

Flexible Primary Thin Film Battery - JUPITER

Technical Specification V1.1

Company Introduction

FlexCap Energy Ltd. is a Toronto-based Canadian technology company, positioned in the wearables and flexible electronics market. We aim to provide more comfortable wearables by creating fully flexible and customizable energy storage solutions. FLEXCAP developed customizable flexible thin-film primary batteries JUPITER, with capacity ranging from 5 mAh to 300 mAh. This type of disposable battery can be easily adapted for smart textiles, wearable electronics, flexible sensors, medical devices, active RFID tags, Bluetooth transmitters (BLE) and other IoT devices. JUPITER products can be stretched or bent without affecting performance. Our engineering team also provides customers with comprehensive support to integrate flexible products into their wearable devices. We work closely with our partners to ensure our products quality and continuous improvements in device performance.

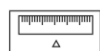
Characteristics of JUPITER Flexible Thin-Film Primary Batteries

- Stable operating voltage platform (1.5V, 3.0V, 4.5V)
- Wide operational temperature range (-20°C~60°C)
- Ultra-thin structure, fully flexible design
- Leakproof
- Safe for skin contact
- Eco-friendly: no toxic or harmful substances
- Customizable: voltage, size, shape and capacity, etc.



Application Domain

- Fully flexible wearable devices
- IoT sensors
- low power-consumption Bluetooth transmitters
- Active RFID logistic warehousing
- Reflection of signs on health through body check
- Sports performance monitoring



Model	Voltage	Standard Capacity	Continuous Discharge Current	Pulse Discharge Current	Thickness	Storage Period	Internal Resistance at 1 kHz	Operating Temperature
J-N1-S50	1.5 V	25 mAh	3 mA	6 mA, 13,000x	0.6 mm	12 Months	80 Ω	-20°C~+60°C
J-N1-D50	3.0V	25 mAh	3 mA	6 mA, 13,000x	0.6 mm	12 Months	80 Ω	-20°C~+60°C
J-N1-T50	4.5 V	25 mAh	3 mA	6 mA, 13,000x	0.6 mm	12 Months	80 Ω	-20°C~+60°C

*Not containing harmful metals: Mercury, Cadmium, or Lead

¹ The standard capacity is obtained by using an 8-channel battery tester at room temperature of 25°C under the condition of 3mA constant current discharge with 2.7v voltage.

² The standard maximum number of pulse discharge is obtained by using an 8-channel battery tester at room temperature of 25°C with a current of 6mA, discharging for 1s, and intermittence for 7s.

³ Bending Angle: J-N1-T50: 120°



Product Features

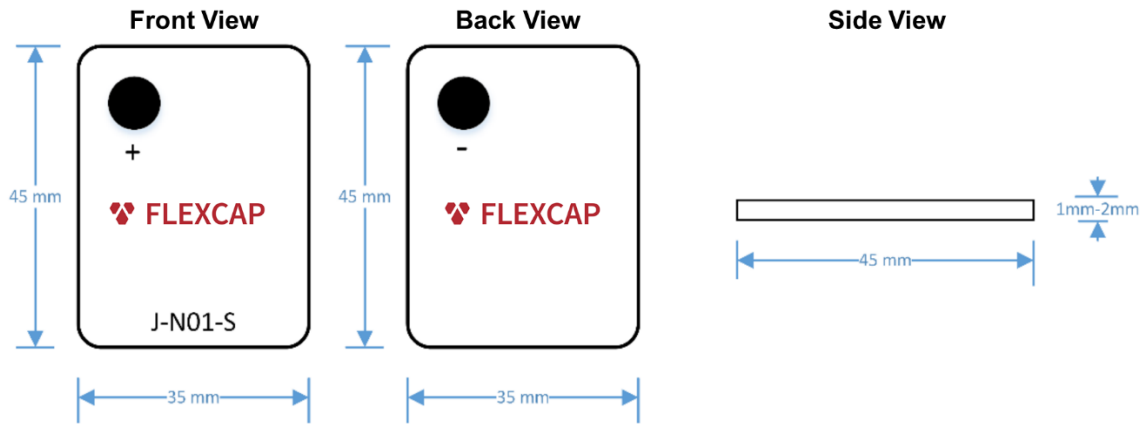
Jupiter Series Primary Battery (Disposable Battery)

- Equipped with the world's leading flexibility and ultra-thin shape design
- Customizable capacity, ranging from 5mAh to 300mAh
- Optional quick discharge function

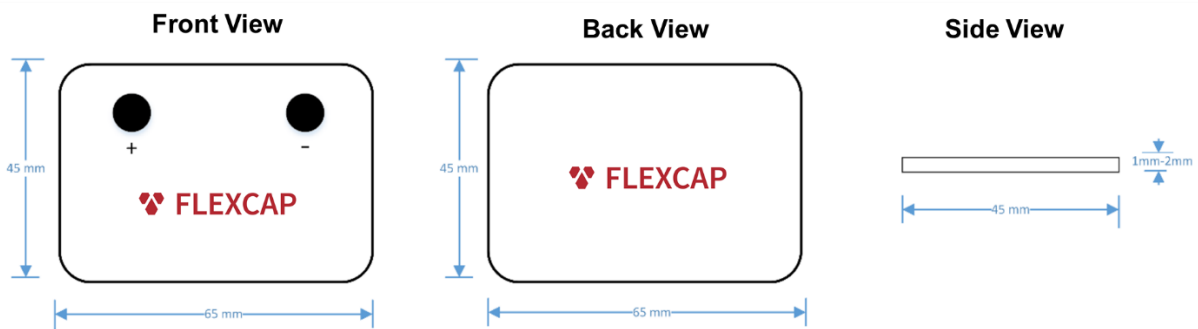
Product Specification

- Packaging Material: PET transparent flexible leaf-proof packaging
- Material of electrode tabs: Conductive carbon layer
- Storage period: 12 months

