

Miniaturized Inverter Systems



- 1U overall height
- Scaleable From 500VA to 6.0kVA
- Hot swappable, true sinewave technology
- 86% Efficient Typical
- Total Harmonic Distortion (THD) <1%
- 24 and 48 VDC inputs
120 and 220 VAC outputs

TDI-AC Power Group

LPE500

OVERVIEW

TDI's newest inverter, the LPE500 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 in the field providing up to 1500VA per 19-inch equipment-mount shelf, or 1000VA N+1.

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

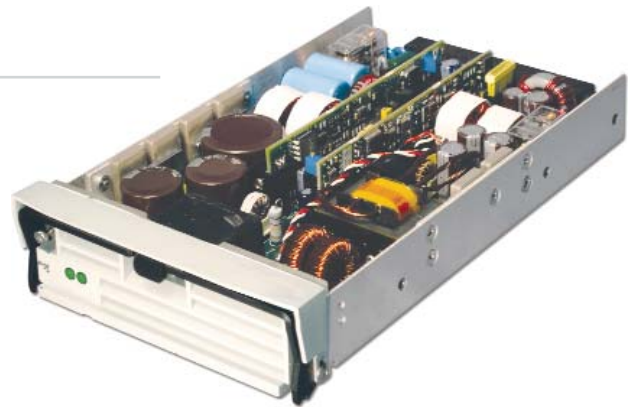
FEATURES

- Very Low Profile (1U High)
- Compact Design: only 5.6"W X 10.8"D (142.2mm X 274.3mm)
- True Sine Wave Technology
- Hot Swappable, Parallelable
- Supports N+1 Redundancy
- Up to 3 LPE500's per Shelf for 1500VA
(Multiple Shelves May be Paralleled for Added Power)
- Efficiency 86% Typical
- THD < 1.0%
- CANbus Communications Capable
- Full Power from -20°C to +55°C
- 24 & 48VDC Inputs
- 120 & 220VAC Outputs (50/60 Hz)

LPE500 MODULE PART NUMBERING

LPE500 - (a) - (b)

<u>Input Voltage</u>	<u>Output Voltage</u>
24 = 18-36 VDC	120 = 120 VAC, 60 Hz
48 = 40.5-60 VDC	220 = 220 VAC, 50 Hz



*Custom configurations are available, please contact factory.

LPE SHELF PART NUMBERING

(1U shelf without LPE500 modules)

LPES1500 - (b) - (c) - (d)

1500 = 1500VA, 1U-High Shelf/3 LPE500 Module Bays

Phase Number

1= 1-Phase
3= 3-Phase

Input Voltage

24 = 18-36 VDC
48 = 40.5-60 VDC

Output Voltage

120 = 120 VAC, 60 Hz
220 = 220 VAC, 50 Hz

*Custom configurations are available, please contact factory.



INVERTER MODULE SPECIFICATIONS

INPUT

Input Voltage: 24 VDC nominal (18-36 VDC)
48 VDC nominal (40.5-60 VDC)
*Custom Voltages Available

Inrush Current Limited: ETS 300 132-2, 4.7.1

OUTPUT

Output Voltage: 120 and 220 VAC

Output Frequency: 50/60 Hz

Max Output Power: 500 VA per Inverter

Output Regulation: Less than 2.0%

Crest Factor: Maximum 2.8 : 1

Total Harmonic Distortion: < 1.0%

Efficiency: 86% typical

DC Noise Injection: dBRNC < 30

PROTECTION

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

FRONT PANEL INDICATORS AND ALARMS

Green LED: Input Good

Bi-Color Red/Green LED: Summary Fault / Output Good

ENVIRONMENTAL

Cooling: Internal, Variable speed fan (front to rear airflow)

Operating Temperature: -20 to +55C

Storage Temperature: -40 to +65C

Humidity: 0-95%, non-condensing

AGENCY COMPLIANCE (pending)

Safety: UL60950-1, CE Marked to LVD (EN 60950)

Input EMI: EN 300 386:2000 (EN 55022:1998 Class B)

Output EMI: EN 55022 Class A

MECHANICAL

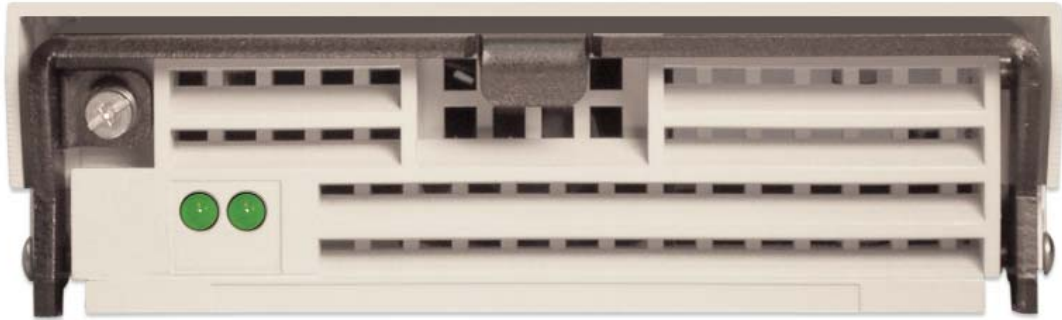
Dimensions: See outline drawing below

Weight: 3 lbs. (1.36 kg)

