

Hybrid HbiPro®



Hybrid HBI PRO PV INVERTER

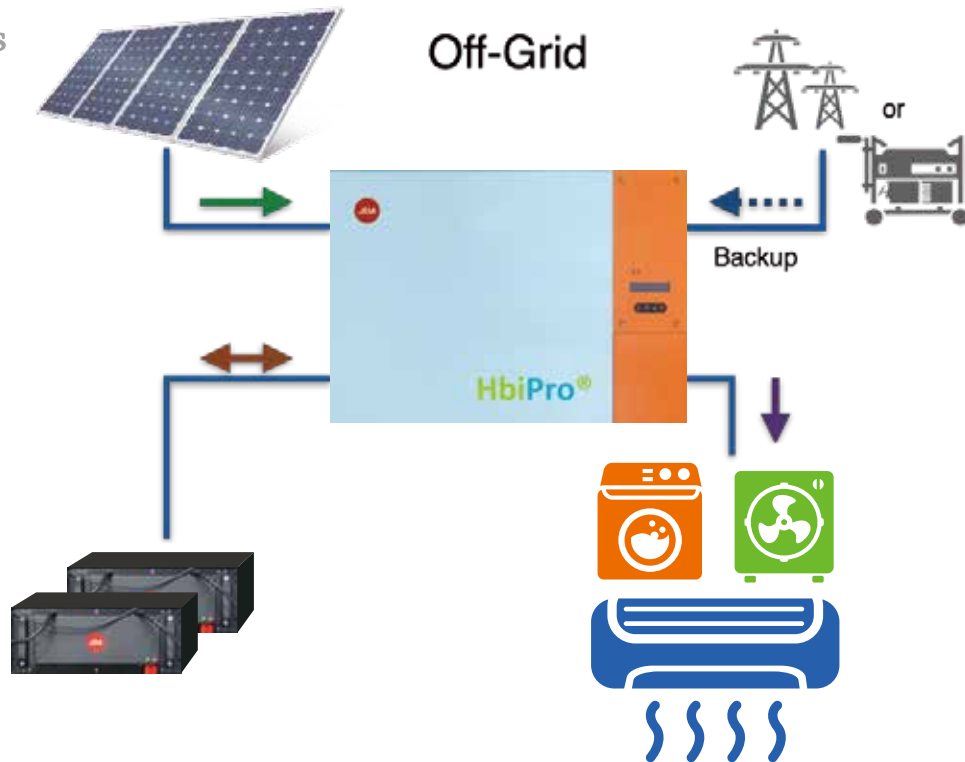
Standalone

Best solution for Photovoltaic and Storage

FEATURES

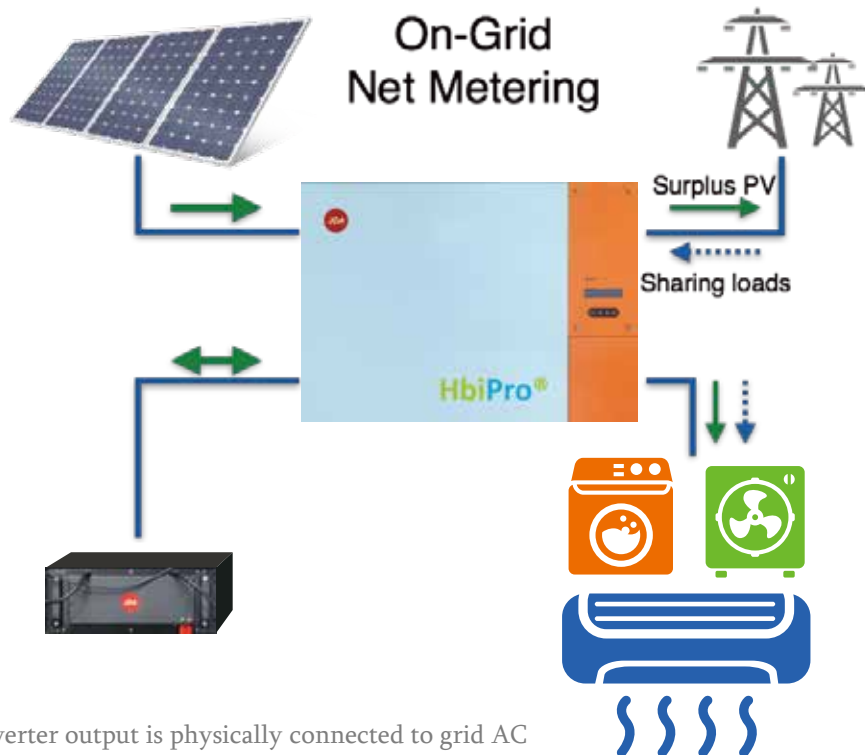
- All-in-One
- Higher Power. PF=1
- 96.5% High Efficiency
- Standalone/Grid Interactive
- 100A Charging Current (6k)
- 200% Overload
- Wall or 19" mount optional
- 2 Independent MPPT (6k)
- Net-metering & Self-use
- VRLA & LiFePO₄ Batteries & others
- USB Firmware Update
- High Temp. & Humidity
- Rack Mount (Optional)
- Parallel & 3-phase Operations

