

## 1000 to 2500W Front End Power Supplies

### Features

- ◆ 2U high
- ◆ Up to 12,500W in 19" rack
- ◆ Hotswap capable
- ◆ >90% efficiency
- ◆ Full power at 65°C ambient
- ◆ Full array of signals



| Specifications               |         |  |                           |
|------------------------------|---------|--|---------------------------|
| Model                        |         | 24V Nominal (Factory Set)  | 48V Nominal (Factory Set) |
| Output Voltage Range         | (1) VDC | 21 - 28V   | 42 - 56V                  |
| Total Regulation             | %       | ±1   |                           |
| Current limit                | %       | 105 to 120%  |                           |
| Short Circuit Current        | %       | 150% maximum   |                           |
| Output Noise                 | mV      | 480mV maximum, peak to peak (10Hz to 20MHz)  |                           |
| Output Rise Time             | -       | 100 - 400ms  |                           |
| Dynamic Response             | -       | 3% in 10ms for a 10 - 100% load change   |                           |
| Overvoltage Protection       | (3) VDC | 27 to 30V  | 54 to 60V                 |
| Load sharing                 | -       | ±10%   |                           |
| Redundancy                   | -       | Internal "or"-ing protection   |                           |
| I2C programming              | (1) -   | Set Output Volt., Monitors AC Present, Converter OK, Thermal profile, Fan fail     |                           |
| Signals (opto isolated)      | (2) -   | Converter OK, AC Present, and Over-temperature alarms. Active Low on Fail          |                           |
| Remote On/Off                | -       | Shuts down output(s) by applying 5V  |                           |
| Auxiliary Output             | -       | 12V 0.1A bias voltage  |                           |
| AC Input                     | -       | TL1000: 90~264VAC, 95VAC start up; TL1500-2500: 180~264VAC, 185VAC start up        |                           |
| Power Factor                 | -       | 0.99 Typical meets EN61000-3-2   |                           |
| Inrush Current               | A       | <40A   |                           |
| Leakage Current              | mA      | <3.2mA   |                           |
| Efficiency (typical)         | %       | 92%  |                           |
| Immunity                     | -       | EN61000-4-2, -3, -4, -5, -6, -8  |                           |
| EMC (conducted and radiated) | -       | EN55022, level B, FCC Class B  |                           |
| Operating Temperature        | -       | -40°C to +65°C, short duration at 75°C, no derating (TL250048: -40°C to 65°C)      |                           |
| Storage Temperature          | -       | -40 to +85°C   |                           |
| Humidity                     | -       | 5 - 95% RH non condensing  |                           |
| Altitude                     | -       | -200 to 8000 feet, derate max. ambient 2°C/1000 feet                               |                           |
| Shock                        | -       | IEC68-2-27, MIL STD 810E, 20G  |                           |
| Vibration                    | -       | IEC68-2-64 (random) 20 - 200Hz, 30 minutes   |                           |
| Safety Agency                | -       | UL60950, CSA 22.2 No. 60950-00, EN60950, CE Mark                                   |                           |
| Size (L x W x H)             | -       | 11.12" x 3.41" x 3.45" (stand alone), 14" x 18.9" (incl. ears) x 3.45" (TLR5 rack) |                           |
| Weight                       | lbs     | Stand alone unit: 5.6lbs, Rack: 9.5lbs   |                           |
| Warranty                     | yrs     | Two Years  |                           |

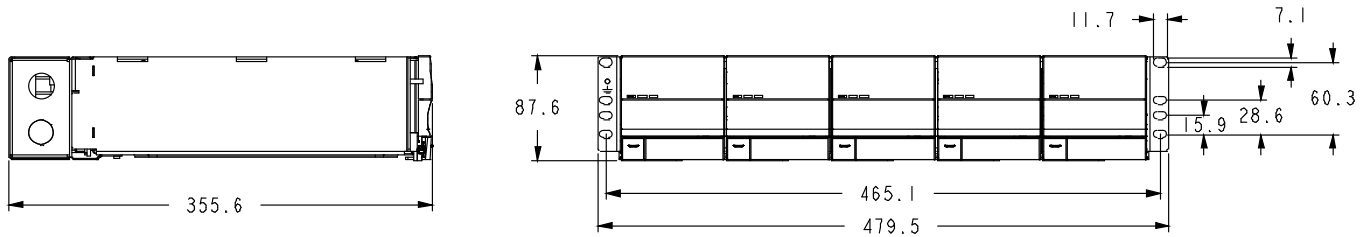
(1) Contact Factory for application

(2) All three signals share a common return - Logic GND

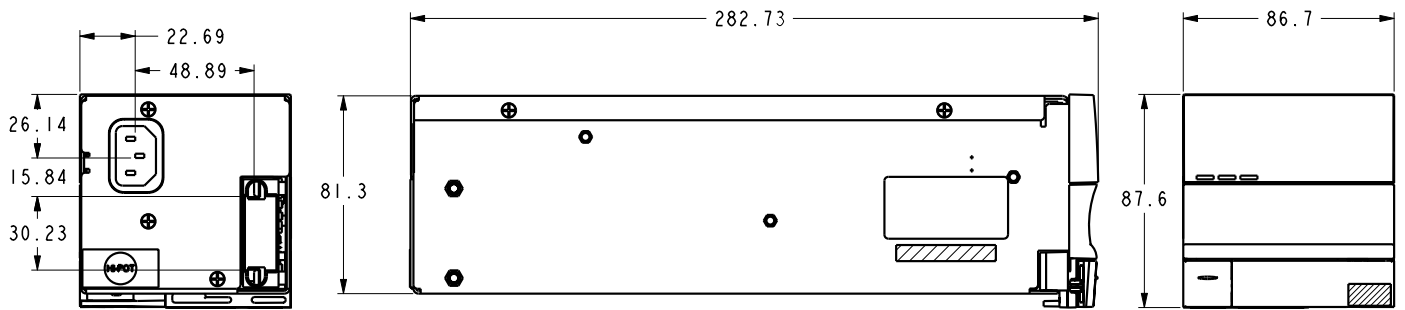
(3) Factory Programmable

## Not Recommended For New Designs

**TL Rack Outline Drawing**



**TL Module Outline Drawing**



**Other Industrial Products**

|                         |                            |
|-------------------------|----------------------------|
| FPS                     | 1U 1kW to 3kW Front end    |
| PX, CC-E, PAQ, PAH, PAF | DC-DC Converters           |
| HWS, LZSA               | 15W to 1800W Single output |

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



**Models**

| Model    | Output Voltage                     | Output Current | Maximum Power |
|----------|------------------------------------|----------------|---------------|
| TL100024 | 24V                                | 40A            | 1000W         |
| TL150024 | 24V                                | 55A            | 1500W         |
| TL100048 | 48V                                | 20A            | 1000W         |
| TL150048 | 48V                                | 30A            | 1500W         |
| TL250048 | 48V                                | 50A            | 2500W         |
| TLR5     | 19" Rack, holds up to 5 TL Modules |                |               |
| TLRBP    | Blanking Panel for One Module Slot |                |               |
| TLRC01   | Signal Cable                       |                |               |
| TLCK232  | RS232 Communications Kit           |                |               |

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