

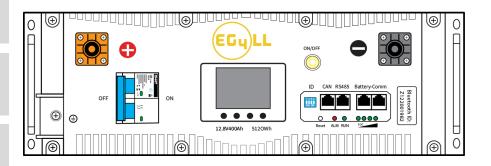
## **EG4-LL 12V**

#### **400AH BATTERY**

Built in BMS 200A

Storage Capacity 5.12 kWh

10 Year Warranty



The new EG4-LL 12V batteries offer unmatched performance and longevity. They are designed to last for more than 7000 deep charge and discharge cycles and have a life cycle of more than 15 years with an 80% depth of discharge daily.

#### **Dual On-board Fire Arrestors**

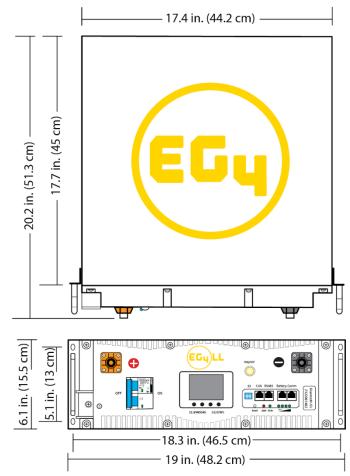
Provide fail-safe operation in highrisk environments and safeguard against rare hardware failure on high-voltage solar charge controllers

#### **Real-Time Statistics**

Using Bluetooth integration with a customized app and PC monitoring software

### **New, More Powerful BMS**

Handles heavier loads with ease, parallels up to 16 batteries for more than 80kWh of storage, and communicates with 12V Victron systems for added functionality







