PEI LV SERIES SPLIT PHASE ENERGY STORAGE INVERTER

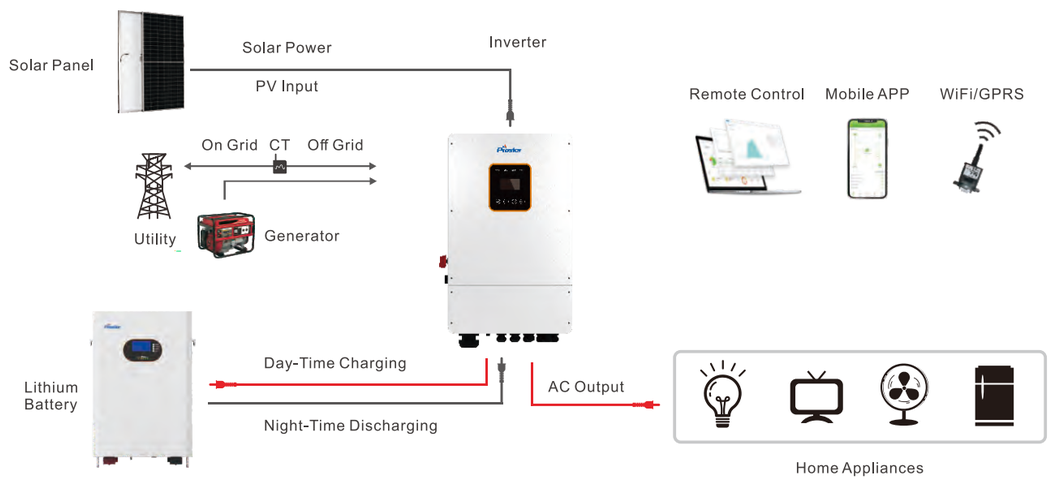
5KW-10KW 110VAC/220VAC 120VAC/240VAC

Performance Characteristics

1.Unbalanced Load Support: Capable of handling 100% unbalanced loads.
2.Three-Phase & Parallel Functionality: Supports 208Vac three-phase operation and parallel connection of multiple units
3.Multi-Unit Parallel Operation: Enables parallel connection of multiple inverters with shared battery packs
4.High Load Capacity: Single-unit load capacity of up to 100A
5.Advanced Parallel Control: Features parallel SOC equalization and current sharing control for balanced performance
6.High Efficiency Design: Utilizes split-phase topology without transformers, improving system efficiency
7.Multi-Source Integration: Supports simultaneous connection to diesel generators and the grid
8.Retrofit Compatibility: AC coupling allows integration with existing solar systems (on-grid and off-grid)

PEI LV Series Split Phase Low Voltage Energy Storage Inverter, designed for residential energy storage, operates at 48V with a split-phase configuration. It supports power outputs of up to 10KW and is ideal for various home energy storage applications. With the capability to parallel up to six units and an integrated intelligent display, this inverter ensures enhanced operational and maintenance convenience.

Application Diagram



Technical Specifications

Model	PEI5K-LV	PEI6K-LV	PEI7.6K-LV	PEI8K-LV	PEI10K-LV
PV String Input					
Max.DC Input Power (kW)	7.5	9	12		15
No. of MPPT Trackers	4				
MPPT Voltage Range (V)	120~500				
MAX.DC Input Voltage (V)	500				
MAX. Input Current (A)	14				
MAX. Short Circuit Current (A)	22				
Battery input					
Nominal Voltage (V)	48				
MAX.Charging/Discharging Current (A)	120/120	135/135	190/190		190/210
Battery Voltage Range (V)	40-60				
Battery Type	Lithium /Lead-acid				
Charging Strategy For Li-Ion Battery	Self-adaption to BMS				
AC Output(On-Grid)					
Nominal Output Power Output to Grid (kVA)	5	6	7.6	8	10
MAX. Apparent Power Output to Grid (kVA)	5.5	6.6	8.4	8.8	11
Output Voltage Range (V)	(110~120)/(220~240)Split Phase, 240V Single Phase				
Output Frequency (Hz)	60(55 to 65)				
Nominal AC Current Output to Grid (A)	20.8	25	31.7	33.3	41.7
Max. AC Current Output to Grid (A)	22.9	27.5	34.8	36.7	45.8
Max. Grid Passthrough Current (A)	100				
Output THDi	<3%				
AC Output(back-up)					
Nominal. Apparent Power (kVA)	5	6	7.6	8	10
Max. Apparent Power (kVA)	5.5	6.6	8.4	8.8	11
Nominal Output Voltage L-N/L1-L2 (V)	110/220 or 120/240				
Nominal Output Frequency (Hz)	60				
Automatic Switchover Time (ms)	<20				
Output Power Factor	0.8 Leading~0.8 Lagging				
Output THDu	<2%				
General Data					
Mppt Efficiency	99.90%				
Europe Efficiency (PV)	96.50%				
PV To Grid Efficiency (PV)	97.20%				
Battery To Load Efficiency	95.20%				
PV to Battery Charing Efficiency	96.10%				
Grid to Battery Charing Efficiency	95.00%				
Output Conduit (mm)	25.4				
PV Input Conduit (mm)	25.4				
BAT Input Conduit (mm)	35.4				
Operating Temperature Range (℃)	-25~+60				
Relative Humidity	0-95%				
Operating Altitude	0~4,000m(Derating Above 2,000m Altitude)				
Ingress Protection	IP65/NEMA 3R				
Built-in Breaker	Optional				
Weight (kg)	48kg(50kg With Breaker)				
Dimensions WxHxD (mm)	450x820x240				
Cooling	FAN Cooling				
Noise Emission (dB)	38				
Display	LCD,Touch Panel(Optinal)				
Communication With BMS/Meter/EMS	RS485, CAN				
Supported Communication Interface	RS485, WLAN, 4G (Optional)				
Self-consumption	<25W				
Safety	UL1741SA All Options, UL1699B, CSA 22.2				
EMC	FCC Part 15 Class B				
Support Diesel Generator	YES				
Grid Connection Standards	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II,III				
Other Data					
Peak Power (Off Grid)	105%,60s / 110%,30s / 120%,10s / 150%,20ms				