

SPEC. NO.	CL203B.081	ISSUE DATE	2007-1-10		
DESCRIPTION	Lithium Ion Battery ( model No. CL203B.081)	EDITION	0	PAGE	1/5

## 1. Applicability

The specification is applicable to PortaPower Lithium Ion Rechargeable batteries (PortaPower model no. : CL203B.081).

## 2. Ratings

### 2.1 Cell

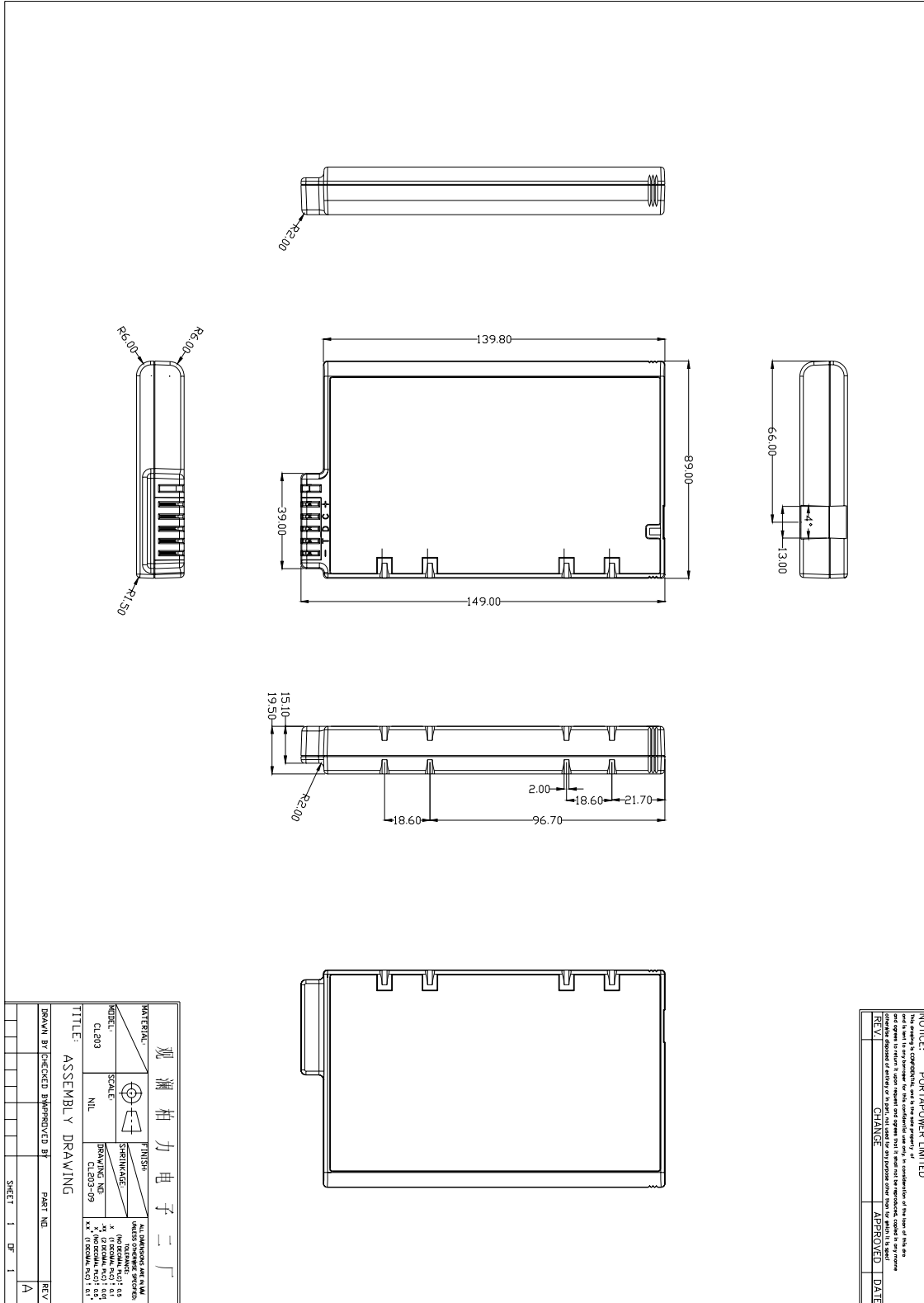
- 2.1.1 Type of Cell : Sealed Lithium-ion cylindrical Recharge battery
- 2.1.2 Cell Model : PSI CGR18650AF(CGR-B/T37SE)
- 2.1.3 Cell Size : 18650
- 2.1.4 Cell Typical capacity : 2050 mAh
- 2.1.5 Number of cell used : 9PCS

