



GL6F22A

TECHNICAL SPECIFICATION FOR ALKALINE MANGANESE DIOXIDE BATTERY

DATE: 9/15/2005

SPEC. NO.: ES-GL6F22A

REVISION: 2005C

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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 Alkaline Battery
Model No.: GL6F22A

1.1 Designations

Golden Power: GL6F22A IEC: 6LR61 Others: ---
JIS: 6AM6 ANSI: 1604A

1.2 Reference Document

IEC 60086-1 (2000-11) --- Primary Batteries - Part 1: General
IEC 60086-2 (2001-10) --- Primary Batteries - Part 2: Physical and electrical specification
IEC 60086-5 (2000-07) --- 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 : 47 g

5. Nominal Capacity

450mAh (condition: 620Ω load resistance, discharge 2 hours per day at 20+/-2°C, end-point voltage 5.4V)

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)	* Flush current (A)	Test Specification
New Battery	9.10	7.60	3.00	MIL-STD 105E, Class II, Double Sampling, AQL=0.4
After 3 mths. at 45°C	8.90	7.40	2.70	
After 12 mths. room temp	8.90	7.40	2.70	

7. Service Output

Condition: Test temperature 20 +/- 2°C, tested within 30 days after delivery

Standard	Discharge Condition			Average Minimum Discharge Time		
	Discharge Load	Discharge Time	E.P.V. (V)	New Battery	After 3 mths. at 45°C	After 12 mths. at room temperature
IEC	620Ω	2 h/d	5.4V	40 h	36 h	36 h
IEC	270Ω	1 h/d	5.4V	17.5 h	15.7 h	15.7 h
REF	180Ω	30 m/d	4.8V	730 min	640 min	640 min
REF	180Ω	24 h/d	5.4V	650 min	585 min	585 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) Designation : GL6F22A
- (2) Manufacturer's name or abbreviation **"Golden Power Logo"**
- (3) Polarity: "+" or "-"
- (3) Warning: Battery may explode or leak if recharged or disposed of in fire

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 discharged, which lead to excess gassing 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.

10. Shelf Life 3 years after delivery under proper storage conditions.
(Temperature: 20+/-2°C; Relative humidity: 65+/-20%RH)

11. Discharge Curves (Condition: Test temperature 20+/-2°C)

Discharge Method: 180Ω 30 m/d (Ref to the Figure 1)

Discharge Method: 620Ω 2 h/d (Ref to the Figure 2)

12. Battery Structure and Dimension: Ref to Drawing DWG-S001

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Figure 1: GL6F22A DISCHARGE CURVE

