

## 1000W Front End Power Supplies

### Features

- ◆ 1U high
- ◆ Up to 3000W (3 units) in 19" rack
- ◆ Hotswap capable (ORing diodes built in)
- ◆ Low Cost
- ◆ PoE Option
- ◆ High efficiency
- ◆ Full array of signals



### Key Market Segments & Applications



| Specifications               |       |                                                                                  |             |                |             |
|------------------------------|-------|----------------------------------------------------------------------------------|-------------|----------------|-------------|
| Model                        |       | 12V Nominal                                                                      | 24V Nominal | 32V Nominal    | 48V Nominal |
| 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                                           |             |                |             |
| I2C Monitoring               | -     | Optional (Specify /S)                                                            |             |                |             |
| Signals (opto isolated)      | -     | DC OK, AC Fail, and Overtemperature warning, high on fail                        |             |                |             |
| Remote On/Off                | -     | On: 0 - 0.6V or short, Off: 2- 15V or open                                       |             |                |             |
| Auxiliary Output             | A     | 11.2-12.5VDC 0.25A                                                               |             |                |             |
| AC Input                     | -     | 85 - 265VAC, 47 - 63Hz <sup>2</sup> , 120-360VDC* (Derate 10% < 100VAC)          |             |                |             |
| Leakage Current              | mA    | <1.1mA at 230VAC input                                                           |             |                |             |
| Inrush Current               | A     | <40A                                                                             |             |                |             |
| Hold up time (100VAC input)  | -     | 20ms typical (800W loading)                                                      |             |                |             |
| Efficiency (typ) 100/200VAC  | -     | 80 / 83%                                                                         | 83 / 86%    | 84 / 87%       | 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 to +70°C, derate 2%/°C from 50 to 60°C, 2.5%/°C from 60 to 70°C                |             |                |             |
| Storage Temperature          | °C    | -30 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            | -     | Meets ETS 300 019                                                                |             |                |             |
| Safety Agency                | -     | UL60950-1, EN60950-1 (Ed 2), CE Mark                                             |             |                |             |
| Input / Output Connector     | -     | Positronic PCIB24W9M400A1 (Mating #PCIB24W9F400A1)                               |             |                |             |
| Front panel indicators       | -     | AC OK, DC OK, DC Fail                                                            |             |                |             |
| Size (WxHxD)                 | mm    | Power supply: 127 x 41 x 290mm, Rack: 483 x 43.6 x 351mm                         |             |                |             |
| Size (WxHxD)                 | in    | Power supply: 5 x 1.61 x 11.4", Rack: 19 x 1.72 x 13.8"                          |             |                |             |
| Weight                       | g     | 2,000                                                                            |             |                |             |
| Warranty                     | yrs   | Two Years                                                                        |             |                |             |

