



HYBRID DUO™ PV INVERTER

Best solution for Photovoltaic, Storage in Split-phase System

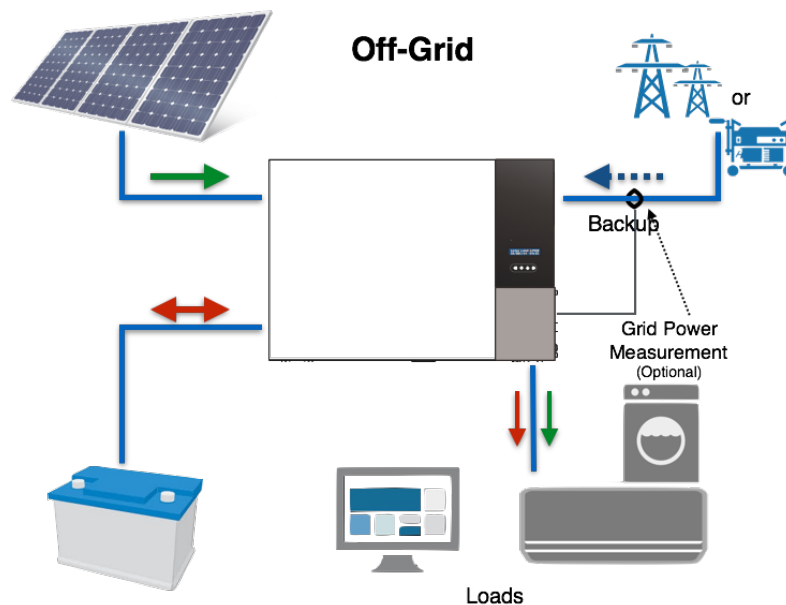
FEATURES

- All-in-One
- 120/240V AC System
- 120/120/240V AC Output
- Higher Power. PF=1
- 96.5% High Efficiency
- Standalone/Grid Interactive
- 60A Charging Current
- 200% Overload
- 2 Independent MPPT
- Net-metering & Self-using
- VRLA & LiFePO₄ Batteries
- High Temp. & Humidity
- Cloud Monitoring (Optional)
- Grid Power Measurement

Introduction

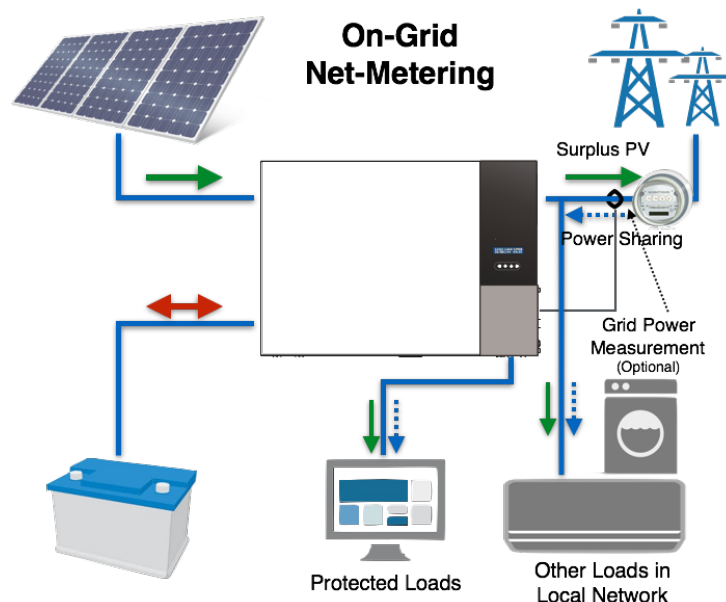
Hybrid DUO™, the most innovative inverter for 120/240V split phase AC system, is an all-in-one product including MPPT, PV charger, AC charger and inverter. It makes your system simple, intuitive and working seamlessly. With its grid-tie function, you can either sell surplus PV to grid (Net-metering) or reserve it locally (Self-Using); with pure sinusoidal AC output, you can continue using critical devices during blackout; with optional external power measurement, you can read power, utilize PV power in local power network and prevent surplus PV to grid. Hybrid DUO™ is the best solution for grid-interactive and off-grid, residential and commercial, solar and backup applications in split-phase AC system.

