

PURE

Powerful & ultra-fast charging battery

 **E-MERSIV**
Submerged battery packs



Immersion Cooling Technology

e-Battery Thermal Management System

PURE, the Ultra-fast charging Battery

10 min

Ultra-fast charging*

4C

High continuous power

6C

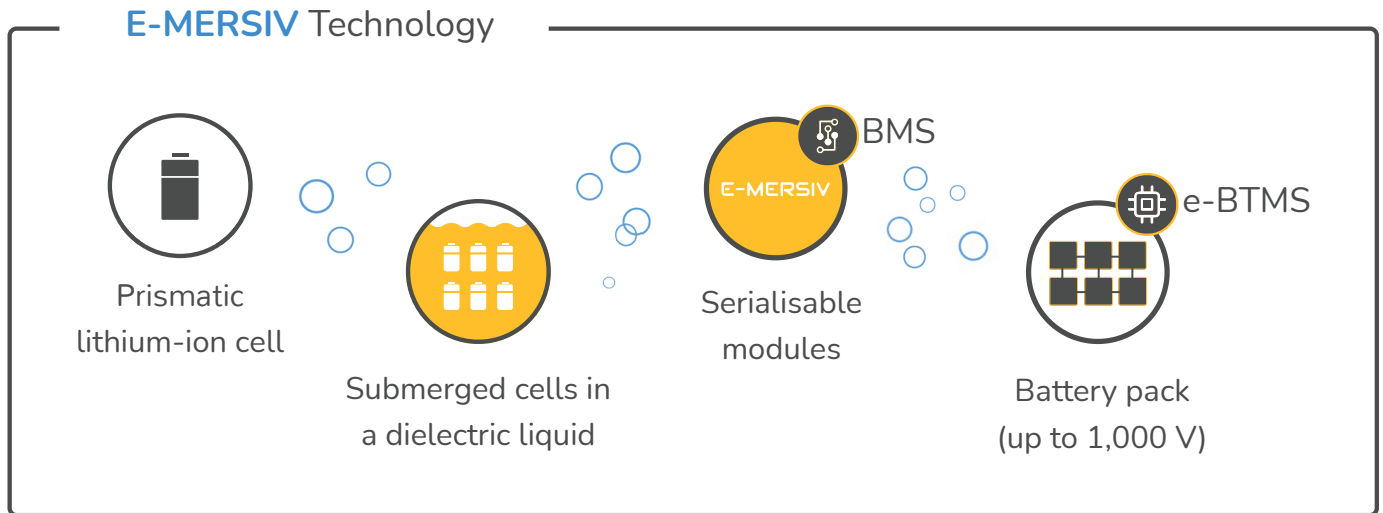
High peak power

*From a state of charge of 20% to 85% at 35°C initial

These information and photos are not contractual.

E-MERSIV can adapt this battery to your needs. More information on: www.e-mersiv.com

