

## EG4<sup>®</sup> 18KPV-12LV Hybrid Inverter/Charger

The EG4<sup>®</sup> 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 120kWs of AC power and control multiple stations and units using the new EG4<sup>®</sup> monitoring software.



Remote Adjustments via EG4<sup>®</sup> 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**

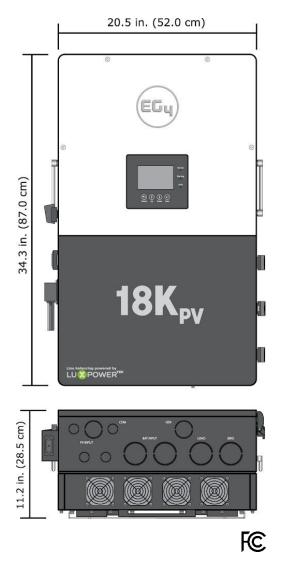
Enables wireless connection between our new monitoring platform and the 18KPV through the app or online website.

### **Closed-Loop Communications**

Able to communicate with EG4<sup>®</sup> 48V batteries and other battery brands.

### High Frequency, Split Phase Output

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







## EG4<sup>®</sup> 18KPV-12LV

### **Hybrid Inverter/Charger**

Nominal AC Voltage240   208VACFrequencyS0/60HzMax. Continuous AC Current50AAC Grid Output Data50AMax. Continuous Output Current50AAC Bypass (Grid)200ARated Voltage240VACOperating Voltage Range180–270VACNominal Power Output (W)@240V 12kW/@208V 10.4kWOperating Frequency50/60HzPhase Shift0.99@ full loadReactive Power Adjust Range(-0.8) – (+0.8) leading adjustableSync Inrush Current35ABackup/UPS AC Output Data35ARated Voltage (V)50AAC Bypass (Generator)90ANominal Output Voltage (V)240   120/208 VACAtted Output Power (W)@240VAC 12.4kW/@208VAC 10.4kWMax Cont. Line Wattage8kW per 120VPeak Power (W)With PV: 14.7kW (10 min), 15.5kW (5 min) Without PV: 13.5kW (10 min)Operating Frequency50/60HzTHDV (Total Harmonic Distortion Voltage)<5%Switching Time<20msV Input Data3Number of MPPTS3Inputs per MPPT2/1/1Max. Sabile Input Current31/3/19/13ADC Input Voltage Range1000 VDCLoad Output Minimum Voltage>140 VDCMPP Operating Voltage Range100 VDCInputs per MPPT2/1/1Max. Short Circuit Input Current31/3/19/13ADC Input Voltage Range100 VDCInput Sartup Voltage Range100 VDCInput Sartup Voltage Range100 VDC <th>AC Input Data</th> <th></th>	AC Input Data	
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Max Cont. Line Wattage8kW per 120VPeak Power (W)With PV: 14.7kW (10 min), 15.5kW (5 min) Without PV: 13.5kW (10 min)Operating Frequency50/60HzTHDV (Total Harmonic Distortion Voltage)<5%	Nominal Output Voltage (V)	240   120/240   120/208 VAC
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Operating Frequency50/60HzTHDV (Total Harmonic Distortion Voltage)<5%	Peak Power (W)	
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Switching Time<20msPV Input DataNumber of MPPTs3Inputs per MPPT2/1/1Max. Usable Input Current25/15/15AMax. Short Circuit Input Current31/19/19ADC Input Voltage Range100–600 VDCUnit Startup Voltage100 VDCLoad Output Minimum Voltage>140 VDCMPP Operating Voltage Range120–500 VDCFull Power MPPT Voltage Range230–500 VDCNominal MPPT Voltage360 VDCMaximum Utilized Solar Power18kW		
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Full Power MPPT Voltage Range230–500 VDCNominal MPPT Voltage360 VDCMaximum Utilized Solar Power18kW	MPP Operating Voltage Range	
Maximum Utilized Solar Power 18kW		230–500 VDC
	Nominal MPPT Voltage	360 VDC
Recommended Maximum Solar Input 21kW	Maximum Utilized Solar Power	18kW
	Recommended Maximum Solar Input	21kW





# EG4<sup>®</sup> 18KPV-12LV

### Hybrid Inverter/Charger

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	
Туре	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	121.25 lbs (55kg)
	132.28 lbs (60kg) with the packaging
Cooling Concept	Fan
Тороlоду	TL (Transformerless)
Relative Humidity	0-100%
Altitude	<2,000m
Operating Temperature Range	-25~60°C, >45° derating
Noise Emission	68dB @3ft
Display	Color touchscreen
Communication Interface	RS485/Wi-Fi/CAN
Standard Warranty	10* year standard warranty
	*See EG4 <sup>®</sup> Warranty Registration for terms and conditions





## EG4<sup>®</sup> 18KPV-12LV

### **Hybrid Inverter/Charger**

Standards and Certifications		
Safety		
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	
Grid Connection		
IEEE 1547.1:2020; IEEE 1547:2018	Yes	
Hawaii Rule 14H	Yes	
California Rule 21 Phase I, II, III	Yes	
EMC		
FCC Part 15 Class B	Yes	
Outdoor Rating		
NEMA 4X / IP65	Yes	



