



Stock Code: 688772

COSMX Group

Driving the Future by Green Energy

Power Battery

Date of Release: 2026.3.2



Contents

- 1 Introduction
- 2 Automotive Batteries
- 3 Two-Wheeler Batteries
- 4 LAV Batteries
- 5 Robot Batteries
- 6 Semi-Solid-State/Solid-State Batteries





Income in 2025

2.1 Billion USD

Cells sold annually

4 Million pcs

Applying Patents

5900+

Authorized Patents

2500+

R&D Invested in 2024

203 Million USD

6 Industry Parks

Zhuhai, Jiaxing, Chongqing, India, Malaysia,
Mexico

7 Representatives

Hong Kong China, Taiwan China, United
States, Finland, Brazil, Korea, India

20+

Subsidiaries

10000+

Employees



Laptop Batteries

Global Market Share **38%**Ranking **Top 1***

Tablet Batteries

Global Market Share **11%**Ranking **Top 2***

Smartphone Batteries

Global Market Share **10%**Ranking **Top 2***

1 Introduction

Global Business

COSMX 冠宇



Chongqing Production Base

- Location: Pingshan
- Area: $\approx 320000\text{m}^2$
- Produce: 3C cell/pack

Zhejiang Production Base

- Location: Baibu, Qinsan
- Area: $\approx 320000\text{m}^2$
- Produce: Power, energy storage cell/pack



India Production Base

- Location: Chennai
- Area: $\approx 10000\text{m}^2$
- Produce: Pack



Mexico Production Base

- Location: San Luis Potosi
- Area: $\approx 10000\text{m}^2$
- Produce: Pack



Zhuhai Production Base

- Location: Doumen, Jinwan
- Area: $\approx 30000\text{m}^2$
- Produce: 3C Cell/pack



Malaysia Production Base

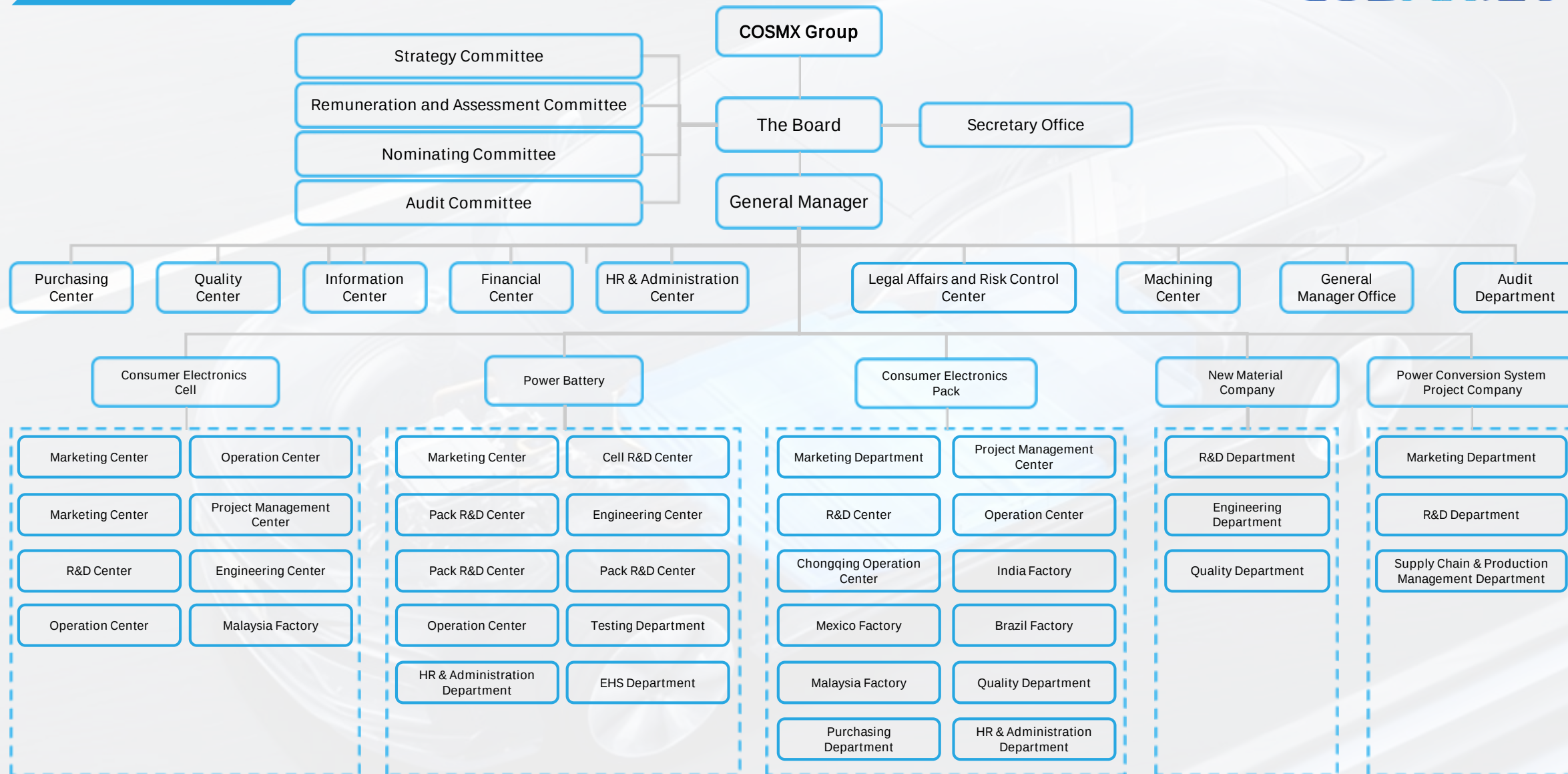
- Location: Penang, Kedah
- Area: $\approx 160000\text{m}^2$
- Produce: 3C, power cell/pack



