



XING Mobility | Liquid-Cooled Modular Battery Pack

# EXTREME PERFORMANCE ELECTRIC DRIVETRAINS

**XING Mobility** is an electric vehicle powertrain systems company founded in Taipei in 2015. XING Mobility innovates advanced energy storage and electric drive technology using the development of extreme-performance racecars and supercars as its R&D platform. XING Mobility's mission is to provide tightly integrated electric powertrains to the world's commercial and industrial vehicle makers by leveraging Taiwan's extensive industrial supply chain.



As the transportation industry prepares for a radical shift towards electric, smart and autonomous vehicles, XING Mobility's focus is on helping others to adopt advanced electric technology by providing full electric powertrain solutions.

### ENGINEERING CONSULTING SERVICES



From complete vehicle design to custom developments, our in-house experts deliver solutions to allow commercial and industrial vehicle makers to adapt to electric and smart drive systems

### ELECTRIC DRIVETRAIN SYSTEMS & COMPONENTS



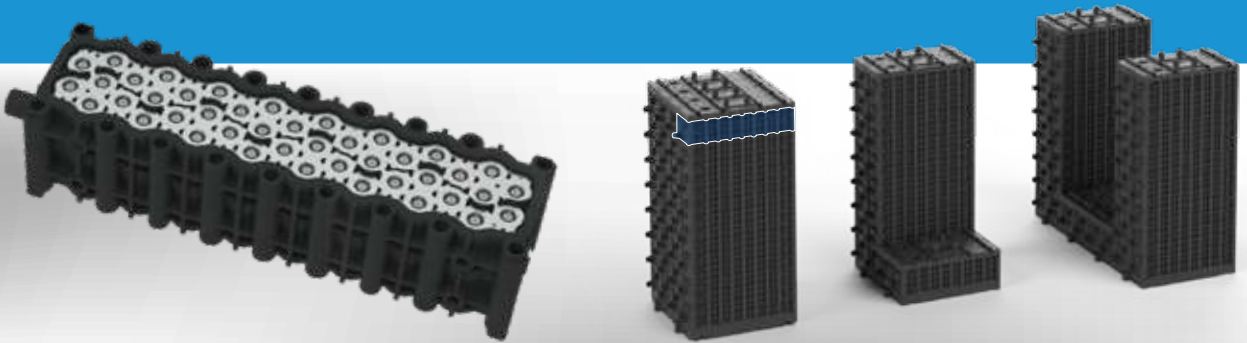
Using our experience in designing and making extreme performance cars, we develop advanced energy storage and electric drivetrain systems for the next generation of electric and smart vehicles.





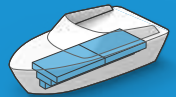
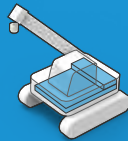
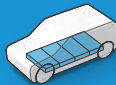
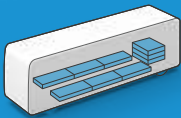
# XING Modular Battery System

The core of XING Mobility's Electric Drivetrain



## Modular Building-Block Design

The first battery pack specifically designed for low-mid volume applications. The XING Battery System is a custom design product that allows for high-performance one-off prototypes in just two weeks.



## Patented Immersive Cooling Technology

Submerged in 3M™ Novec™ Engineered Fluid for extreme performance, high charge and discharge rates, extended battery life and high level of predictability. Self-extinguishing for improved safety.

## Market-leading Power Density

Currently one of the highest power density electric vehicle battery packs on the market, the XING Battery System uses exceptionally lightweight packaging material and offers up to 50% weight saving.



## Supercar-Proven Performance

Technology tested and proven in XING's 1 mega-watt rally-inspired supercar, with on-track and off-road capabilities. The XING Battery System powers four 450V motors capable of reaching 0-100km in 1.8 seconds.



## SPECIFICATIONS

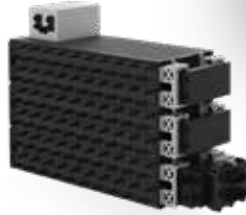
	Individual Module	Standard Pack	Extreme Pack
Module Volume	1	48	100
Cell Volume	42	2016	4200
Cell Type	18650 Lithium-ion	18650 Lithium-ion	18650 Lithium-ion
Dimensions	340 x 83 x 71,3mm	570 x 581 x 330mm	570 x 1162 x 330mm
Weight	2,8kg	≈160kg	≈320kg
Maximum Voltage	4.2V	105V	420V
Discharge	2000 A/ 5sec	4000 A/ 5sec	2000 A/ 5sec
Power Capacity	0,62kWh	29,8kWh	62kWh
Max Power	8,4kW (11,2hp)	403kW (540hp)	840kW (1126hp)
Included Items	-	Custom casing, snap-in connectors, BMS	Custom casing, snap-in connectors, BMS

# XING Electric Drivetrain Solutions

XING Mobility provides full powertrain and transmission systems, designed with ease of integration and modularization in mind. Our technology portfolio and full drivetrain solutions serve a wide range of low-medium volume manufacturers across a host of industries and vehicle types.

