

## LAMPO (PURE BATTERY EV): SPECIFICATIONS

### Unique features

**Four wheels drive** designed in order to allow the maximum regeneration and to ensure more driving safety

**Intelligent charging system:** the user can configure the charging parameters: earliest charging time/last charging stop, max. charging yield and charging status to be achieved by the end of charging

External charging status LED

Integrated charging cable

**Range estimator:** GPS based device calculating different parameters like the remaining range (considering elevations etc) and the notification of the closest public charging stations

### Performances and consumption

Max. speed (km/h): ca. 200

Acceleration (sec., 0-100 km/h): ca. 5

WtW emissions (g CO<sub>2</sub>): 0

Range (km): 200

Energy consumption (Wh/km): 150

Cost of energy (CHF/100km): approx 2.40

### Motorization

Electric vehicle (2 electric motors and Li-ion batteries), single gear gearbox

### Electric motor

Type: Brusa HSM 6.17.12 Hybridsynchron with transaxle gearbox associated with a Brusa DMC524 inverter

Quantity: 2, one on front axle, one on rear axle

Max Power kW (HP): 200 (268)

Max torque (Nm): 440 (from 0 to 5'000 rpm)

Cooling: water

### Batteries

Type: Brusa EVB1 Li battery packs based on prismatic Kokam cells (Li-ion with polymeric electrolyte)

Quantity: 2

Total rated energy (kWh): 32

#### Characteristics of each battery pack:

Rated energy (kWh): 16

Capacity 0.5C (Ah): 40

Open circuit voltage (V): 400

Max continuous discharge current (A): 200

Max peak discharge current (A): 400

Max charging current (A): 80

Number of cells: 108

Weight (kg): 140

Full charge at 32A (h): 7

Cooling: water

Estimated life time @ 80% DOD (cycles/km): >800 / >160'000

### Battery chargers (on board)

Type: Brusa NLG513

Quantity: 2

Power (kW): 2x3.3

Cooling: air

### DC/DC converter for the on board devices

Type: Brusa BSC624-12V

### Vehicle structure

Tubular steel chassis, composite material body

<b>Dimension &amp; weight</b>
Seats: 2
Length (mm): 4'315
Width (mm): 1'865
Height (mm): 1'203
Wheelbase (mm): 2'415
Weight (empty, kg): 1'380
Weight (full load, kg): 1'650
Tires: 245/45 R18

<b>Safety equipment</b>
ABS
EDS
Airbag (driver and passenger seat)
Rigid occupant safety cell
Front and rear crumple zones
Side impact door beams
Seatbelt pretensioners
Integrated headrests
Vehicle theft-deterrent
Emergency stop button
Pedestrian arrows

<b>Interior equipment</b>
Multifunction touch screen for the control of the car functions
Driving style settings
Sport steering wheel
Electrically heated and cooled seats (Peltier effect)
Electric heating
Cruise control
Power windows
Electric rear view mirrors
Central locking system
Electric brake button on steering wheel
GPS based range estimator
Intelligent charging system
GPS navigation system

<b>Exterior equipment</b>
Double-insulated black soft top
LED tail lights
Aerodynamic shaped back wheels cover

<b>Price</b>
Single prototype, not for sale

<b>Public charging station "E-totem"</b>
Developed in 1995 for Mendrisio's VEL-1 project. Over 100 built and installed since then.
Access and payment through Park&Charge system.
Features: 3 nomo-phase plugs for parallel charging of 3 vehicles.
Mono-phase plug allowed: domestic (10A-2kW), european (16-3kW) or accelerated (32A-7kW)
Includes: "Plug & play" basement, polyethilen body, zinc-coated steel frame, side protection arches, parking sign.

<b>Remote photovoltaic plant</b>
Type: photovoltaic laminate by United Solar Ovonic, amorphous silicon cells
Surface (m2): 260
Rated power (kW): 16
Energy per year (kWh/year): 16'800

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