# **EG4-LL 12V**

#### **400AH BATTERY**

| Voltage  | <b>Nominal Operating Parameters</b> |                           |                            |                           |  |
|--|-------------------------------------|---------------------------|----------------------------|---------------------------|--|
| Charging Voltage (Bulk/Absorb)   14.0V (+/-0.2V)   | Voltage                             | 12.8V                     |                            |                           |  |
| 13.5V (+/-0.2V)  | Capacity                            | 400Ah                     |                            |                           |  |
| Low DC Cutoff         11.8 − 11.4V (depending on load - start high, lower if needed)           Charging Current         Max Constant Charge: 200A (<100 recommended)           Discharging Current         Max Constant Discharge: 200A           Environmental Parameters         At The Constant Discharge: 200A           Charging Range         32° − 113°F (0°C to 45°C)           Discharging Range         32° − 113°F (0°C to 45°C)           Storage Range         4°F − 122°F (-20°C to 50°C)           BMS Parameters         Debay         Recovery           Cell Voltage Protection         3.8V         1 sec         3.45V           Module Voltage Protection         15.0V         1 sec         13.8V           Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         >250A         3 sec         /           Temperature Protection         9.6V         1 sec         3.1V           Module Voltage Protection         9.6V         1 sec         3.1V           Module Voltage Protection         9.6V         1 sec         12.0V           Over Charging Current 1         >220A         30 sec         60 sec           Poth-Circuit         >775A         0.1 ms           Temperature Protection         <4°F or >167°F <td>Charging Voltage (Bulk/Absorb)</td> <td colspan="3">14.0V (+/-0.2V)</td>   | Charging Voltage (Bulk/Absorb)      | 14.0V (+/-0.2V)           |                            |                           |  |
| Charging Current         Max Constant Charge: 200A (<100 recommended)           Discharging Current         Max Constant Discharge: 200A           Environmental Parameters         ATF - 122°F (-20°C to 50°C)           Charging Range         32° - 113°F (0°C to 45°C)           Discharging Range         -4°F - 122°F (-20°C to 50°C)           Storage Range         -4°F - 122°F (-20°C to 50°C)           BMS Parameters           Charge         Spec         Delay         Recovery           Cell Voltage Protection         3.8°V         1 sec         3.45°V           Module Voltage Protection         15.0°V         1 sec         13.8°V           Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         >250A         3 sec         /           Temperature Protection         2.3°F or >167°F c -5°C or <5°C or <5°C   | Float                               |                           |                            |                           |  |
| Discharging Current   Max Constant Discharge: 200A   | Low DC Cutoff                       |                           |                            |                           |  |
| Charging Range   | Charging Current                    |                           |                            |                           |  |
| Charging Range   | Discharging Current                 |                           |                            |                           |  |
| Discharging Range   -4"F - 122"F (-20"C to 50"C)   | Environmental Parameters            |                           |                            |                           |  |
| Storage Range  | Charging Range                      | 32° – 113°F (0°C to 45°C) |                            |                           |  |
| BMS Parameters         Charge         Spec         Delay         Recovery           Cell Voltage Protection         3.8V         1 sec         3.45V           Module Voltage Protection         15.0V         1 sec         13.8V           Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         >250A         3 sec         /           Temperature Protection         <23°F or >16°F r         1 sec         >41°F or <149°F rol <149°F  | Discharging Range                   |                           |                            |                           |  |
| BMS Parameters         Charge         Spec         Delay         Recovery           Cell Voltage Protection         3.8V         1 sec         3.45V           Module Voltage Protection         15.0V         1 sec         13.8V           Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         >250A         3 sec         /           Temperature Protection         <23°F or >16°F         1 sec         >41°F or <149°F  |                                     | , ,                       |                            |                           |  |
| Cell Voltage Protection         3.8V         1 sec         3.45V           Module Voltage Protection         15.0V         1 sec         13.8V           Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         >250A         3 sec         /           Temperature Protection         <23°F or >167°F         1 sec         >41°F or <149°F   | BMS Parameters                      |                           |                            |                           |  |
