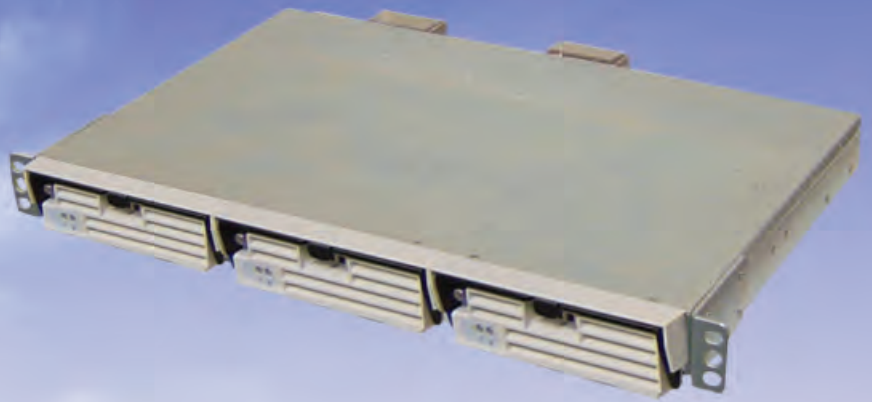


# LPE INVERTER SERIES

500VA TO 1500VA IN A 1U PACKAGE!



DEMANDING APPLICATIONS DEMAND TDI POWER

# Table of Contents

- LPE Series Overview ..... 1
- LPE Inverter Shelf ..... 2
- Flexible Inverter Solutions ..... 3
- LPE Series Outlines ..... 4-5

# The LPE SERIES

...all in a package 1U high!

## LPE Hot Swap Inverter Shelf



TDI Power's LPE 500 Series provides the user with true sine wave output, distortion <1% and efficiency >86% ...all in a package 1U high. These inverters are also capable of N+1 redundant, parallel and synchronized operation. Multiple units can be paralleled to provide up to 1500VA per 19-inch equipment-mount shelf, or 1000VA N+1. Multiple shelves can be combined to create higher power solutions.

The LPE series is designed for use in many applications where space is a premium, and true sine wave performance a must! Applications include solar and wind power generators, fuel cell systems & test standards, micro-cell base stations, customer premise equipment, network data centers and utility / facility back-up power systems. When combined with rectifier shelves and batteries, plus TDI Power's static transfer switch capability, the LPE500 series makes the ideal miniature UPS system for almost any application.



### FEATURES

- ▶ 48V or 24VDC Input
- ▶ True Sine Wave Output
- ▶ 1U High, 11.7" (297mm) Shelf Depth
- ▶ <1% THD (Total Harmonic Distortion)
- ▶ RoHS Compliant
- ▶ Wide Range Temperature Range:  
-20°C to +55°C at Full Power
- ▶ Complimentary Static Transfer Switch

## Specifications

### INPUT

<b>Input Voltage:</b>	24V: nominal (19-30 VDC) 48V: nominal (40.5-60VDC) * Custom Voltages Available
<b>Inrush Current Limited:</b>	ETS 300 132-2, 4.7.1

### OUTPUT

<b>Output Voltage:</b>	120 and 230 VAC
<b>Output Frequency:</b>	50/60 Hz
<b>Max Output Power:</b>	400 VA per inverter (24V) 500 VA per inverter (48V)
<b>Output Regulation:</b>	Less than 2.0%
<b>Crest Factor:</b>	Maximum 2.8 : 1
<b>Total Harmonic Distortion:</b>	<1% typical
<b>Efficiency:</b>	86% typical
<b>DC Noise Injection:</b>	dBRNC < 30

### PROTECTION

Input and Output Fuse Protected  
Input Undervoltage, Input Overvoltage, Output Overload,  
Output Short Circuit, Overtemperature, Output Overvoltage

### FRONT PANEL INDICATORS AND ALARMS

<b>Green LED:</b>	Input Good
<b>Bi-Color Red/Green LED:</b>	Summary Fault / Output Good

### ENVIRONMENTAL

<b>Cooling:</b>	Internal, Variable speed fan (front to rear airflow)
<b>Operating Temperature:</b>	-20° to +55°C
<b>Storage Temperature:</b>	-40° to +65°C
<b>Humidity:</b>	0-95% non-condensing

### AGENCY COMPLIANCE

<b>Safety:</b>	UL60950-1, CE Marked to LVD (EN 60950)
<b>Input EMI:</b>	EN 300 386:2000 (EN 55022:1998 Class B)
<b>Output EMI:</b>	EN 55022 Class A

### MECHANICAL

<b>Dimensions:</b>	9.3"x5.6"x1.7" (235mm x 142mm x 43mm)
<b>Weight:</b>	3lbs. (1.36 kg)
<b>Inverter Connector:</b>	FCI Power Blade Hot-Plug Connector (FCI P/N 51935-002) Mates with FCI Part Number 51915-016

