

# Hitron

# UNIVERSAL AC INPUT HARMONIC CORRECTION AC-DC HOT-SWAP CompactPCI QUAD OUTPUT 301 WATTS ACTIVE CURRENT SHARING SWITCHING POWER SUPPLIES HAC301P SERIES



#### **FEATURES:**

- 300W 3U X 8HP EUROCARD PACKAGE
- MEET IEC 61000-3-2 HARMONIC CORRECTION
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- **■** HOT-SWAPPABLE
- **THIRD-WIRE CURRENT SHARING**
- EMI MEET EN 55022 / FCC CLASS B
- CE MARKING COMPLIANCE
- **FULLY COMPLIANT WITH PICMG**

# **SPECIFICATION**

## INPUT SPECIFICATION

Input Voltage: Typ. 90-264Vac.

Power Factor Correction: Meet Harmonic Correction

IEC 61000-3-2.Power Factor typ. 0.98-0.99.

**Input Connector:** Positronic 47-pin PCIH47M400A1.

**Input Frequency:** 47-63Hz.

Inrush Current: 6.96Arms at 230Vac.

**Input Current:** 3.34A at 115Vac/1.63A at 230Vac. **Dielectric Withstand:** Meet IEC 60950-1 regulation.

EMI: Meet EN 55022 / FCC Class B. Hold-up Time: 18.4mS at 115Vac/230Vac.

Earth Leakage Current: Less than 0.5mA at 230Vac. Remote ON/OFF: Available at [INH#] & [EN#] pins.

Power Fail Signal: Available at [FAL#] pin.

**Status LED:** <Green> means valid input voltage.

<Amber> means a critical fault.

Thermal Protection (OTP): Installed NTC and

thermostat for thermal sensor at [DEG#] pin.

#### **OUTPUT SPECIFICATION**

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: Typ. 300W continuous.

Output Connector: Positronic 47-pin PCIH47M400A1.

**Line Regulation:** Typ. 0.5%. **Load Regulation:** Typ. ±1-5%.

Noise & Ripple: Typ. 1% peak to peak or 50mV,

whichever is greater.

**OVP:** Built-in at all outputs.

Adjustability: Available at VO1,2&3.

**Volt. Tolerance:** VO1/2 typ. 1%, VO3 typ. 3%, VO4 typ. 5%.

Remote Sensing: Available at VO1, VO2 & VO3.

Hot-Swap: Available.

N+1 Redundancy: Installed with internal OR-ing diodes at all outputs for N+1 redundancy operation.

Current Sharing: Third-wire current sharing at VO1,2 &3.

Power OK Signal: Available for all output.

Over Current Protection (OCP): Installed at each rail.

Overload Protection (OLP): Fully protected against output overload or short circuit. Typical 105-130% max. load.

Consult the factory for special OLP setting.

#### **GENERAL SPECIFICATION**

Efficiency: Typ. 78%.

Switching Frequency: 120K Hz. Circuit Topology: Forward circuit.

Transient Response: Peak transient less than 200mV and

recovers within 0.5mS after 25% load-change.

Safety Standard: IEC 60950-1 Class I.
Construction: Eurocard 3U X 8HP X 160mm

CompactPCI format.

**Operating Temperature:** 0 to +50 °C at full load with specified air flow. Derates linearly to 50% at +70 °C.

**Storage Temperature: -40** to +85 °C.

**Temperature Coefficient:** Typ. ±0.02% / °C.

**Cooling:** At least 60CFM(800 LFM) moving air is required to achieve full rating power 300W in a confined area.

Power Density: 7.7 Watts/ Cubic Inch.

NOTE: (1)All measurement are at nominal input, full load and +25°C unless otherwise specifications.

(2)Due to requests in market and advances in technology, specifications subject to change without notification.





# **OUTPUT VOLTAGE / CURRENT RATINGS CHART**

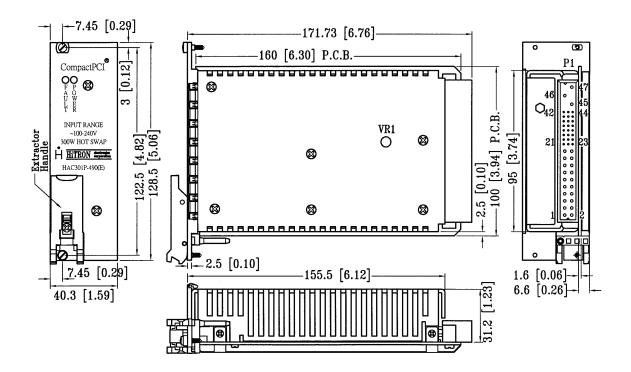
## **QUAD OUTPUT**

MODEL NO.	M	VO1 (	<b>@★</b> #≡		AUX.+VO2 ▲@★#≡⊙※					AUX. +VO3 ▲≡#⊙★@					AUX. –VO4 ⊙★▲					
	Min.	Тур.	Volt.	Max.	Pk.	Min.	Тур	Volt.	Max	Pk.	Min.	Тур	Volt.	Max.	Pk.	Min.	Тур.	Volt.	Max.	Pk.
HAC301P-490(E)	0A	25A	+5V	40A	45A	0A	25A	+3.3V	40A	45A	0A	7A	+12V	10A	12A	0A	1A	-12V	2A	2A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. "≡" 3rd-wire Load Sharing. "=" Droop Current Sharing.

**WEIGHT:** 666.0 g (23.5 Oz.)

## **MECHANICAL DIMENSIONS: MM [INCHES]**



### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

_	П	AC NPU	Т	QUAD OUTPUT														STATUS/CONTROL			
ASSIGNMENT	L	N	G	VO1	S+	S-	Adj.	C.S.	VO2	S+	Adj.	C.S.	VO3	S+	C.S	VO4	DC COM	EN#	DEG#	INH#	FAL#
CNTR &PIN#	47	46	45	1,2, 3,4	30	34	29	35	13,14, 15,16, 17,18	33	32	41	20	36	44		5,6,7,8,9, 10,11,12, 19,22,24	27	38	39	42

Mating connector: PCIH47F400A1.

<sup>&</sup>quot;⊙" Installed with Or-ing diode. "▲" Magnetic Amplifier. "※" Synchronous Rectifier.

Remark: Peak load less than 60sec. with duty cycle <10%.

Max. load is the continuous operating load of each rail. But the max. load of each rail can't be drawn from all outputs at the same time.