

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 | - | Compenstates 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 ² , 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 PCB24W9M400A1 (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



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.

FPSS1U Outline Drawing



Model Selector

| Front AC Input Configuration | Output Voltage | Output Current | Maximum Power | I ² 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 ² 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) | | | |

Full Systems (3 units + rack)

| Front AC Input Configuration | Output Voltage | Output Current | Maximum Power | I ² 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>

