

# HiTRON

2008/09/26

## **UNIVERSAL INPUT HARMONIC CORRECTION RESONANT AC-DC OPEN FRAME TRIPLE OUTPUT 200 WATTS INTERNAL SWITCHING POWER SUPPLIES HIRP200 SERIES**



### **FEATURES:**

- ACCOMMODATE UNIVERSAL AC SOURCES
- 5" x 3" COMPACT SIZE IN 1U HEIGHT
- 5V STAND-BY & 12V FAN OUTPUTS
- RESONANT DESIGN CIRCUIT
- MEET UNIVERSAL SAFETY STANDARDS
- EMI MEET CISPR PUB. 22 & FCC CLASS A
- CE MARKING COMPLIANCE
- POWER DENSITY AS HIGH AS 9.95W/C.I.

### **SPECIFICATION**

#### **INPUT SPECIFICATION**

**Input Voltage:** Typ. 90-264Vac with PFC.  
**Input Connector:** V-M connector.  
**Input Frequency:** 47-63Hz.  
**Inrush Current:** Typ. 11.4-11.7Arms@230Vac.  
**Input Current:** 1.95-2.16A @115Vac, 1.0-1.15A @230Vac.  
**Dielectric Withstand:** Meet IEC 60950-1.  
**EMI:** Meet CISPR PUB. 22 & FCC Class A.  
**Hold-up Time:** Typ. 16-18mS @115Vac & 230Vac.  
**Power Fail Signal:** Installed.  
**Remote ON/OFF:** Installed.  
**Power Factor & Harmonic Correction:**  
 Meet IEC 61000-3-2, PF typ.0.95@ full load.  
**Leakage Current:** Less than 0.75-0.79mA.

#### **OUTPUT SPECIFICATION**

**Output Voltage:** See Ratings Chart.  
**Output Current:** See Ratings Chart.  
**Output Connector:** V-H connectors.  
**Output Wattage:** Max. 200W.  
**Line Regulation:** Typ.  $\pm 0.1\%$ .  
**Load Regulation:** VO1 & VO3 typ.  $\pm 1\%$ .  
 VO2 typ.  $\pm 3.0\%$ .  
**Noise & Ripple:** Typ. 1.0% peak to peak.  
**OVP:** Installed in VO1 & VO2 (Latch).  
**Adjustability:** Available at VO1.  
**DC OK Signal:** Installed.  
**Overload Protection (OLP):** Fully protected against output overload and short circuit. Typical 115-130% at 115Vac.Consult the factory for the special OLP setting.

#### **GENERAL SPECIFICATION**

**Efficiency:** Typ. 87-92%.  
**Switching Frequency:** 100-105K Hz.  
**Circuit Topology:** ZVS circuit.  
**Transient Response:**  
 +12V and +24V voltage returns within 1mS following a 25% load change.  
 +48V voltage returns within 1.75mS following a 25% load change.  
**Safety Standard:** UL 60950-1/EN 60950-1 Class I.

**Operating Temperature:** 0 to +50°C at full load with specified air flow.  
**Storage Temperature:** 0 to +85°C.  
**Temperature Coefficient:** 0.05%/°C.  
**Cooling:** 400LFM airflow is required to deliver the full power. 200W.  
**Construction:** PCB format.  
**Power Density:** 9.95 Watts / Cubic Inch.

Note: (1)Due to requests in market and advances in technology, specifications subject to change without notification.  
 (2)All measurement are at nominal input, full load and +26°C unless otherwise specifications.

# OUTPUT VOLTAGE / CURRENT RATINGS CHART

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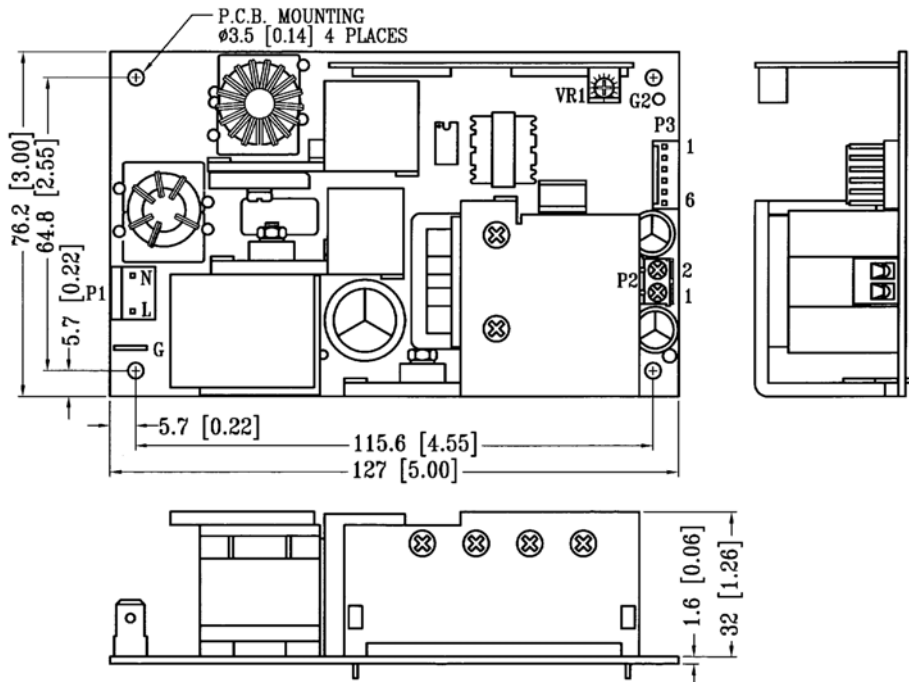
## TRIPLE OUTPUT (Under forced air cooling 400LFM)

MODEL NO.	MAIN VO1 @★			VO2 ★(Fan outputs)			VO3 ★ (Standby)		
	Max.	Typ	Volt.	Max.	Typ.	Volt.	Max.	Typ.	Volt.
<b>HIRP200-T120IE</b>	16.70A	16.6A	<b>+12V</b>	1.0A	0.5A	<b>+12.0V</b>	0.1A	0.1A	<b>+5V</b>
<b>HIRP200-T240IE</b>	8.30A	8.3A	<b>+24V</b>	1.0A	0.5A	<b>+12.0V</b>	0.1A	0.1A	<b>+5V</b>
<b>HIRP200-T480IE</b>	4.16A	4.0A	<b>+48V</b>	1.0A	0.5A	<b>+12.0V</b>	0.1A	0.1A	<b>+5V</b>

Symbol: “★” OVP built-in. “@” Adjustable.

## MECHANICAL DIMENSIONS: MM [INCHES]

**WEIGHT: 500.0g (17.6 Oz)**



## INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	AC INPUT			TRIPLE OUTPUT						
	AC-LINE	AC-NEUTRAL	AC-GROUND	+VO1	DC-COM	+VO2	+5VSB	DC-COM	POWER FAIL	REMOTE CONTROL
CNTR & PIN#	P1-2	P1-1	G	P2-2	P2-1	P3-5,6	P3-3	P3-4	P3-1	P3-2

Remark: Short P3-2 and P3-3 to enable the PSU.