# **H** HITRON

36-72VDC INPUT RANGE DC-DC CONVERTER HALF SIZE HOT-SWAP CompactPCI QUAD OUTPUT 202 WATTS ACTIVE CURRENT SHARING SWITCHING POWER SUPPLIES HDC202P-48B SERIES



#### **FEATURES:**

- 202W HALF SIZE 3U X 4HP EUROCARD PACKAGE
- 36-72VDC NOMINAL 48VDC INPUT
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- **HOT-SWAPPABLE**
- THIRD-WIRE CURRENT SHARING
- EMI MEET EN 55022 / FCC CLASS A
- CE MARKING COMPLIANCE
- **FULLY COMPLIANT WITH PICMG**

# **SPECIFICATION**

### INPUT SPECIFICATION

**Input Voltage:** Typ. 36-72Vdc, nominal input 48Vdc.

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

Inrush Current: Typ. 20A @ nominal input 48Vdc.(Active)

**Input Current:** 5.6A @ nominal input 48Vdc.

**Dielectric Withstand:** Meet IEC 60950-1 regulation.

EMI: Meet CISPR EN 55022 Class A.

**Remote ON/OFF:** Available at [INH#] & [EN#] pins.

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

Status LED: <Green> means valid input or output voltage.

<Amber> means a critical fault.

Thermal Protection (OTP): Installed NTC for thermal

sensor at [DEG#] pin.

#### **OUTPUT SPECIFICATION**

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: Typ. 202W continuous.

Output Connector: Positronic 47-pin PCIH47M400A1.

Line Regulation: Typ. 0.2%. Load Regulation: Typ. ±1-2.0%.

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

whichever is greater.

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

Adjustability: Available at VO1,2&3.

Remote Sensing: Available at VO1, VO2 & VO3.

Hot-Swap: Available.

N+1 Redundancy: Installed with OR-ing diodes at all

outputs for N+1 redundancy.

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

**Power OK Signal:** Available for all outputs.

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

Fully protected against output overload or short circuit.

Typ. set at 105-130% max. load. Consult the factory for special OLP setting.

#### GENERAL SPECIFICATION

Efficiency: Typ. 77%.

Switching Frequency: 305-330 KHz. Circuit Topology: Forward circuit.

**Transient Response:** Peak transient less than 200mV and returns to within 1% less than 200uS for 25% load-change.

Safety Standard: IEC 60950-1 Class I.

**Construction:** Eurocard 3U x 4HP x 160mm half-size CompactPCI Front Panel with Extractor handle.

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

**Storage Temperature:** -40°C to +85°C. **Temperature Coefficient:** Typ. ±0.02% /°C.

**Cooling:** At least 30 cfm (800lfm) moving air is required to achieve full rating power 200W in a confined area.

Power Density: 7.40 Watts /Cubic Inch.

Note: Due to requests in market and advances in technology, specifications subject to change without notification.





## **OUTPUT VOLTAGE / CURRENT RATINGS CHART**

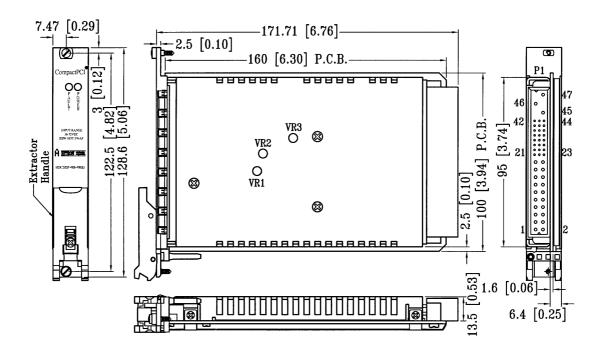
## **OUAD OUTPUT**

MODEL NO.	MAIN +VO1 @★#≡⊙				AUX. +VO2 ▲ ★#≡⊙@				AUX. +VO3 ▲ ★#≡⊙@					AUXVO4 ▲⊙★=				
	Min.	Тур.	Volt.	Max.	Min	Тур.	Volt.	Max.	Min	Тур	Volt.	Max.	Pk.	Min.	Тур.	Volt.	Max.	Pk.
HDC202P-48B-490	2.0A	25A	+5V	30A	0A	10A	+3.3V	20A	0.3A	3A	+12V	5A	5.5A	0A	0.5A	-12V	1A	1.5A

**WEIGHT:** 469.0g (16.5 Oz.)

**Symbol:** "★" OVP built-in. "=" 3rd- wire Load Sharing. "=" Droop Current Sharing. "⊙" Installed with Or-ing diode. "@" Adjustable. "#" Remote sensing.

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



#### INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	DC INPUT			QUAD OUTPUT												STATUS/CONTROL			
ASSIGNMENT	-Vin	+Vin	G	VO1	S+	S-	C.S.	VO2	S+	C.S.	VO3	S+	C.S	VO4	DC COM	EN#	DEG#	INH#	FAL#
CNTR &PIN #	47	46	45	1,2, 3,4	30	34	35	13,14, 15,16, 17,18	33	41	20	36	44	21	5,6,7,8,9, 10,11,12, 19,24	27	38	39	42

Mating connector: PCIH47F400A1.

<sup>&</sup>quot;A" Magnetic Amplifier. "•" Installed with Post Regulator. 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.