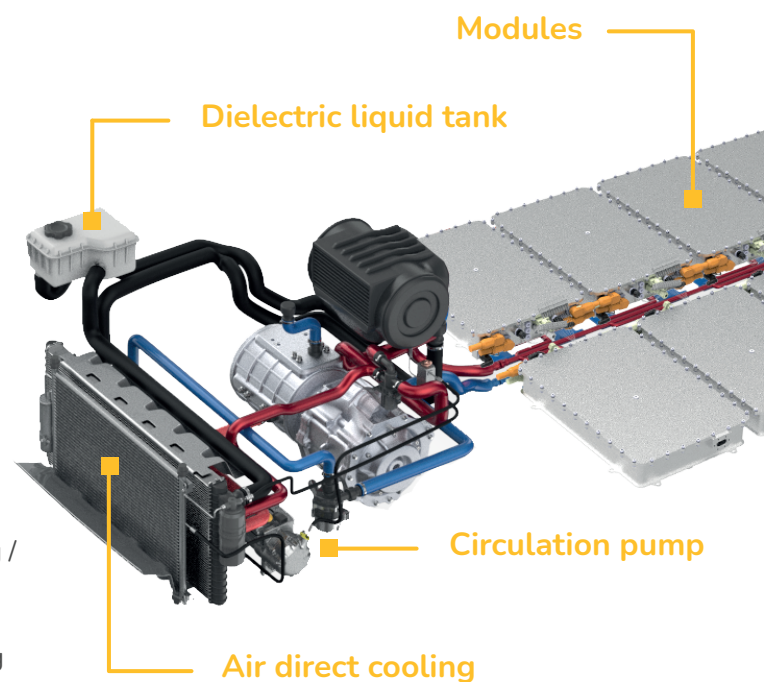
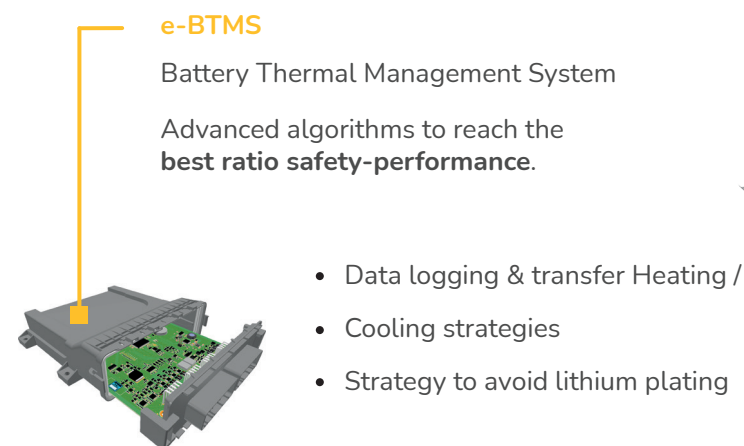
From a single cell to a **complete battery pack**, **E-MERSIV** masters all the steps of the chain to develop and offer an **innovative battery cooling system**.



Focus on the cooling loop

Example of flat chassis battery pack on a EV car.

With **E-MERSIV**, modules can be adapted to any shape and any type of vehicles.



Option: integrate a secondary dual loop with a pump and a plate heat exchanger inside the modules.

MODULE

The values below correspond to a single module

Physical Specifications

Value

Available Energy @1c	6.6 kWh		
Nominal voltage	130 V (NMC 36s)	65 V (NMC 18s)	43 V (NMC 12s)
Nominal capacity	50 Ah	100 Ah	150 Ah
Continuous current	200 A	400 A	600 A
Continuous / Peak (10s) power in Discharge	19 / 27 kW (4/6C)		
Continuous / Peak (10s) power in Charge	19 / 27 kW (4/6C)		
Gravimetric energy density (dry)	145 Wh / kg		
Volumetric energy density	205 Wh / L		
Target coolant temperature	35°C		
Communication	Canbus		

The module is serialisable → Up to 1,000 V

Dimensions

Value

Height	140 mm
Width	670 mm
Depth	340 mm
Volume	32 L
Weight (dry)	45 kg
Weight (wet)	50 kg

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PACK 800 V

The values correspond to an example of 10 modules (100Ah).

Physical Specifications

Value

Available Energy @1C	65 kWh
Nominal voltage	648 V
Peak discharge power	270 kW
Regenerative braking power	270 kW
Charge power	190 kW
Charge time	42 kWh (in 10 min)
Total battery weight *	600 kg

*Including wet cooling loop and flat floor chassis.



AMBIANT TEMPERATURE

Provide **the best temperature homogeneity between the cells** to improve the performance and capacity of the battery.



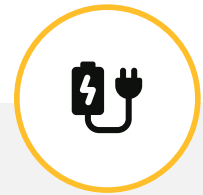
INCREASED SAFETY

No thermal runaway propagation. Tested with simultaneous thermal runaway of two adjacent cells.



LONGER LIFETIME

Improve cell lifetime by **up to 30%** for a sustainable battery that **meets the needs of the market** and new ecological challenges.



ULTRA-FAST CHARGING

Charge **from 20% to 85%** in only **10 minutes** with increased performance up to **4C** continuous power and **6C** peak power.

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Thanks to a **20 years experience** in Li-ion Batteries, Battery Management System and Thermal Management, **E-MERSIV** can meet **all your needs** and support **all your projects**:

Simulation

Design

Tests

Production

Certifications

Whatever is your market, **E-MERSIV** helps you to **meet standards** and can accompany your efforts to obtain the **right approvals** and **certifications**.



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E-MERSIV

11 Avenue Henri Becquerel, 33700 Mérignac, France

+335 561 304 68 - contact@e-mersiv.com