PIE SERIES HYBRID SOLAR INVERTER

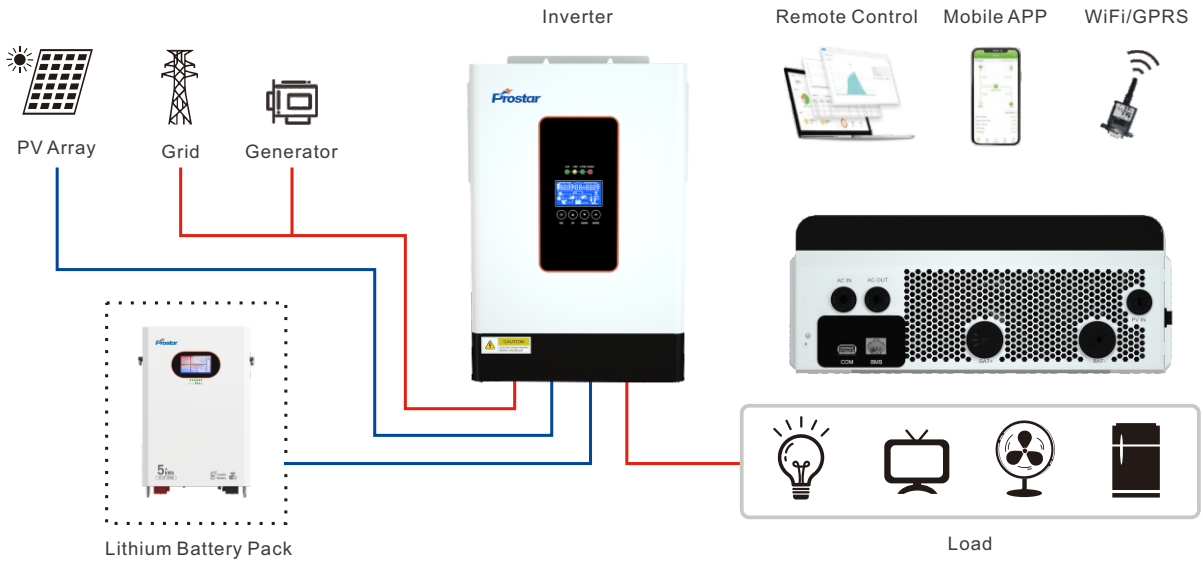
1.2kW/3.6kW/6.5kW/12kW 208VAC/220VAC/230VAC/240VAC

Performance Characteristics

1. Pure sine wave output
2. Integrated MPPT solar charge controller
3. User-selectable input-voltage window for household appliances and Pcs
4. Adjustable battery-charge current
5. Wide PV input window: 40VDC–450VDC
6. Battery-less operation: powers loads directly from PV or grid
7. LCD-configurable AC/PV input priority
8. Mains or generator input compatible
9. Automatic restart on AC recovery
10. Overload & short-circuit protection
11. Multi-stage battery charger to optimize capacity and extend cycle life
12. Cold-start capability
13. Optional Wi-Fi for remote monitoring
14. USB & RS-232 communication ports

Prostar PIE series 1.2kW/3.6kW/6.5kW/12kW hybrid inverter is equipped with an MPPT solar charge controller to maximize and regulate the DC power from the solar array for charging the battery bank. Its comprehensive LCD display offers user-configurable and easily accessible button operations, such as setting the battery charging current, selecting AC/solar charger priority, and configuring the acceptable input voltage based on different applications. The maximum PV array open-circuit voltage can reach 500V, and the MPPT voltage range is 40V-450V, enabling users to make full use of solar energy. It can also continue to supply power to the loads from PV energy or the grid without a battery connected.

Application Diagram



Technical Specifications

MODEL	PIE1.2K-12L	PIE3.6K-24L	PIE6.5K-48L	PIE12K-48L
Capacity	1.2KVA/1.2KW	3.6KVA/3.6KW	6.5KVA/6.5KW	12KVA/12KW
Product Dimensions (DxWxH mm)	301x217x110	435x285x110	410x336x128	495x425x135
Net Weight (Kg)	3.5	6.6	10.2	17
Parallel Capability	No	No	No	No
Grid-tie Function	No	Yes	Yes	Yes
INPUT				
Nominal Voltage	208/220/230/240VAC			
Acceptable Voltage Range	90~280VAC±3 (Normal Mode); 170~280VAC±3 (UPS Mode)			
Frequency Range	40Hz-70Hz			
Power Factor	1			
OUTPUT				
Nominal Voltage	208/220/230/240VAC±5%			
Surge Power	2400VA	6700VA	12000VA	24000VA
Frequency	Line Mode: Synchronized range; Battery Mode: 50Hz/60Hz±0.1%			
Waveform	Pure Sine Wave			
Transfer Time	10ms (Normal Mode) / 10ms (UPS Mode)			
Max. Efficiency (Battery Mode)	90%@12VDC	92.7%@24VDC	94%@48VDC	
Harmonic Distortion	⩽3% (Linear Load), ⩽5% (Non-linear Load)			
Overload Capacity (Battery Mode)	60s @102%~110% Load 10s @120%~200% Load	60s @102%~110% Load, 10s @110%~130% Load, 3s @130%~150% Load, 0.2s @>150% Load	60s @102%~120% Load, 10s @>120% Load	60s @102%~125% Load, 10s @>125% Load
BATTERY				
Battery Voltage	12VDC	24VDC	48VDC	
Floating Charge Voltage	13.5VDC	27VDC	54VDC	
Over Charge Protection	16VDC	30.5VDC	61VDC	
Charging Mode	Two Stage(CC/Float) / Three Stage(CC/CV/Float) / PV Charging(Settable)			
SOLAR CHARGER & AC CHARGER				
Solar Charger Type	MPPT			
Max. PV Input Current / Input Power	18A/800W	18A/5000W	27A/9000W	22.5A+22.5A/15000W
MPPT Range @ Operating Voltage	17~115VDC	40~450VDC	60~450VDC	
Max. PV Open Circuit Voltage	115VDC	500VDC		
Max. PV Charge Current	50A	100A	120A	160A
Max. AC Charge Current	50A	100A	120A	160A
Max. Charge Current (PV+AC)	100A	100A	120A	160A
PHYSICAL				
Communication Interface	RS232/RS485/USB/Dry Contact			
Monitoring	WiFi (Optional)			
ENVIRONMENT				
Operating Temperature Range	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Ingress Protection	IP21			