

## 3200W 3 Phase Input Industrial Power Supplies

### Features

- ◆ 400/440/480 VAC (Nominal) 3 Phase Delta or Wye
- ◆ Fully Regulated, Wide Range Adjustable Output
- ◆ Voltage and Current Programming
- ◆ -40°C (start up) to +70°C operation
- ◆ >92% Efficiency
- ◆ PMBus™ Communication
- ◆ Built in ORing FETs & Active I share for parallel operation
- ◆ Fully Featured

### Key Market Segments & Applications



### Specifications

| Model                            |      | TPS3000-24  | TPS3000-48 |
|----------------------------------|------|---|------------|
| Input Voltage (47-63Hz)          | VAC  | 350 - 528VAC, Delta or Wye 3 phase  |            |
| Input Current                    | A    | 6A per phase max, steady state  |            |
| Inrush Current                   | A    | <15A per phase (excluding initial spike charging EMI capacitors lasting <2ms)           |            |
| Power Factor Correction          | -    | 0.93 typical  |            |
| Efficiency (1)                   | %    | 92.5%   | 92.5%      |
| Ripple & Noise (Pk-Pk) (max) (2) | mV   | 130mV   | 260mV      |
| Line Regulation                  | %    | <0.25%  |            |
| Load Regulation                  | %    | <0.5%   |            |
| Overcurrent Protection           | -    | Adjustable (70-105% of rated current)   |            |
| Overvoltage Protection           | V    | 115% of setpoint (tracking)   |            |
| Thermal Protection               | -    | Internal thermostat. Automatic reset  |            |
| Hold Up Time                     | ms   | >10mS at 80% of rated current, nominal input/output voltage                             |            |
| Remote Sense                     | -    | Compensates for a total of 1V cable drop  |            |
| Dropped Phase (2)                | -    | Open collector signal; off during normal operation, strobing during dropped phase state |            |
| Remote On / Off                  | -    | Selectable logic - Enable or Inhibit  |            |
| AC Fail Signal                   | -    | Open Collector, ON when AC is above 340VAC and unit is enabled                          |            |
| DC Good Signal                   | -    | Open Collector, ON when output is above 85 to 95% of setpoint (tracking)                |            |
| Remote Adjust                    | -    | 0 - 5V adjusts output from V max to V min   |            |
| Parallel Connection              | -    | Single wire current share, up to 8 units. Built in ORing FET                            |            |
| Standby Voltage                  | -    | 11.2 - 12.5V, 0.3A  |            |
| Operating Temperature            | °C   | -40 to +70°C, see derating curve<br>(20 min warm up needed for <-10°C)                  |            |
| Storage Temperature              | °C   | -40 to +85°C  |            |
| Temperature Coefficient          | %/°C | 0.02%/°C  |            |
| Humidity (non condensing)        | %RH  | 10 - 90%RH  |            |
| Cooling                          | -    | Internal variable speed fan   |            |
| Withstand Voltage                | VAC  | Input - Ground 2,000VAC, Input - Output 3,000VAC, Output - Ground 500VAC                |            |
| Isolation Resistance             | MΩ   | >100MΩ (25deg, 70%RH)   |            |
| Vibration                        | -    | Designed to meet MIL-STD-810F, Method 514.5, Proc I, Category 4, 10                     |            |
| Shock                            | -    | Designed to meet MIL-STD-810F, Method 516.5, Procedure I, IV & VI                       |            |
| Safety Agency Certifications     | -    | IEC/UL/CSA/EN62368-1, 60950-1, CE Mark  |            |
| Voltage Dips                     | -    | SEMI F47-0706   |            |
| Leakage Current                  | mA   | <3mA  |            |
| Conducted & Radiated Emissions   | -    | EN55022 Class A, FCC part 15 Class-A  |            |
| Immunity                         | -    | EN61000-4-2, -3, -4, -5, -6, -8, -11  |            |
| Altitude                         | m    | 4,000m  |            |
| Weight                           | kg   | 3.5   |            |
| Size (W x H x D)                 | mm   | 107 x 84.4 x 324mm (excluding output busbars)   |            |
| Warranty                         | yrs  | Three Years   |            |

(1) Typical, 75-100% at rated current (2) Consult Installation Manual for detailed specifications, test methods and application notes

