



昌 勃 有 限 公 司  
Dr. POWER CORPORATION

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Dr . POWER CORPORATION

零 件 規 格 書/承 認 書  
SPECIFICATION FOR APPROVAL

CUSTOMER : \_\_\_\_\_

DESCRIPTION :                     Battery Pack                    

MODEL :                     Panasonic 18650 2S1P 3400mAh                    

CUSTOMER PART NO : \_\_\_\_\_

**APPROVED SIGNATURES**


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Rev	Date	Description	Designed	Checked	Approved
A	2015/8/28	Release		Kevin	

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## 1. Scope

This specification shall be applied to Sonata Lithium Ion battery pack ( 2 series 1 parallel)

\* Recharge battery after long time storage before use.

## 2. Composition

The Single cell consists of 3(00 mAh capacity also Battery Pack 3(00 mAh combines with protection circuit and thermal protection.

## 3. Product specification


No	Item	Rating performance	Remark	
1	Typical Capacity	3(00 mAh	0.2C discharging to 4.8V	
2	Nominal voltage	7.4V		
3	Maximum charge voltage	8.65V		
4	The end of discharging voltage	4.8V		
5	Suggestive charging current(standard)	6, 0mA / 0.2C	0°C to 40°C	
6	Suggestive charging current(Max)	3(00mA / 1C	0°C to 40°C	
7	Suggestive continuous discharging current	6, 0mA / 0.2C	-20°C to 60°C	
8	Suggestive continuous discharging current (Max)	3(00mA / 0.5C	0°C to 40°C	
9	Internal resistance	mΩ	Measured by the alternate current method (1Khz)	
10	Outer Dimension(mm) (L*W*T)	68.8*37*18.8 mm (Max)		
11	Weight		g	
12	Storage temperature (At the shipment state)	Less than 1 months	Percentage of recoverable capacity 80% ※	
		Less than 3 months		-20°C to 40°C , 90%RH
		Less than 1 years		-20°C to 20°C , 90%RH

※ Percentage of recoverable capacity

= (discharge time after storage / Initial discharge time) × 100

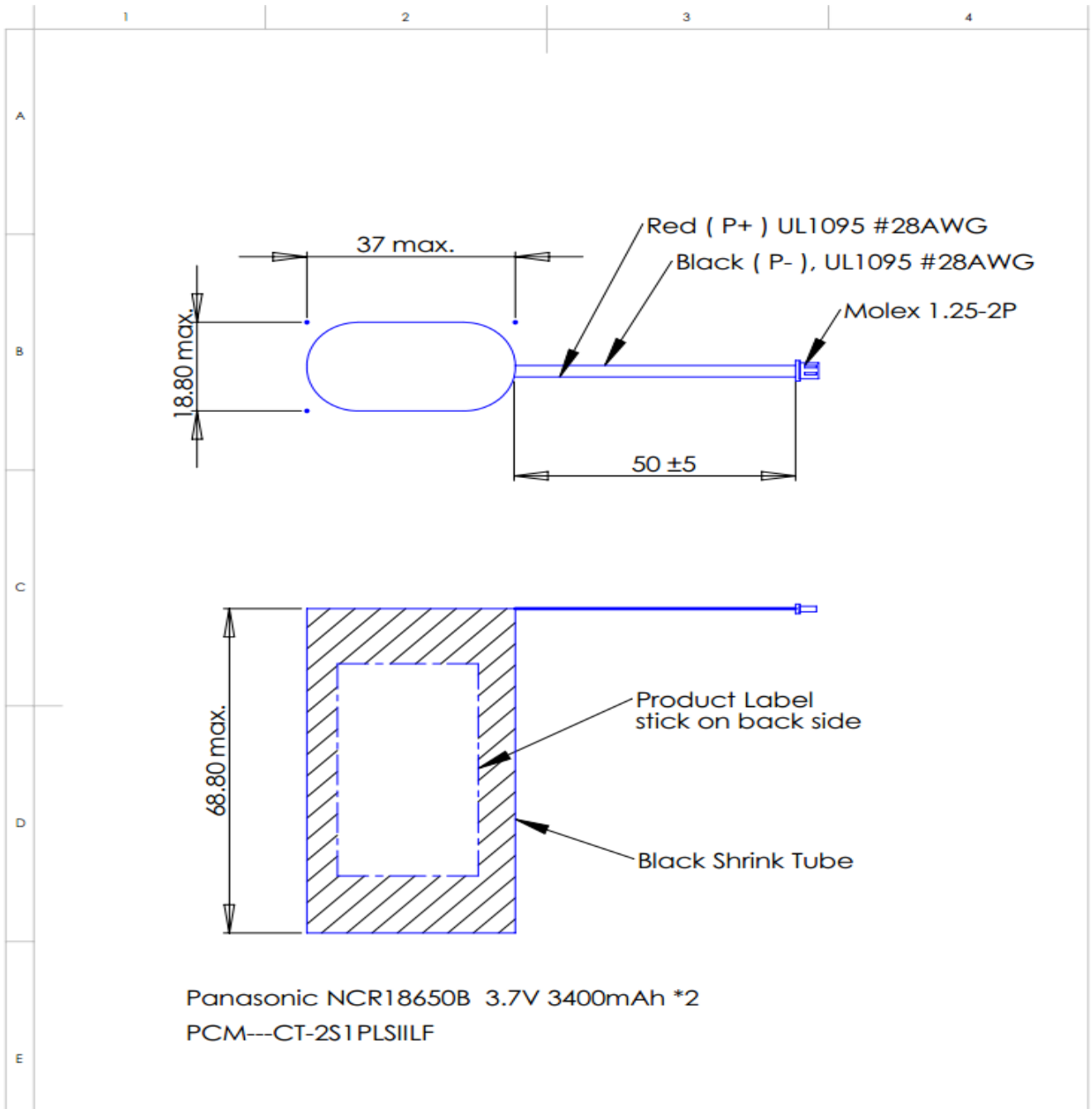
Discharge time is measured by the discharge at 0.2CA to 3.0V end voltage after fully charged

