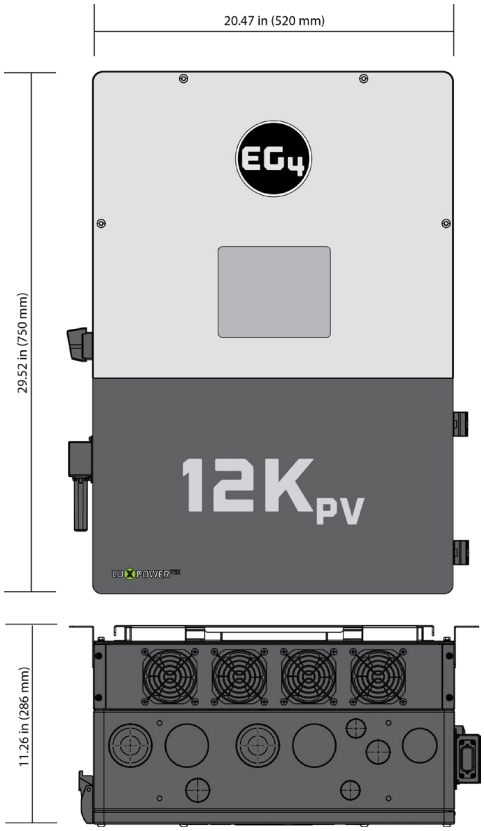

EG4® 12kPV HYBRID INVERTER

The EG4 12kPV is a 48V split-phase, hybrid inverter/charger capable of utilizing 12kW of PV input and efficiently outputting 8kW of power while also charging your battery bank. Parallel up to 10 units for 80kW of output power and control multiple stations and units using the new EG4 monitoring software.

HIGH FREQUENCY SPLIT-PHASE DESIGN

10-YEAR WARRANTY

REMOTE ADJUSTMENT VIA EG4 SOFTWARE

ALL-IN-ONE HYBRID INVERTER

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

UP TO 600VDC INPUT

The extra high voltage enables lower cable sizing for the 2 MPPTs and a maximum recommended PV input of 15kW, eliminating the need for a combiner box.

PLUG IN WI-FI DEVICE

Enables wireless connection between our new monitoring platform and the 12kPV 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.

RAPID SHUT DOWN

The 12kPV is CSA C22.2#330:2017 and NEC 690.12 ready with its built-in RSD capabilities.

VERSION 1.0.5 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
MODEL #: IV-8000-HYB-AW / IV-8000-HYB-AW-00

TECHNICAL SPECIFICATIONS

AC INPUT DATA				
NOMINAL AC VOLTAGE	120/240VAC; 120/208VAC (L1/L2/N required)			
FREQUENCY	50/60Hz			
MAX. AC INPUT POWER	8000W			
MIN. GENERATOR SIZE	>5000W			
MAX. GEN | GRID PASSTHROUGH CURRENT	80A | 80A			
AC GRID OUTPUT DATA				
MAX. OUTPUT CURRENT	33.3A@240VAC | 38.5A @208VAC			
OUTPUT VOLTAGE	120/240VAC; 120/208VAC			
NOMINAL POWER OUTPUT	8000W			
OUTPUT FREQUENCY	50/60Hz			
POWER FACTOR	0.99 @ Full Load			
REACTIVE POWER ADJUST RANGE	±0.8			
MAX CONT. LINE WATTAGE	4000W			
PEAK POWER	0.5 s 16kW	1 s 12kW	1 min 10kW	12 min 8.8kW
OPERATING FREQUENCY	50/60Hz			
THD (V) @FULL LOAD	<3%			
TRANSFER TIME	Single 20 ms – Default, 10 ms – Selectable			Parallel 20 ms
PV INPUT DATA				
NUMBER OF MPPTS	2			
INPUTS PER MPPT	2			
MAX. USABLE INPUT CURRENT	25/25A 25A per MPPT | 41.6A in total			
MAX. SHORT CIRCUIT INPUT CURRENT	31/31A			
DC INPUT VOLTAGE RANGE	100-600 VDC			
UNIT STARTUP VOLTAGE	100 VDC			
MPPT OPERATING VOLTAGE RANGE	120-500 VDC			
NOMINAL MPPT VOLTAGE	360 VDC			
MAXIMUM UTILIZED SOLAR POWER	12000W			
RECOMMENDED MAXIMUM SOLAR INPUT	15000W			
EFFICIENCY				
MAXIMUM EFFICIENCY (PV TO GRID)	97.5%			
MAXIMUM EFFICIENCY (BATTERY TO GRID)	94%			
CEC WEIGHTED EFFICIENCY	96.4%			
MAXIMUM EFFICIENCY (PV TO BATTERY)	99.9%			
IDLE CONSUMPTION (STANDBY MODE)	<55W			

BATTERY DATA	
COMPATIBLE BATTERY TYPES	Lead-Acid/Lithium
MAX. CHARGE/DISCHARGE CURRENT	167A @ 48 VDC
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)	29.5×20.5×11.2 in (750×520×285 mm)
UNIT WEIGHT	110 lbs. (50 kg)
DESIGN TOPOLOGY	High Frequency - Transformerless
RELATIVE HUMIDITY	0-100%
OPERATING ALTITUDE	<2000m (<6561 ft)
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)	<50 dB @ 3 ft
LOCKED ROTOR AMPS (LRA)	195A
COMMUNICATION INTERFACE	RS485/Wi-Fi/CAN
STANDARD WARRANTY*	10-year standard warranty
ENCLOSURE 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 SB	
CSA C22.2#107.1:2016	
CSA C22.2#330:2017 ED. 1	
HECO SRD-IEEE-1547.1:2020 ED. 2	
RAPID SHUT DOWN (RSD) NEC 2020:690.12	
FCC PART 15, CLASS B	

*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

V1.0.4

- Modified max AC input power from 12000 to 8000W

V1.0.3

- 3-10-25 - Added Locked Rotor Amps value to specifications

12-30-24

- Removed (Pending) from FCC Part 15 cert

11-15-24

- Published v1.0.2
- Removed IP rating and added NEMA 4X rating
- Modified warranty information