



Battery  
**Energy  
48-10**



100% French technology, compact and lightweight,  
**for road vehicles**

# HIGH PERFORMANCES & COMPACT BATTERY

A product made in France and designed for electric road vehicles.

## DESIGNED FOR EVERYDAY TRAVEL

- ◆ Light and compact design: ideal for integration into vehicles floor
- ◆ Increased safety: 48V low voltage architecture

- ◆ Plug & Play battery pack with integrated BMS (Battery Management System): safety management, temperature, voltage and cell balance control
- ◆ Self-addressing with master/slave configuration for parallel integration
- ◆ Heater included in the battery pack
- ◆ Waterproof battery
- ◆ Fixing system
- ◆ Designed and made in France

**Upcoming certifications**  
CE - UN 38.3 - CEM R10  
R100 certification eligible

**Ingress Protection**  
IP67

**Communication**  
CAN Bus



# CONNECTORS

## Power Connectors

BAT+: PL19X-301-70 (straight) / PL29X-301-70 (angled)  
BAT-: PL19Y-301-70 (straight) / PL29Y-301-70 (angled)

## Charging Connector

Amphenol PL182X-61-10

## Communication Connector

TE Connectivity 776262-1



# TECHNICAL DATA

## Architecture

14S36P - 504 cells

## Cells type

Cylindrical 21700 - NMC - 5Ah

## Nominal capacity

180 Ah

## Energy density

153.3 Wh/kg

## Energy

9198 Wh

## Charging Current

Nominal: 36 A  
Maximum: 180 A  
Peak: 250 A (10s)

## Discharging Current

Nominal: 120 A  
Maximum: 200 A (30 min)  
Peak: 500 A (10 s)

## Rated Voltage

51.1 V

## Voltage range

35 to 58.8 V

## Ambient Operating Temperature

Charge: 0°C to 45°C  
Discharge: -20°C to 50°C

## Cell Operating Temperature

Charging: -10°C to +60°C (heater included)  
Discharging: -20°C to +70°C

## Storage Temperature Range

0°C to 25°C: 1 year  
Up to 45°C: 3 months  
Up to 60°C: 1 month

## Cycle life with 80% SOH remaining

25°C, 100% Dod, +0.5C/-1C: 2 000 cycles  
45°C, 100% Dod, +0.5C/-1C: 600 cycles  
25°C, 92% Dod, +1C/-1C: 1 700 cycles  
25°C, 75% Dod, +1C/-1C: 2 700 cycles

## Dimensions

Length	680 mm
Width	470 mm
Height	95 mm
Weight	60 kg



# THE LITHIUM-ION BATTERY EXPERT



GCK Battery is a French leader in designing, developing and manufacturing standard, modular and customized lithium-ion batteries for professional and consumer equipment. GCK Battery is part of GCK group which is offering technological solutions to accelerate the decarbonisation of transport.



## PERSONALISED SUPPORT

- ◆ A range of services from design to manufacture.
- ◆ An integrated design office enabling us to develop our own technological building blocks.
- ◆ In-house expertise demonstrating our mastery of deadlines, quality and system safety.

### GCK Battery

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