



MOLICEL®

INR-18650-P26A

2.6Ah Power cell

2018-05

E-ONE MOLLI ENERGY CORP

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Confidential

- ❖ **MOLICEL® INR-18650-P26A 2.6Ah power cell**
- ❖ **Cell is capable of continuous cycling at high rates up to 35A**
- ❖ **Key Characteristics:**
 - Low cell impedance: <20mOhm DCR at 10s
 - 3C charge capability
 - -40°C discharge capability





LITHIUM-ION RECHARGEABLE BATTERY

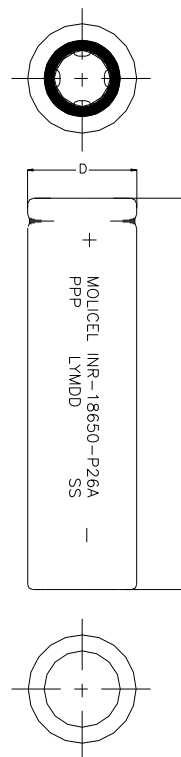
PRODUCT DATA SHEET MODEL **INR-18650-P26A**

Performance Characteristics

Capacity	Typical	2600 mAh 9.4 Wh
	Minimum	2500 mAh 9.0 Wh
Cell Voltage	Nominal	3.6 V
	Charge	4.2 V
	Discharge	2.5 V
Charge Current	Standard	2.6 A
Charge Time	Standard	1.5 hr
Discharge Current	Continuous	35 A
Temperature	Charge	0°C to 60°C
	Discharge	-40°C to 60°C
Energy Density	Volumetric	535 Wh/l
	Gravimetric	190 Wh/kg
Typical Impedance	AC(1 KHz)	<20 mW
	DC (10A/1s)	16 mW

Physical Characteristics

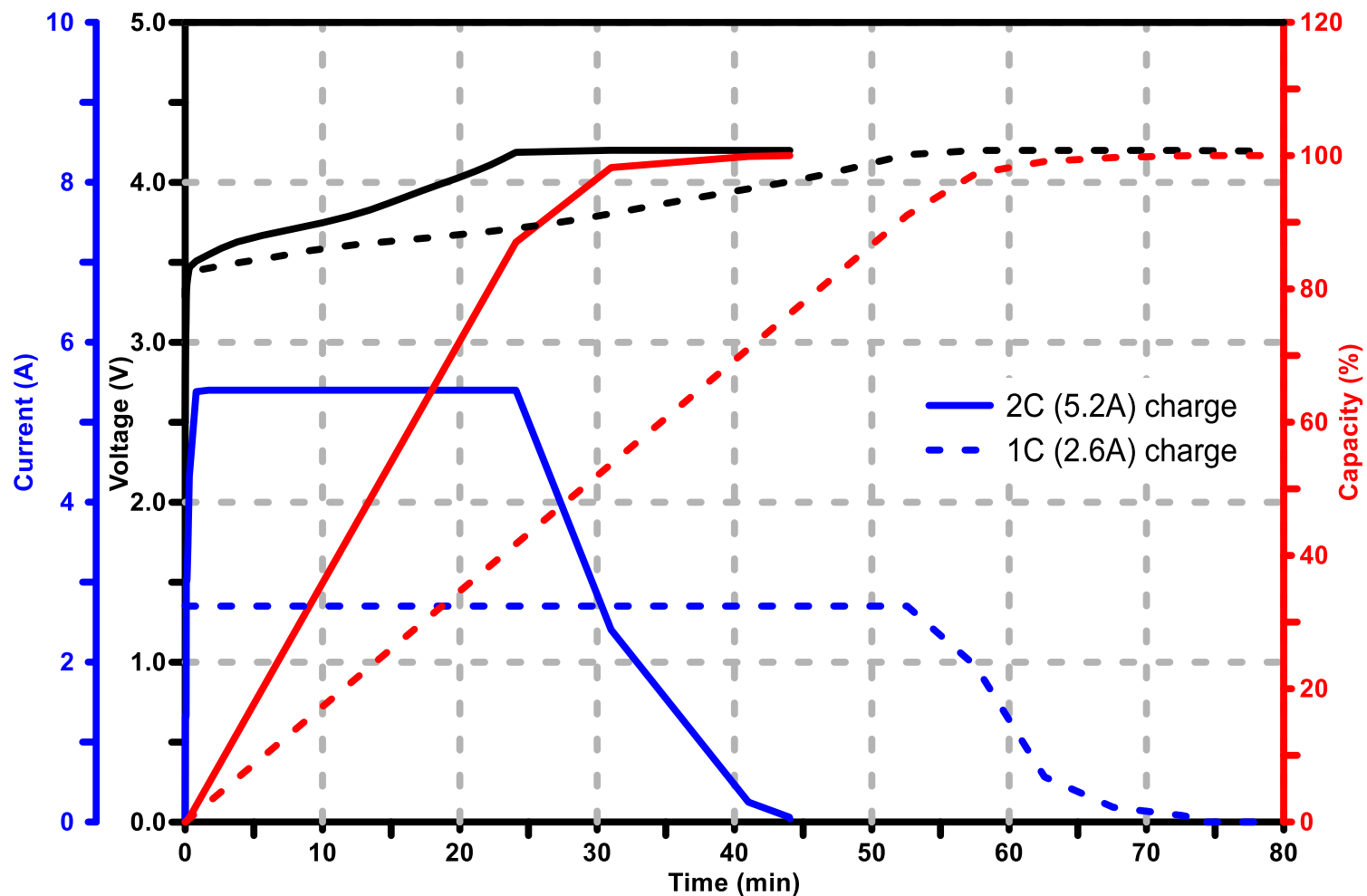
Shape	Cylindrical
Can	Steel
Diameter	18.6 mm (Max)
Height	65.2 mm (Max)
Weight	50 g (Typical)



