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Description

Power Innovations International's (Pii) 3.3 kW power supply unit (PSU) is a rectifier that converts photovoltaic (PV) input power to 400 Vdc bus or 800 Vdc bus. The rectifier module can be used to charge batteries or to provide a stable, high voltage bus for other downstream power conversion, such as inverters or DC/DC converters. Multiple PSUs can be arranged to operate in parallel, and this rectifier module supports Modbus RS-485 communication.

Features and Benefits

- 3.3 kW PSU, with 0.8 to 1.0 power factor
- PV input:
 - **DC:** 120 to 450 Vdc
- Two configurable output voltages: 400 V or 800 V nominal
- Output voltage droop for current sharing between PSUs in large power systems (up to 200 kW)
- 95% efficiency at rated power (97% peak)
- Parallelable in power shelves (Pii part number: PF-1103-P20N)
- Constant power and constant current protection
- Modbus RS-485 communication protocol



Specifications

Electrical	
Input Voltage	120 Vdc minimum for MPPT; 450 Vdc DCV max
Input Frequency	50 / 60 Hz, DC; auto-sensing
Input Power Factor at Full Load	>0.99
Input Current	16.5 A max
Output Power	3.3 kW
Output Voltage	250 Vdc to 920 Vdc full range; 400 & 800 Vdc nominal 400 V range: adjustable 250 Vdc to 450 Vdc 800 V range: adjustable 450 Vdc to 920 Vdc
Output Current	8.7 A maximum at 400 Vdc range 4.3 A maximum at 800 Vdc range
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)

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Specifications (continued)

Environmental

Operating Temperature	-40 °C to +55 °C at full load; de-rated from +55 °C to +85 °C
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

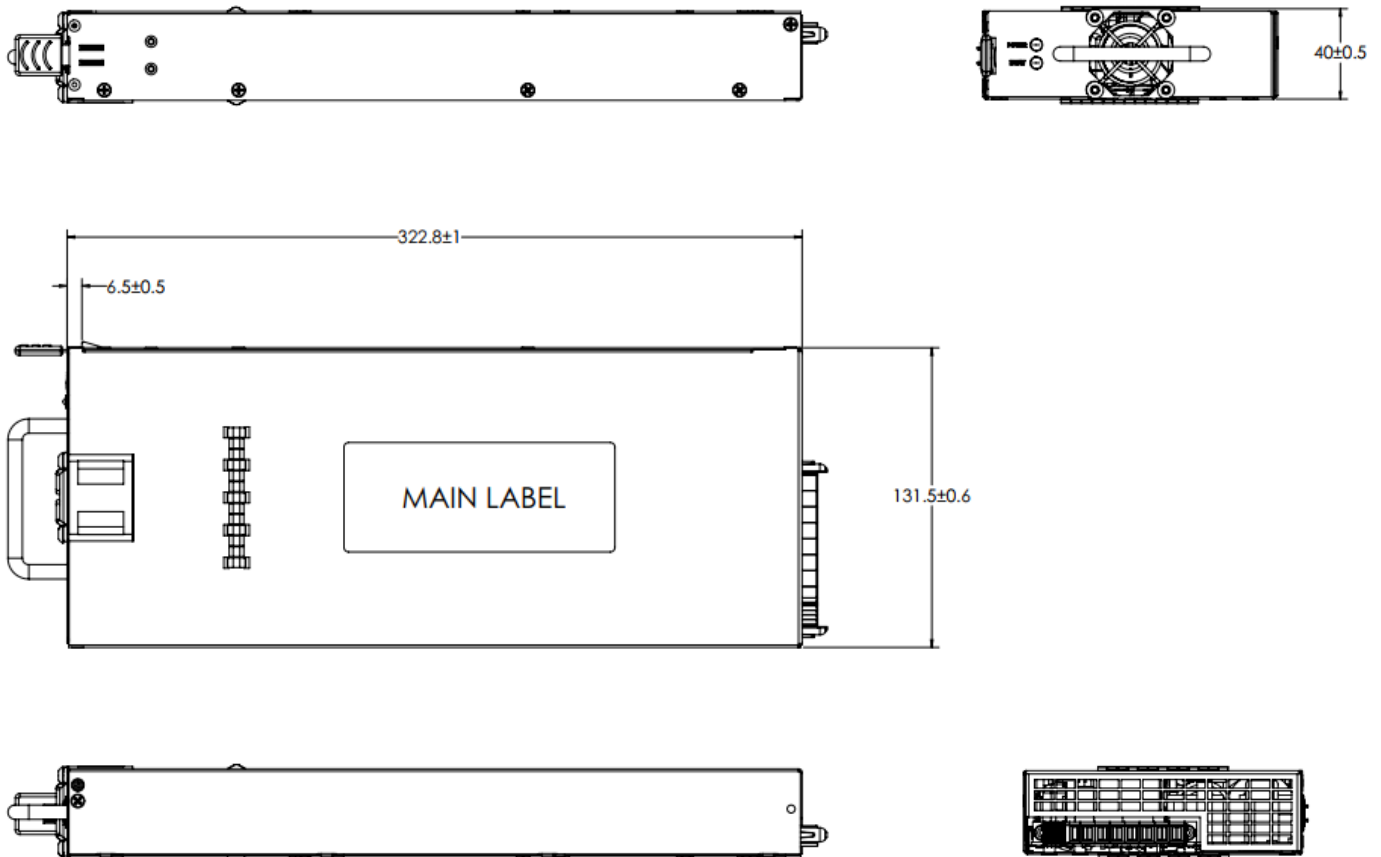
Configurations

PS-2332-01P5-LF	Tab color: Red Airflow direction: Front-to-back airflow
PS-2332-01P6-LF	Tab color: Yellow Airflow direction: Back-to-front airflow

General

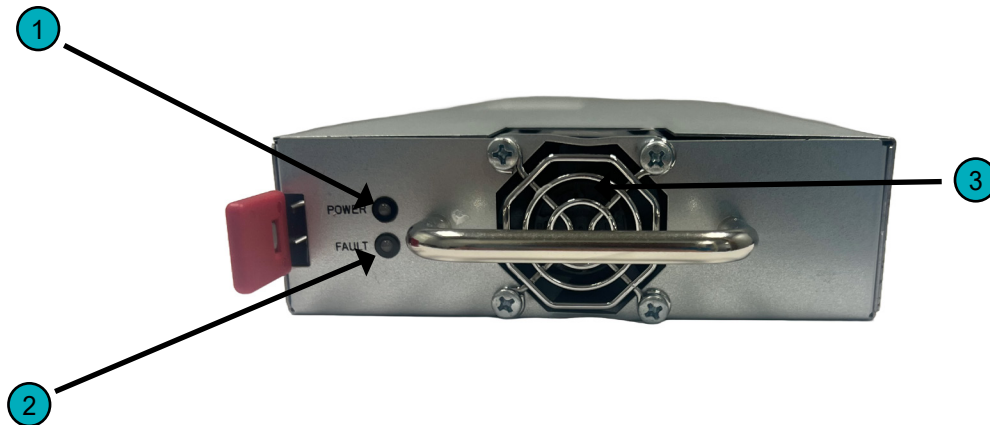
Safety Standards	UL62109-1 (IEC 62109-1)
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Product Dimensions (mm)



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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	Solid Green	Off
Storage Temperature	Blinking Green @ 2 Hz	Off
Output Disable/Fault	Off	Solid Amber
Output Disable/Firmware Update	Off	Blinking Amber @ 2 Hz

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.

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