

## ■ Features

- Rechargeable Lithium-Ion(Li-ion)
- Nominal capacity 2.6Ah
- Nominal voltage: 3.63V
- Standard Charge 3 hours
- Charge Temp. 0-45°C
- Discharge Temp. -20°C to 60°C
- Over Charge/Discharge Protection
- Short Circuit Protection
- Dimensions:  $\phi 18.4 \times 65$ mm(cell)
- 5-year Warranty



\*Product images are for illustrative purposes only and may vary from actual design.

## ■ Applications

- Small portable electronics

## ■ Model List\*(See part number scheme for model number details)

Model Number	Nominal Capacity	Nominal Voltage	Standard Charge Time	Discharge cut-off voltage
APS26-LIR18650-2.6Ah	2.6Ah	3.63V	3 hours	2.75V

\*At 3mA +20°C, 2V cut off. The capacity restored varies according to the current temperature cut off

## ■ Technical Data

Standard Discharge Capacity	Min 2,550mAh – Charge: 0.5C (1300mA), 4.2V 20mA or 3hr cut-off @RT – Discharge: 0.2C (520mA), 2.75V cut-off @RT *1C=2,600mA (Typical Capacity 2,600mAh)
Charging Voltage	4.2V
Nominal Voltage	3.63V
Charging Method	CC-CV (constant voltage with limited current)
Charging Current	Standard charge: 1,300mA
Charging Time	Standard charge: 3 hours
Max. Charge Current	2,600mA (not for cycle life)
Max. Discharge Current	10A (Continuous discharge @RT)
Discharge Cut-off Voltage	2.75V (End of discharge)
Cycle life	Capacity $\geq 1,785$ mAh after 500cycles (70% of the Standard Discharge Capacity @ RT) - Charge : 0.5C (1.3A), 4.20V, 130mA or 3hr cut-off @ RT - Discharge : 1C (2.6A), 2.75V cut-off @ RT
Storage characteristics	Capacity recovery(after the storage) $\geq 2,040$ mAh (80% of the Standard capacity@RT) -Charge: 0.5C(1,300mA), 4.2V 20mA or 3hr cut-off @ RT - Storage: 30 days (@ RT) - Discharge: 0.2C(520mA), 2.75V cut-off @ RT
Cell Weight	46g max
Cell Dimension	Height: Max. 65mm; Diameter: Max. 18.4mm
Packing	200pcs/Carton
Operating Temperature	Charge: 0°C to 45°C (Ambient) Discharge: -20°C to 60°C (Ambient)
Recovery of 80% after storage	1 year: -20°C ~23°C, 3 months : -20°C ~45°C, 1 month : -20°C ~60°C

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**■ Technical Data(cont.)**

Standard Charge	This "Standard Charge" means a charging Cell with a charge current of 0.5C(1,300mA) and a constant voltage of 4.2V and 20mA or 3hr cut-off in CV mode at 23°C for capacity.
Standard Discharge Capacity	≥ 2,550mAh, the standard discharge capacity is the initial discharge capacity of the Cell, which is measured with a discharge current of 0.2C(520mA) with a 2.75V cut-off at 23°C within 1 hour after the Standard charge.
Initial internal impedance	≤ 35mΩ, Initial internal impedance measured at AC 1kHz after Standard charge.
Temperature Dependence of Discharge Capacity	Discharge capacity comparison at each temperature, measured with discharge constant current 1.0C(2,600mA) and 2.75V cut-off with follow temperature after the Standard charging at 23°C.
Charge Temp/Discharge Temp	23°C(Relative Capacity), -10°C(60%), 0°C(70%), 40°C(95%); If charge temperature and discharge temperature are not the same, the interval for temperature change is 3 hours. The percentage as an index of the Standard discharge capacity (=2,550mAh) is 100%.
Discharge Rate Capabilities	Discharge capacity is measured with the various currents and 2.75V cut-off after the Standard charge at 23°C
Discharge Condition	0.2C(520mA/100%); 1C(2,600mA/90%); 2C(5,200mA/80%); 3.85C(10000mA/70%); The percentage as an index of the Standard discharge capacity (=2,550mAh) is 100%.
Cycle Life	Each cycle is an interval between the charge (charge current 1,300mA) with 0.05C(130mA) or 3-hour cut-off and the discharge (discharge current 2,600mA) with 2.75V cut-off. Capacity after 500cycles, measured under the same condition in 7.2 Capacity ≥ 1,785mAh (70% of Standard Discharge Capacity)
Recovery Characteristics	Capacity after storage for 30 days at 23°C after the Standard charged at 23°C, measured with discharge current 0.2C(520mA) with 2.75V cut-off at 23°C. Capacity recovery(after the storage) ≥ 2,040mAh (80% of Standard Capacity at 23°C)
Status of Cell as of ex-factory	The cell should be shipped in 3.55V ~ 3.63V Charging voltage range.
Drop test	Test method: Fully standard charged Cells drop onto the concrete floor from 1.0m height at a random direction 3 times. Cells or batteries are dropped to obtain impacts in random orientations. After the test, the sample shall be put on rest for a minimum of one hour and then a visual inspection shall be performed. Criteria: No fire, no explosion. The drop test shall be performed with the IEC62133 standard
Vibration test	Test method: As to the UN transportation regulation (UN38.3), for each axis (X and Y axis with cylindrical Cells) 7Hz→200Hz→7Hz for 15min, repetition 12 times totally 3hours, the acceleration 1g during 7 to 18Hz and 8g (amplitude 1.6mm) up to 200Hz. Criteria: No leakage, with less than 10% of OCV drop Vibration test shall be performed with the UN38.3 standard
Overcharge Test	Test method: The cell is to be discharged at a constant current of 0.52A to 2.75V. The cell is then to be charged with a 12V and 3C (7.8A). Charging duration is to be The chargingteria: No fire, and no explosion. The overcharge test shall be performed with the UL1642 standard