according to specification at approximately 25°C

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#### 4. Electronic Performance.

Function item	Test Method	Criteria
(.1.1 Charge (Full charge))	The charge supply 6, 0 mA constant current until battery voltage reaches 8.6 V, then be charged at constant voltage of V while tapering the charge current. Charging time is 5.0 hours in all.	
(.1.2 Capacity)	Within 1 hour after fully charge at 0.2C(6, 0mA) Continuously down to 4.8V end voltage.	More than 300 min
	Within 1 hour after fully charge at 1C(3. ( A) Continuously down to 4.8V end voltage.	More than 60 min
(.1.3 Cycle Life)	The cycle time is no less than 450. Charged at CC-CV(6, 0 mA/8.6 V) for 3.0 hours ,discharge at 420 mA to 4.8V end voltage . after 450cycles,discharge time is measured as specified in paragraph 5.1.2(Fully charge at 1.0C)	More than 36min
(.1.4 Hi-temperature charge and discharge Characteristic)	Within 1 hour after fully charge at 20°C , battery pack is stored at 60°C .Discharge time is measured by discharging at 6, 0mA continuously down to 4.8 V end voltage.	More than 48min
(.1.5 Low-temperature charge and discharge characteristic)	Within 1 hour after fully charge at 20°C , battery pack is stored at 0°C .Discharge time is measured by discharging at 6, 0 mA continuously down to 4.8 V end voltage.	More than 33min
(.1.6 Full charged state storage)	The capacity on 1C mA discharge shall be measure after standard charge and storage at 60±2°C for 10 days.	More than 33min
	After above measured remaining capacity, the capacity on standard discharge shall be measured after charge.	More than 43min
	The capacity on 1CmA discharge shall be measure after standard charge and storage at 60±2°C for 10 days.	More than 28min
	After above measured remaining capacity , the capacity on standard discharge shall be measured after charge.	More than 38min
(.1.7 Full discharge state storage)	After fully charged and discharged as specified in paragraph 5.1.2(Fully charge at 1.0C), then store for 20 days at 60°C and rest at room temperature for 1 hour. Discharging time is measured as specified in paragraph 5.1.2(Fully charge at 1.0C).	More than 48min



Panasonic NCR18650B 3.7V 3400mAh \*2  
PCM---CT-2S1PLSILF

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES: LINEAR: ANGULAR:		FINISH:		DEBUR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION	
DRAWN: Simon		SIGNATURE:		DATE: Aug. 27. 2015		TITLE: Li-Ion Battery Pack 7.4V 3400mAh 25.16Wh			
CHKD:						DWG NO. NCR18650B-21			
APPVD:						A4			
MFG:						SCALE: 1:1			
Q.A:				MATERIAL:		SHEET 1 OF 1			
				WEIGHT:					