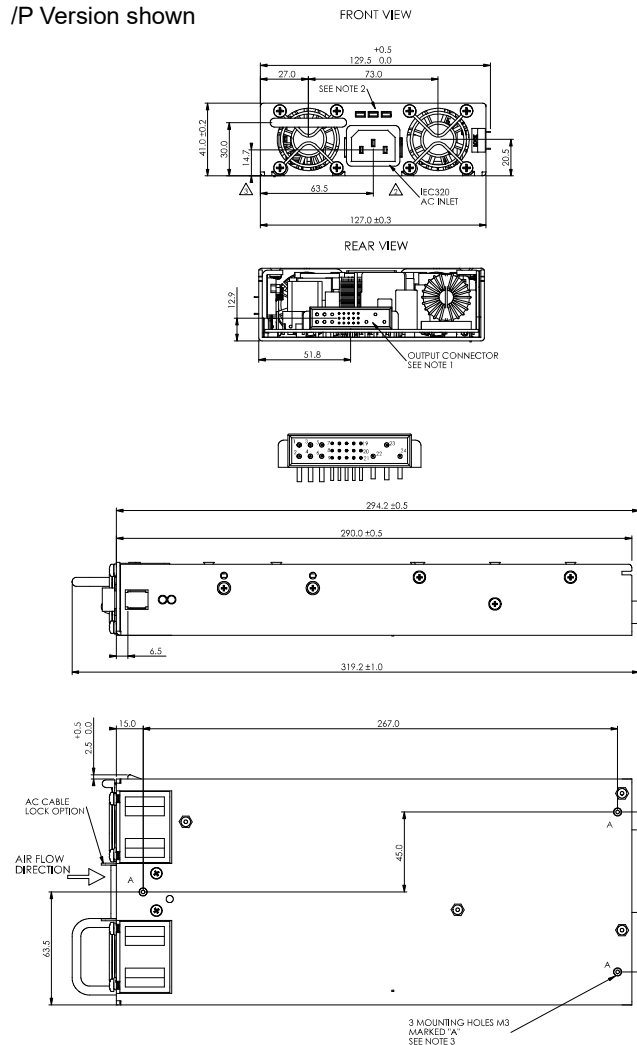
(1) Via Trim pin on output connector

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

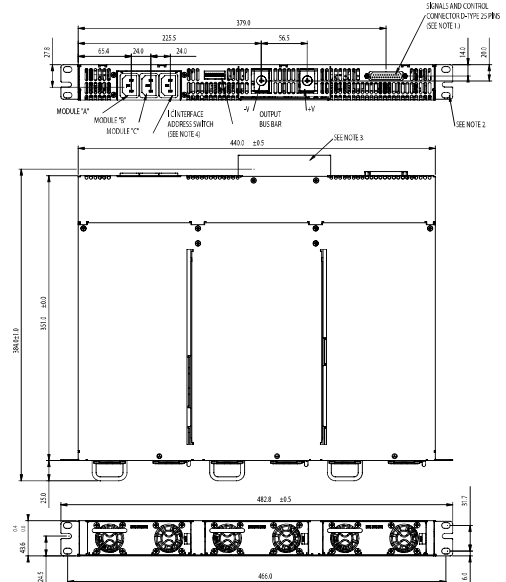
\*Safety certified for AC input only

## FPS1000 Outline Drawing

/P Version shown



## FPSS1U Outline Drawing



## Model Selector

| Front AC Input Configuration | Output Voltage                              | Output Current | Maximum Power | I <sup>2</sup> C Interface |
|------------------------------|---------------------------------------------|----------------|---------------|----------------------------|
| FPS1000-12/P                 | 12V                                         | 72A            | 864W          | No                         |
| FPS1000-12/PS                | 12V                                         | 72A            | 864W          | Yes                        |
| FPS1000-24/P                 | 24V                                         | 40A            | 960W          | No                         |
| FPS1000-24/PS                | 24V                                         | 40A            | 960W          | Yes                        |
| FPS1000-32/P                 | 32V                                         | 31A            | 992W          | No                         |
| FPS1000-32/PS                | 32V                                         | 31A            | 992W          | Yes                        |
| FPS1000-48/P                 | 48V                                         | 21A            | 1008W         | No                         |
| FPS1000-48/PS                | 48V                                         | 21A            | 1008W         | Yes                        |
| FPS-S1U/P                    | Rack (3 slot), contains two blanking panels |                |               |                            |
| FPS-T1U/P                    | Rack with 3 individual outputs (floating)   |                |               |                            |

| Rear AC Input Configuration | Output Voltage                              | Output Current | Maximum Power | I <sup>2</sup> C Interface |
|-----------------------------|---------------------------------------------|----------------|---------------|----------------------------|
| FPS1000-12                  | 12V                                         | 72A            | 864W          | No                         |
| FPS1000-12/S                | 12V                                         | 72A            | 864W          | Yes                        |
| FPS1000-24                  | 24V                                         | 40A            | 960W          | No                         |
| FPS1000-24/S                | 24V                                         | 40A            | 960W          | Yes                        |
| FPS1000-32                  | 32V                                         | 31A            | 992W          | No                         |
| FPS1000-32/S                | 32V                                         | 31A            | 992W          | Yes                        |
| FPS1000-48                  | 48V                                         | 21A            | 1008W         | No                         |
| FPS1000-48/S                | 48V                                         | 21A            | 1008W         | Yes                        |
| FPS-S1U                     | Rack (3 slot), contains two blanking panels |                |               |                            |
| FPS-T1U                     | Rack with 3 individual outputs (floating)   |                |               |                            |

## Accessories

| Part No.      | Description                                                  |
|---------------|--------------------------------------------------------------|
| FPS/Z00016299 | Module Mating Connector (Positronic PCIB24W9F400A1/AA-S1031) |

## Options

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

\* FPS1000-48 only.

## Full Systems (3 units + rack)

| Front AC Input Configuration | Output Voltage | Output Current | Maximum Power | I <sup>2</sup> C Interface |
|------------------------------|----------------|----------------|---------------|----------------------------|
| FPS3000-24/P                 | 24V            | 120A           | 2880W         | No                         |
| FPS3000-24/PS                | 24V            | 120A           | 2880W         | Yes                        |
| FPS3000-48/P                 | 48V            | 63A            | 3000W         | No                         |
| FPS3000-48/PS                | 48V            | 63A            | 3000W         | Yes                        |

Front AC Input configuration. Remove /P suffix for Rear AC configuration.

For Additional Information, please visit  
<https://product.tdk.com/info/en/products/power/index.html>

