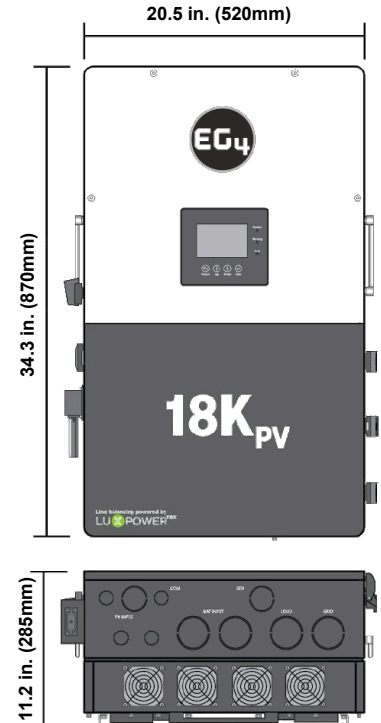


# EG4<sup>®</sup> 18kPV HYBRID INVERTER

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 the battery bank. Parallel up to 10 units for 120kW of AC power. 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 assist, or selling power back to the grid.

## 600VDC MAX

The extra high voltage enables lower cable sizing for the 3 MPPTs with a recommended maximum PV input of 21kW, 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 the online portal.

## CLOSED-LOOP COMMUNICATIONS

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

*\*A firmware update is required for closed-loop communications with LifePower4 batteries.*

## HIGH FREQUENCY, SPLIT-PHASE OUTPUT

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

## TECHNICAL SPECIFICATIONS

### AC INPUT DATA

NOMINAL AC VOLTAGE	120/240VAC; 120/208VAC (L1/L2/N required)
FREQUENCY	50/60Hz
MAX. AC CURRENT	50A @ 240VAC
MAX. AC INPUT POWER	12000W
MAX. AC BYPASS	200A

### AC GRID OUTPUT DATA

MAX. OUTPUT CURRENT	50A
OUTPUT VOLTAGE	120/240VAC; 120/208VAC (L1/L2/N required)
OPERATING VOLTAGE RANGE	180-270VAC
NOMINAL POWER OUTPUT	@240V 12000W   @208V 10400W
OUTPUT FREQUENCY	50/60Hz
POWER FACTOR	0.99 @ Full Load
REACTIVE POWER ADJUST RANGE	(-0.8) ≈ (+0.8) Leading Adjustable
MAX CONT. LINE WATTAGE	6000W
PEAK POWER (SURGE CAPACITY)	w/ PV: 14700W (10 min), 15500W (5 min) W/O PV: 13500W (10 min)
OPERATING FREQUENCY	50/60Hz
THD @FULL LOAD	<5%
TRANSFER TIME	20ms (Default), 10ms (Configurable)   Parallel – 20ms

### BACKUP/UPS AC OUTPUT DATA

RATED OUTPUT CURRENT (240/208VAC)	50A
AC BYPASS (GENERATOR)	90A
NOMINAL OUTPUT VOLTAGE	240   120/240   120/208VAC
RATED OUTPUT POWER	@240VAC 12000W   @208VAC 10400W
MAX. CONTINUOUS LINE WATTAGE	8000W per 120V
PEAK POWER	w/ PV: 14700W (10 min), 15500W (5 min) w/o PV: 13500W (10 min)
OPERATING FREQUENCY	50/60Hz
THDV (TOTAL HARMONIC DISTORTION VOLTAGE)	<5%
SWITCHING TIME	10ms

### PV INPUT DATA

NUMBER OF MPPTS	3
INPUTS PER MPPT	2 (MPPT 1)   1 (MPPT 2)   1 (MPPT 3)
MAX. USABLE INPUT CURRENT	25A (MPPT 1)   15A (MPPT 2)   15A (MPPT 3)
MAX. SHORT CIRCUIT INPUT CURRENT	31A (MPPT 1)   19A (MPPT 2)   19A (MPPT 3)
DC INPUT VOLTAGE RANGE	100-600 VDC
UNIT STARTUP VOLTAGE	100 VDC
MPPT OPERATING VOLTAGE RANGE	140-500 VDC
NOMINAL MPPT VOLTAGE	360 VDC
MAXIMUM UTILIZED SOLAR POWER	18000W
RECOMMENDED MAXIMUM SOLAR INPUT*	21000W

## EFFICIENCY

CEC	96.9%
MAXIMUM EFFICIENCY (PV TO GRID)	97.5%
MAXIMUM EFFICIENCY (BATTERY TO GRID)	94%
MAXIMUM EFFICIENCY (PV TO BATTERY)	99.9%
IDLE CONSUMPTION (NORMAL   STANDBY MODE)	~70W   ~18W

## BATTERY DATA

COMPATIBLE BATTERY TYPES	Lead-acid/Lithium
MAX. CHARGE/DISCHARGE CURRENT	250A
NOMINAL VOLTAGE	48 VDC
VOLTAGE RANGE	40-60 VDC (Lithium); 40-60 VDC (Lead-acid)
RECOMMENDED BATTERY CAPACITY PER INVERTER	>200Ah

## GENERAL DATA

MAX. UNITS IN PARALLEL	10
PRODUCT DIMENSIONS (H×W×D)	34.3×20.5×11.2 in (870×520×285mm)
UNIT WEIGHT	121 lbs. (55kg)
DESIGN TOPOLOGY	High Frequency - Transformerless
RELATIVE HUMIDITY	0-100%
OPERATING ALTITUDE	<2000m (<6561ft)
OPERATING AMBIENT TEMPERATURE RANGE	-13°F – 140°F (-25°C – 60°C)
STORAGE AMBIENT TEMPERATURE RANGE	-13°F – 140°F (-25°C – 60°C)
NOISE EMISSION (TYPICAL)	68dB @ 3ft
COMMUNICATION INTERFACE	RS485/Wi-Fi/CAN
STANDARD WARRANTY	10-year standard warranty
INGRESS PROTECTION RATING	NEMA 4X

## SAFETY FEATURES

PV Arc Fault Protection, PV Ground Fault Protection, PV Reverse Polarity Protection, Pole Sensitive Leakage Current Monitoring Unit, Surge Protection Device, Output Over-Voltage Protection, Output Over-Voltage Protection Varistor, Integrated Disconnect DC switch for each MPPT

## STANDARDS AND CERTIFICATIONS

UL1741B Rule 21
Rapid Shut Down (RSD) NEC 2020:690.12
Arc-Fault Circuit Interrupter (AFCI) NEC 2020:690.11 / UL1699B
Ground Fault Monitoring (GFDI) NEC 2020:690.41(b)
CSA 22.2.107.1
CSA 22.2.330
IEEE 1547.1:2020; IEEE 1547:2018
Hawaii Rule 14H
California Rule 21 Phase I, II, III
FCC Part 15, Class B

**\*Recommendation accounts for power loss due to lower ambient temperature/lower irradiance levels**

**\*\*See EG4 Warranty Registration for terms and conditions**

## CHANGELOG

### Version 1.3.2

- Corrected MPPT Operating Voltage Range – changed from 120VDC to 140VDC

### Version 1.3.1

- Fixed typos on AC output max. continuous line wattage & max. usable PV current per MPPT

### Version 1.3

- Reformatted document to branding standards
- Added CEC efficiency ratings

### Version 1.2

- Slight modification of verbiage for readability