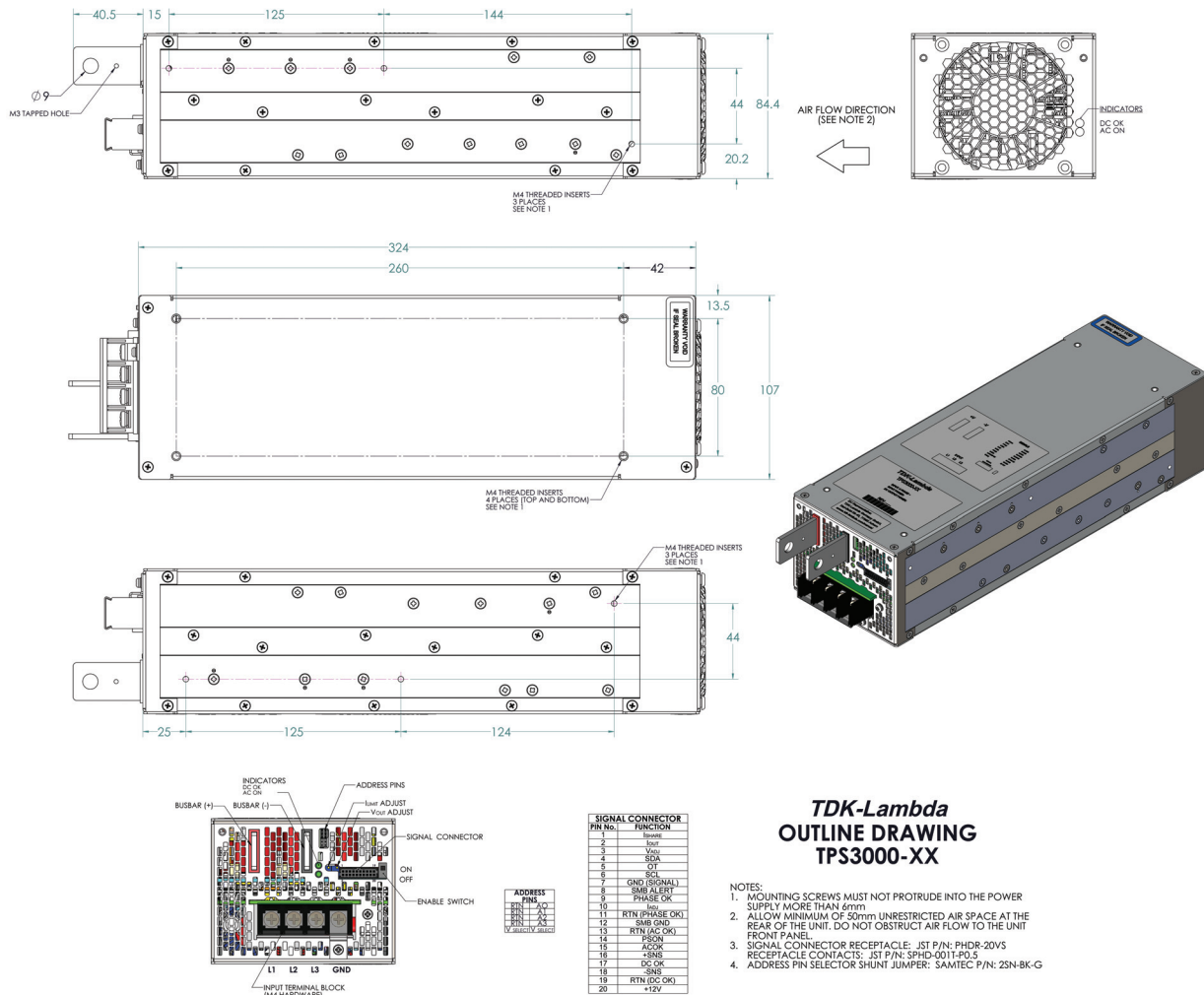
## Specifications

| Model      | Nominal Voltage (V) | Adjust. Range (V) (4) | Rated Current (A) | Maximum (3) Current (A) | Rated Power (W) | Maximum (3) Power (W) |
|------------|---------------------|-----------------------|-------------------|-------------------------|-----------------|-----------------------|
| TPS3000-24 | 24                  | 19.2 - 28.5           | 125               | 133.3                   | 3000            | 3200                  |
| TPS3000-48 | 48                  | 38.4 - 56.5           | 66.7              | 66.7                    | 3200            | 3200                  |

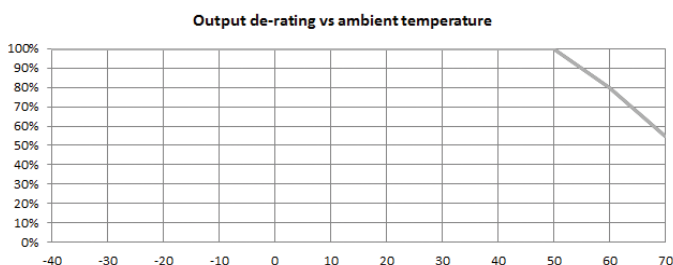
(3) Rating at nominal output voltage only.

(4) A minimum load of 0.5A is required to maintain regulation and ripple spec throughout the output voltage adjustment range.

## Outline Drawing



## Derating Curve



## Recommended Filter

RTMN-5010



<http://us.tdk-lambda.com/lp/products/r-series.htm>

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

