

Spec. No.	INR21700-40T	Version No.	Abridged Version
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Specification of Product


Abridged Version

- 1. Customer :
- 2. Product : Lithium-ion Battery
- 3. SDI Model : INR21700-40T
- 4. Approved by

Division			
Signature			
Date	/ /	/ /	/ /

5. Date of Application (YY/MM/DD) : 2018/08/21

6. Supplier : **SAMSUNG SDI Co., Ltd.**
Battery Business Division

Issued	Checked	Approved
		
Lucy Kim Senior Engineer CSG		

* This specification is Abridged Version only for Taiwan customers, not a general production specification.

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1. Scope

This product specification has been prepared to specify the rechargeable lithium-ion cell ("Cell" or "Cells") to be supplied to the customer by Samsung SDI Co., Ltd. ("Samsung SDI")

2. Description and model

- 2.1 Description lithium-ion rechargeable cell
- 2.2 Model name INR21700-40T
- 2.3 Site Manufactured in Korea

3. Nominal specifications (*1)

Item	Specification
3.1 Standard discharge capacity	Min. 4,000mAh - Charge:0.5C(2A),4.20V,0.05C(200mA)cut-off @ RT - Discharge: 0.2C(800mA), 2.5V cut-off @ RT
3.2 Rated discharge capacity	Min. 3,900 mAh - Charge:1.5C(6A), 4.20V, 0.025C(100mA)cut-off @RT - Discharge: 10A, 2.5V cut-off @ RT
3.3 Nominal voltage	3.6V
3.4 Standard charge	CCCV, 2A, 4.20 V, 200mA cut-off
3.5 Rated charge	CCCV, 6A, 4.20 V, 100mA cut-off
3.6 Charging time	Standard charge : 180min / 200mA cut-off (@ RT) Rated charge: 70min / 100mA cut-off (@ RT)
3.7 Max. continuous discharge (Surface Temperature)	35A (Without temperature cut) 45A (With 80°C temperature cut)
3.8 Discharge cut-off voltage	2.5V (End of discharge)
3.9 Cycle life	Capacity ≥ 2,400mAh @ after 250cycles (60% of the standard capacity @ 25°C) - Charge : 6A, 4.20V, CCCV 100mA cut-off @ 25°C - Discharge: 35A , 2.5V cut-off @ 25°C
3.10 Retention characteristics	Capacity recovery(after the storage) ≥ 3,510 mAh (90% of the rated capacity @ 23) - Charge : 6A, 4.20V, CCCV 100mA cut-off @ 23°C - Storage : 30 days (@ 60°C) - Discharge : 10A , 2.5V cut-off @ 23°C
3.11 Cell weight	70.0g max
3.12 Cell dimension	Height : Max 70.30mm Diameter : Max 21.22mm
3.13 Operating Temperature (Ambient)	Charge : 0 to 45°C Discharge : -20 to 60°C

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3.14 Operating temperature(*2) (Surface temperature)	Charge : 0 to 50°C (recommended re-charge release < 45°C) Discharge: -20 to 80°C (recommended re-discharge release < 60°C)
3.15 Recovery 90% after storage(*3)	1 year 0~25°C 3 months 0~45°C 1 month 0~60°C

Note (*1): Protection function of the battery pack should be set within the specified charge, discharge and temperature range in Cell Specification.

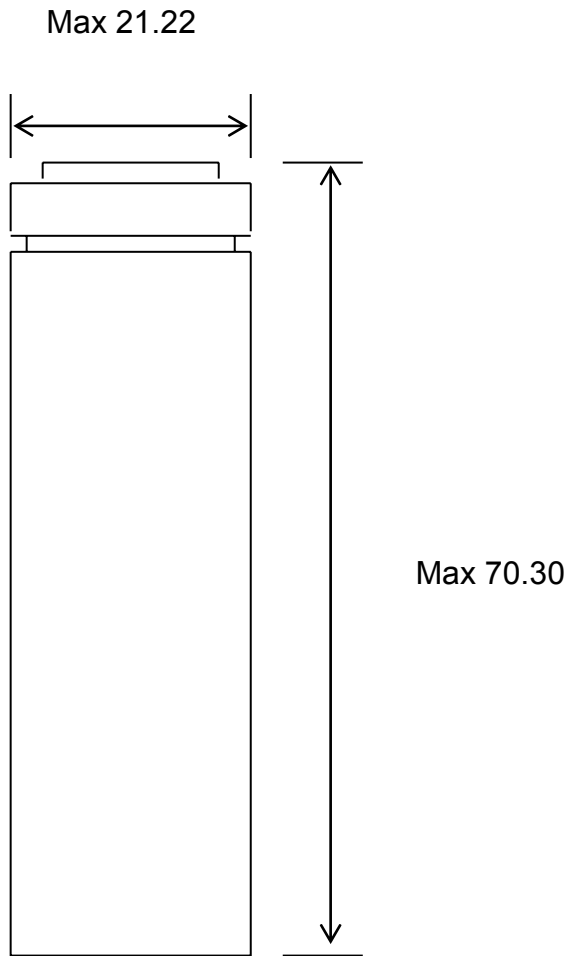
Note (*2): Discharge OTP(over temp. protection) should not be over 80°C of Cell surface temperature. Protection set should be based on the location of Cell surface with the highest temp increase part of the battery pack.

Note (*3): If Cell is kept as ex-factory status (30% of charge), the capacity recovery rate shall be more than 90%.

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4. Outline dimensions

See the attachment (Fig. 1)



Unit : mm
With tube

Fig.1. Outline dimensions of INR21700-40T