PIE SERIES OFF GRID HYBRID SOLAR INVERTER

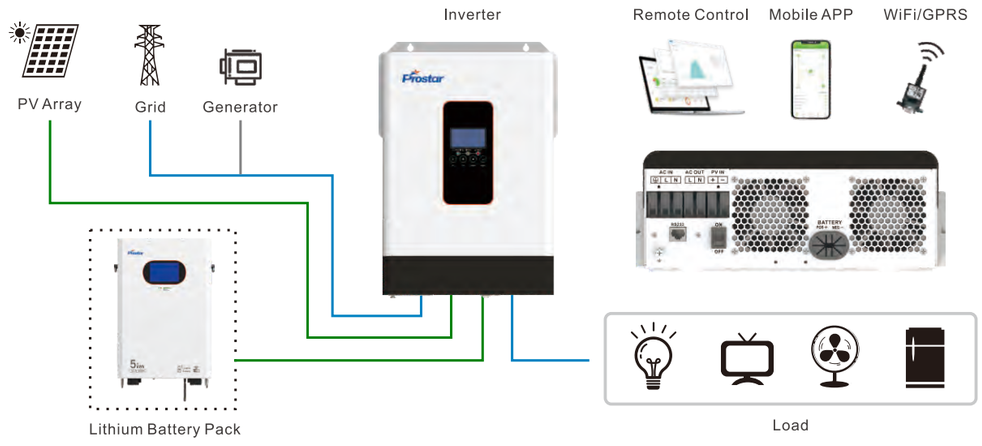
3.5kW/5.5kW/6.2kW 220VAC/230VAC

Performance Characteristics

1. Pure sine wave
2. Power factor 1.0
3. PV input voltage 60Vdc-500Vdc
4. Built-in 100A/120A MPPT solar controller
5. Lithium battery activation
6. Optional WiFi monitoring
7. LiFePO4 battery compatibility via RS485
8. Support multiple output priority: Utility Priority, Solar Priority, Solar > Battery > Utility, Solar > Utility > Battery
9. Equalization function to optimize battery performance and extend lifecycle
10. Detachable dust cover for harsh environment

The PIE series of off-grid hybrid solar inverter offers a pure sine wave output, boasting utility power factor and wide PV input voltage support (60Vdc - 500Vdc). With built-in 100A/120A MPPT solar controller, this solar inverter is highly efficient and versatile. It can activate lithium batteries, support WiFi monitoring, and communicate with LiFePO4 batteries via RS485. Additionally, it features multiple output priority working modes and includes an equalization function for optimizing battery performance. The PIE series is exceptionally ideal for various applications and can handle challenging environmental conditions with ease.

Application Diagram



Technical Specifications

MODEL	PIE3.5K-24L	PIE5.5K-48L	PIE6.2K-48L
Capacity	3.5KVA/3.5KW	5.5KVA/5.5KW	6.2KVA/6.2KW
Product:DxWxH(mm)	358x295x100	438x295x105	
Package:DxWxH(mm)	465x380x175	560x375x185	
Net Weight(Kg)	7	9	9
Parallel Capability	NO	NO	NO
INPUT			
Nominal Voltage	220/230VAC		
Acceptable Voltage Range	170-280VAC(For Personal Computer);90-280vac(For Home Appliances)		
Frequency	50/60 Hz(Auto Sensing)		
OUTPUT			
Nominal Voltage	220/230VAC±5%		
Surge Power	7000VA	11000VA	12400VA
Frequency	50/60Hz		
Waveform	Pure Sine Wave		
Transfer Time	10ms(For Personal Computer);20ms(For Home Appliances)		
Peak Efficiency(PV to INV)	96%		
Peak Efficiency(Battery to INV)	93%		
Overload Protection	5s@>=150% Load; 10s@110%~150% Load		
Crest Factor	3:1		
Admissible Power Factor	0.6-1 (Inductive or Capacitive)		
BATTERY			
Battery Voltage	24VDC	48VDC	48VDC
Floating Charge Voltage	27VDC	54VDC	54VDC
OverCharge Protection	33VDC	63VDC	63VDC
Charging Method	CC/CV		
Lithium Battery Activation	Yes		
Lithium Battery Communication	Yes(RS485)		
SOLAR CHARGER & AC CHARGER			
Solar Charger Type	MPPT		
Max.PV Array Power	4000W	5500W	6500W
Max.PV Array Open Circuit Voltage	500VDC		
PV Array MPPT Voltage Range	60VDC-500VDC		
Max.Solar Input Current	15A	18A	27A
Max.Solar Charge Current	100A	100A	120A
Max.AC Charge Current	60A	80A	80A
Max.Charge Current	100A	100A	120A
PHYSICAL			
Communication Interface	RS232+RS485		
ENVIRONMENT			
Operating Temperature Range	-10°C to 50°C		
Storage Temperature	-15°Cto 50°C		
Humidity	5% to 95% Relative Humidity(Non-condensing)		

