HiTRON

UNIVERSAL INPUT HARMONIC CORRECTION AC-DC OPEN FRAME SINGLE & MULTI-OUTPUT 150 WATTS INTERNAL SWITCHING POWER SUPPLIES HVP149 SERIES



FEATURES:

- **ACCOMMODATE UNIVERSAL AC SOURCES**
- **MEET IEC 61000-3-2 HARMONIC CORRECTION**
- **DUAL CONVERTER ARCHITECTURE**
- **+5V STAND-BY GREEN POWER**
- **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 (Molex 5273) connector.
Input Frequency: 47-63Hz.
Inrush Current: Typ. ≤ 30.6A@230Vac.
Input Current: 2.0A @115Vac, 0.96A @230Vac.
Dielectric Withstand: Meet IEC 60950-1.
EMI: Meet CISPR PUB. 22 & FCC Class B.
Hold-up Time: Typ. 20mS @115Vac & 230Vac.
Power Fail Signal: Installed.
DC OK Signal: Installed in two main outputs.
Remote Inhibit: Installed. Enable active low.
Power Factor & Harmonic Correction:
Meet IEC 61000-3-2, PF typ.0.99@ full load.
Over Temperature Protection: By thermostat.
Earth Leakage: Less than 0.75mA.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Connector: B-S, V-M (Molex 5273), X-M (Molex 5268) connectors.
Output Wattage: Typ. 150W with 30 cfm forced air cooling.
Line Regulation: Typ. 0.1%.
Load Regulation: Main VOl & Aux. VO2 typ. ±1-1.5%. Main VO3 & Aux. VO4 typ. ± 5.0%.
Noise & Ripple: Typ. 1.0% peak to peak.
OVP: Installed in VO1, VO2 & VO3 (Latch).
Remote Sensing: Installed in O/P VO1 & VO2.
Adjustability: Available at VO1, VO2 and VO3.
Load Sharing: Active current sharing circuit available at VO1 & VO2 rail.
Overload Protection (OLP): Fully protected against output overload and short circuit. Consult the factory for the OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 70-73.7%.
Switching Frequency: Fixed frequency at 70K Hz.
Circuit Topology: Dual converter architecture.
1st, forward circuit for VO1 & VO2 rails.
2nd, fixed-frequency flyback circuit for VO3 & VO4 rails.
Transient Response: Output voltage returns in less than 1mS following a 25% load change.
Safety Standard: UL 60950-1/EN 60950-1 Class I.
Power Density: 3.0 Watts / Cubic Inch.
Operating Temperature: 0 to +50℃ under forced air cooling for half load.
Storage Temperature: -55 to +85°C.
Temperature Coefficient: 0 to +70°C (after 15 minutes warm-up) typ. ±0.02-0.05%/°C.
Cooling: 25-30 cfm airflow is required to deliver the full power. 150W.
Construction: U-bracket construction format.
Industrial Grade.

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(Under forced air cooling)

MODEL NO.	MAIN VO1 @★#≡	
	Typ.	Volt.
HVP149-S033350	35.00A	+3.3V
HVP149-S050300	30.00A	+5.0V
HVP149-S120150	15.00A	+12.0V
HVP149-S240075	7.50A	+24.0V
HVP149-S480375	3.75A	+48.0V

DUAL OUTPUT(Under forced air cooling)

MODEL NO.	MAIN VO1 @★#≡		AUX. VO2 @★▲#≡	
	Typ.	Volt.	Typ.	Volt.
HVP149-20	30A	+5.0V	10A	+5.0V
HVP149-21	30A	+5.0V	5A	+12.0V
HVP149-22	30A	+5.0V	5A	+15.0V
HVP149-23	30A	+5.0V	3A	+24.0V
HVP149-290A	30A	+5.0V	15A	+3.3V
HVP149-290B	30A	+3.3V	8A	+5.0V
HVP149-291	30A	+3.3V	5A	+12.0V
HVP149-292	30A	+3.3V	4A	+15.0V
HVP149-293	30A	+3.3V	3A	+24.0V

TRIPLE OUTPUT(Under forced air cooling)

