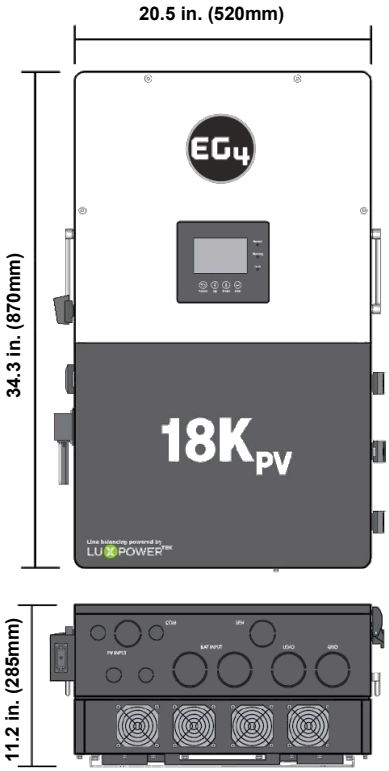

EG4® 18kPV HYBRID INVERTER

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 120kWs of AC power. Control multiple stations and units using the new EG4 monitoring software.

AC COUPLING CAPABILITY	REMOTE ADJUSTMENT 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.

UP TO 600VDC INPUT

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 EG4 app or EG4 Monitor system.

CLOSED-LOOP COMMUNICATIONS

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

VERSION 1.4.1 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
MODEL #: 18KPV-12LV | IV-12000-HYB-AW-**XX** (**XX** is a number between 0-99)

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
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)
THD @FULL LOAD	<5%
OPEN LOOP RESPONSE TIME (OLRT)	<2 seconds
TIME TO STEADY STATE	<10 seconds
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)
THDV (TOTAL HARMONIC DISTORTION VOLTAGE)	<5%
OPEN LOOP RESPONSE TIME (OLRT)	<2 seconds
TIME TO STEADY STATE	<10 seconds
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
LOCKED ROTOR AMPS (LRA)	180A
COMMUNICATION INTERFACE	RS485/Wi-Fi/CAN
STANDARD WARRANTY**	10-year standard warranty
OUTDOOR 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, Integrated PV Disconnect
STANDARDS AND CERTIFICATIONS	
UL1741, SA, SB, PCS CRD	
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	

*When sizing the system, it is best practice to follow the nominal MPPT voltage specifications and not the minimum/maximum voltage of the MPPT operating voltage range.

**For information regarding warranty registration on EG4® Electronics products, please navigate to https://eg4electronics.com/warranty/ and select the corresponding product to begin the registration process.

CHANGELOG

Version 1.4.1

- Added an asterisk to MPPT Operating Voltage Range line in spec sheet
- Added note after the spec sheet regarding MPPT Operating Voltage Range asterisk

Version 1.4.0

- Updated model # in footer on cover page

Version 1.3.9

- Added Locked Rotor Amps value to general data

Version 1.3.8

- Added Open Loop Response Time & Time to Steady State values to AC Grid Output & Backup/UPS Output data sections

Version 1.3.7

- Modified UL1741 Safety Certification to UL1741, SA, SB, PCS CRD

Version 1.3.6

- Modified warranty information

Version 1.3.5

- Updated line 1 of Safety Certifications from UL1741B Rule 21 to UL1741, SA, SB for better clarity.

Version 1.3.4

- Removed extra “Operating Frequency” line item.

Version 1.3.3

- Updated formatting
- Removed Ingress Protection and replaced it with Outdoor Rating.

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