

PLV SERIES LOW VOLTAGE SPLIT PHASE HYBRID SOLAR INVERTER

3kW Single Phase/Split Phase 110VAC/120VAC

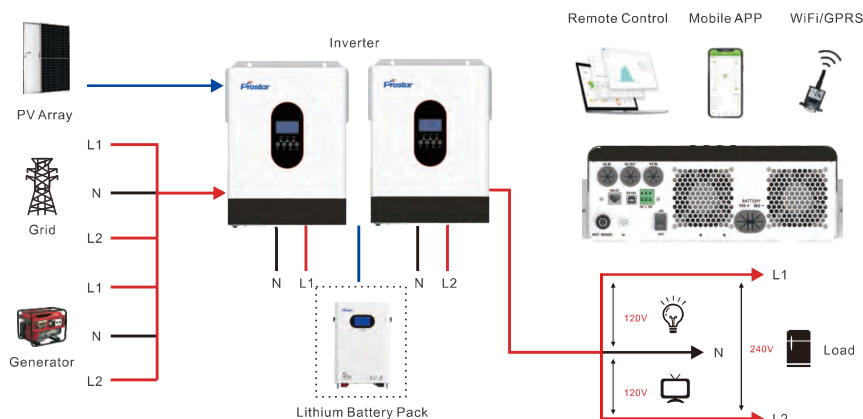


Performance Characteristics

1. Pure sine wave
2. Power factor 1.0
3. Wide PV input voltage range: up to 500Vdc
4. Built-in 80A/100A MPPT solar controller
5. Capable to work without battery
6. Optional WiFi monitoring
7. LiFePO4 battery compatibility via RS485
8. Parallel operation supporting up to 12 units for single-phase, split phase and three-phase systems
9. Detachable dust cover for harsh environment
10. Battery equalization function to optimize battery performance and extend lifecycle

PLV series off-grid hybrid solar inverter is a multifunctional device that effectively integrates the functions of an inverter, mppt solar charger, and battery charger. It is engineered to deliver uninterrupted power in a compact and portable design. Users can effortlessly configure and operate it through the intuitive LCD display, enabling adjustments to battery charging current, AC/Solar charger priority, input voltage acceptance, all of which can be customized to suit various applications. Especially, this solar inverter can deliver 110V or 120V output and has the capability to be paralleled with another unit, facilitating the creation of a split-phase 110V/220V or 120V/240V system.

Application Diagram



Technical Specifications

MODEL	PLV3K-24L	PLV3K-48PL
Capacity	3KVA/3KW	
Dimensions,DxWxH(mm)	448x315x122	
Package Dimensions,DxWxH(mm)	540x390x217	
Net Weight(Kg)	10	
Parallel Capability	No	YES, 12 Units
Split Phase Operation	No	YES, need at least 2 units parallel
INPUT		
Nominal Voltage	110/120VAC	
Acceptable Voltage Range	95-140VAC(For personal Computer);65-140VAC(For Home Appliances)	
Frequency	50/60 Hz(Auto sensing)	
OUTPUT		
Nominal Voltage	110/120VAC±5%	
Surge Power	6000VA	
Frequency	50/60HZ	
Waveform	Pure Sine Wave	
Transfer Time	10ms(For Personal Computer);20ms(For Home Appliances)	
Peak Efficiency(PV to INV)	97%	
Peak Efficiency(Battery to INV)	93%	
Overload Protection	5s@>=140% load; 10s@110%~ 140% load	
Crest Factor	3:1	
Admissible Power Factor	0.6-1 (Inductive or Capacitive)	
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	77VDC	54VDC
OverCharge Protection	31VDC	63VDC
Charging Method	CC/CV	
Lithium Battery Activation	Yes	No
Lithium Battery Communication	Yes(RS483)	Yes(RS485)
SOLAR CHARGER & AC CHARGER		
Max.PV Array Power	4000W	5000W
Solar Charger Type	MPPT	
Max.PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC-500VDC	120VDC-500VDC
Max.Solar Input Current	18A	
Max.Solar Charge Current	100A	80A
Max.AC Charge Current	80A	60A
Max.Charge Current	100A	80A
COMMUNICATION		
Communication Interface	RS485 /RS232/Dry Contact	
ENVIRONMENT		
Operating Temperature Range	-10°C to 50°C	
Storage Temperature	-15°C to 50°C	
Humidity	5% to 95% Relative Humidity(Non-condensing)	