# **Technical Report of INR18650-35E**



**SAMSUNG SDI** 

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Cylindrical cell development group Energy Business Division SAMSUNG SDI

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### **Tentative Specification of INR18650-35E**

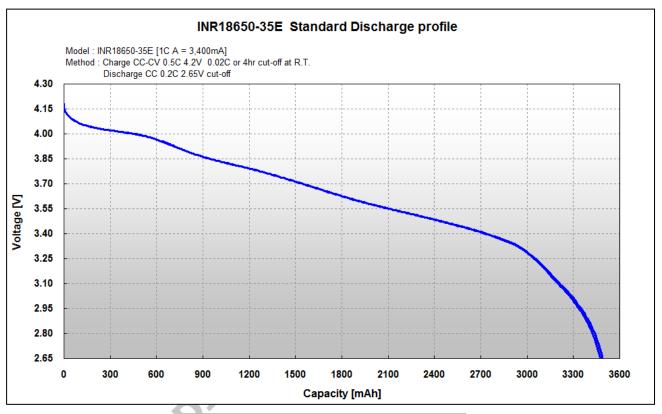


Typical Min.	
Max.	
oltage	
lot for cycle) Max.	
Max.	
Charge Discharge	
1 Year 3 Months 1 Month	

INR18650-35E
3450mAh 3350mAh
3.60V
CC-CV
4.20V
1500mA
2.50V
8000mA
<b>50.0</b> g
0 ~ 45 °C -10 ~ 60 °C
-20 ~ 25 °C -20 ~ 45 °C

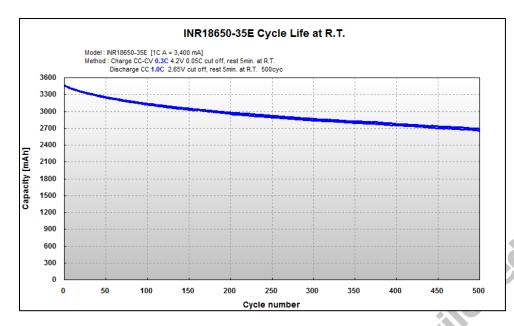
**-20 ~ 60** ℃

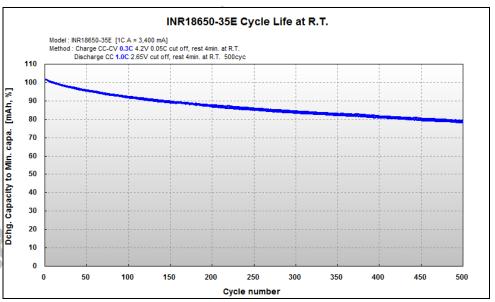
## **Standard Capacity\_0.2C**



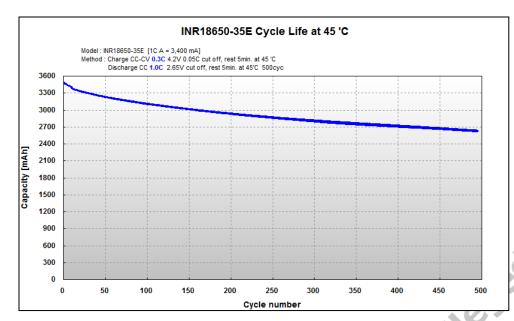
capacity (mAh)	Energy (Wh)
3,482	12.62

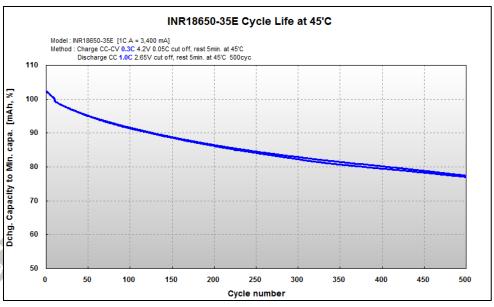
## Cycle Life\_1C cycle



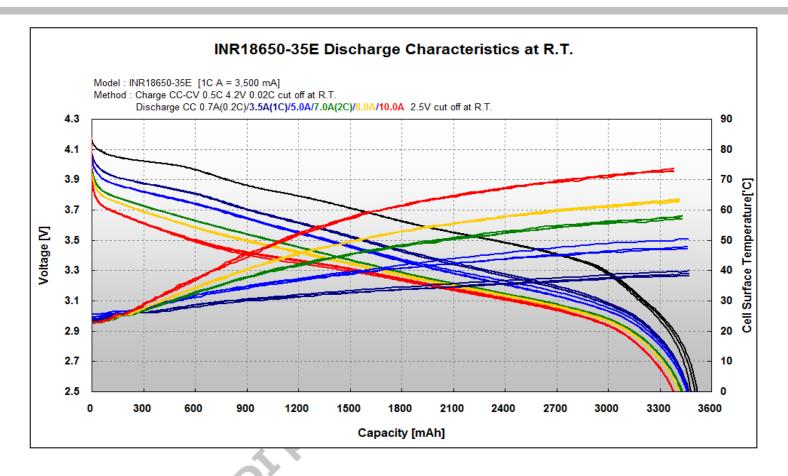


# **Cycle Life\_1C cycle at 45** ℃





### **Room Temperature Discharge (23℃)**

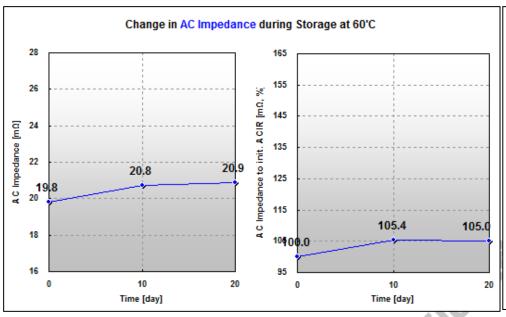


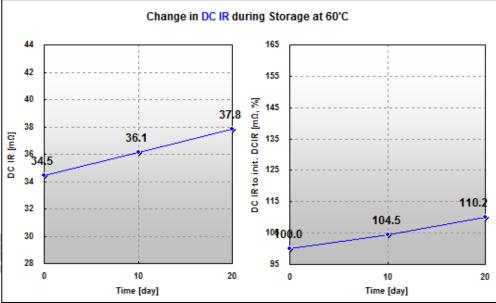
	3.5A 7.0A		10.0A	
Capacity (mAh)	3,468	3,429	3,379	
Energy (Wh)	11.94	11.37	10.98	

## Storage at 60° (SOC100)

### - AC-IR

### DC-IR





Storage day	Initial		After storage			Ratio	
	AC-IR	DC-IR	AC-IR	DC-IR	AC-IR	DC-IR	Recovery
10	19.8	24 5	20.8	36.1	105.4	104.5	98.0
20		34.5	20.9	37.8	105.0	110.2	97.4

### **Safety Test Results**

Tests	Requirements	Results	OK/NG
Overcharge (1C, 3hr)	L1	4L0	OK
Hot oven (140℃)	L1	3L1	ОК
Crush (13 kN)	L3	10L1	ОК
Impact (\$15.8, 9.1kg, 610mm)	L3	10L0	ОК
External short Circuit @55℃ (20mΩ)	L1	5L0	ОК
Forced-Discharge	L3	5L0	ОК

Level	Criteria
LO	No change
L1	Leak
L2	Smoke, <200℃
L3	<b>Smoke, &gt;200</b> ℃
L4	Fire
L5	Explosion

# - Thank you dentition

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