


PIM SERIES HYBRID SOLAR INVERTER

6.5kW/12kW Parallel 208VAC/220VAC/230VAC/240VAC

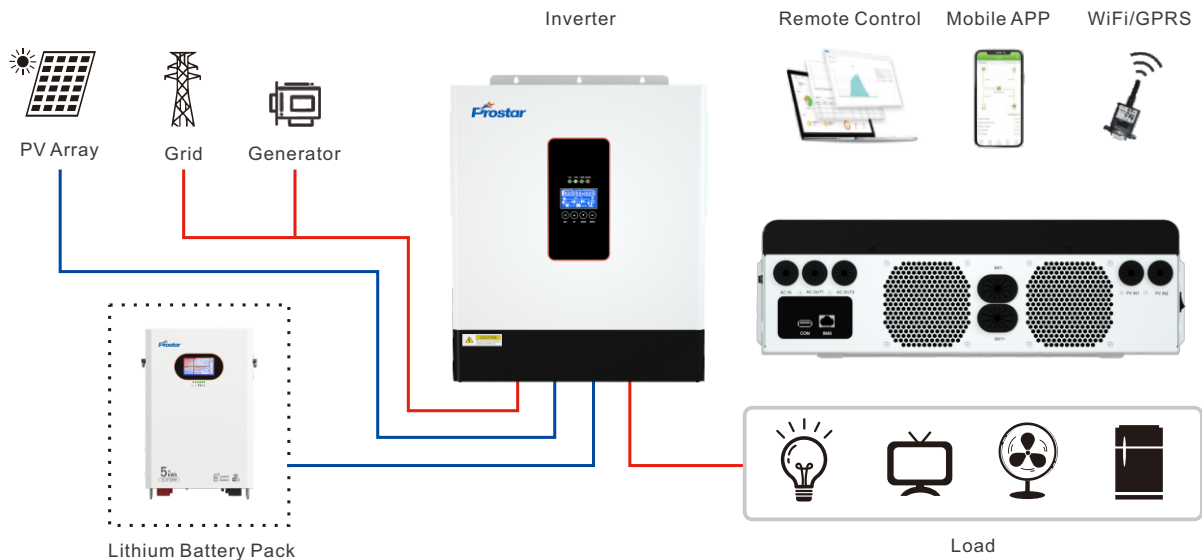


Performance Characteristics

1. Parallel-ready design supports up to 9 units in single-phase or three-phase systems, delivering flexible scalability and higher power density
2. Battery-less parallel operation enables system startup without batteries, reducing initial investment and improving deployment flexibility
3. Fault-isolated parallel architecture ensures uninterrupted operation, as failed units do not affect other inverters in the system
4. Ultra-fast 10 ms grid/off-grid transfer in parallel mode guarantees seamless power continuity for critical applications
5. Dual AC outputs intelligently prioritize critical loads, maximizing energy utilization across standalone and parallel configurations
6. BMS-compatible architecture supports both lead-acid and lithium batteries for precise and reliable energy management
7. Cold start via PV or utility power allows rapid recovery from fully discharged lithium batteries, enhancing system resilience
8. One WiFi module enables centralized cloud monitoring of up to 9 parallel inverters with remote OTA upgrade capability

Prostar PIM Series hybrid solar inverter (6.5kW / 12kW) is designed for scalable and high-reliability solar power systems. With advanced parallel capability, the series supports up to 9 inverters operating together in single-phase or three-phase configurations, allowing flexible capacity expansion as energy demands grow. Stable multi-inverter coordination and fast grid/off-grid transfer ensure continuous power supply, making the PIM Series an ideal solution for residential, commercial, and light industrial hybrid or off-grid applications.

Application Diagram



Technical Specifications

MODEL	PIM6.5K-48TL	PIM12K-48TL
Capacity	6.5KVA/6.5KW	12KVA/12KW
Product Dimensions (DxWxH mm)	410x336x128	495x425x135
Net Weight (Kg)	10.2	17
Parallel Capability	Yes	
Grid-tie Function	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%	
Main Output Power	6.5KVA/6.5KW	12KVA/12KW
Second Output	Yes (Setting Power Via LCD)	
Surge Power	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)	94%@48VDC	
Harmonic Distortion	≤3% (Linear Load), ≤5% (Non-linear Load)	
Overload Capacity (Battery Mode)	60s @102%~120% Load, 10s @>120% Load	60s @102%~125% Load, 10s @>125% Load
BATTERY		
Battery Voltage	48VDC	
Floating Charge Voltage	54VDC	
Over Charge Protection	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	27A/9000W	22.5A+22.5A/15000W
MPPT Range @ Operating Voltage	60~450VDC	
Max. PV Open Circuit Voltage	500VDC	
Max. PV Charge Current	120A	160A
Max. AC Charge Current	120A	160A
Max. Charge Current (PV+AC)	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	