★ HQ 🏭 Production Base 🏢 Representative 🔬 R&D Support Office 📍 Sales Office

1 Introduction

Group Structure



Consumer Electronics Battery



Smartphone



Laptop



Wearable



Drone

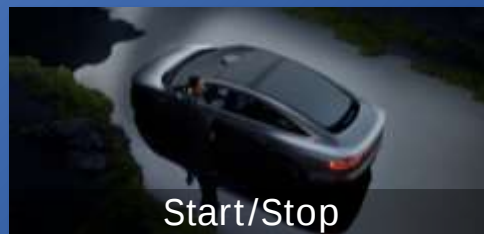


Vacuum



Electric Tool

Power Battery



Start/Stop



EV Fast Charging



LAV



Two-Wheeler & Android

Energy Storage

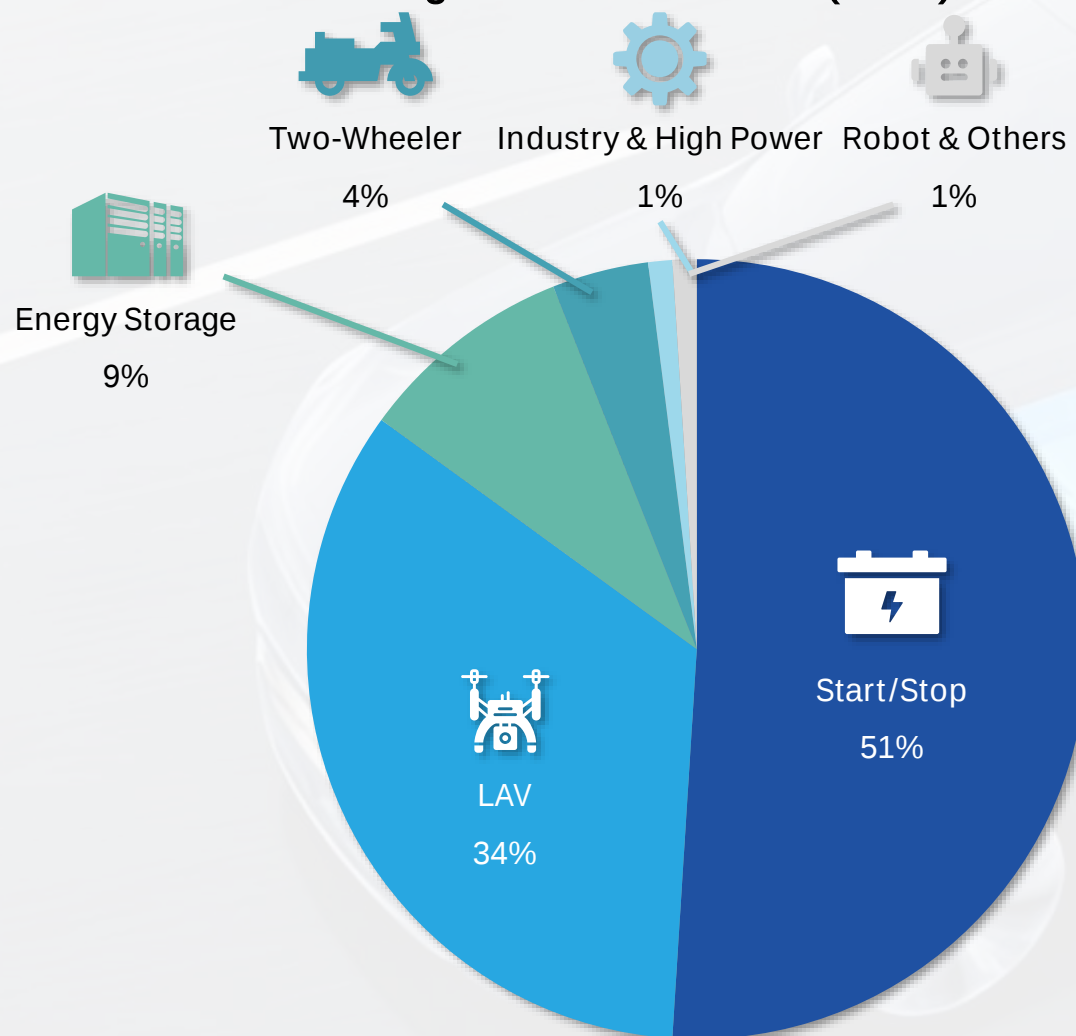


Residential

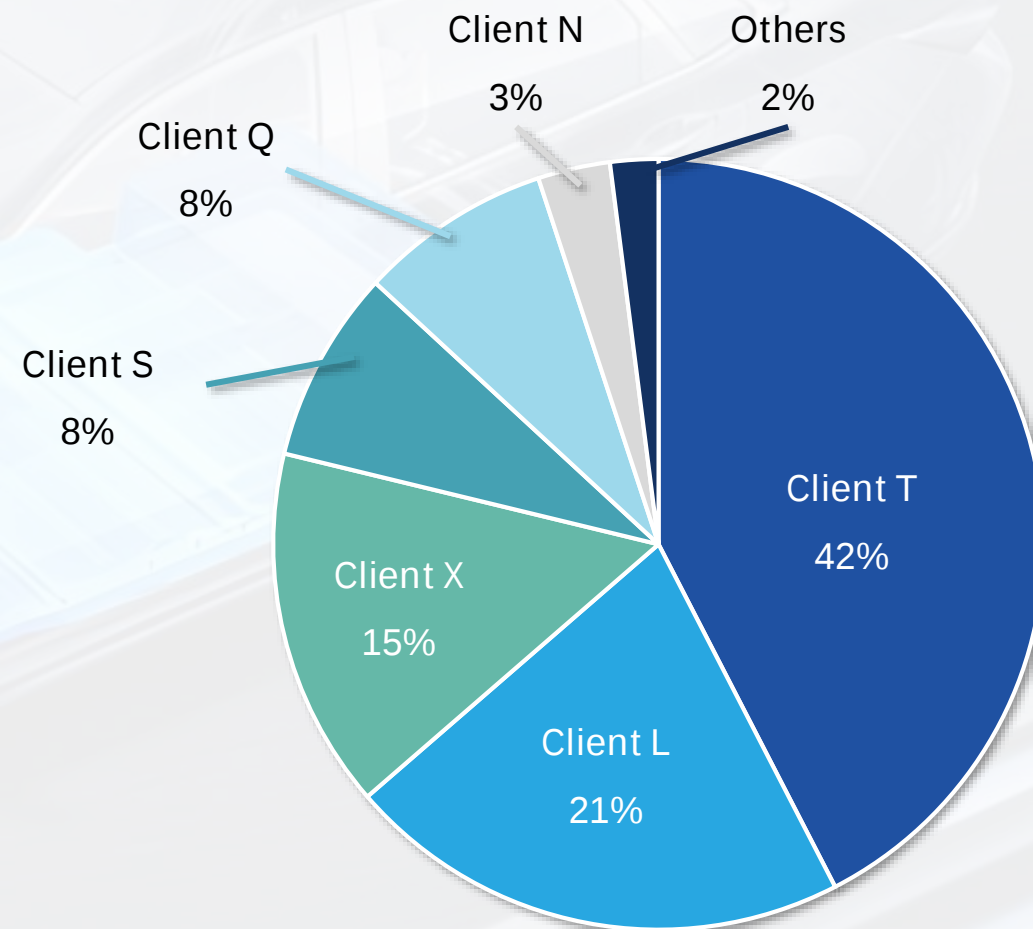


C&I ESS

COSMX Power Battery
Business Segment Breakdown (2025)



Proportion of COSMX
Start/Stop Battery Business (2025)



1 Introduction

Delivery Analysis of Our Start/Stop Batteries



✓ 2025: **1.7 million+** deliveries, with almost **35+%** market share

✓ 2025: Projected **2.7 million+** deliveries, with **45+%** market share

Clients	Actual Delivers in 2025	Projected Delivers in 2026
Clients from Overseas	800k+	1.25M+
Client L	350k+	220k+
Client X	250k+	360k+
Client S	150k+	400k+
Client Q	50k+	110k+
Client N	40k+	80k+
Client G	10k+	10+
Client SQ	10k+	10k+
Client J	/	200k+
Total	1.7M+	2.7M+

1 Introduction

Clients: Consumer Electronics

COSMX 冠宇



Lenovo



ASUS

acer

Microsoft



ZTE

HUAWEI

HONOR



oppo

vivo



amazon

Meta



CHERVON

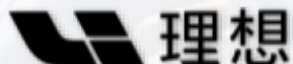


dreame 追觅

1 Introduction

Clients: Power Battery

COSMX 冠宇



1 Introduction

Clients: Energy Storage

COSMX 冠宇



Haier

Kubota



ZTE



System Abilities



ISO9001



ISO14001



ISO45001



IATF16949



ISO27001



ISO26262



TiSax



ASPICE CL3



ISO/SAE 21434

Certifications

UN38.3



Verified by Automotive Clients

2020.7

BIQS (USA)

2020.10-11

VDA6.3 (Germany)

2021.4

ASES (France)

2021.4

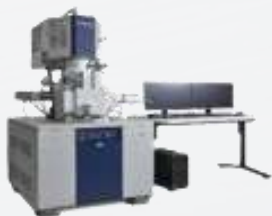
eSD (UK)

2023.10

NSA (Europe)

2024.2

RPAS (Europe)



SEM&EDS



XRD



CT



Raman



DSC



ARC



GCMS



ICP-OES

Abundant Testing Resources and Professional Capabilities

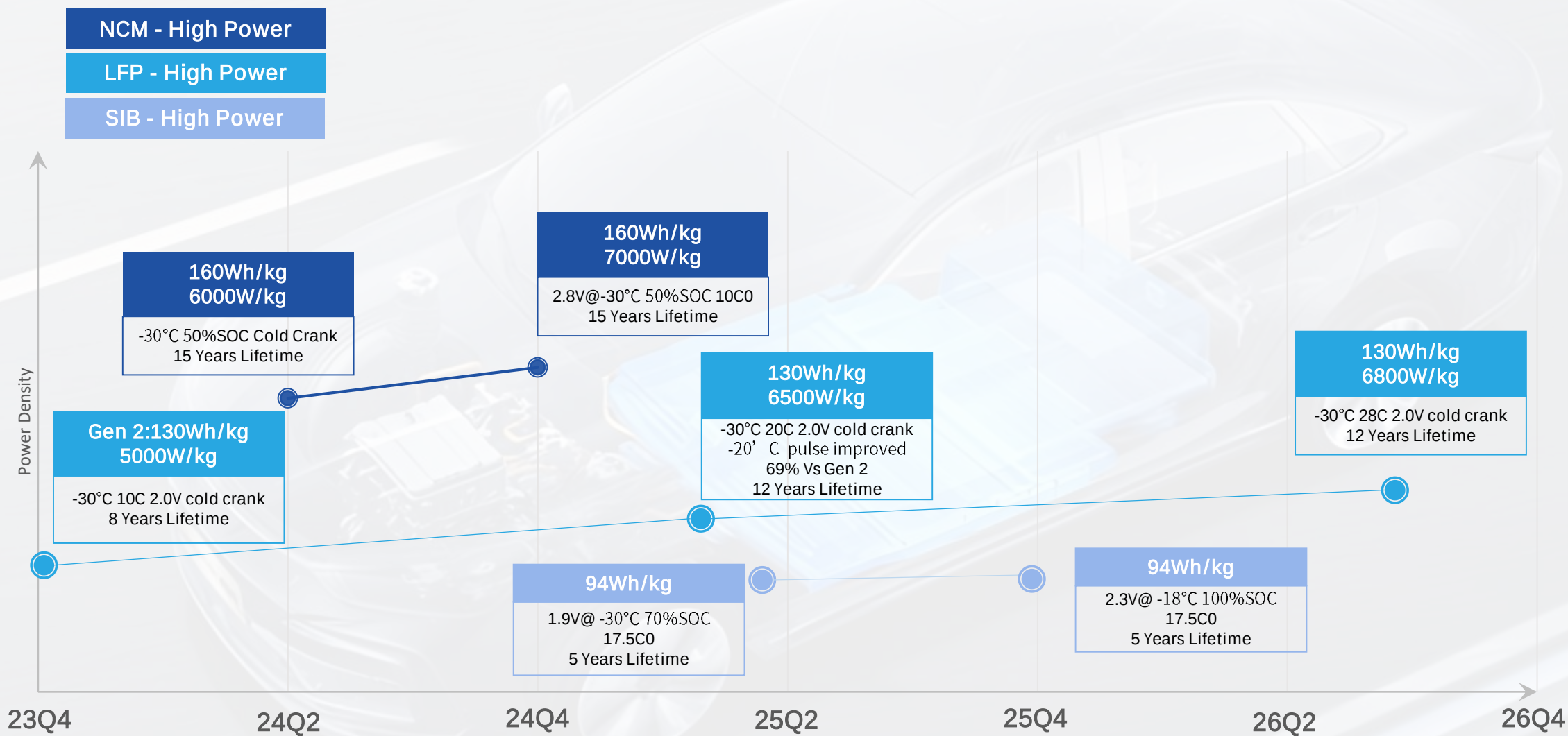
- Over 110 units of high-end material testing and analytical instruments
- 175+ safety compliance testing devices
- 300,000+ charge/discharge test channels
- More than 900 environmental simulation equipment units
- Capabilities covering micro-area analysis, spectroscopy, non-destructive testing, chemical & physical properties, failure analysis, product safety, reliability, and electrical performance testing.

Standardized Management Systems and Highly Informative Platforms

- CNAS-accredited management system compliant with ISO/IEC 17025.
- Self-developed LIMS platform delivers intelligent, full-process control over environmental facilities/resources, order fulfillment, sample management, and data analysis

2 Automotive

Start/Stop Cells: Roadmap



Model	14E5E0B	16C3E0B	10E5E0B	9E5E0B	18E5E0	19E5E0	13E5J0	15F0L6	42B4C5B	57B6A7V	14E5C0V
Chemistry	LFP+Gr				NFM+HC	NFPP+HC	NFM+HC	NFM+HC	LFP+Gr	NCM+Gr	NCM+Gr
Application	12V Start/Stop				12V Start/Stop				48V Start/Stop		
Type	Pouch				Pouch				Pouch		
Voltage Range/V	3.65-2.2				3.9-2.0	3.65-2.0	3.9-2.0	3.9-2.0	3.6-2.0	4.3-2.8	4.3-2.8
Rated Capacity/Ah	20	20	15	12.5	20	20	20	30	4	5.5	20
WED/ (Wh/kg)	126	134	123	118	94	98.5	95	94	116	161	164
VED/ (Wh/L)	233	232	227	214	163	161	198	218.5	218	287	299
Operation/ Storage Temp. Range/°C	-40~85				-40~60				-40~85	-40~70	-40~70
Cold Crank	2.0V@-30°C 50%SOC				1.9V@-30°C 70%SOC 17.5C0	2.3V@-18°C 100%SOC 17.5C0	1.9V@-30°C 70%SOC 17.5C0	1.9V@-30°C 70%SOC 17.5C0	2.05V@-30°C 50%SOC	2.8V@-30°C 50%SOC 25C0W	2.8V@-30°C 50%SOC 25C0W
Cycle Life@25°C	8000+				3000+				8000+	20000+ (50%DOD)	20000+ (50%DOD)
Highlights	Safe and reliable, high-temperature resistant, ultra-long cycle life.				Safe and reliable, cost-effective.				Safe and reliable, high-temperature resistant, ultra-long cycle life.		



