



- 1U High
- Up to 3000W (3 units) in 19" Rack
- Hotswap capable (Oring Diodes Built In)
- Low Cost
- PoE Option

## FPS1000 Series

1000W Front End  
Power Supplies

### Key Market Segments & Applications

Power for Distributed Power Architecture  
Factory Automation  
RF Amplifiers

### FPS Features and Benefits

#### Features

- 1U High
- Hotswap capable
- High Efficiency
- Full Array of Signals

#### Benefits

- Lower Cost of Ownership
- Suitable for N+1 Redundancy
- Less Heat Dissipated in System
- Easier System Monitoring

### Specifications

| MODELS                       |    | 12V Nominal                                                                      | 24V Nominal | 32V Nominal    | 48V Nominal |
|------------------------------|----|----------------------------------------------------------------------------------|-------------|----------------|-------------|
| ITEMS                        |    |                                                                                  |             |                |             |
| Output Voltage Range (1)     | V  | 10.5 - 13.2V                                                                     | 21.5 - 29V  | 28.8 - 38.4V   | 43 - 58V    |
| Output Current               | A  | 72A                                                                              | 40A         | 31A            | 21A         |
| Line Regulation              | -  | <0.4%                                                                            |             |                |             |
| Load Regulation              | -  | <0.8%                                                                            |             |                |             |
| Output Noise                 | mV | 150mV                                                                            | 200mV       | 250mV          | 300mV       |
| Overvoltage Protection       | V  | 14.3 to 15.7V                                                                    | 31 to 34V   | 41.5V to 45.5V | 62 to 66V   |
| Overcurrent Protection       | -  | 105 - 125%, Constant Current type                                                |             |                |             |
| Load Sharing                 | -  | Single wire current sharing, up to 8 units                                       |             |                |             |
| Remote Sense                 | -  | Compensates for 1V on each output lead                                           |             |                |             |
| I <sup>2</sup> C Monitoring  | -  | Optional (Specify /S)                                                            |             |                |             |
| Signals (opto isolated)      | -  | DC OK, AC Fail, and Over temperature warning, high on fail                       |             |                |             |
| Remote On/Off                | -  | On: 0 - 0.6V or short, Off: 2- 15V or open                                       |             |                |             |
| Auxiliary Output             | -  | 11.2-12.5VDC 0.25A                                                               |             |                |             |
| AC Input (2)                 | -  | 85 - 265VAC, 47 - 63Hz <sup>2</sup> (Derate 10% < 100VAC)                        |             |                |             |
| Leakage Current              | mA | <1.1mA at 230VAC input                                                           |             |                |             |
| Inrush Current               | A  | <40A                                                                             |             |                |             |
| Hold up time (100VAC input)  | -  | 20ms typical (at 80% rated load)                                                 |             |                |             |
| Efficiency (typ) 100/200VAC  | -  | 81 / 83%                                                                         | 84 / 86%    | 84 / 86%       | 85 / 88%    |
| Power Factor Correction      | -  | EN61000-3-2 class A (20-100% load), >0.98 at full load                           |             |                |             |
| Immunity                     | -  | EN61000-4-2, -3, -4, -5, -6, -11                                                 |             |                |             |
| EMC (conducted and radiated) | -  | EN55022, level B, FCC Class B                                                    |             |                |             |
| Operating Temperature        | °C | 0°C to +70°C, derate 2%/°C from 50°C to 60°C, 2.5%/°C from 60°C to 70°C          |             |                |             |
| Storage Temperature          | °C | -30°C to +85°C                                                                   |             |                |             |
| Withstand Voltage            | -  | Input to Output 3kVAC, Input to Ground 2kVAC, Output to Ground 500VAC for 1 min. |             |                |             |
| Cooling                      | -  | Two internal fans, airflow from front to back (variable speed)                   |             |                |             |
| Humidity                     | -  | Operating: 10 - 90% RH, Storage: 10 - 95% RH (non condensing)                    |             |                |             |
| Shock & Vibration            | -  | Built to meet ETS 300 019                                                        |             |                |             |
| Safety Agency                | -  | IEC/UL/CSA/EN62368-1, 60950-1, CE Mark                                           |             |                |             |
| Input / Output Connector     | -  | Positronic PCIB24W9M400A1 (Mating #PCIB24W9F400A1)                               |             |                |             |
| Front panel indicators       | -  | AC OK, DC OK, DC Fail                                                            |             |                |             |
| Size (HxWxL)                 | mm | Stand alone: 41 x 127 x 290; Rack: 44 x 400 x 351                                |             |                |             |
| Weight                       | g  | 2,000                                                                            |             |                |             |
| Warranty                     | yr | 2                                                                                |             |                |             |

