

## BATTERIES FOR **WEARABLES** LI-ION PIN-TYPE



**Applications:** wristband devices, fitness trackers, smart glasses, stylus pens, wireless headphones, hearing aids, industrial IoT applications, etc.

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.



### KEY BENEFITS:

- COMPACT DESIGN
- EXTREMELY LIGHT & ROBUST
- LONG-LIFE
- QUICK CHARGING
- HIGH RELIABILITY & SAFETY

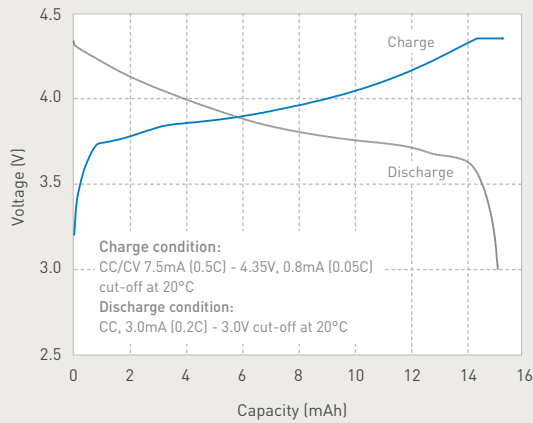
**Panasonic is the most diversified battery producer worldwide, with more than 85 years of experience producing high quality batteries.**

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, most Pin-type models are already 80% charged\*.

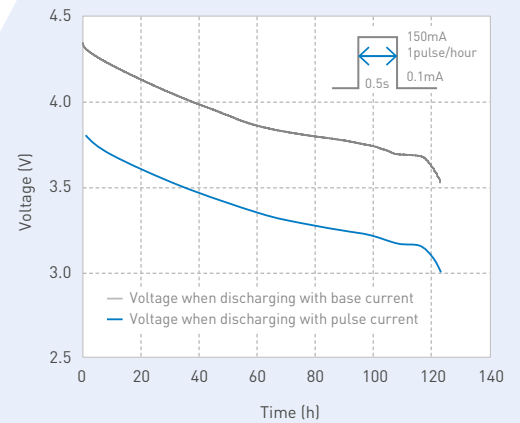




### CHARGE AND DISCHARGE CHARACTERISTICS OF CG-320A



### PULSE DISCHARGING CHARACTERISTICS OF CG-320A



### TERMINAL TYPES

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



E2

Through-hole type



M2

Surface mount type

### FEATURES OF CG-320A



<b>Charging performance</b>	80% charged after 1 hour*
<b>Charge   Discharge</b>	Wide temperature range [0°C to 60°C   -20°C to 60°C]
<b>Safety</b>	Certified by UL1642 and IEC62133

### SUITABLE BATTERIES



Specifications	CG-320A (in mass production)	CG-425 (under development)	CG-435 (under development)
Diameter (mm)	3.65	4.7	4.7
Height (mm)	20.0	25.0	35.0
Approximate weight (g) without tabs	0.6	1.0	1.4
Nominal voltage (V)	3.8	3.8	3.8
Typical capacity (mAh)	15.0	30.0	50.0
Maximum charging voltage (V)	4.35	4.35	4.35
Maximum charging current (mA)	15 [1C]	90 [3C]	150 [3C]
Ambient temperature	Charge (°C)	0 to 60	0 to 60
	Discharge (°C)	-20 to 60	-20 to 60

\* CG-320A will be 80% charged after 60 minutes, CG-425 & CG-435 after 20 minutes.

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.

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