2 Automotive

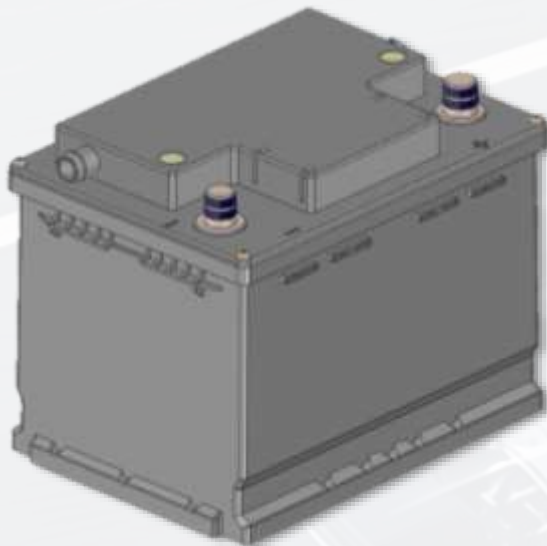
Start/Stop Packs: 12V System



- High-power battery cell technology, great cold cranking performance
 - Passed ASIL B+ safety level
 - Supports passenger compartment layout, better safety performance
 - Same lifespan as main power battery, "lifetime" maintenance-free
 - -45°C low temperature resistant
 - Adjustable capacity, size, functions, etc.



Model	12V5Ah	12V12.5Ah		12V15Ah		12V20Ah				12V20Ah	12V40Ah		
Dimension LWH/mm	247*210*49	199*193*90	215*200*75	265*175*75	215*200*75	189*136*158	229*200*95	175*136*158	212*171*158	215*200*75	354*189*96	354*189*96	334*237*101
Communication	CAN-FD	CAN & CAN-FD	CAN & LIN	CAN & LIN	CAN & LIN	CAN & LIN	CAN & LIN	CAN & LIN	CAN & CAN-FD	CAN & LIN	CAN & LIN		
Cell Capacity /Ah	5	12.5		15		20				20	20		
Pack Capacity /Ah	5 (1P4S)	12.5 (1P4S)	12.5 (1P4S)	15 (1P4S)	15 (1P4S)	20 (1P4S)				20 (1P4S)	40 (2P4S)		
Stacked Method	Single Column	Single Column		Single Column		Single Column				Single Column	Double Column		
Pulse Discharge Rate/C	40	50		50		50	50	40	40	50	20	20	10
Cons. Discharge Rate@25°C/≥C	20	10	10	6.6	10	10	10	5	5	10	2.5	2.5	5
Cons. Charge Rate@25°C/≥C	3	3		3		3				3	2.5	2	3
Sleep Current/ <μA	1000	500		500		500				500	500		
SOC Precisions	5%												
Cell Balance	Passive Balance 100mA												
Functions	MOS control loop； Supports communication & schedule wake-up； PCBA integrated shunt												



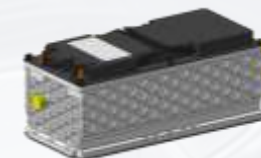
LN3-H6-40/60Ah

Model		12V 40Ah Standard	12V 60Ah Standard	12V 60Ah Standard
Pack	Rated Voltage/V	12.8		12V
	Operation Voltage Range/V	10~15.6		10~13.6
	Storage Voltage Range/V	8~15.6V		8~13.6
	Operation Temp. Range/°C	-30~80		-30~80
	Communication	Lin		Lin/None
	Configuration	2P4S	3P4S	3P4S
	Ingress Protection	IP67		IP67
	Weight/kg	9	12.5	12.5
	Dimension LWH/mm	242*175*190	280*175*190	280*175*190
Cell	Capacity/Ah	40	60	60
	Chemistry	NFM		NFPP
	SOC Precision	5%		
BMS	Overvoltage Protection	None/MOS Protection		
	Switching Circuit	None/MOSFET		
	Cell Balance	Passive balance 50mA		
	Sleep Mode	Supported		
	Sleep Current/mA	<1		
	Current Detect Precision/mA	1%FS±150		
	Voltage Detect Precision/mV	+/-5		

2 Automotive

48V System: Auxiliary + Start/Stop

COSMX 冠宇



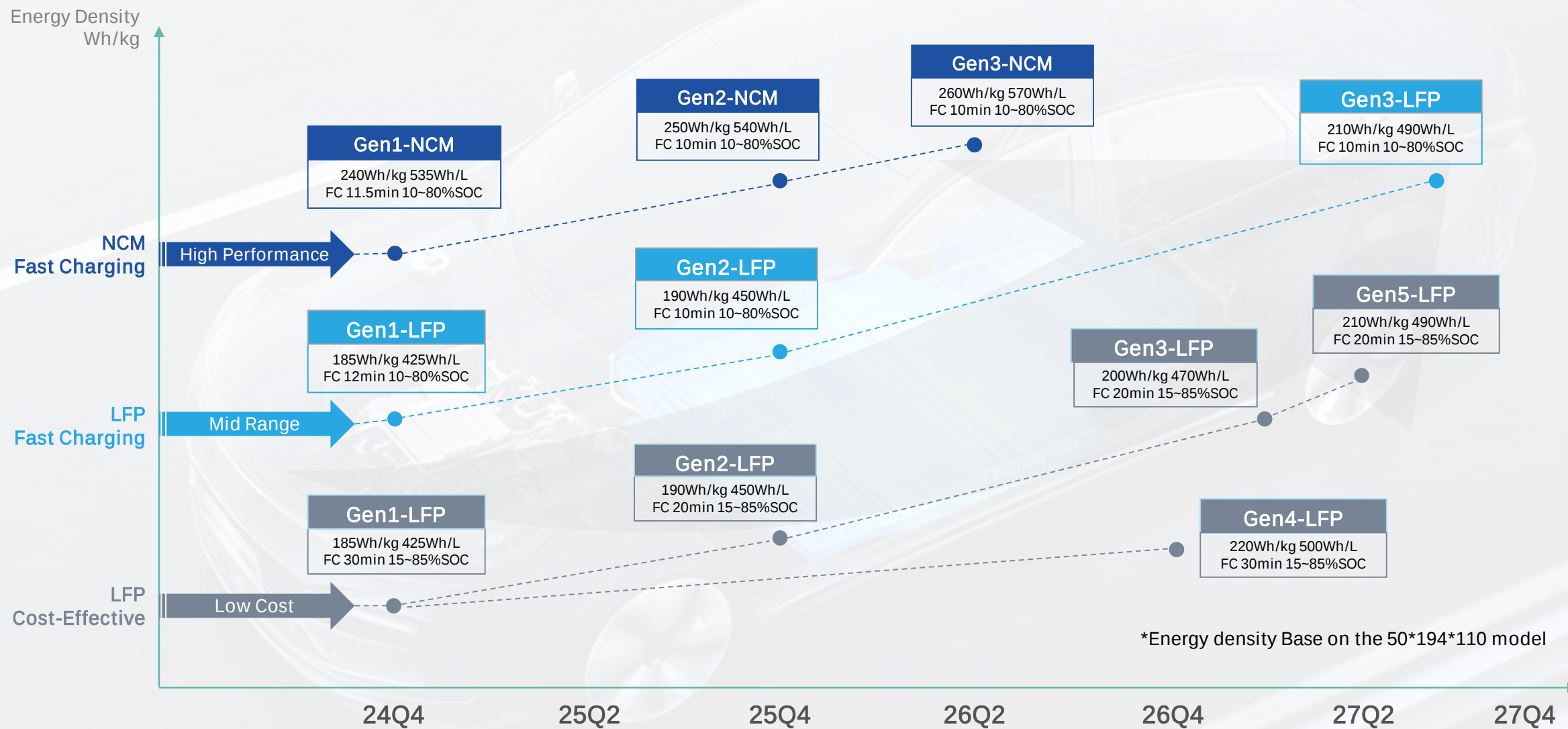
Model		48V Start/Stop Standard
Pack	Rated Voltage/V	41.6
	Voltage Range/V	26~46.8
	Communication	CAN
	Configuration	1P13S
	Ingress Protection	IP67
	Weight/kg	2.3
Dimension LWH/mm		186.8*90.25*184.5
Cell	Capacity/Ah	4
	System	LFP
	SOC Precision	3%
BMS	Balance	Passive 50mA
	Sleep Mode	支持
	Sleep Current/mA	<1mA
	Data Storage	Supports
	Current Detect Precision	1%FS±150mA
	Voltage Detect Precision	+/-5mV

Model	48V mHEV			
Chemistry	NCM	LFP	NCM	NCM
Capacity/Ah	5.5	8	22	34
Configuration	1P13S	1P14S	1P12S	1P12S
Rated Voltage/V	48.1	44.8	44.4	44.4
Voltage Range/V	36.4~55.9	30.8~51.1	33.6~51.6	33.6~51.6
Rated Energy/≥Wh	264	358	976	1500
Weight/kg	3	8.5	12.5	14.9
Dimension LWH/mm	198*261*76	304*180*95	394*175*160	312*270*124
Ingress Protection	IP67			
Operation Temp. Range/°C	-40~70			
Communication	CAN			
Certificate	ASIL B/ASIL C/ASIL D			

2 Automotive

EV Fast Charging Cells: Roadmap

COSMX 冠宇





Highly Reliable comes with Excellent Performance

An exciting combination of reliability, ultra-long range, fast-charging capability across all segments and exceptional performance under extreme low-temperature conditions, it is equipped with the potential to serve as the cornerstone of a blockbuster vehicle model.



