

36-72VDC INPUT RANGE DC-DC CONVERTER HOT-SWAP CompactPCI QUAD OUTPUT 200 WATTS CURRENT SHARING SWITCHING POWER SUPPLIES TPDC200P-48B SERIES



FEATURES:

- 200W IN 3U X 8HP EUROCARD PACKAGE
- CompactPCI DC-DC CONVERTER
- INTERNAL OR-ING DIODES FOR N+1 REDUNDANCY
- DROOP CURRENT SHARING
- HOT-SWAPPABLE
- EMI MEET EN55022/FCC CLASS B
- CE MARKING COMPLIANCE
- FULLY COMPLIANT WITH PICMG

SPECIFICATION

INPUT SPECIFICATION

Input Voltage: Typ. 36-72Vdc nominal 48Vdc.
Input Connector: Positronic 47-pin PCIH47M400A1.
Inrush Current: Cold start 8A @ 72 Vdc. (Active)
Input Current: 4.5A @ nominal 48Vdc.
Dielectric Withstand: Meet IEC950 regulation.
EMI: Meet CISPR 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: Installed NTC for thermal sensor at [DEG#] pin.
Overload Protection (OLP): Fully protected against output overload or short circuit.
 Typ. set at 150% max. load.
 Consult the factory for special OLP setting.

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. 0.5% over DC input range.
Load Regulation: Typ. ±1.0-2.0%.
Noise & Ripple: Typ. 1% peak to peak or 50mV, which is greater.
OVP: Built-in at VO1 & VO2.
Adjustability: Available at VO1 & VO2. VO3 factory set.
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: Droop current sharing method for all outputs.

GENERAL SPECIFICATION

Efficiency: Typ. 79%.
Switching Frequency: 130 KHz.
Circuit Topology: Forward circuit.
Transient Response: Peak transient less than 200mV and recovers within 3mS after 25% load-change.
Safety Standard: IEC950/ UL1950.
Construction: Eurocard 3U x 8HP x 160mm CompactPCI format. Front Panel with either Ordinary handle or 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 20 cfm (600 lfm) moving air is required to achieve full rating power.
Power Density: 3.7 Watts / Cubic Inch.

Note: 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.	Typ.	Volt.	Max.	Typ.	Volt.	Max.	Peak	Typ.	Volt.	Max.	Peak
TPDC200P-48B-490(E)	2.0A	25A	+5V	35A	10A	+3.3V	20A	3.0A	+12V	5.0A	6.0A	0.5A	-12V	1.0A	1.0A
TPDC200P-48B-490(O)	2.0A	25A	+5V	35A	10A	+3.3V	20A	3.0A	+12V	5.0A	6.0A	0.5A	-12V	1.0A	1.0A

Symbol: "★" OVP built-in. "@#" Adjustable. "(@)" Adjustable factory set. "#" Remote sensing. "=" Droop Current Sharing. "⊙" Installed with Or-ing diode.

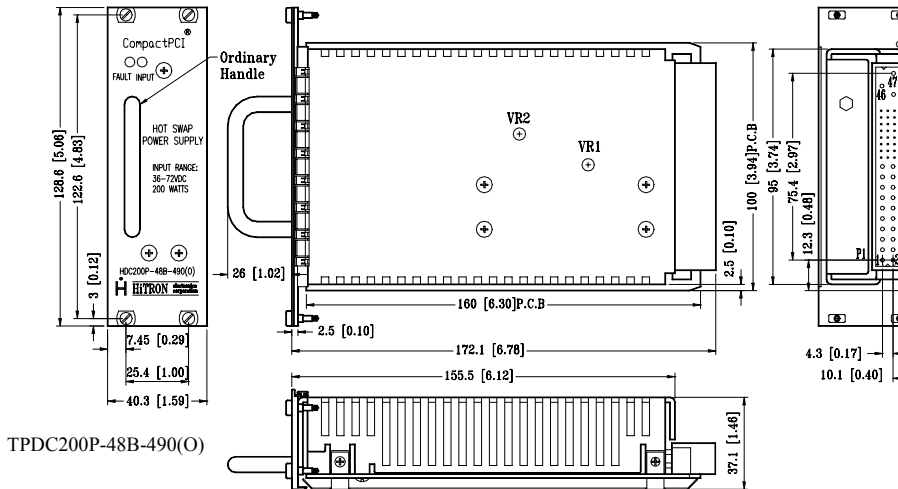
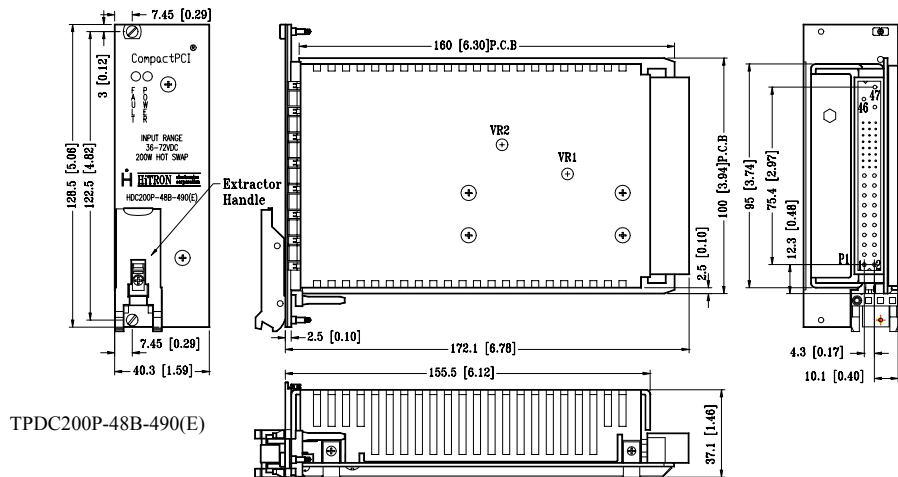
"▲" Magnetic Amplifier. "●" Installed with Post Regulator. "■" Common Choke.

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: 666.0g (23.5 Oz.)



INPUT & OUTPUT CONNECTORS PIN ASSIGNMENT

ASSIGNMENT	DC INPUT			QUAD OUTPUT							STATUS/CONTROL					
	-Vin	+Vin	G	VO1	S+	S-	VO2	S+	VO3	S+	VO4	DC COM	EN#	DEG#	INH#	FAL#
CNTR & PIN #	47	46	45	1,2, 3,4	30	34	13,14,15,16,17,18	33	20	36	21	5,6,7,8,9,10,11,12,19,22,24	27	38	39	42

Mating connector: PCIH47F400A1.