

LITEON GROUP

### Description

Power Innovations International's (Pii) 3 kVA isolated DC-DC converter converts input power from high voltage DC bus to 12 Vdc voltage. This module can be used to charge low voltage batteries or to provide a stable, low voltage bus to power equipment connected to 12 Vdc bus. Multiple DC/DC converters can be arranged to operate in parallel, and this module supports Modbus RS-485 communication.

### Features and Benefits

- 3 kVA power rating
- High voltage DC input (300 V to 450 V)
- Low voltage DC output (13.8 V nominal)
- Active current sharing and droop for fast response
- 95% efficiency at rated power (97% peak)
- Constant power and constant current protection
- Parallelable in power shelves
  - Pii part number: PF-1602-P20N
- Modbus RS-485 communication protocol

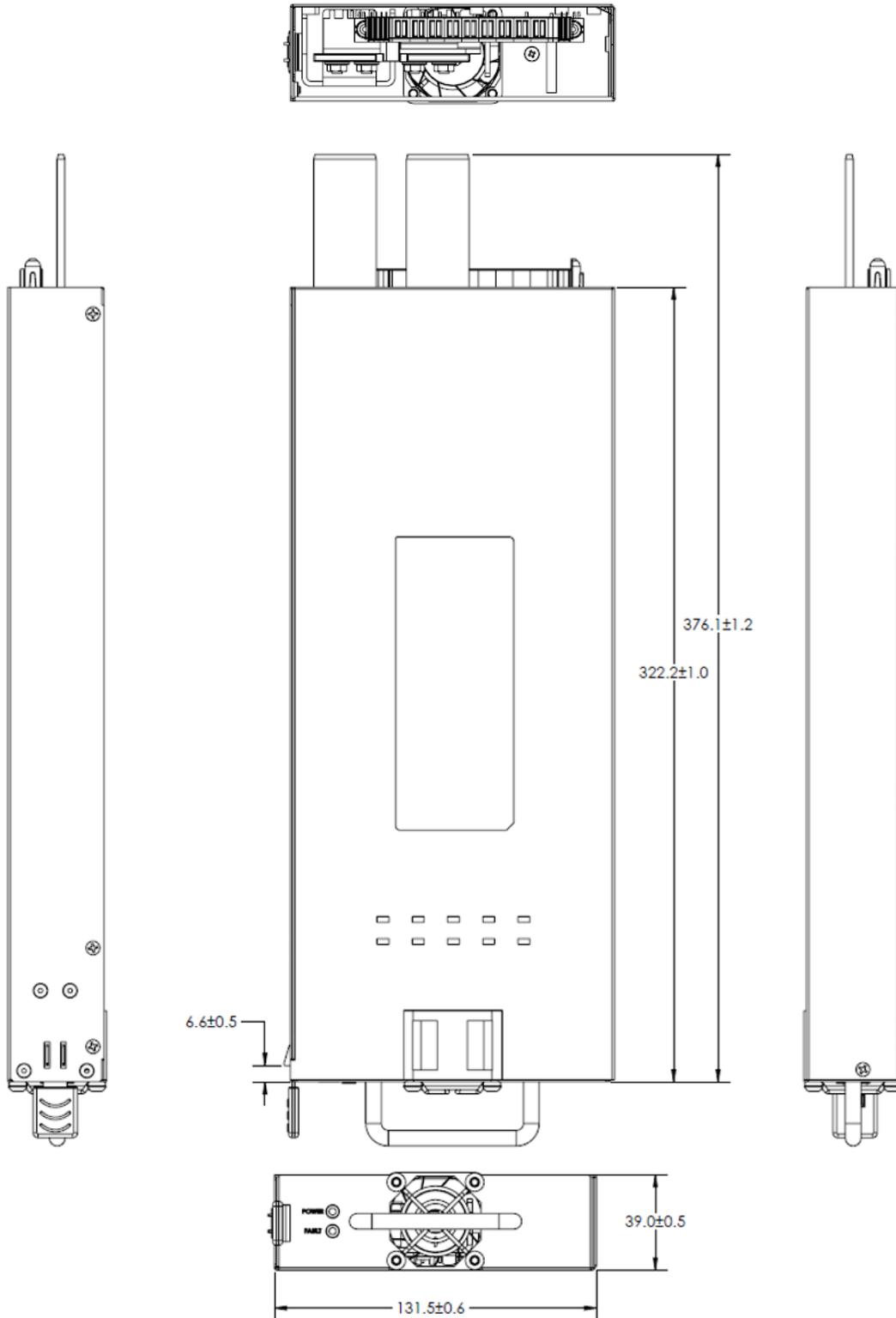


### Specifications

Electrical	
Input Voltage	<b>DC range:</b> 300 V to 450 V
Input Current	12 A maximum
Output Power	3 kVA
Output Voltage	13.8 Vdc nominal <b>Adjustable range:</b> 10.8 Vdc to 14 Vdc
Output Current	220 A maximum
Efficiency	>95% at full load
Current Share Method	Droop
Communication Protocol	Modbus RS-485
Auxiliary Standby Supply	12 V / 0.2 A
Mechanical	
Dimensions (W x H x D)	5.18" x 1.57" x 12.71" (131.5 mm x 40 mm x 322.8 mm)
Cooling	Forced air cooling
Weight	5.5 lbs (2.5 kg)
Environmental	
Operating Temperature	-40 °C to +45 °C at full load
Storage Temperature	-40 °C to +85 °C
Humidity	10% to 90% relative (non-condensing)
Altitude	Operating: 0 m to 3000 m Storage: 0 m to 15000 m
EMI	CISPR 22 Class A -6dB
General	
Safety Standards	Conforms to IEC 62368-1; CE marking

Product Dimensions (mm)

**DD-1302-TH12**  
3 kVA 12 V  
DC-DC Converter



LITEON GROUP

## Front Panel



1	“POWER” LED	Output power indicator: green-colored LED
2	“FAULT” LED	PSU fault indicator: amber-colored LED
3	Fans	Cooling fans

## Front Panel LED Status

Status	LED Green: Power	LED Amber: FAULT
Output Normal	<b>Solid Green</b>	Off
Storage Temperature	<b>Blinking Green @ 2 Hz</b>	Off
Output Disable/Fault	Off	<b>Solid Amber</b>
Output Disable/Firmware Update	Off	<b>Blinking Amber @ 2 Hz</b>

**Life Support Policy:** Power Innovations International (Pii) does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Pii reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Pii also reserves the right to change or update, without notice, any technical information contained in this bulletin.

**Document No.:** DATA126  
**Last Updated:** February 24, 2025

**Power Innovations International**  
1305 South 630 East  
American Fork, UT 84003  
United States  
[www.PowerInnovations.com](http://www.PowerInnovations.com)