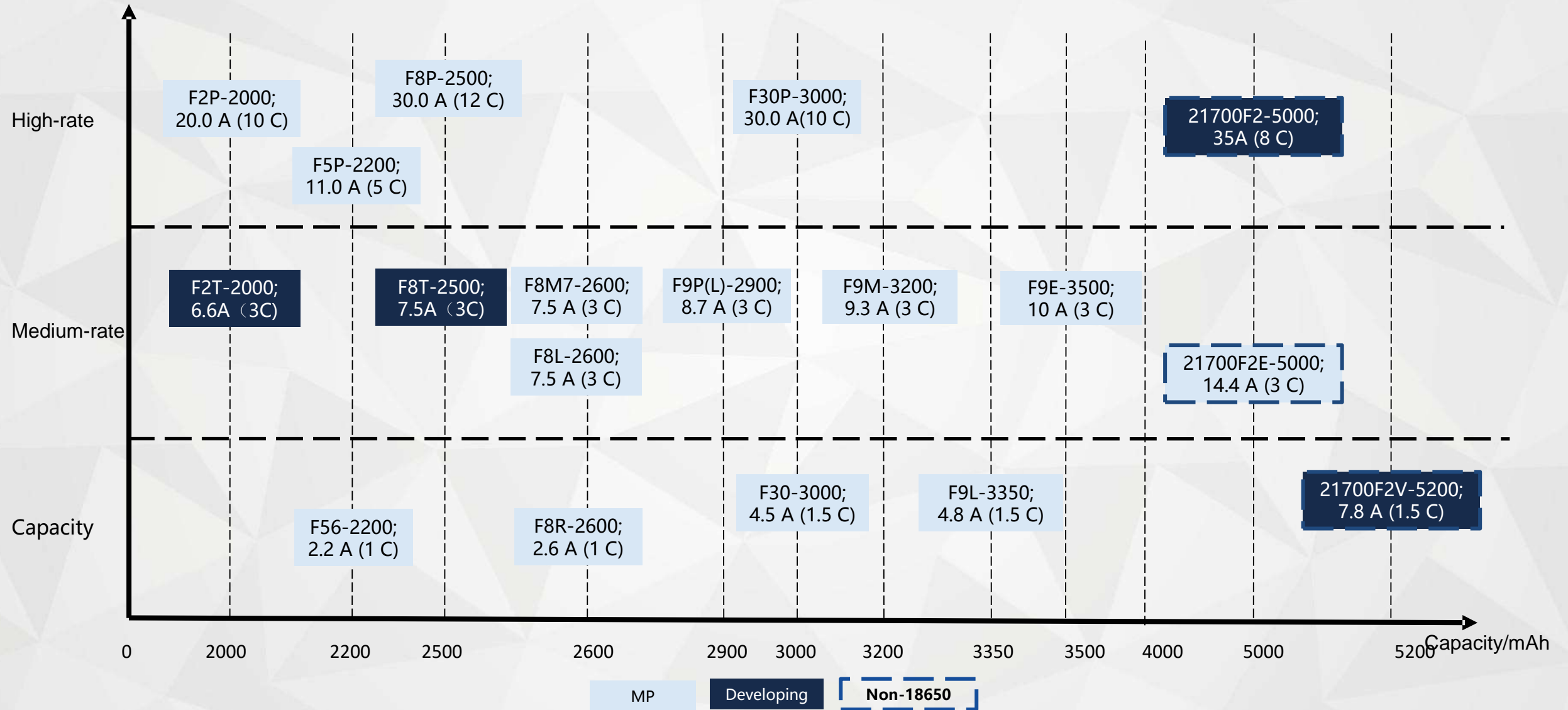


Type	Model	Capacity (mAh)	Voltage (V)	Impedance (mΩ)	Max. Continuous Dis. Current	Cut Off Voltage (V)	Cycle Life (Charge/Discharge Current)				Discharge Operating Temperature (°C)
High-rate	18650F2P	2000	3.7	≤20	20 A (10 C)	2.75	≥300	70%	2.5V-4.2V	4 A / 20 A	-20 ~ 80
High-rate	18650F5P	2200	3.6	≤20	11 A (5 C)	2.75	≥500	80%	2.75V-4.2V	1 C / 1 C	-20 ~ 75
Capacity	18650F56	2200	3.7	≤60	2.2 A (1 C)	3.0	≥300	80%	3.0V-4.2V	0.5 C / 0.5 C	-20 ~ 60
High-rate	18650F8P	2500	3.6	≤18	30 A (12 C)	2.5	≥250	60%	2.5V-4.2V	4 A / 20 A	-20 ~ 80
Medium-rate	18650F8L	2600	3.6	≤30	7.5 A (3 C)	2.9	≥1000	70%	2.9V-4.1V	0.5 C / 1 C	-20 ~ 60
Medium-rate	18650F8M7	2600	3.6	≤30	7.5 A (3 C)	2.75	≥1000	70%	2.75V-4.1V	0.5 C / 1 C	-20 ~ 60
Capacity	18650F8R	2600	3.7	≤60	2.6 A (1 C)	3.0	≥300	80%	3.0V-4.2V	0.5 C / 0.5 C	-20 ~ 60
Medium-rate	18650F9P(L)	2900	3.6	≤40	8.7 A (3 C)	2.5	≥1000	70%	2.5V-4.2V	0.5 C / 1 C	-20 ~ 60
High Capacity	18650F30	3000	3.7	≤60	4.5 A (1.5 C)	3.0	≥300	80%	3.0V-4.2V	0.3 C / 0.5 C	-20 ~ 50
High-rate	18650F30P	3000	3.6	≤18	30 A (10 C)	2.5	≥300	60%	2.5V-4.2V	4 A / 20 A	-20 ~ 75
Medium-rate	18650F9M	3200	3.6	≤40	9.3 A (3 C)	3.0	≥1000	80%	3.0V-4.1V	0.3 C / 0.5 C	-20 ~ 50
High Capacity	18650F9L	3350	3.6	≤60	4.8 A (1.5 C)	2.75	≥300	80%	2.75V-4.2V	0.3 C / 0.5 C	-20 ~ 50
Medium-rate	18650F9E	3500	3.6	≤40	10 A (3 C)	2.75	≥1000	70%	3.0V-4.1V	0.2 C / 1 C	-20 ~ 50
Medium-rate	21700F2E	5000	3.62	≤25	15 A (3 C)	2.5	≥1000	70%	2.5V-4.2V	0.3 C / 1 C	-20 ~ 60

