



## Hybrid HBI PRO PV INVERTER

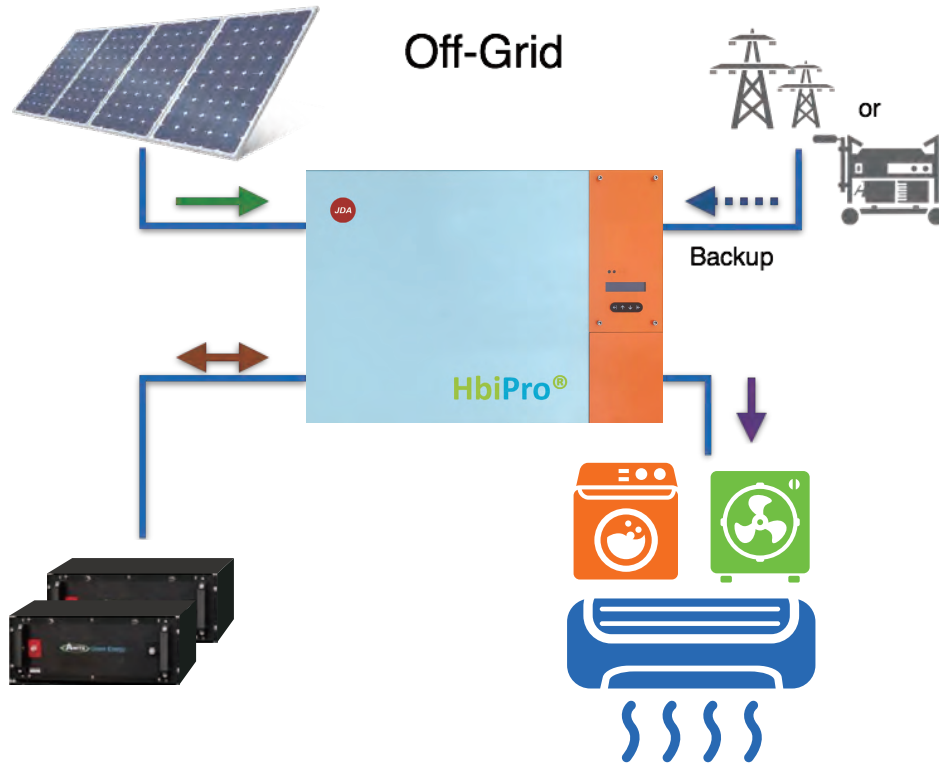
## Standalone

Best solution for Photovoltaic and Storage

### FEATURES

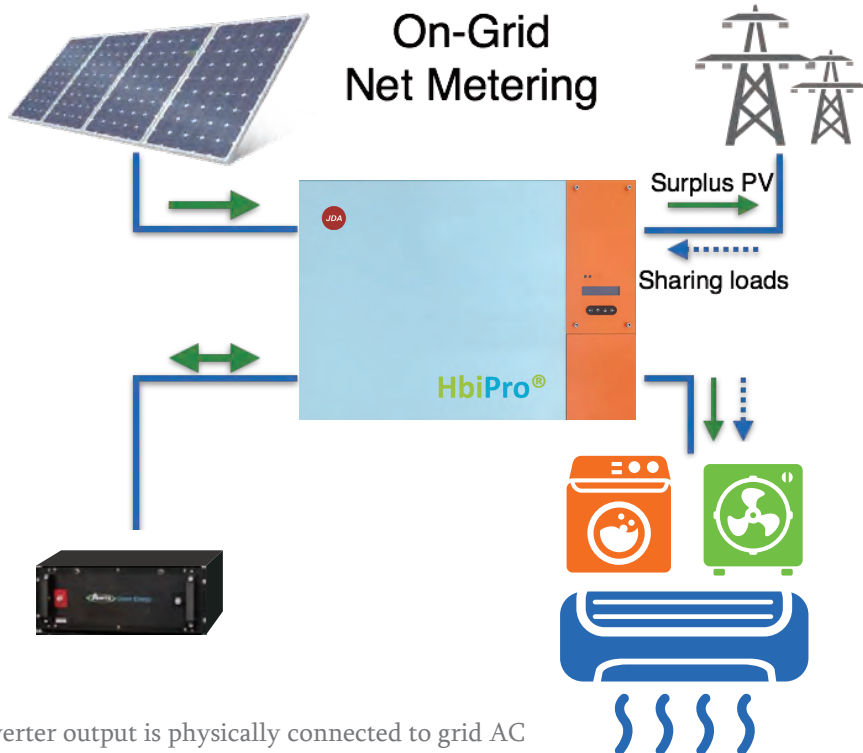
- All-in-One
- Higher Power. PF=1
- 96.5% High Efficiency
- Standalone/Grid Interactive
- 100A Charging Current (6k)
- 200% Overload
- Wall or 19" mount optional
- 2 Independent MPPT (6k)
- Net-metering & Self-use
- VRLA & LiFePO<sub>4</sub> Batteries & others
- USB Firmware Update
- High Temp. & Humidity
- Rack Mount (Optional)
- Parallel & 3-phase Operations

