



## PRODUCT OVERVIEW

The EV-HIR Series 120V/240V split-phase 48V hybrid inverter is a high-quality smart hybrid solar inverter. Working together with solar panels and 48V battery storage system, they make up an on grid off grid hybrid solar system, which can be widely used in various home storage application environments. It has multiple application modes such as self-consumption, peak shaving and valley filling and backup power supply. Combined with a smart display, it makes operation and maintenance easier.

## FEATURES

- Smart home energy management.
- Supports multi-machine parallel connections, with a maximum of 8 machines.
- Supports multi-machine parallel mode.
- Single-machine load capacity of 100A.
- Supports power dispatch and demand response management.
- Equipped with CAN port, RS485 port for remote control and a DRM port for flexibility and system intelligence.
- Battery reverse connection protection, anti-power control function
- Parallel available, intelligent BMS management.
- Passed UL 1741:2021, IEE 1547.1, UL1699B certification
- Supports parallel SOC equalization control and parallel current sharing control.
- Using split-phase topology and eliminating transformer to increase system efficiency
- Supports simultaneous diesel generator and grid access

## APPLICATIONS

- Emergency power supply.
- Home backup storage.
- Data storage/UPS backup systems.
- Off-grid power storage.
- Solar power storage.

## Product Description

PART#	DESCRIPTION	INPUT VOLTAGE	OUTPUT VOLTAGE	MAX PV INPUT POWER	RATED POWER
EV-HIR12KLNA	12KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	18KW	12KW
EV-HIR16KLNA	16KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	24KW	16KW

## Specifications

MODEL#	EV-HIR12KLNA	EV-HIR16KLNA
<b>PV INPUT</b>		
Max Power (kW)	12KW	16KW
MPPT Voltage Range	120~500V/120~430V	
Max DC Voltage	500V	
Max Input Current of Single MPPT	16A	20A
MPPT Tracker	4	
<b>AC OUTPUT (ON-GRID)</b>		
Rated Output Power	12KVA	16KVA
Max Output Power	13.2KVA	16KVA
Nominal AC Current	50A	66.7A
Max Output Current	55A	73.3A
Grid Voltage (L-N/L1-L2)(V)	110~120V / 220~240V (split phase), 240V (single phase)	
Frequency	60Hz (55Hz~65Hz)	
Max Passthrough Current	200A	
ThDi	<3%	
<b>BATTERY</b>		
Battery Voltage	48V (40V~58V)	
Max Charge/Discharge Current	250A/260A	260A/280A
Battery Type	Lithium / Lead acid	
Charging Controller	3-stage with equalization	
<b>AC OUTPUT (BACKUP)</b>		
Rated Power	12kVA	13kVA
Max Apparent Power (No PV)	12kVA	13.2kVA
Max Apparent Power (With PV)	13.2kVA	
Rated Output Voltage	120V/240V	
Rated Frequency	60Hz	
Output Power Factor	0.8 lagging – 0.8 leading	
THDu	<2%	
<b>GENERAL DATA</b>		
Max Efficiency	99.90%	
Europe Efficiency	96.20%	
IP Rating	IP65/NEMA 3R	
Noise Emission	48dB	
Operating Temperature	-25°C~60°C	
Cooling	Fan cooling	
Relative Humidity	0~95% (non-condensing)	
Altitude	4000m (>2000m derating)	
Self-Consumption	<25W	

MODEL#	EV-HIR12KLNA	EV-HIR16KLNA
Dimensions W*D*H (mm)	495*900*260	
Weight	55kg (56kg with breaker)	
<b>DISPLAY AND COMMUNICATION</b>		
Display	Touch LCD screen	
Interface	RS485 / Wi-Fi (optional) / 4G (optional) / CAN	