

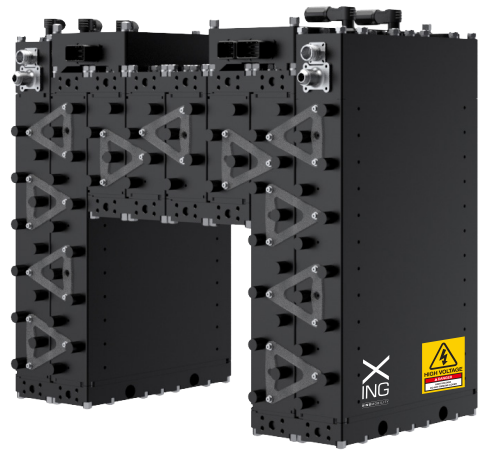


DESCRIPTION

XING Mobility's Immersion-Cooled Modular Battery Pack System submerges lithium-ion cells directly in non-conductive fluid to effectively and efficiently manage temperature, delivering exceptionally high power output. The battery pack is built from a unique micro-module which stacks to meet the diverse size and shape requirements of the user without the need for custom development. This system is inclusive of all-on one, fully-integrated safety.

KEY FEATURES

- Extremely high power output
- Modular design allows for unlimited configuration
- Vastly improved safety due to fire suppression properties
- Flexibility in design enables serial or parallel connections, allowing user to increase voltage and capacity as needed.



TECHNICAL SPECIFICATIONS

TECHNICAL DATA	ENERGY MODULE TYPE	POWER MODULE TYPE
Weight	695 kg	695 kg
Pack Energy	96 kWh	86 kWh
Maximum Voltage	750 V	750 V
Nominal Voltage	677 V	677 V
Minimum Voltage	512 V	512 V
Peak Discharge Power in 10s	569 kW	1557 kW
Continuous Discharge Power	142 kW	853 kW
Peak Discharge Current	840 A	2,300 A
Continuous Discharge Current	210 A	1,260 A
Fast Charge Current in 2s	100 A	252 A
Continuous Charge Current	43 A	210 A
Charge Cycles to 70%	3,000	350
IP Rating	IP67 (IP68 Optional)	IP67 (IP68 Optional)
CAN Communication	CAN 2.0	CAN 2.0
Operating Temperature Range	-5°C to 40°C	-5°C to 40°C
Storage Ambient Temperature Range	-20°C to 60 °C	
Extreme Ambient Temperature	Compatible heating/cooling kit optional	
Low Voltage Power Supply	11- 14 V	
Low Voltage Current Consumption	Max 55 A	
Operating Elevation	50,000 FT	

Module options offer choice between higher discharge rates (High Power) and increased power capacity (High Energy) respectively. Other module options can also be made available.

HARDWARE COMPONENT FUNCTIONS

COMPONENT	DETAILS
Immersion-Cooled Battery Module	The building block of the battery pack; stacks to the required size and shape of the user and is pre-filled with cooling fluid for direct cooling.
xBMS (Battery Management System)	The xBMS manages, monitors and tracks cell performance and safety.
BASS (Battery Active Safety System)	built-in pre-charged circuit, the BASS isolates and disconnects single cells allowing the system to continue operation in the case of a fault. Manages whole pack system operation and safety.
Smart Cooling System	3M™ Novec™ Engineered Fluid is a dielectric fluid offering exceptional heat conducting performance and fire suppression capabilities.
Coolant Product	The pack's CAN communication system adjusts fluid flow rate automatically depending on performance, power consumption and critical safety requirements.

ADDITIONAL SPECIFICATIONS

FUNCTIONS	PARAMETER	DATA SPECIFICATIONS
Communication Specifications	CAN 2.0	Baud Rate 500 kbps
Operating Modes	“Charging” Mode Indicator	Battery can be charged by on-board or fast charger, discharging is disabled.
	“Ready” Mode Indicator	Shows the information or status of battery pack system
	“Discharging” Mode Indicator	Battery is in operation mode, is discharging electricity, or is being charged by regeneration from drive system.
xBMS Specifications	System Maximum Voltage	410 V
	Over-Charge Voltage Protection	YES
	Over-Charge Current Protection	YES
	Over-Discharge Voltage Protection	YES
	Over-Discharge Current Protection	YES
	12 V Battery Low-Voltage Protection	YES
	Pre-Charge Circuit Control	YES
	Smart Cooling System Control	YES
	Dynamic SoC, SoH and DOD Calculation and Management	YES
Charging Specifications	Onboard Charger	Options 3.3 kW/6.6 kW, max current 12 A, AC Input 110- 220 V
	Fast Charging	Supports CHAdeMO fast charging

WIRING SINGLE LINE MAP