Highly Reliable

GB38031-certified LFP cells with high thermal runaway resistance, fundamentally preventing spontaneous combustion



Ultra-Long Range

WED reaches 450 Wh/L, delivering up to 800 km range, rivaling NCM chemistry batteries



Fast Charging Covering all Segments

10%-80% SOC charged with 10-20 min; 10%-95% with 15-30 min



Extra Long Cycle Life

3500+ cycles supports 1 mil+ km range and a 15+ year service life



Exceptional Low-Temperature Performance

Stable discharge at -30°C, 95% capacity retention at -20°C



Model	63U184B	50L8A5B	50L8A5B	50K4A9G	50K4A9G	39K7A4B
Chemistry	LFP+Gr	LFP+Gr	LFP+Gr	NCM+Gr	NCM+Gr	LFP+Gr
Capacity/Ah	194	144.5	151.5	160	163	82
Max Charge Rate/C	4	5	5	5	5	12.5
10%-80%SOC Charge Time/≤min	18	11.5	10	10	10	4.7
80%-95%SOC Charge Time/≤min	17	6	5	5	5	5
WED/ (Wh/kg)	190	185	190	250	260	165
VED/ (Wh/L)	430	425	450	560	567	365
Operation & Storage Temp. Range/°C	-30~60	-30~60	-30~60	-30~55	-30~55	-30~60
Highlights	Cost-effective, long cycle life, comes with fast charging and high energy density			Comes with super fast charging and high energy density		12.5C Super fast charging

2 Automotive

PHEV/HEV Packs

COSMX 冠宇



Model	PHEV		HEV
Energy/kWh	13.26	10.65	1.36
Capacity/Ah	37	32	6
Configuration	112S1P	104S1P	1P39S x 2 Arrays
Weight/kg	130	113	8
Chemistry	LFP		NCM
Dimension LWH/mm	990*748*150	1103*780*164	537*133*100



Model	PHEV Heavy Truck	
Energy/kWh	17.5	7.1
Capacity/Ah	33	148
Configuration	1P168S	4P15S
Weight/kg	170	80
Chemistry	LFP	
Dimension LWH/mm	750*550*550	770*630*180

3 Two-Wheeler

Two-Wheeler Cells: Typical Products

COSMX 冠宇

Chemistry	1060G6	67G4P0	82B4P0	11E6L6	77G4P0B	11B4P0
Chemistry	NCM	NCM	NCM	NCM	LFP	LFP
Type	Pouch					
Dimension TWH/mm	10.3*60*160	6.8*164*230	8.2*114*230	10.5*146*206	7.7*164*230	10.7*114*230
Capacity/Ah	10	30	30.5	45	33	30
Weight/≤kg	200	535	500	720	600	580
Rated Voltage/V	3.7	3.7	3.7	3.7	3.2	3.2
Voltage Range/V	2.5~4.2	2.5~4.2	2.5~4.2	2.5~4.2	2.5~3.65	2.5~3.65
Max. Charge Rate/C	2	2	2	2	1	1
Max. Discharge Rate/C	7	3	3	3	2	2
Charge Temperature/°C	0~50	-10~55	-10~55	-10~55	-10~55	-10~55
Discharge Temp./°C	-20~60					
Cycle Life@25°C	≥80%&2000T 0.5C/1C					
Highlights	Long cycle life; discharge under -20°C~70°C	Long cycle life; discharge under -20°C~60°C, charge under -10°C; low internal resistant & temp. rise	Long cycle life; discharge under -20°C~60°C; low internal resistant & temp. rise	Long cycle life; discharge under -20°C~60°C; low internal resistant & temp. rise	Long cycle life; low internal resistant & temp. rise	Long cycle life; low internal resistant & temp. rise

3 Two-Wheeler

Two-Wheeler Packs: 48V Platform

COSMX 冠宇



Model	4845	4830	4833
Configuration	1P13S	1P14S	1P15S
Voltage Range/V	37.5~54.7	42~58.1	37.5~54
Rated Voltage/V	48	51.1	48
Rated Capacity/Ah	45	30	33
Rated Energy/Wh	2160	1533	1584
Cons./Peak Discharge Current/A	50/70@30s	60/90@30s	66/90@30s
Cons. Charge Current/A	45	60	33
Discharge Temp. Range/°C	-20~60	-20~60	-20~60
Charge Temp. Range/°C	-10~55	-10~55	-20~55
Cycle Life	≥1500@70%SOH	≥2000@80%SOH	≥1500@80%SOH
Dimension/mm	183*156*265	295*232.4*137.4	185*150*295
Weight/kg	8	11.5	12.3
Combination	Multi-packet paralleling	Multi-packet series and parallel	Multi-packet paralleling
Functions	Complies with e-bike national standards. Features smart BMS with multi-protection and One-Wire/RS485 communication.	Series-parallel charging and discharging, series high-voltage high-power discharge, parallel low-voltage safe charging; Intelligent BMS, supports SIF & CAN communication with multi protection	Heated charging in low temp. scenarios; CAN communication; Intelligent BMS live monitoring 24/7

3 Two-Wheeler

Two-Wheeler Packs: 72V and Above

COSMX 冠宇



Model	7430	7445	7260	7497	9630
Configuration	1P20S	1P20S	1P22S	3P20S	1P26S
Voltage Range/V	60~86	60~86	61~80	60~86	78~107.9
Rated Voltage/V	74	74	70.4	74	96
Rated Capacity/Ah	30	45	62	97	30
Rated Energy/Wh	2220	3330	4365	7178	2880
Cons./Peak Discharge Current/A	90/120@30s	120/150@30s	150/180@30s	220/250@30s	60/90@30s
Cons. Charge Current/A	60	68	62	180	60
Discharge Temp. Range/°C	-20~60	-20~60	-20~60	-20~60	-20~60
Charge Temp. Range/°C	-10~55	-10~55	-10~55	-10~55	-10~55
Cycle Life	≥2000@70%SOH	≥2000@70%SOH	≥1500@80%SOH	≥2000@80%SOH	≥1500@80%SOH
Dimension/mm	206*129*323	250*169*314	265*210*400	363*245*350	362.4*274.3*165.2
Weight/kg	12.8	18.5	34	45	20
Combination	Multi-packet paralleling	Multi-packet paralleling	Multi-packet paralleling	Multi-packet paralleling	Multi-packet paralleling
Functions	CAN communication; Intelligent BMS with optional 4G module and GPS module	CAN communication; Intelligent BMS with optional 4G module and GPS module	Intelligent BMS live monitoring 24/7	Intelligent BMS live monitoring 24/7	Great for high-power electric motorcycles; Intelligent BMS live monitoring 24/7

The “Impossible Trinity” of LAV battery technology: **Energy density** (range & payload), **Power** (performance) and **Cycle life** (economics)



Camera Drone

- High Energy Density
- High Power Density
- Excellent Interval Cycle



Agricultural Drone

- High Power Density
- Super Fast Charging
- Excellent high-temp. performance



Delivery Drone

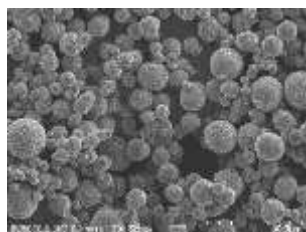
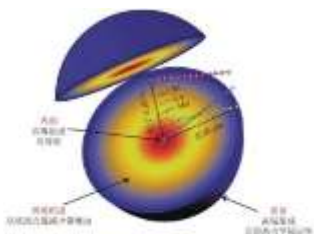
- High Energy Density
- Long Cycle Life
- Wide Operating Temp. Range



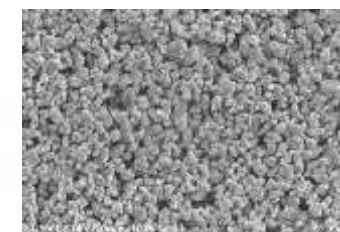
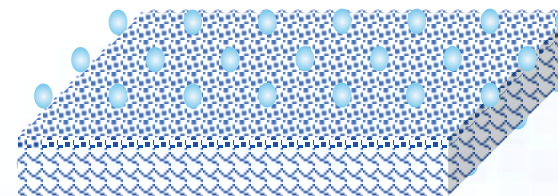
eVTOL

- High Energy Density
- High Power Density
- Safety
- Long Cycle Life

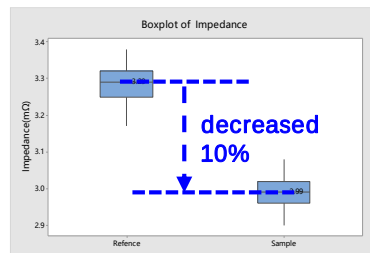
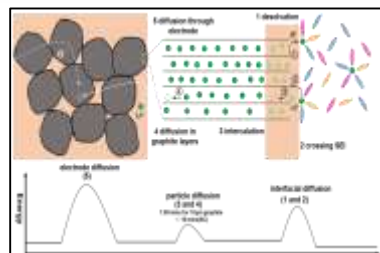
High Capacity NCM Materials



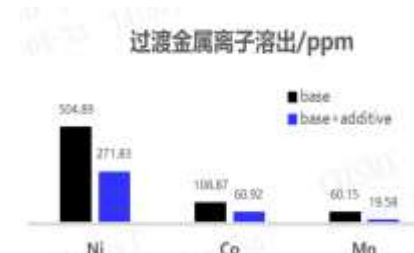
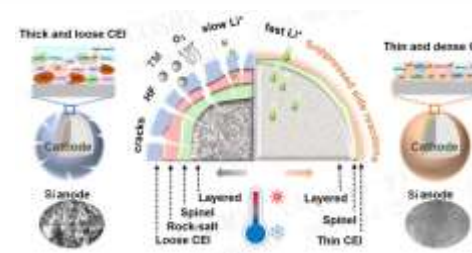
- Capacity $\geq 220\text{mAh/g}$
- Multi-type coating design improves cathode structural stability and Li^+ diffusion speed

Separator Material
(thin and high strength)

- Low surface density $\leq 7.5\text{g/m}^2$, Low heat shrinkage $\leq 3\%$ (150°C 1H), Low air permeability $\leq 150\text{s}/100\text{cc}$
- Thinner composite Separator with no loss of strength or heat resistance

