

CR1220



Lithium-Manganese button cell (Data Sheet)

BRAND	The logo for 'unique energy' is displayed in the BRAND cell. 'unique' is in orange and 'energy' is in green, both in a sans-serif font. A registered trademark symbol (®) is at the top right of 'unique'.
PRODUCT	3.0V LITHIUM-MANGANESE BUTTON CELL
MODEL	CR1220
PREPARED BY	
APPROVED BY	
DATE	JANUARY. 18, 2011

1. SCOPE

This specification applies to the following 3.0v lithium button cell CR1220 made by Unique Energy.

2. RATINGS

TABLE I:

ITEM		UNIT	SPECIFICATIONS	CONDITIONS
Nominal voltage		V	3.0	Standard discharge
Nominal capacity		mAh	40	Standard discharge with load 62k Ω
Off-load voltage		V	≥ 3.1	
Storage temperature		$^{\circ}\text{C}$	0~35	
Standard weight		-	0.8	Unit cell
Service output	Initial	Standard	198 h	Continuous discharge with load 15k Ω , till 2.0v end-voltage at 20~25 $^{\circ}\text{C}$
	After 12 months storage	Standard	186 h	

TABLE II:

ITEM	CONDITIONS	CHARACTERISTICS	
Thermal durability	Kept for 20 days at 60 $^{\circ}\text{C}\pm 3^{\circ}\text{C}$, then continuously discharge with 15k Ω load till 2.0v end-voltage	Standard	186 h
Self-discharge rate	Stored for 12 months at normal temperature and humidity	@<A	

3. PERFORMANCE AND TEST METHODS

Unless otherwise stated, all the testing is carried out under the condition: environmental temperature, 20℃~25℃; environmental humidity, 50±10%. Please refer to Table III

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≥0.02) while avoiding short-circuit	Diameter	12.5 (-0.20) 00
			Height	2.0(-0.20) 00
2	Off-load voltage	Using multimeter (accuracy≥0.25%) internal resistance≥1MΩ	≥3.1v	
3	Appearance	Eyeballing	Bright, clean, no rust, no leakage, And no flaw	
6	Capacity	Continuously discharge for 8 hours with load 15kΩ, temperature at 20~25℃, humidity at 50±10% till 2.0v end-voltage (for fresh battery only: within 3 months)	≥198 h	
7	Vibration test	Put battery on the platform of the vibrations machine, start the machine and adjust the frequency form 10 times	Characteristics keep stability	

		per minute to 15 times per minute. keep it running for an hour	
7	Leakage at !- temperature	Stored under temperature (60°C) for 3 2'3"	No leakage allowed
E	Over discharge Test	After 2.0v end-voltage, continuously discharged for 5 hours	No leakage allowed

5. CUTAWAY DIAGRAM OF 3.0V LITHIUM MANGANESE DIOXIDE BUTTON CELL