Operation Modes



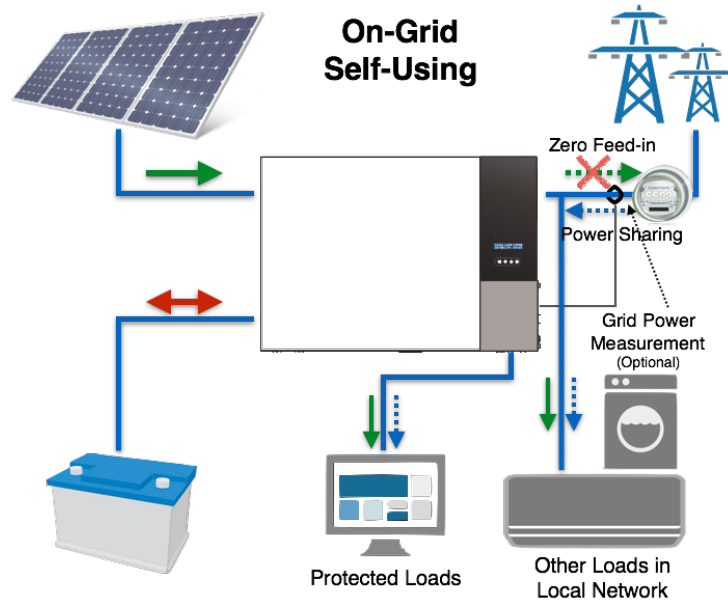
Operations

- AC grid or genset acts as the backup source
- Inverter supplies loads from PV and/or batteries
- Surplus PV power is used to charge batteries
- Loads are switched to grid automatically when insufficient PV+Battery



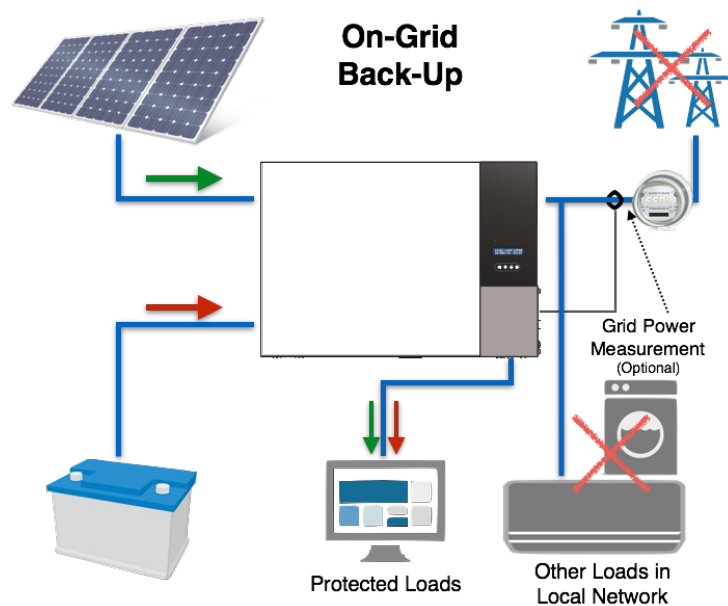
Operations

- Inverter output is physically connected to grid AC
- Inverter supplies all loads from PV and/or batteries and/or grid AC
- Surplus PV power is used to charge batteries and/or feeding grid



Operations

- Inverter output is physically connected to grid AC
- Inverter supplies all loads from PV and/or batteries and/or grid AC
- Surplus PV power is used to charge batteries
- Zero feeding to grid



Operations

- Inverter supplies Protected loads from PV and/or batteries
- Protected loads are powered, other loads are not

Specifications

Model	Unit	PH-6000N-U
Input (PV)		
Max. PV Power	W_p	6000
MPPT Range ¹	V	150 ~ 550
Max. DC Voltage	V	600
Max. Current	A	10 x 2
MPP Tracker Number		2
Input (AC)		
Nominal Voltage, Frequency	V/Hz	120/240, 50/60
Maximum Current	A	25
Battery		
Nominal Voltage	V	48
Max. Charging Current	A	60
Output (AC, Grid-Tie)		
Nominal Voltage, Frequency	V/Hz	120/240, 50/60
Nominal Power (Grid-tie)	W/VA	5000/5000
Output (AC, Backup)		
Nominal Power	W/VA	4000/5000
Over-Load Capacity	%	200
Waveform		Pure Sinusoidal
Regulation (Linear Load)	%	± 2
General		
Temperature Range ²	°C	-20 ~ 55
Environment		IP 20, Indoor
Cooling		Forced Air-Cooling
Humidity	%	0~95, non-condensing
Battery Type		VRLA or LiFePO ₄
Interface & Mechanical		
Display		16 x 2 Text Display
Communication Interface		RS485, USB and External Current Transformer
Dimension (W / H / D)	mm	580/408/168
Weight	kg	24
Compliant Regulation		
Safety		UL1741
EMC		FCC Part 15 (Class A)
Grid Monitoring		IEEE 1547

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. Specifications are subject to change without prior notice.

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