## Operation Modes



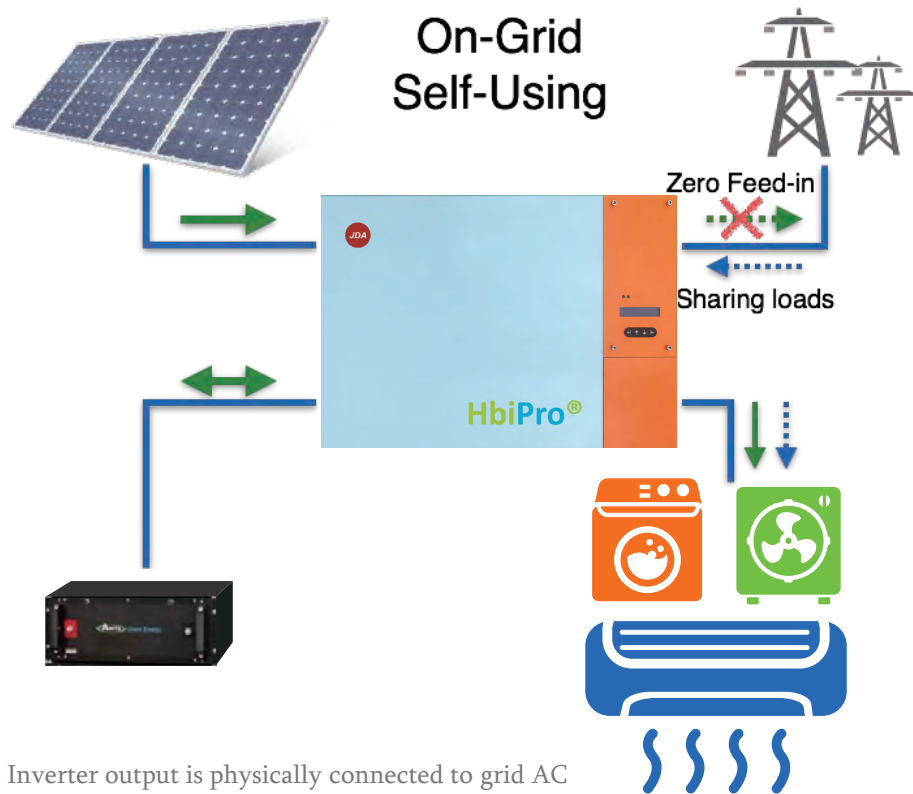
### Operations

- 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

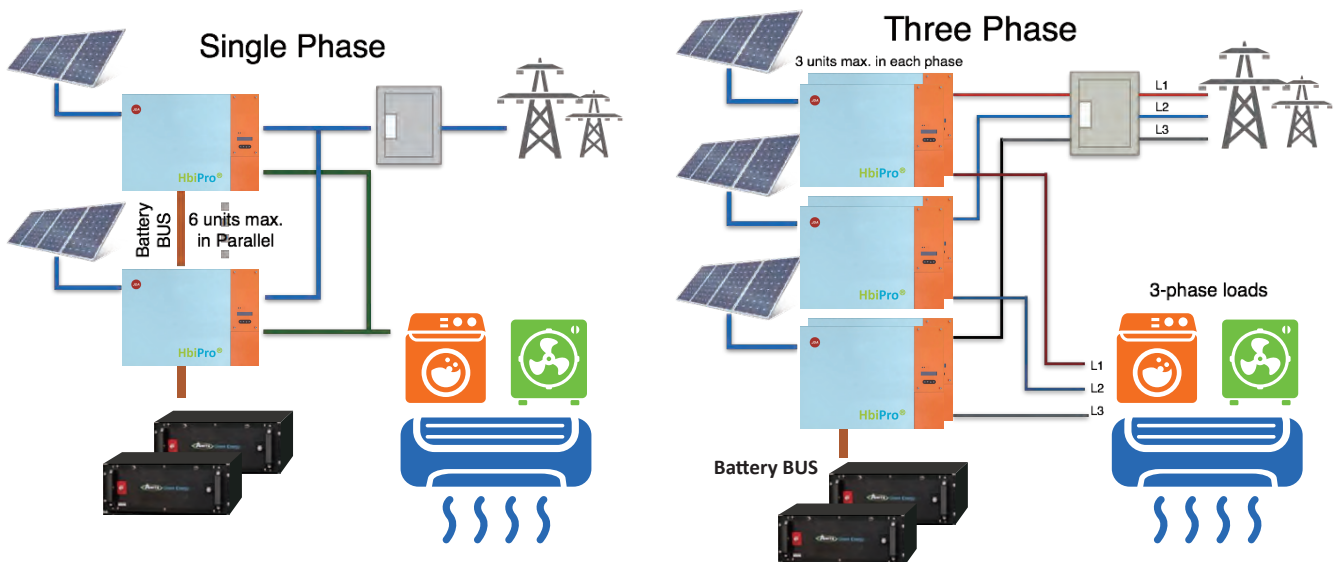
- Inverter output is physically connected to grid AC
- Inverter supplies loads from PV and/or batteries
- Extra PV power is used to charge batteries and/or feeding grid
- Loads are powered by inverter and/or grid AC



**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 <sup>2</sup>	Unit	PH-3600N	PH-5000N	PH-6000N
<b>Input (Mains, AC)</b>					
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
<b>Input (PV, DC)</b>					
Maximum Power		W	3600	5000	6000
Maximum Voltage		V	550	500	500
MPPT Range <sup>3</sup>		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
<b>Battery I/O (DC)</b>					
Nominal Voltage		V	48		
Voltage Range		V	40~59		
Nominal Current		A	70	116	116
Maximum Current		A	90	150	150
Max. Charge Current <sup>4</sup>		A	60	20	100
Max. Leakage		mA	1		





Item	Model <sup>2</sup>	Unit	HBI-3600H	HBI-5000H	HBI-6000H
<b>Output (Load, AC)</b>					
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%		
<b>General</b>					
Temp. Range		°C	-20 ~ 55 <sup>5</sup>		
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 <sup>6</sup>		S	300		
<b>Features</b>					
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 <sup>2</sup>	Unit	HBI-3600H	HBI-5000H	HBI-6000H
<b>Mechanical</b>					
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 <sup>7</sup>		
<b>Compliance</b>					
Grid Monitoring <sup>8</sup>			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		
<b>Battery</b>					
Capacity			100Ah/12V x 4 per bank		
Official Type			Refer to table below		
<b>Coding rule</b>					

**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