Charge / Discharge Characteristics



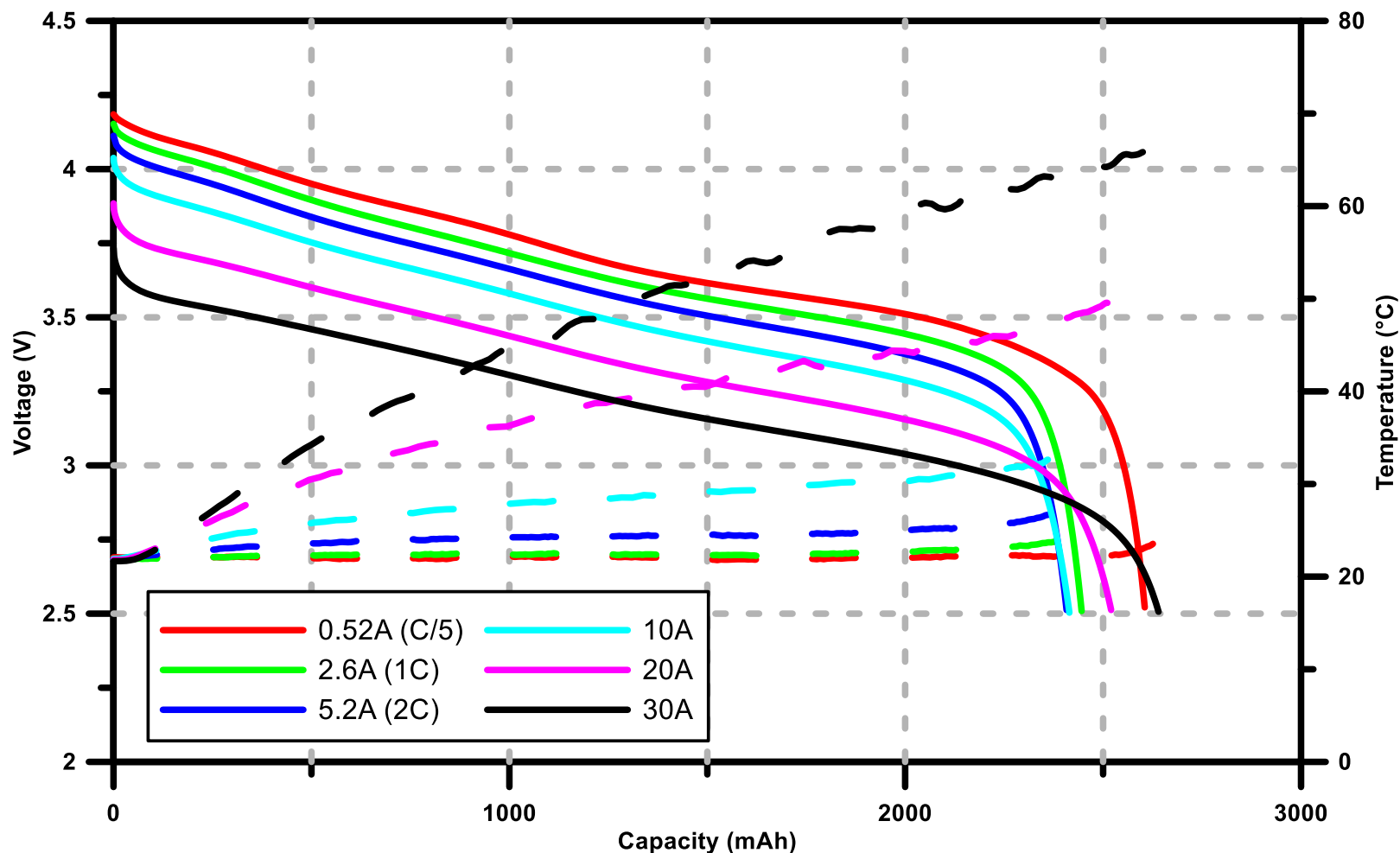
23 °C Charge Characteristics



— 2C (5.2A) charge
- - 1C (2.6A) charge

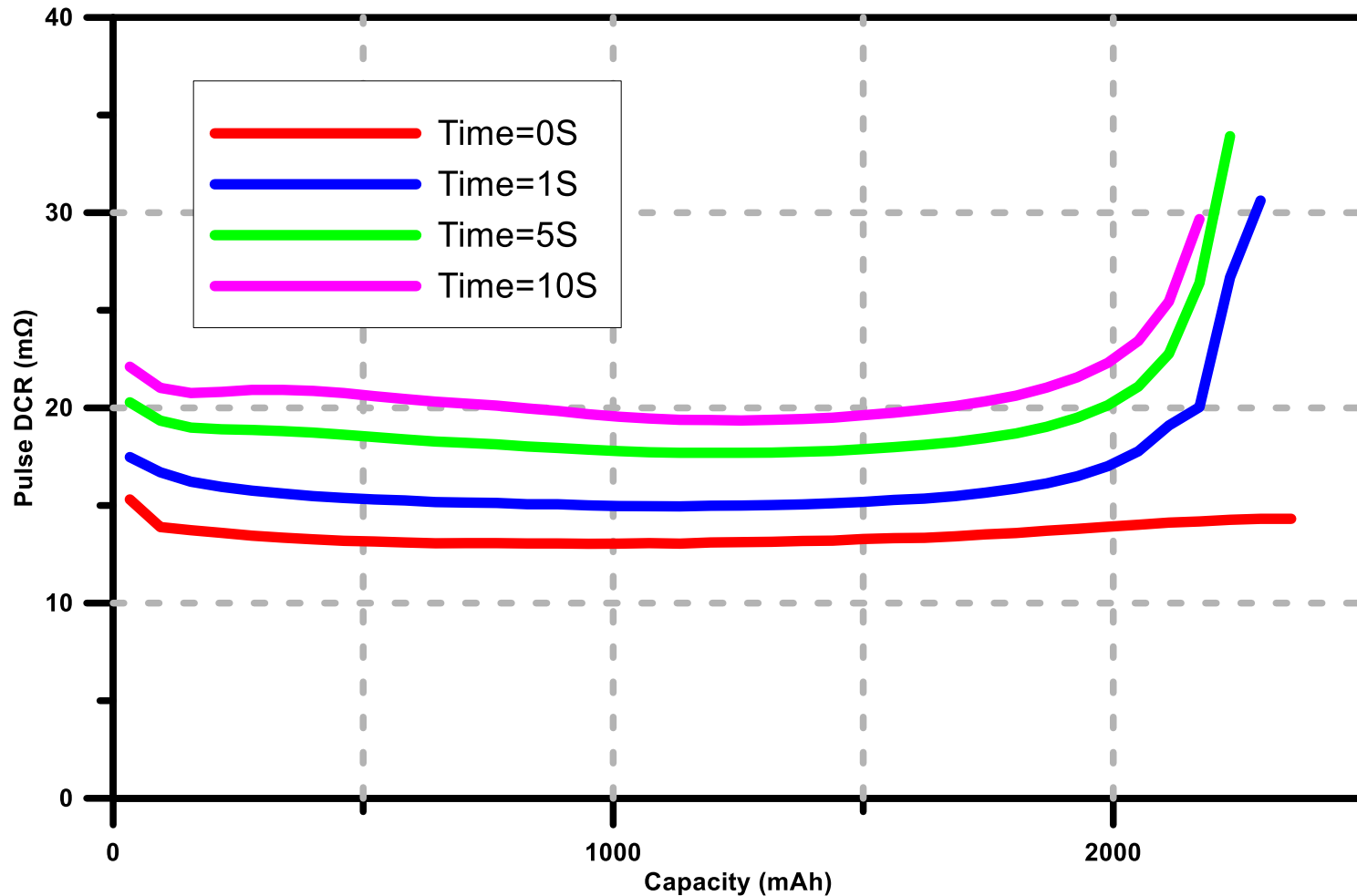


Constant Current Discharge Rate map



- ❖ Charge: CCCV 2.6A/4.2V (50mA current taper)
- ❖ Discharge: Constant Current to 2.5V
- Ambient Temperature: 23°C

