

LITEON GROUP

Description

This rack controller is part of Power Innovations International's (Pii) power conversion topology that controls its rectifiers or inverters to create a power pack system. The rack controller is a 2.5U height suitable for mounting in a standard EIA 19" wide rack mount enclosure. Rack controllers mate with Pii's power shelves that can control up to 8 power shelves with necessary downstream communication to the power shelves and upstream to external systems. There are two versions of this controller, the CP-48EC-P40U takes AC input and delivers DC output while the CP-48EC-P50U takes DC input and delivers AC output.

Features and Benefits

- Power input and output to downstream rectifier power shelves to create an integrated Power Pack
- CAN communication and Digital IO to external systems to create a PCS system
- Internal contactors for isolation and bias power supply to provide all auxiliary 12 Vdc, 24 Vdc and 48 Vdc power needs (thermal systems, modem, etc)
- 2.5RU height, 19" rack wide mount, 17" deep



CP-48EC-P40U Specifications

Electrical	
Input Voltage	190 – 305 Vac single phase 180 – 480 Vac 3-Phase with Configuration Busbars
Output Voltage	250 – 1000 Vdc
Output Auxiliary Power	24 Vdc, 1 A maximum 48 Vdc, 6.5 A maximum
Mechanical	
Dimensions (W x H x D)	17.56" x 4.34" x 19.2" (446 mm x 110.6 mm x 488.2 mm)
Weight	18.5 lbs (8.4 kg)
Form Factor	2.5 Rack Unit (RU) height, 19" Rack Mount width
Communication	
Digital IO	4 input and output
RS232/RS485	3 ports available (COM 1-3)
USB	2 ports available (USB-A)
CANbus	2 ports available
Environmental	
Operating Temperature	-40 °C to +65 °C
Storage Temperature	-40 °C to +85 °C
Humidity	10% – 90% relative (non-condensing)
Altitude	Operating: 0 m – 3000 m, Storage: 0 m – 15000 m
EMI	CISPR 22 Class A -6dB

