



# EG4® 18KPV-12LV

## Hybrid Inverter/Charger

The EG4® 18KPV is a 48V split phase, hybrid inverter/charger capable of utilizing 18kW of PV and efficiently outputting 12kW of power while charging your battery bank. You can parallel up to 10 units for 120kW of AC power and control multiple stations and units using the new EG4® monitoring software.

**AC Coupling  
Capability**

**Remote Adjustments  
via EG4® Software**

**10-Year Warranty**

### All-In-One Hybrid Inverter

Capable of running entirely off the grid, using grid electricity, or selling power back to the grid.

### 600VDC Max

The extra high voltage enables lower cable sizing for the 3 MPPTs and a maximum recommended PV input of 21,000W. Eliminating the need for a combiner box.

### Mountable Wi-Fi Device

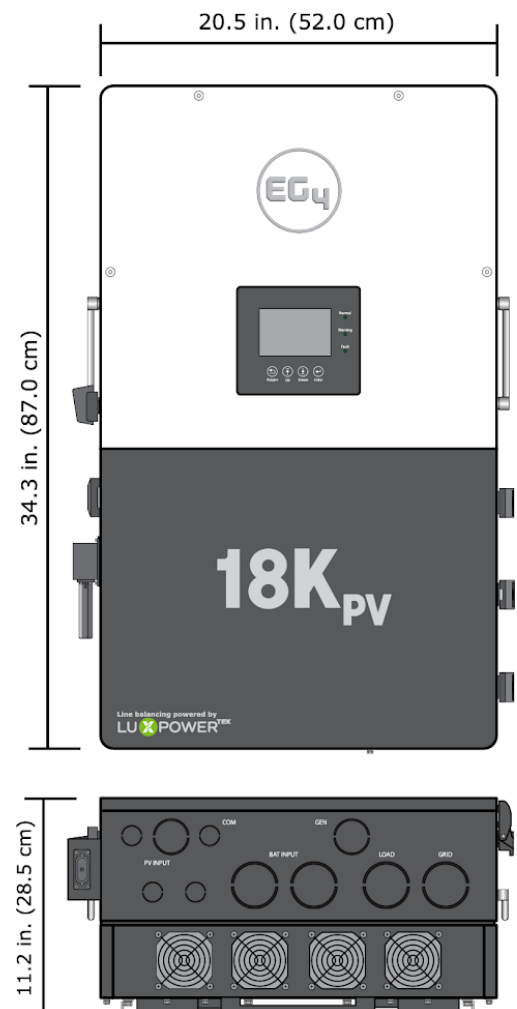
Enables wireless connection between our new monitoring platform and the 18KPV through the app or online website.

### Closed-Loop Communications

Able to communicate with EG4® 48V batteries and other battery brands.

### High Frequency, Split Phase Output

Allows for 120/240V with a single unit or 120/208VAC service operation.





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AC Input Data	
Nominal AC Voltage	208/240VAC
Frequency	50/60Hz (Auto-adapting)
Max. Continuous AC Current	50A
Power Factor	1
AC Grid Output Data	
Max. Continuous Output Current	50A
AC Bypass (Grid)	200A
Rated Voltage	240VAC
Operating Voltage Range	180–270VAC
Nominal Power Output (W)	@240V 12,000W/@208V 10,400W
Operating Frequency	50/60Hz (Auto-adapting)
Operating Frequency Range	55–65Hz
Phase Shift	0.99@ full load
Reactive Power Adjust Range	(-0.8) – (+0.8) leading adjustable
THDI (Total Harmonic Distortion Current)	3%
Sync Inrush Current	35A
Backup/UPS AC Output Data	
Rated Output Current (240V/208V)	50A
AC Bypass (Generator)	90A
Nominal Output Voltage (V)	240   120/240   120/208 VAC
Rated Output Power (W)	@240VAC 12,000W/@208VAC 10,400W
Max Cont. Line Wattage	8,000W per 120V
Surge Power (W)	14,000W (10 min.), 16,000W (5 min.)
Operating Frequency	50/60Hz (Auto-adapting)
Peak Power (VA)	24,000VA (0.5s)
THDV (Total Harmonic Distortion Voltage)	<3%
Switching Time	<20ms
PV Input Data	
Number of MPPTs	3
Inputs per MPPT	2/1/1
Max. Usable Input Current	25/15/15A
Max. Short Circuit Input Current	31/19/19A
DC Input Voltage Range	100–600 VDC
Unit Startup Voltage	100 VDC
Load Output Minimum Voltage	>140 VDC
MPP Operating Voltage Range	120–500 VDC
Full Power MPPT Voltage Range	230–500 VDC
Nominal MPPT Voltage	360 VDC
Maximum Utilized Solar Power	18,000W
Recommended Maximum Solar Input	21,000W



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Efficiency	
Max. Efficiency @ PV to Grid	97.5%
Max. Efficiency @ Battery to Grid	94%
MPPT Efficiency	99.9%
Battery Charging Efficiency	95%
Battery Discharging Efficiency	94.5%
Idle Consumption (Normal mode)	≈70W
Idle Consumption (Standby mode)	≈18W
Battery Data	
Type	Lead-acid battery/Lithium battery
Max. Charge/ Discharge Current	250A
Nominal Voltage	48 VDC
Voltage Range	40–60 VDC
General Data	
Integrated Disconnect	DC switch
PV Reverse Polarity Protection	Yes
DC Switch Rating for each MPPT	Yes
Output Over-Voltage Protection Varistor	Yes
Output Over-Current Protection	Yes
Grid Monitoring	Yes
Anti-islanding Protection (Fast Zero Export)	Yes
Pole Sensitive Leakage Current Monitoring Unit	Yes
Surge Protection Device	Yes
Dimensions H×W×D	34.3×20.5×11.2 in. (87×52×28.5 cm)
Weight	110.2 lbs. (50kg)
Cooling Concept	Fan
Topology	TL (Transformerless)
Relative Humidity	0-100%
Altitude	<2,000m
Operating Temperature Range	-25~60°C, >45° derating
Noise Emission	<50dB
Display	Color touchscreen
Communication Interface	Rs485/Wi-Fi/CAN
Standard Warranty	10* year standard warranty
*See <a href="#">EG4® Warranty Registration</a> for terms and conditions	



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## Hybrid Inverter/Charger

Standards and Certifications	
<b>Safety</b>	
UL1741SB Rule 21	Yes
Rapid Shut Down (RSD) NEC 2020:690.12	Yes
Arc-Fault Circuit Interrupter (AFCI) NEC 2020:690.11 / UL1699B	Yes
Ground Fault Monitoring (GFDI) NEC 2020:690.41(B)	Yes
CSA 22.2.107.1	Yes
CSA 22.2.330	Yes
<b>Grid Connection</b>	
IEEE 1547.1:2020; IEEE 1547:2018	Yes
Hawaii Rule 14H	Yes
California Rule 21 Phase I, II, III	Yes
<b>EMC</b>	
FCC Part 15 Class B	Yes
<b>Outdoor Rating</b>	
NEMA 4X / IP65	Yes

