

# Rechargeable lithium-ion battery

## EMIC-600



This rechargeable Lithium ion battery module offers flexibility of autonomy (energy and power) to electric vehicle users. High performance individual cells are mechanically and electrically integrated into a box to conform a portable battery module or cartridge called EMIC-600. Each cartridge is consumed independently and the vehicle can drive with one, two ... depending on the autonomy required by the user in mobility applications. Different modules are managed through an intelligent electronic board (patented) and are portable to allow easy charge at home/office. The user doesn't need to look for recharge points, because the cartridges can be recharged at any point of the grid. The electronic control allows to manage the state of the battery at any time.

### Benefits

- Enhanced capacity
- Broad operating temperature range
- Extended autonomy and life for mobile systems
- Recommended for ruggedized designs
- Easy integration into compact and light systems
- High reliability
- Very high energy density
- Excellent charge recovery after long storage, even at high temperature
- Maintenance-free
- Electronic control card is also supplied

### Main Applications

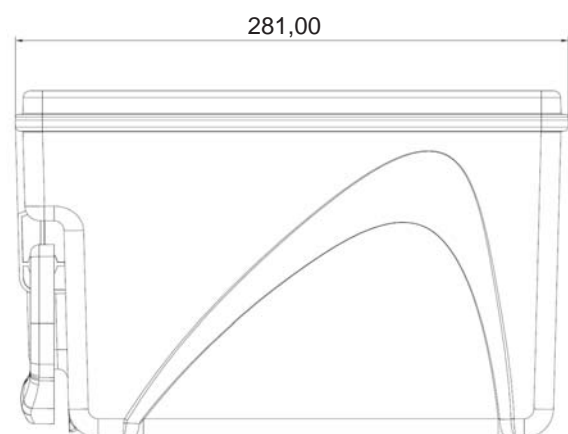
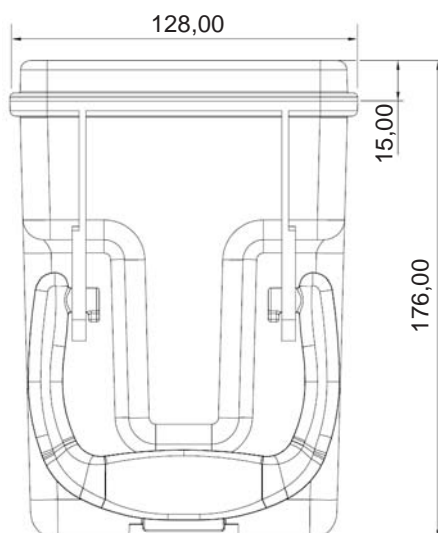
- Light weight urban mobility systems (bikes, scooters, tricycles, quads)

### Charging Methods

- Recommended charge procedure according to IU curve: 1C A up to 82 V during 3 h maximum.
- Three charge alternatives:
  - At home/office using a desk-charger for individual cartridge.
  - Directly plugging the vehicle on to a charging point.
  - Replacing the discharged cartridge in the specific charging cabinets such as dispenser systems.

### Mechanical Characteristics

- Dimensions (width x height x length) = 128x176x281 mm
- Integrated connector
- High resistance and flame-retardant container
- Typical weight 4 Kg



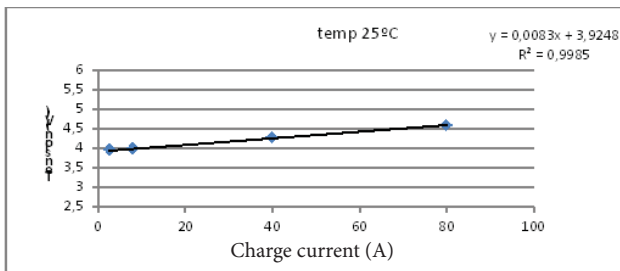
# EMIC-600

## Electrical Characteristics

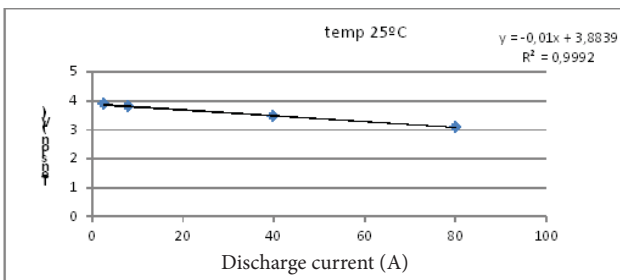
- Nominal voltage **72 V**
- Typical capacity **8 Ah**
- Typical energy **600 Wh**
- Typical autonomy (\*) **25 Km**
- Maximum continuous charging current **16 A**
- Maximum continuous discharging current **40 A**
- Allowed current peaks for 5 s **64 A**
- Cycle life at 60% DOD **2.500 cycles**
- Technology: Lithium-Manganese dioxide.

(\*) Considering a medium type scooter with regenerative braking function.

8 Ah capacity



Discharge current (A)



## Operation Conditions

- Voltage range: 50 - 86 V
- Working temperature range -10 to +50°C
- Degree of protection IP67

## Built-in Protection Devices Ensure Safety In Case Of:

- Exposure to heat
- Exposure to direct sunlight for extended periods of time
- Short circuit
- Overcharge
- Overdischarge

## Transportation, Handling And Storage

- Store in a dry place at a temperature preferably not exceeding 30°C
- For long-term storage, keep the battery within a 30 ± 15 % state of charge
- Do not disassemble
- Do not remove the protection circuit
- Do not incinerate



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