TOTAL POWER INT'L

36-72VDC INPUT RANGE DC-DC CONVERTER HOT-SWAP CompactPCI QUAD OUTPUT 300 WATTS ACTIVE CURRENT SHARING SWITCHING POWER SUPPLIES TPDC300P-48B SERIES



FEATURES:

- **300W 6U 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 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: Typ. 8.5A @ nominal input 48Vdc.
Input Current: 6.5A @ nominal input 48Vdc.
Dielectric Withstand: Meet IEC950 regulation.
Transient Protection: MOV withstands transient as specified by EN61000-4-4 level 3.
EMI: Meet EN55022 / 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.
Overload Protection (OLP): Fully protected against output overload or short circuit. Typ. set at 120-130% max. load. Consult the factory for special OLP setting.

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. 0.1%.
Load Regulation: VO1 & VO2 typ. ±1.0-1.5%. VO3 & VO4 typ. ±0.5-1.0%.
Noise & Ripple: Typ. 1% peak to peak or 50mV, which is greater.
OVP: Built-in at all outputs.
Adjustability: Available at VO1,2&3.
Remote Sensing: Available at VO1,VO2 & VO3.
Redundancy/Hot-Swap: Available 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 in each rail.

GENERAL SPECIFICATION

Efficiency: Typ. 80 %.
Switching Frequency: 114K Hz.
Circuit Topology: Forward circuit.
Transient Response: Peak transient 35mV and recovers within 0.5mS after 25% load-change.
Safety Standard: IEC60950.
Construction: Eurocard 6U X 8HP X 160mm. CompactPCI format. Front panel with Extractor handle.
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 200cfm moving air through the PSU is required to achieve full rating power 300W in a confined area.
Power Density: 2.71 Watts/ Cubic Inch.

Remark: All measurements are at nominal input, full load and +25°C unless otherwise specifications.

OUTPUT VOLTAGE/CURRENT RATINGS CHART

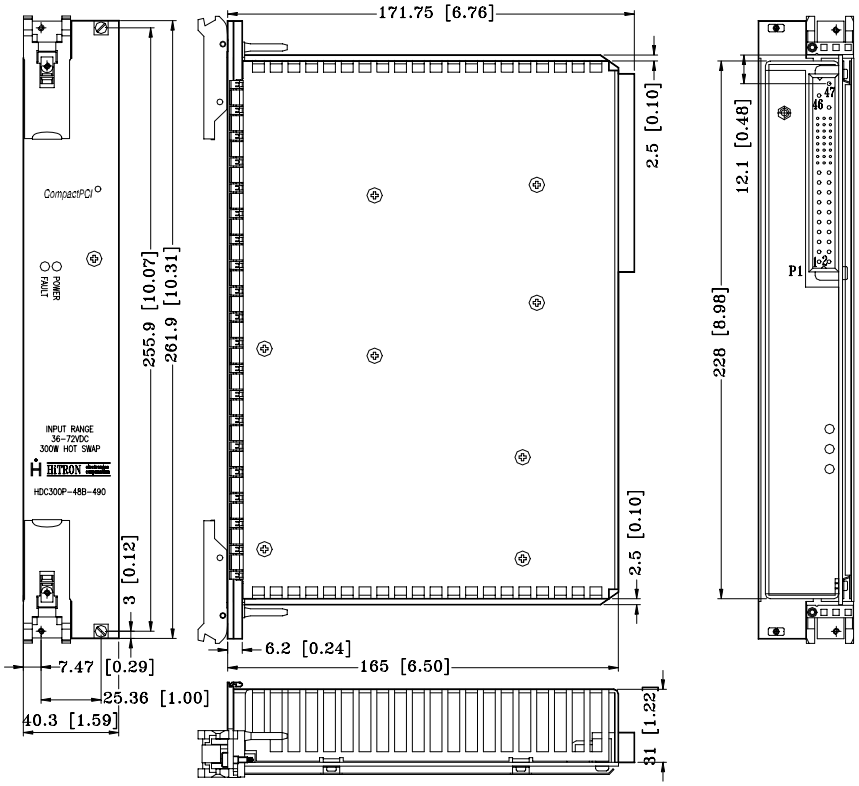
QUAD OUTPUT

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.
TPDC300P-48B-490	2.0A	20A	**+5V**	35A	0A	20A	**+3.3V**	25A	0A	10A	**+12V**	12A	15A	0A	0.8A	**-12V**	1A	1.5A

Symbol: "★" OVP built-in. "@" Adjustable. "#" Remote sensing. "=" Droop Load Sharing. "⊙" Installed with Or-ing diode.
"▲" Magnetic Amplifier. "●" Installed with Post-regulator. "≡" 3rd-wire Load Sharing.
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: 1.42Kg (3.13 lb.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

	DC INPUT			QUAD OUTPUT													STATUS/CONTROL				
ASSIGNMENT	**-Vin**	**+Vin**	**G**	**VO1**	**S+**	**S RTN**	**Adj.**	**C.S.**	**VO2**	**S+**	**Adj.**	**C.S.**	**VO3**	**S+**	**C.S**	**VO4**	**DC COM**	**EN#**	**DEG#**	**Signal RTN**	**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	22	39	42

Mating connector: PCIH47F400A1.