New Graphite/Silicon-Carbon
Hybrid Anode

- New surface-coated graphite, widens the lithium precipitation window and lowers battery internal resistance;
- Capacity $\geq 2000\text{mAh/g}$, initial efficiency $\geq 90\%$, with high rate capacity and low expansion

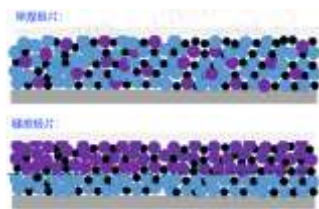
High Temperature Electrolyte with
High Discharge Rate

- Complete additive database matches high nickel positive electrode and silicon anode
- Hybrid lithium salt: improve conductivity and lithium salt dissociation

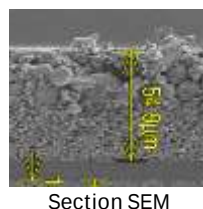
Kinetic Electrode Technology with Multiple Gradient Levels

- Multi-gradient cascade of electronic and ionic conductivity

- Schematic diagram of a multi-gradient kinetic electrode:

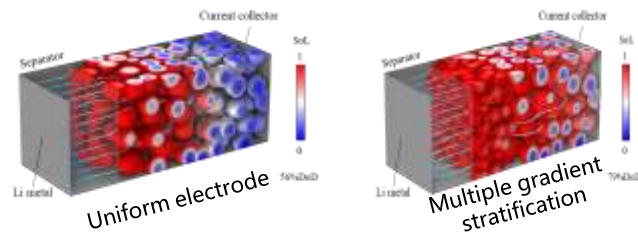


- SEM image of multi-gradient kinetic electrode:

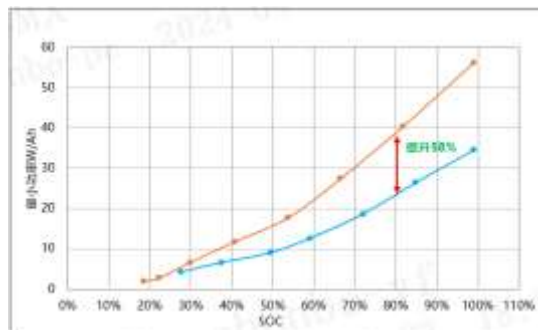


Section SEM

- Comparison of SOC status of multi-gradient kinetic electrode:



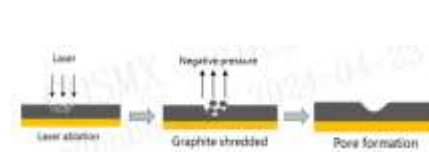
Power improvement data



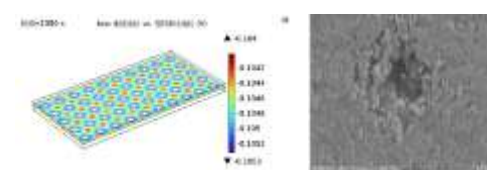
Surface "Sanding" Technology

- Enhanced reaction area, increased lithium ion transport channels

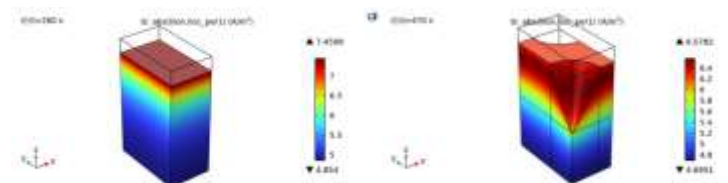
- Grinding Schematic



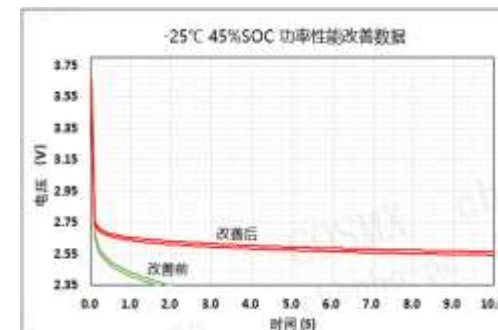
- SEM of surface



- Map of local current density after roughening



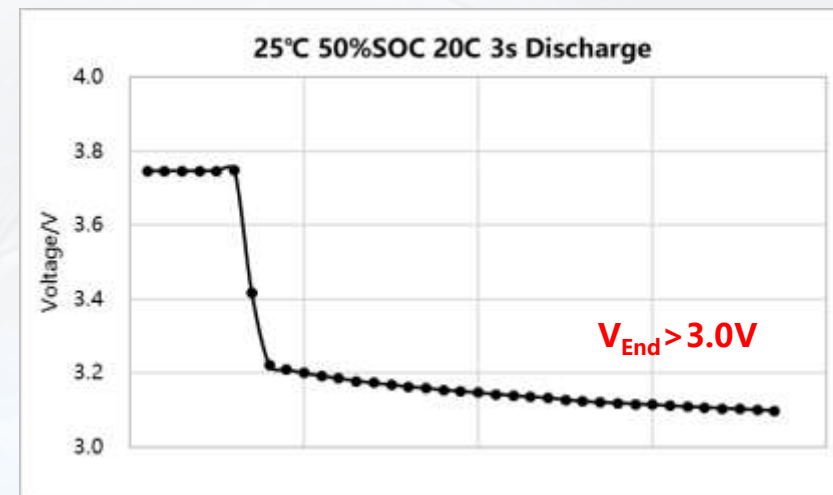
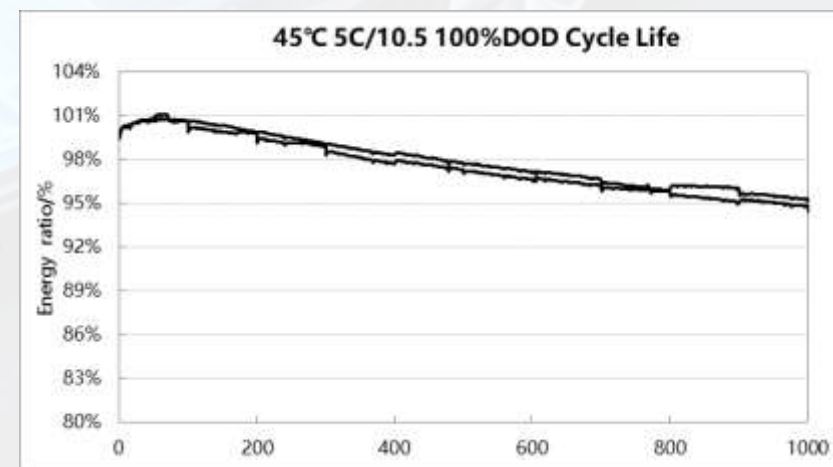
Power improvement data





- Super Fast Charging
- Excellent Discharge Capability
- Good HT performance

20C Discharge

High-Temp.
Cycle Life

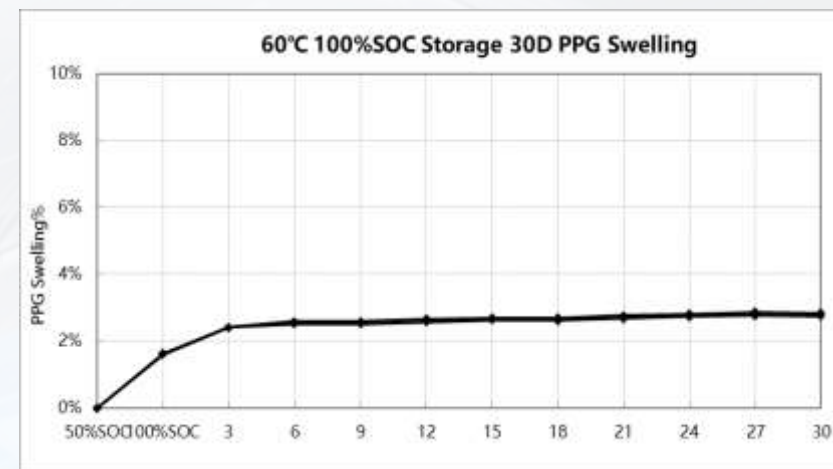
*External clamping is recommended

Items	Specifications
WED Wh/kg	235
Rated Capacity/Ah	38
Voltage Range/V	3.0-4.28
Cycle Life (25°C, 2.5C/5C)	1500T
Cycle Life (45°C, 2.5C/5C)	1500T
35°C ITC	50

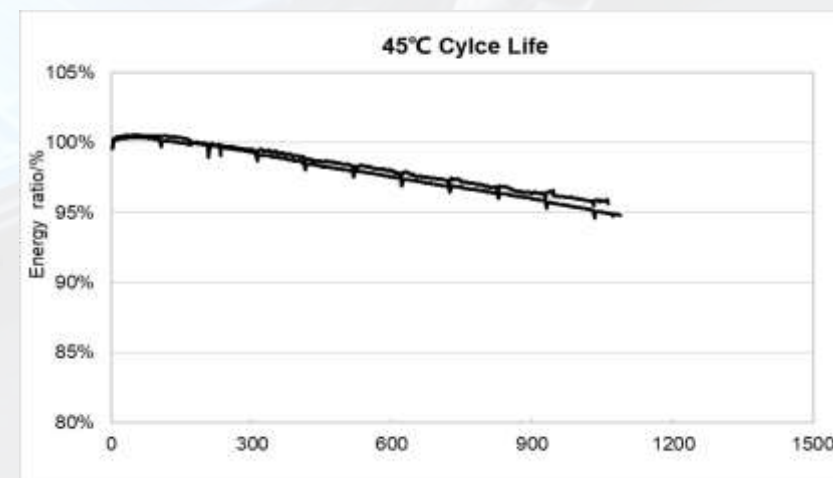


- High Energy Density
- Long Cycle Life
- Wide temp. range: -20°C~60°C

High-Temp.
Performance



High-Temp.
Cycle Life



Items	Specifications
WED Wh/kg	235
Rated Capacity/Ah	38Ah
Operation Voltage Range/V	3.0-4.28V
Cycle Life	1500T
Max Pulse Discharge Rate(50%SOC,3S)	15C

