

HYBRID INVERTER

The EVERVOLT® Hybrid inverter is the heart of the EVERVOLT solar and home battery system and converts DC power from your solar panels to AC power used for powering home loads. Combines battery and solar PV inverter into one energy efficient unit for solar energy production, storage and use for residential applications.



Key Features



Connects solar PV array, battery system, home loads and grid power when used as part of a complete solar-plus-storage system



Compact lightweight design for easy handling, mounting and installation



Can be used with any brand of solar panels, including Panasonic EVERVOLT high efficiency PV modules



NEMA-4X rated and weatherproof design, can be safely installed indoors or outdoors



Integrates with EVERVOLT SmartBox¹ to provide intelligent load management, control up to six home loads to optimize energy consumption and prolong battery life



Allows up to 15.2kW of DC input² with three Maximum Power Point Trackers (MPPT) for higher yields and flexible design

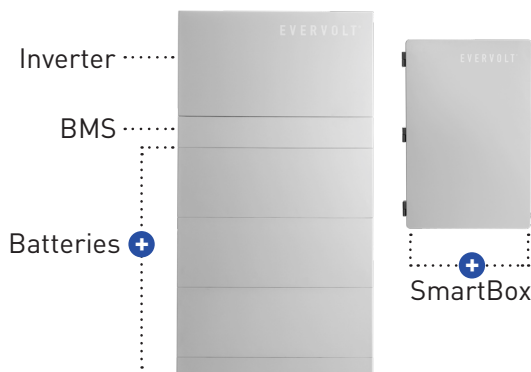


Integrated transmitter enables easy installation of rapid shutdown devices for safe PV array connections¹



Complete 12-year warranty covers product and labor when installed by a Panasonic Authorized installer

Complete EVERVOLT Home Battery



In the future, adding batteries and a SmartBox to the EVERVOLT Hybrid Inverter will enhance its capabilities by providing backup power.

¹ SmartBox is optional for non-backup applications. Installations done without SmartBox would require an additional accessory, the Smart Meter.

² Appropriate string sizing calculations must be done to determine the number of panels that can be connected to the MPPT channel for optimal MPPT operation.

HYBRID INVERTER

ELECTRICAL SPECIFICATIONS

Model Number	EVHB-I7
Nominal AC Power	7608W
Maximum Apparent power	7608W at 240V
Rated Grid Voltage	240V
Nominal AC Frequency	60Hz
Nominal AC Current	31.7A
Displacement Power Factor	0.8
Total Harmonic Distortion (THD)	< 3%

SOLAR INPUT

Maximum Power [DC]	15200W (200% oversizing)
Recommended PV Power [MPPT]	7600W
Maximum Input Voltage	550V
MPPT Voltage Range [DC]	90 - 500V
Minimum Start Voltage [DC]	120 V
Maximum Input Current [DC]	16A per string
Maximum Short Circuit Current [DC]	20A
No. of MPPTs / Strings per MPPT	3 / 1

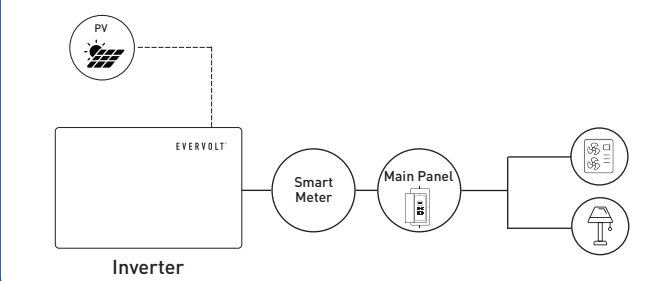
EFFICIENCY

CEC weighted efficiency	97.50%
Maximum inverter efficiency	98.00%

MAX/MIN NUMBER OF EVERVOLT SOLAR PANELS (PER STRING)

Temperature range	-4 to 104°F (-20 to 40°C)
EVPV430HK2	Max: 10 panels Min: 3 panels
EVPV420HK2	Max: 10 panels Min: 3 panels
EVPV410HK	Max: 10 panels Min: 3 panels
EVPV400HK	Max: 10 panels Min: 3 panels
EVPV390HK	Max: 10 panels Min: 3 panels
EVPV380	Max: 11 panels Min: 4 panels
EVPV370PK	Max: 11 panels Min: 4 panels
EVPV360PK	Max: 11 panels Min: 4 panels
EVPV350PK	Max: 11 panels Min: 4 panels

SYSTEM DIAGRAM



STANDARDS & CERTIFICATIONS

Inverter Certifications	UL1741, UL1741 SA, UL1741CRD PCS, UL1699B, CSA - C22.2 No. 107.1-01, Canadian AFCEI according to T.I.L. M-07
Emissions	FCC Part 15 Class B
Grid Connection Standards	IEEE1547, Rule 21, Rule14 (HI)

OTHER SPECIFICATIONS

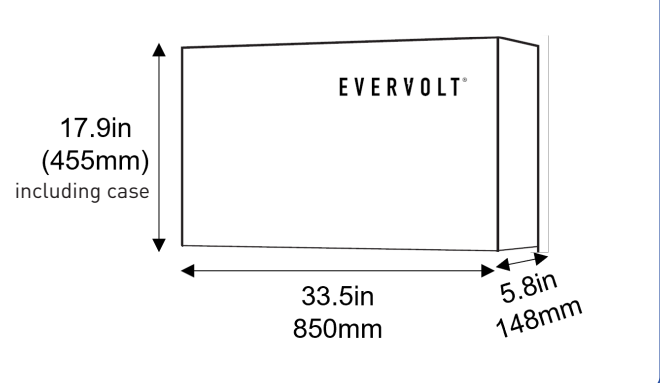
Typical Noise Level	< 30dB
Oversvoltage Category	IV (electric supply side), II (PV side)
Inverter Communication Interface	RS485, CAN, WIFI, Dry Contact
Battery Communication Interface	RS485 / CAN2.0
Installation Method	Wall mounted
Maximum Altitude	9843 ft (3000m)
Warranty	12 years

MECHANICAL SPECIFICATIONS

Dimensions (HxWxD)	33.5x15.7x5.8in (850x400x148mm)
Weight	75lb (34kg)
Protection Rating	NEMA 4X
Environment	Indoor(garage) and Outdoor rated
Operating Temperature	-13 to 140°F (-25 to 60°C)
Storage Temperature	-13 to 167°F (-25 to 75°C)
Relative humidity	0 to 95%
Cooling	Natural convection

- Built-in APSmart transmitter.
- For PV only installation, EVERVOLT Hybrid Inverter and PV only accessory box are required.

DIMENSIONS



ACCESSORIES

- Smart Meter: EV-SM
- Inverter Accessory: EVHB-I7-ACCE