### POWER SUPPLY

# HARTMANN ELEKTRONIK

### 3U 8HP 250W P47

#### AC/DC

### Key figures:

# Partnumber: D575.00171

- Wide range input voltage from 90-264Vac
- 250W 3U 8HP Euro card package
- Hot swap and redundancy operation with current share bus
- Power Factor Correction (PFC)
- Meet IEC 61000-3-2 harmonic correction
- Internal or-ing diodes for N+1 redundancy
- EMI meet EN 55022 / FCC class A
- Fully compliant with PIGMG
- CE marking compliance
- Coated according to MIL-I-460580



# General specification:

- Operating temperature: 0° +50°C at full load with specified air flow
- Storage temperature: -40°C +85°C
- Temperature Coefficient: Typ. ±0.02% / °C
- Cooling: At least 20 CFM(600 LFM) moving air is required to achieve full rating power 250W in a
- confined area
- Power Density: 4.58 Watts/ Cubic Inch.
- Efficiency: Typ. 76-77 %
- Switching Frequency: 120K Hz
- Circuit Topology: Forward circuit
- Transient Response: Peak transient less than 100mV and recovers within 2mS after 25% load-chang
- Safety Standard: IEC 60950-1 Class I
- Coated pcb with Cramilin 120 Plastic according to MIL-I-460580 "Type Acrylic Resin"
- CompactPCI format, Front Panel with Extractor handle
- Construction: Eurocard 3U 8HP 160mm

### **POWER SUPPLY**



#### <u>ა</u>\_ 8HP 250W P47

#### AC/DC



### **ELECTRICAL** SPECIFICATION

### INPUT SPECIFICATION

Power Factor Correction: Input Voltage: Typ. 90-264Vac

Meet Harmonic Correction

IEC 61000-3-2.Power Factor typ. 0.95-0.97

Positronic 47-pin PCIH47M400A1

Less than 30A @ 230Vac

2.8A @115Vac/1.4A @230Vac

Meet IEC 60950-1 regulation

Meet EN 55022 / FCC Class A

EMI:

Dielectric Withstand:

Input Current: Inrush Current: Input Frequency: Input Connector

5mS after power fail signal Less than 0.5mA @230Vac

Available at [INH#] & [EN#] pins

Remote ON/OFF: Earth Leakage: Hold-up Time:

Available at [FAL#] pin

Power Fail Signal: Thermal Protection (OTP): Installed NTC and thermostat for thermal sensor at [DEG#] pin

<Green> means valid input voltage

<Amber> means a critical fault

Status LED:

# **OUTPUT SPECIFICATION**

Output Voltage: See Ratings Chart

See Ratings Chart

Typ. 250W continuous

Output Wattage: Output Current:

Output Connector: Line Regulation: Positronic 47-pin PCIH47M400A1 Typ. 0.1%

Typ. ±1-2%

Noise & Ripple: Load Regulation: Typ. 1% peak to peak or 50mV, whichever is greater

Built-in at all outputs

OVP:

Output Trim: Adjustability:

Hot-Swap: Remote Sensing:

Available at VO1,2 & 3

Electrical trim available at VO1/VO2.[ADJ #

Available at VO1, VO2 & VO3

Available

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

operation

Third-wire current sharing at VO1,2 &3

Available for all output.

Power OK Signal:

Current Sharing:

Over Current Protection(OCP):

Installed at each rail

Overload Protection (OLP): Fully protected against output overload or short circuit.

Typical 120% max. load. Consult the factory for special OLP setting

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



### INPUT Qo **OUTPUT CONNECTORS PIN ASSIGNMENT**

| 38 39 42       | 38    | 27    | 5,6,7,8,9<br>44 21 10,11,12 27<br>19,22,24 | 21 | 4    | 36  | 20  | 41   | 32    | 33          | 13,14<br>15,16<br>17,18 | 35  | 29        | 4  | 30 | 3,1,2,4 | 45  | -7-4    | CNITR & PIN 47 46 45 1,2, 30 34 29 35 15,16 33 32 41 20 36                                 |
|----------------|-------|-------|--|----|------|-----|-----|------|-------|-------------|-------------------------|-----|-----------|----|----|---------|-----|---------|--|
| IH# FAL#       | EG#   | N# DI | DC COM E                                   | 64 | C.S. | \$+ | VO3 | C.S  | Adj   | S+          | V02                     | C.S | <u>Ad</u> | လု | \$ | Ę       | G   | 7       | Assigment 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# |
| STATUS CONTROL | IS CO | STATL | (0   |    |      |     |     | TPUT | .no 0 | QUAD OUTPUT |                         |     |           |    |    |         | PUT | AC INPU | 4  |

Matting connector: PCIH47F400A1

# **OUTPUT VOLTAGE / CURRENT RATINGS CHART**

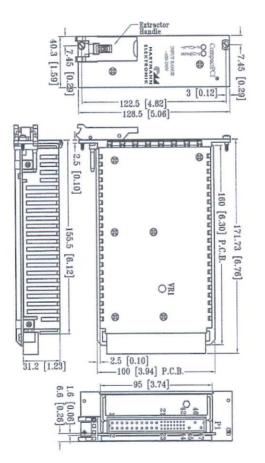
| 1,5A | 1                | -12V         | 0,5A -12V 1A 1,5A | 0A   | 6A         | 5,5A        | +12A             | 5A   | 9A   | /33A   | +3,3\       | 18A              | 0A  | 25 A +5V 33A 0A 18A +3,3V 33A 0A 5A +12A 5,5A 6A         | 25 A            | 0 A  | D575.00171 |
|------|------------------|--------------|-------------------|------|------------|-------------|------------------|------|------|--------|-------------|------------------|-----|--|-----------------|------|------------|
| PK.  | Typ Volt. Max. F | Volt.        | Тур               | Min. | PK.        | Max.        | Volt.            | Typ. | Min. | Max    | Volt.       | Typ.             | Min | Typ Volt Max Min Typ. Volt. Max Min. Typ. Volt. Max. Pk. | Тур             | Min. | Model No.  |
|      | *0*              | AUXVO4 ▲ ⊙ ★ | AUX.              |      | <b>k</b> @ | <b>₩</b> 0, | AUX. +VO3 ▲=#⊙★@ | AUX. |      | #<br>⊙ | <b>▲@</b> ★ | AUX. +VO2 ▲@★#≡⊙ | AUX | 0+#≡⊙  | MAIN +VO1 @★#≡⊙ | MA   | 4 OUTPUT   |

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

Remark: Peak load less than 60sec. with duty cycle <10%

#### Symbol:

- "★" OVP built-in
- "@" Adjustable
- "#" Remote sensing
- "≡" 3rd-w ire Load Sharing
- "=" Droop Current Sharing
- "⊙" Installed w ith Or-ing diode
- "▲" Magnetic Amplifier
- "●" Installed w ith Post-regulator
- "■" Common Choke



Mechanical dimensions: (inches) Weight: 666.0 g (23.5 Oz.)

For the details of safety approval, please consult the factory