

DOCKETED

Docket Number:	18-SOLAR-01
Project Title:	Solar Equipment Lists Program Implementation
TN #:	249676
Document Title:	Advantage Solar LLC Comments - Adding EG4 battery and inverter to APS and SRP
Description:	N/A
Filer:	System
Organization:	Advantage Solar LLC
Submitter Role:	Other Interested Person
Submission Date:	4/14/2023 10:29:40 AM
Docketed Date:	4/14/2023

*Comment Received From: Advantage Solar LLC
Submitted On: 4/14/2023
Docket Number: 18-SOLAR-01*

Adding EG4 battery and inverter to APS and SRP

I wanted to see about adding EG4 inverters to the available lists of inverters in powerClerk.

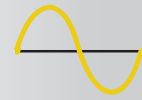
Thanks,
Travis

Additional submitted attachment is included below.



EG4 8KEXP-240V HYBRID INVERTER / CHARGER

**PURE SINE
WAVE**



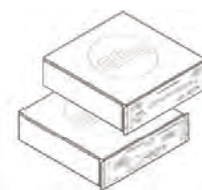
**CONTINUOUS
OUTPUT 8000W**

**BATTERY
VOLTAGE 48V**

The EG4 8KEXP-240V is a standalone, split-phase output 48 volt based all-in-one hybrid-inverter, AC charger and solar MPPT charge controller unit.

Parallel capacity is built in with systems up to 4 units and 32kW capacity being possible.

The unit has a communication platform based on the integrated LCD Control Panel allowing for on-site configuration, firmware updates and WiFi based cloud monitoring.



**Closed loop
communication with
EG4-LL 48V and
LifePower4 48V batteries**

True Hybrid AC Output

Sell excess power back to the grid

8000W Continuous Output

8000W 120/240VAC output with 12,000W maximum PV input

500 VDC Max

Extra high voltage means smaller wire size. Skip the combiner box too!

Parallel Up To 4 Units

9 Single Phase 120/240VAC max system size

Attachable WIFI unit

Wireless communication between the inverter and the monitoring platform (app available in both the Apple & Google Play Store.)

120/240 AC Output in a Single Unit

The built in Pure Copper Transformer will produce 120/240v power in each unit.

Works with practically every 48v Battery

All batteries supported, Flooded, Gel, AGM And Generic Lithium, as well as on board optimization for EG4 batteries (free 2 year warranty extension based on integration testing)



EG4 8KEXP-240V HYBRID INVERTER / CHARGER

GENERAL INVERTER SPECIFICATIONS

Number of Stackable Inverters	4
Nominal AC Input Voltage	120/240 VAC (L1/L2/N required)
Max AC Input Voltage Per Leg	140VAC
Nominal Input Frequency	50 Hz / 60 Hz (Auto Detection)
Transfer Time	UPS Mode- 10 ms typical Appliance Mode- 20 ms typical

BACKUP MODE SPECIFICATIONS

Rated Output Power	8000W
Output Voltage Waveform	Pure Sine Wave (<2% THD)
Output Voltage Regulation	120 / 240VAC +/- 2%
Output Frequency	50Hz or 60Hz (selectable)
Battery to Inverter Efficiency	97% Peak
PV to Inverter Efficiency	95% Peak
Overload Protection	5s @ 150% Load 10s @ 110% to 150% Load
Surge Capacity	12kW for 1 Second

SOLAR INPUT SPECIFICATIONS

Rated Power	12,000W (3000W per MPPT)
Max PV Array Open Circuit	500VDC
MPP Range	120VDC - 500VDC
Max Input Current Draw/Short Circuit Input Draw	12A/15A (per MPPT)
Number of MPPTs	4
Max Charging Current (PV alone, or combined AC and PV)	190A

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range	-25°C to 60°C
Application Type	Indoor only
Humidity	0% to 95% Relative Humidity (non-condensing)
IP Rating	IP65/NEMA 3R
Idle Power Consumption	115W Average
Operating Altitude	0-3000 Meters

PHYSICAL SPECIFICATIONS

Dimensions (H x W x D) Inches (mm)	28" x 17" x 8 3/5" (710 x 430x 220)
Net Weight Pounds	41 kgs (90.3) lbs