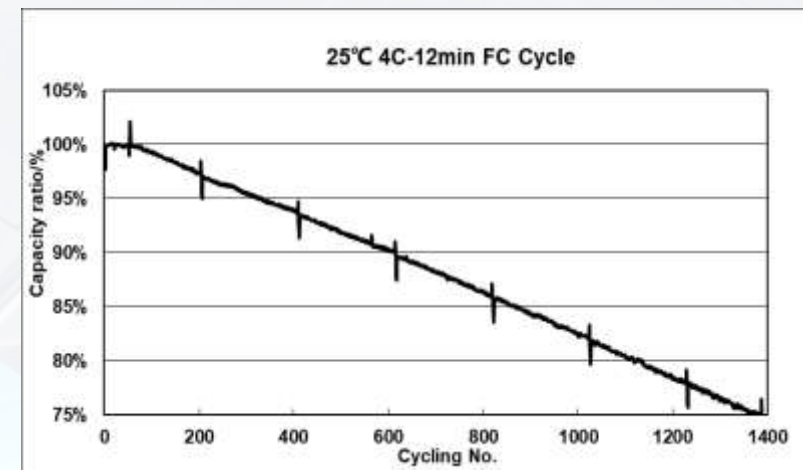
*External clamping is recommended



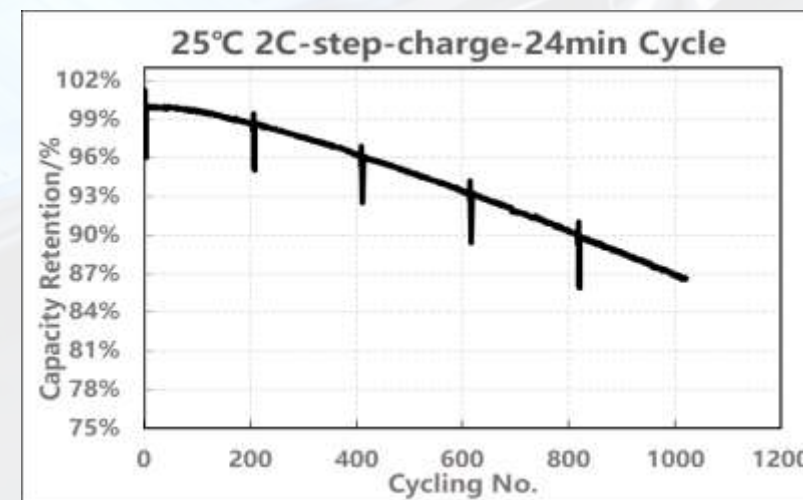
- High-WED
- 2C Step-Charge
- Power

Items	Specifications	
WED Wh/kg	304	350
Rated Capacity/Ah	63.5	75
Operation Voltage Range/V	2.5-4.25	2.5-4.25
DCIR (50%SOC,5C,10s, 25°C, mΩ)	<1.5	<1.5
Cycle Life	>1000T	>1000T
5min Discharge Rate($\geq 95\%$ SOC@25°C)	$\geq 4C$	$\geq 4C$

➤ ED300 cycle life



➤ ED350 cycle life



180~300

- Current UAV batteries
- NCM+Gr./Si

1

350

- ED350Wh/kg
- NCM+Gr./Si

2

400

- ED400Wh/kg
- NCM+Gr./Si
- Pre-lithiation

3

500

- ED500Wh/kg
- NCM/LLMO
- Lithium metal
- Solid state battery

4



Model	11D6K7HD	12E6L6HD	12D6K7HD	11A5X0-1	11A5X0-2
Application	Agricultural Drone		Delivery Drone	eVTOL	
Chemistry	NCM+Gr	NCM+Gr	NCM+Gr	Ni90+Gr/SiC	Ni92+Gr/SiC
State	SOP	SOP	B sample	B sample	A sample
Structure	Pouch				
Dimension TWH/mm	10.56*136*197	12.4*146*206	12*136*197	11.5*105*310	11.5*105*310
Rated Capacity/Ah	30	40	38	63.5	75
WED Wh/kg	185	190	235	304	350
Nominal Voltage/V	3.73	3.73	3.73	3.58	3.50
Voltage Range/V	3.0~4.28	3.0~4.28	3.0~4.28	2.5-4.25	2.5-4.25
Charge Capacity/C	5	5	2.5	3 (Step-Charging)	3 (Step-Charging)
Discharge Capacity/C	Continuous 10.5C Pulse 20C	Continuous 10.5C Pulse 20C	Continuous 8C Pulse 15C	Continuous 5C Pulse 8C	Continuous 2.5C Pulse 5C
Cycle Life	≥1000T	≥1000T	≥1500T	>1000T	>1000T
Highlights	Rapid charge/discharge High temperature adaptability		Long cycle life, Wide temp. adaptability., Long ITC	High energy density Rapid charge/discharge	



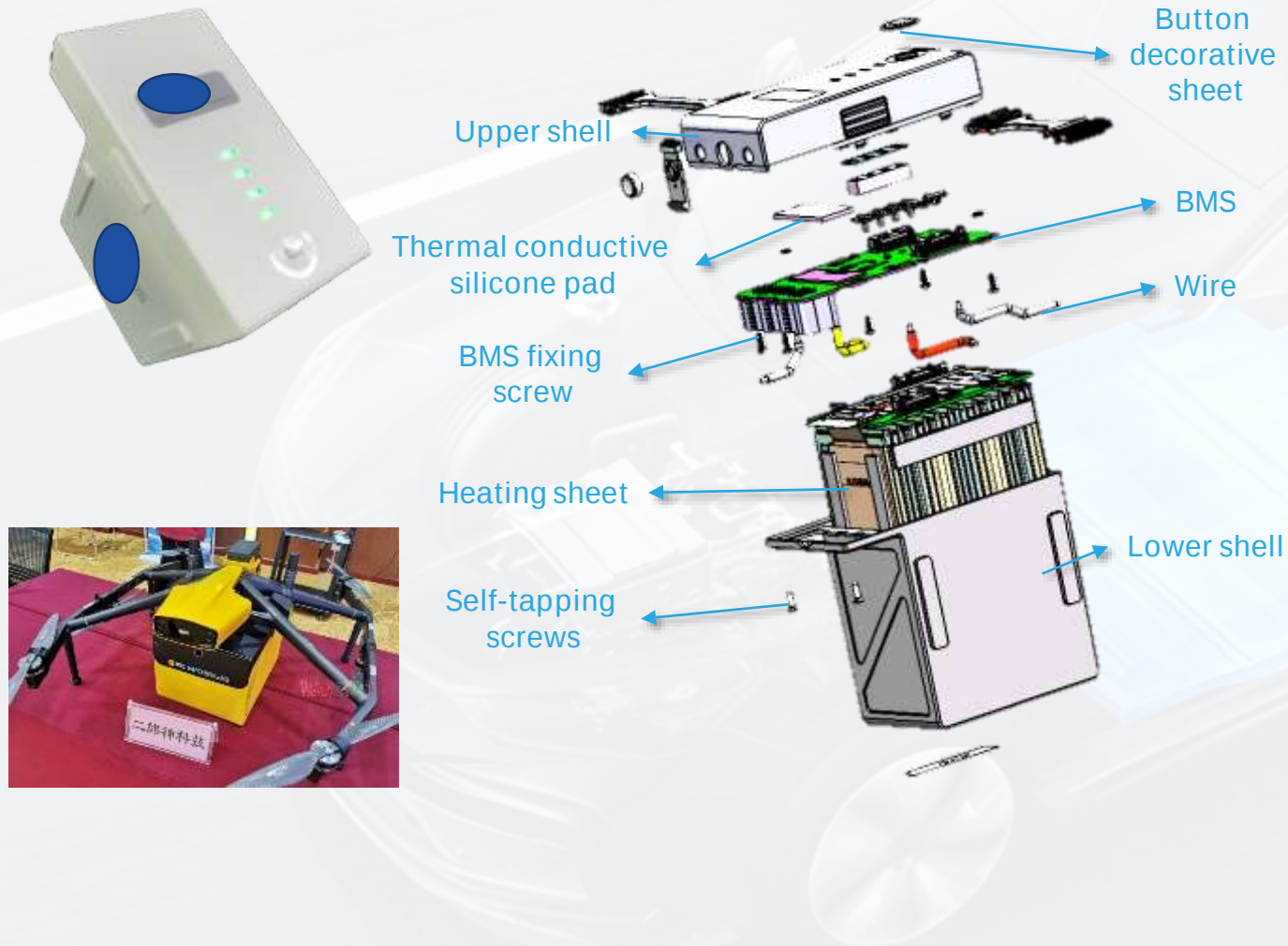
- Good HT performance: charge @65°C/discharge @75°C;
- Automatic equalization to ensure battery consistency;
- Intelligent BMS strategy, constant power in extreme conditions;
- Remote battery upgrade for customer's convenience;
- Fast charging for two battery cycles;
- Passed UN38.3/GB31241/IEC62133/CE, etc.

Items	Specification	Remarks
System	52.2V40Ah	1P14S
Voltage Range/V	42-59.92	
Max. Charge Rate/C	5	
Max.Continuous Discharge Rate/C	10.5	
Max. Pulse Discharge Rate/C	20	2s
Cycle Life	1000T	Operating Mode Cycle
Weight/kg	≈16	
Level of Protection	IP54	IP67 can be customized
Dimensions WHT/mm	375*294*194	Customized
Communication	CAN/RS485	Customized



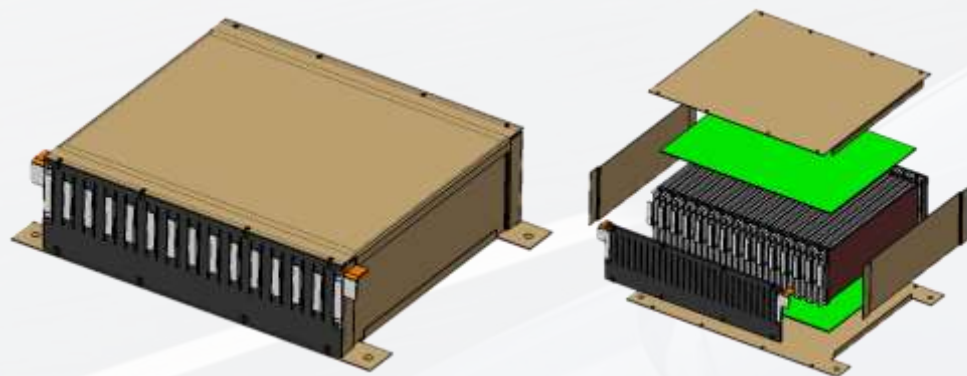
- Wide temperature range ,support -20°C~60°C discharge;
- Automatic equalization to ensure battery consistency;
- Intelligent BMS strategy, constant power in extreme conditions;
- Remote battery upgrade for customer's convenience;
- Passed UN38.3/GB31241/IEC62133/CE, etc.