# The LPE Inverter Shelf

## ...Specifications



### Specifications

#### MATERIAL & FINISH

Cold Rolled Steel, Zinc Plating

#### WEIGHT

1U Shelf Empty: 8lbs (3.63kg)

#### DIMENSIONS

See outline drawing below

#### MOUNTING

1U Shelf: Vertical hole spacing 1.25 Inch on Center

#### INPUT / OUTPUT CONNECTION

DC Input: 2 busbars with #10-32 PEM nuts

AC Output: 2 position terminal block

#### SIGNALS:

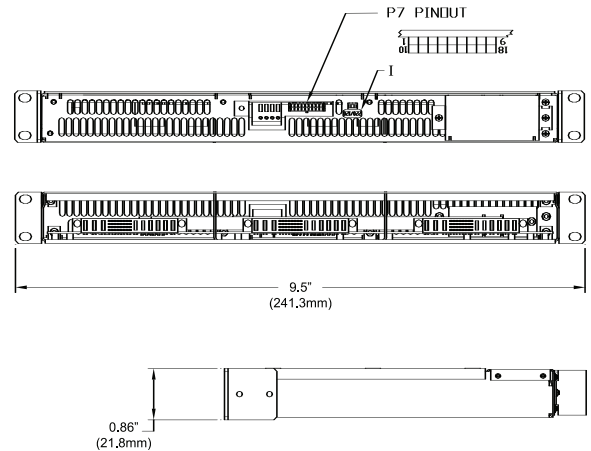
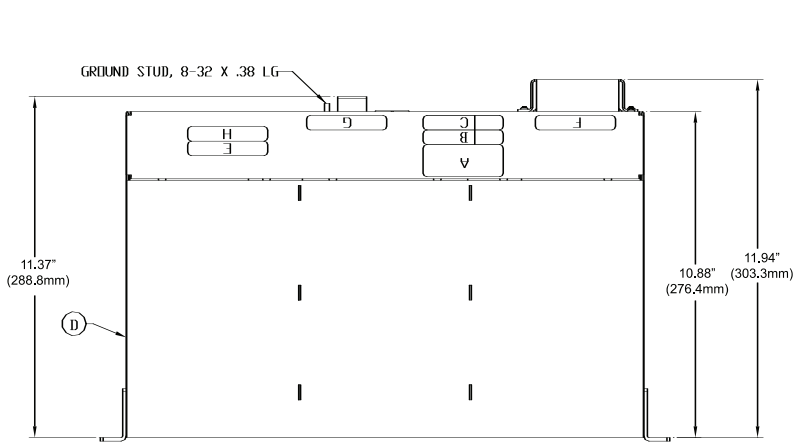
Molex Mini Fit Connector (#43045-1800)

Mates with #43025

Open Isolated: Fault Alarm

Input Referenced: Remote Enable/Disable (accepts dry contact or open collector).

### LPE Shelf Outline



# Flexible LPE Inverter Solutions...

## Stand Alone Modules

The LPE-R and LPE-TS versions provide stand alone solutions. The R version includes 3 IEC C-13 AC outlets and has a 2 position DC Input terminal block. The unit can be rack mounted, or with optional mounting brackets the unit can be mounted virtually anywhere.

The TS version includes a built in transfer switch (<50ms response time) to transfer your load to mains power should the inverter power be lost due to loss of DC input or any other reason. Built in mounting flanges provide flexible fixing options.

### LPE R Version

10.7" x 5.6" x 1.5" (272mm x 143mm x 38mm)



### LPE TS Version

11.7" x 7.1" x 1.5" (297mm x 180mm x 38mm)



## 2U Redundant Power System with Built in Hot Swap Transfer Switch

The system simultaneously monitors line voltage and output of the on-board DC-AC inverters. The on-board Static Transfer Switch selects the back-up source within 8mSec and returns to a preferred source automatically when conditions are met.

An on-board manual bypass switch allows the user to perform maintenance safely and conveniently.



