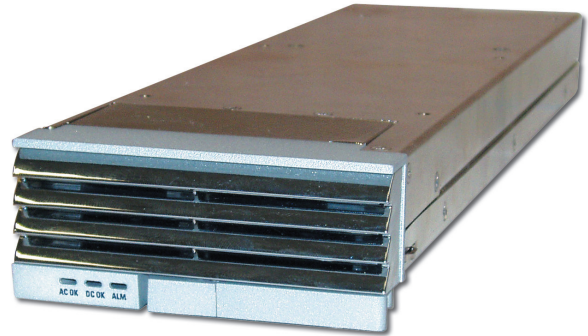


1200 to 2500W Front End Power Supplies

Features

- ◆ 1U High
- ◆ Up to 10,000W in 19" Rack
- ◆ Hot Swap Capable
- ◆ High Efficiency
- ◆ Full array of signals



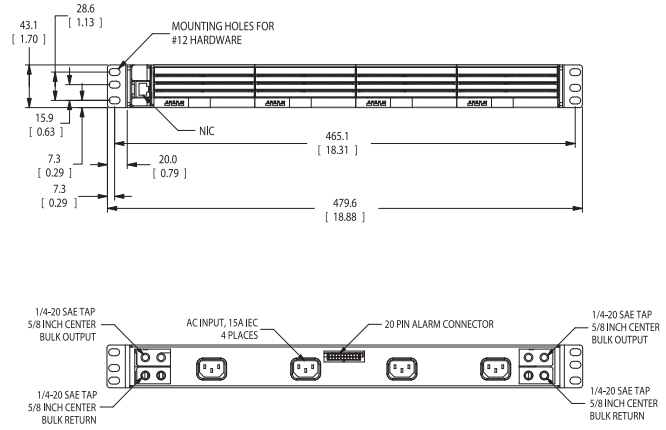
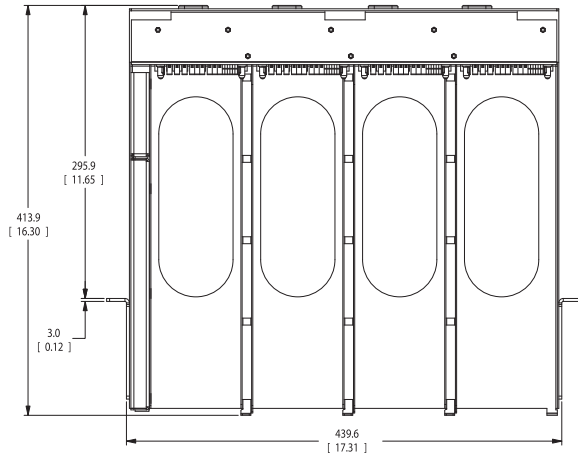
Key Market Segments & Applications