Items	Specification	Remarks
System	52.2V38Ah	1P14S
Voltage Range/V	42-59.92	
Max. Charge Rate/C	2.5	
Max.Continuous Discharge Rate/C	5	
Max. Pulse Discharge Rate/C	15	2s
Cycle Life	1500T	Operating Mode Cycle
Weight/kg	≈11.5	
Level of Protection	IP67	
Dimensions WHT/mm	314*270*147	Customized
Communication	CAN/RS485	Customized

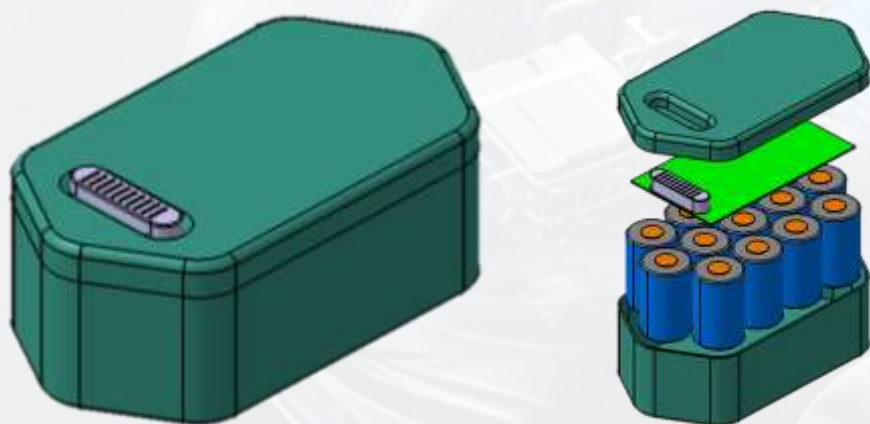


Items	Specifications
Project	M
Configuration	2P6S
Cell Model	585381G
Energy	6600mAh
Heating Temperature Difference	$\leq 5^{\circ}\text{C}$
Heating Rate	$\geq 3^{\circ}\text{C}/\text{min}$
Highlights	- Integrated key light guide design - Heat sink design

Model	2805	2810	2815	4806	4810	4815	4828	7430	7440
Phase	SOP	Preliminary	Preliminary	Preliminary	C	Preliminary	A	Scheme Design	Scheme Design
Configuration	2P8S	2P8S	3P8S	1P13S	1P13S	3P13S	1P13S	1P20S	1P20S
Voltage Range/V	24~33.6	24~33.6	24~33.6	39~54.6	39~54.6	39~54.6	39~54.6	60~84	60~84
Rated Voltage/V	28.8	28.8	28.8	48	48	48	48	74	74
Rated Capacity/Ah	5	10	15	6	10	15	28	30	40
Rated Power/Wh	144	288	432	288	480	720	1344	2220	2960
Cons./Peak Discharge Current/A	25/45@30s	70/90@30s	80/120@30s	30/45@30s	70/90@30s	80/120@30s	80/120@30s	60/90@30s	80/120@30s
Cons. Charge Current/A	5	10	15	60	20	15	54	30	40
Discharge Temp. Range/°C	-20~65	-20~60	-20~60	-20~60	-20~60	-20~60	-20~60	-20~65	-20~65
Charge Temp. Range/°C	0~55	0~55	-0~55	0~55	0~55	-0~55	-10~55	-20~60	-20~60
Cycle Life	≥800@70%SOH	≥1200@80%SOH	≥1200@70%SOH	≥1200@70%SOH	≥1200@80%SOH	≥1200@80%SOH	≥1200@80%SOH	≥2000@80%SOH	≥2000@80%SOH
Dimension/mm	65*85*190	65*125*210	250*85*100	85*140*100	210*140*100	230*140*100	250*140*100	295*285*95	434*323*111
Weight/kg	1.3	2.1	3.1	3.4	3.5	4.2	5.6	12.8	18
Combination	Single	Series & Parallel	Parallel	Series & Parallel	Series & Parallel	Parallel	Parallel	Parallel	Parallel
Functions	High charge/discharge rate	High charge/discharge rate	High charge/discharge rate	Fast charge, high discharge rate, low-temp performance, long cycle life	High charge/discharge rate	High charge/discharge rate	High charge/discharge rate, low-temp charge	High charge/discharge rate	High charge/discharge rate

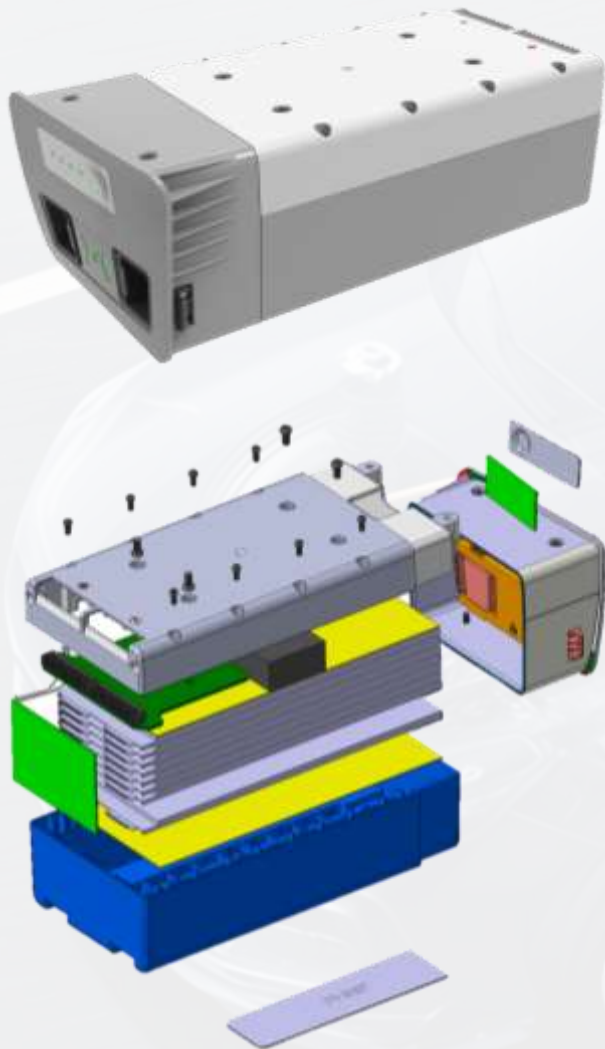


9875



4828

Model	9875	4828
Cell Type	Pouch	Prismatic
Configuration	1P28S	1P13S
Voltage Range/V	70~119	39~54.6
Rated Voltage/V	98V	48
Rated Capacity/Ah	75Ah	28
Rated Energy/Wh	7350Wh	1344
Cons. Discharge Current/A	150A	80
Peak Discharge Current/A	1500A@50ms	120@30s
Charge Current/A	75A	54
Discharge Temp. Range/°C	-20~65°C	-20~60
Charge Temp. Range/°C	0~55°C	-10~55
Cycle Life	≥1000@70%SOH	≥1200@80%SOH
Dimension/mm	434*323*111	250*140*100
Weight/kg	24	5.6
Highlights	High charge/discharge rate	High charge/discharge rate, low-temp performance

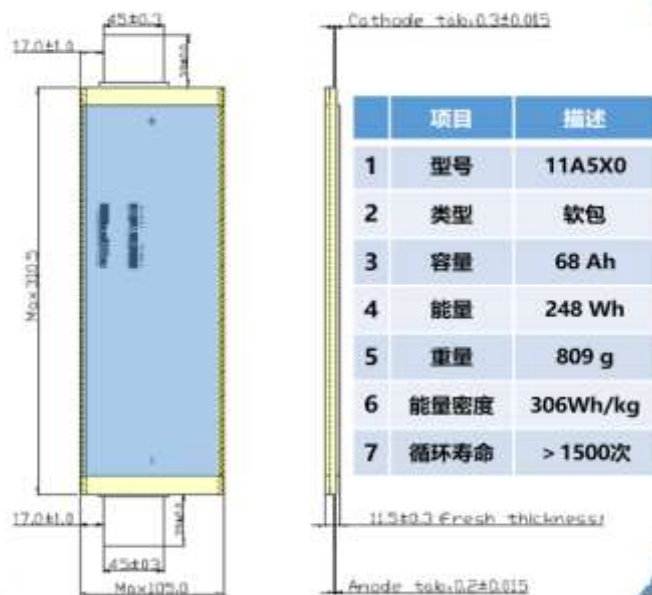


Model	2805
Cell Configuration	2P8S
Voltage Range/V	24~33.6
Rated Voltage/V	28.8
Rated Capacity/Ah	5
Rated Energy/Wh	144
Cons. Discharge Current/A	25
Peak Discharge Current/A	45@30s
Charge Current/A	5
Discharge Temp. Range/°C	-20~65
Charge Temp. Range/°C	0~60°C
Cycle Life	≥800@70%SOH
Dimension/mm	65*85*190
Weight/kg	1.3
Highlights	High charge/discharge rate