**Note 1** Via Trim pin on output connector

**Note 2** 47-440Hz with reduced PFC (100-265VAC)

## Model Selector

| Front AC Input Panel Configuration | Output Voltage                              | Output Current | Max Power | I <sup>2</sup> C Interface |
|------------------------------------|---------------------------------------------|----------------|-----------|----------------------------|
| FPS100012/P                        | 12V                                         | 72A            | 864W      | No                         |
| FPS100012/PS                       | 12V                                         | 72A            | 864W      | Yes                        |
| FPS100024/P                        | 24V                                         | 40A            | 960W      | No                         |
| FPS100024/PS                       | 24V                                         | 40A            | 960W      | Yes                        |
| FPS100032/P                        | 32V                                         | 31A            | 992W      | No                         |
| FPS100032/PS                       | 32V                                         | 31A            | 992W      | Yes                        |
| FPS100048/P                        | 48V                                         | 21A            | 1008W     | No                         |
| FPS100048/PS                       | 48V                                         | 21A            | 1008W     | Yes                        |
| FPSS1U/P                           | Rack (3 slot), contains two blanking panels |                |           |                            |
| FPST1U/P                           | Rack with 3 individual outputs (floating)   |                |           |                            |
| Rear AC Input Panel Configuration  | Output Voltage                              | Output Current | Max Power | I <sup>2</sup> C Interface |
| FPS100012                          | 12V                                         | 72A            | 864W      | No                         |
| FPS100012/S                        | 12V                                         | 72A            | 864W      | Yes                        |
| FPS100024                          | 24V                                         | 40A            | 960W      | No                         |
| FPS100024/S                        | 24V                                         | 40A            | 960W      | Yes                        |
| FPS100032                          | 32V                                         | 31A            | 992W      | No                         |
| FPS100032/S                        | 32V                                         | 31A            | 992W      | Yes                        |
| FPS100048                          | 48V                                         | 21A            | 1008W     | No                         |
| FPS100048/S                        | 48V                                         | 21A            | 1008W     | Yes                        |
| FPSS1U                             | Rack (3 slot), contains two blanking panels |                |           |                            |
| FPST1U                             | Rack with 3 individual outputs (floating)   |                |           |                            |