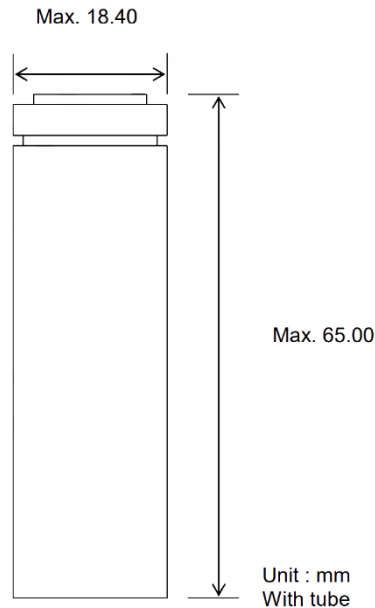
■ Technical Data(cont.)

External short-circuit test	Test method: Fully Standard charged Cell is to be short-circuited by connecting the positive and negative terminals of the battery with a circuit load having a resistance load of $80 \pm 20\text{m}\Omega$ . The battery is to discharge until a fire or explosion is obtained, or until it has reached a completely discharged state of less than 0.2 V and the battery case temperature has returned to $\pm 10^\circ\text{C}$ of ambient temperature. The return to near ambient of the battery (Cell) casing is an indication of ultimate results. Tests are to be conducted at $20 \pm 5^\circ\text{C}$ and $\pm 5^\circ\text{C}$ . Criteria: No fire, and no explosion. External short-circuit test shall be performed with the UL1642 standard
Forced discharge test	Test method: A discharged Cell is subjected to a reverse charge at 1.0C (2,600mA) for 90 min. Criteria: No fire, and no explosion. A forced discharge test shall be performed with the IEC62133 standard
Heating test	Test method: To heat up the standard charged Cell at heating rate $5^\circ\text{C}$ per minute up to $130^\circ\text{C}$ and keep the Cell in the en for 30 min...criteria: No fire, and no explosion. Most heating shall be performed with the UL1642 standard (10 min) & GB31241 standard (30 min).
Storage(3 months or more)	It is strongly recommended that Cell is preserved at dry and low-temperature.

Notes:

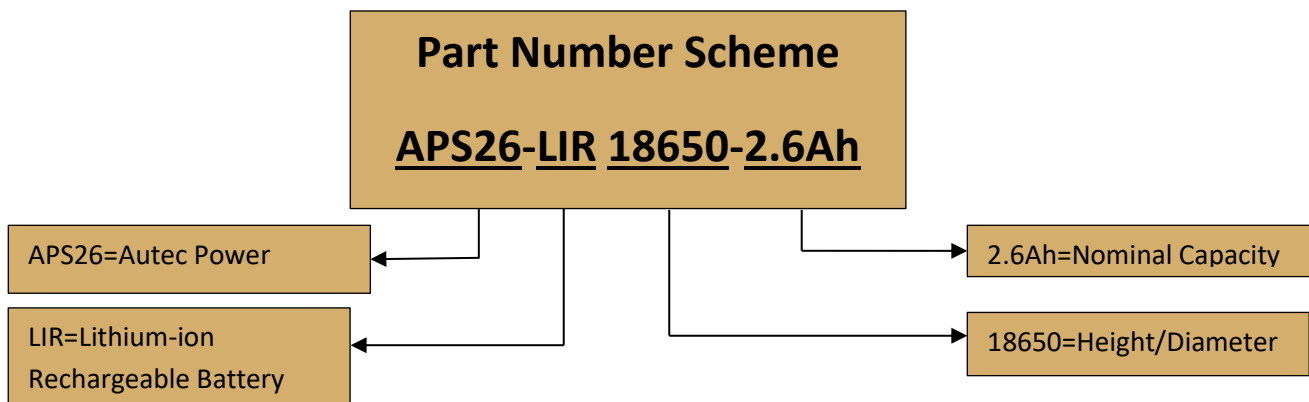
1. Protection function of the battery pack should be set within the specified charge, discharge, and temperature range in Cell Specification.
2. Discharge OTP(over temp. protection) should not be over  $70^\circ\text{C}$  of Cell surface temperature. The protection set should be based on the location of the Cell surface with the highest temp increase part of the battery pack.
3. If the Cell is kept as ex-factory status (30% of charge), the capacity recovery rate shall be more than 80%.
4. There shall be no such defects as scratch, rust, discoloration, or leakage which may adversely affect the commercial value of the Cell.
5. Unless otherwise specified, all tests stated in this specification are conducted at temperature  $23 \pm 3^\circ\text{C}(@\text{RT})$  and humidity under 65%.
6. Amp-meter and Voltmeter The amp-meter and voltmeter should have an accuracy of the grade 0.5mA and mV or higher.
7. Slide caliper the slide caliper should have a 0.01 mm scale
8. Impedance meter the impedance meter with AC 1kHz should be used.
9. If charge temperature and discharge temperature are not the same, the interval for temperature change is 3 hours. The percentage as an index of the Standard discharge capacity ( $=2,550\text{mAh}$ ) is 100%.

## ■ Mechanical Diagram



## ■ Warnings

1. Install batteries correctly.
2. Ensure the contact points are clean and conductive.
3. Do not mix different types or brands of batteries in any application.
4. Do not expose the batteries to heat or fire.
5. Keep away from small children.
6. Please check the manufacturing date code.



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\*Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.

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