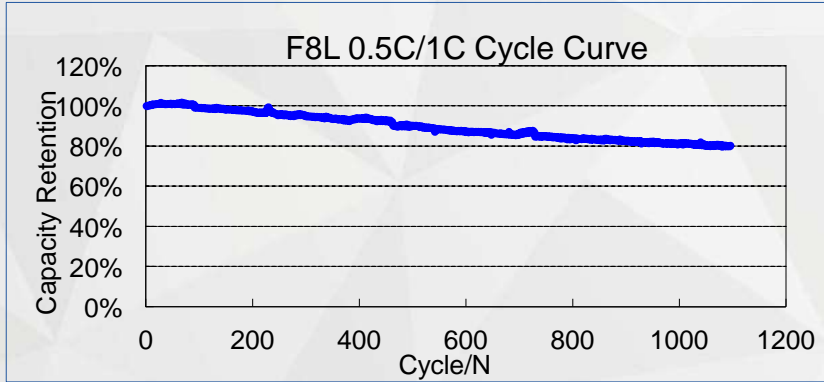


# Star Product - Two Wheeler (Emobility) Battery

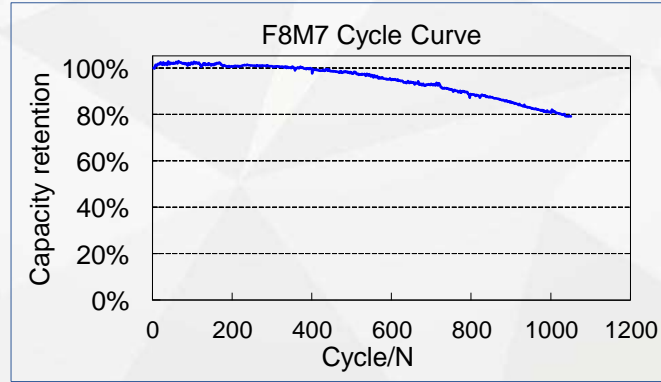


**Zero** safety incidents are the best interpretation of quality

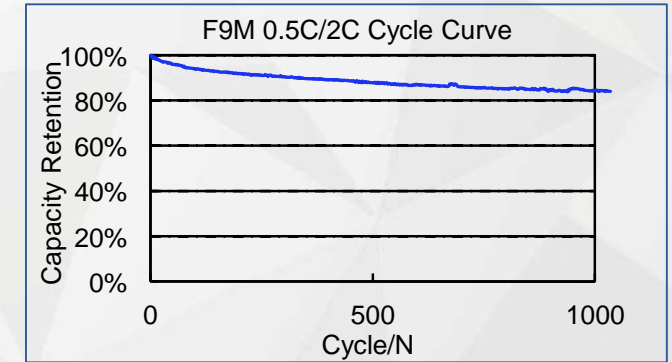
Model		18650F8L	18650F8M7	18650F9P(L)	18650F9M	18650F9E
Picture						
Nominal Capacity		2600 mAh	2600 mAh	2900mAh	3200 mAh	3500mAh
Nominal Voltage		3.6 V	3.6 V	3.6 V	3.6 V	3.6V
Impedance		≤30 mΩ	≤30 mΩ	≤40 mΩ	≤40 mΩ	≤40 mΩ
Standard Charge Current		0.5C	0.5 C	0.5C	0.5C	0.5C
Max. Continuous Discharge Current		7.5 A (3 C)	7.5 A (3 C)	8.7 A (3 C)	9.3 A (3 C)	10A (3C)