### FEATURES

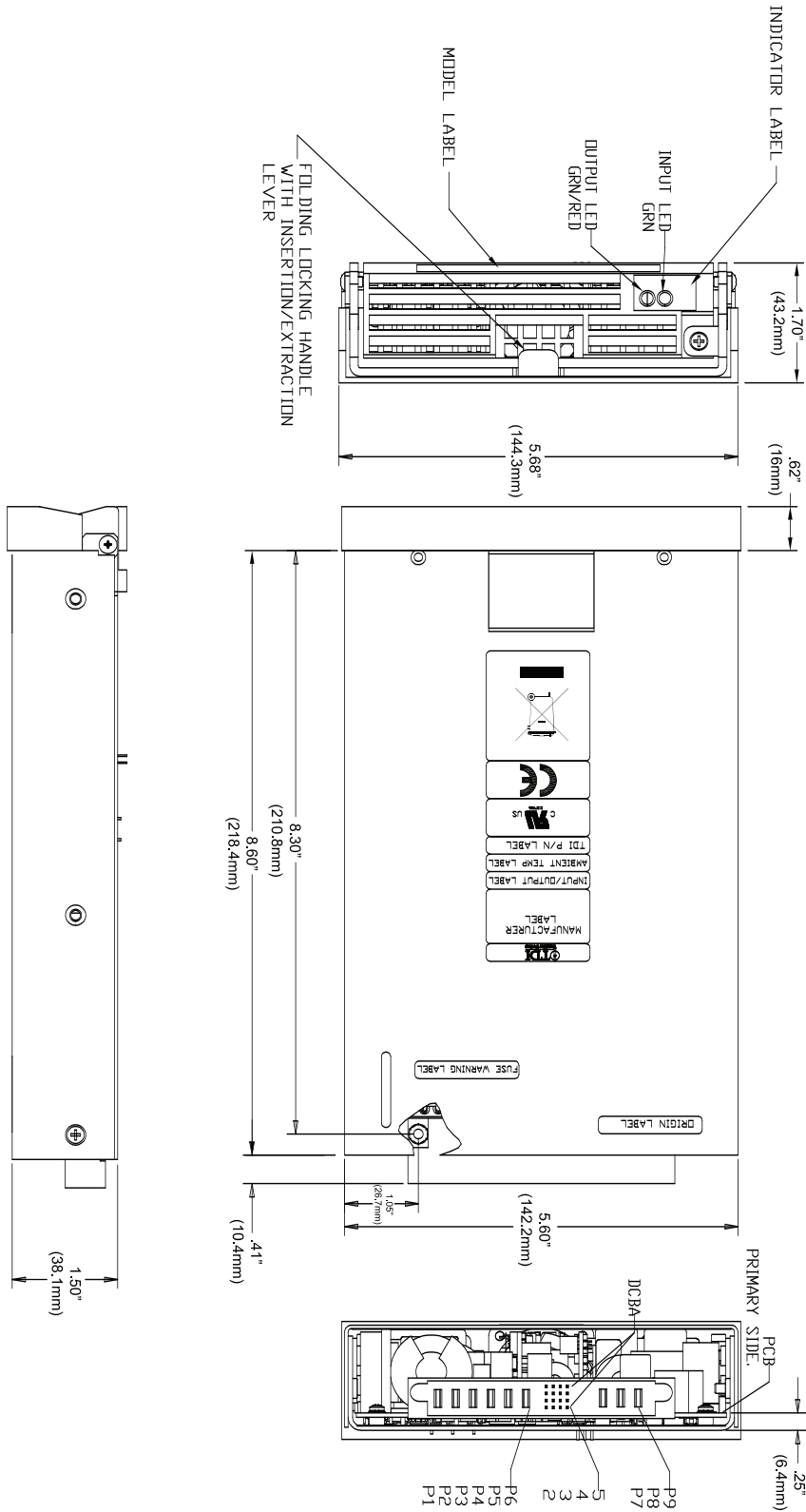
- ▶ Incorporates up to four modular 400VA/500VA inverters operating in N+1 parallel redundancy
- ▶ Solid state transfer switch connects load to AC line or inverter output
- ▶ Maintenance by-pass switch permits servicing system without shutting down host system
- ▶ Hot Swap Static Transfer Switching Module
- ▶ CANBus programming & monitoring

