# PPL SERIES

Pure Sine Wave
Inverter/Charger

PPL rack mount inverter charger, is specifically designed and produced for boardcast vehicle, telecom system or other special vehicles .

High efficiency, high anti-surge, multi-stage charging, auto switch between AC and DC system to give continuous stable pure sine wave AC power to device. PPL combines CAN-BUS communication port and main battery charger. It is able to satisfy various requirement of monitoring and interactive control.

By the panel on inverter customize the parameters for specific application freely.


## APPLICATIONS

special vehicle

## REMOTE CONTROLLER

PTM-12

## FEATURES

- CAN-BUS+RS485 communication
- Low THD ensure sensitive loads working stably
- MAX. 90A charge current for AGM/GEL/Flooded/Lithium batteries
- High working temperature tolerance for -20~45°C at 100% continuous output
- Battery temperature compensation for energizing battery in cold environment ;Control battery in safe charge regulation in high temperature
- Ultra-low idle consumption to save energy
- Low-frequency technology for inductive loads
- Auto charge with qualified AC input without turning on
- Auto GEN start/stop

## PROTECTIONS

- Input/Output over current
- AC input over/low voltage
- Battery over/low voltage
- Output overload
- Short circuit
- Over temperature

## WORKING MODE

- **Parking Mode, with AC input, inverter OFF**

  When vehicle is parked, with shore or Gen connected, inverter is OFF.
  Inverter works as the battery charger will start work automatically, charge both start battery @3Adc and house battery @Max. 90Adc.
  No AC bypass output from Inverter.

- **Parking Mode, with AC input, inverter ON**

  When vehicle is parked, with shore or Gen connected, inverter is ON.
  Inverter bypass to AC loads by Shore/Gen, no more discharge battery. At the same time give charge to both start battery @3Adc and house battery @Max. 90Adc.

- **Cruise Mode, no AC input, inverter ON**

  Vehicle is on going, no AC input, inverter is ON.
  Inverter convert DC power from battery to be AC power, to provide stable AC power to appliance in vehicle. Can work at -20~50°C environment continuously without power loss.

# RACK-MOUNT INVERTER/CHARGER



| | PPL1000 | PPL2000 | PPL3000 |
|---|---|---|---|
| Rated Power (-20~45°C) | 1000 W | 2000 W | 3000 W |
| **DC Input** | | | |
| Rated DC Voltage | 12VDC (10.0~16.0VDC)（*2 for 24V, *4 for 48V） | | |
| Max. Charge Current | 35A-12V; 20A-24V | 70A-12V; 30A-24V; 15A-48V | 80A-12V; 40A-24V; 25A-48V |
| Battery Type | Lead-Acid/ Gel/ LiFePO4 | Lead-Acid/ Gel/ LiFePO4 | Lead-Acid/ Gel/ LiFePO4 |
| **AC Input** | | | |
| AC Input Range | 170-275VAC | 170-275VAC | 170-275VAC |
| Input Frequency | 45-65Hz | 45-65Hz | 45-65Hz |
| **AC Output** | | | |
| Output Voltage | 230VAC±5% | 230VAC±5% | 230VAC±5% |
| Output Frequency | 60/50Hz±0.3 | 60/50Hz±0.3 | 60/50Hz±0.3 |
| Output Waveform | Pure Sine Wave | Pure Sine Wave | Pure Sine Wave |
| AC/Battery Switch Time | < 8ms | < 8ms | < 8ms |
| Efficiency | >86% | >86% | >85% |
| Overload Ability | 105~120% 10s/ >120% 3s/ >150% 1s | | |
| Max. Bypass | 1800W | 3600W | 4400W |
| Protection | Battery low/over voltage, AC input low/over voltage, AC output short circuit, Over-temp, Overload | | |
| Power Factor | 0.8-1 | 0.8-1 | 0.8-1 |
| Idle Power (save mode) | <5W | <5W | <5W |
| **Protection** | | | |
| Low-volt Alarm/Cutout | 10.0V / 10.5V（*2 for 24V, *4 for 48V）(configurable) | | |
| Overload | AC output shutdown, manual restart inverter after removing fault | | |
| Short Circuit | AC output shutdown, manual restart inverter after removing fault | | |
| DC Over Voltage | 16.5V（*2 for 24V, *4 for 48V） | | |
| **General** | | | |
| Working Temp | -10~45°C | -10~45°C | -10~45°C |
| Storage Temp | -20~70°C | -20~70°C | -20~70°C |
| Work/Storage Humidity | 0-90% No condensation | 0-90% No condensation | 0-90% No condensation |
| Dimension (W*D*H) | 482*400*132 mm | 482*400*176 mm | 482*400*176 mm |

# RACK-MOUNT INVERTER/CHARGER



| | PPL4000 | PPL5000 | PPL6000 |
|---|---|---|---|
| Rated Power (-20~45°C) | 4000 W | 5000 W | 6000 W |
| **DC Input** | | | |
| Rated DC Voltage | 24VDC (20.0~32.0VDC) (*2 for 48V) | | |
| Max. Charge Current | 50A-24V; 30A-48V | 70A-24V; 40A-48V | 75A-24V; 50A-48V |
| Battery Type | Lead-Acid/ Gel/ LiFePO4 | Lead-Acid/ Gel/ LiFePO4 | Lead-Acid/ Gel/ LiFePO4 |
| **AC Input** | | | |
| AC Input Range | 170-275VAC | 170-275VAC | 170-275VAC |
| Input Frequency | 45-65Hz | 45-65Hz | 45-65Hz |
| **AC Output** | | | |
| Output Voltage | 230VAC±5% | 230VAC±5% | 230VAC±5% |
| Output Frequency | 60/50Hz±0.3 | 60/50Hz±0.3 | 60/50Hz±0.3 |
| Output Waveform | Pure Sine Wave | Pure Sine Wave | Pure Sine Wave |
| AC/Battery Switch Time | < 8ms | < 8ms | < 8ms |
| Efficiency | >86% | >86% | >85% |
| Overload Ability | 105~120% 10s/ >120% 3s/ >150% 1s | | |
| Max. Bypass | 4400W | 6600W | 6600W |
| Protection | Battery low/over voltage, AC input low/over voltage, AC output short circuit, Over-temp, Overload | | |
| Power Factor | 0.8-1 | 0.8-1 | 0.8-1 |
| Idle Power (save mode) | <5W | <5W | <5W |
| **Protection** | | | |
| Low-volt Alarm/Cutout | 20.0V / 21.0V (*2 for 48V) | | |
| Overload | AC output shutdown, manual restart inverter after removing fault | | |
| Short Circuit | AC output shutdown, manual restart inverter after removing fault | | |
| DC Over Voltage | 33.0V (*2 for 48V) | | |
| **General** | | | |
| Working Temp | -10~45°C | -10~45°C | -10~45°C |
| Storage Temp | -20~70°C | -20~70°C | -20~70°C |
| Work/Storage Humidity | 0-90% No condensation | 0-90% No condensation | 0-90% No condensation |
| Dimension (W*D*H) | 482*400*176 mm | 482*400*176 mm | 482*400*176 mm |