Pin-type Lithium-ion Battery

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

Wireless Earphones

Smart Glasses

Stylus Pen

Hearing Aids

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 needs big discharging current.

![Image of General Li-ion 18650 size vs CG-320A]

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

※Image chart

General Li-ion
18650 size

CG-320A

![Graph of CG-320A 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

- Voltage when discharging with base current
- Voltage when discharging with pulse current
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-425A/435A 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-320A</th>
<th>CG-420A (Under Development)</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>
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<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>15mAh</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>
</tr>
<tr>
<td>Nominal Voltage</td>
<td></td>
<td>3.8V</td>
<td></td>
</tr>
<tr>
<td>Maximum Charging Voltage</td>
<td></td>
<td>4.35V</td>
<td></td>
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<tr>
<td>Maximum Charging Current</td>
<td>11.2mA(0.75C)</td>
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<td>90.0mA(3C)</td>
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<tr>
<td><strong>Operating Temperature</strong></td>
<td>Charge</td>
<td>0°C ~ 60°C</td>
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<tr>
<td></td>
<td>Discharge</td>
<td>-20°C ~ 60°C</td>
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<tr>
<td><strong>Certifications</strong></td>
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<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

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

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.

Panasonic Pin-type Lithium-ion Battery
https://eu.industrial.panasonic.com/products/batteries-energy-products/secondary-batteries-rechargeable-batteries/lithium-ion-pin-type