Pin-type Lithium-ion Battery

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Panasonic Corporation

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Pin-type Lithium-ion Battery, suitable for small devices

- Wireless Earphones
- Hearing Aids
- Smart Glasses
- Stylus Pen
- Wristband Devices
Features

1) Super small and slim battery realizes not only stylish designs but also high output.

2) A high-strength stainless exterior case provides excellent safety and reliability.

3) Rapid charging makes your portable devices more user-friendly.
1) Super small and slim, but high output

✓ Provides stylish designs for your products, as well as Bluetooth low energy, vibration and other functions which need big discharging current.

![Image chart]

**CG-320B Pulse discharging result with 150mA (10C)**

- **Test Conditions**
  - C: 7.5mA (0.5C)/4.35V - 0.8mA (0.05C) cut (CC/CV)
  - D: Pulse current 150mA (10C) for 0.5s in every hour, Base current 0.1mA - 3.0V cut
  - Temperature: 20°C

General Li-ion 18650 size

- Diameter: 3.65mm
- Height: 20mm
- Weight: 0.5g

**CG-320B**

- Pulse discharge result with 150mA (10C)
  - 0.5s pulse
  - 0.1mA base

![Graph]

Voltage when discharging with base current
Voltage when discharging with pulse current

Discharging Time / Hour

Voltage / V
2) High-strength stainless case, high safety and high reliability

✓ No swelling, no explosion, no fire.
✓ Certified by IEC62133/UL1642.

Test example

- Swelling check after 1,000 times cycle test
- Nail penetration test
- Impact test
3) Rapid charging, more user-friendly

✓ 3C charging realizes 80% charging in 20 minutes. (CG-420A/425A only)
Manufacturing technology

- Highly skilled battery design technology
- Highly precise manufacturing technology
- Highly quality control

Positive electrode (Lithium cobalt-oxide)
Separator
Negative electrode (Graphite)
## Specification

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CG-320B</th>
<th>CG-420A</th>
<th>CG-425A</th>
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</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diameter(Max.)</td>
<td>3.65mm</td>
<td>4.7mm</td>
<td>4.7mm</td>
</tr>
<tr>
<td>Height(Max.)</td>
<td>20mm</td>
<td>20mm</td>
<td>25mm</td>
</tr>
<tr>
<td>Weight* (Approx.)</td>
<td>0.5g</td>
<td>0.8g</td>
<td>1.0g</td>
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<tr>
<td>Typical Capacity</td>
<td>16mAh</td>
<td>23mAh</td>
<td>32mAh</td>
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<tr>
<td>Rated Capacity</td>
<td>15mAh</td>
<td>22mAh</td>
<td>30mAh</td>
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<tr>
<td>Nominal Voltage</td>
<td>3.8V</td>
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<tr>
<td>Maximum Charging Voltage</td>
<td>4.35V</td>
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<tr>
<td>Maximum Charging Current</td>
<td>11.2mA(0.75C)</td>
<td>90.0mA(3C)</td>
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<td><strong>Operating Temperature</strong></td>
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<tr>
<td>Charge</td>
<td>0°C ~ 60°C</td>
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</tr>
<tr>
<td>Discharge</td>
<td>-20°C ~ 60°C</td>
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<tr>
<td>Certifications</td>
<td>IEC62133, UL1642</td>
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</table>
Pin-type Li-ion battery will make your product more attractive.

Key Benefits

✓ Small & Slim
✓ Stylish design
✓ High safety & reliability
✓ Rapid charging
✓ Available for Bluetooth low energy, vibration and other functions
✓ Long product life time
1. **Standard voltage range is 3.0 – 4.35V. Protection required for over-charge/over-discharge. Please prepare protection circuit on the customer side.**

2. **The battery will be shipped with tabs.**
   Please ask a Panasonic sales person when tab customization is needed.

   ![Standard Terminal Types](image)

   **Standard Terminal Types**

   - Through-hole type
   - Surface mount type

   All models have stainless steel tab with tin (Sn) plating.

3. **In order to prevent accidental ingestion of the battery, it must be inaccessible to the individual user / customer.**
Any Questions?
Please feel free to ask a Panasonic sales person.

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