## BATTERY PACK

Patented liquid-submerged cooling system allowing for maximum performance and safety. Modular building-block design ensures versatility for different applications



## ELECTRIC MOTORS

Integrated modularised motor and inverter systems designed to power small, medium and large sized electric vehicles



## TORQUE VECTORING GEARBOX

Tailor-developed for EVs, XING's one-motor-per-wheel transmission system delivers seamless torque vectoring capabilities



## VEHICLE CONTROL UNITS

Highly deployable EV control units enabling full multi-motor powertrain control, featuring custom software, rugged hardware, and remote diagnostic functions

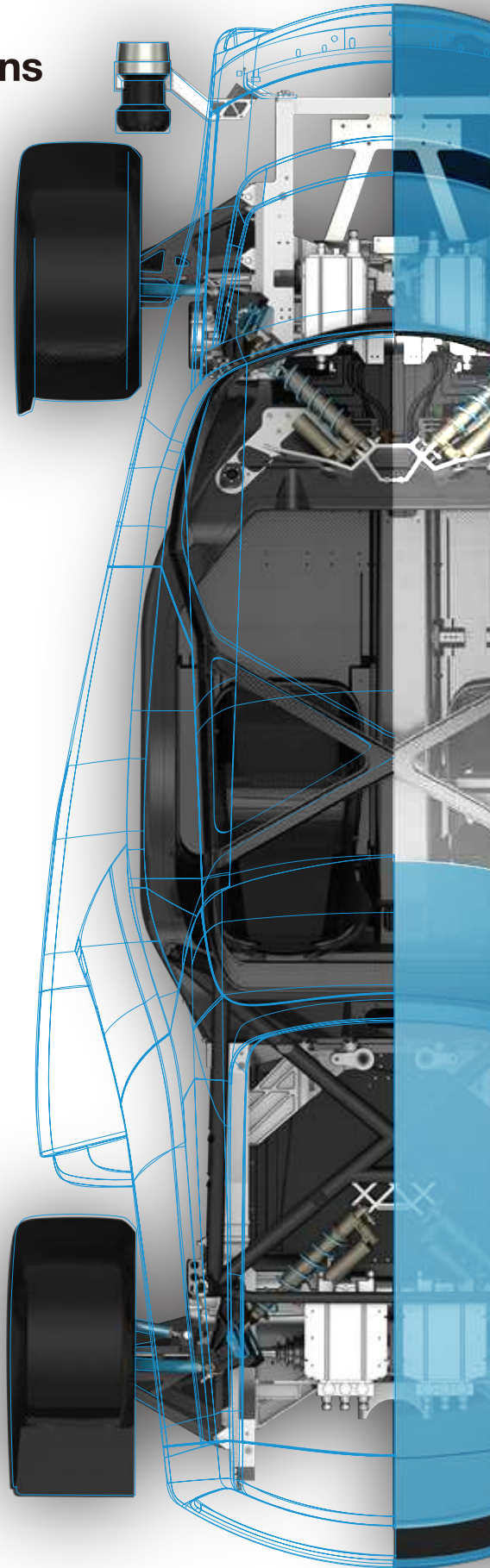
## POWER DISTRIBUTION UNITS

Sealed units facilitating safe power routing and fusing in high voltage and low voltage scenarios. Capable of complete status monitoring



## BATTERY SWAP SYSTEM

Highly efficient and lightweight battery swap system enabling entire battery enclosure exchange within 5 minutes.



# SERIOUS PROOF OF CONCEPT



## MISS R RALLY INSPIRED SUPERCAR

- First Electric Supercar with on-track and off-road capabilities
- 4x electric motors producing 1 Megawatt of power (1,341hp)
- A showcase of XING's state-of-the-art battery cooling, gearbox and suspension systems.



## Available Autumn 2018

For more information, visit: [www.xingmobility.com](http://www.xingmobility.com)  
or email: [info@xingmobility.com](mailto:info@xingmobility.com)



### Battery System

- Rated DC Voltage: 425~325 V
- Capacity: 52 kWh
- 4,116 lithium-ion 18650 cells in 98 configurable battery modules
- Patented Immersion-Cooling High Discharge technology
- Enhanced protection against thermal runaway
- Rapid Energy Swap system: entire battery pack can be replaced in under 5 minutes

### EV Drivetrain

- 4 sets of 450V high power density induction motors
- In-house developed torque vectoring control
- Single gear ratio; gearbox reduction 6.25 : 1
- Peak power 250kW x4 =1,000kW (1,341hp)
- Peak torque 430Nm x4=1,720Nm (1269 ft/lb)

### Projected Performance

- 0~100 km/h: 1.8 sec
- 0~200 km/h: 5.1 sec
- 0-400m: 8.87 sec
- Max. Speed: over 270km/h (pending set-up)
- Range: 250km per battery pack

### Dimensions

- Length: 4,000 mm
- Width: 1,800 mm
- Height: 1,300 mm
- Weight: 1,500 kg
- Wheelbase: 2,950 mm





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