

GSL6F22A

TECHNICAL SPECIFICATION FOR ALKALINE MANGANESE DIOXIDE BATTERY

Approved			
General Manager:	<table border="1"><tr><td style="text-align: center;">Approved 31.10.2007 Cecilia Chu</td><td>Date:</td></tr></table>	Approved 31.10.2007 Cecilia Chu	Date:
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Date: 2007/10/31

SPEC. No.: GP001-GSL6F22A

REVISION: 02

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The Manufacturer reserves the right to modify product specification and data stated herein without prior notice.

1. Scope

This specification is applicable to Golden Power's Greenergy Super Plus Alkaline Battery

Model No.: GSL6F22A

1.1 Designations

Golden Power: GSL6F22A IEC: 6LR61 Others: ---

JIS: 6AM6 ANSI: 1604A

1.2 Reference Document

- IEC 60086-1 (2006-12) - Primary Batteries - Part 1: General
- IEC 60086-2 (2006-12) - Primary Batteries - Part 2: Physical and Electrical Specification
- IEC 60086-5 (2006-12) - Primary Batteries - Part 5: Safety of batteries with aqueous electrolyte

2. Chemical System

Alkaline-Manganese Dioxide

* MERCURY AND CADMIUM ARE NOT ADDED IN THE BATTERY

3. Nominal Voltage: 9 V

4. Average Weight: 46.5 g

5. Nominal Capacity

470mAh (discharge at 20 ± 2°C under 620Ω discharge load for 2hr/day to 5.4V end-point voltage)

6. Electrical Characteristics

Test Conditions: 47Ω ± 0.5% load resistance, measuring time 0.3 seconds, temperature at 20 ± 2°C, tested within 30 days after delivery.

	Off-load voltage (V)	On-load voltage (V)	Test Specification
New Battery	9.10	7.60	MIL-STD-105E, Class II, Double Sampling, AQL=0.4
After 3 mth. at temp.=45°C	8.90	7.40	
After 12 mth. room temp.	8.90	7.40	

7. Service Output

Test Conditions: Temperature at 20 ± 2°C, tested within 30 days after delivery.

Standard	Discharge Condition			Average Minimum Discharge Time		
	Discharge load	Daily discharge time	End Point Voltage (V)	New Battery	After 3 mth. at temp.=45°C	After 12 mth. at room temp.
IEC	620Ω	2 h/d	5.4V	45 h	40.5 h	40.5 h
IEC	270Ω	1 h/d	5.4V	18 h	16.2 h	16.2 h
REF	180Ω	0.5 h/d	4.8V	750 min	675 min	675 min
REF	180Ω	24 h/d	5.4V	710 min	639 min	639 min

Satisfaction Standard:

- (1) 9 pieces of battery will be tested for each discharging standard.
- (2) The result of the average discharging time from each discharging standard shall be equal to or more than the average minimum time requirement; and no more than one battery has a service output less than 80% of the specified requirement.
- (3) One re-test is allowed to confirm the previous result.

8. Marking

The following markings will be printed, stamped or impressed on the body of the battery:

- (1) Manufacturer's name or abbreviation : **Golden Power** (with logo)
- (2) **Alkaline Super P+US**
- (3) Designation: **GSL6F22A**
- (4) **0.00% MERCURY & CADMIUM**
- (5) Polarity Marking: "+" & "-"
- (6) **9 VOLTS GSL6F22A 1604A**
- (7) **Made in China**
- (8) **Warning: Do not dispose of in fire, recharge, put in backwards, mix with used or other battery types – may explode or leak and cause personal injury.**
- (9) Marking of **Separate Collection & Recycling**

9. Caution for Use

- (1) Since the battery is not manufactured for recharging, there are risks of electrolyte leakage or causing damage to the device if the battery is charged.
- (2) The battery shall be installed with its "+" and "-" polarity in correct position, otherwise may cause short-circuit.
- (3) Short-circuiting, heating, disposing of into fire and disassembling the battery are prohibited.
- (4) Battery cannot be forced discharge, which lead to excess internal gas generation and, may result in bulging, leakage and de-crimping of cap.
- (5) New and used batteries cannot be used at the same time, when replaced batteries recommend to replace all and with the same brand type.
- (6) Exhausted batteries should be removed from compartment to prevent over-discharge, which cause leakage & damage to the device.
- (7) Direct soldering is not allowed, which will damage the battery.
- (8) Battery should be kept out of the reach of children to prevent swallow, in case of accident should contact physician at once.
- (9) The battery should not be dismantled and deformed.

10. Shelf Life

3 years after delivery under proper storage conditions.