1A/10A Pulse DCR



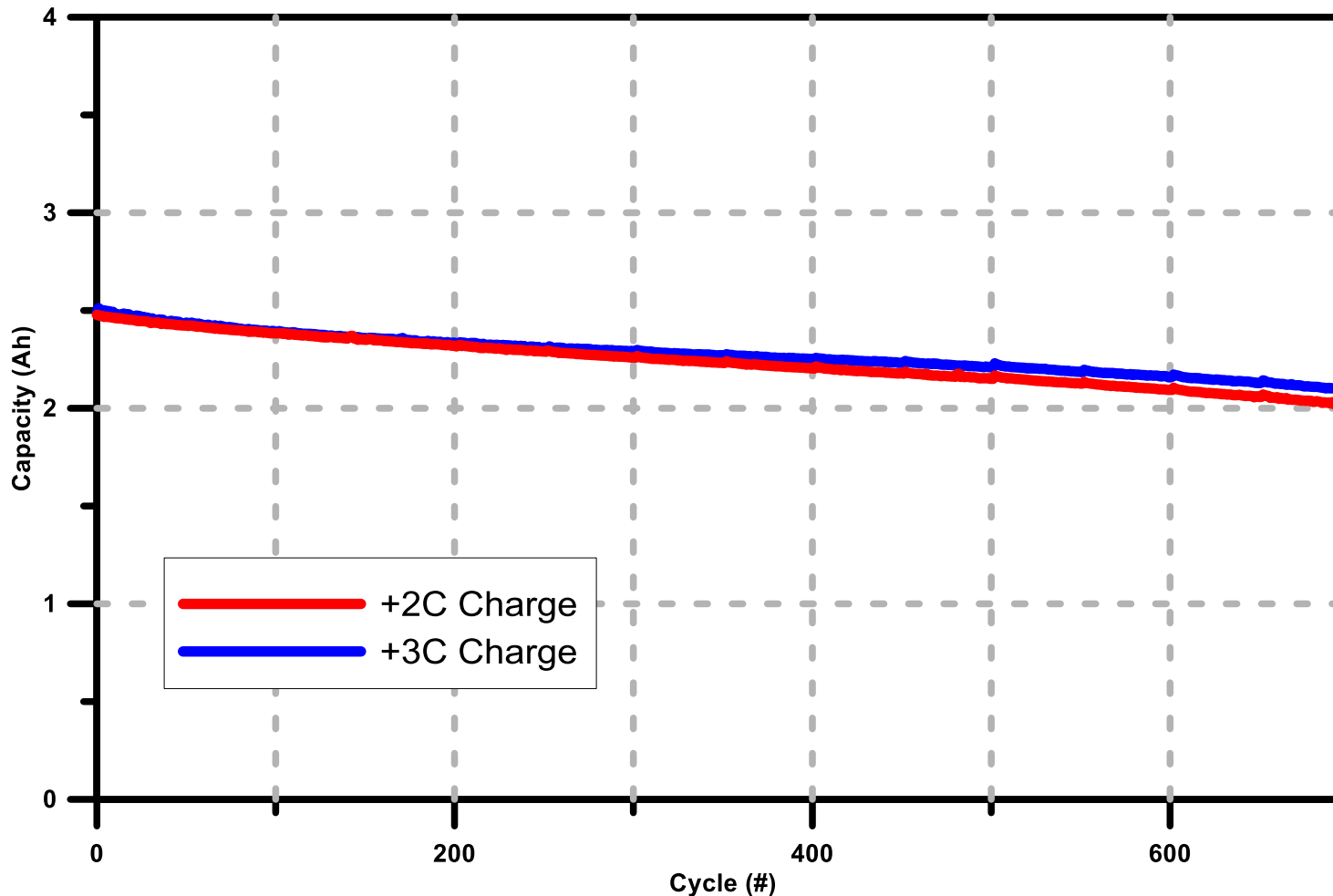
- ❖ Charge: CCCV 2.6A/4.2V (50mA current taper)
- ❖ Discharge: 1A with 10A/10s pulses to 2.5V
- Ambient Temperature: 23°C



