

# HFE2500 Series



## 2500W 1U Front End Power Supplies

- ◆ 1U rackmount containing up to 4 units
- ◆ Internal ORing MOSFET & Current Share
- ◆ High Efficiency
- ◆ Up to 10,000W in 1U rack

### Key Market Segments & Applications

Power for Distributed Power Architecture  
Industrial Automation

### Features and Benefits

Feature	Benefit
◆ 1U high	◆ Utilizes less system space
◆ Internal ORing MOSFET & Current Share	◆ Suitable for N+1 redundancy
◆ Full array of signals available	◆ Easier system monitoring including PMBus

### Specifications

ITEMS	MODELS	
Input Voltage Range (2)	VAC	85 - 265VAC, 47 - 63Hz. See model selector for power derating
Input Current (Max) 100/230VAC	A	17 / 12A
Inrush Current	A	<50A
Power Factor Correction	-	Meets EN61000-3-2, PF > 0.98 at full load
Temperature Coefficient	%/°C	<0.02%/°C
Overcurrent Protection	%	105 - 115%. Programmable by external voltage (0-5V)
Overvoltage Protection (1)	%	115% (Tracking). Cycle AC to reset or utilize Remote On/Off
Overtemperature Protection (1)	-	Shutdown with automatic reset. Warning signal provided
Hold-up time	ms	>10ms, 100/230VAC Input, 80% loading
Leakage Current	mA	< 0.75 / 1.5mA, 100 / 230VAC, 60Hz
Remote Sense Compensation	-	HFE2500-12: 0.5V / Wire, HFE2500-24, -48 1V / Wire
Indicators	-	AC OK: Green LED, DC OK / Fail: Green / Red LED
Remote On/Off	-	Unit ON: 0 - 0.6V or short, OFF: 2 - 15V or open circuit
Parallel Operation (1)	-	Yes, single wire current share, 90% accuracy, up to 10 units
AC Fail Signal	-	Open Collector, ON when AC is within 85 - 270VAC
DC Good Signal	-	Open Collector, ON when output is above 85 to 95% of setpoint (tracking)
Remote Adjust (1)	-	By either external 0 - 5V signal or 1k potentiometer
I <sup>2</sup> C Interface (1)	-	Isolated from output, Add suffix /S, PMBus compatible
Auxiliary Output	-	11.2 - 12.5V, 0.5A, 240mV ripple and noise
Operating Temperature	°C	-10 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
Humidity (Non condensing)	%RH	Operating: 10 - 90%RH, Storage: 10 - 95%RH
Cooling	-	Two variable speed internal fans, airflow exits across input/output connector
Withstand Voltage	-	I/P to O/P 3kVAC, I/P to O/P 2kVAC, O/P to Gnd: HFE2500-12, -24V 500VAC, HFE2500-48 1.5kVAC
Isolation Resistance	MΩ	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC
Vibration (Basic transportation)	-	Meets IEC60068-2-64
Shock (Basic transportation)	-	Meets IEC60068-2-27
Safety Agency Certifications	-	UL60950-1 (Listed), EN60950-1, CE Mark
Conducted and Radiated EMI	-	EN55022 & FCC part 15; Conducted class B, Radiated class A
Immunity	-	IEC61000-4-2 (lv 2,3), -3 (lv 2), -4 (lv 3), -5 (lv 3,4), -6 (lv 2), -8 (lv 4), -11
Size (W x H x D)	Inch	Power Supply: 4.21 x 1.61 x 12.8", Rack: 17.5 x 1.72 x 15.8"
Weight	g	Power Supply: 2100g, Rack: 5000g
Warranty	Yrs	Three Years

(1) See installation manual for detailed specifications & test methods

(2). Derate linearly 1.3%/V from 100VAC to 85VAC input

## Unit Model Selector

Model	Output Voltage	Adjust Range (1)	Max Current (Vin>170VAC)	Max Power (Vin>170VAC)	Max Current (100<Vin<170VAC)(2)	Max Power (100<Vin<170VAC)(2)
HFE2500-12	12V	9.6 - 13.2V	200A	2400W	125A	1500W
HFE2500-12/S	12V	9.6 - 13.2V	200A	2400W	125A	1500W
HFE2500-24	24V	19.2 - 29V	104A	2496W	62A	1488W
HFE2500-24/S	24V	19.2 - 29V	104A	2496W	62A	1488W
HFE2500-48	48V	38.4 - 58V	52A	2496W	31A	1488W
HFE2500-48/S	48V	38.4 - 58V	52A	2496W	31A	1488W

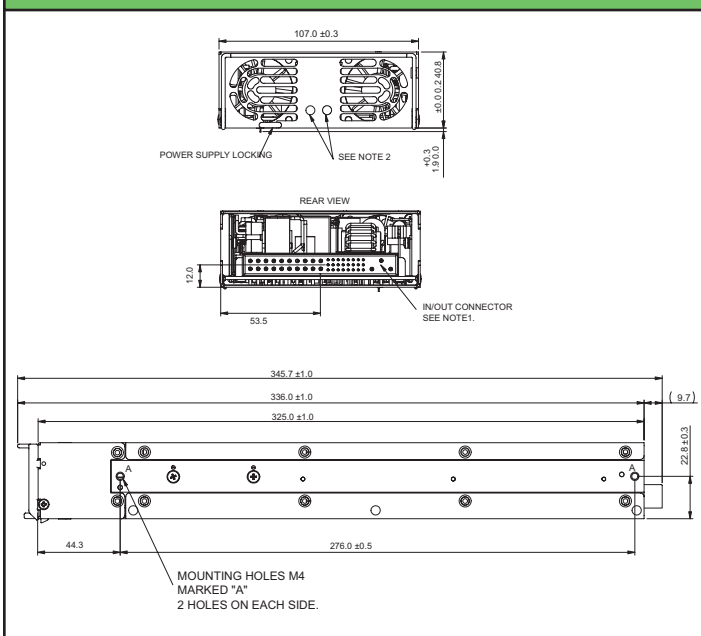
Model	Load Reg	Line Reg	Ripple & Noise (1)	Efficiency (%) (3)	TC
HFE2500-12	60mV	30mV	240mV	90 / 92%	-
HFE2500-12/S	60mV	30mV	240mV	90 / 92%	Yes
HFE2500-24	120mV	60mV	240mV	90 / 92%	-
HFE2500-24/S	120mV	60mV	240mV	90 / 92%	Yes
HFE2500-48	240mV	120mV	480mV	90 / 92.5%	-
HFE2500-48/S	240mV	120mV	480mV	90 / 92.5%	Yes

(3) At 75% load, 100 / 230VAC input

## Rack Model Selector

Model	Description	Maximum Rack Current
HFE2500-S1U	Four slot 19" rack, IEC320-C16 input connector	275A each side (550A total)
HFE2500-S1U-TB	Four slot 19" rack, Terminal Block input connector	275A each side (550A total)
HFE2500/BP	One slot blanking panel, two provided with each rack	-

## Outline HFE2500



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

## Outline HFE2500S1U

