

# Specification

## Powerizer Primary Lithium Battery: CR123A (3.0V 1300mAh)



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**Prepared & Approved by Louis (06/11/07)**

## 1. 【SCOPE】

This specification applies to the following 3.0v lithium cell CR123A manufactured by AA Portable Power Corp (<http://www.batteryspace.com>)

## 2. 【RATINGS】

TABLE I :

ITEM	UNIT	SPECIFICATIONS	CONDITIONS	
Nominal voltage	V	3.0	Standard discharge	
Nominal capacity	mAh	1300	Standard discharge	
Instantaneous short-circuit current	A	$\geq 10$	Time $\leq 0.5$ second	
Off-load voltage	V	$\geq 3.2$		
Storage temperature	°C	-40~60		
Standard weight	g	16	Unit cell	
Service output	Initial	Standard	1000 h	Continuous discharge with load 15k $\Omega$ , till 2.0v end-voltage
		Minimum	900 h	
	After 12 months storage	Standard	950 h	
		Minimum	850 h	

TABLE II :

ITEM	CONDITIONS	CHARACTERISTICS	
Thermal durability	Kept for 20 days at 60°C $\pm$ 3°C, then continuously discharge with 15k $\Omega$ load till 2.0v end-voltage	Standard	935 h
		Minimum	748 h
Self-discharge rate	Stored for 12 months at normal temperature and humidity	$\leq 5\%$	

## 3. 【PERFORMANCE AND TEST METHODS】

Unless otherwise stated, all the testing is carried out under the condition: environmental temperature, 20°C~25°C; environmental humidity, 65 $\pm$ 20%. Please refer to Table 1

## 4. 【SUGGESTIONS AND CAUTIONS】

4.1 Install batteries correctly.

4.2 Ensure the contact points to be clean and conductive.

4.3 Do not mix different types, different brands batteries to serve together.

4.4 Do not heat, recharge the batteries.

4.5. Do not dispose of the batteries in fire.

4.6. Keep away from the small children, if swallowed promptly see doctor.

4.7. Pay attention to the producing date.

TABLE III:

No	ITEM	TEST METHODS	STANDARD	
1	Dimensions	Using vernier caliper (accuracy $\geq 0.02$ ) while avoiding short-circuit	Diameter	16.7 $\pm$ 0.3mm
			Height	34.2 $\pm$ 0.3mm
2	Off-load voltage	Using multimeter (accuracy $\geq 0.25\%$ ) internal resistance $\geq 1M\Omega$	$\geq 3.2$ v	
3	Instantaneous short-circuit current	Time of short-circuit should be less than 0.5 second and avoid repeated test within half an hour	$\geq 250$ mA	
4	Appearance	Eyeballing	Bright, clean, no rust, no leakage, And no flaw	
5	Capacity	Continuously discharge for 8 hours with load 15k, temperature at 20~25°C, humidity at 65 $\pm$ 20% till 2.0v end-voltage	$\geq 1300$ mAh	
6	Vibration test	Put battery on the platform of the vibrations machine, start the machine and adjust the frequency form 10 times per minute to 15 times per minute. keep it running for an hour	Characteristics keep stability	
7	Leakage at high temperature	Stored under temperature (45°C) for 30 days	Leakage rate $\leq 1\%$	
8	Over discharge Test	After 2.0v end-voltage, continuously discharged for 5 hours	No leakage allowed	

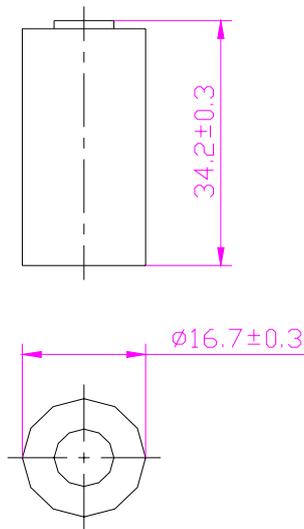
# CR123A

## Lithium Cylindrical Cell (Data Sheet)

### Specification

Nominal Voltage		3.0V
Dimensions	Diameter	16.7±0.3mm
	Height	34.2±0.3mm
	Apx. Weight	16g
Standard Discharge Current		10mA
Nominal Capacity		1300mAh
Maximum Continuous Discharge Current		1000mA
Maximum Pulse Discharge Current		3000mA
Temperature Range (°C)		-40~60
Relative humidity		65±20%
Storage (20°C)		5 year

(CELL DIMENSIONS)



(With tube)

1:1

Note: Polyswitch is inside the cell .

