

## 2500W 1U Front End Power Supplies

### Features

- ◆ 1U rackmount containing up to 4 units
- ◆ Internal ORing MOSFET & Current Share
- ◆ High Efficiency
- ◆ Up to 9,500W in 1U rack
- ◆ PMBus™(I<sup>2</sup>C) and LAN options



### Key Market Segments & Applications



(HFE2500-48 model)

| Specifications                   |      |  |
|----------------------------------|------|--|
| Model                            |      |  |
| Input Voltage Range (2)          | VAC  | 85 - 265VAC, 47 - 63Hz. See model selector for power derating  |
| Input Current (Max) 100/230VAC   | A    | 15 / 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%   |
| Overvoltage Protection (1)       | %    | 110% (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, 115/230VAC Input, 80% loading   |
| Leakage Current                  | mA   | < 0.75 / 1.5mA, 100 / 230VAC, 60Hz   |
| Remote Sense Compensation        | -    | HFE2500-12: 0.25V / Wire, HFE2500-24: 0.5V / Wire, HFE2500-48: 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, up to 95% accuracy (load dependant), up to 8 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 (3)                        |
| Withstand Voltage                | -    | I/P to O/P 3kVAC, I/P to GND 2kVAC, O/P to GND: HFE2500-12, -24V 500VAC, HFE2500-48 2250 VDC 1min, (POE) |
| 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, EN60950-1, CE Mark  |
| Conducted and Radiated EMI       | -    | EN55032 & FCC part 15; Conducted class B, Radiated class A   |
| Immunity                         | -    | IEC61000-4-2 (lv 2,3), -3 (lv 2), -4 (lv 2), -5 (lv 3,4), -6 (lv 2), -8 (lv 4), -11                      |
| Size (W x H x D)                 | in   | 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

(3) Reverse air - contact factory

## Model Selector

| Model        | Output Voltage | Adjust Range <sup>(1)</sup> | Max Current (Vin>180VAC) | Max Power (Vin>180VAC) | Max Current (100<Vin<132VAC) <sup>(2)</sup> | Max Power (100<Vin<132VAC) <sup>(2)</sup> |
|--------------|----------------|-----------------------------|--------------------------|------------------------|---|---|
| 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                  | 62.5A                                       | 1500W                                     |
| HFE2500-24/S | 24V            | 19.2 - 29V                  | 104A                     | 2496W                  | 62.5A                                       | 1500W                                     |
| HFE2500-48   | 48V            | 38.4 - 58V                  | 52A                      | 2496W                  | 31.25A                                      | 1500W                                     |
| HFE2500-48/S | 48V            | 38.4 - 58V                  | 52A                      | 2496W                  | 31.25A                                      | 1500W                                     |

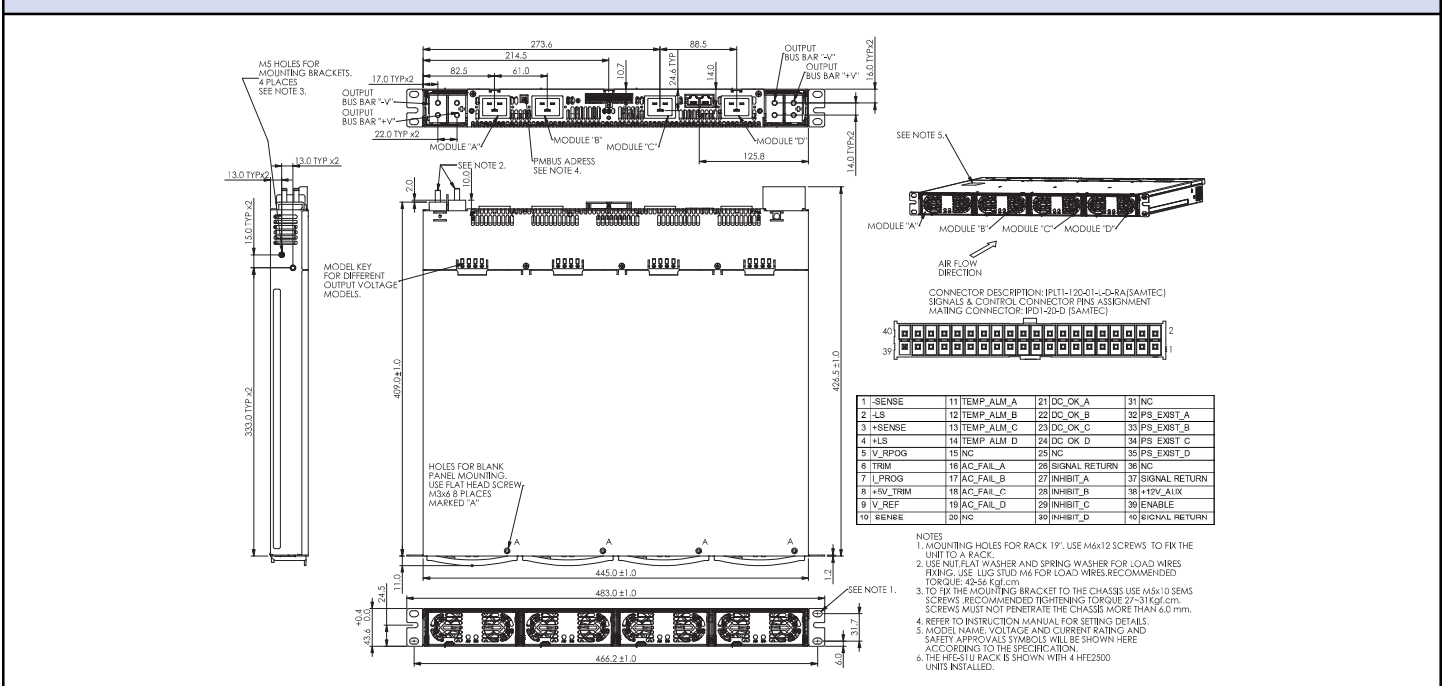
| Model        | Load Reg | Line Reg | Ripple & Noise <sup>(1)</sup> | Efficiency (%) <sup>(4)</sup> | PMBus/ I <sup>2</sup> C |
|--------------|----------|----------|-------------------------------|-------------------------------|-------------------------|
| HFE2500-12   | 60mV     | 30mV     | 240mV                         | 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                         | 91 / 93%                      | -                       |
| HFE2500-48/S | 240mV    | 120mV    | 480mV                         | 91 / 93%                      | Yes                     |

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

## Accessories

| Model          | Description  | Maximum Rack Current        |
|----------------|--|-----------------------------|
| HFE2500-S1U    | Four slot 19" rack, IEC320-C20 input connector                           | 320A each side (640A total) |
| HFE2500-S1U-TB | Four slot 19" rack, Terminal Block input connector                       | 320A each side (640A total) |
| HFE2500/BP     | One slot blanking panel, two provided with each rack                     | -                           |
| HFE2500-LAN    | Plug in LAN module. Takes up one rack slot. For use with /S models only. | -                           |

## Outline HFE2500S1U



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



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