Inverter Connector: FCI Power Blade Hot-Plug Connector (FCI P/N 51935-002)
Mates with FCI Part Number: 51915-016

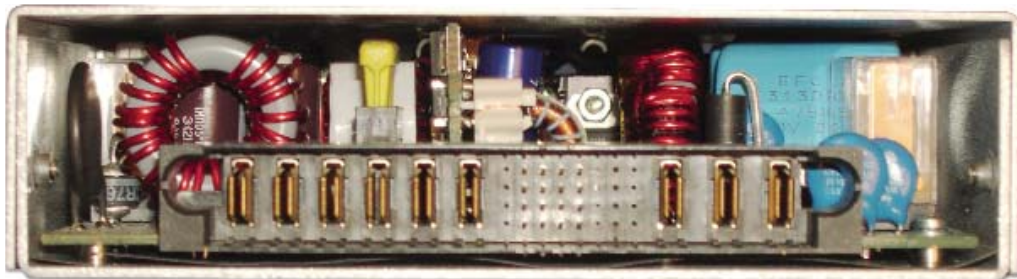
Front View

(shown actual size)

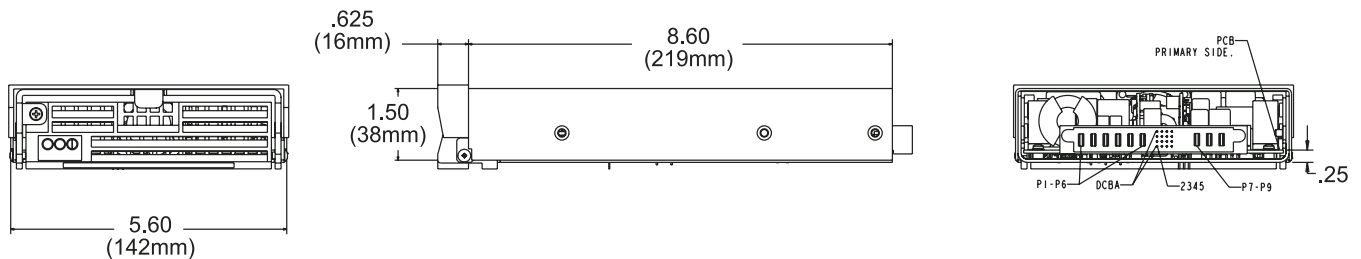


Back View

(shown actual size)



MODULE OUTLINE



*Dimensions are in inches (mm)

INVERTER SHELF SPECIFICATIONS

MATERIAL & FINISH

Cold Rolled Steel, Zinc Plating

WEIGHT

1U Shelf (empty): 8 lbs. (3.63 kg)

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

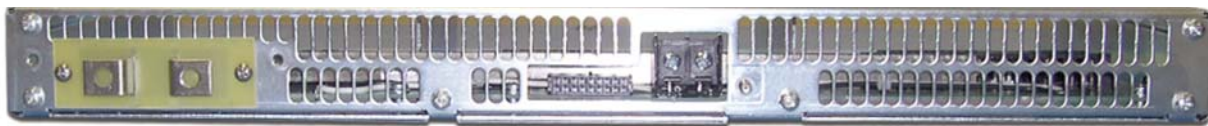
Opto Isolated: Fault Alarm

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

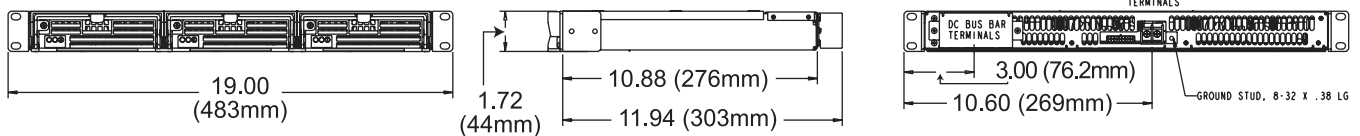
1U Shelf Front View



1U Shelf Back View



1U Shelf Outline



"TDI, The World's Best Power Partner For The World's Best Customers"

NORTH AMERICA

LPE INFORMATION

111 Comac Street, Ronkonkoma, NY 11779

Phone: 631.471.7492 • Fax: 631.471.7497

EUROPE

TDI-EUROPE, LTD

Carrigtwohill Industrial Estate, Carrigtwohill, Co. Cork, Ireland

Phone: +353 (0) 214 853020 • Fax +353 (0) 214 882131

ASIA

TDI-CHINA (ENGINEERING, MANUFACTURING AND SALES)

Transdev Electronics (Shenzhen) Co. Ltd • Phone: +86.755.6683367 • Fax: +86.755.6688797

Room C-D 4/FL, Zhen Xing Bldg., Shekou Ind. Area, Shenzhen City, China 518067

TDI-CHINA

Transistor Devices China Limited • Unit 606, 6/F Star House, 3 Salisbury Road, Tsimshatsui, Hong Kong

Phone: +852.2417.7051 • Fax: +852.2417.7053

MIDDLE EAST, AFRICA, SOUTH AMERICA

Allan Butler • allan_butler@tdipower.com

36 Newburgh Road, Hackettstown, NJ 07840 • Phone: 908.850.5088 • Fax: 908.850.1607