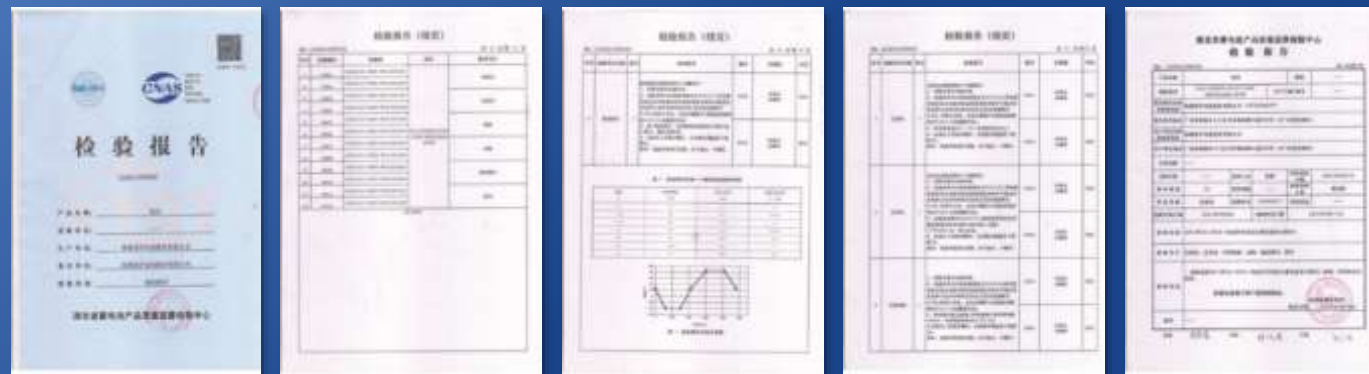
Semi-Solid-State Battery



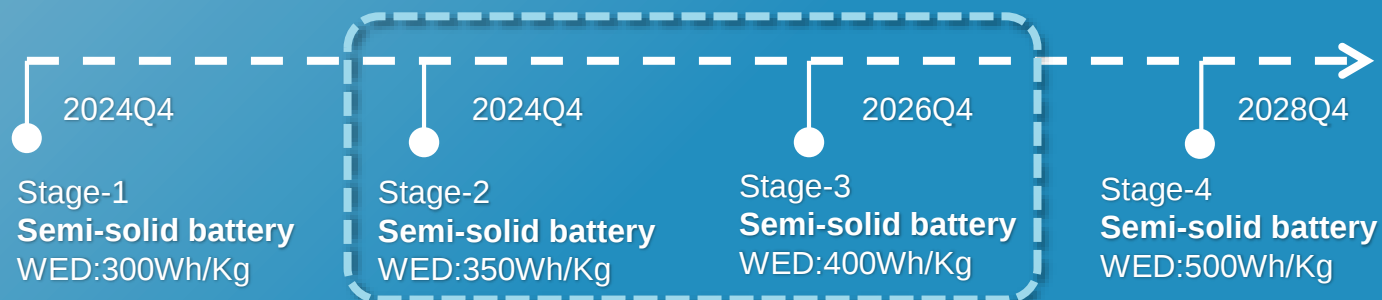
Cell Parameters

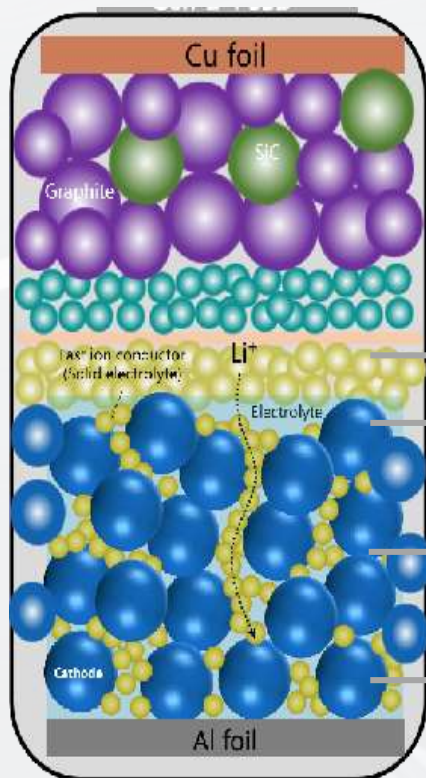


Test Reports



Roadmap



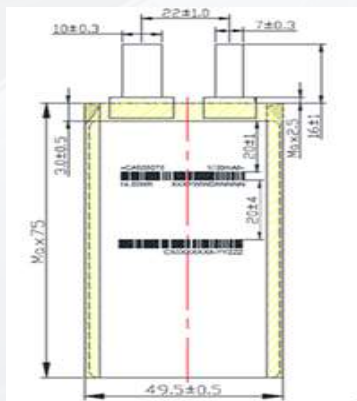


Separator coated
solid electrolyte

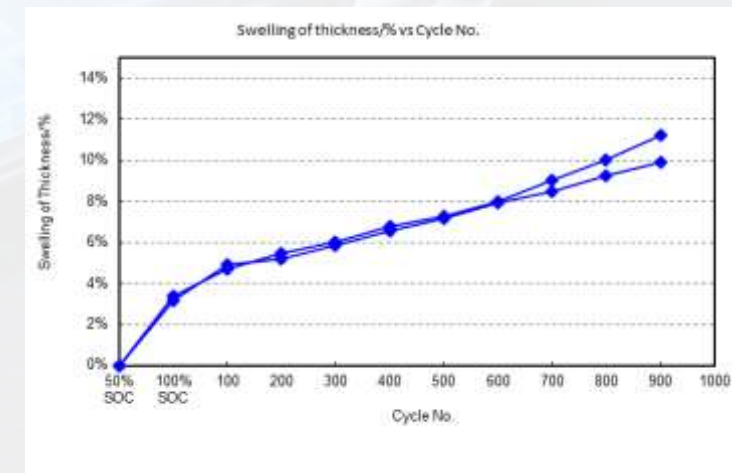
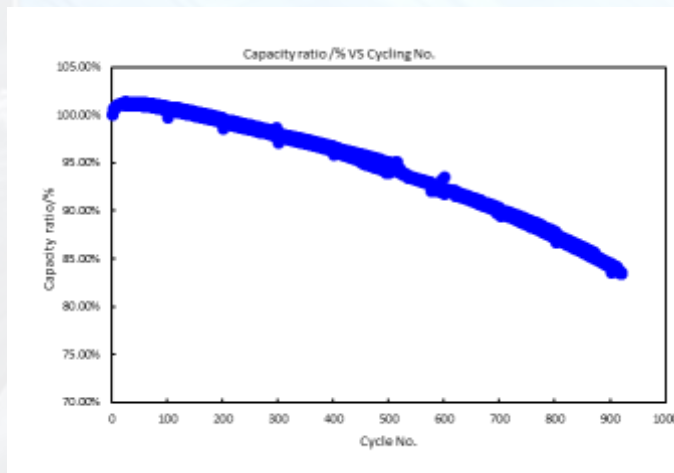
In-situ curing
electrolyte

Electrode mixed
with solid
electrolyte

Material-coated
solid electrolyte



Model	505075
Type	Pouch
Rated Capacity/Ah	4.2
Cathode	Hi-Ni NCM
Anode	SiC/Gr
WED Wh/kg	360



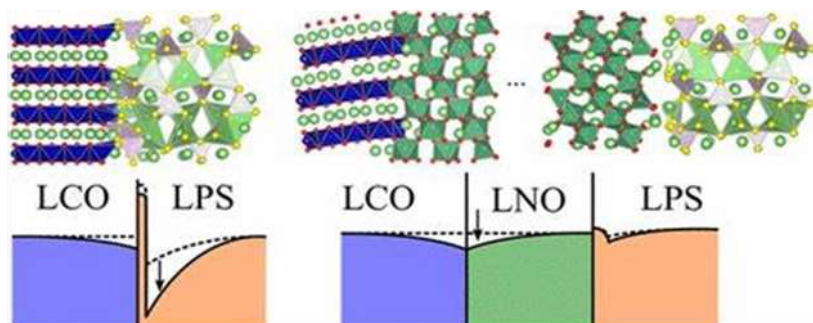


Major Issue: To suppress side reactions between sulfide and electrode materials, we use single-crystal NCM or LiCoO_2 coated with lithium niobate as the cathode, and metallic lithium modified with an artificial SEI as the anode. The air stability of the sulfide solid-state electrolyte is enhanced through oxide doping, **sulfide solid-state electrolytes can produce toxic H_2S gas when exposed to air.**

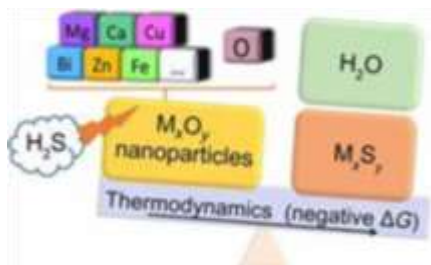


R&D Focus: Using sulfide-based solid-state electrolytes, which offer high ionic conductivity (7-10 mS/cm) and NCM9-series as the cathode. The 1st-Gen solid-state batteries employ silicon-blended graphite as the anode, the 2nd-Gen uses metallic lithium, and the third generation adopts lithium-rich manganese-based cathode materials paired with a metallic lithium anode.

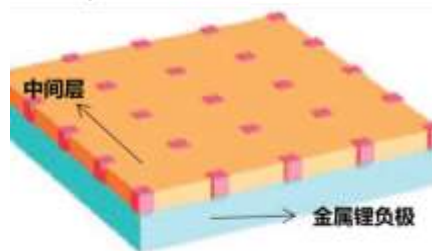
Technical Difficulties and Solutions



LiNbO_3 coated LiCoO_2 single crystal

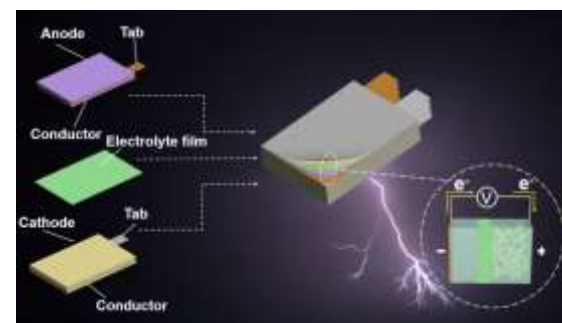


Oxide-doped sulfide solid electrolyte



Intermediate layer design

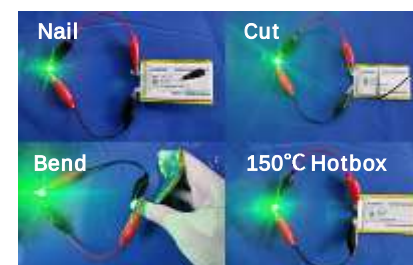
Current R&D Progress



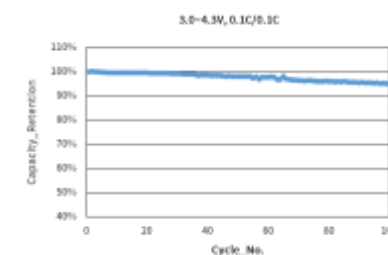
Structure



Lab samples



Safety tests



Cycle test

COSMX冠宇

Thanks!

www.cosmx.com.cn



COSMX at WeChat



COSMX LinkedIn