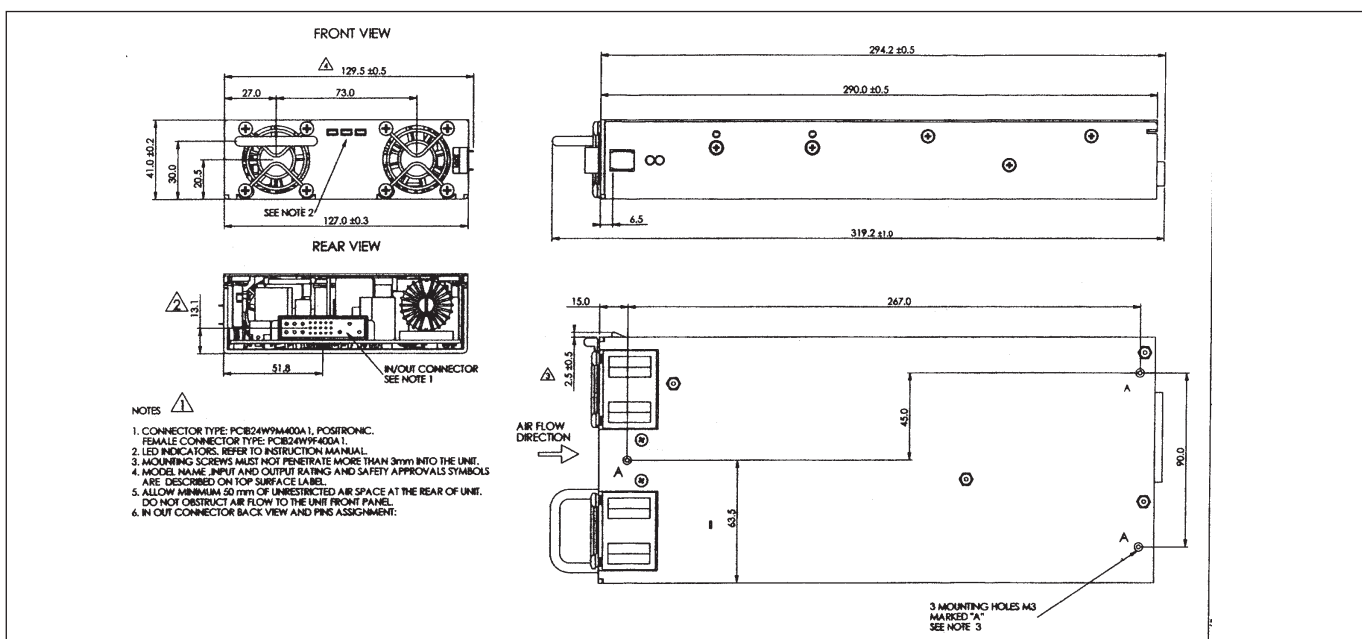
## Options

| Suffix          | Description                                             |
|-----------------|---------------------------------------------------------|
| /POE*           | 1500VAC Output to Ground Isolation (output noise 400mV) |
| *FPS100048 only |                                                         |

### Full System (3 Modules & FPS s1U rack)

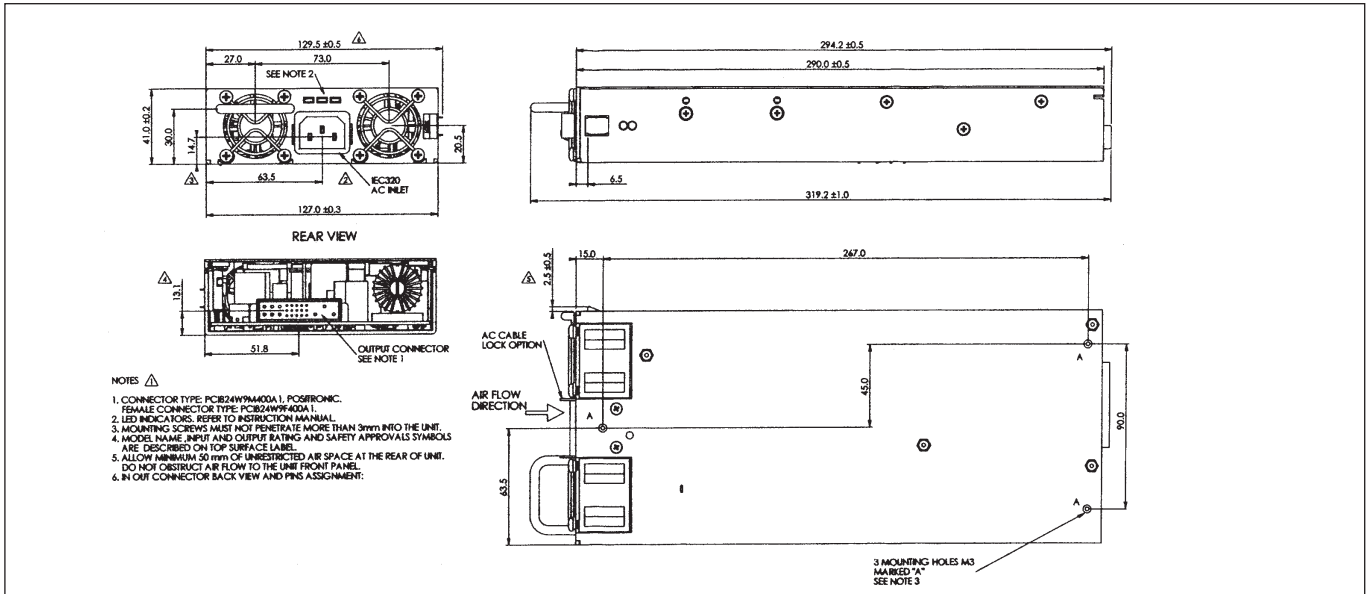
|           |    |       |                    |
|-----------|----|-------|--------------------|
| FPS3000 - | XX | / X   |                    |
|           | 12 | BLANK | = Standard         |
|           | 24 | S     | = I <sup>2</sup> C |
|           | 32 | P     | = FRONT AC INPUT   |
|           | 48 |       |                    |