Cycle Life

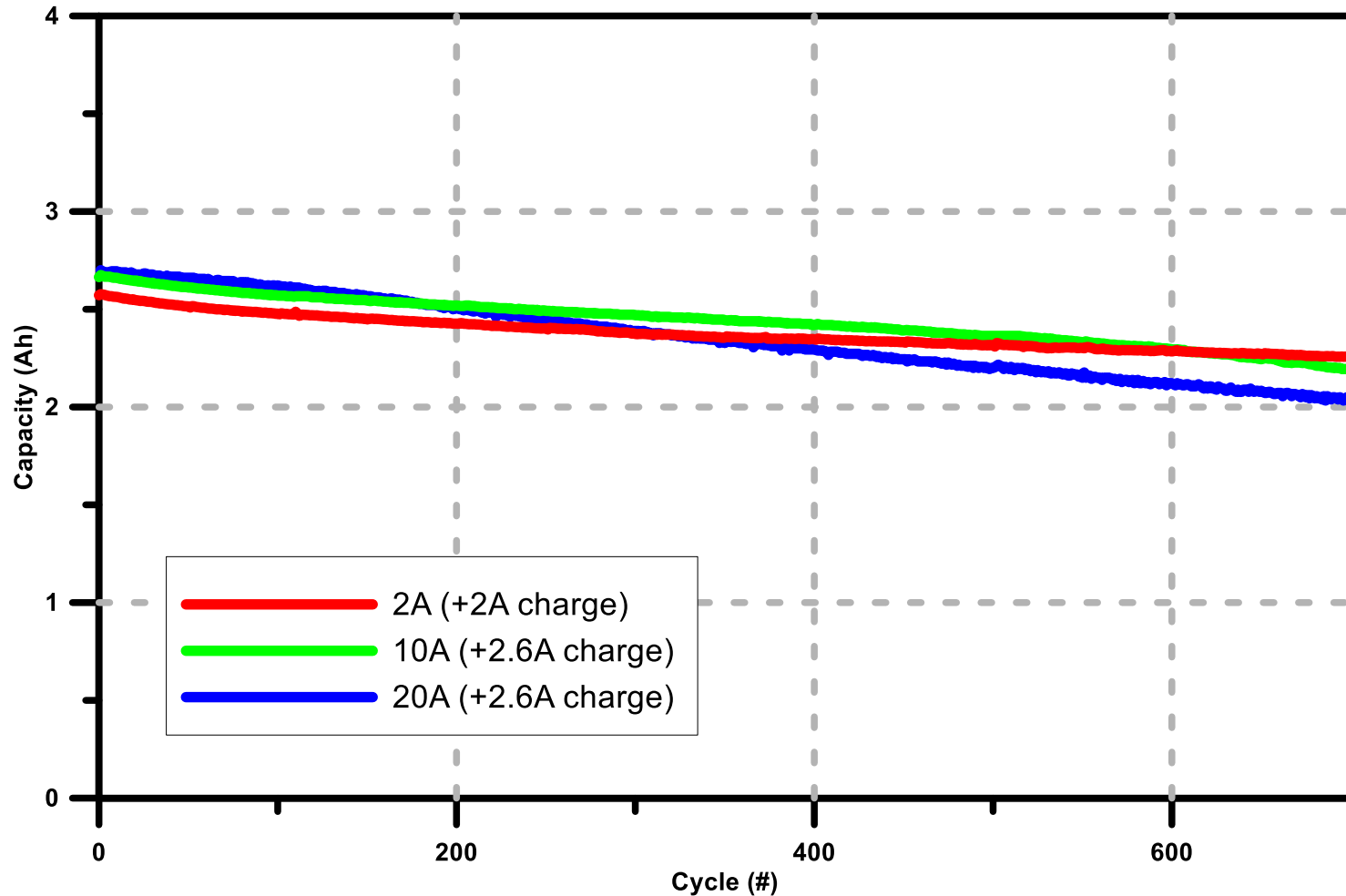


High Rate Charge



- ❖ Charge: CCCV 2A, 5.2A (2C), or 7.8A (3C) to 4.2V (50mA current taper)
- ❖ Discharge: Constant Current 2.6A (1C) to 2.5V
- Ambient Temperature: 23° C

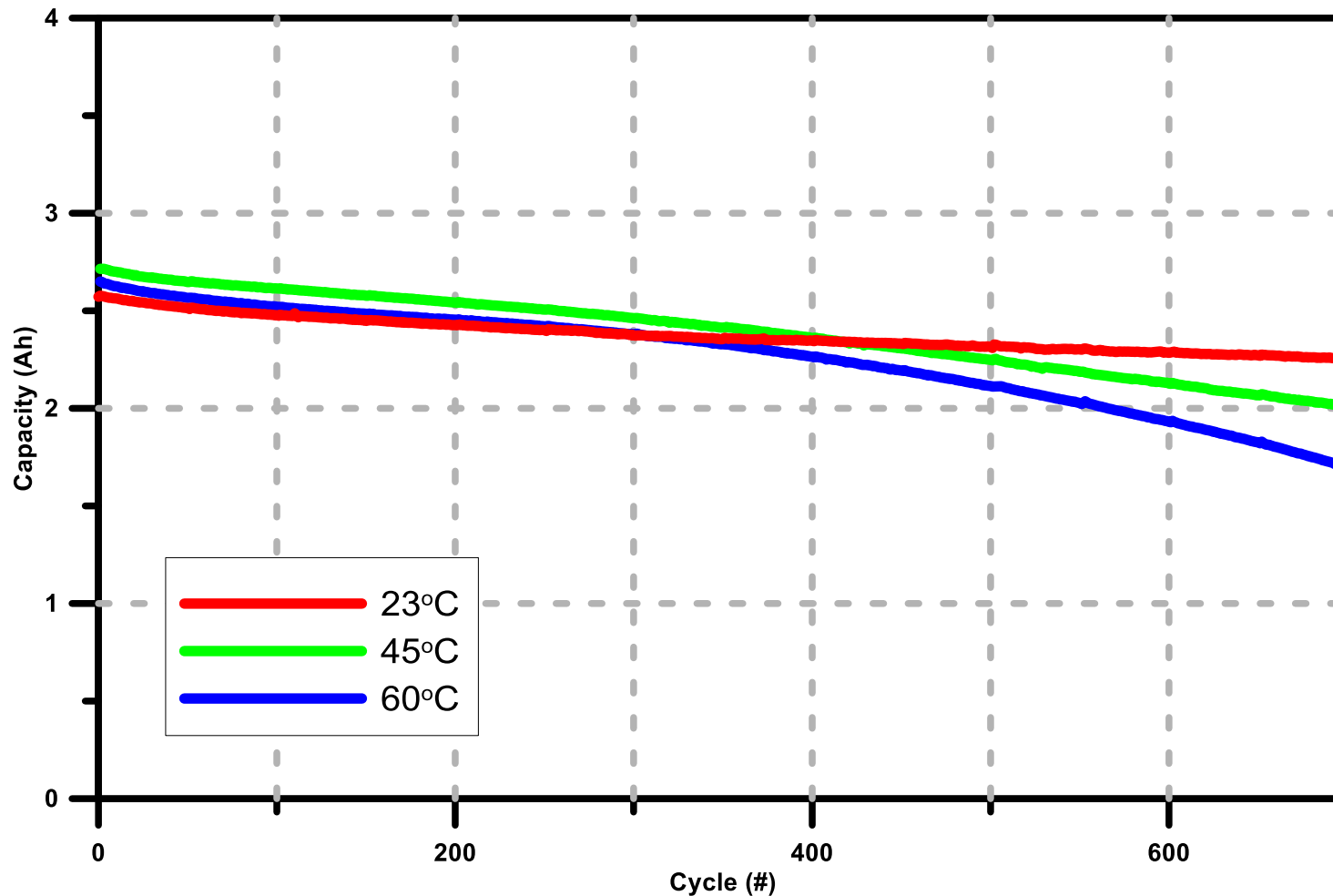
High Rate Discharge



- ❖ Charge: CCCV 2A or 2.6A to 4.2V (50mA current taper)
 - ❖ Discharge: Constant Current 2A, 10A, or 20A to 2.5V
- Ambient Temperature: 23°C



