

**Lithium Ion Cylindrical Battery
Specification**

Model: PCL120700-1S-PAN-FG

Confidential



PCL120700-1S-PAN-FG
3.6V 4000mAh Lithium - Ion

Amendment Record

Revision	Description	Name/Date
Pre	Initial Release	Kevin Oh/5-31-18

Customer Approval

Customer/Company Name	Department	Date	Signature

191 Covington Drive, Bloomingdale, IL 60108
Phone: 630-295-6800 Fax: 630-295-6801
Toll Free: 877-469-4255

Pre

1. Scope

The product specification applies to the rechargeable Lithium-ion cylindrical battery supplied by Zeus Battery Products.

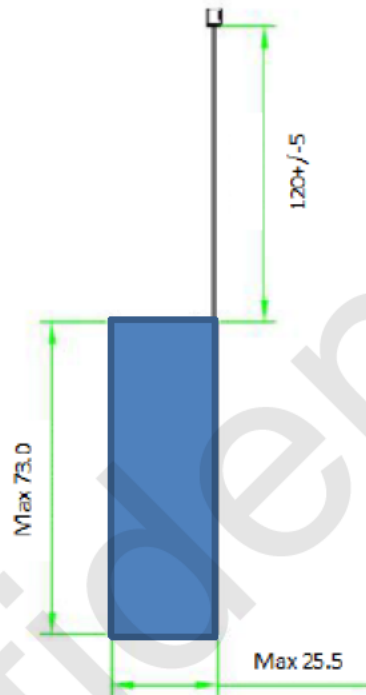
2. Description and Model: 3.6V 4000mAh; PCL120700-1S-PAN-FG; 1S1P

3. Nominal Specifications

No.	Item	Specification	Remark
1	Nominal Capacity	4000mAh	@ 0.2C discharge, room temperature
2	Nominal Voltage	3.60V	
3	Charge Voltage	4.20+/-0.03V	
4	Standard Charge current	660mA	
5	Max. continuous charge current	1.2A	
6	Max. continuous discharge current	1.2A	
7	Discharge cut-off Voltage	2.50V	
8	Internal resistance	≤200mΩ	
9	Weight	Approx. 70g	
10	Operating temperature	Charge: 10 ~ 45°C Discharge: -20 ~ 60°C	
11	Storage temperature	≤1 yr: -20 ~ 20°C ≤3 months: -20 ~ 40°C ≤1 month: -20 ~ 50°C	
12	Cycle Life	≥300 cycles	@ 0.2C discharge, room temperature
13	Battery cell	Panasonic NCR20700B-H00PA	

*Note on Air transport: Lithium ion cells and batteries must be offered for transport at a state of charge (SOC) not exceeding 30% of their rated design capacity

4. Pack Dimensions; approximately; in "mm"



6. Protection Paramete

Item	Parameter Value (General Temperature 25°C)			
	Min	Typical	Max	Unit
Over charge detection voltage	4.20	4.25	4.30	V
Over charge release voltage	3.95	4.05	4.15	V
Over discharge detection voltage	2.4	2.5	2.6	V
Over discharge release voltage	2.9	3.0	3.1	V
Over current detection current	4.5	6.0	7.5	A
Short circuit protection	External short			
Short circuit recovery condition	Cut short circuit			
Current consumption under normal operation		3.5	10.0	uA

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7. Battery Handling Precautions

- ◆ The battery should be stored at half charged state in a dry, clean area with good ventilation. If the battery has to be stored for extended period of time (over 3 months), the environmental condition should be 20+/-5°C with 65+/-20% Relative Humidity.
- ◆ Charging current and voltage should be less than maximum charge current specified in the Product Specification. Charging with higher current or voltage than recommended value may damage the battery and lead to poor performance increased safety risk.
- ◆ Do not reverse the polarity of battery pack leads. Reverse charging may cause damage to the battery and lead to degradation of performance and increased safety risk.
- ◆ Please use a charger appropriate for charging lithium batteries.
- ◆ The battery shall be discharged at less than the maximum discharge current specified in the Product Specification. Higher current than allowed may reduce performance and lead the battery to over-heat.
- ◆ Always adhere to operating temperature as listed in the Product Specification. Using batteries outside of its operating temperature will lead to reduced performance and increased safety risk.
- ◆ Never short-circuit the battery pack.
- ◆ Do not disassemble the battery pack as it may generate internal short circuit in the battery and lead to gassing, fire, or other safety problems.
- ◆ If electrolytes leak and come into contact with the skin or eyes, flush with fresh water and seek medical attention immediately.
- ◆ Never incinerate or dispose the battery in fire.
- ◆ Never allow the battery to come into contact with liquids such as water, soft drinks, juices and etc.

8. Warranty

Products supplied by Zeus Battery Products contain 12 months warranty against manufacturing defects from date of shipment. Zeus Battery Products shall not be responsible for any accident or damage resulting from user abuse or misuse.

Note: This product specification is subject to change without prior notice.

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