

# GP Batteries

Product Specification

Model No.: GP450DKT

Document Number: BQS4002

Revision: 01

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## 1. SCOPE

This specification governs the performance of the following GP Nickel Cadmium Cylindrical Cell and its stack-up batteries which constitute less than 20 unit cells.

Cell Size: D

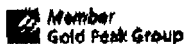
The data involving nominal voltage and the approximate weight of the stack-up batteries shall be equal to the value of the unit cell multiplied by the number of cells in the battery. For example, a stack-up battery consists of three unit cells:

Nominal Voltage of unit cell = 1.2V

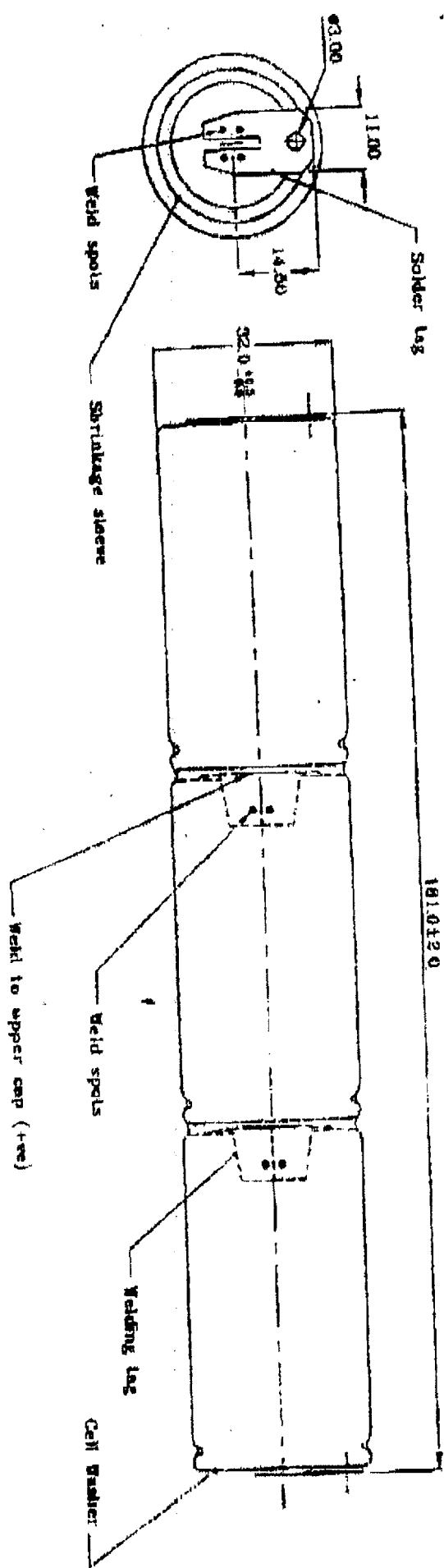
Thus, nominal voltage of stack-up battery = 1.2V x 3 = 3.6V

## 2. RATINGS

Description	Unit	Specification	Conditions
Nominal Voltage	V	1.2	Unit cell
Typical Capacity	mAh	4,660	Standard Charge / Discharge
Nominal Capacity	mAh	4,500	Standard Charge / Discharge
Standard Charge	mA	460 (0.1C)	T <sub>a</sub> = 0 ~ 70°C (see Note 1)
	hr	14	
Trickle Charge	mA	255 (0.05C) ~ 460 (0.1C)	T <sub>a</sub> = 0 ~ 70°C
Discharge Cut-off Voltage	V/cell	1.0	Unit cell
Storage Temperature	°C	-20 ~ 70 °C (<1 wk) -20 ~ 35 °C (>1 wk)	Discharged state, open circuit Humidity 85+/-20%
Typical Weight	g	125g	Unit cell



Manufacturer reserves the right to alter or amend the design, model and specification without prior notice.



REMARKS:  
 PACK WITH SHRINKAGE SLEEVES  
 OLD DRAWING (B800070 REV.0)

FILE NAME: VPART\B\PACK\B800070		SIGNATURE		DATE	MODEL SIZE BATTERY PACK	SYVA INDUSTRIES LTD.		
PROJECT: LAB TEST FOR THE REMOVAL OF SHRINKAGE SLEEVES FROM THE PACK AND CHECKING THE PACK WITH SHrinkage SLEEVES UNDER OPERATING CONDITIONS		DATE: 21-07-97		DATE: 21-07-97	MATL. N/A	TITLE: B SIZE PACK CONFIGURATION (A111)	REV.0	SCALE: 1:1
DRAWING NO: 1810120		BY: [Signature]		BY: [Signature]	FINISH: R.A.	DWG NO: B800070	REV.0	SCALE: 1:1
CHECKED: [Signature]		APPROVED: [Signature]		APPROVED: [Signature]	PART NO: 11A	DTN: N/A	REV.0	SCALE: 1:1