±2A at Various Temperatures



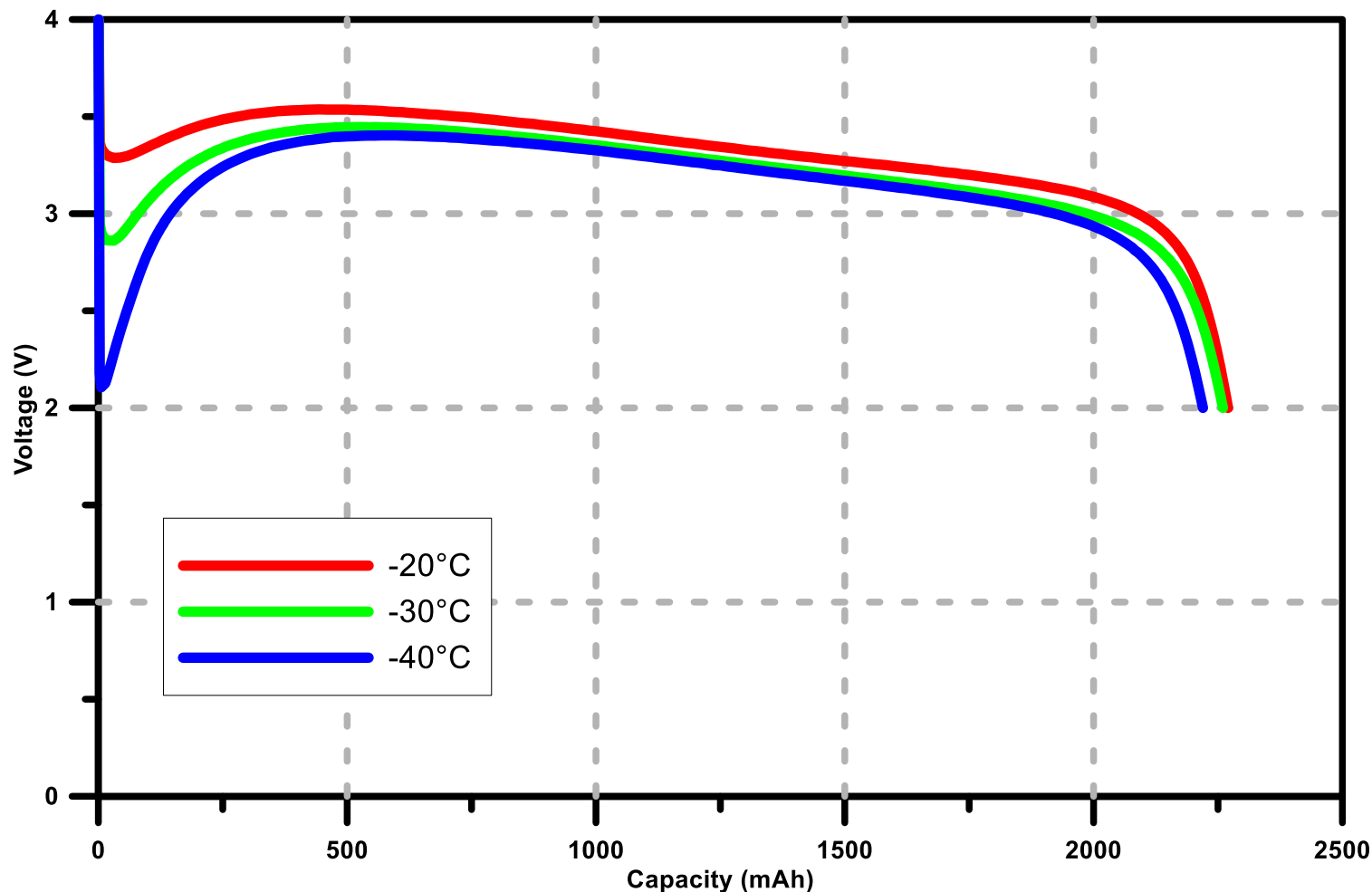
- ❖ Charge: CCCV 2A to 4.2V (50mA current taper)
- ❖ Discharge: Constant Current 2A to 2.5V
- Ambient Temperature: 23°C, 45°C, and 60°C