Operation Modes



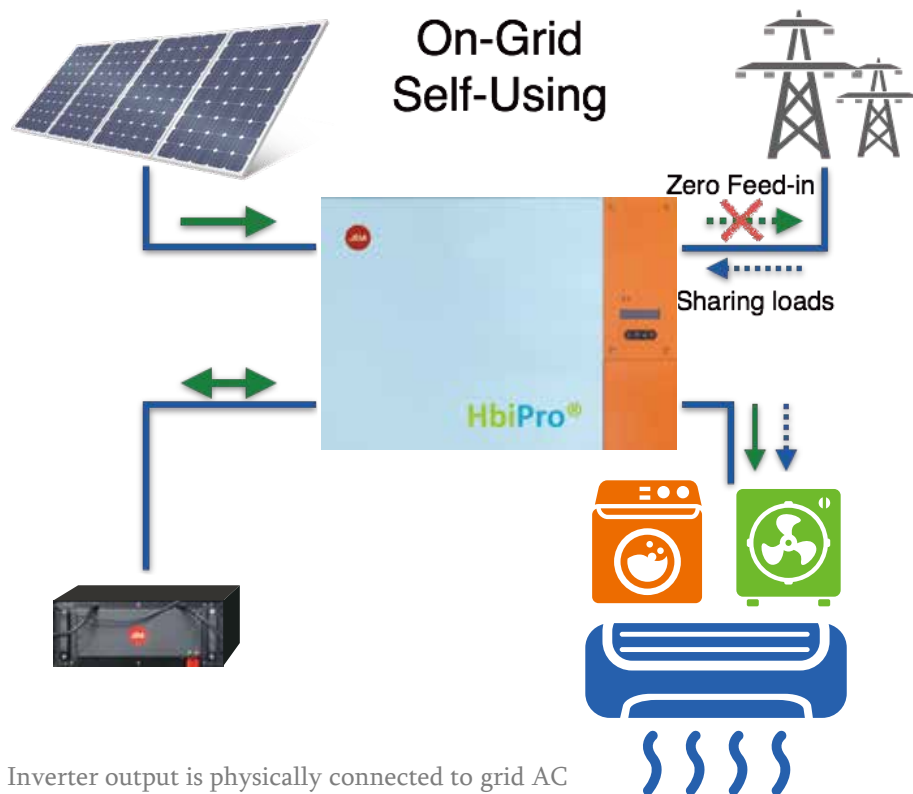
Operations

- AC grid or genset acts as backup sources
- Inverter supplies loads from PV and/or batteries
- Surplus PV power is used to charge batteries
- Loads will be switched to AC input automatically while needed



Operations

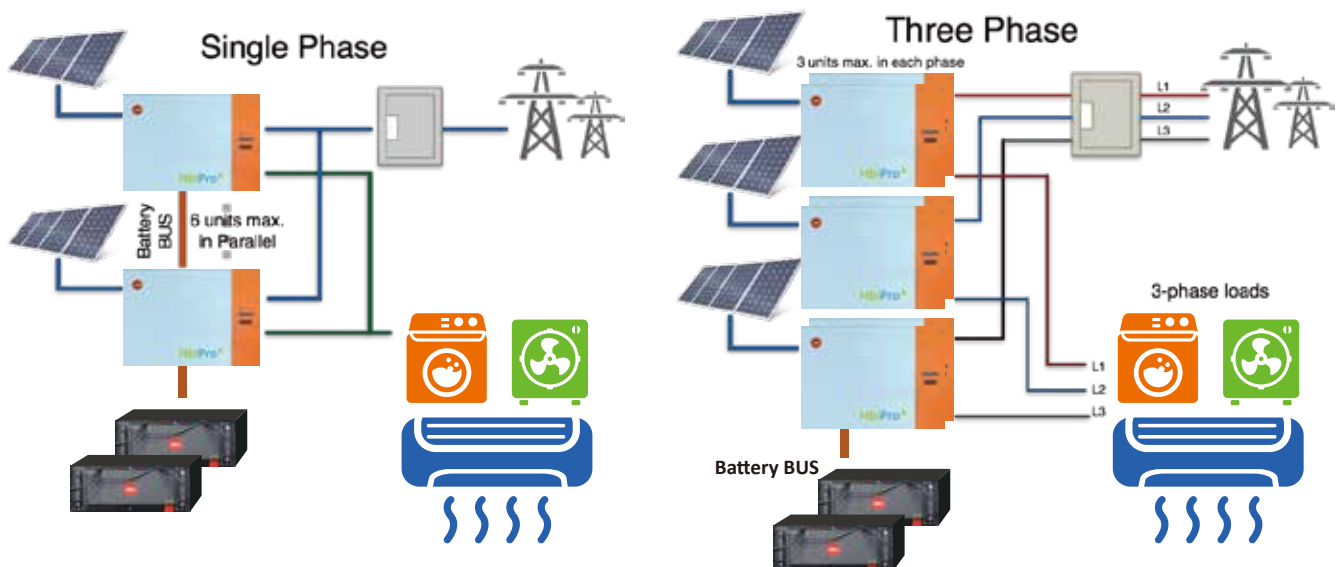
- Inverter output is physically connected to grid AC
- Inverter supplies loads from PV and/or batteries
- Extra PV power is used to charge batteries and/or feeding grid
- Loads are powered by inverter and/or grid AC