| Module Voltage Protection         15.0V         1 sec         13.8V           Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         ≥250A         3 sec         /           Temperature Protection         <23°F or >16°F cor >75°C         1 sec         >41°F or <149°F cor <55°C   | Charge                              | Spec                      | Delay                      | Recovery                  |  |
| Over Charging Current 1         >220A         10 sec         /           Over Charging Current 2         >250A         3 sec         /           Temperature Protection         <33°F or >167°F<br><5°C or >75°C         1 sec         >41°F or <149°F<br>>5°C or <65°C  | Cell Voltage Protection             | 3.8V                      | 1 sec                      | 3.45V                     |  |
| Over Charging Current 2         >250A         3 sec         /           Temperature Protection         <23°F or >16°F c          1 sec         >>41°F or <149°F  | Module Voltage Protection           | 15.0V                     | 1 sec                      | 13.8V                     |  |
| Spec   | Over Charging Current 1             | >220A                     | 10 sec                     | /                         |  |
| Temperature Protection    C<5°C or >75°C   Sec   | Over Charging Current 2             | >250A                     | 3 sec                      | /                         |  |
| Spec   Delay   Recovery  | Temperature Protection              | <23°F or >167°F           | 1 sec                      | >41°F or <149°F           |  |
| Cell Voltage Protection     2.3V     1 sec     3.1V       Module Voltage Protection     9.6V     1 sec     12.0V       Over Charging Current 1     >220A     30 sec     60 sec       Over Charging Current 2     >380A     3 sec     60 sec       Short-Circuit     >775A     0.1 mS       Temperature Protection     <4°F or >16°F c     >10°C or <65°C   |                                     | <-5°C or >75°C            |                            | >5°C or <65°C             |  |
| Module Voltage Protection 9.6V 1 sec 12.0V  Over Charging Current 1 >220A 30 sec 60 sec  Over Charging Current 2 >380A 3 sec 60 sec  Short-Circuit >775A 0.1 mS  Temperature Protection <a href="c4"></a>  | Discharge                           | Spec                      | Delay                      | Recovery                  |  |
| Over Charging Current 1  >220A  30 sec  60 sec  Over Charging Current 2  >380A  3 sec  60 sec  Short-Circuit  >775A  0.1 mS  Temperature Protection <pre></pre>  | Cell Voltage Protection             | 2.3V                      | 1 sec                      | 3.1V                      |  |
| Over Charging Current 2 >380A 3 sec 60 sec  Short-Circuit >775A 0.1 mS  Temperature Protection <a href="#">&lt;-4°F or &gt;167°F </a> <a href="#">&lt;-20°C or &gt;75°C</a> PCB Temperature Protection >221°F (>105°C) 1 sec @ <176°F (<80°C)  BMS  Parameter Spec Condition  Cell Balance 100 mA Passive Balance Cell Voltage Difference >40mV  Temperature Accuracy 3% Cycle Measurement For Cells & Module  Voltage Accuracy 0.5% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement Storage/Transport/Standby  SOC 5% / Integral Calculation  Power Consumption Sleep & Off Mode <300uA Storage/Transport/Standby  Power Consumption Operating Mode <14mA Charging/Discharging  Communication Ports RS485/CAN Bus  Bluetooth Monitoring Customized EG4 App  Physical Specifications  Dimensions (H×W×D) 6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Module Voltage Protection           | 9.6V                      | 1 sec                      | 12.0V                     |  |
| Short-Circuit >775A 0.1 mS  Temperature Protection <a href="#">&lt;-4°F or &gt;167°F </a> <a href="#">&lt;-20°C or &gt;75°C</a> PCB Temperature Protection >221°F (>105°C) 1 sec @ <176°F (<80°C)  Parameter Spec Condition  Cell Balance 100 mA Passive Balance Cell Voltage Difference >40mV  Temperature Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement Sope Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement Storage -200A ~ 200A  SOC 5% / Integral Calculation  Power Consumption Sleep & Off Mode <300uA Storage/Transport/Standby  Power Consumption Operating Mode <14mA Charging/Discharging  Communication Ports RS485/CAN Bus  Bluetooth Monitoring Customized EG4 App  Physical Specifications  Dimensions (H×W×D) 6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)  | Over Charging Current 1             | >220A                     | 30 sec                     | 60 sec                    |  |
| Temperature Protection   | Over Charging Current 2             | >380A                     | 3 sec                      | 60 sec                    |  |
| Sec   S-10°C or <65°C  | Short-Circuit                       | >775A                     | 0.1 mS                     |                           |  |
| PCB Temperature Protection >221°F (>105°C) 1 sec @ <176°F (<80°C)  BMS  Parameter Spec Condition  Cell Balance 100 mA Passive Balance Cell Voltage Difference >40mV  Temperature Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement For Cells & Module  Current Accuracy 3% Cycle Measurement Accuracy Siepe & Off Mode Sie | Temperature Protection              |                           | 1 sec                      |                           |  |
| BMSParameterSpecConditionCell Balance100 mAPassive BalanceCell Voltage Difference >40mVTemperature Accuracy3%Cycle MeasurementMeasuring Range -40°F - 212°F (-40°C - 100°C)Voltage Accuracy0.5%Cycle MeasurementFor Cells & ModuleCurrent Accuracy3%Cycle MeasurementMeasuring Range -200A ~ 200ASOC5%/Integral CalculationPower ConsumptionSleep & Off Mode<300uA   |                                     |                           |                            |                           |  |