Low Temperature Performance

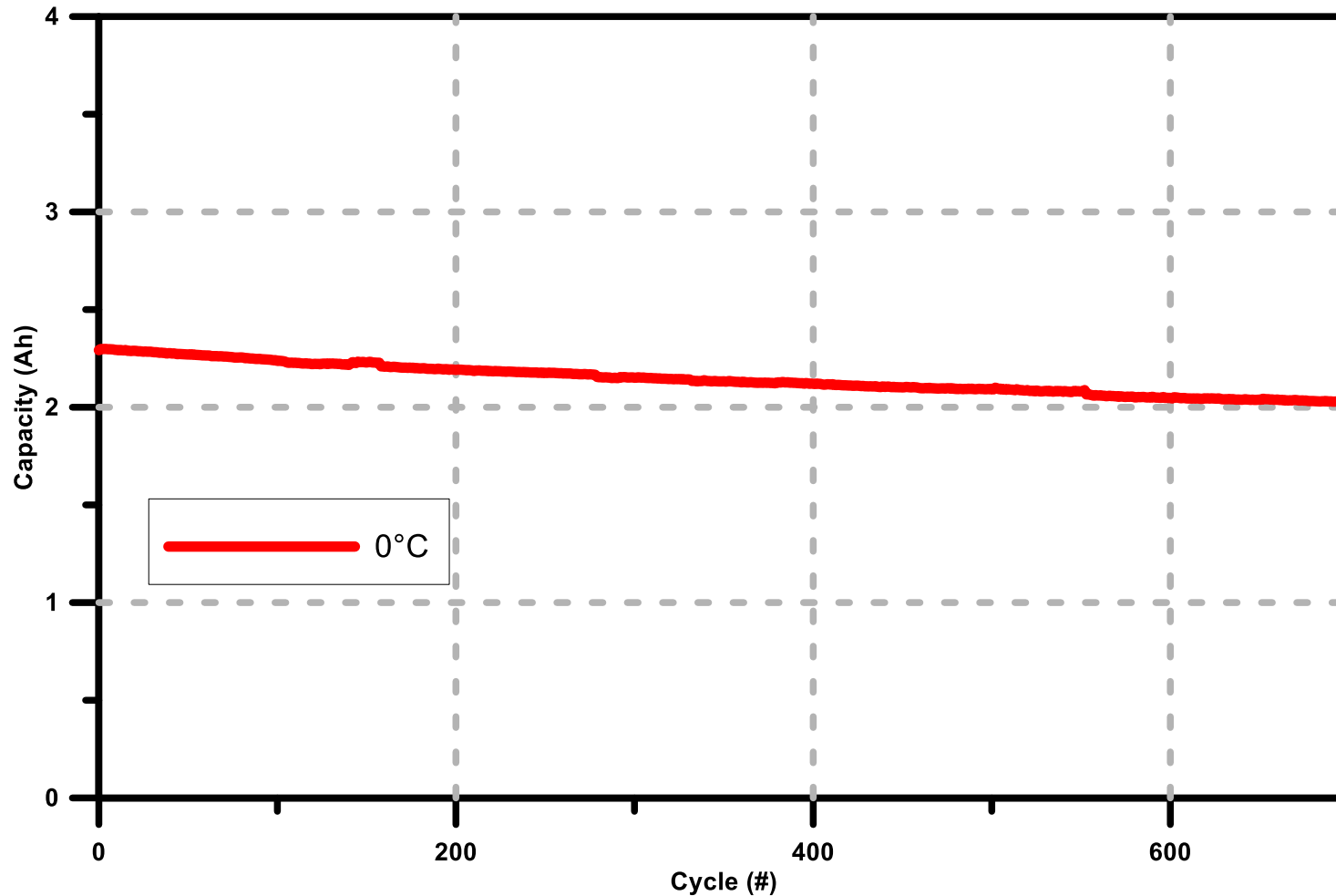


Low Temperature Rate Map



- ❖ Charge: CCCV 2.6A to 4.2V (50mA current taper)
- ❖ Discharge: Constant Current at 10A to 2.5V
- Ambient Temperature: -20°C, -30°C, and -40°C

Low Temperature Cycle Life



- ❖ Charge: CCCV 2A to 4.2V (50mA current taper)
- ❖ Discharge: Constant Current 2A to 2.5V
- Ambient Temperature: 0°C

Safety Data



Test	Condition	Result	Typical Max Temperature
Hotbox	4.2V, 130 ° C (UL)	Pass	132 ° C
Short Circuit	50 mΩ, 23 ° C	Pass	75 ° C
	32 mΩ, 23 ° C	Pass	81 ° C
	5 mΩ, 60 ° C	Pass	68 ° C
Overcharge 23 ° C, 100% DOD	2.6A, 15 V, Insulated	Pass	103 ° C
	18A, 15 V (UL)	Pass	81 ° C
Flat Plate Crush	4.2V, 23 ° C, 13 kN (UL)	Pass	26 ° C
Impact	4.2V, 23 ° C (UL)	Pass	26 ° C



Storage



100% SOC, 28 Day Storage

Design	Storage	Capacity		ACZ		
	Temperature	Retained	Recovered	Before	After	Change
	°C	%	%	mΩ	mΩ	%
INR-18650-P26A	23	95	99	11.0	11.1	1
	45	85	97	11.0	11.7	6
	60	78	96	11.0	12.4	13

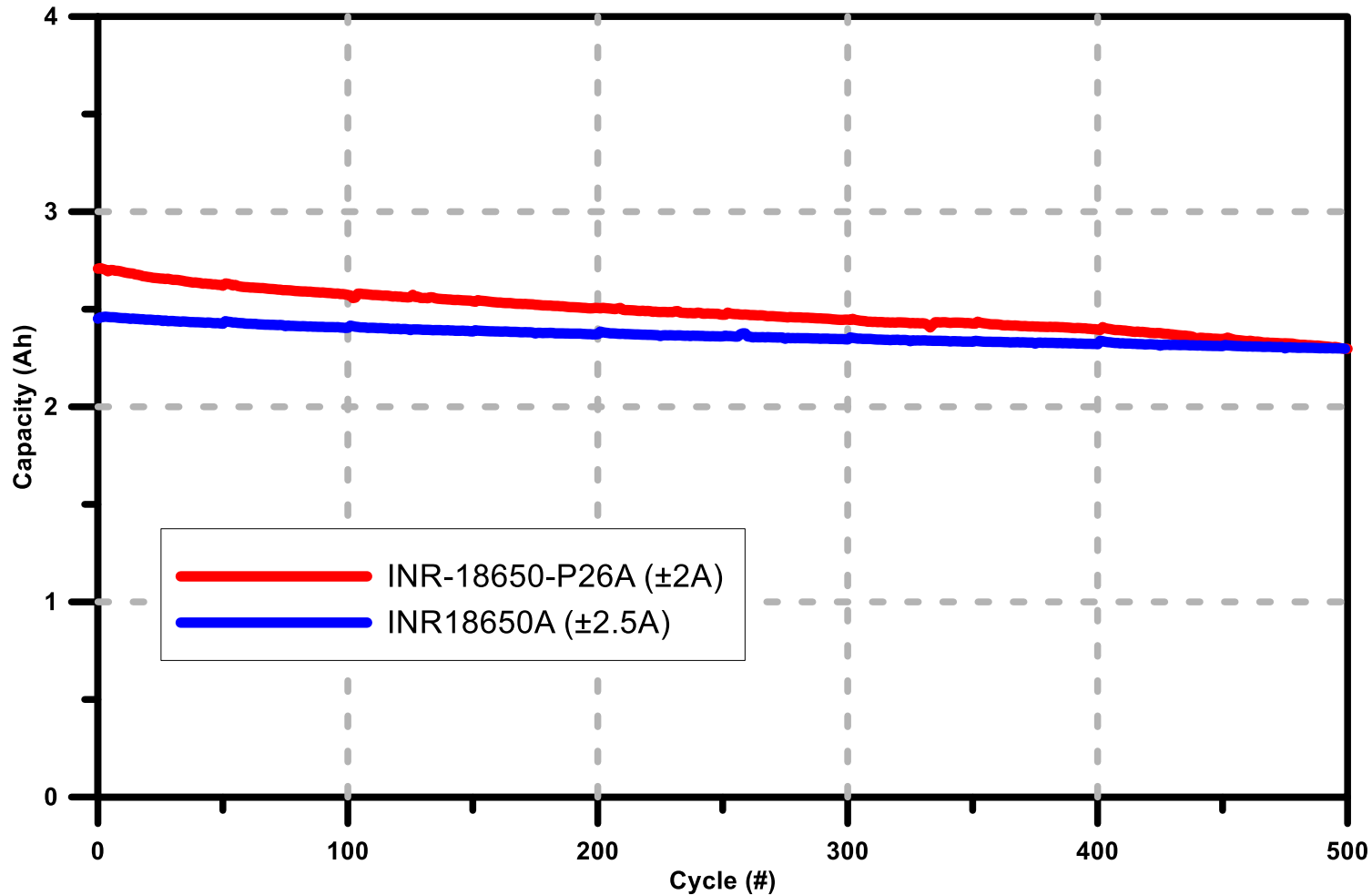
❖ Typical values shown.