(Temperature: $20 \pm 2^{\circ}\text{C}$; Relative humidity: $65 \pm 20\% \text{ RH}$)

11. Discharge Curves

Discharge Method: 180Ω , 0.5h/d (Figure 1)

Discharge Method: 620Ω , 2h/d (Figure 2)

(Condition: Test temperature $20 \pm 2^{\circ}\text{C}$)

12. Battery Dimension (Refer to Drawing DWG-S-001)

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Figure 1: *GSL6F22A discharge curve*

Discharge Method: 180Ω; 0.5h/d

(Condition: Test temperature 20 ±2°C)

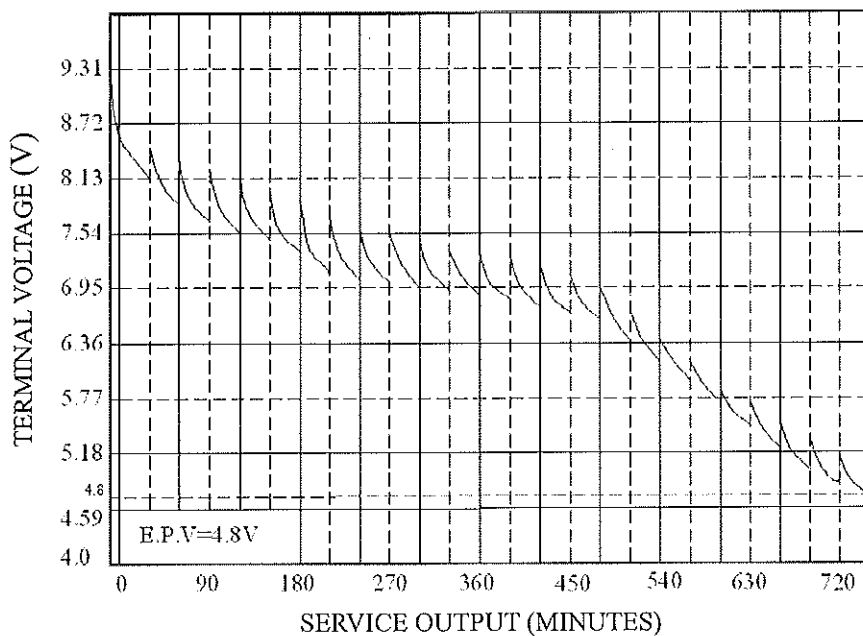
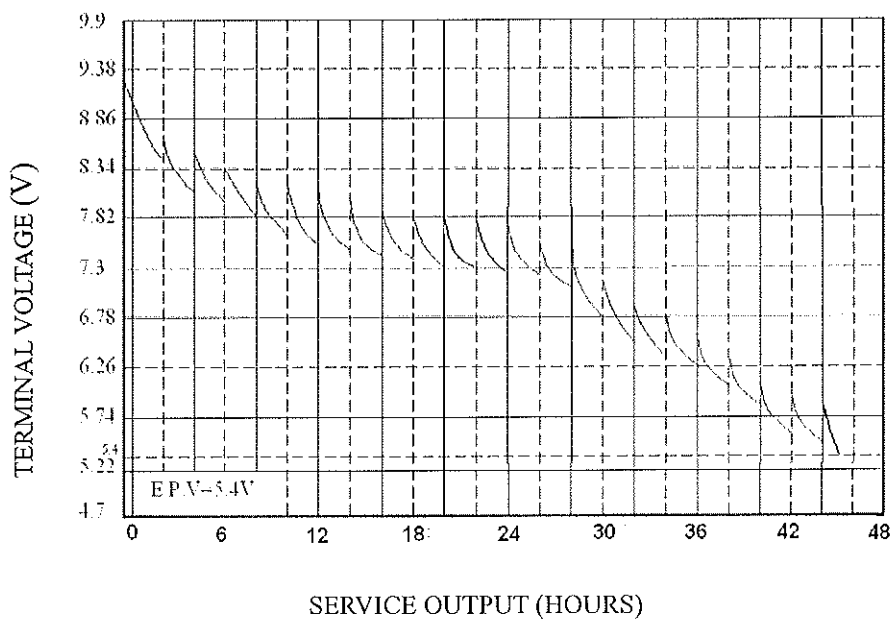


Figure 2: *GSL6F22A discharge curve*

Discharge Method: 620Ω; 2h/d

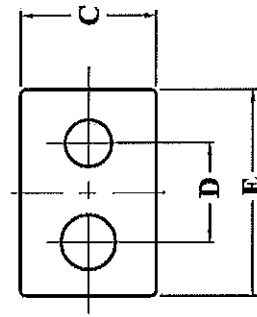
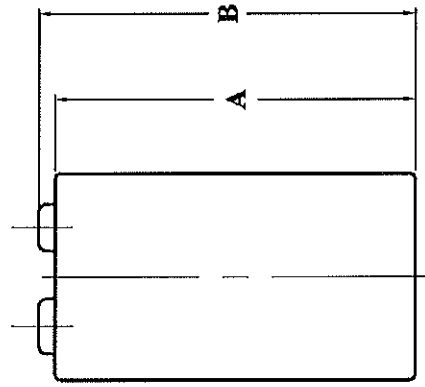
(Condition: Test temperature 20 ±2°C)



GSL6F22A DIMENSIONS & STRUCTURE

GSL6F22A 尺寸和結構

Dimensions (in mm) :
尺寸 (毫米)



Dimensions 尺寸	Specification 規格
A	46.4 Max
B	48.5^{+0.0}_{-2.0}
C	17.5^{+0.0}_{-2.0}
D	12.7 ± 0.25
E	26.5^{+0.0}_{-2.0}