

# PAF400F Series

## 200V to 400VDC Input Full brick DC-DC Converters



- ◆ Up to 100A Output Current
- ◆ Fast Transient Response
- ◆ Current Share
- ◆ Full Power at 85°C Baseplate
- ◆ Wide Adjustable Output Range

**RoHS**

### Key Market Segments & Applications

Servers & Rail Systems  
High End Computers  
Custom Power Supplies

### PAF Features and Benefits

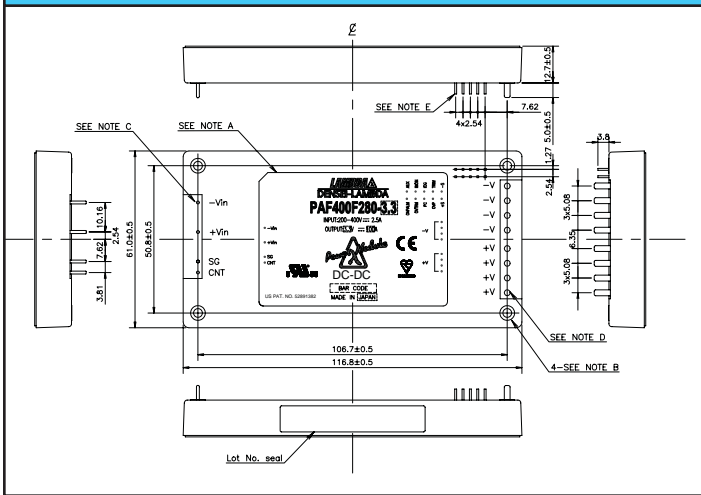
| Feature                 | Benefit  |
|-------------------------|--|
| ◆ Wide adjustment range | ◆ Reduces need for custom modules                      |
| ◆ Parallel Pin          | ◆ Modules can be connected together for higher current |
| ◆ ASIC Design           | ◆ Reduced component count, increased MTBF              |

### Specifications

| MODEL                     |     | PAF400F280-1.8  | PAF400F280-3.3 | PAF400F280-5 |
|---------------------------|-----|---|----------------|--------------|
| ITEMS                     |     |   |                |              |
| Nominal Output Voltage    | VDC | 1.8   | 3.3            | 5.0          |
| Output Current (Max)      | A   | 100   | 100            | 80           |
| Max Output Power          | W   | 240   | 390            | 450          |
| Efficiency (Typ)          | %   | 76  | 83             | 85           |
| Input Voltage range       | VDC | 200-400VDC  |                |              |
| Output Voltage Accuracy   | %   | ±2  |                |              |
| Output Voltage Adjustment | VDC | 1.0 - 2.6   | 2.2 - 4.2      | 2.9 - 6.0    |
| Max Ripple & Noise        | mV  | 200 (0 - 85°C)  |                |              |
| Max Line Regulation       | mV  | 6   | 10             | 15           |
| Max Load Regulation       | mV  | 6   | 10             | 15           |
| Temperature Coefficient   | °C  | 0.01%/°C  |                |              |
| Overcurrent Protection    | A   | 115 - 130%  |                |              |
| Overvoltage Protection    | VDC | 1.0 - 2.8   | 2.5 - 4.5      | 3.3 - 6.3    |
| Signals & Control         | -   | Remote sense, remote On/Off, Parallel Pin, Inverter Good, 11-14V Auxiliary voltage                                      |                |              |
| Baseplate Temperature     | °C  | -20°C to +85°C Baseplate: 100% load   |                |              |
| Humidity (non condensing) | -   | 20 - 95% RH Operating, 10 - 95% RH Non Operating  |                |              |
| Cooling                   | -   | Conduction (See Installation Manual for heatsink selection)   |                |              |
| Isolation Voltage         | -   | Input to Baseplate: 2500VAC (20mA); Input to Output 3000VAC (20mA) for 1 min.;<br>Output to Baseplate: 500VDC for 1 min |                |              |
| Shock                     | -   | 196.1m/s <sup>2</sup>   |                |              |
| Vibration                 | -   | Non Operating, 10-55Hz (sweep for 1 min.)<br>Amplitude 0.825mm constant (Max 49 m/s <sup>2</sup> ) X,Y,Z 1 hour each    |                |              |
| Safety Agency Approvals   | -   | UL60950-1, CSA60950-1, EN60950-1, CE LVD  |                |              |
| Weight (Typ)              | g   | 250   |                |              |
| Size (WxHxD)              | mm  | (61x12.7x116.8) See outline drawing   |                |              |
| Warranty                  | yr  | 2 Years   |                |              |

Note: See Installation Manual for full details, test methods of parameters and application notes.

