

# FPS1000 Series

## 1000W Front End Power Supplies

**RoHS**

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



### Key Market Segments & Applications

Power for Distributed Power Architecture  
 Factory Automation  
 RF Amplifiers

### Features and Benefits

Feature	Benefit
◆ 1U high	◆ Utilizes less cabinet space
◆ Hotswap capable	◆ Suitable for N+1 redundancy
◆ High efficiency	◆ Less heat dissipated in system
◆ Full array of signals	◆ Easier system monitoring

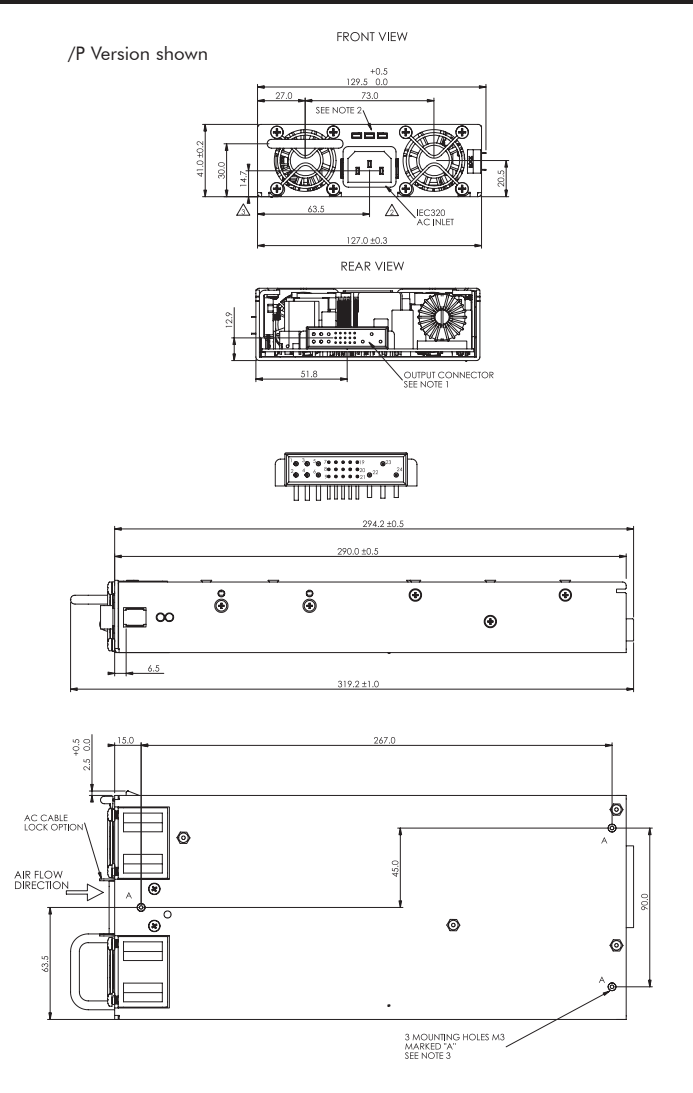
### Specifications

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	-	Compenstates for 1V on each output lead			
I <sup>2</sup> C 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	-	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, CE Mark			
Input / Output Connector	-	Positronic PCIB24W9M400A1 (Mating #PCIB24W9F400A1)			
Front panel indicators	-	AC OK, DC OK, DC Fail			
Size (LxWxH)	in	Stand alone: 1.61 x 5 x 11.4"; Rack: 1.72 x 19 x 13.8"			
Weight	g	2,000			
Warranty	yr	Two Years			

(1) Via Trim pin on output connector

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

## FPS1000 Outline Drawing



## Accessories

Part No.	Description
FPS/Z0008511	Module Mating Connector (Positronic PCB24W9F400A1/AA-S1031)

## Options

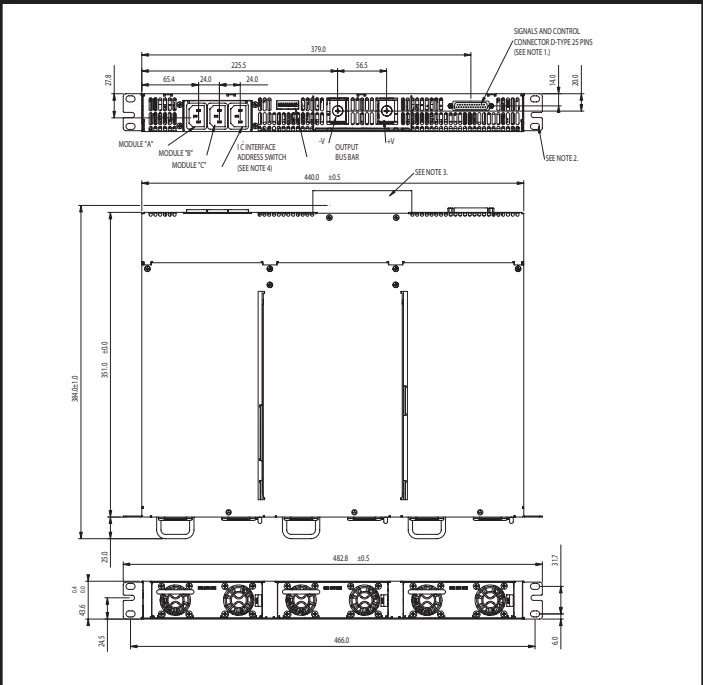
Suffix	Description
/POE*	1500VAC Output to Ground Isolation (Output noise 400mV)

\* FPS100048 only.

## Other Lambda Industrial Products

PX, CC-E, PAQ, PAH, PAF	DC-DC Converters
TH	1U 750 to 2000W Front End AC-DC

## FPSS1U Outline Drawing



## Model Selector

Front AC Input Configuration	Output Voltage	Output Current	Maximum 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 Configuration	Output Voltage	Output Current	Maximum 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)			

## Full Systems (3 units + rack)

Front AC Input Configuration	Output Voltage	Output Current	Maximum Power	I <sup>2</sup> C Interface
FPS300024/P	24V	120A	2880W	No
FPS300024/PS	24V	120A	2880W	Yes
FPS300048/P	48V	63A	3000W	No
FPS300048/PS	48V	63A	3000W	Yes

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

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