Operations

- Inverter output is physically connected to grid AC
- Inverter supplies loads from PV and/or batteries
- Extra PV power is used to charge batteries
- Zero feeding to grid
- Loads are powered by inverter and/or grid AC

Parallel and 3-phase Systems



Features

- Up to 6 units in parallel for increasing load capability
- Build up a 3-phase system by using maximum 9 units
- Share same battery bank
- Off-grid or on-grid mode

Appendix

Specifications

Item	Model ²	Unit	HBI-3600H	HBI-5000H	HBI-6000H
Input (Mains, AC)					
Nominal Voltage		V	230		
Voltage Range		V	190 ~ 300		
Nominal Frequency		Hz	50/60		
Power Factor			0.99		
Maximum Current		A	15	25	25
Inrush Current		A/μS	100/200		
Max. Power		VA	3300	5500	5500
Input (PV, DC)					
Maximum Power		W	3600	5000	6000
Maximum Voltage		V	550	500	500
MPPT Range ³		V	100~500	100~450	100~450
Start-up Voltage		V	150	150	150
Maximum Current		A	10	20	10x2
Absolute Max. Current (Isc)		A	15	30	15
MPP tracker No.			1	1	2
Max. Backfeed Current		mA	1.6	1.6	1.6
Battery I/O (DC)					
Nominal Voltage		V	48		
Voltage Range		V	40~59		
Nominal Current		A	70	116	116
Maximum Current		A	90	150	150
Max. Charge Current ⁴		A	60	20	100
Max. Leakage		mA	1		



Item	Model ²	Unit	HBI-3600H	HBI-5000H	HBI-6000H
Output (Load, AC)					
Nom. Power	VA	3000	5000	5000	
Max. Power	W	3000	5000	5000	
Inrush Current	A/μS	100/200	100/200	100/200	
Max. Fault Current	A	50	79	79	
Max. Protection Over-current	A	50	79	79	
Nominal Voltage	V	230			
Nom. Frequency	Hz	50/60			
THDV	%	5			
Voltage Regulation	%	2			
DC injection	mV	±100			
Overload Capacity		600 seconds for 100% ≤ load ≤ 110% 30 seconds for 110% < load ≤ 150% 10 seconds for 150% < load ≤ 200%			
General					
Temp. Range	°C	-20 ~ 55 ⁵			
Max. Eff. (PV/AC)	%	96	96.5	96.5	
Max. Eff. (BAT/AC)	%	92	92	92	
Protection		IP20			
Humidity	%	0~95, non condensing			
Cooling		Forced Air-cooling Variable fan speed control			
Protection Class		I			
Environment Cat.		Pollution Degree III			
Overvoltage Cat.		DC input: II, AC input: III			
Amplitude	m	<2000			
Reconnect Time ⁶	S	300			
Features					
LCD		2-line 16 characters text			
Interface		USB, RS485 & CANbus for multiple-unit operations			
RS485		2 wires, half-duplex			
Date Logging		Yes			
Parallel Operation		Yes	No	Yes	
Max. Units for Parallel Operation		6	NA	6	
Max. Units for 3-phase connection		9, 3 units in each phase	NA	9, 3 units in each phase	

Item	Model ²	Unit	HBI-3600H	HBI-5000H	HBI-6000H
Mechanical					
W x H x D	mm	580 x 408 x 168, wall mount models 490 x 165 x 580, rack mount models			
Weight	kg	22	23.8	24.2	
DC switch		Optional ⁷			
Compliance					
Grid Monitoring ⁸		VDE0126-1-1/A1 IEEE 519 CEA (2013), IEC 61727, IEC 62116			
Safety		IEC 62109-1, 62109-2			
EMC Emission		EN61000-6-4,			
		EN61000-3-2, EN61000-3-3	EN61000-3-11, EN61000-3-12		
EMC Immunity		EN61000-6-2			
Battery					
Capacity		100Ah/12V x 4 per bank			
Official Type		Refer to table below			
Coding rule					
HBI-6000H- D Germang rach Germang South East Asia with DC switch South East Asia Rack South East Asia D DS DR SA SAS SAR Germang with DC switch					

Note:

1. Specifications are subject to change without prior notice
2. There are some variations for each model. Models with suffix “-SA” are off-grid; with “-D” are hybrid models with grid connection capability
3. The input power may be reduced for voltage lower than 250V
4. Charge current will adjusted according to battery configuration
5. Output power may be reduced for temperature > 40°C
6. Only for on-grid mode
7. For models with “/S” appended to normal model names
8. For -D models