

# Power For The New Technology

## PS2445-YE

|                |                       |
|----------------|-----------------------|
| Total Power    | 1200 Watts            |
| Input Voltages | -40 to -72 VDC        |
| Outputs        | 12V @ 100A<br>5V @ 2A |

### SPECIAL FEATURES

- Efficiency 89%
- Compact 1U design
- N+1 redundant
- Hot swappable
- Current sharing
- I<sup>2</sup>C Interface
- Reverse polarity protection
- On/Off microswitch on front panel
- Fan speed monitoring
- 5V @ 2A Standby output

### ENVIRONMENTAL

Ambient Operating Temperature: 0 to +55°C

Humidity: Up to 95% non-condensing

Temperature coefficient: ±0.01% / °C

Storage Temperature: -20°C to +65°C

Cooling: Two 15 CFM fans. Airflow from front to back.



### ELECTRICAL SPECIFICATIONS

#### Input

12V on at 39.5V +/- 1V; off at 38V +/- 1V;  
5V STBY on at 35V  
Inrush Current (-72 Vdc).....< 20 Amps peak  
Isolation.....1000 VDC (Input to Chassis)  
2250 VDC (Input to Output)

Susceptibility specifications:

Complies with EN55022 & FCC Class A with 10dB margin  
Efficiency..... 89% typical at Full load

#### Output

DC Output.....Maximum continuous output power 1200W  
with internal cooling. See Voltage/Current Rating Chart.  
Load Regulation.....< 3% for 12V output  
.....< 4% for 5V output  
Ripple and Noise....< 1%  
Transient Response.....4% Maximum deviation;  
Single Wire Current Sharing for 12V output;

### MECHANICAL

11.23"L X 1.6"H X 5.56"W (285.2 mm X 40.4 mm X 141.2 mm)

Input connector: Molex 42820, 2 pin version

Output connector: FCI 51732-026LF

#### Status signals and indicators

Input GOOD  
Output GOOD  
Over temperature/Fan fail  
PS PRESENT

Visual LED indicators identify power supply status.

The indicators are:

Power Fail (Green)  
Output Good (Green)  
Fan Fail and Over temperature (Amber)



## Molex Input Connector PIN Assignment

### **Output**

Over voltage protection – For 12V output 110 - 135% (Latching)

Over temperature protection.

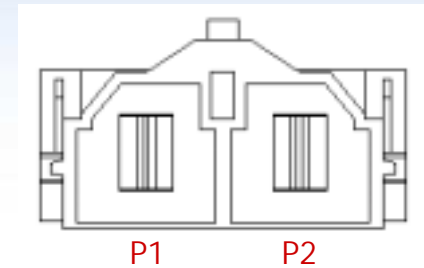
Short circuit Protection.....Will withstand a continuous short without damage.

Minimum Load Rqmt...0% of full load 12V output.  
0% of full load 5V output.

Hold-Up Time.....1.21 ms typical

### **Voltage/Current Rating Chart**

| Voltage | Current Minimum | Current Maximum |
|---------|-----------------|-----------------|
| 12V     | 0A              | 100A            |
| 5V      | 0A              | 2A              |

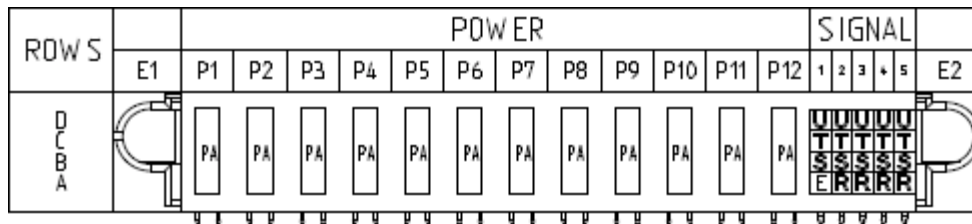


| P1     | P2           |
|--------|--------------|
| -48VDC | 48VDC Return |

## FCI Output Connector PIN Assignment

| Output Connector Description         | PIN Location |
|--------------------------------------|--------------|
| Over Temp/Fan Fail                   | U1           |
| DC Fail /Power Down Warning          | U2           |
| PS Present                           | U3           |
| DC Fail/Output Voltage Fault (DC OK) | U4           |
| Internal GND                         | U5           |
| ADDR0, I <sup>2</sup> C address bus  | T1           |
| ADDR1, I <sup>2</sup> C address bus  | T2           |
| ADDR2, I <sup>2</sup> C address bus  | 13           |
| N.U.                                 | T4           |
| N.U.                                 | T5           |

| Output Connector Description       | PIN Location            |
|------------------------------------|-------------------------|
| DATA, I <sup>2</sup> C data line   | S1                      |
| Clock, I <sup>2</sup> C clock line | S2                      |
| Aux. Power +5V                     | S3                      |
| Aux. Power GND                     | S4                      |
| Logic GND                          | S5                      |
| Output Inhibit                     | E1                      |
| N.U.                               | R2                      |
| V Sense -                          | R3                      |
| N.U.                               | R4                      |
| Current Share                      | R5                      |
| V <sub>O1</sub> -                  | P1,P3,P5,P7,<br>P9,P11  |
| V <sub>O1</sub> +                  | P2,P4,P6,P8,<br>P10,P12 |



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## Mechanical Outline

