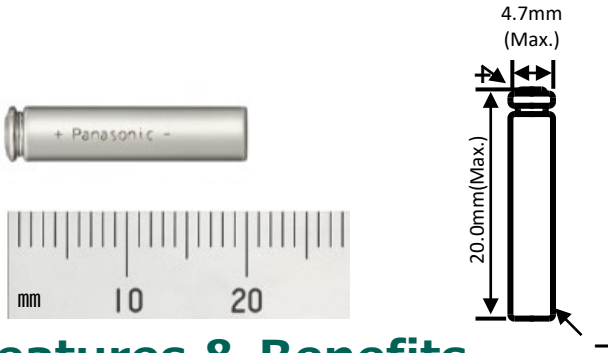


# CG-420B

## Pin-type Lithium-ion Battery



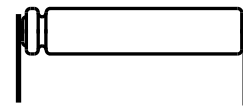
### Features & Benefits

- Small and slim pin-shaped Lithium-ion battery which expands design options for micro devices.
- A rechargeable battery that can be used repeatedly and has the output capability required for Near Field Communications.
- A high-strength metal exterior case provides excellent reliability.

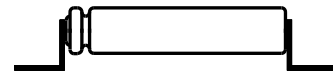
### Terminal types

Panasonic offers batteries with tabs. All models have stainless steel tab with tin (Sn) plating.

Through-hole type



Surface mount type



### Applications

Hearing aids, small medical devices, wireless earphones, stylus pens, smart glasses, wristband devices and others.

### Specifications

|  |                |                  |
|--|----------------|------------------|
| Maximum charging voltage               |                | 4.35V            |
| Nominal Voltage                        |                | 3.8V             |
| Typical Capacity                       |                | 29.0mAh          |
| Rated Capacity                         |                | 27.0mAh          |
| Dimensions*                            | Diameter(Max.) | 4.7mm            |
|  | Height(Max.)   | 20.0mm           |
| Weight*                                |                | Approx. 0.9g     |
| Operating Temperature                  | Charge         | 0°C ~ +60°C      |
|  | Discharge      | -20°C ~ +60°C    |
| Maximum continuous discharging current |                | 54.0mA(2C)       |
| Maximum charging current               |                | 20.2mA(0.75C)    |
| Certifications                         |                | IEC62133, UL1642 |

\* Without tabs.

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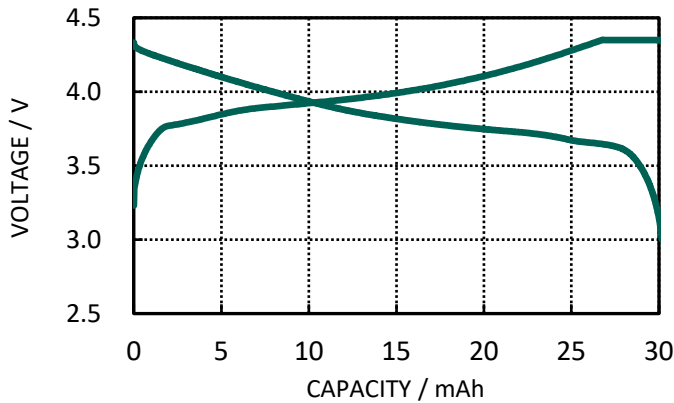
<https://industrial.panasonic.com/ww/products/pt/pin-li-ion>

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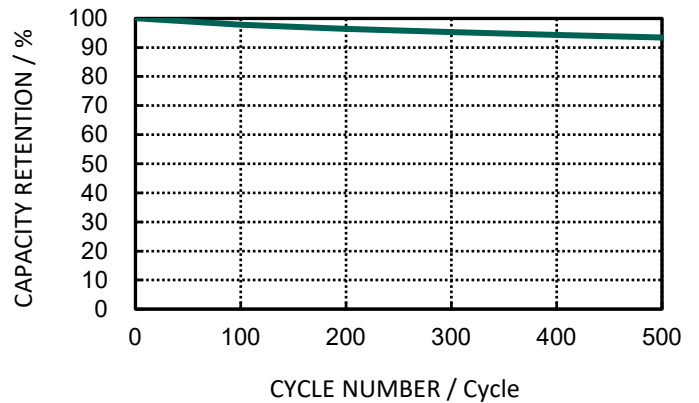
## Characteristics

