TDK·Lambda

FPS1000 Series

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

Industrial COTS Test COMM Broadcast

RoHS

Specifications

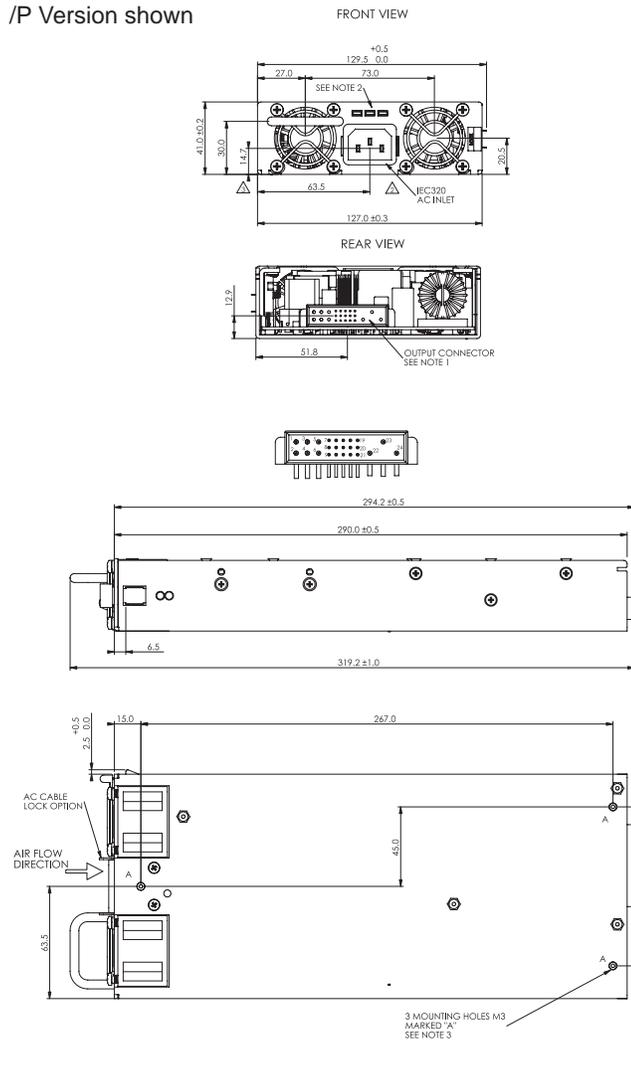| Model			12V Nominal	24V Nominal	32V Nominal	48V Nominal
Output Voltage Range	(1)	V	10.5 - 13.2V	21.5 - 29V	28.8 - 38.4V	43 - 58V
Output Current		A	72A	40A	31A	21A
Line Regulation		%	<0.4%			
Load Regulation		%	<0.8%			
Output Noise		mV	150mV	200mV	250mV	300mV
Overvoltage Protection		V	14.3 to 15.7V	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[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 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		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

FRONT VIEW

REAR VIEW

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)
* FPS100048 only.	

Other Industrial Products

PX, CC-E, PAQ, PAH, PAF	DC-DC Converters
HFE	1U 1600-2500W Front End AC-DC

FPSS1U Outline Drawing
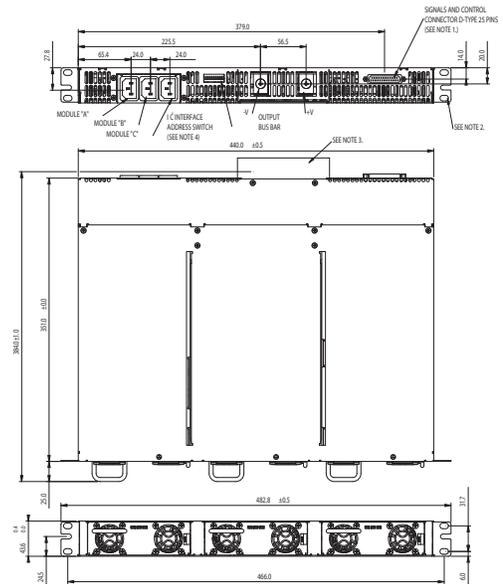
Model Selector

Front AC Input Configuration	Output Voltage	Output Current	Maximum Power	I²C 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	I²C 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	I²C 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

Mouser Electronics

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