Standard RT Cycle Life		1000 Cycle ≥70%, 2.9V-4.1V (with 0.5C/1C)	1000 Cycle ≥70%, 2.75V-4.1V (with 0.5C/1C)	1000 Cycle ≥70%, 2.5V-4.2V (with 0.5C/1C)	1000 Cycle ≥80%, 3.0V-4.1V (with 0.3C/0.5C)	1000 Cycle ≥70%, 3.0V-4.1V (with 0.2C/1C)
Energy Density	Mass Energy Density	211 Wh/kg	211 Wh/kg	237Wh/kg	250 Wh/kg	260Wh/kg
	Volume Energy Density	548 Wh/L	548 Wh/L	621Wh/L	658 Wh/L	701Wh/L



Cell	No.	Cycle Number	Retention Ratio
F8ML	1#	1097	80%



Cell	No.	Cycle Number	Retention Ratio
F8M7	1#	1034	80%

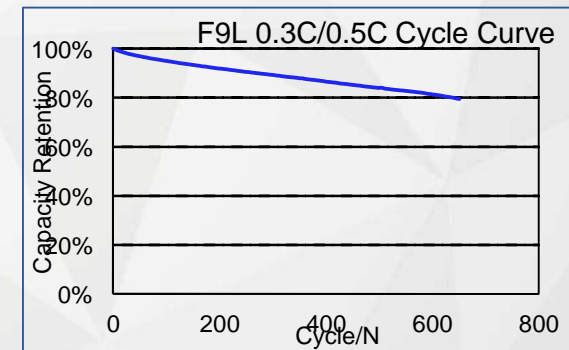
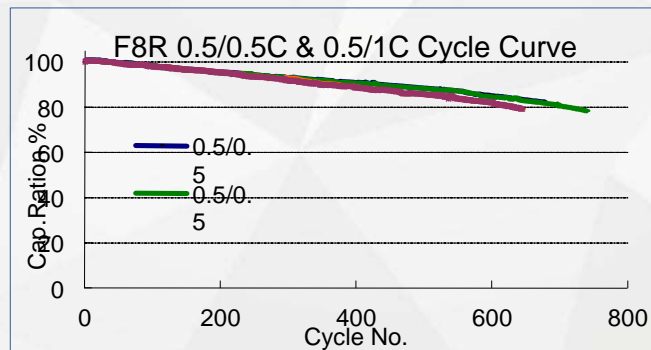
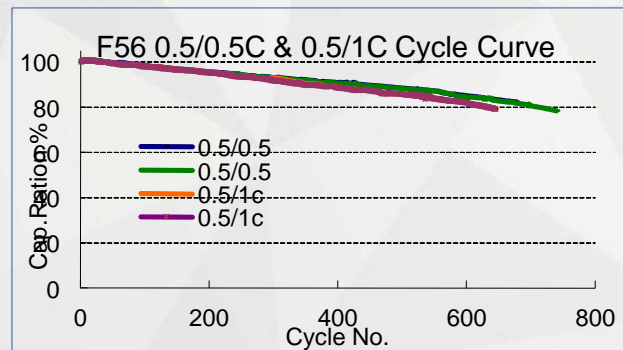


