

• **HiTRON**

AUTO-RANGING INPUT HARMONIC CORRECTION AC-DC N+1 REDUNDANCY AND ACTIVE CURRENT SHARING OPEN FRAME SINGLE & MULTI-OUTPUT 350 WATTS INTERNAL SWITCHING POWER SUPPLIES HVP350 SERIES



FEATURES:

- ACCOMMODATE WORLD-WIDE AC SOURCES
- MEET IEC 61000-3-2 HARMONIC CORRECTION
- N+1 REDUNDANCY & CURRENT SHARING
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR PUB. 22 CLASS A
- CE MARKING COMPLIANCE

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Auto-ranging input 115Vac(90-132Vac) and 230Vac(180-264Vac).

Input Connector: Molex Mini-Fit 42404-06.

Input Frequency: 47-63 Hz.

Inrush Current: Typ. 25A @ 230Vac(Active).

Input Current: Typ. 4.0A @ 115Vac, 2.0A @ 230Vac.

Dielectric Withstand: Meet IEC 60950-1.

EMI: Meet CISPR PUB.22 & FCC Class A.

Hold-up Time: Typ. 7-8.5mS @ 115Vac/50mS @ 230Vac.

Power Factor Correction & Harmonic Correction:
Meet IEC 61000-3-2, PF typ. 0.97-0.99 @ full load.

Over Temperature Protection: With thermostat.

Earth Leakage: Less than 1.0mA.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.

Output Current: See Ratings Chart.

Output Connector: Molex Mini-Fit 42404-24.

Output Wattage: Typ. 350W under forced air flow.

Line Regulation: Typ. 0.1%.

Load Regulation: Main O/P VO1 $\pm 1-2.0\%$ typ.
Aux. O/P VO2 $\pm 2-3\%$ typ. (Magnetic Amp).
Aux. O/P VO3 $\pm 3-5.0\%$ typ. (P.R.).

Noise & Ripple: Typ. 1% peak to peak.

OVP: Built-in at O/P VO1 and VO2. (Latch type).

Adjustability: Available at VO1 & VO2 output.

Remote Sense: Available at O/P VO1 and VO2.

Redundancy: Available for N+1 redundant operation.

Current Sharing: Third-wire current sharing.

OR-ing diodes: Installed in all outputs.

Power OK: Installed.

Overload Protection (OLP): Fully protected against output overload and short circuit.
Consult the factory for OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 71-77%.

Switching Frequency: Typ. 50K Hz.

Circuit Topology: PWM Fixed Frequency Forward Circuit.

Transient Response: Output voltage returns in typically 2mS following a 25% load change.

Safety Standard: UL 60950-1/EN 60950-1 Class I.

Power Density: 3.25Watts / Cubic Inch.

Operating Temperature: 0 to +50°C under 30 cfm forced air flow for full load.

Storage Temperature: -20 to +85°C.

Temperature Coefficient: 0.04%/ °C.

Cooling: At least 30cfm forced cooling air flow for full load operation.

Long Term Stability: After 20 minute warm-up, 0.1% for 8 hours.

Construction: Enclosure box with handler.

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 (W/fan cooling)

MODEL NO.	MAIN VO1 @ ★ # ≡	
	Typ.	Volt.
HVP350-S033700	70.0A	3.3V
HVP350-S050650	65.0A	5.0V
HVP350-S120270	27.0A	12.0V
HVP350-S150220	22.0A	15.0V
HVP350-S240140	14.0A	24.0V
HVP350-S280120	12.0A	28.0V
HVP350-S360100	10.0A	36.0V
HVP350-S480075	7.5A	48.0V

DUAL OUTPUT (Under 30cfm forced air cooling)

MODEL NO.	MAIN VO1 @ ★ # ≡		AUX. VO2 @ ★ ▲ # ≡	
	Typ.	Volt.	Typ.	Volt.
HVP350-D120E	19.0A	+12.0V	24.0A	+5.0V
HVP350-D150E	15.5A	+15.0V	24.0A	+5.0V
HVP350-D240E	10.0A	+24.0V	24.0A	+5.0V
HVP350-D050D	35.0A	+5.0V	24.0A	+3.3V
HVP350-D120D	15.0A	+12.0V	24.0A	+3.3V
HVP350-D150D	12.0A	+15.0V	24.0A	+3.3V