PRELIMINARY

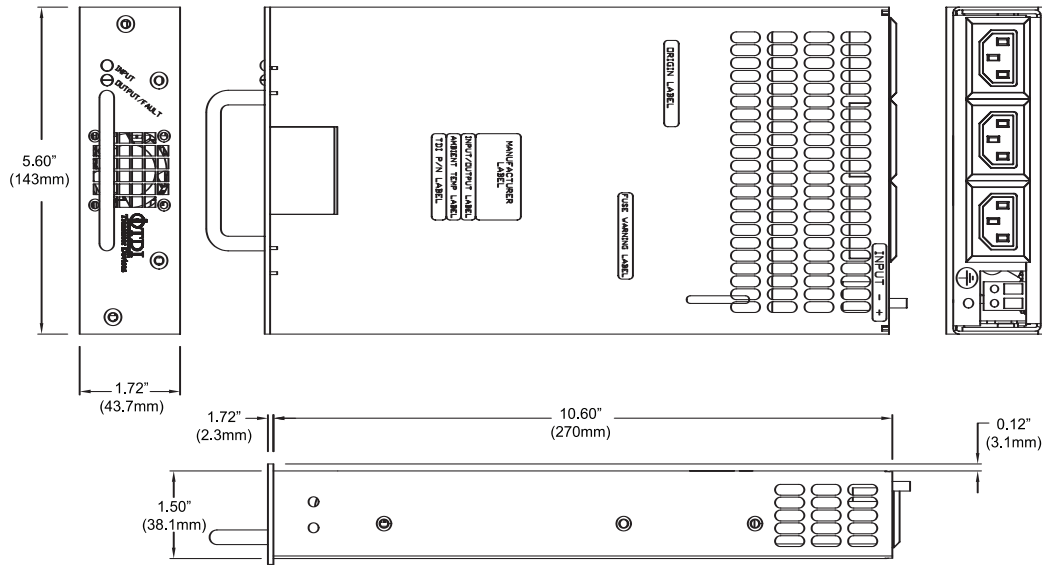
# The LPE SERIES

## ...Outlines

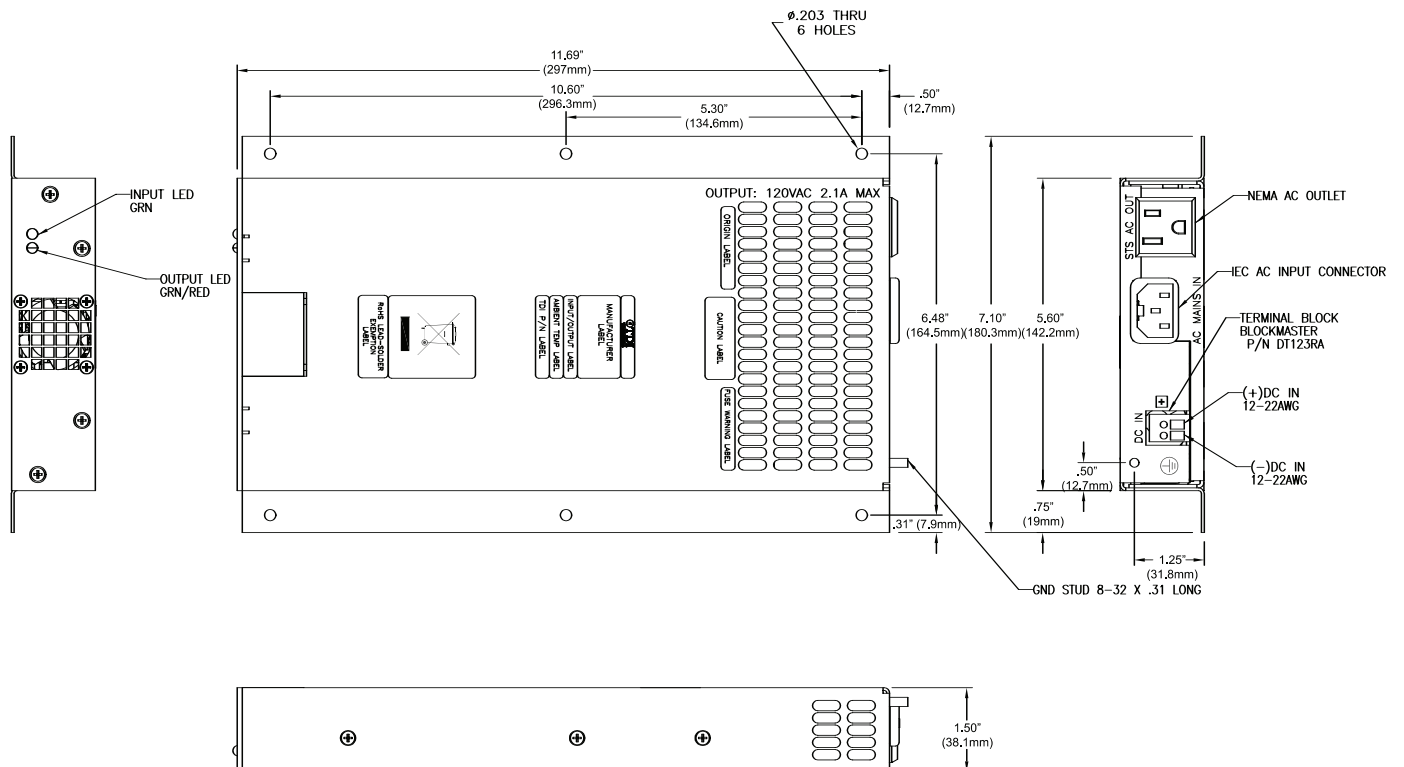
### LPE Module Outline



## LPE-R Outline



## LPE-TS Outline



# **TDI Power**

36 Newburgh Rd.

Hackettstown, NJ 07840

Phone: 908.850.5088

Fax: 908.850.0540

[tdipower.com](http://tdipower.com)

[info@tdipower.com](mailto:info@tdipower.com)