Cell	No.	Cycle Number	Retention Ratio
F9M	1#	1080	83.55%

Industry Leader of *High Capacity Cell*  
in *China*



Model		18650F56	18650F8R	18650F9L
Picture				
Nominal Capacity		2200 mAh	2600 mAh	3350mAh
Nominal Voltage		3.7V	3.7 V	3.6 V
Impedance		≤60 mΩ	≤60 mΩ	≤60 mΩ
Max. Continuous Charge Current		1.1 A (0.5 C)	1.275 A (0.5 C)	1.625 A (0.5 C)
Max. Continuous Discharge Current		2.2 A (1 C)	2.55 A (1 C)	4.8 A (1.5C)
Standard RT Cycle Life		300 Cycle ≥80%, 3.0V-4.2V (with 0.5C/0.5C)	300 Cycle ≥80%, 3.0V-4.2V (with 0.5C/0.5C)	300 Cycle ≥80%, 2.75V-4.2V (0.3C/0.5C)
Energy Density	Mass Energy Density	185 Wh/kg	211 Wh/kg	251 Wh/kg
	Volume Energy Density	470 Wh/L	543 Wh/L	681 Wh/L



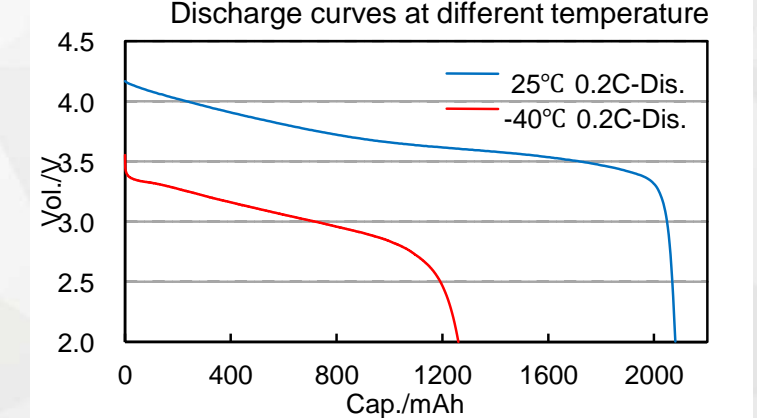
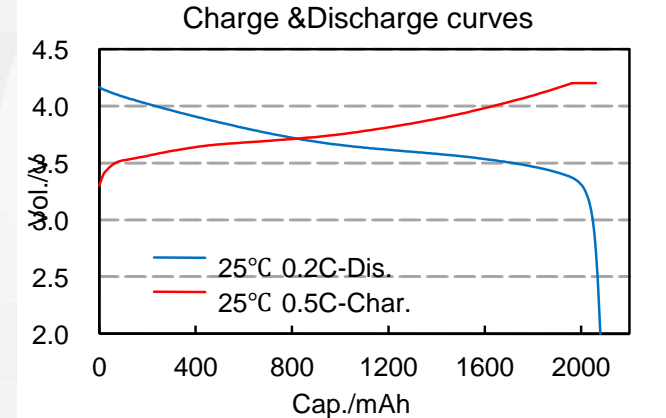
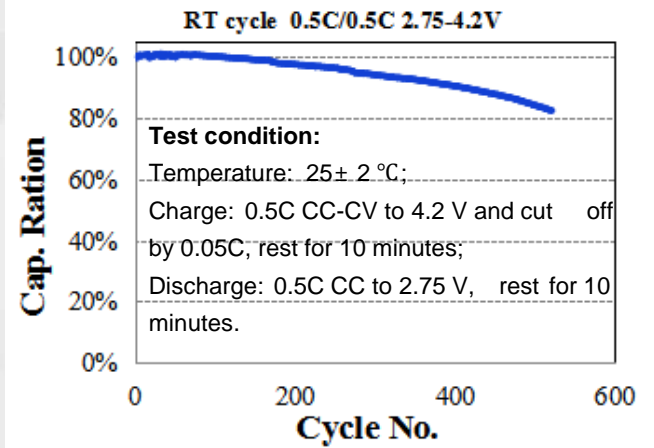
Model		18650F2T	18650F8T
Nominal Capacity		2000 mAh	2500 mAh
Nominal Voltage		3.65 V	3.6V
Impedance		≤40mΩ	≤25mΩ
Max. Continuous Charge Current		1C(2000mA)	1C(2500mA)
Max. Continuous Discharge Current		3C(6000mA)	3C(7500mA)
Low Temperature Discharge(-40°C)		0.4A Discharge Capacity ≥ 1000mAh, (4.2-2.0V)	0.5A Discharge Capacity ≥ 2000mAh, (4.2-2.75V)
Standard RT Cycle Life		400 Cycle ≥ 60% (1.0C/1.5C)	500 Cycle ≥ 70% (0.5C/1.0C)
Energy Density	Mass Energy Density	168 Wh/kg	200 Wh/kg
	Volume Energy Density	427 Wh/L	529 Wh/L