MODEL NO.	MAIN VO1 @★#≡		AUX. VO2 @★#≡▲		MAIN ±VO3 @★◇	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HVP149-30	30.0A	+5.0V	4.0A	+12.0V	3.0A	12.0V
HVP149-31	30.0A	+5.0V	4.0A	+12.0V	6.0A	5.0V
HVP149-T050IM	17.5A	+5.0V	4.0A	+12.0V	2.0A	24.0V
HVP149-32	30.0A	+5.0V	2.5A	+24.0V	3.0A	12.0V
HVP149-33	30.0A	+5.0V	4.0A	+15.0V	3.0A	15.0V
HVP149-390A	30.0A	+5.0V	12.0A	+3.3V	3.0A	12.0V
HVP149-390B	30.0A	+3.3V	8.0A	+5.0V	3.0A	12.0V
HVP149-391A	30.0A	+5.0V	12.0A	+3.3V	3.0A	15.0V
HVP149-391B	30.0A	+3.3V	8.0A	+5.0V	3.0A	15.0V

QUAD OUTPUT(Under forced air cooling)

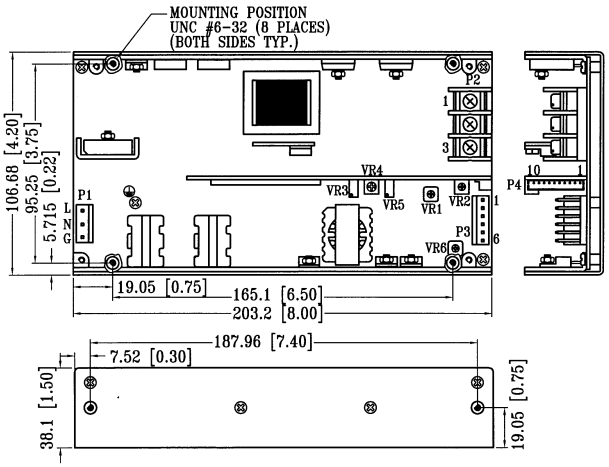
MODEL NO.	MAIN VO1 @★#≡		AUX. VO2 @★#≡▲		MAIN ±VO3@★◇ ‖		AUX. ±VO4 ◇(●or‖)	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HVP149-40	30A	+5.0V	8.0A	+12.0V	2.0A	12.0V	2.0A	12.0V
HVP149-41	30A	+5.0V	8.0A	+12.0V	4.0A	5.0V	3.0A	5.0V
HVP149-Q050IIE	30A	+5.0V	8.0A	+12.0V	3.0A	12.0V	2.0A	5.0V
HVP149-42	30A	+5.0V	4.0A	+24.0V	2.0A	12.0V	2.0A	12.0V
HVP149-43	30A	+5.0V	6.0A	+15.0V	2.0A	12.0V	1.5A	15.0V
HVP149-490A	30A	+5.0V	15.0A	+3.3V	2.0A	12.0V	2.0A	12.0V
HVP149-490B	30A	+3.3V	15.0A	+5.0V	2.0A	12.0V	2.0A	12.0V
HVP149-491A	30A	+5.0V	15.0A	+3.3V	1.5A	15.0V	1.5A	15.0V
HVP149-491B	30A	+3.3V	15.0A	+5.0V	1.5A	15.0V	1.5A	15.0V
HVP149-Q025DIE	30A	+2.5V	15.0A	+3.3V	4.0A	12.0V	2.0A	5.0V

Symbol: "★" OVP built-in. "@" Adjustable. "◇" Floating but not isolated output. "●" Installed with Post Regulator (P.R.). "#" Remote sensing.
"▲" Installed with magnetic amplifier. "±" Positive or Negative selectable (factory set). "≡" Active circuit current sharing. " ‖ " Double Feedback.

Remark: VO1 andVO2 total continual output current ≦30A. VO3 and VO4 total continual output current ≦5A. Max. total output power: 150W.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 960.5g (33.88 Oz)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	AC INPUT			SINGLE/DUAL/ TRIPLE/ QUAD OUTPUT							ASSORTED SIGNALS									
ASSIGNMENT	AC-LINE	AC-NEUTRAL	AC-GROUND	+VO1	VO2	DC-COM	VO3	-VO3	VO4	-VO4	DC-COM	ENABLE	POWER FAIL	DC-OK	+5V S.B.	VO2≡	VO2+S	VO1≡	VO1/VO2-S	VO1+S
CNTR& PIN#	P1-L	P1-N	P1-G	P2-2	P2-3	P2-1	P3-1,2	P3-3,4	P3-5	P3-6	P4-1	P4-2	P4-3	P4-4	P4-5	P4-6	P4-7	P4-8	P4-9	P4-10

Mating connector P1 & P3: Molex 5195 or 5239 series, P4: Molex 5264 series or equivalent.