

LITHIUM-ION PIN-TYPE batteries for wearables

APPLICATIONS



Stylus pens



Fitness trackers,
Wristband devices



Smart glasses



Hearing aids,
Wireless headphones

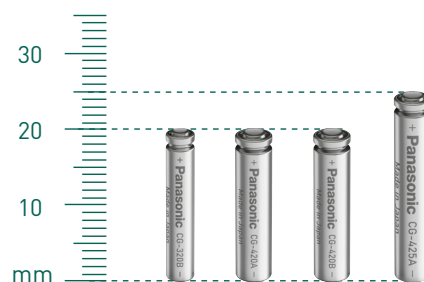
Miniature batteries have become a key component of today's common mobile wearable devices. For these innovative product ideas to work in practice, their Lithium-ion cells have to be as small as possible and still deliver high energy density, good cycle stability and a long lifespan.

Energy that changes the future: With nearly 100 years of experience producing high quality batteries, Panasonic wants to achieve a society in which the pursuit of happiness and a sustainable environment are harmonized free of conflict.

Our Pin-type batteries are among the smallest cylindrical Lithium-ion batteries on the market and especially designed for wearables. With diameters of only 3.65 to 4.7mm, the small yet powerful solution also delivers compelling charging performance: after only 20 minutes, the A-type models are already 80% charged.

KEY BENEFITS

- | Extremely small diameter
- | New design options for micro devices
- | Discharge capabilities required for NFC
- | Excellent reliability and robustness



LITHIUM-ION PIN-TYPE BATTERIES FOR WEARABLES



FEATURES OF CG-320B

Charging performance	80 % charged after 1 hour
Charge Discharge	Wide temperature range (0 °C to 60 °C -20 °C to 60 °C)
Safety	Certified by UL1642 and IEC62133

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TERMINAL TYPES

All Pin-type models are available with the following connectors:



E2

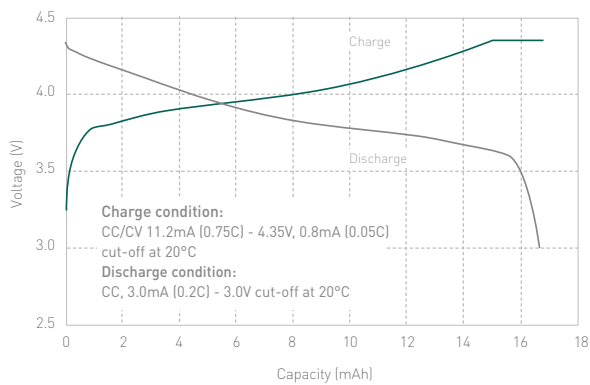
Through-hole type



M2

Surface mount type

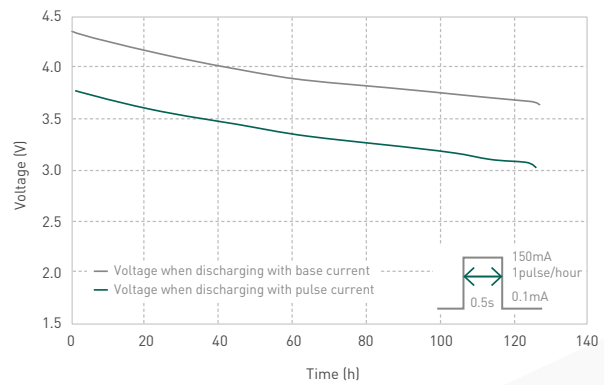
CHARGE AND DISCHARGE CHARACTERISTICS OF CG-320B



Charge condition:
CC/CV 11.2mA (0.75C) - 4.35V, 0.8mA (0.05C) cut-off at 20°C

Discharge condition:
CC, 3.0mA (0.2C) - 3.0V cut-off at 20°C

PULSE DISCHARGING CHARACTERISTICS OF CG-320B



Charge condition:
CC/CV 7.5mA (0.5C) - 4.35V, 0.8mA (0.05C) cut-off at 20°C

Discharge condition:
Pulse current 150mA (10C) for 0.5s in every hour, base current 0.1mA, 3.0V cut-off at 20°C

SUITABLE BATTERIES

SPECIFICATIONS	Technology	Nominal voltage (V)	Typical capacity*1 (mAh)	Diameter (mm)	Height (mm)	Maximum charging voltage (V)	Maximum charging current (mA)	Ambient temperature		
								Charge (°C)	Discharge (°C)	
CG-320B*2		Co system	3.8	16	3.65	20	4.35	11.2	0 to 60	-20 to 60
CG-420A*2		Co system	3.8	23	4.7	20	4.35	66.0	0 to 60	-20 to 60
CG-420B*2		Co system	3.8	29	4.7	20	4.35	20.2	0 to 60	-20 to 60
CG-425A*2		Co system	3.8	32	4.7	25	4.35	90.0	0 to 60	-20 to 60

* CG-420A & CG-425A after 20 minutes. CG-320B & CG-420B will be 80% charged after 60 minutes. | *1 4.35V charge | *2 This battery is supplied with tabs.

Battery performance and cycle life are strongly affected by how the batteries are used. In order to maximise battery safety, please consult Panasonic when determining charge/discharge specs, warning label contents and design. The data in this document are for descriptive purposes only and are not intended to make or imply any guarantee or warranty.



Scan QR-code directly for more information or contact us by email: battery-solutions@eu.panasonic.com

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