Discharge Method: 180 ohm; Period: 30 m/d

Temperature: 20+/-2°C

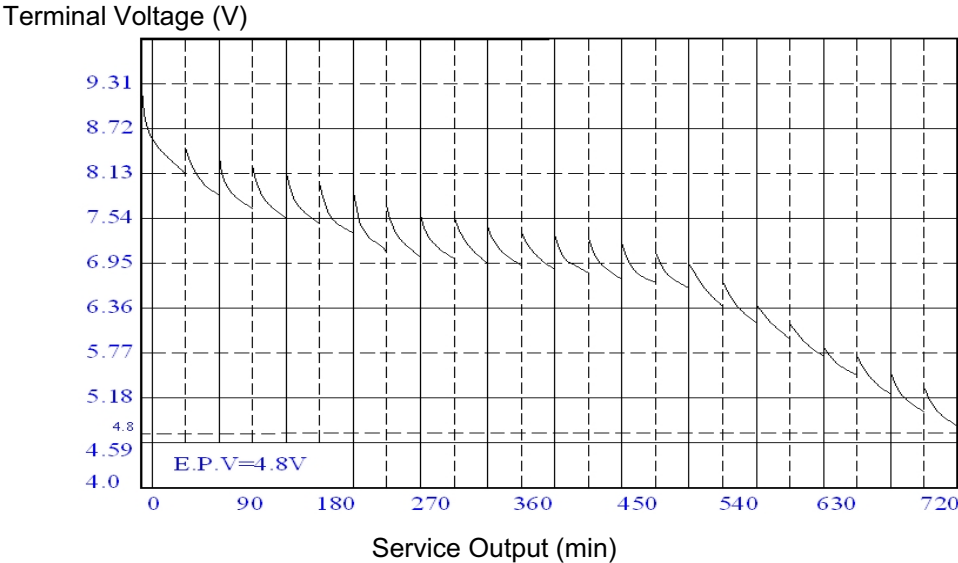
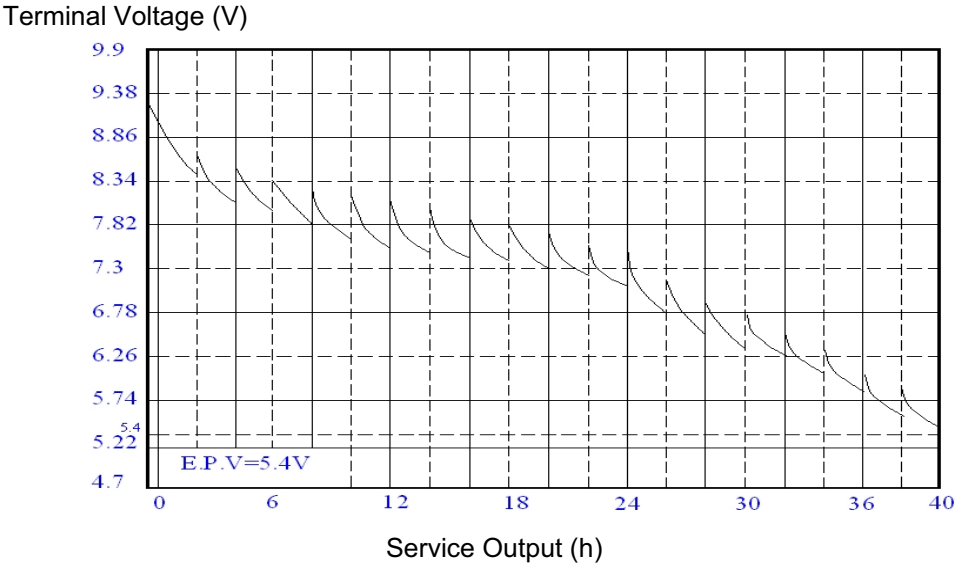


Figure 2: GL6F22A DISCHARGE CURVE

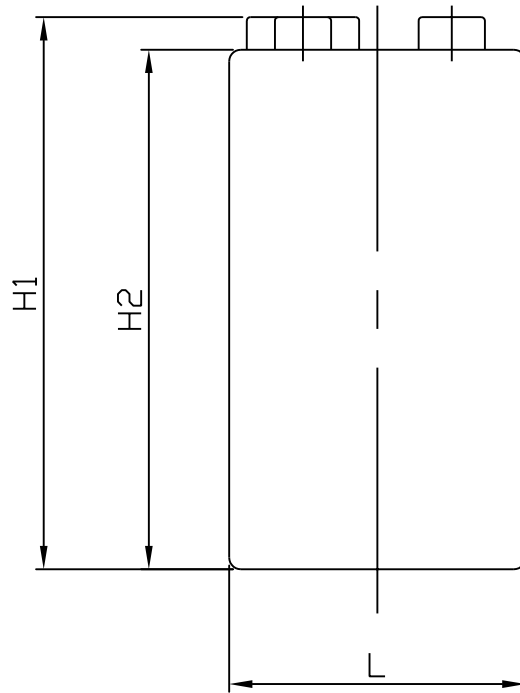
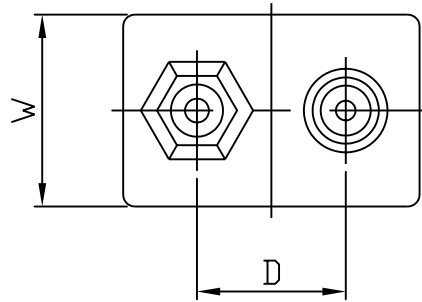
Discharge Method: 620 ohm; Period: 2 h/d

Temperature: 20+/-2°C



GL6F22A BATTERY DIMENSION AND STRUCTURE

GL6F22A 電池外形及尺寸



L : 25.5 ± 1.0
 W : 16.5 ± 1.0
 H1 : 47.5 ± 1.0
 H2 : 46.4 Max
 D : 12.7 ± 0.25

GOLDEN POWER CORPORATION (HK) LTD.

金力企業(香港)有限公司

MODEL(型號): GL6F22A

DWG No.(圖號): DWG-S-001

SCALE(比例): NTS DIM(單位): mm

Approved by (審核):

DATE(日期): 15/9/05 DRAWN BY(繪制): Kelvin

Cecilia Chu

TOLERANCES (公差) LINEAR ± 1 3rd ANGLE PROJECTION
 ANGLUAR $\pm 1/4^\circ$ (第三角度視圖)