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EX14 1SE

HiTRON

36-72VDC INPUT RANGE DC-DC CONVERTER HOT-SWAP CompactPCI QUAD OUTPUT 300 WATTS ACTIVE CURRENT SHARING SWITCHING POWER SUPPLIES HDC301P-48B SERIES

FEATURES:

- 300W 3U X 8HP 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: Peak 46.2A at nominal 48Vdc.

Input Current: 7.58A at nominal input 48Vdc at full load.
0.16A at nominal input 48Vdc at no-load.

Dielectric Withstand: Meet IEC 60950-1 regulation.

EMI: Meet EN 55022 FCC Class A.

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. 300W continuous.
Output Connector: Positronic 47-pin PCIH47M400A1.
Line Regulation: Typ. 0.01%.
Load Regulation: Typ. ±0.2 to +/-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.
Remote Sensing: Available at VO1 & sVO2.
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% max. load. Consult the factory for special OLP setting.

GENERAL SPECIFICATION

Efficiency: Typ. 83 %.
Switching Frequency: 130K Hz.
Circuit Topology: Forward circuit.
Transient Response: Peak deviation is 160mV and recovers within 0.256mS for 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 700 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℃ unless otherwise specifications.
(2)Due to requests in market and advances in technology, specifications subject to change without notification.

For the details of safety approval, please consult the factory.

OUTPUT VOLTAGE / CURRENT RATINGS CHART

QUAD OUTPUT

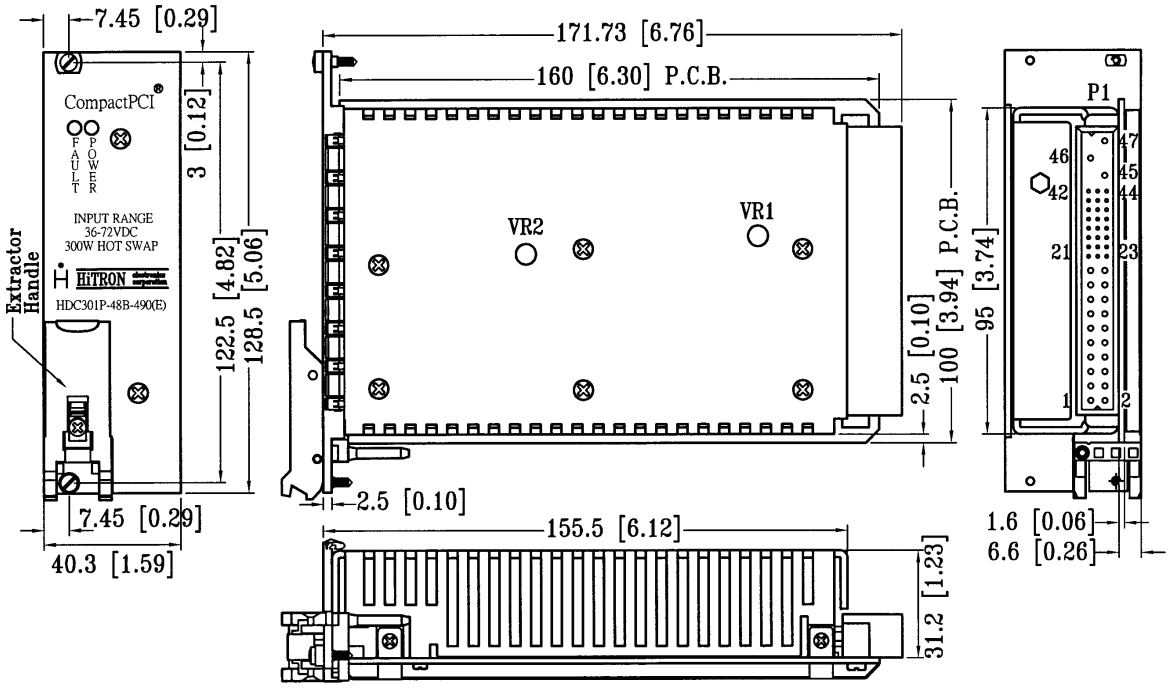
MODEL NO.	MAIN +VO1 @★#≡⊙				AUX. +VO2 ▲@★#≡⊙				AUX. +VO3 ▲@★≡⊙					AUX. -VO4 ⊙▲★				
	Min.	Typ.	**Volt.**	Max.	Min	Typ.	**Volt.**	Max.	Min.	Typ	**Volt.**	Max	Pk.	Min.	Typ.	**Volt.**	Max.	Pk.
HDC301P-48B-490(E)	2.0A	26.8A	**+5V**	40A	0A	20A	**+3.3V**	40A	0A	7.5A	**+12V**	10A	11A	0A	1A	**-12V**	1.5A	1.7A

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

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.
Total output maximum 300 W; Total combined current of +5 V and + 3.3 V not large than 50 A

MECHANICAL DIMENSIONS: MM [INCHES]

WEIGHT: 666.0 g (23.5 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	DC INPUT			QUAD OUTPUT														STATUS/CONTROL			
ASSIGNMENT	**-Vin**	**+Vin**	**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	21	5,6,7,8,9, 10,11,12, 19,24	27	38	39	42

Mating connector: PCIH47F400A1.