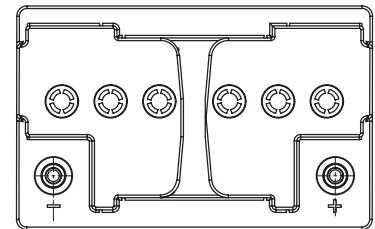
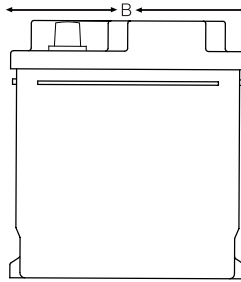
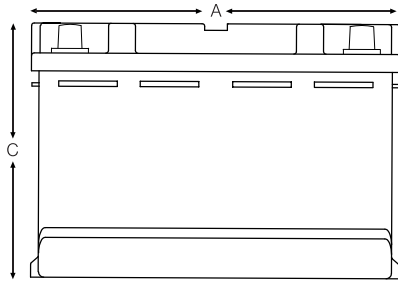


# EQ-48/H7

## Carbon Nano Gel Bloc



Left - Negative

Right - Positive

### Electrical Specifications

|                                |                                        |
|--------------------------------|----------------------------------------|
| <b>Voltage</b>                 | 12V                                    |
| <b>M.R.C. 25 Amps</b>          | 100                                    |
| <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)  |

| Cell Type Ue<br>(100%) / VPC<br>Ref Temp | C5<br>1.70<br>25°C | C10<br>1.75<br>25°C | C20<br>1.75<br>25°C | C100<br>1.80<br>25°C |
|------------------------------------------|--------------------|---------------------|---------------------|----------------------|
| EQ-48/H7                                 | 51                 | 54                  | 56                  | 58                   |

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

### Mechanical Specifications

| Industry Reference        | L3        |           |
|---------------------------|-----------|-----------|
| <b>Length (A)</b>         | 11 in     | 277 mm    |
| <b>Width (B)</b>          | 6.9 in    | 175 mm    |
| <b>Height (C)</b>         | 7.5 in    | 190 mm    |
| <b>Weight</b>             | 46.96 lbs | 21.30 kgs |
| <b>Terminal (Opt'l)*</b>  | A-POLE    |           |
| <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 - no topping up required
- Ultra energy efficient due to low resistance
- Reduced operating temperatures for increased cycle life (>1500 cycles) and battery lifetime
- Cost savings due to increased efficiency
- Up to 2 x faster recharge
- Increased design life from 12 to 15 years
- Allows for opportunity charging to give you those extra running times when required
- Suitable for extreme temperature variants

### Applications: all motive, leisure & solar:

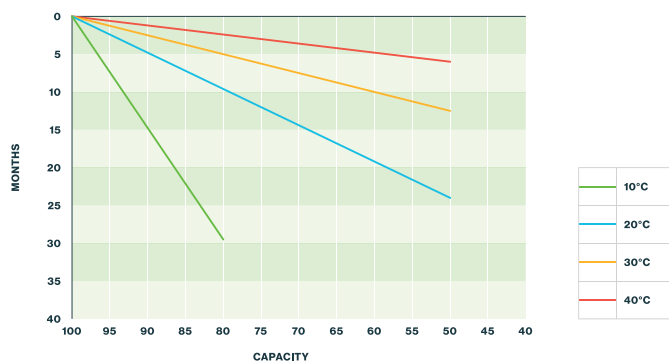
- Electric vehicles, including cleaning machines
- Wheelchairs
- Electric Working Platforms
- UPS Systems
- Traffic Systems
- Telecommunications & Emergency Lighting
- Caravans / Motorhomes RV's & Maritime
- Solar & Renewable Energy & Home Invertor

## Charging profile

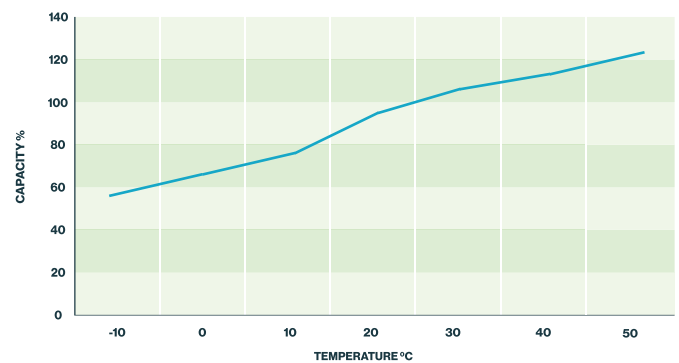
**IU Charging**  $I = \text{min. } 12\% C_5 \text{ max. } 30\% C_5$   
 $U = 2.4 \text{ V per cell}$

**IUI Charging**  $I_1 = \text{min. } 12\% C_5 \text{ max. } 40\% C_5$   
 $U = 2.35 \text{ V per cell}$   
 $I_2 = 1.5\% C_5 \text{ for max. 4 hours}$

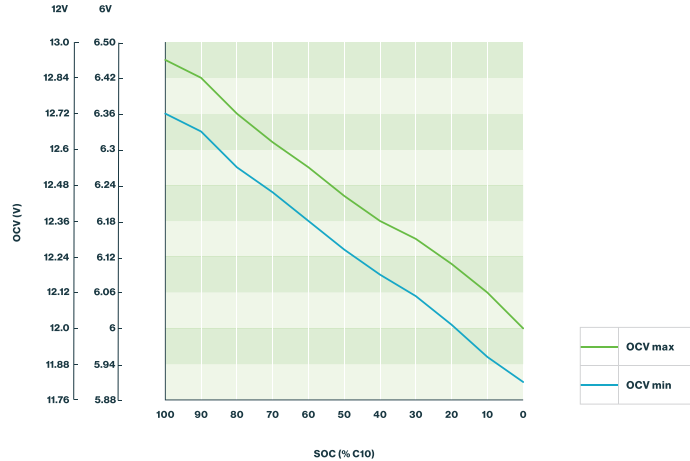
### Self discharge at different temperatures



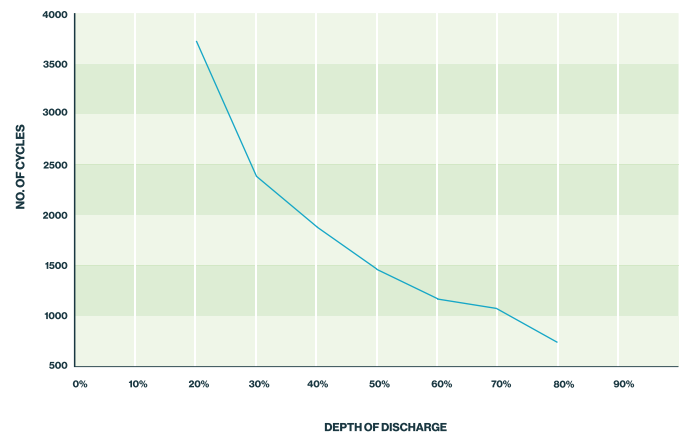
### Capacity vs. temperature



### Storage: Determine the state of charge



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



### Relation between charging, voltage and temperature

