

### 1、SCOPE

This specification governs the performance of the following Camelion Lithium/Iron disulfide (Li/FeS<sub>2</sub>) Lithium Cylindrical cell.

Model : FR03  
Cell Size : AAA (  $\phi$  10.0<sup>±0.5</sup> × H44.0<sup>±0.5</sup>mm)  
AAA (  $\phi$  0.39<sup>±0.02</sup> × H1.73<sup>±0.02</sup>inch)

### 2、RATINGS

Description	Unit	Specification	Conditions
Nominal Voltage	V	1.5	Unit cell
Nominal Capacity	mAh	1100mAh	350mA discharge to 0.8V
Typical IR	m $\Omega$	100	Full charge
Work Voltage	V	1.30	Constant current 100mA discharge
Discharge Cut-off Voltage	V	0.8	
Max. Discharge Current	mA	1000	
Volume	cm <sup>3</sup>	3.8(0.2 cubic inch)	
Lithium Content		Less than 0.5 gram (0.02 oz.) per cell	
Ambient Temperature	°C	-20~60	for Discharge
Storage Temperature	°C	-20~35	
Storage humidity	%	≤ 70	
Typical Weight	Gram	7.7	Unit cell
Shell Life	Year	10-15	

### 3、PERFORMANCE

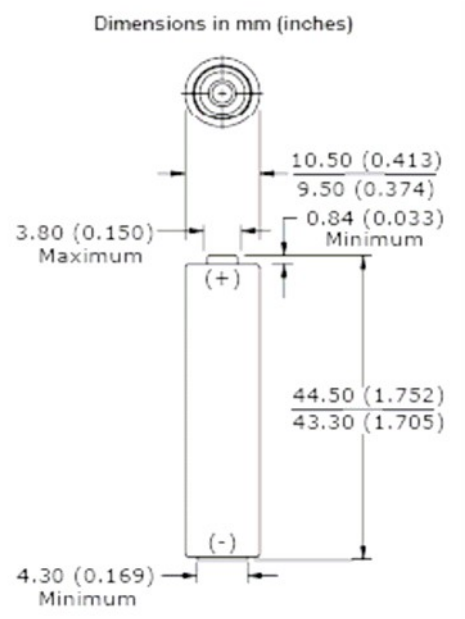
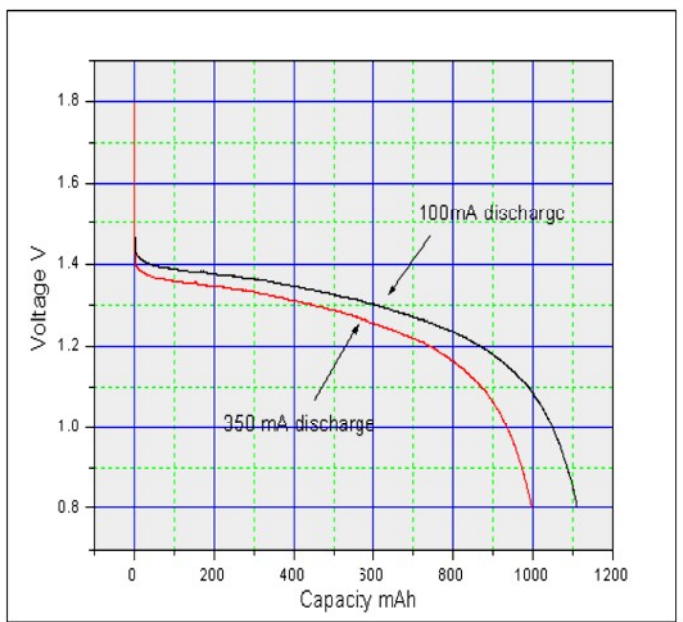
Unless otherwise stated, tests should be done within one month of delivery under the following conditions:

Ambient Temperature : 20±5°C  
Relative Humidity : 65±20%

Item	Measuring Procedure	Standard
3.1 Appearance	Visual	No Defect and Leak
3.2 Dimension	Caliper	As item 5
3.3 Weight	Scale	As item 2
3.4 Max. Discharge Current	Until final discharge voltage	1000mA
3.5 Open Circuit Voltage	Measure open circuit voltage	>1.72V
3.6 Internal Impedance	Measure the battery with 1kHz AC	100 m $\Omega$
3.7 Discharge Capacity	The battery discharge until final discharge voltage 0.8V, at 0.2C and measure the capacity	>1100mAh

3.8 Leakage Proof	the battery shall be stored at $40 \pm 2^{\circ}\text{C}$ and humidity $80 \pm 5\%$ for 21 days	No leakage should be observed by visual inspection
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4. Discharge Curves: discharge at 100mA and 300mA to 0.8V      5. Dimension(Bare cell) :mm



6. CONFIGURATION, DIMENSIONS AND MARKINGS

Complies to IEC 60086-2;

Please refer to the attached engineering data sheet.

7. EXTERNAL APPEARANCE

The cell shall be free from cracks, scars, breakage, rust, discoloration, leakage and deformation.

8. WARRANTY

Ten years limited warranty against workmanship and material defects.

9. CAUTIONS

- (1)Charging is not acceptable.
- (2)Do not short circuit the cell -permanent damage to the cell may result.
- (3)Do not discharge with more than our specified current.
- (4)Do not incinerate or mutilate the cell.
- (5)Do not solder directly to the cell.
- (6)The life expectancy may be reduced if the cell is subjected adverse conditions like extreme temperatures, excessive over-discharging.
- (7)If problems are found, stop usage and send batteries to local agent.

Note: Environmental elements: in compliance with the RoHS requirement.