| ParameterSpecConditionCell Balance100 mAPassive BalanceCell Voltage Difference >40mVTemperature Accuracy3%Cycle MeasurementMeasuring Range -40°F - 212°F (-40°C - 100°C)Voltage Accuracy0.5%Cycle MeasurementFor Cells & ModuleCurrent Accuracy3%Cycle MeasurementMeasuring Range -200A ~ 200ASOC5%/Integral CalculationPower ConsumptionSleep & Off Mode<300uA  | ·                                   | >221°F (>105°C)           | 1 sec                      | @ <176°F (<80°C)          |  |
| Cell Balance  100 mA  Passive Balance  Cell Voltage Difference >40mV  Measuring Range -40°F - 212°F (-40°C - 100°C)  Voltage Accuracy  0.5%  Cycle Measurement  For Cells & Module  Current Accuracy  3%  Cycle Measurement  For Cells & Module  Measuring Range -200A ~ 200A  SOC  5%  / Integral Calculation  Power Consumption  Sleep & Off Mode  <300uA  Storage/Transport/Standby  Power Consumption  Operating Mode  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)  |                                     |                           |                            |                           |  |
| Temperature Accuracy  3%  Cycle Measurement  212°F (-40°C – 100°C)  Voltage Accuracy  0.5%  Cycle Measurement  For Cells & Module  Current Accuracy  3%  Cycle Measurement  Measuring Range -40°F – 212°F (-40°C – 100°C)  For Cells & Module  Cycle Measurement  Measuring Range -200A ~ 200A  SOC  5%  / Integral Calculation  Sleep & Off Mode  <300uA  Storage/Transport/Standby  Power Consumption  Operating Mode  <14mA  Charging/Discharging  Communication Ports  RS485/CAN Bus  Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   |                                     | -                         |                            |                           |  |
| Temperature Accuracy  Voltage Accuracy  O.5%  Cycle Measurement  For Cells & Module  Current Accuracy  3%  Cycle Measurement  For Cells & Module  Measuring Range -200A ~ 200A  Yourde Measurement  Cycle Measurement  Soc / Integral Calculation  Power Consumption  Sleep & Off Mode <300uA  Storage/Transport/Standby  Power Consumption  Operating Mode <14mA  Charging/Discharging  Communication Ports  RS485/CAN Bus  Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)  | Cell Balance                        | 100 mA                    | Passive Balance            |                           |  |
| Current Accuracy  3%  Cycle Measurement  Measuring Range -200A ~ 200A  SOC  5%  / Integral Calculation  Power Consumption  Sleep & Off Mode  <300uA  Storage/Transport/Standby  Power Consumption  Operating Mode  <14mA  Charging/Discharging  Communication Ports  RS485/CAN Bus  Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Temperature Accuracy                | 3%                        | Cycle Measurement          |                           |  |
| Current Accuracy  3%  Cycle Measurement  200A  SOC  5%  / Integral Calculation  Power Consumption  Sleep & Off Mode  <300uA  Storage/Transport/Standby  Power Consumption  Operating Mode  <14mA  Charging/Discharging  Communication Ports  RS485/CAN Bus  Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Voltage Accuracy                    | 0.5%                      | Cycle Measurement          |                           |  |
| Power Consumption  Sleep & Off Mode  <300uA  Storage/Transport/Standby  Power Consumption  Operating Mode  <14mA  Charging/Discharging  Communication Ports  RS485/CAN Bus  Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Current Accuracy                    | 3%                        | Cycle Measurement          |                           |  |
| Power Consumption Operating Mode <14mA Charging/Discharging  Communication Ports RS485/CAN Bus  Bluetooth Monitoring Customized EG4 App  Physical Specifications  Dimensions (H×W×D) 6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | SOC                                 | 5%                        | /                          | Integral Calculation      |  |
| Communication Ports  RS485/CAN Bus  Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Power Consumption                   | Sleep & Off Mode          | <300uA                     | Storage/Transport/Standby |  |
| Bluetooth Monitoring  Customized EG4 App  Physical Specifications  Dimensions (H×W×D)  6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Power Consumption                   | Operating Mode            | <14mA                      | Charging/Discharging      |  |
| Physical Specifications       Dimensions (H×W×D)     6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Communication Ports                 | RS485/CAN Bus             |                            |                           |  |
| Dimensions (H×W×D) 6.1 in.×19 in.×20.2 in. (15.5 cm×48.2 cm×51.3 cm)   | Bluetooth Monitoring                |                           | Customized EG4 Ap          | р                         |  |
|  |                                     |                           |                            |                           |  |
| Weight 98.1 lbs. (44.5 kgs)  | Dimensions (H×W×D)                  | 6.1 in.×                  | 19 in.×20.2 in. (15.5 cm×4 | 8.2 cm×51.3 cm)           |  |
|  | Weight                              |                           | 98.1 lbs. (44.5 kgs        | )                         |  |