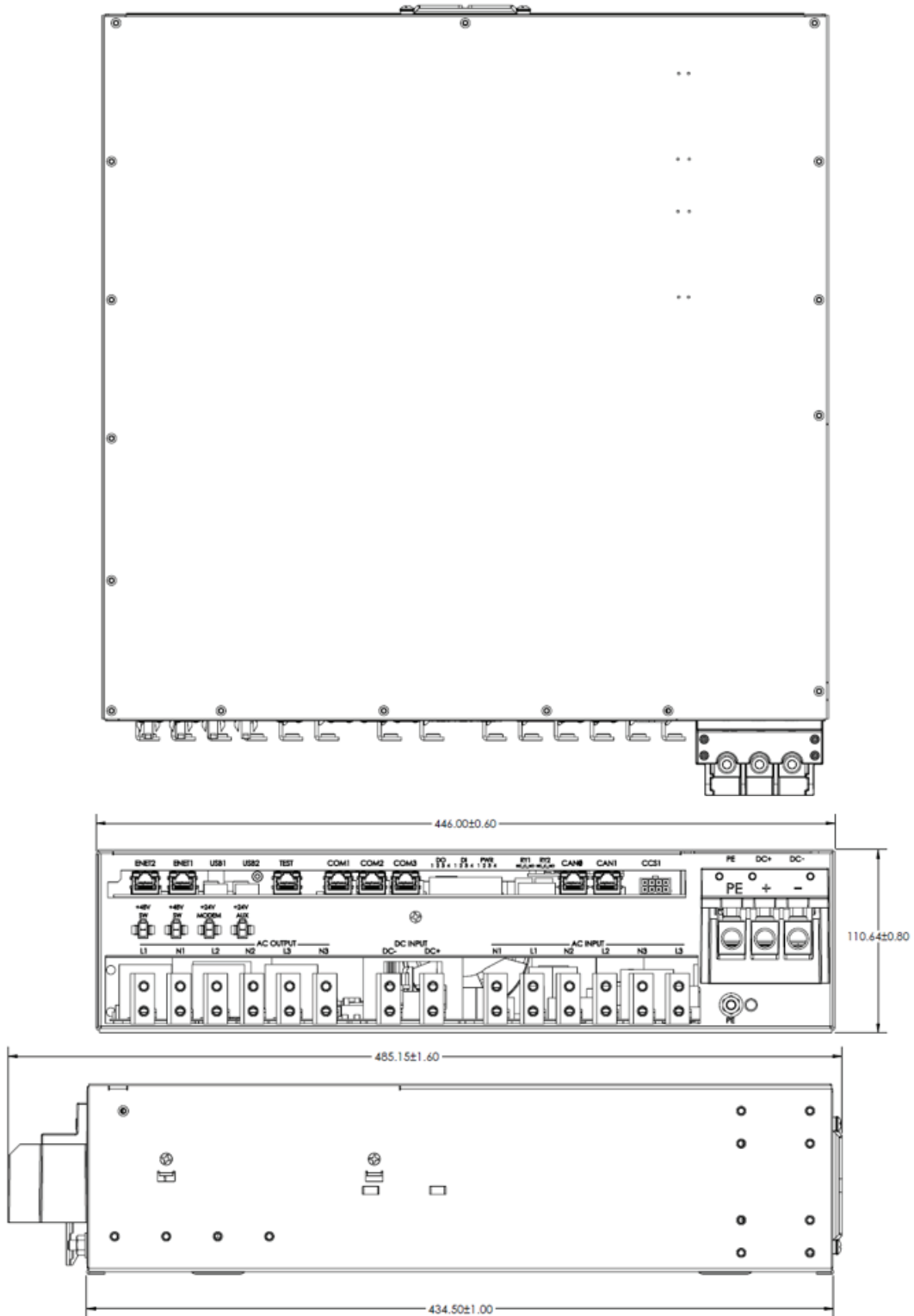
LITEON GROUP

CP-48EC-P50U Specifications

Electrical	
Input Voltage	250 – 900 Vdc
Output Voltage	190 – 305 Vac single phase 180 – 480 Vac 3-Phase with Configuration Busbars
Output Auxiliary Power	12 Vdc, 5 A maximum (Battery Charging) 12 Vdc, 16 A maximum 24 Vdc, 10 A maximum 48 Vdc, 6 A maximum
Mechanical	
Dimensions (W x H x D)	17.56" x 4.34" x 19.2" (446 mm x 110.6 mm x 488.2 mm)
Weight	18.5 lbs (8.4 kg)
Form Factor	2.5 Rack Unit (RU) height, 19" Rack Mount width
Communication	
Digital IO	4 input and output
RS232/RS485	3 ports available (COM 1-3)
USB	2 ports available (USB-A)
CANbus	2 ports available
Environmental	
Operating Temperature	-40 °C to +65 °C
Storage Temperature	-40 °C to +85 °C
Humidity	10% – 90% relative (non-condensing)
Altitude	Operating: 0 m – 3000 m, Storage: 0 m – 15000 m
EMI	CISPR 22 Class A -6dB

LITEON GROUP

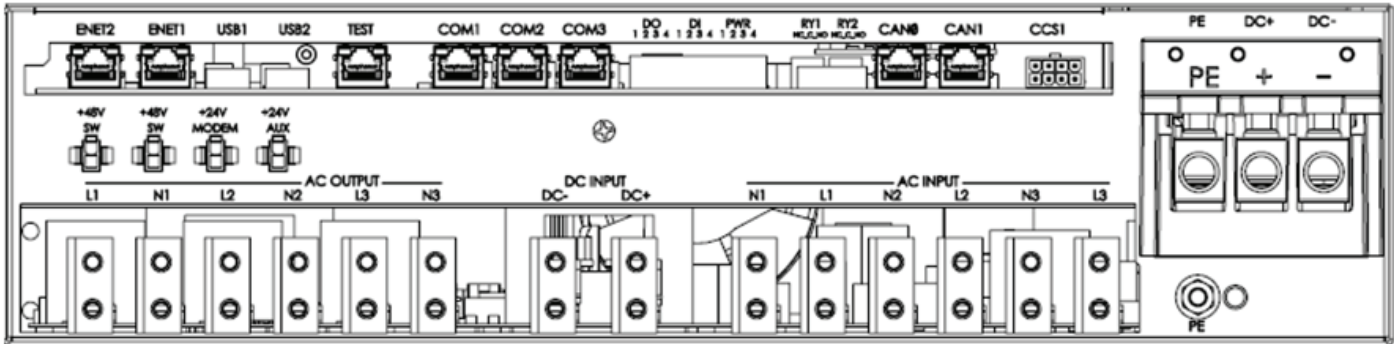
Product Dimensions (mm)



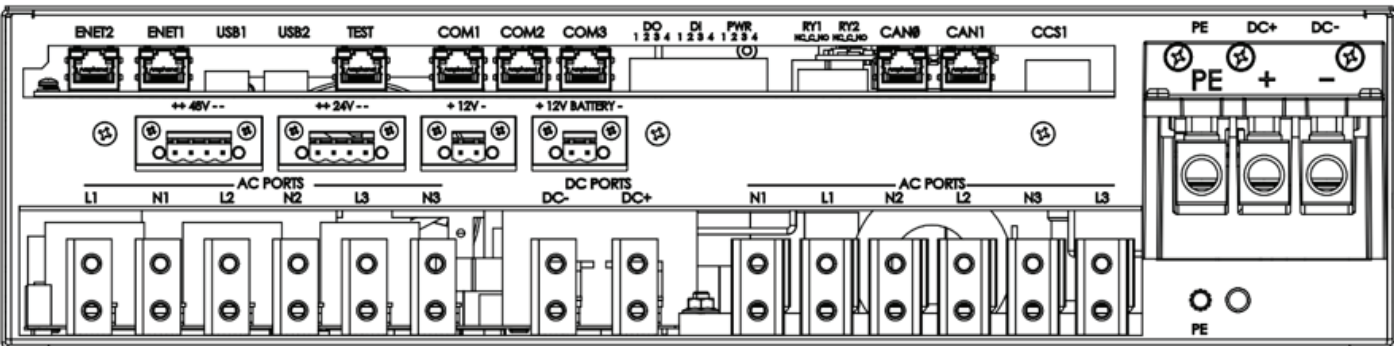
LITEON GROUP

Rear Panel Input/Output

CP-48EC-P40U



CP-48EC-P50U



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.: DATA166
Last Updated: May 14, 2026