



PRODUCT OVERVIEW

The EV-DW Series 110-120/220-240split phase, 240V single 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 and commercial 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

- Plug & play.
- Capable of supporting 100% unbalanced loads.
- 3 phase 20VAC & parallel function available.
- 100A pass through.
- AC couple to retrofit existing solar system (on-grid & off-grid).
- Grid & diesel generator separately connected supports storing energy from diesel generator.

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-R5KLNA	5KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	7.5KW	5KW
EV-R6KLNA	6KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	9KW	6KW
EV-R7K6LNA	7.6KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	12KW	7.6KW
EV-R8KLNA	8KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	12KW	8KW
EV-R10KLNA	10KW Split Phase Hybrid Inverter	120-500VAC	120/240VAC	15KW	10KW

Specifications

MODEL#	EV-R5KLNA	EV-R6KLNA	EV-R7K6LNA	EV-R8KLNA	EV-R10KLNA
PV INPUT					
Max DC Input Power (kW)	7.5	9	12	12	15
Number of MPPT Trackers	4				
MPPT Voltage Range (V)	120~500V				
Max DC Input Voltage (V)	14V				
Max Input Current (A)	14A				
Max Short Circuit Current (A)	22A				
BATTERY INPUT					
Nominal Voltage (V)	48V				
Max Charging/Discharging Current (A)	120/120A	135/135A	190/190A	190/190A	190/210A
Battery Voltage Range (V)	40-60V				
Battery Type	Lithium/Lead-acid				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
AC OUTPUT (ON-GRID)					
Nominal Output Power to Grid (kVA)	5W	6W	7.6W	8W	10W
Max Apparent Power Output to Grid (kVA)	5.5W	6.6W	8.4W	8.8W	11W
Output Voltage Range (V)	(110~120) / (220~240) split phase, 240V single phase				
Output Frequency (Hz)	60 (55 to 65)				
Nominal AC Current Output to Grid (A)	20.8A	25A	31.7A	33.3A	41.7A
Max AC Current Output to Grid (A)	22.9A	27.5A	34.8A	36.7A	45.8A
Max Grid Passthrough Current (A)	100A				
Output THDi	<3%				
AC OUTPUT (BACKUP)					
Nominal Apparent Power (kVA)	5W	6W	7.6W	8W	10W
Max Apparent Power (kVA)	5.5W	6.6W	8.4W	8.8W	11W
Nominal Output Voltage L-N/L1-L2 (V)	120/240V				
Nominal Output Frequency (Hz)	60Hz				
Automatic Switchover Time (ms)	<20ms				
Output Power Factor	0.8leading~0.8lagging				
Output THDu	<2%				
PROTECTION					
Grounding Detection	Yes				
Arc Fault Protection	Yes				
Island Protection	Yes				
Battery Reverse Polarity	Yes				

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Insulation Resistor Detection	Yes				
Residual Current Monitoring Unit	Yes				
Output Over Current Protection	Yes				
Backup Output Short Protection	Yes				
Output Over Voltage Protection	Yes				
Output Under Voltage Protection	Yes				
GENERAL DATA					
MPPT Efficiency	99.9%				
Europe Efficiency (PV)	96.5%				
PV to Grid Efficiency (PV)	97.2%				
Battery to Load Efficiency	95.2%				
PV to Battery Charing Efficiency	96.1%				
Grid to Battery Charing Efficiency	95.0%				
Output Conduit (mm)	25.4mm				
PV Input Conduit (mm)	25.4mm				
BAT Input Conduit (mm)	35.4mm				
Operating Temperature Range (°C)	-25 ⁰ ~ + 60 ⁰				
Relative Humidity	0-95%				
Operating Altitude	0~4,000m (Derating above 2,000m altitude)				
Ingress Protection	IP65/NEMA 3R				
Built-In Breaker	Optional				
Weight (kg)	48kg (50kg with breaker)				
Dimensions W*H*D (mm)	450 x 820 x 240mm				
Cooling	Fan cooling				
Noise Emission (dB)	38dB				
Display	LCD, touch panel (optional)				
Communication with BMS/Meter/EMS	RS485, CAN				
Supported Communication Interface	RS485, WLAN, 4G (optional)				
Safety	UL1741SA all options, UL1699B, CSA 22.2				
EMC	FCC part 15 class B				
Support Diesel Generator	YES				
Grid Connection Standards	IEEE 1547, IEEE 2030.5, Hawaii rule 14H, Rule 21 phase I,II,III				
OTHER DATA					
Peak Power (Off Grid)	105%,60s / 110%,30s / 120%,10s / 150%,20ms				