## Features

- Wide Operating Temperature Range:
  - Charge -30°C ~ 90°C
  - Discharge -40°C ~ 90°C
- Excellent safety: Pass Heavy Impact Test
- Able to meet UL1642, GBT31241, GBT31485 standard
- Long cycle life: 500cycle > 60% (with 0.5C/0.5C)

## Technology advantages :

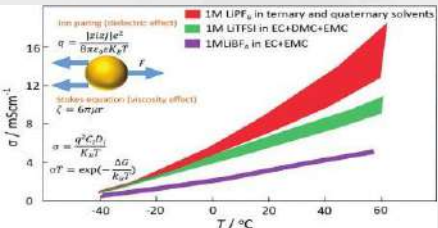
- Unique Safety Structure Design
- Unique Polymer Functional Additive containing Hydroxyl groups to inhibit internal short circuit
- Wide Temperature Application





# Medium Rate Battery for power tools, garden tools, vacuum cleaners

## Customized Electrolyte



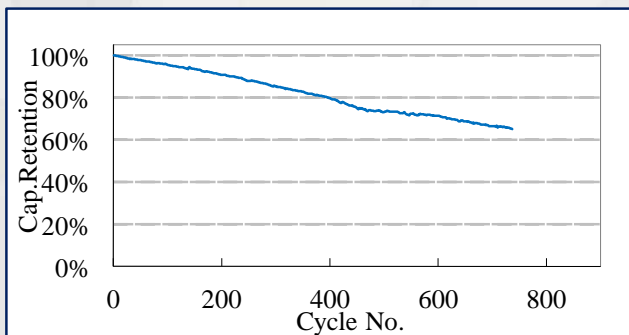
## New CNT

Longer tube length, higher conductivity, good dispersibility and less aggregation

