

# **INK** LITHIUM-ION BATTERY CELL SPECIFICATIONS

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Battery Cell Model: 10430 Designer: Eric Liu

#### 1. Specifications

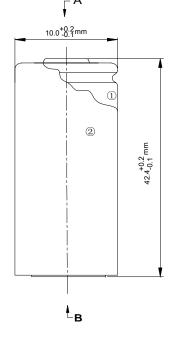
1.1	Nominal Capacity	450 mAh
1.2	Minimum Capacity	420 mAh
1.3	Nominal Voltage	3.6 V
1.4	Internal Impedance	≤ 70 mΩ
1.5	Energy	≤ 1.62 Wh
1.6	Standard Charging	90 mA
1.7	Quick Charging	315 mA (0.7 C)
1.8	Charging Voltage	4.2 V
1.9	Continuous Discharging	1 A
1.10	Discharge Cut-off Voltage	2.50 V
1.11	Battery Cell Weight	≤ 10.5 g

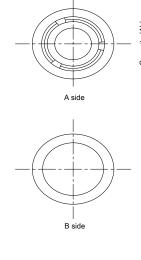
# 3. Characteristics: Charging Current (A) Charge: 0.2 C, 4.2 V, CC-CV, 0.03 C cut-off, 25°C 4.0 3.8 0.4 3.6 3.4 0.3 3.2 -0.10 + 0.23.0 +0.05 + 0.1

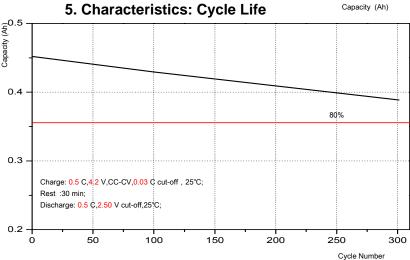
4. Characteristics: Different Discharge Rates

#### 0.4 (olatge 0.2C 3.8 0.5C 1.0C 3.6 3.4 3.2 1.0A 3.0 2.8 Charge: 0.5 C, 4.2 V, CC-CV, 0.03 C cut-off, 25°C Rest: 30 min. 2.6 Discharge: Different Discharge Rates, 2.50 V cut-off, 25 0.0 0.1 0.2 0.3 0.4 0.5

## 2. Product Drawing







4.2

## Charging

#### 1 Charging current

Charging current shall be less than maximum charge current specified in the product specification.

#### 2 Charging voltage

Charging shall be done by voltage less than that specified in the product specification.

#### 3 Charging time

Continuous charging under specified voltage does not cause any loss of performance characteristics. However, the charge timer is recommended to be installed from a safety consideration, which shuts off further charging at time specified in the product specification.

#### 4 Charging temperature

The cell shall be charged within a range of specified temperatures in the specification.

#### 5 Reverse charging

The cell shall be connected, confirming that its poles are correctly aligned. Inverse charging shall be strictly prohibited. If the cell is connected improperly, it may be damaged.

### Discharging

#### 1 Discharging

The cell shall be discharged continuously at less than maximum discharge current specified in the product specification. In case of the higher discharge current should be set, it shall be discussed together with SDI.

#### 2 Discharging temperature

The cell shall be discharged within a range of temperatures specified in the product specification. Otherwise, it may cause loss of performance characteristics.

#### 3 Over-discharging

The system should equip with a device to prevent further discharging exceeding discharging cut-off voltage specified in the product specification. Over-discharging may cause loss of performance characteristics of battery. Over-discharging may occur by self-discharge if the battery is left for a very long time without any use. The charger should equip with a device to detect voltage of cell block and to determine recharging procedures.

# **Cautions**

- (1)Do not immerse the battery in water, and keep the battery in a cool dry surrounding if it stands by.
- (2)Do not use or leave the battery at high temperature as fire or heater. Otherwise, it can overheat or fire or its performance will be degenerate and its service life will be decreased.
- (3)Do not reverse the position and negative terminals.
- (4)Do not connect the battery electrodes to an electrical outlet.
- (5)Do not short circuit. Otherwise it will cause serious damage of the battery.
- (6)Do not transport or store the battery together with metal objects such as hairpins, necklaces, etc.
- (7)Do not use the battery in a location where static electricity and magnetic field is great, otherwise, the safety devices may be damaged, causing hidden trouble of safety. Turn off the switch on its base.
- (8)Please use special lithium charger.
- (9)Do not disassemble battery.