DESCRIPTION	SIGNATURE AND DATE		
	DWG	CHK	APPD

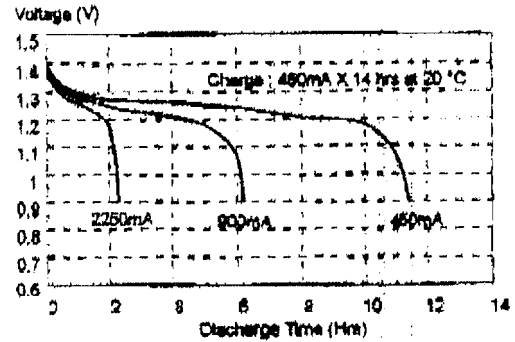
## Technical Data for GP450DKT

### Specifications

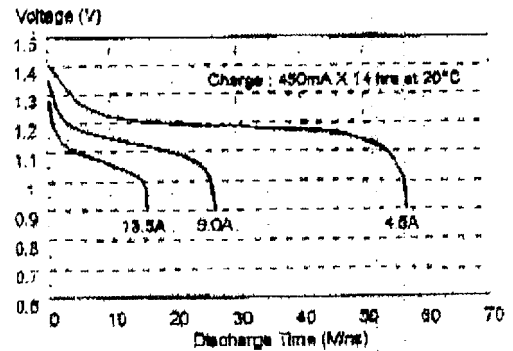
Type	: Rechargeable Nickel Cadmium Cylindrical Cell
Model	: GP450DKT
Nominal Dimension (with sleeve)	: $\phi \approx 33.0$ mm H = 61.5 mm
Application	: Recommended discharge current 450 mA to 13.5 A
Nominal Voltage	: 1.2 V
Nominal Capacity	: 4500mAh when discharged at 900mA to 1.0V at 30°C
Charging Condition	: 450 mA for 14 hours at 20°C
Service Life	: 400 Cycles (IEC standard)
Continuous Overcharge	: Comply with IEC 285 Permanent Charge Endurance Test
Weight	: 125 g
Internal Resistance	: Average 10 m $\Omega$ upon fully charged
Max. Charging Voltage	: 1.5 V at 450 mA charging
Temperature Range	: Charging : 0°C to 70°C Discharge : -20°C to 70°C Storage : -20°C to 35°C

### Characteristics

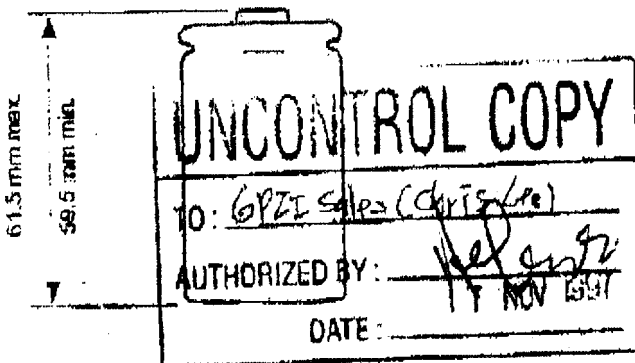
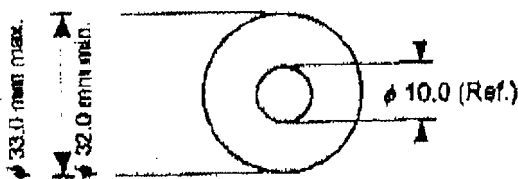
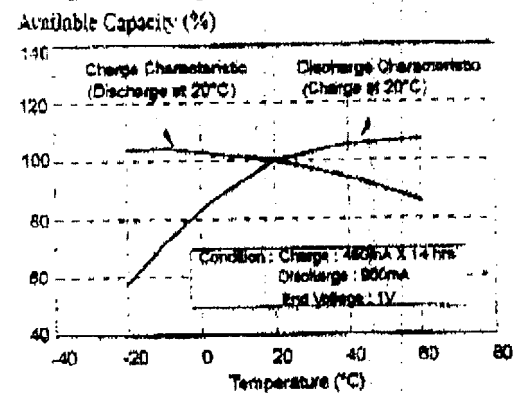
#### Low Rate Discharge



#### High Rate Discharge



#### Charge / discharge efficiency vs. temperature



\* The above information is generally descriptive only and is not intended as guarantee or warranty. Cell and battery specifications are subject to change without notice. All descriptions or warranties are contained solely in specification sheets accompanying formal offers.

Please consult GP for conditions of application outside those described in this document.