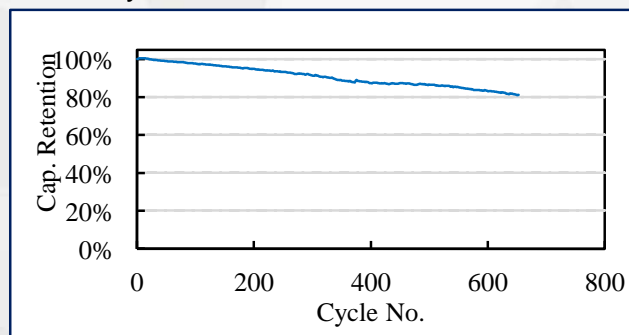


Model	18650F2P	18650F5P	18650F8P	18650F30P	
Picture					
Nominal Capacity	2000mAh	2200mAh	2580mAh	3000mAh	
Rated Discharge Capacity	$C_{min} = 1950mAh$	$C_{min} = 2150mAh$	$C_{min} = 2500mAh$	$C_{min} = 2900mAh$	
Nominal Voltage	3.7V	3.6V	3.6V	3.6V	
Impedance	$\leq 20m\Omega$	$\leq 20m\Omega$	$\leq 18m\Omega$	$\leq 18m\Omega$	
Max. Continuous Charge Current	4A	2.2A	4A	4A	
Max. Continuous Discharge Current	20A	11.0 A (5 C)	① 20A, ② 30A (with 80°C cut)	30A	
Operation Temperature	-20-80°C	-20-75°C	-30 ~ 80°C	-20-75°C	
Standard RT Cycle Life	300 Cycle $\geq 70\%$ , 2.5V-4.2V (with 4A/20A)	500 Cycle $\geq 80\%$ , 2.75V-4.2V (with 1C/1C)	250 Cycle $\geq 60\%$ , 2.5V-4.2V (with 4A/20A)	300 Cycle $\geq 60\%$ , 2.5V-4.2V (with 4A/20A)	
Energy Density	Mass Energy Density	164.4 Wh/kg	178 Wh/kg	207.3 Wh/kg	232.7 Wh/kg
	Volume Energy Density	420.8 Wh/L	452 Wh/L	537.2 Wh/L	621.6 Wh/L

