

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.





EG4 ELECTRONICS

TECHNICAL <u>SPECIFICATIONS</u>

AC INPUT DATA					
NOMINAL AC VOLTAGE		120/240\/AC	120/208VAC (L1	/I 2/N required)	
FREQUENCY	120/240VAC; 120/208VAC (L1/L2/N required) 50/60Hz				
MAX. AC INPUT POWER	12000W				
MIN. GENERATOR SIZE				>5000W	
MAX. GEN GRID PASSTHROUGH CURRENT				80A 80A	
AC GRID OUTPUT DATA				00/1/00/1	
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	0.5s	1s	1min	12min	
	16kW	12kW	10kW	8.8kW	
OPERATING FREQUENCY				50/60Hz	
THD (V) @FULL LOAD				<3%	
TRANSFER TIME		Single		Parallel	
	20ms – Defa	20ms – Default, 10ms – Selectable 20m			
PV INPUT DATA					
NUMBER OF MPPTS				2	
INPUTS PER MPPT				2	
MAX. USABLE INPUT CURRENT		25/25A			
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 MPP 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	

EG4 ELECTRONICS

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 (750×520×285mm)
UNIT WEIGHT	110 lbs. (50kg)
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)	<50 dB @ 3ft
COMMUNICATION INTERFACE	RS485/Wi-Fi/CAN
STANDARD WARRANTY	10-year standard warranty**
INGRESS PROTECTION RATING	IP65
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 (PENDING)	

^{*}See EG4 Warranty Registration for terms and conditions