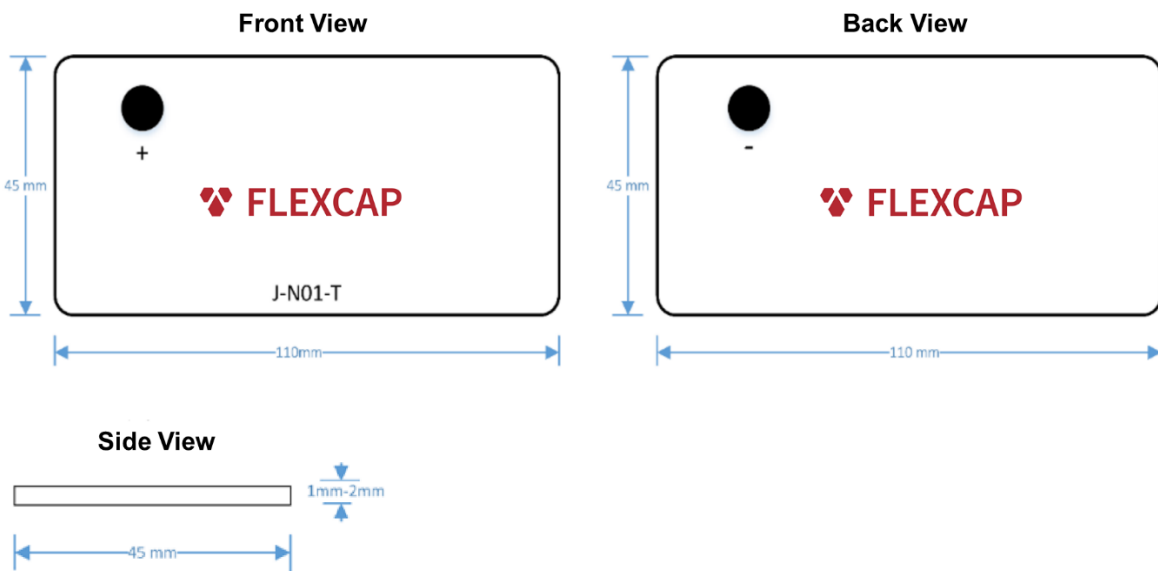
JUPITER J-N01-S 1.5V Specification



JUPITER J-N01-D 3.0V Specification

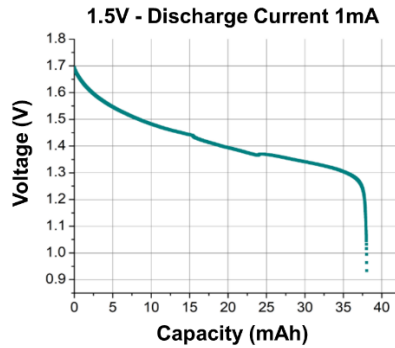


JUPITER J-N01-T 4.5V Specification



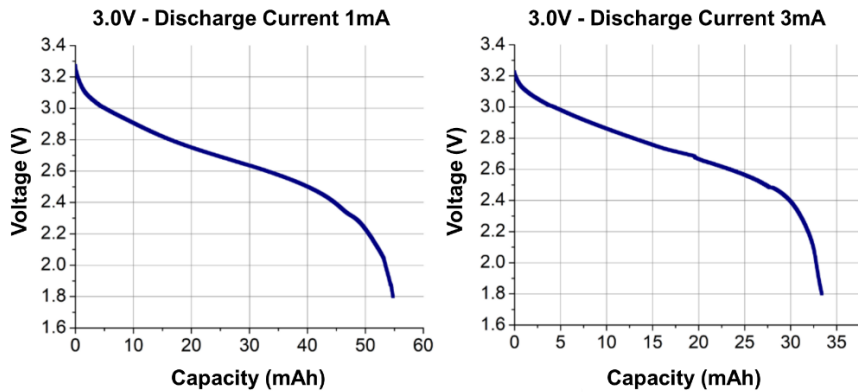
JUPITER J-N01-S 1.5V Discharge Curves

Note: Tests conducted under 25°C environmental temperature and R.H. of 50%, end voltage 0.9V



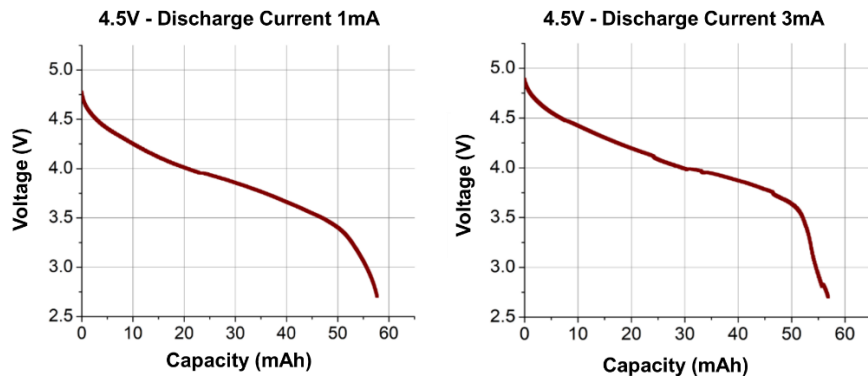
JUPITER J-N01-D 3.0V Discharge Curves

Note: Tests conducted under 25°C environmental temperature and R.H. of 50%, end voltage 1.8V



JUPITER J-N01-D 3.0V Discharge Curves

Note: Tests conducted under 25°C environmental temperature and R.H. of 50%, end voltage 2.7V



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