PIE SERIES OFF GRID HYBRID SOLAR INVERTER

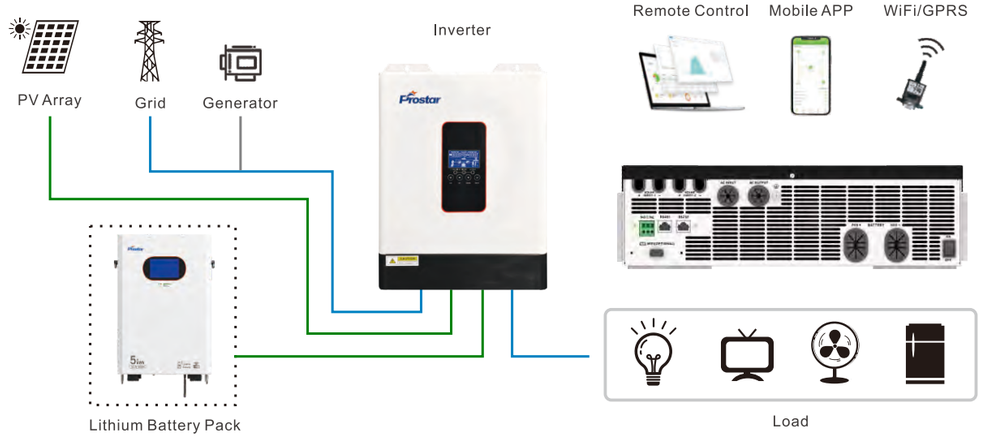
8.5kW/11kW 220VAC/230VAC

Performance Characteristics

1.Built-in 2 MPPT
2.Lithium battery activation function by PV or Utility
3.Compatible work with LiFePO4 battery via RS485
4.Pure sine wave
5.Power factor 1.0
6.PV Input 500Vdc Max
7.Built-in MPPT 140A/160A
8.Capable to work without battery
9.Detachable dust cover for harsh environment
10.Wifi remote monitoring optional
11.Support multiple output priority: UTL,SOL,SBU,SUB
12.EQ function to optimize battery performance and extend lifecycle

This solar inverter features dual built-in MPPT solar charge controllers with a capacity of 140A/160A for optimal energy harvesting. It is compatible with LiFePO4 lithium batteries through RS485 communication and can activate lithium batteries via PV or utility power. The pure sine wave output ensures stable and clean power for sensitive electronics. Supporting up to 500Vdc PV input allows for greater energy capture. It can function without a battery, providing flexibility for various applications. Designed for harsh environments, it includes a detachable dust cover for enhanced durability and longevity. It supports UTL, SOL, SBU, and SUB priority modes for versatile energy management.

Application Diagram



Technical Specifications

MODEL	PIE8.5K-48L	PIE11K-48L
Capacity	8.5KVA/8.5KW	11KVA/11KW
Maximum PV Input Power	10KW	11KW
Dimensions,D×W×H(mm)	540×415×122	540×415×122
Net Weight (Kg)	14	15
Parallel Capability	NO	NO
Lithium Battery Activation	YES(By PV or Utility)	
Lihium Battery Communication	YES(RS485)	
INPUT		
Nominal Voltage	220/230/240VAC	
Acceptable Voltage Range	170-280VAC(For Personal Computer);90-280VAC(For Home Appliances)	
Frequency	50/60 Hz(Auto Sensing)	
OUTPUT		
Nominal Voltage	220/230/240VAC	
Surge Power	17000VA	22000VA
Frequency	50/60 Hz	
Waveform	Pure Sine Wave	
Transfer Time	10ms(For Personal Computer);20ms(For Home Appliances)	
Peak Efficiency	94%	
Overload Protection	5s@>=140% Load;10s@110%~140% Load	
Admissible Power Factor	0.6~1(Inductive or Capacitive)	
Grid-tie Operation	Option	
BATTERY		
Battery Voltage	48VDC	48VDC
Maximum Discharge Current	180A	220A
Floating Charge Voltage	54VDC	54VDC
Over Charge Protection	63VDC	63VDC
Charging Method	CC/CV	
SOLAR CHARGER & AC CHARGER		
Solar Charger TYPE	MPPT	MPPT
Max.PV Array Power	5000Wx2	5500Wx2
Max.PV Array Open Circuit Voltage	500VDC	500VDC
PV Array MPPT Voltage Range	60VDC~500VDC	60VDC~500VDC
Max.Solar Input Current	18Ax2	18Ax2
Max.Solar Charge Current	140A	160A
Max.AC Charge Current	120A	120A
Max.Charge Current	140A	160A
PHYSICAL		
Communication Interface	RS232/RS485/DRY Contact	
LCD	YES	
ENVIRONMENT		
Operating Temperature Range	-10°C to 55°C	
Storage Temperature	-15°C~60°C	
Humidity	5%to 95% Relative Humidity (Non-condensing)	