### 2.2 Pack

- 2.2.1 Rated voltage : 10.8V
- 2.2.2 Typical capacity : 6600 mAh.
- 2.2.3 Minimum capacity : 5850 mAh (0.5C charging & discharging)
- 2.2.4 Standard charge : 1170mA x 8hours to 12.6V
- 2.2.5 Rapid charge : 4095mA to 12.6V (300mA end)
- 2.2.6 Maximum charging voltage : 12.75V
- 2.2.7 Standard discharge : 1170mA (discharge end of 9.0V)
- 2.2.8 Maximum discharge current : 7020mA.
- 2.2.9 Replace No. : Canon Note Jet III/Note Jet III CX series P120/(smart)
- 2.2.10 Battery Pack Color : Black
- 2.2.11 Operating temperature : 0 - 45°C (charge).  
-20 - 60°C (discharge).
- 2.2.12 Storage temperature : -20 - 45°C.

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### 3. Configuration and dimensions



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#### 4. Test conditions

Unless otherwise specified, all tests should be conducted within one month of delivery under the following conditions :

Ambient temperature : 20 +/- 5°C.  
Relative humidity : 65 +/- 20%.

#### 5. Performance

Item	Criteria	Test conditions
Capacity	Above 5850mAh	Standard charge and standard discharge
Internal impedance	Less than 300mohm	Measure AC impedance at 1kHz
Cycle life **	Above 3660mAh	300 cycle charging/discharging is repeated in the below condition. <ul style="list-style-type: none"> <li>● Charging: 4095mA to 12.6V</li> <li>● Rest time: 20min</li> <li>● Discharging: 5850mA up to 9V</li> <li>● Temperature: 20±2°C</li> </ul>
Leakage resistance	No leakage	Visually inspect battery pack after standard charge and storage at 25°C for 14 days.
Drop test	No fire, no explosion, no leakage (max. weight loss 0.1%)	Drop battery pack after standard charged onto a bakelife floor from a height of 0.5m for 6 times.
Vibration test	No fire, no explosion, no leakage (max. weight loss 0.1%)	The battery pack is vibrated in triaxial direction with 4 mm amplitude of frequency 30 Hz (1 Hz per minute) for 1 minute in triaxial direction.
Short circuit test	No fire, no explosion, cell temperature shall not exceed 150 °C	External short circuit
Dimensions	Refer to drawing of CL203	Measured by calipers
Battery weight	Approx. 433g	Measured by balance
Appearance	No crack, no leakage, no deformation	Visual inspection

Note: \*\* Data provided under "Cycle Life" in this document is our best estimate based on the technical data supplied by battery cell manufacturer in the Product Specification Form.

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#### 6. Material of Case

A non-inflammable material from GE injects the plastic casing, model CYCOLOY C2950-111. It is listed UL94 V-0VA.

#### 7. Warranty

One year limited warranty against workmanship and material defects. Manufacturer reserves the right to alter, amend the design, model and specification without prior notice.

#### 8. Charge state of cell before shipment

Charge from 10% to 50% according to delivery condition.

#### 9. Safety precaution

Please follow the safety precaution carefully as improper handling of lithium ion batteries may result in injury or damage from electrolyte leakage, heating ignition or explosion. To ensure safety, consult with PortaPower (HK) Limited regarding the charge and discharge specifications, equipment structure, warning labels and other important details when designing equipment to use PortaPower (HK) Limited rechargeable lithium ion batteries.

Never charge the battery above 12.75V.

Never reverse charge the battery.

Never heat or incinerate the battery.

Never pierce, crush or cause mechanical damage to the battery.

Never charge a battery at high temperature condition, such as at or near a fire.

Never short circuit the battery.

Never discharge a battery to below 3.0V per cell.

Never allow the battery to get wet or be immersed in water.

For long period of storage, temperature should be below 45°C.

After long period of storage, battery may required some cycling to recover capacity.

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**10. Safety Device and Abuse Requirement**

Circuitry protection as described below has been presented inside the battery pack to insure safety in case of misuse.

**Overcharge Voltage Protection**

At a charge voltage greater than 13.10V±0.10V the overcharge protection should engage interrupting the charge current.

**Over Discharge Protection**

When a voltage less than 7.70±0.075V is reached upon discharging, the over discharge protection device should engage. The resulting discharge current should be below 1µA.

**Over Discharge/Short Circuit Protection**

When discharge current exceeds 9A, and the over discharge current protection should engage interrupting the discharge current.

**Over Current Protection**

When battery load current exceeds 7.0A at 20°C, the Polyswitch (PTC) shall trip abruptly to a highly resistive state limiting current to milliamps. The device shall remain in the tripped state until the fault is corrected or removed.