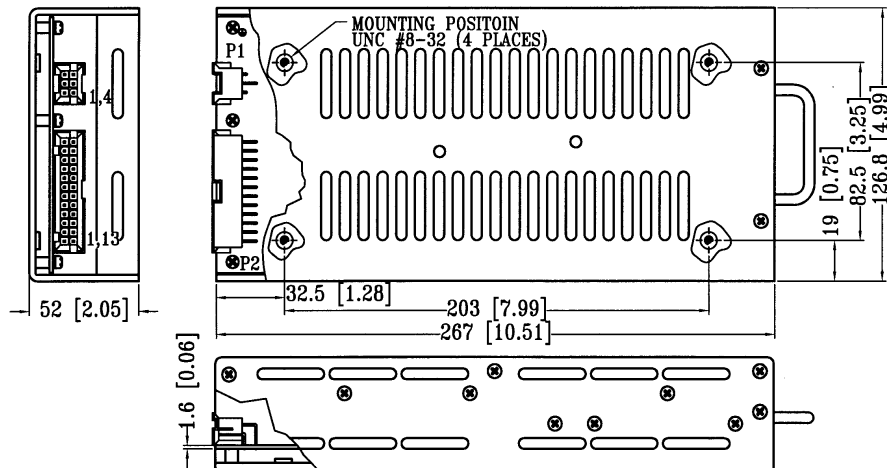
TRIPLE OUTPUT (Under 30 cfm forced air cooling)

MODEL NO.	MAIN VO1 ○ @ ★ # ≡		AUX. VO2 @ ★ ○ ▲ # ≡		AUX. -VO3 • ○	
	Typ.	Volt.	Typ.	Volt.	Typ.	Volt.
HVP350-T120EI	17.0A	+12.0V	23.0A	+5.0V	1.0A	-12.0V
HVP350-T120EE	17.0A	+12.0V	23.0A	+5.0V	1.0A	-5.0V
HVP350-T240EI	8.5A	+24.0V	23.0A	+5.0V	1.0A	-12.0V
HVP350-T150EK	13.5A	+15.0V	23.0A	+5.0V	1.0A	-15.0V
HVP350-T050DI	30.0A	+5.0V	30.0A	+3.3V	1.0A	-12.0V
HVP350-T033DK	35.0A	+3.3V	25.0A	+3.3V	1.0A	-15.0V
HVP350-T120DI	20.0A	+12.0V	25.0A	+3.3V	1.0A	-12.0V
HVP350-T150DK	16.0A	+15.0V	25.0A	+3.3V	1.0A	-15.0V

Symbol: "★" OVP built-in. "≡" 3rd-wire current sharing. "@" Adjustable. "▲" Installed with magnetic amplifier.

"•" Installed with Post Regulator (P.R.). "○" OR-ing diodes. "#" Remote sensing.

MECHANICAL DIMENSIONS: MM [INCHES] WEIGHT:1,872.0g (66.0 Oz.) for Enclosure box.
1,675.0g (59.0 Oz.) for U-Bracket.



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT CONNECTOR & PIN#	AC INPUT			SINGLE/ DUAL / TRIPLE OUTPUT				ASSORTED SIGNALS					
	AC-L	AC-N	AC-G	VO1	VO2	VO3	DC-COM	VO1#	VO2#	VO1≡	VO2≡	P.F.	P. Good
CONNECTOR & PIN#	P1-3	P1-5	P1-1	P2-1,2,3,4,5, 13,14,15,16,17	--	--	P2-6,7,8,9,10, 18,19,20,21,22	P2-11	--	P2-23	--	P2-12	P2-24
CONNECTOR & PIN#	P1-3	P1-5	P1-1	P2-1,2,3,13,14	P2-8,9,20,21	--	P2-4,5,6,7,15, 16,17,18,19	P2-11	P2-10	P2-23	P2-22	P2-12	P2-24
CONNECTOR & PIN#	P1-3	P1-5	P1-1	P2-1,2,3,13,14	P2-8,9,20,21	P2-15	P2-4,5,6,7,16, 17,18,19	P2-11	P2-10	P2-23	P2-22	P2-12	P2-24

Mating connector: Molex # 42385-06& 42385-24.