PRINCETON POWER SYSTEMS
Clean Power Made Simple™

Grid-tied Inverter and Battery Controller (GTIB-480-125)

Grid-Tied Inverter (GTIB-480-125)

The GTIB-480-125 is a 125kW hybrid inverter that offers high efficiency, proven reliability, and unprecedented flexibility. The highly-configurable GTIB can condition power from alternative energy sources as well as Energy Storage and AC Microgrids.

What's New in G1.3

- Higher DC Voltage Range (280 - 830 VDC)
- Higher DC Input Current (380A)
- Quiet Operation (<75 dB)
- Transformerless
- 25% Higher Power - 125 kW

Efficient

With 97% peak efficiency, the GTIB has built-in MPPT for solar arrays and high round-trip efficiency for battery charging.

Advanced Functions

Independent real and reactive power controls allow the inverter to be used for frequency regulation, VAR compensation, demand response, peak shaving, and other advanced grid support functions. Microgrid capabilities allow the inverter to form or join a microgrid.

Features

- Microgrid "off-grid" and back-up power capable
- TUV Certified to UL1741
- Web-based remote performance monitoring, control, fault clearing, firmware upgrade
- Automatic transfer to off-grid with built-in transfer switch
- Over 100 MW Deployed

ABOUT PRINCETON POWER SYSTEMS

Princeton Power Systems, based in New Jersey and founded in 2001, designs and manufactures state-of-the-art technology solutions for energy management, microgrid operations and electric vehicle charging. The company is a global leader working with customers and partners across North America, Europe, Africa and the Caribbean. It manufactures UL and CE-certified power electronics that are used in advanced battery operations and alternative energy, with built-in smart functions for ancillary services. The company solves power issues to allow continued growth of distributed renewable energy by providing energy storage solutions that are proven to work, even in harsh environments. Princeton Power Systems builds integrated systems and designs, commissions and operates microgrids for leading organizations, including Fortune 500 automakers and industrials, and non-profit organizations. The company proudly manufactures its products in the USA. More information about Princeton Power Systems is available at www.princetonpower.com.

CONTACT US

Princeton Power Systems, Inc. | 3175 Princeton Pike, Lawrenceville, NJ 08648
Sales: +1 (609) 955-5390 | Email: sales@princetonpower.com | Web: www.princetonpower.com

Grid-Tied Inverter (GTIB-125)

GTIB-125

Power Terminals	1 DC I 2 AC
Power-stage Technology	High Frequency PWM
Size (inches)	36 W x 18 D x 75 H
Weight (Lbs)	1020
Mounting	Floor-standing

DC PORT SPECIFICATIONS - BATTERY

DC Voltage (Full Power)	350-830 VDC (133 kW)
DC Voltage (Dark Start) (optional)	254-780 VDC or 450-830 VDC (with extended Dark Start Option)
DC Voltage (Full Range)	36-800 VDC
Max Power	133kW
DC Current Max	380 A
Battery Charge Controller	Integrated configurable 3-stage charge controller for lead-acid batteries
Battery Management System	External control from BMS interface via Site Controller
DC Voltage Ripple	<1%

AC GRID SPECIFICATIONS

AC Line Voltage	480 VAC +10%, -12%, 3-phase 3/(4 wire with transformer option)
AC Line Frequency	60Hz nominal, 57-60.5 Hz range
Continuous AC Current	160 A RMS
Continuous AC Power	125kW
Power Factor	Greater than 0.95
Current Harmonics	IEEE 1547 compliant, <5% THD
Precharge DC from AC	Optional (External)

AC LOAD PORT SPECIFICATIONS

AC Line Voltage	480 VAC +10%, -12%, 3-phase 3/(4 wire with transformer option)
Continuous AC Current	160 A RMS
Continuous AC Power	125kW
Power Factor	0 to 1.00 (leading-lagging)
Automatic Transfer Switch	Yes (Internal)
On-grid/Off-grid Auto-transfer time	160 ms to Backup/300 ms to Grid

ENVIRONMENTAL SPECIFICATIONS

Temperature Operating	0 to 50°C
Storage	-20°C to 60°C
Humidity	5-95% (non-condensing)
Cooling	Forced Air
Rated Max Elevation	3,300 feet
Enclosure	NEMA 1 (indoor)

USER INTERFACES

Front-Panel Interface	Industrial LCD Keypad
Accessibility	Web-based Ethernet Interface
Remote Accessibility	via Web interface
Communication	MODBUS Over RS485 and/or RS232 Native
Performance Monitoring	Real-time & Historic, web-based performance data

EFFICIENCY

Peak Efficiency	97%
CEC Efficiency	96% (transformerless)