WARRANTY INFORMATION

Warranty	5 Years with EG4 Batteries in closed loop, 3 years stand-alone use
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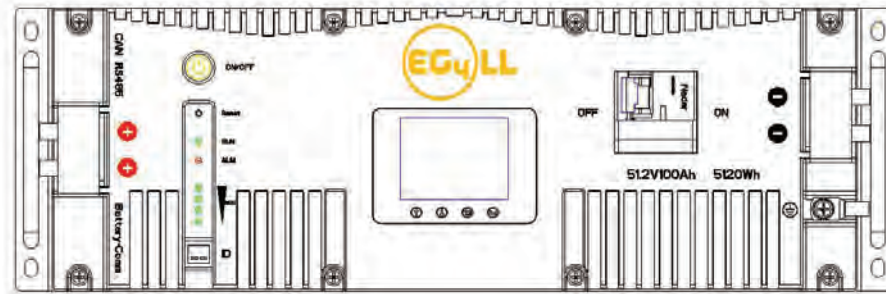
EG4-LL 48V 100AH BATTERY

BUILT IN BMS 100A

STORAGE CAPACITY 5.12KWH

BATTERY VOLTAGE 48V

Our EG4-LL batteries offer second to none price to performance. Get peace of mind that your batteries are designed to last for over 7000 deep charge and discharge cycles, that's over 15 years with an 80% depth of discharge daily!



On-board LCD touch screen

Easy to see BMS monitoring, and selectable closed-loop inverter communications including Schneider, Solark, Victron, Growatt, and EG4!

10 year warranty

Have peace of mind knowing we will be there to take care of you should something go wrong!

PC Monitoring Software

See real-time statistics of your battery!

Parallel up to 16 batteries

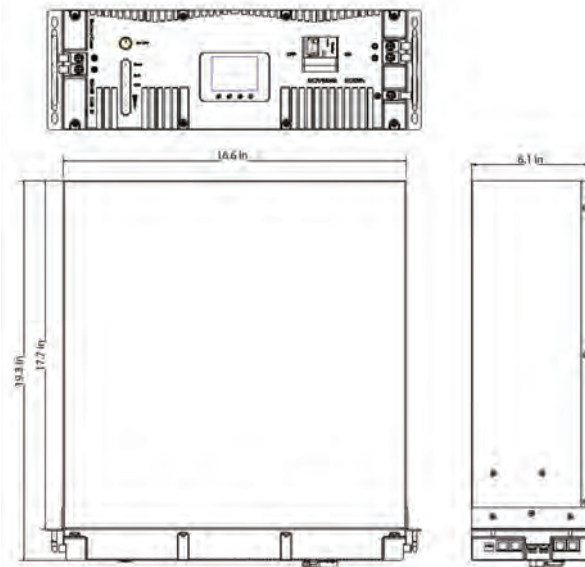
Get the most power possible! Up to 81.9kWh while maintaining BMS communications!

Rack Mount Design

4U server rack mounting makes it convenient to store!

Dual On-board fire arrestors

Failsafe operation in high risk environments and to protect against rare hardware failure on high voltage solar charge controllers!



COMPATIBLE WITH ALL 48V EG4 INVERTERS



EG4-LL 48V 100AH BATTERY

Nominal Operating Parameters			
Voltage	51.2V		
Capacity	100Ah		
Charging Voltage	56.0+/-0.8V		
Discharging Voltage	44.8V		
Charging Current	Max Constant Charge: 100A		
Discharging Current	Max Constant Discharge: 100A		
Environmental Parameters			
Charging Range	0°C to 45°C		
Discharging Range	-20°C to 50°C		
Storage Range	-20°C to 50°C		
BMS Parameters			
Charge	Spec	Delay	Recovery
Cell Voltage Protection	3.8V	1 sec	3.45V
Module Voltage Protection	60.0V	1 sec	55.2V
Over Charging Current 1	>102A	10 sec	
Over Charging Current 2	≥120A	3 sec	
Temperature Protection	<-5°C or >70°C	1 sec	>-0°C or <60°C
Discharge			
Cell Voltage Protection	2.3V	1 sec	3.1V
Module Voltage Protection	44.8V	1 sec	48V
Over Charging Current 1	>102A	10 sec	60 sec
Over Charging Current 2	>150A	3 sec	60 sec
Short-Circuit	>250A	<0.1 mS	
Temperature Protection	<-20°C or >75°C	1 sec	>-10°C or <65°C
BMS	Parameter	Condition	
PCB Temperature Protection	>105°C	Delay 1 sec	Recovery @ <80°C
Cell Balance	150mA	Passive Balance	Cell Voltage Difference >40mV
Temperature Accuracy	3%	Cycle Measurement	Measuring Range -40 to 100°C
Voltage Accuracy	0.5%	Cycle Measurement	For Cells and Module
Current Accuracy	3%	Cycle Measurement	Measuring Range -200 to +200
SOC	5%		Integral Calculation
Power Consumption - Sleep/Off Mode	<300uA		Storage/Transport
Power Consumption - Operating Mode	<25mA		Charging/Discharging
Communication Ports	RS485/CAN		Can be Customized

