

## 24V & 48V Input Full brick DC-DC Converters

### Features

- ◆ 12V output for driving non-isolated converters
- ◆ Safety Approved
- ◆ Full power at 100°C baseplate
- ◆ Opto Isolated Remote On / Off
- ◆ Wide Adjustable Output Range
- ◆ Parallel Pin
- ◆ ASIC Design
- ◆ 24V & 48V Inputs



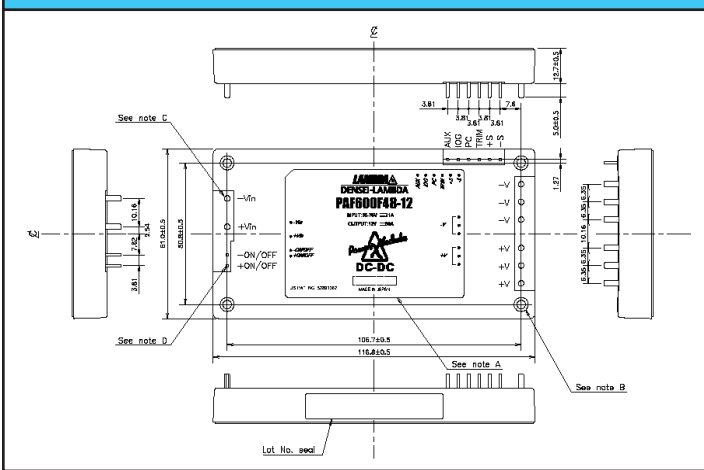
### Key Market Segments & Applications



| Specifications                   |        |  |                              |
|----------------------------------|--------|--|------------------------------|
| Model                            |        | PAF600F24-12<br>PAF600F48-12   | PAF600F24-28<br>PAF600F48-28 |
| Nominal Output Voltage           | VDC    | 12   | 28                           |
| Output Current (Max)             | A      | 50   | 21.5                         |
| Output Power (Max)               | W      | 600  | 602                          |
| Efficiency (Typ)                 | %      | 89 to 90%  |                              |
| Input Voltage Range              | VDC    | 20-36 / 36-76  | 19-36 / 36-76                |
| Input Current (Typ) 24/48V input | A      | 28.9 / 14.2  | 28.9 / 14.1                  |
| Output Voltage Accuracy          | %      | ±1   |                              |
| Output Voltage Adjustment        | VDC    | 7.2 - 13.2   | 16.8 - 30.8                  |
| Ripple & Noise (Max)             | mV     | 200  | 280                          |
| Line Regulation (Max)            | mV     | 24   | 56                           |
| Load Regulation (Max)            | mV     | 24   | 56                           |
| Temperature Coefficient          | -      | 0.02%/°C   |                              |
| Overcurrent Protection           | %      | 105 - 140%   |                              |
| Overvoltage Protection           | %      | 115-135%   |                              |
| Signals & Control                | -      | Remote sense, remote On/Off, Parallel Pin, DC Good, 7-10V Auxiliary voltage  |                              |
| Operating Temperature            | -      | -40°C to +100°C baseplate  |                              |
| Humidity (operating)             | -      | 30-95% RH Non condensing   |                              |
| Humidity (storage)               | -      | 10-95% RH Non condensing   |                              |
| Cooling                          | -      | Conduction (See Installation Manual for heatsink selection)  |                              |
| Isolation Voltage                | VDC    | Input - Baseplate 1500V, Input - Output 1500V, Output-Baseplate 500V (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 (48V model only)  |                              |
| Weight (Typ)                     | g      | 250  |                              |
| Size (WxHxD)                     | in(mm) | 2.4 x 0.5 x 4.6 (61 x 12.7 x 116.8) See outline drawing  |                              |
| Warranty                         | -      | 2 years  |                              |