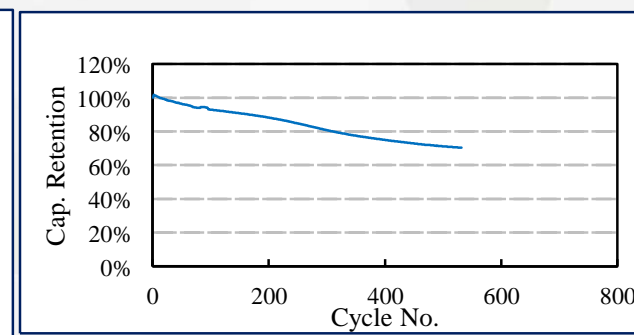
F2P Cycle Curve



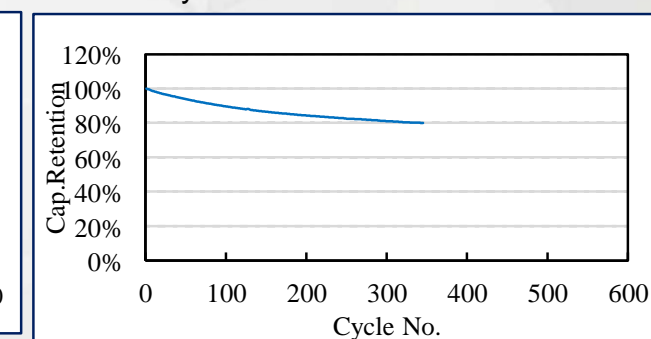
F5P Cycle Curve

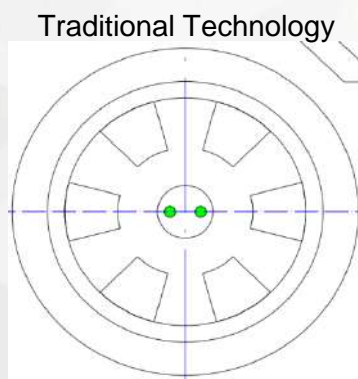
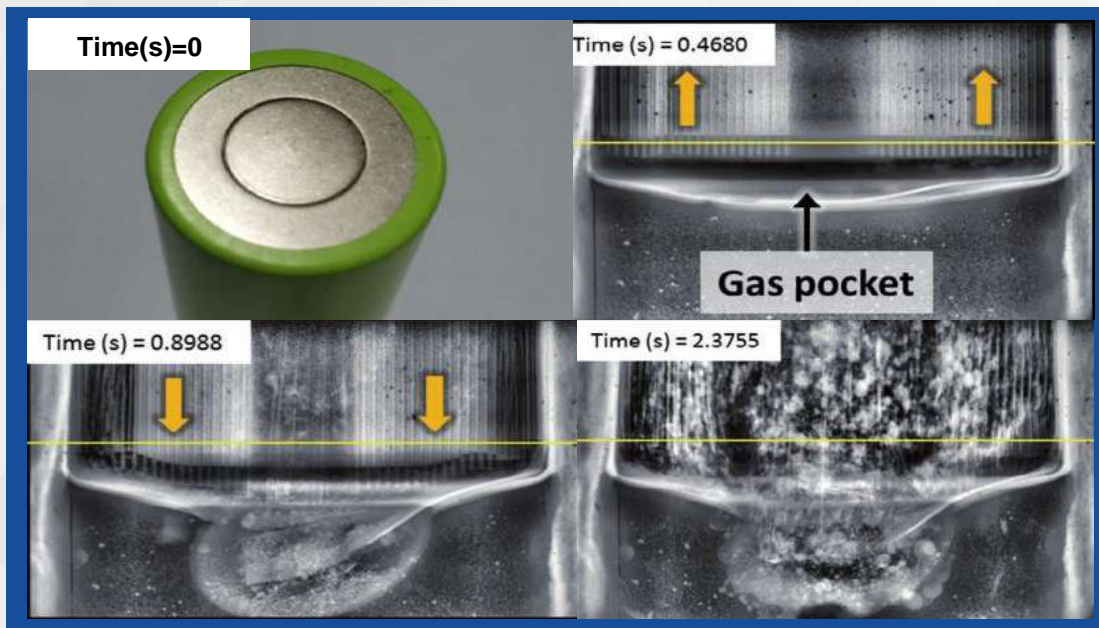


F8P Cycle Curve



F30P Cycle Curve





VS

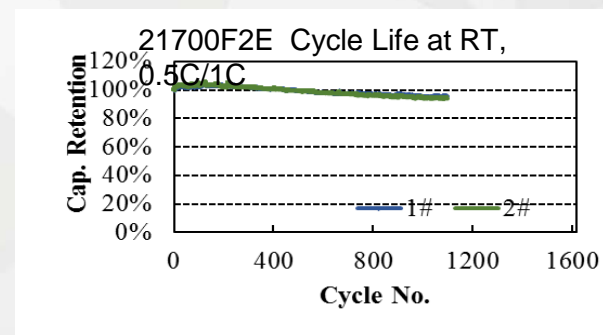
### Strength of Laser line welding :

- CID more stable
- Complete disconnection

### Weakness of Laser Spot Welding

- Need to accurately control the size of welding spot
- Incomplete CID disconnection due to aluminum extension

Model		21700F2E	21700F2Vdeveloping	21700F2developing
Picture				
Nominal Capacity		5000 mAh	5200mAh	5000mAh
Nominal Voltage		3.62 V	3.65	3.6V
Impedance		≤25 mΩ	≤40 mΩ	≤15mΩ
Max. Continuous Charge Current		0.5 C	0.5C	6A(1.5C)
Max. Continuous Discharge Current		3 C	1.5C	①35A, ②45A (with 80°C cut)
Standard RT Cycle Life		1000 Cycle ≥70%, 2.75V-4.2V (with 0.5C/1.0C)	1000 Cycle ≥80%, 2.75V-4.2V (with 0.3C/0.5C)	250 Cycle ≥60%, 2.5V-4.2V (with 6A/35A)
Energy Density	Mass Energy Density	251 Wh/kg	261 Wh/kg	257 Wh/kg
	Volume Energy Density	651 Wh/L	701 Wh/L	647 Wh/L