## Outline Drawing FPS1000 Series



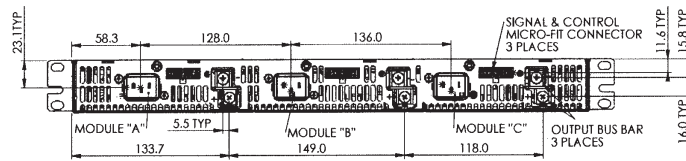


## Outline Drawing FPS1000/P Series

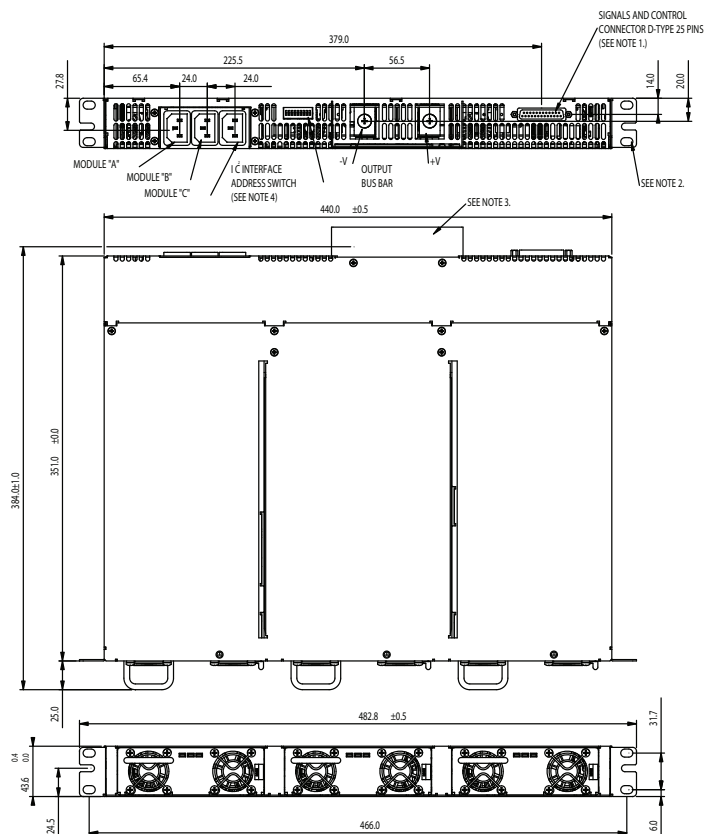


## Outline Drawing FPS Racks

### FPST1U Rear View



### FPSS1U





#### TDK-Lambda France SAS

3 Avenue du Canada  
Parc Technopolis  
Bâtiment Sigma  
91940 les Ulis  
France  
Tel: +33 1 60 12 71 65  
Fax: +33 1 60 12 71 66  
france@fr.tdk-lambda.com  
www.emea.lambda.tdk.com/fr



#### Italy Sales Office

Via Giacomo Matteotti 62  
20092 Cinisello Balsamo (MI)  
Italy  
Tel: +39 02 61 29 38 63  
Fax: +39 02 61 29 09 00  
info.italia@it.tdk-lambda.com  
www.emea.lambda.tdk.com/it



#### Netherlands

info@nl.tdk-lambda.com  
www.emea.lambda.tdk.com/nl



#### TDK-Lambda Germany GmbH

Karl-Bold-Strasse 40  
77855 Achern  
Germany  
Tel: +49 7841 666 0  
Fax: +49 7841 5000  
info.germany@de.tdk-lambda.com  
www.emea.lambda.tdk.com/de



#### Austria Sales Office

Aredstrasse 22  
2544 Leobersdorf  
Austria  
Tel: +43 2256 655 84  
Fax: +43 2256 645 12  
info@at.tdk-lambda.com  
www.emea.lambda.tdk.com/at



#### Switzerland Sales Office

Eichtalstrasse 55  
8634 Hombrechtikon  
Switzerland  
Tel: +41 44 850 53 53  
Fax: +41 44 850 53 50  
info@ch.tdk-lambda.com  
www.emea.lambda.tdk.com/ch



#### Nordic Sales Office

Haderslevvej 36B  
DK-6000 Kolding  
Denmark  
Tel: +45 8853 8086  
info@dk.tdk-lambda.com  
www.emea.lambda.tdk.com/dk



#### TDK-Lambda UK Ltd.

Kingsley Avenue  
Ilfracombe  
Devon EX34 8ES  
United Kingdom  
Tel: +44 (0) 12 71 85 66 66  
Fax: +44 (0) 12 71 86 48 94  
info@uk.tdk-lambda.com  
www.emea.lambda.tdk.com/uk



#### TDK-Lambda Ltd.

1 Alexander Yanai  
Segula  
Petah-Tikva  
Israel  
Tel: +9 723 902 4333  
Fax: +9 723 902 4777  
info@tdk-lambda.co.il  
www.emea.lambda.tdk.com/il



#### C.I.S.

##### Commercial Support:

Tel: +7 (495) 665 2627

##### Technical Support:

Tel: +7 (812) 658 0463  
info@tdk-lambda.ru  
www.emea.lambda.tdk.com/ru

#### Local Distribution