

TEL:0086-755-85290393 FAX:0086-755-86578846

Type:

ICR18650-26-2S2P-PTLC

**REV: 1.0** 

Date: 2020-04-13

# **Specification Approval Sheet**

**Model** : ICR18650-26-2S2P-PTLC

Type : Li-ion battery

Specification: 7.4V/5200mAh

signed by client		
Confirmed		
Checked		
Approved		

signed by manufacturer		
Prepared:	Alex Wang	
Checked:	Howell Zhu	
Approved:	Xueming Zhao	



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#### 1. Battery type and scope

This Specification Approval Sheet is for rechargeable Li-ion battery provided by Akku Tronics New Energy Tech. Co., Ltd.

# 2. Basic characteristic and components of the battery

#### 2.1 Basic performance parameter of the battery

S/N	Details	Parameters		Remarks
1	Rated voltage	7.4V		
2	Rated capacity	5200mAh		discharge with 0.2C to 6V After fully charge within 1h, measuring the discharge time.
		Limited voltage	8.4V	
3	Charge	Mode	C.C/C.V.	
		Recommended current	2040mA	0.2C
		Max. current	5200mA	1C
	Discharge	Limited voltage	6.0V	
4		Standard current	2600mA	0.5C
		Max. current	5200mA	1C
5	Working temperature	Charging	0~45°C	
3		Discharging	-20~60°C	
	C4	1 Month	-20~35°C	
6	Storage temperature	6 months	-20~30°C	Charge to 40%~50% of capacity
7	Storage humidity	45% ~ 75%	relative humidity	when storage
8	Weight	Approx. 198.0g		
9	Max. dimension	T19.5mm x W76.0mm x H70mm		
10	Cycle life	300 times		Rate 0.2C, capacity≥80%



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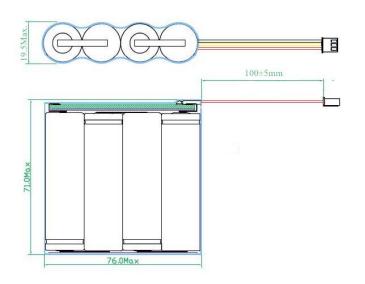
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2.2 Main components and parts

Materials	Model	Quantity	Related technical parameters	Manufacturer
I : I am hattamy sall	ICD19650 26	Please refer to the battery ce specification	Please refer to the battery cell	
Li-Ion battery cell	ICK18030-20		specification	
	Protection board PCM 10K NTC 1PC	OCV 4.25V±0.035V/cell		
Protection board		1PC	ODV 2.5V±0.08V/cell	
			Over current detection: MIN: 6.0A	
			MAX: 18.0A	
Wire	100mm	3PCS		
Connector	XH2.5-3P	1PC		

#### 2.3 Dimension of the battery



#### Material

- 1. Cell: ICR18650 2600mAh (2 in series 2pcs in parallel)
- 2. PCM
- 3. NTC  $10K\Omega$
- 4. Wire Red UL1007 AWG22
- 5. Wire Black UL1007 AWG22
- 6. Wire Yellow UL1007 AWG22
- 7. Connector: XH2.5-3P

#### 2.4 Electrical performance test

S/N	Inspection item	Standard	Testing Method
1	1C <sub>5</sub> A rate discharge capacity	Discharge Time≥57min	Full charge at 20±5°C, rest for 30 min, then discharge at the same temperature with 1.0C <sub>5</sub> A to 3.0V.