### Charge and Discharge Characteristics



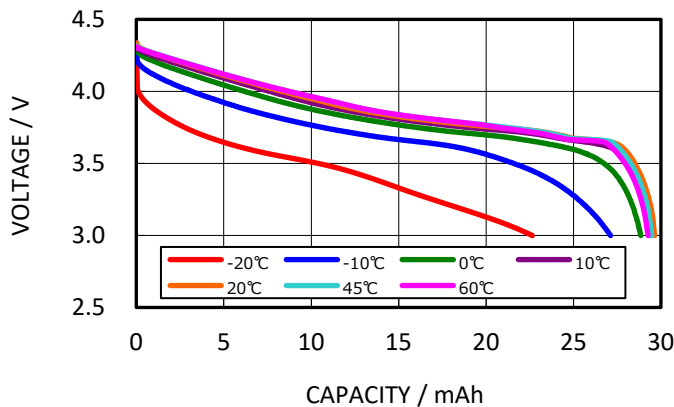
Charge Condition: CC/C20.2mA(0.75C) - 4.35V, 1.35mA(0.05C) cut-off at 20°C  
 Discharge Condition: CC, 5.4mA(0.2C) - 3.0V cut-off at 20°C

### Cycle Life Characteristics



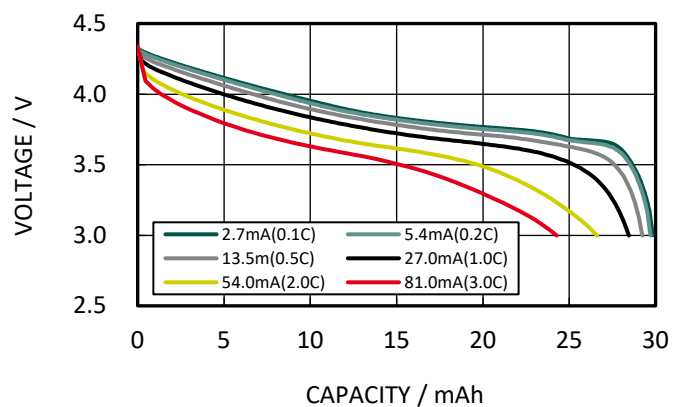
Charge Condition: CC/CV 20.3mA(0.75C) - 4.35V, 1.35mA(0.05C) cut-off at 20°C  
 Discharge Condition: CC, 20.3mA(0.75C) - 3.0V cut-off at 20°C

### Discharge Characteristics by Temperature



Charge Condition: CC/CV 27.0mA(0.05C) - 4.35V, 1.35mA(0.05C) cut-off at 20°C  
 Discharge Condition: CC, 5.4mA(0.2C) - 3.0V cut-off at 20°C

### Discharge Characteristics by Rate of Discharge



Charge Condition: CC/CV 27.0mA(1C) - 4.35V, 1.35mA(0.05C) cut-off at 20°C  
 Discharge Condition: CC, 3.0V cut-off at 20°C

## Handling Guidelines

- Standard Voltage Range is 3.0 - 4.35V. Protection required for over-charge/over-discharge.
- In order to prevent accidental ingestion of the battery, it must be inaccessible to the individual user / customer. The battery will be shipped with tabs. Please attach the battery to the device.

|                         |  |
|-------------------------|--|
| Standard Voltage Range  | 3.0~4.35V  |
| Do not over-charge      | Stop charging at 4.45±0.05V  |
|                         | Allow charging again at less than 4.25±0.05V                       |
| Do not over-discharge   | Stop discharge at 2.7±0.1V   |
|                         | Allow discharging again at more than 3.3±0.1V                      |
| Over Current Protection | Stop discharge in the case of an out-put connection short circuit. |

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