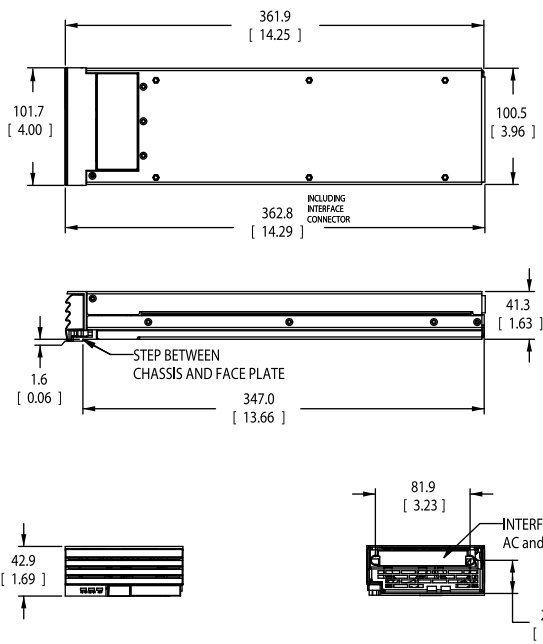
| Specifications | | TH120012 ⁽⁵⁾ | TH120024 | TH120048 | TH250048 ⁽⁵⁾ |
|------------------------------|---------|---|----------|----------|-------------------------|
| Nominal Voltage | V | 12 | 24 | 48 | 48 |
| Output Voltage Range | VDC | 10.5-14 | 21-28 | 42-56 | 42-56 |
| Total Regulation | % | ±1% | | | |
| Output Current | A(max) | 100 | 50 | 25 | 50 |
| Current limit | (1) A | 120 | 60 | 30 | 60 |
| Short Circuit Current | % | 150 | 75 | 37 | 75 |
| Output Noise | mV | 250mV peak to peak (10kHz to 20MHz) | | | |
| Output Rise Time | ms | 100-400 ms | | | |
| Dynamic Response | % | 3% in 10ms for a 10-100% load change | | | |
| Overvoltage Protection | (1) VDC | 13-15 | 27-30 | 50-60 | 50-60 |
| Load Sharing | % | ±5% | | | |
| I2C Programming | - | Set output Volt, Monitors AC present, Converter OK, Thermal Profile, Fan fail | | | |
| Signals (opto isolated) | (4) - | AC Fail, Module Alarm, Temp Alarm | | | |
| Remote On/Off | V | Shuts down outputs by applying 3.3 to 5V | | | |
| Auxiliary Output | (3) - | 12V@100mA | | | |
| AC Input | VAC | 90-264 | 90-264 | 90-264 | 180-264 |
| Input Frequency | Hz | 47-63 | | | |
| Power Factor | - | 0.99 typ. @ 230VAC, full load, meets EN61000-3-2 | | | |
| Inrush Current | (2) A | 30 Amps peak | | | |
| Efficiency (at full load) | % | 88 | 90 | 92 | 93 |
| Immunity | - | EN61000-4-2,-3,-4,-5,-6,-8,-11 | | | |
| EMC (conducted and radiated) | - | EN55022, Level B, FCC Class B | | | |
| Operating Temperature | °C | -40 to 70, derate linearly to 60% load above 50°C | | | |
| Storage Temperature | °C | -40 to 85 | | | |
| Humidity | % | 5 to 95 (non-condensing) | | | |
| Altitude | ft | -200 to 8000 | | | |
| Shock | G | IEC68-2-27, Mil-STD-810E, 20G | | | |
| Vibration | Hz | IEC68-2-64 (random) 20-2000Hz, 30 minutes | | | |
| Safety Agency | - | UL60950, CSA 22.2 No. 60950-00, EN60950, CE Mark | | | |
| Size (L x W x H) | in. | 14.25 x 4.00 x 1.69 (stand alone), 16.30 x 17.31 x 1.7 (THR4 Rack) | | | |
| Weight | lbs | Power Module 6lbs, Rack 9lbs | | | |
| Warranty | yrs | Two Years | | | |

- 1 Adjustable via i2C or through Lambda Network Interface Card
- 2 Excludes Xcaps in the EMC input filter
- 3 Output operates independent of main DC output and is referenced to (-)Vout
- 4 All three signals share a common return - logic ground
- 5 Use rack model THR400

THR4 Rack Outline Drawing



TH Module Outline Drawing



Models

| Model | Output Voltage | Output Current | Maximum Power |
|-------------------------|--|----------------|---------------|
| TH120012 ⁽⁵⁾ | 12V | 100A | 1200W |
| TH120024 | 24V | 50A | 1250W |
| TH120048 | 48V | 25A | 1250W |
| TH250048 ⁽⁵⁾ | 48V | 50A | 2500W |
| THR4 | 19" Rack holds up to 4 TH Modules; 120A maximum output current. | | |
| THR400 | 19" Rack holds up to 4 TH modules; 400A maximum output current. Screw terminal input connection. | | |
| THRBP | Blanking panel for one module slot. | | |
| THR4NIC | Network interface card for 48V systems. | | |
| THR4NIC12 | Network interface card for 12V systems. | | |
| THR4NIC24 | Network interface card for 24V systems. | | |
| TLRC01 | Signal cable | | |

Alarm Connector

| | |
|-----------------|---------------------------|
| Mating Housing | Molex MicroFit 43025-2000 |
| Mating Terminal | Molex MicroFit 43030-0002 |

For Additional Information, please visit www.tdk-lambda.com/lp/products/th-series.htm



Other Industrial Products

| | |
|-------------------------|----------------------------------|
| PX, CC-E, PAQ, PAH, PAF | DC-DC Converters |
| FPS1000 | 1U 1kW to 3kW Low Cost Front End |