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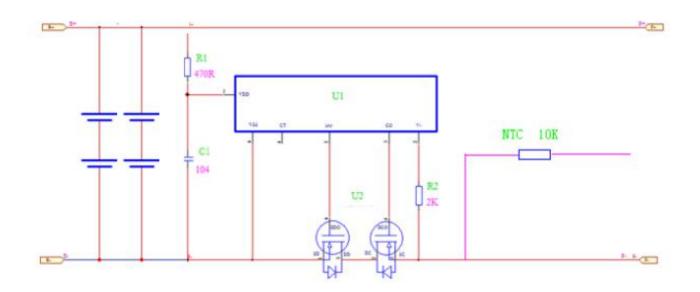
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2	High temp. discharge capacity	Discharge Time≥54min	Full charge at 20±5°C, store at 40±2°C for 2h, then discharge at the same temperature with 1.0C <sub>5</sub> A to 3.0V.
3	Low temp. discharge capacity	Discharge Time≥4.25h	Full charge at 20±5°C, store at -10°C±2°C for 16h~24h, then discharge at the same temperature with 0.2C <sub>5</sub> A to 3.0V
4	Cycle life	Cycle life ≥ 300	At 20±5°C, charge battery with 0.2 C5A to 4.2V and then charge it with constant voltage to the current less than 0.01C. Stop charge and idle for 0.5~1 hour. Then discharge it with 0.2 C5A to cut-off voltage. Idle for 0.5~1 hour, do next charge and discharge cycle. Repeat these steps. Stop it until the continuous two cycle discharge time is less than 4 hours.
5	Capacity Retention	Discharge Time≥4 h	After full charge, store at 20±5°Cfor 28 days. Then discharge with 0.2C <sub>5</sub> A to 3.0V

# 3. Electric schematic diagram





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#### **Attentions**

#### Danger

To prevent battery from weeping, fever, exploding, please obeys the rules as follows:

Do not immerse the battery into the water or the sea, Guard against Damp;

Do not approach the heat source, like fire or heater;

Please use the appointed charger when charging;

Do not transposition the +.- poles of the battery to charge;

Do not direct-connected the battery to alternating current power supply, or auto-ignition of the vehicle;

Do not discard the battery to the fire or hyperpyretic objects;

Do not use the conductor to lead the short circuit of the + -poles of the battery. Do not put the battery with metallic conductors to transport or store, like necklace, hairpin and so on;

Do not beat or throw the battery;

Do not impale the battery with needle or some other sharp things, do not strike it with weight;

As installed safety device in the battery, please do not resolve or change any other sections of the battery to protect the inherent safety functions.

### Warnings

Do not put the battery to the microwave oven or pressure tank;

Do not use the battery with some chemical batteries (like dry battery) or different capacities and brands battery together, if the battery emits the smell, heat, changes color, be out of shape or appears any other abnormal phenomena during the charging or stored procedures, please get out the battery from the device or charger and stop using;

If cannot recharge within the charging period, please not continue charging;

Put the battery to where the kids can not touch, if the kids swallow the battery, please seeing the doctor soon;

If the electrolyte of the battery into the eyes, do not rub, should wash the eyes first, then see the doctor.

#### **Announcements**

Do not put the battery under the high temperature places (like sunshine irradiation or car in the hot weather), or it will catch fire for the heat, reduce the performance and loss the life;

To ensure the safety, the battery should install the safety device, please not use when the static electricity is more than we need when produce, or the safety device will lose efficacy and lead the overheating, fracture, exploding and

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catching fire;

Please use the battery in normal as follows, or it will be overheating, caught fire, reduced performance and shorten the life:

**Environment condition** 

(Temperature) Charging:  $0 \sim +45^{\circ}$ C

Discharging: -20~+60°C

Store within 30 days:  $-20\sim +35^{\circ}$ C Store within 90 days:  $-20\sim +30^{\circ}$ C

If the kids use the battery, they should use as the operation instruction manual and guarantee that it must be use in normal at any time;

If the battery weeps, the electrolytes stick on the skin or cloth, use the water to wash or running water to wash To insure not install the battery wrong or wastage of the battery, please read the instruction carefully to install and dismounting;

If the battery will not be used for a long time, please take out of the battery from the device and store in dry and shady places;

If there is sludge on the surface of the battery, please wipe up clean before using, or it will lead bad contact with the device.

# ! Special Notice

Keep the cells in 50% charged state during long period storage. We recommend to charge the battery up to 50% of the total capacity every 3 months after receipt of the battery and maintain the voltage 7.4V~8.0V. And store the battery in cool and dry place.