Comparative Data

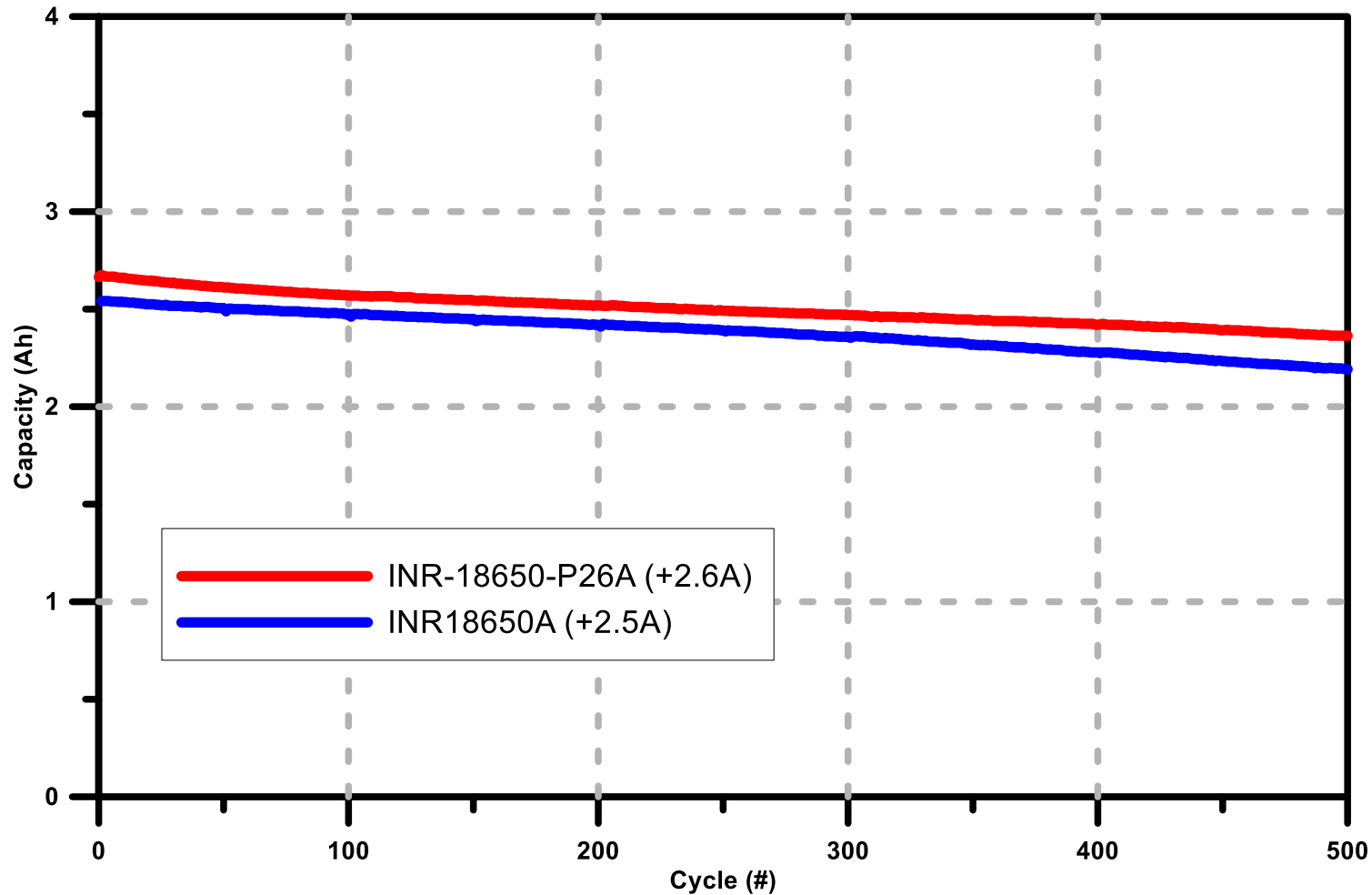


23°C, 2A Cycling Life Comparison



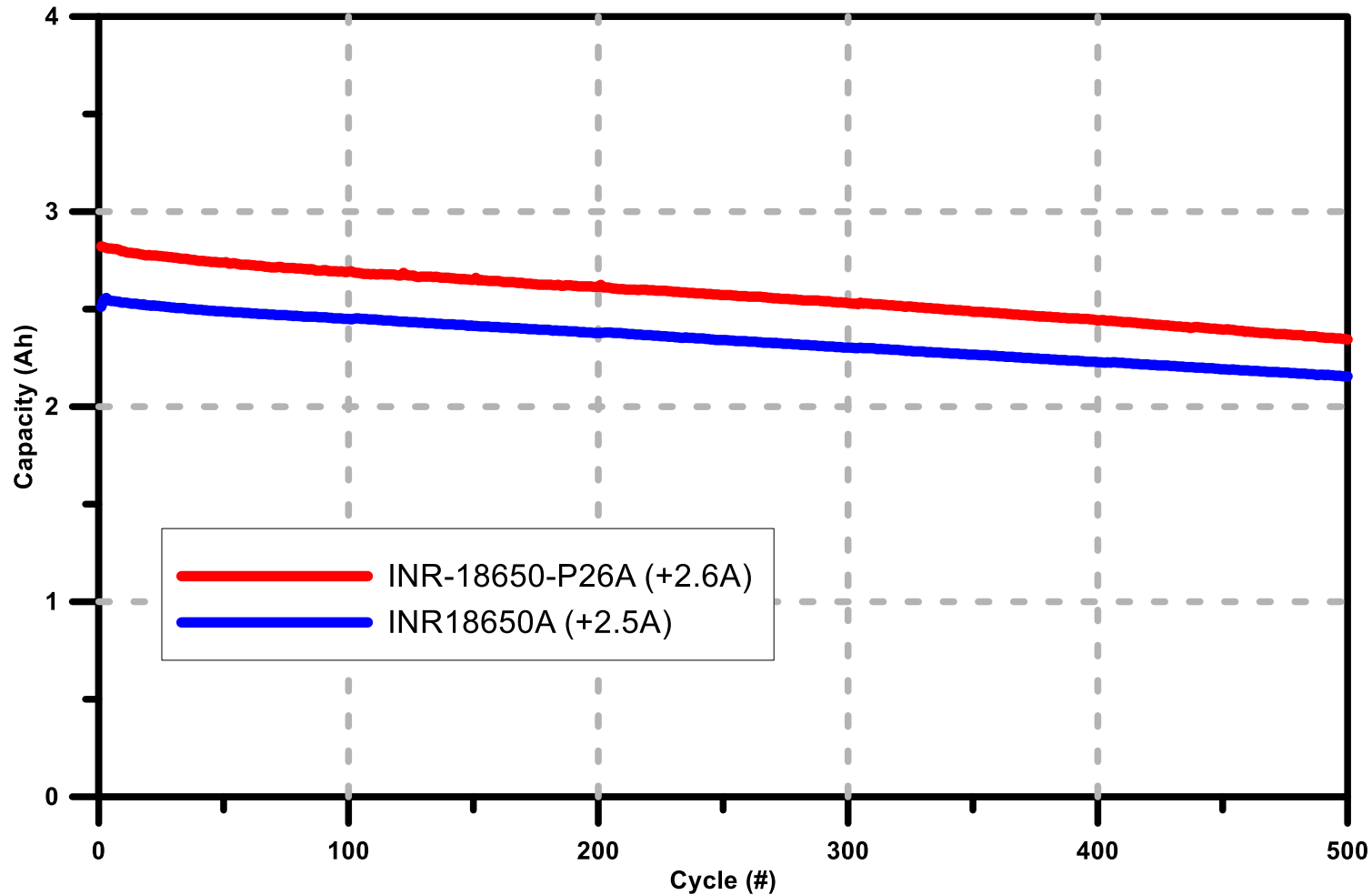
- ❖ Charge: CCCV 2A or 2.5A to 4.2V (50mA current taper)
- ❖ Discharge: Constant Current 2A or 2.5A to 2.5V
- Ambient Temperature: 23°C

