



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-HIR5KLNA	5KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	7.5KW	5KW
EV-HIR6KLNA	6KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	9KW	6KW
EV-HIR8KLNA	8KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	12KW	8KW
EV-HIR10KLNA	10KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	13KW	10KW

Specifications

MODEL#	EV-HIR5KLNA	EV-HIR6KLNA	EV-HIR8KLNA	EV-HIR10KLNA
PV INPUT				
Max Power (kW)	7.5KW	9KW	12KW	13KW
MPPT Voltage Range	120 – 500V			
Max DC Voltage	500V			
Max Input Current of Single MPPT	12A			
MPPT Tracker/Strings	4/2			
AC OUTPUT				
Rated Output Power	5KVA	6KVA	8KVA	10KVA
Max Output Current	24A	28.8A	38.3A	47.8A
AC Output Voltage	120/240V (split phase), 208V (2/3 phase), 230V (single phase)			
Frequency	50/60Hz			
Power Factor	0.8 leading / 0.8 lagging			
THDI	< 3%			
AC Output Topology	Split phase, 2/3 phase, single phase			
BATTERY				
Battery Voltage Range	40V~58V			
Max Charging Voltage	58V			
Max Charge/Discharge Current	120A/120A	135A/135A	190A/190A	210A/210A
Battery Type	Lithium / Lead Acid			
Communication	CAN / RS485			
EPS OUTPUT				
Rated Power	5KW	6KW	8KW	10KW
Rated Output Voltage	120/240V (split phase), 208V (2/3 phase), 230V (single phase)			
Rated Output Current	24A	28.8A	38.3A	47.8A
Rated Frequency	50/60Hz			
Automatic Switching Time	< 20ms			
Output THDu	< 2%			
Overload Capacity	125%, 60S / 150%, 1S			
GENERAL SPECIFICATIONS				
Max Efficiency	≥98.2%			
North American Efficiency	≥97.2%			
Ingress Protection	IP65 / NEMA 3R			
Noise Emission	< 25dB	< 29dB	< 29dB	< 29dB
Cooling	Natural			
Operating Temperature	-25°C ~60°C			
Relative Humidity	0-95% (non-condensing)			
Altitude	2,000m (>2,000 derating)			
Weight	41kg			

MODEL#	EV-HIR5KLNA	EV-HIR6KLNA	EV-HIR8KLNA	EV-HIR10KLNA
Dimensions (W*D*H)	430*220*710mm			
Isolation Transformer	No			
Self-Consumption	< 3W			
DISPLAY AND COMMUNICATION				
Display	LCD, touch screen			
Interface	RS485 / Wi-Fi / 4G / CAN / DRM			
Safety Standard	UL1741SA all options, UL1699B, CSA 22.2			
EMC	FCC Part 15, Class B			
On-grid	IEEE 1547, IEEE 2030.5, Hawaii Rule 14H, Rule 21 Phase I,II, III, NRS			