H HiTRON

36-72VDC INPUT RANGE DC-DC CONVERTER HOT-SWAP LOW VOLTAGE CompactPCI PENTA OUTPUT 200 WATTS ACTIVE CURRENT SHARING SWITCHING POWER SUPPLIES HDC203P-48B SERIES

FEATURES:

- **200W 3U X 9HP EUROCARD PACKAGE**
- **36-72VDC NOMINAL 48VDC INPUT**
- **INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY**
- **HOT-SWAPPABLE**
- **THIRD-WIRE CURRENT SHARING**
- **EMI MEET FCC CLASS B**
- **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: Peak 6.76A @ nominal 48Vdc.

Input Current: 5.9A @ nominal input 48Vdc at full load.
0.2A @ nominal input 48Vdc at no-load.

Dielectric Withstand: Meet IEC 60950-1 regulation.

EMI: Meet FCC Class B.

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 for thermal sensor at [DEG#] pin.

OUTPUT SPECIFICATION

Output Voltage: See Ratings Chart.
Output Current: See Ratings Chart.
Output Wattage: Typ. 200W continuous.
Output Connector: Positronic 47-pin PCIH47M400A1.
Line Regulation: Typ. 0.2%.
Load Regulation: Typ. ±1.0%.
Noise & Ripple: Typ 1% Pk.-Pk. or 50mV, whichever is greater.
OVP: Built-in at all outputs.
Adjustability: Available at VO1,2,3 & 4.
Remote Sensing: Available at VO1,VO2 VO3 and VO4.
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.
Over Current Protection (OCP): Installed in each rail.
Overload Protection (OLP): Fully protected against output overload or short circuit. Typical 120-150% max. load. Consult the factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 70 %.
Switching Frequency: 120K Hz.
Circuit Topology: Forward circuit.
Transient Response: Peak deviation is 420mV and recovers within 39.6mS for 50% load-change.
Safety Standard: IEC 60950-1 Class I.
Construction: Eurocard 3U X 9HP X 185mm CompactPCI format.
Operating Temperature: -5 to +50 °C at full load with specified air flow.
Deraes linearly to 50% at +70°C.
Storage Temperature: -40 to +85 °C.
Temperature Coefficient: Typ. ±0.02% / °C.
Cooling: At least 14CFM moving air is required to achieve full rating power 200W in a confined area.
Power Density: 2.85 Watts/ Cubic Inch.

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

In application

OUTPUT VOLTAGE / CURRENT RATINGS CHART

PENTA OUTPUT

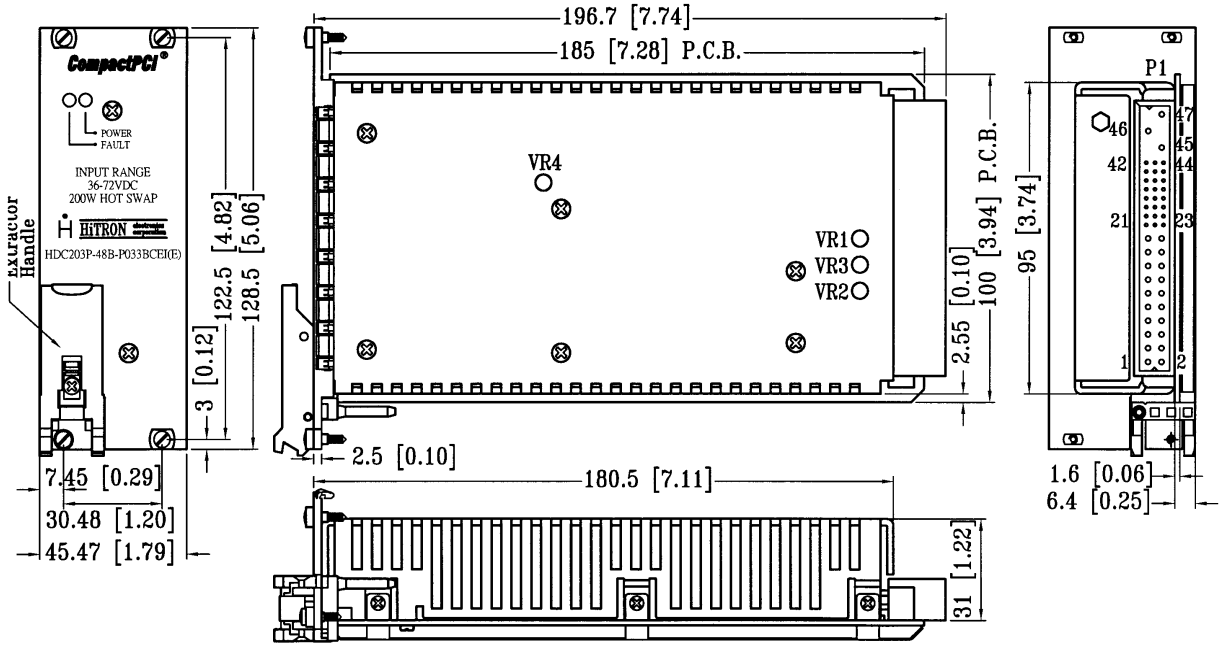
MODEL NO.	MAIN +VO1★@#≡⊙				AUX. +VO2★@#≡⊙▲				AUX. +VO3★@#≡⊙▲				AUX. +VO4★@#≡⊙▲				AUX. VO5★⊙•◇			
	Min.	Typ.	**Volt.**	Max.	Min.	Typ.	**Volt.**	Max.	Min.	Typ.	**Volt.**	Max.	Min.	Typ.	**Volt.**	Max.	Min.	Typ.	**Volt.**	Max.
HDC203P-48B-P033BCEI(E)	1A	20A	**3.3V**	20A	0.5A	9A	**5V**	9A	0A	12A	**2.5V**	12A	0A	17A	**1.5V**	17A	1A	2A	**12V**	2A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. "≡" 3rd-wire Load Sharing. "◇" Floating.
"⊙" Installed with Or-ing diode. "▲" 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.

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 666.0 g (23.5 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	DC INPUT			PENTA OUTPUT															
ASSIGNMENT	**+V**	**-V**	**G**	**V1**	**V2**	**V3**	**V4**	**DC COM**	**+V5**	**-V5**	**V1 S**	**V2 S**	**V3S**	**V4 S**	**-S**	**V1 CS**	**V2 CS**	**V3 CS**	**V4 CS**
CNTR &PIN #	46	47	45	13,14,15, 16,17,18	1	2	3,4	5,6,7,8,9,10, 11,12,22,24	20	19	33	30	35	37	34	28	29	25	26

STATUS/CONTROL											
ASSIGNMENT	**EN**	**DEG**	**INH**	**FAL**	**CRD-EXEISIT_1**	**CRD-EXEISIT_0**	**SLOT_ID0**	**SLOT_ID1**	**I^2C_SDA**	**I^2C_SCL**	**NC**
CNTR &PIN #	27	38	39	42	31	32	40	41	43	44	21,23,36

Mating connector: PCIH47F400A1.