A	+5.0V	3.0A	+15.0V
HVP101-D050D	12.0A	+5.0V	8.0A	+3.3V
HVP101-D033I	15.0A	+3.3V	4.0A	+12.0V
HVP101-D033K	15.0A	+3.3V	3.0A	+15.0V

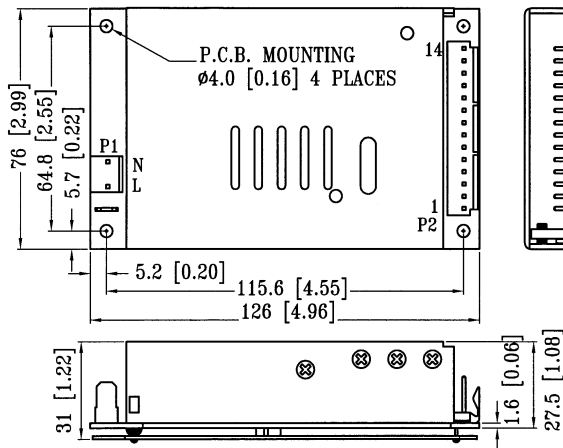
QUAD OUTPUT (Under forced air flow)

MODEL NO.	MAIN VO1 ★@#		AUX. VO2 ★@▲#		AUX. VO3 ★@▲		AUX. VO4 ●	
	Typ.	Volt	Typ.	Volt	Typ.	Volt	Typ.	Volt
HVP101-Q050DII	12.0A	+5.0V	6.0A	+3.3V	1.5A	+12V	0.5A	-12V
HVP101-Q050DIE	12.0A	+5.0V	7.0A	+3.3V	1.5A	+12V	0.5A	-5V
HVP101-Q050MII	10.0A	+5.0V	1.5A	+24.0V	1.5A	+12V	0.2A	-12V
HVP101-Q050KIE	10.0A	+5.0V	2.5A	+15.0V	1.5A	+12V	0.4A	-5V
HVP101-Q050KII	8.0A	+5.0V	2.5A	+15.0V	2.0A	+12V	0.2A	-12V

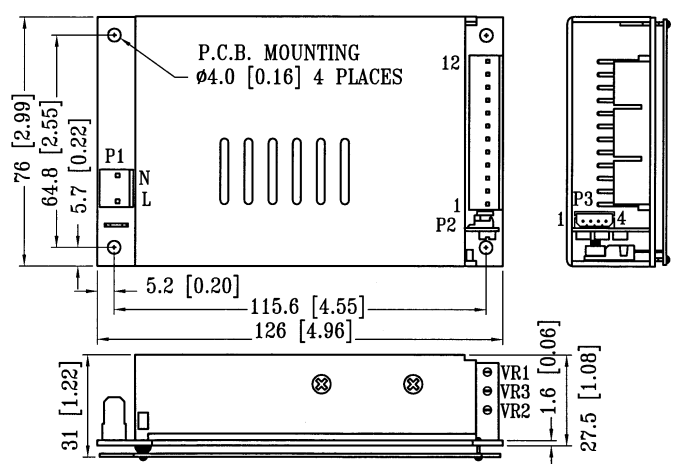
Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sense. "●" Installed with Post Regulator. "▲" Installed with magnetic amplifier.
 Remark: Peak output, less than 60 Sec. with 10% duty cycle.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 368.0g(12.97 Oz.)



SINGLE/DUAL OUTPUT



QUAD OUTPUT

INPUT & OUTPUT CONNECTORS PIN ASSIGNMENTS

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

Mating connector: Molex 5195 or 5239 series.