



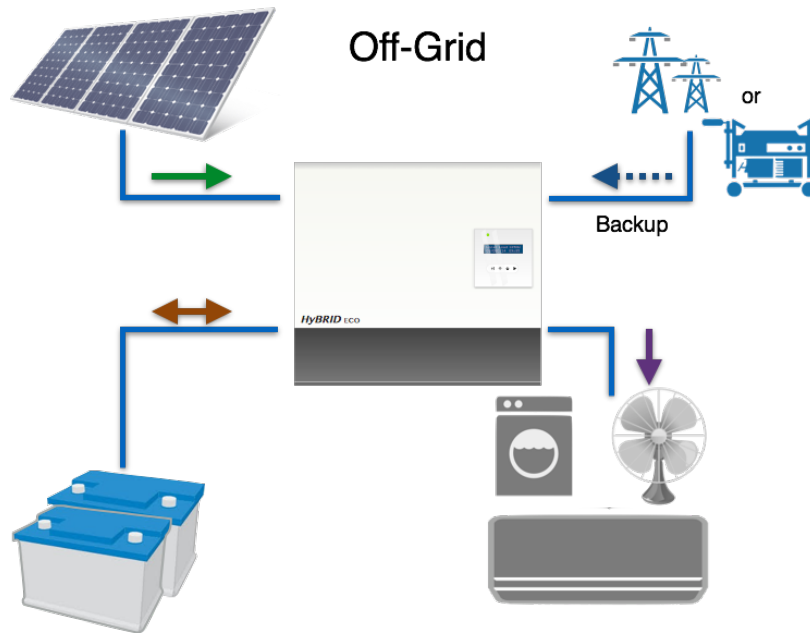
## HYBRID ECO™ PV INVERTER

Efficient solution for Photovoltaic and Storage

### FEATURES

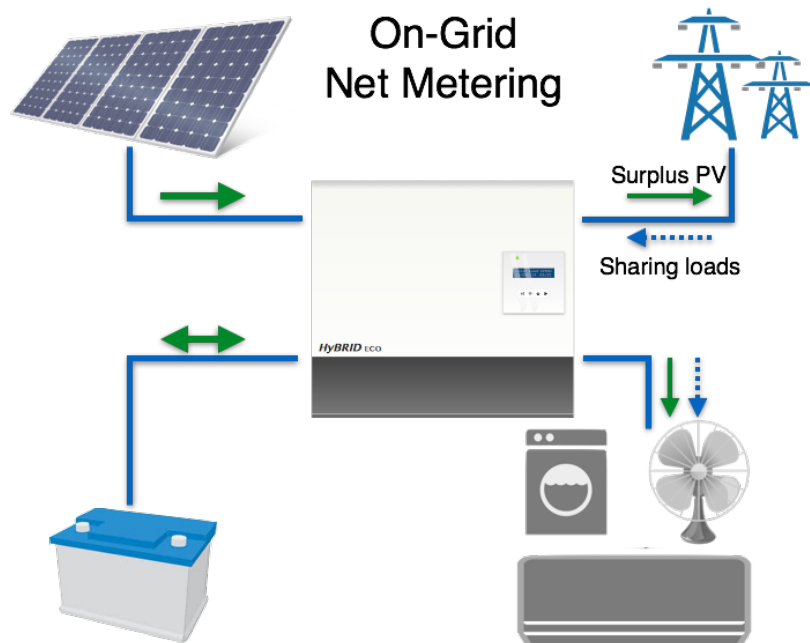
- Best CP value
- All-in-One
- 96% High Efficiency
- Standalone/Grid Interactive
- 60A Charging Current
- 200% Overload
- Net-metering & Self-use
- Operation without battery<sup>NEW</sup>
- For Critical Environment
- VRLA & LiFePO<sub>4</sub> Batteries
- High Temp. & Humidity
- Parallel Operations
- Cloud monitoring (Optional)
- iOS & Android APP

## Operation Modes



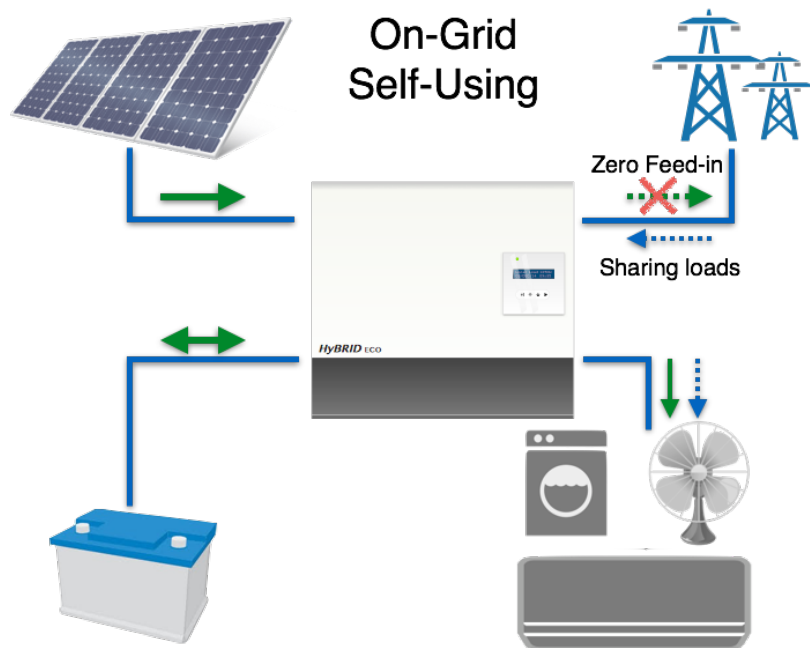
### Operations

- 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 backup input automatically while needed



