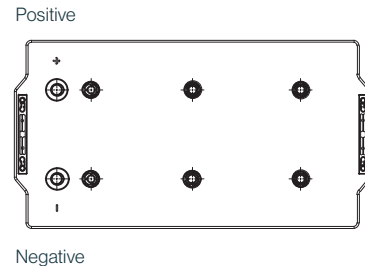
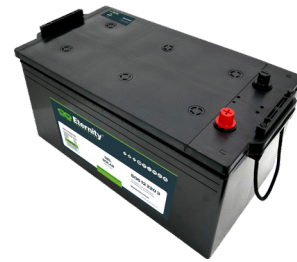
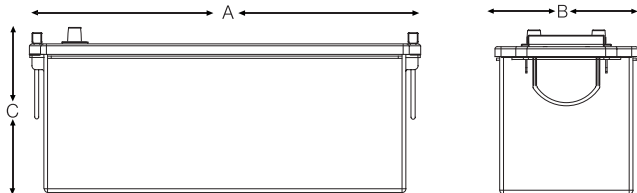


# S06-12-220-3

## Gel Solar Bloc Battery



### Electrical Specifications

<b>Voltage</b>	12V
<b>80% DOD Voltage Cutoff</b>	11.2V
<b>Low Voltage Cutoff</b>	10.8V
<b>Self Discharge</b>	Less than 3% per month (20°C/68°F)
<b>Charge Temperature</b>	Min: -10°C (14°F) / Max: 50°C (122°F)
<b>Discharge Temperature**</b>	Min: -40°C (-40°F) / Max: 50°C (122°F)
<b>Storage</b>	Min: -20°C (-4°F) / Max: 60°C (140°F)

Amp Hours (AH)					
120HR	100HR	72HR	20HR	10HR	5HR
235	230	221	212	200	177

\*\* CAUTION: Depths of discharge, operating voltages and currents, when designing systems for use at maximum temperatures, will vary.

### Mechanical Specifications

Industry Reference	DIN C	
<b>Length (A)</b>	20.4 in	518 mm
<b>Width (B)</b>	10.8 in	274 mm
<b>Height (C)</b>	9.4 in	238 mm
<b>Weight</b>	150 lbs	68 kgs
<b>Terminal (Opt'l)*</b>	A-Pole (Industrial Terminal optional)	
<b>Cell(s)</b>	6	
<b>Electrolyte</b>	Gel	
<b>Terminal Torque Nm</b>	n/a	

NOTE: There is a tolerance of +/-2%.

### Features

Maintenance-free bloc batteries in Gel technology (no topping up during lifetime)

Good high current performance for extreme operating conditions

High-class patented safety valve

1200 cycles (IEC 61427 / 60896-21/22)

Capacity: 12V 55Ah-220Ah(C<sub>20</sub>)

Valve-regulated lead-acid battery

Recyclable

Long cycle life

Low self discharge rate allows for up to 2 years shelf life

Classified as a non-spillable battery is not restricted for transportation by:

- Air (IATA/ICAO provision 67)
- Ground (STB, DOT-CFR-HMR49)
- Water (IMDG amendment 27)

### Applications

Solar

Home Inverter

Renewable Energy

Deep Cycle Applications

## Charging profile

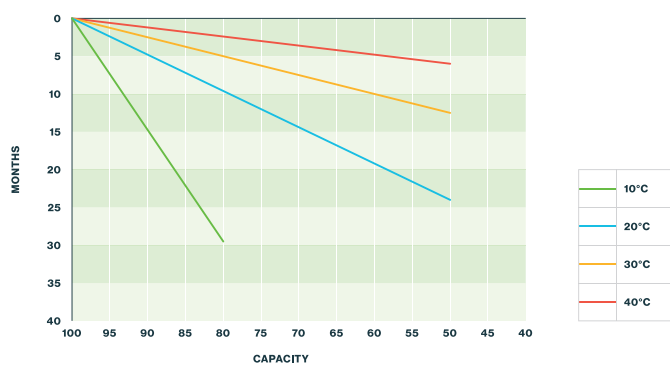
**IU Charging**  $I = \text{min. } 12\% C_5 \text{ max. } 18\% C_5$   
 $U = 2.4 \text{ V per cell}$

**IUI Charging**  $I_1 = \text{min. } 12\% C_5 \text{ max. } 18\% C_5$   
 $U = 2.35 \text{ V per cell}$   
 $I_2 = 1.5\% C_5 \text{ for max. 4 hours}$

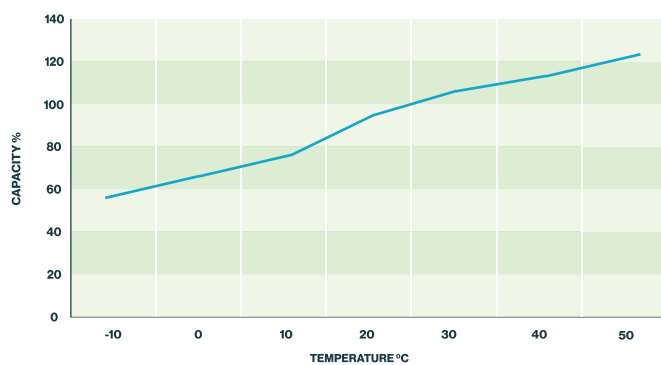
## Torque



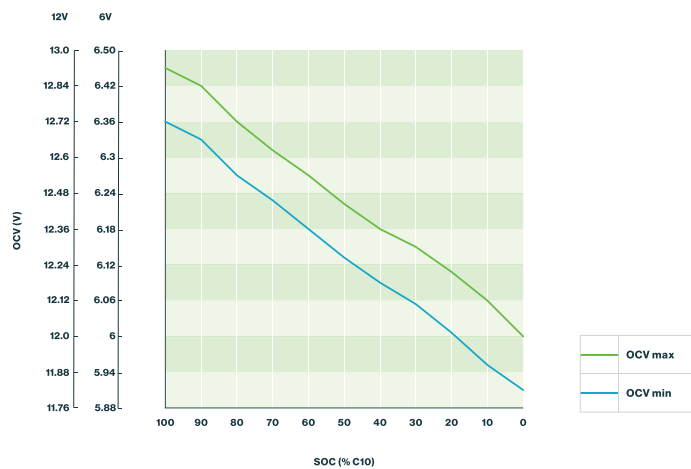
## Self discharge at different temperatures



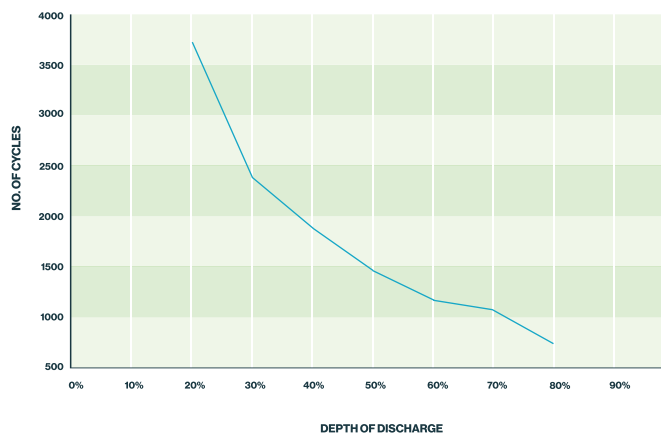
## Capacity vs. temperature



## Storage: Determine the state of charge



## Cycle life vs. depth of discharge (25°C)



## Relation between charging, voltage and temperature

