#### **POWER SUPPLY**

# HARTMANN ELECTRONIC

#### **3U 8HP 300W**

## **CPCI AC/DC**



**Partnumber: D575.00361** 

#### **Key figures:**

- 300W 3U 8HP Eurocard package
- · Wide operating temperature range, high efficiency
- Hot swap and redundancy operation with current share bus
- Internal or-ing diodes for N+1 redundancy
- No minimum load requirements
- Fully compliant with PIGMG
- I<sup>2</sup>C interface optional
- CE marking compliance
- Coated according to MIL-I-460580

# CompactPCI \*\* POWER FAULT

## **General specification:**

- Storage temperature: 45° C to +85° C
- Operating temperature: 40° C to +70° C (see note 3)
- Derate linearly from 100% load at +50° C to 60% load at +70° C (refer to derating curve)
- Temperature Coefficient: Typ. ±0.02% / °C
- Cooling: At least 400 LFM moving air is required to achieve full rating power 300W in a confined area
- Power Density: 7.8 Watts/ Cubic Inch.
- Efficiency: Typ. 85% at 230VAC
- Switching Frequency: 100K Hz
- Circuit Topology: ZVS & LLC circuit
- Transient Response: Peak transient less than 200mV and recovers within 0,5mS after 25% load change
- Safety Standard: IEC 60950-1 Class I
- Coated pcb with Cramilin 120 Plastic according to MIL-I-460580 "Type Acrylic Resin"
- Construction: Eurocard 3U 8HP 160mm; CompactPCI format, Front Panel with Extractor handle

#### NOTE:

- 1) All measurement are at nominal input, full load and +25°C unless otherwise specifications.
- 2) Tantalum capacitors connected to system is suggested for bettering Ripple&Noise against operating temperature from -40°C to +0°C
- 3) A warm-up time 3 minutes is required to maintain VO3 +12V within specific spec. After cold start at temperature from -40°C to +0°C

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#### **ELECTRICAL SPECIFICATION**

#### INPUT SPECIFICATION

Input Voltage: Typ. 90-264VAC

Power Factor Correction: Meet Harmonic Correction

IEC 61000-3-2. Power Factor typ. 0.95-0.98

Input Connector: Positronic 47-pin PCIH47M400A1

Input Frequency: 47-63Hz.

Inrush Current: 9,37Arms at 230VAC

Input Current: 3,1A at 115VAC / 1.6A at 230VAC Dielectric Withstand: Meet IEC 60950-1 regulation Meet EN 55022 / FCC Class B EMI: Hold-up Time: 10mS at 115VAC /13mS at 230VAC

Earth Leakage Current: Less than 0.73mA at 230VAC Remote ON/OFF: Available at [INH#] & [EN#] pins

Power Fail Signal: Available at [FAL#] pin

Installed NTC for thermal sensor at [DEG#] pin Thermal Protection (OTP):

<Green> means valid input voltage Status LED:

<Amber> means a critical fault

#### **OUTPUT SPECIFICATION**

Output Voltage: See Ratings Chart **Output Current:** See Ratings Chart Typ. 300W continuous Output Wattage:

Positronic 47-pin PCIH47M400A1 Output Connector:

Line Regulation: Typ. 0.1% Load Regulation: Typ.  $\pm 1\%$ 

**Total Tolerance:** VO1/VO2/VO3 typ.  $\pm$ 2%, VO4 typ.  $\pm$ 3% 1% peak to peak or 50mV, whichever is greater Noise & Ripple:

Built-in at all outputs (Latch) OVP: Available at VO1, VO2 & VO3 Adjustability:

Output Trim: Electrical trim available at VO1/VO2.[ADJ #]

Remote Sensing: Available at VO1, VO2 & VO3

Hot-Swap: Available

N+1 Redundancy: Installed with internal OR-ing diodes, all outputs for N+1 redundancy operation

Current Sharing: Third-wire current sharing at VO1, VO2 & VO3

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.110-130% max. load at 115VAC. Consult the factory for special OLP setting

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

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Part. Nr.: D575.00361

#### **Output Voltage / Current Ratings Chart**

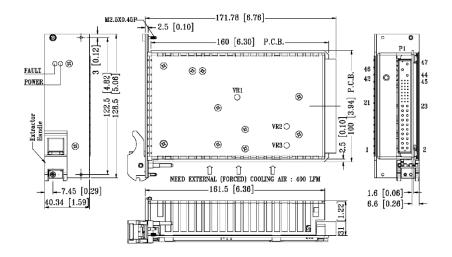
MAI	N +VO	1 @★	#≡⊙ ▼	7	AUX	. +VO	2 ▼@	<b>★</b> #≡⊙	)	AUX	. +VO	3 ≡#⊙	<b>★</b> @※	•	AUX. –VO4 ⊙★▼				
Min	Тур	Volt	Мах	폯	Min	Тур	Volt	Мах	폯	Min	Тур	Volt	Мах	폯	Min	Тур	Volt	Мах	품
90 8	25A	+5V	40A	45A	<b>V</b>	25A	+3,3V	40A	45A	90 8	7A	+12V	10A	12A	0A	1A	-12V	2A	2A

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

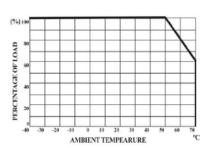
"▼" Buck Regulator . "※" Synchronous Rectifier

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 max. power: 300W and total combined current of +VO1 and +VO2 not large than 50A



#### DERATING CURVE



Mechanical dimensions: mm (inches)

Weight: 666.0 g (23.5 Oz.)

#### Input & Output connectors pin assignment

	AC INPUT			QUAD OUTPUT													STATUS/CONTROL				
ASSIGNMENT	L	N	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

For the details of safety approval, please consult the factory