23 °C, 10A Discharge Cycling Comparison



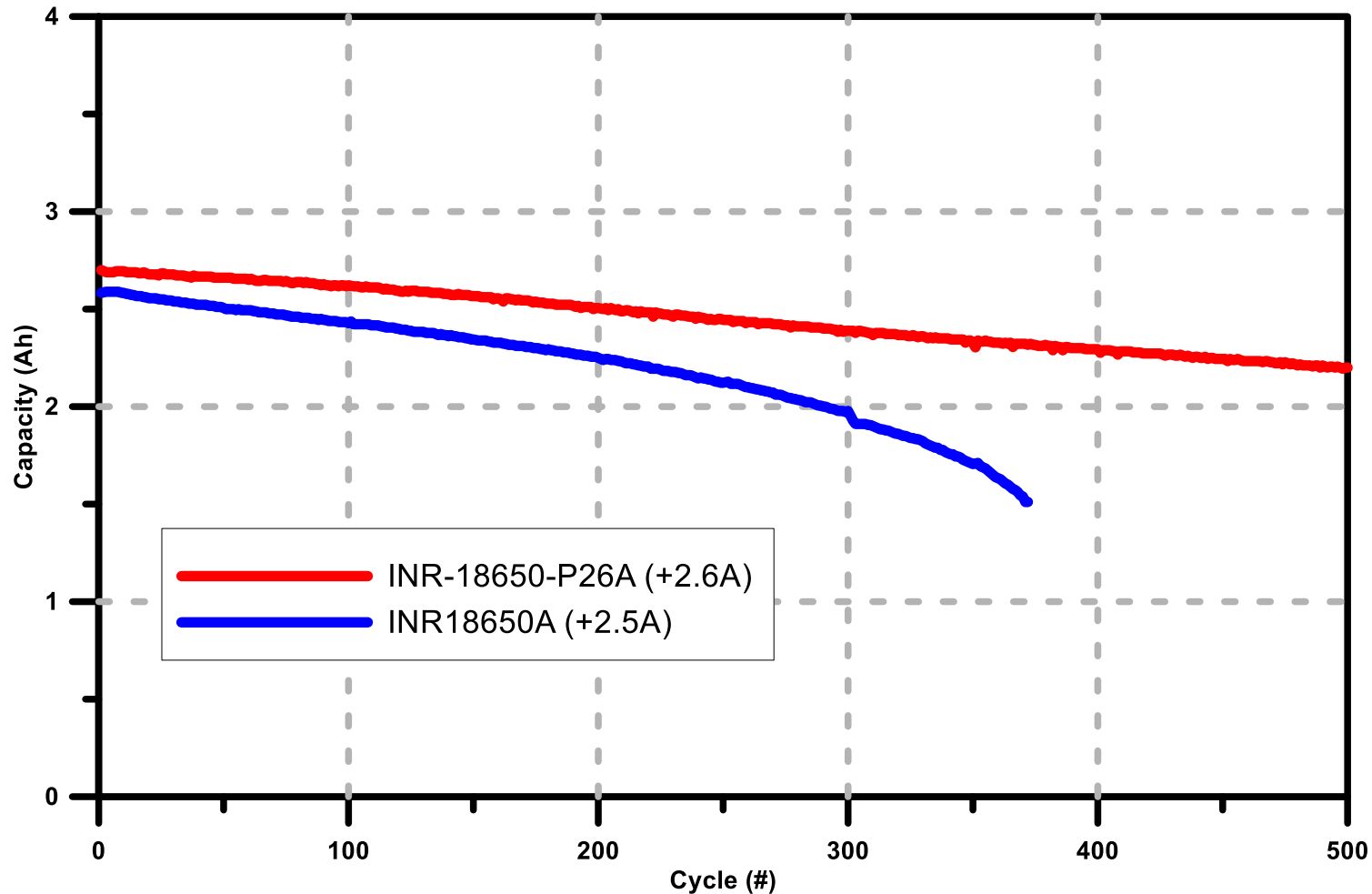
- ❖ Charge: CCCV 1C to 4.2V (50mA current taper)
 - ❖ Discharge: Constant Current at 10A to 2.5V (2.0V for INR18650A)
- Ambient Temperature: 23 °C

45°C, 10A Discharge Cycling Comparison



- ❖ Charge: CCCV 1C to 4.2V (50mA current taper)
 - ❖ Discharge: Constant Current at 10A to 2.5V (2.0V for INR18650A)
- Ambient Temperature: 45°C

23 °C, 20A Discharge Cycling Comparison



- ❖ Charge: CCCV 1C to 4.2V (50mA current taper)
 - ❖ Discharge: Constant Current at 20A to 2.5V (2.0V for INR18650A)
- Ambient Temperature: 23 °C



Thank you for your attention