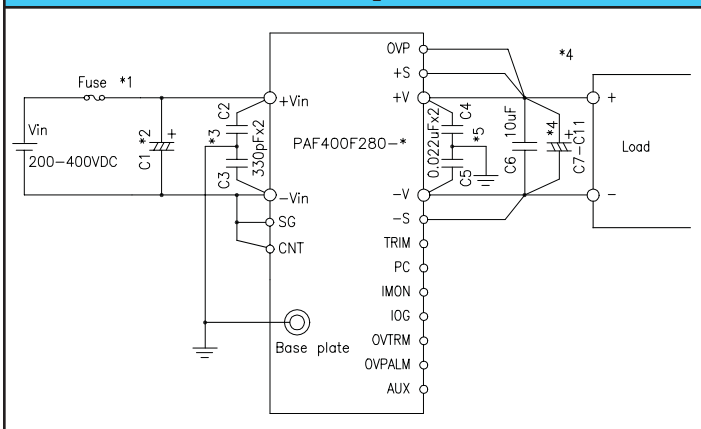
## PAF Outline Drawing



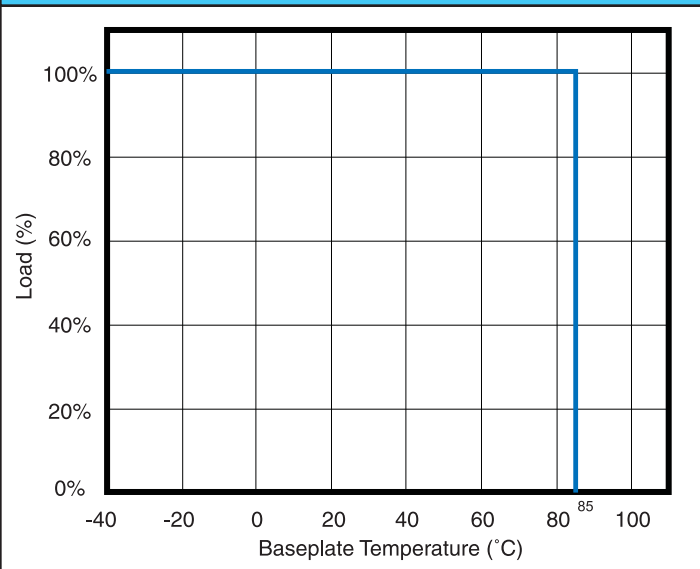
## Pinout

| Pin Description | Function                    |
|-----------------|-----------------------------|
| -Vin            | Negative Input Terminal     |
| +Vin            | Positive Input Terminal     |
| CNT             | Remote On/Off terminal      |
| +V              | Positive Output Terminal    |
| -V              | Negative Output Terminal    |
| AUX             | 11-14V Aux Voltage          |
| PC              | Parallel Control Connection |
| TRIM            | Output Adjustment Trim Pin  |
| +S              | Positive Remote Sense       |
| -S              | Negative Remote Sense       |
| SG              | Remote ON/OFF Return        |
| IMON            | Current Monitor             |
| OVTRM           | Overvoltage Trim            |
| OVPALM          | Overvoltage Alarm Signal    |
| OVP             | Overvoltage Sense Point     |

## Connection Example



## Derating Curve



For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/paf-series.htm](http://us.tdk-lambda.com/lp/products/paf-series.htm)

## Other Lambda DC-DC Products

|        |                                      |
|--------|--------------------------------------|
| PAF    | 500-700W Full Brick 24 & 48V Input   |
| PAH350 | 350W Half Brick 24 & 48V Input       |
| PH-F   | Full function 200-400V Input DC-DC   |
| PH-S   | Simple function 200-400V Input DC-DC |
| PF     | Power factor AC - 380VDC Front End   |
| PFE    | 400-700W AC-DC Power module          |