FML9007

1. Applicability

The specification is applicable to PortaPower Lithium Ion Rechargeable batteries (PortaPower model no. : PL234D.142).

2. Ratings

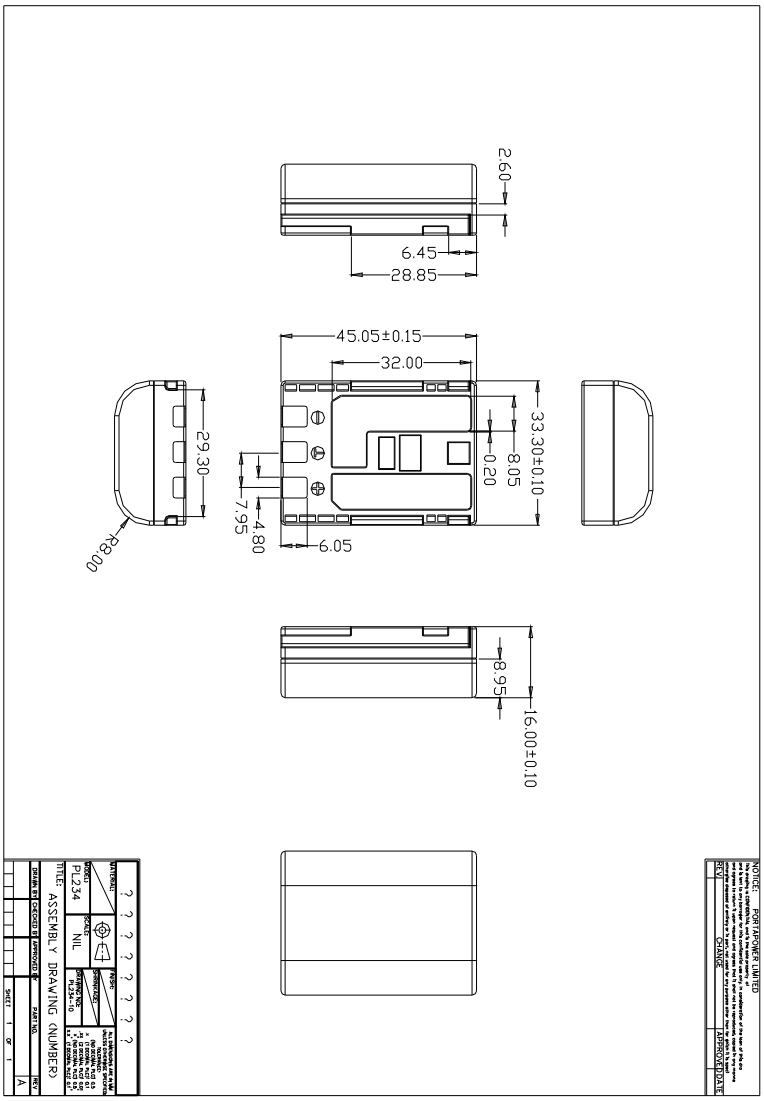
2.1 Cell

2.1.1 Type of Cell	: Sealed Lithium-ion Cylindrical Rechargeable battery
2.1.2 Cell Model	: YL ICR14430A72
2.1.3 Cell Size	: 14430
2.1.4 Cell Typical capacity	: 720 mAh
2.1.5 Cell Minimum capacity	: 690 mAh
2.1.6 Number of cell used	: 1P2S(2PCS)
2.1.7 Cell UL Number	: MH45794

2.2 Pack

2.2.1 Nominal voltage	: 7.4V
2.2.2 Typical capacity	: 750 mAh (5.6Wh)
2.2.3 Minimum capacity	: 690 mAh (5.1Wh)
2.2.4 Standard charge	: 360mA x 5hrs with 8.4V
2.2.5 Rapid charge	: 720mA x 2.5hrs with 8.4V
2.2.6 Maximum charge current	: 1080mA
2.2.7 Maximum continuous discharge current	: 1080mA
2.2.8 Discharge end voltage	: 6.0V
2.2.9 Replace No.	: Canon: BP-2LH, NB-2L, NB-2LH
2.2.10 Battery Pack Color	: Dark Grey
2.2.11 Running time on Canon PC1018 (using LCD screen)	: Approx 75 Min
2.2.12 Running time on Canon PC1018 (using viewfinder)	: Approx 73 Min
2.2.13 Operating temperature	: 0 – 45℃ (charge) -20 – 60℃ (discharge)
2.2.14 Storage temperature	: -20 – 50℃ (1 week) -20 – 35℃ (6 months)

3. Configuration and dimensions



4. Test conditions

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

Ambient temperature : 20 +/- 5℃.

Relative humidity : 65 +/- 20%.

5. Performance

Item	Criteria	Test conditions
Capacity	Above 690mAh	Standard charge and standard discharge
Internal impedance	Less than 280mohm	Measure AC impedance at 1kHz
Cycle life **	Above 552mAh	300 cycles charging/discharging is repeated in the below condition. ● Charging: 375mA to 8.4V ● Rest time: 20min ● Discharging: 375mA to 6V ● Temperature: 20±2℃
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 bakelite floor from a height of 1 m 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 for 1 minute in each direction.
Short circuit test	No fire, no explosion, cell temperature shall not exceed 150℃	External short circuit
Dimensions	Refer to drawing of PL234	Measured by calipers
Battery weight	Approx. 40g	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.

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

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 8.5V.
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℃.
After long period of storage, battery may required some cycling to recover capacity.

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 4.3V±0.1V per cell, the overcharge protection should engage interrupting the charge current.

Over Discharge Protection

When a voltage less than 2.25V±0.25V per cell 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 4.7A the over discharge current protection should engage interrupting the discharge current.

Current fuse Circuit Protection
When discharge current exceeds 12.5A for 5sec.the current fuse should open the charge/discharge current.