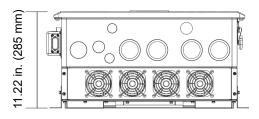


# EG4® FLEXBOSS21 HYBRID INVERTER

The EG4 FlexBOSS21 is a versatile 48V split-phase, hybrid inverter/charger that offers the same dependable power as the 18kPV with enhanced flexibility. Powerful enough to start a 5-ton AC unit, the FlexBOSS21 supports 21kW of PV input. Capable of paralleling up to 10 units together, the FlexBOSS21 has an impressive total output of 160kW. Three MPPTs give users optimal control over their solar needs, while the updated EG4 monitoring software allows for convenient total remote management, complete with mobile notifications and remote setting. Seamless interaction with GridBOSS gives users control over their entire Energy Storage System (ESS).



HIGH FREQUENCY SPLIT-PHASE DESIGN

10-YEAR WARRANTY REMOTE ADJUSTMENT VIA EG4 SOFTWARE

#### ALL-IN-ONE HYBRID INVERTER

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

#### UP TO 600VDC INPUT

The extra high voltage enables lower cable sizing for the 3 MPPTs and a maximum recommended PV input of 24kW, eliminating the need for a combiner box.

#### PLUG-IN WI-FI DEVICE

Enables wireless connection between our monitoring platform and the FlexBOSS21 through the EG4® app or EG4 Monitor system for remote system management.

#### 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 FlexBOSS21 is CSA C22.2#330:2017 and NEC 690.12 ready with its built-in RSD capabilities.









## EG4 ELECTRONICS

### TECHNICAL SPECIFICATIONS

AC INPUT DATA					
NOMINAL AC VOLTAGE		120/240VAC; 120/208VAC (L1/L2/N required)			
FREQUENCY		60 Hz Default   50 Hz Capable			
MAX. AC CURRENT	50A @ 240V   57.7A @ 208V				
MAX. AC INPUT POWER	12kW				
MAX. AC BYPASS				90A	
AC GRID OUTPUT DATA					
MAX. OUTPUT CURRENT				66.7A	
OUTPUT VOLTAGE		120/240VAC; 120/208VAC (L1/L2/N required)			
OPERATING VOLTAGE RANGE				180 – 270VAC	
NOMINAL POWER OUTPUT		16kW @ 240V   13.8kW @ 208V			
OUTPUT FREQUENCY		60 Hz Default  50 Hz Capable			
POWER FACTOR		0.99 @ Full Load			
REACTIVE POWER ADJUST RANGE		(-	·0.8) – (+0.8) Lea	ding Adjustable	
PEAK POWER (SURGE CAPACITY)	24kW	18kW	15kW	13.3kW	
THD @FULL LOAD	(0.5 sec)	(1 sec)	(6 min)	(12min) <5%	
TRANSFER TIME	20 ms	20 ms (Default), 10 ms (Configurable)   Parallel – 20 ms			
BACKUP/UPS AC OUTPUT DATA		20 ms (Delauit), 10 ms (Comigurable)   Parallel – 20 ms			
RATED OUTPUT CURRENT (240   208VAC)				50A   57.7A	
NOMINAL OUTPUT VOLTAGE		120/240   120/208VAC			
RATED OUTPUT POWER		12kW @240VAC   12kW @208VAC			
PEAK POWER	18kW (1 sec)	15kW (6 min)	13.3kW (12 min)	Without PV: 13.3kW (12 min)	
OPERATING FREQUENCY				50/60 Hz	
THDV (TOTAL HARMONIC DISTORTION VOLTAGE)		<5%			
TRANSFER TIME	20 m	s (Default), 10 ms	(Configurable)	Parallel: 20 ms	
PV INPUT DATA					
NUMBER OF MPPTS				3	
INPUTS PER MPPT		2 (MPPT 1)   2 (MPPT 2)   1 (MPPT 3)			
MAX. USABLE INPUT CURRENT		26A (MPPT 1)   26A (MPPT 2)   15A (MPPT 3)			
MAX. SHORT CIRCUIT INPUT CURRENT		31A (MPPT 1)   31A (MPPT 2)   19A (MPPT 3)			
DC INPUT VOLTAGE RANGE		100 – 600VDC			
UNIT STARTUP VOLTAGE		140VDC			
MPPT OPERATING VOLTAGE RANGE		120 – 440VDC			
NOMINAL MPPT VOLTAGE		360VDC			
MAX. UTILIZED SOLAR POWER		21kW			
MAX. RECOMMENDED SOLAR INPUT				24kW	
EFFICIENCY					
CEC				96.9%	
MAX. EFFICIENCY (PV TO GRID)		97%			
MAX. EFFICIENCY (BATTERY TO GRID)		94%			
MAX. EFFICIENCY (PV TO BATTERY)		94.5%			
IDLE CONSUMPTION (STANDBY MODE)				<60W	

### EG4 ELECTRONICS

BATTERY DATA			
COMPATIBLE BATTERY TYPES	Lead-acid/Lithium		
MAX. CHARGE/DISCHARGE CURRENT	250A @ 48VDC   234A @ 51.2VDC		
NOMINAL VOLTAGE	48VDC		
VOLTAGE RANGE	40 – 60VDC		
RECOMMENDED BATTERY CAPACITY PER INVERTER	>300Ah		
GENERAL DATA			
MAX. UNITS IN PARALLEL	10		
PRODUCT DIMENSIONS (H×W×D)	29.52×20.47×11.22 in. (750×520×285 mm)		
UNIT WEIGHT	88 lbs. (52 kg)		
DESIGN TOPOLOGY	High Frequency – Transformerless		
RELATIVE HUMIDITY	0 – 100%		
OPERATING ALTITUDE	<6561 ft (<2000m)		
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)	<50dB @ 3 ft		
COMMUNICATION INTERFACE	RS485/Wi-Fi/CAN		
STANDARD WARRANTY	10-year standard warranty*		
OUTDOOR RATING	NEMA 4X		
SAFETY FEATURES	Integrated DC disconnect, Reverse polarity protection, Output over-voltage protection varistor, Output over current protection, Ground fault monitoring, grid monitoring, Pole sensitive leakage current monitoring unit, AFCI, RSD		
STANDARDS AND CERTIFICATIONS			
UL1741B, SA, SB			

California Rule 21 Phase I, II, III

Arc-Fault Circuit Interrupter (AFCI) NEC 2020:690.11/UL1699B

Ground Fault Monitoring (GFDI) NEC 2020:690.41(b)

CSA 22.2.107.1:2016 Ed. 4

CSA 22.2.330:2017 Ed. 1

IEEE 1547.1:2020; IEEE 1547:2018

Hawaii Rule 14H [HECO SRD IEEE1547.1-2020 Ed. 2]

Rapid Shut Down (RSD) NEC 2020:690.12 (PENDING)

FCC Part 15, Class B (PENDING)

<sup>\*</sup>See EG4 Warranty Registration for terms and conditions