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

## PAF Outline Drawing



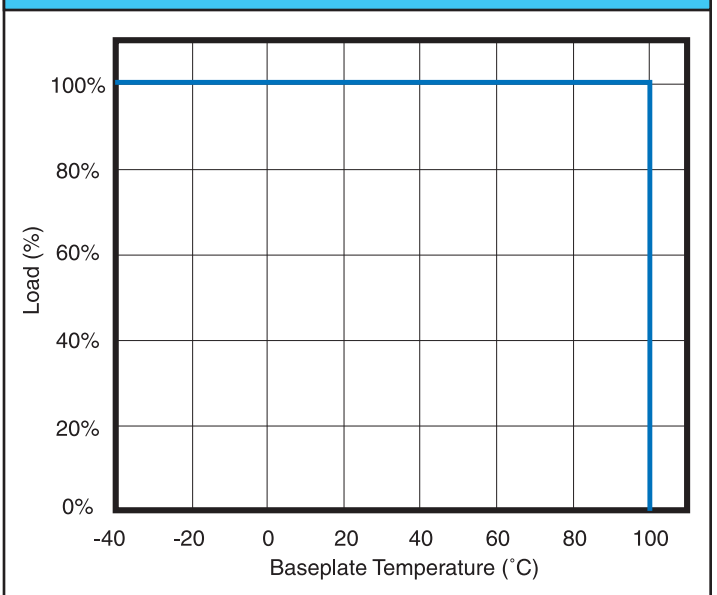
## Pinout

| Pin Description | Function                        |
|-----------------|---------------------------------|
| -Vin            | Negative Input Terminal         |
| +Vin            | Positive Input Terminal         |
| - ON/OFF        | Remote On/Off Negative Terminal |
| +ON/OFF         | Remote On/Off Positive Terminal |
| +V              | Positive Output Terminal        |
| -V              | Negative Output Terminal        |
| AUX             | 7-10V Aux Voltage               |
| IOG             | DC Good                         |
| PC              | Parallel Control Connection     |
| TRIM            | Output Adjustment Trim Pin      |
| +S              | Positive Remote Sense           |
| -S              | Negative Remote Sense           |

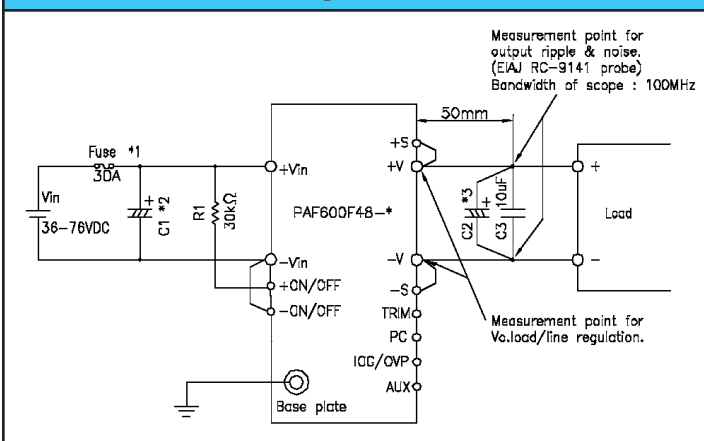
## Other DC-DC Products

|     |                           |
|-----|---------------------------|
| PAF | Full brick 400-700W DC-DC |
| PAH | Half brick DC-DC          |
| PAQ | Quarter brick DC-DC       |
| PX  | 10-60W, 12-48V DC-DC      |

## Derating Curve



## Connection Example



## Heatsink Table

| Heatsink | Size (mm)         | Thermal Resistance |
|----------|-------------------|--------------------|
| HAF-10L  | 116.8 x 25.4 x 61 | 2.2°C/W            |
| HAF-15L  | 116.8 x 38.1 x 61 | 1.9°C/W            |
| HAF-15T  | 116.8 x 38.1 x 61 | 1.5°C/W            |

## Options

| Suffix | Description                  |
|--------|------------------------------|
| Blank  |                              |
| /T     | No thread in mounting holes. |

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