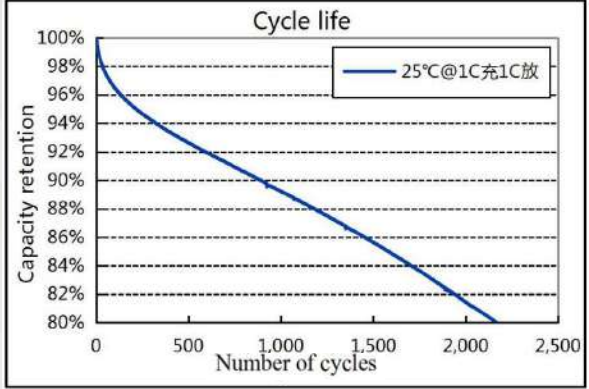


Model	LFP26650-2500mAh	LFP26650-3000mAh	LFP26650-3400mAh	LFP26650-3600mAh	LFP26700-4000mAh	NCM26650-5000mAh
Nominal Capacity	2500mAh	3000mAh	3400mAh	3600mAh	4000mAh	5000mAh
Nominal Voltage	3.2V	3.2V	3.2V	3.2V	3.2V	3.6V
Impedance	≤15mΩ	≤12mΩ	≤16mΩ	≤16mΩ	≤18mΩ	≤20mΩ
Standard Charge Current	1C	1C	0.5C	0.2C	0.2C	0.5C
Standard Discharge Current	1C	1C	0.5C	0.2C	0.2C	1C
Max. Charge Current	3C	3C	3C	2C	2C	1C
Max. Continuous Discharge Current	20C	10C	3C	3C	2C	3C
Standard RT Cycle Life	2000 Cycle ≥80%, 2.75V-4.2V (with 1C/1C)	2000 Cycle ≥80%, 2.75V-4.2V (with 1C/1C)	4000 Cycle ≥80%, 2.5V-3.65V (with 0.5C/1C)	2000 Cycle ≥80%, 2.5V-3.65V (with 0.5C/1C)	4000 Cycle ≥80%, 2.5V-3.65V (with 0.5C/1C)	1500 Cycle ≥80%, 2.75V-4.2V (with 0.5C/1C)
Application	Two-wheeler, AGV, Forklift, robot, Cleaning vehicle, Sightseeing vehicle, Energy storage, Power tools, etc					

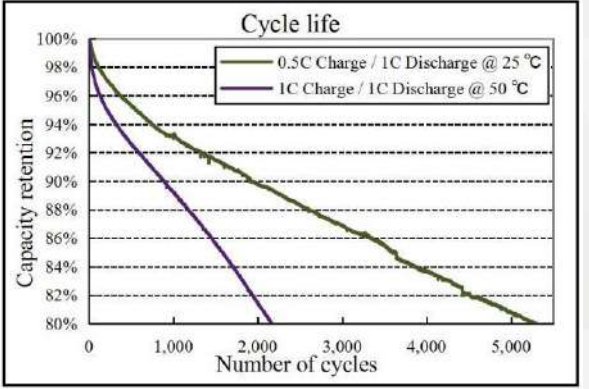
### Advantages:

- Long Cycle Life
- High Temperature Cycle: ≥2000cycles at 50°C
- High C-rate: discharge at 10C~20C
- Excellent Safety: whole process monitoring, CID

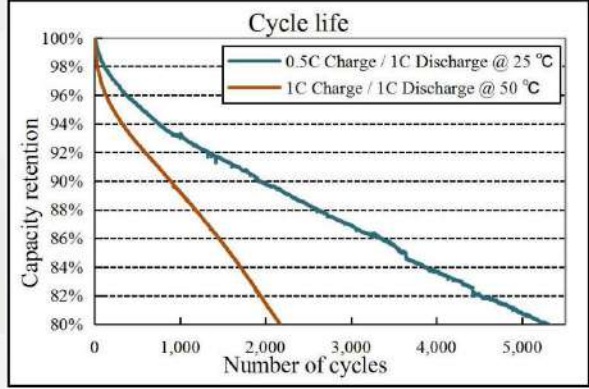
LFP26650-2500mAh Cycle Curve



LFP26650-3400mAh Cycle Curve



LFP26700-4000mAh Cycle Curve



NCM26650-5000mAh Cycle Curve