### Operations

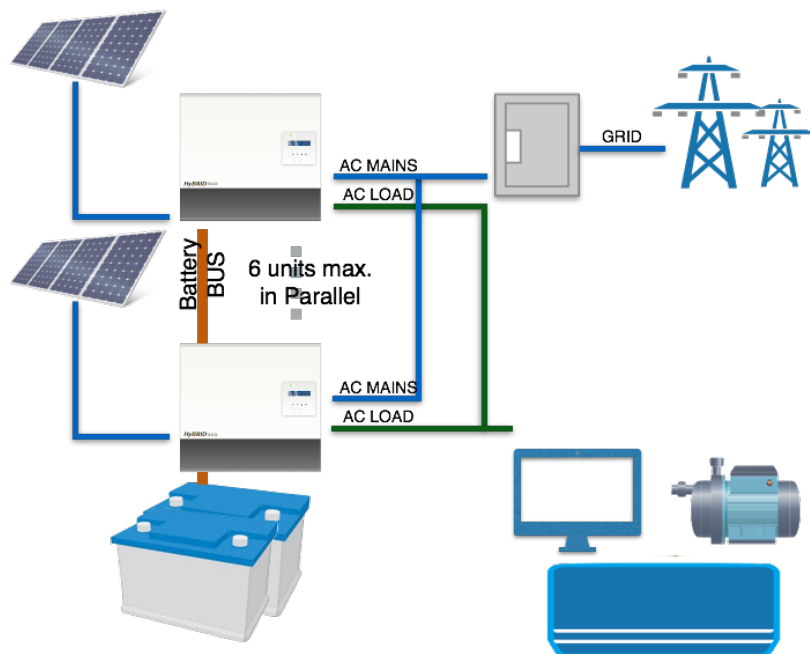
- Inverter output is physically connected to grid AC
- Inverter supplies loads from PV and/or batteries
- Extra PV power is used to charge batteries and/or feeding grid
- Loads are powered by inverter and/or grid AC



### 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

### Multi-unit System



### Features

- Up to 6 units in parallel for increasing system capacity
- Inverters share same battery bank
- Inverters power common loads
- Off-grid or on-grid mode

## Specifications

Model		PH-3000E-D	PH-5000E-D
<b>Input (PV)</b>		Unit	
Max. PV Power	W <sub>p</sub>	3000	5000
MPPT Range <sup>1</sup>	V	150 ~ 450	150 ~ 450
Max. DC Voltage	V	500	500
Max. Current	A	10	20
<b>Input (AC)</b>		Unit	
Nominal Voltage, Frequency	V/Hz	230, 50/60	
Maximum Current	A	15	25
<b>Battery</b>			
Nominal Voltage	V	48	48
Max. Charging I Current	A	40	60
<b>Output (AC)</b>			
Nominal Power	W/VA	2400/3000	4000/5000
Nominal Voltage, Frequency	V/Hz	230, 50/60	
Over-Load Capacity	%	200	
Waveform		Pure Sinusoidal	
Regulation (Linear Load)	%	± 2	
<b>General</b>			
Temperature Range <sup>2</sup>	°C	-20 ~ 55	
Environment		Indoor	
Cooling		Forced Air-Cooling	
Humidity	%	0~95, non-condensing	
Battery Type		VRLA or LiFePO <sub>4</sub>	
Parallel Operation		No	Yes
<b>Interface &amp; Mechanical</b>			
Display		16 x 2 Text Display	
Ccommunication Interface		RS485, USB and optional CloudVOLT™ monitoring	
Dimension (W / H / D)	mm	425/388/120	425/388/120
Weight	kg	12	14
<b>Regulation<sup>3</sup></b>			
Safety		IEC 62109-1 & IEC 62109-2	
EMC		IEC/EN 61000-3-2	IEC/EN 61000-3-11
		IEC/EN 61000-3-3	IEC/EN 61000-3-12
		IEC/EN 61000-6-2, IEC/EN 61000-6-4	
Grid Monitoring		VDE 0126-1-1/A1, IEEE 519 CEA (2013), IEC 61727, IEC 62116	

Note: 1. The input power may be reduced for  $V_{PV} < 265V$  2. AC power may need to be reduced for  $T > 40^{\circ}C$  3. Design to meet 4. Specifications are subject to change without prior notice.

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