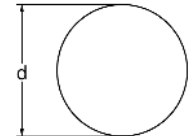


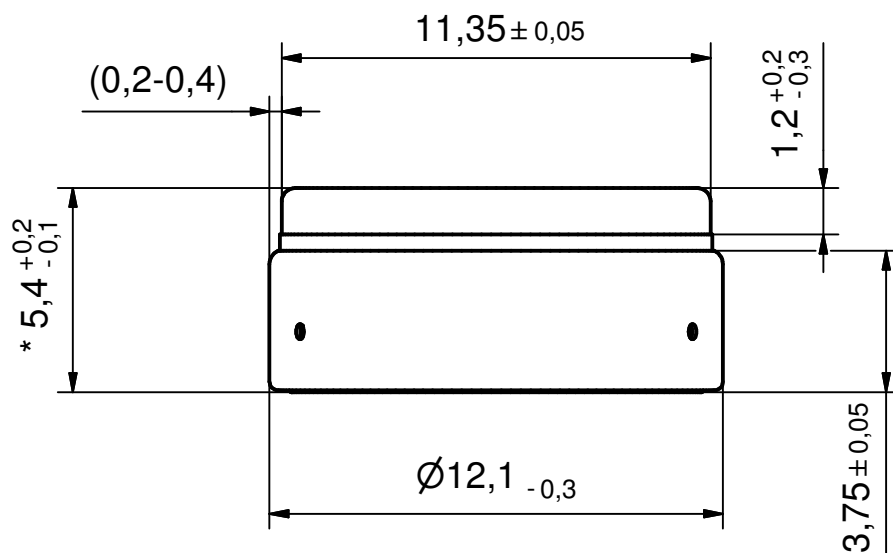
Data Sheet – CP 1254 A3 (CoinPower®)¹

	Type Designation	CP 1254 A3
	Type Number	63125
	Cell Code	ICR1254
	System	Graphite – layered metal oxide ($\text{LiNi}_x\text{Mn}_y\text{Co}_z\text{O}_2$) MH13654
	UL Recognition	
	Nominal Voltage [V]	3.7 (average)
	Typical Capacity C [mAh]	63 (at 0.2C from 4.2 V to 3.0 V at 20 °C)
	Nominal Capacity C [mAh]	60 (at 0.2C from 4.2 V to 3.0 V at 20 °C)
	Dimensions [mm] (without Tags)	
	Diameter	12.1 +0.0/-0.3
	Height	5.4 +0.2/-0.1
	Weight. approx [g]	1.6 +0.2/-0.2
	Charging Method	Constant Current + Constant Voltage
	Charge Voltage [V]	4.20 ± 0.05
	Initial Charge Current [mA]	Standard Charge: 30
	Charging Cut-Off (a) or (b)	
a) by time [h]		Standard Charge: 5
b) by min current [mA]		1.2
Discharge Cut-Off Voltage [V]		3.0
Max. Pulse Discharge Current [mA]		180 @ 2s
Max. Continuous Discharge Current [mA]		120
Operating Temperature [°C]		Charge: 0 to 45 Discharge: -20 to 60
Storage Temperature		1 Year at -20 to 20 °C > 90
Capacity Recovery Rate ² [%]		3 Month at -20 to 45 °C > 90 1 Month at -20 to 60 °C > 85
Impedance Initial [Ω]		< 0.5 @ 1kHz
Cycle Life 0.5C/0.5C, 20 °C ³ [Cycles]		>500 (> 80% of C _{ini})
Safety		UN 38.3 passed UL 1642 passed IEC 62133 relevant tests passed
Internal Approval		
Overcharge Test (12V, 1.5C, 12h)		passed
Overcharge Test (5V, 1A, 12h)		passed

¹ Recommendations regarding Charging/Discharging and Safety (cf. Handling Precautions/Advanced Product Information) have to be accepted. Cell must not be used without external safety electronics (PCM – Protection Circuit Module)! The CoinPower cell may exclusively be used for the intended purpose. For medical applications please contact VARTA Microbattery. This product is protected by at least one of the following patents: US 6265100 B1, US 6066184 A, US 9178251 B2, US 9231281 B2, US 8586232 B2, US 9153835 B2, CN 102318122 B, CN 102804473 B, EP 2628203 B1, EP 2443691 B1, EP 2415101 B1, EP 2394324 B1, JP 5767115 B2, DE 19647593 B4.

² After storage at initial cell voltage of 3.6 to 3.7 V / cell

³ typical values



(3 : 1)

(1 : 1)



Note: 1) * Dimensions for reference only

2) * Max. 7 including cell deflection

3) Cell deflection space of 1,5mm is needed in case of abuse conditions
Please contact VARTA for more details

4) BATTERY VALIDATION INCLUDING SAFETY ELECTRONICS MUST
BE DONE BY CUSTOMER ACCORDING UL1642

Freigabe

01		Gravur geändert: 220 mWh hinzugefügt		17.08.2016		mhewelt	
Index		Änderung / Alteration				Date	
Projection:		Freimaßtoleranzen Generaltolerances		Diese Maße werden besonders geprüft This dimensions are considered inspectable		Maßstab / Scale 5:1	
Maße in mm All dimensions in mm		up to 6 ± 0,1		Material		VKB 63125 101 521	
Als Betriebsgeheimnis anvertraut, alle Rechte vorbehalten.		over 6 up to 30 ± 0,2		Date		Benennung / Designation	
Proprietary data, company confidential, all rights reserved.		over 30 up to 100 ± 0,3		Erst./Orig. 24.06.2016 mhewelt		CP1254 A3	
		over 100 ± 0,5		Bearb./Desig. 17.08.2016 mhewelt			
				Gepr./Check.			
				Format 4		Zchnng. / Dwg.Nr. 717635	
Origin:				repl.f.:		repl.by:	
				Alloc.:		Status Index 4 01	

Performance Data

CoinPower A3-Version

CP1254

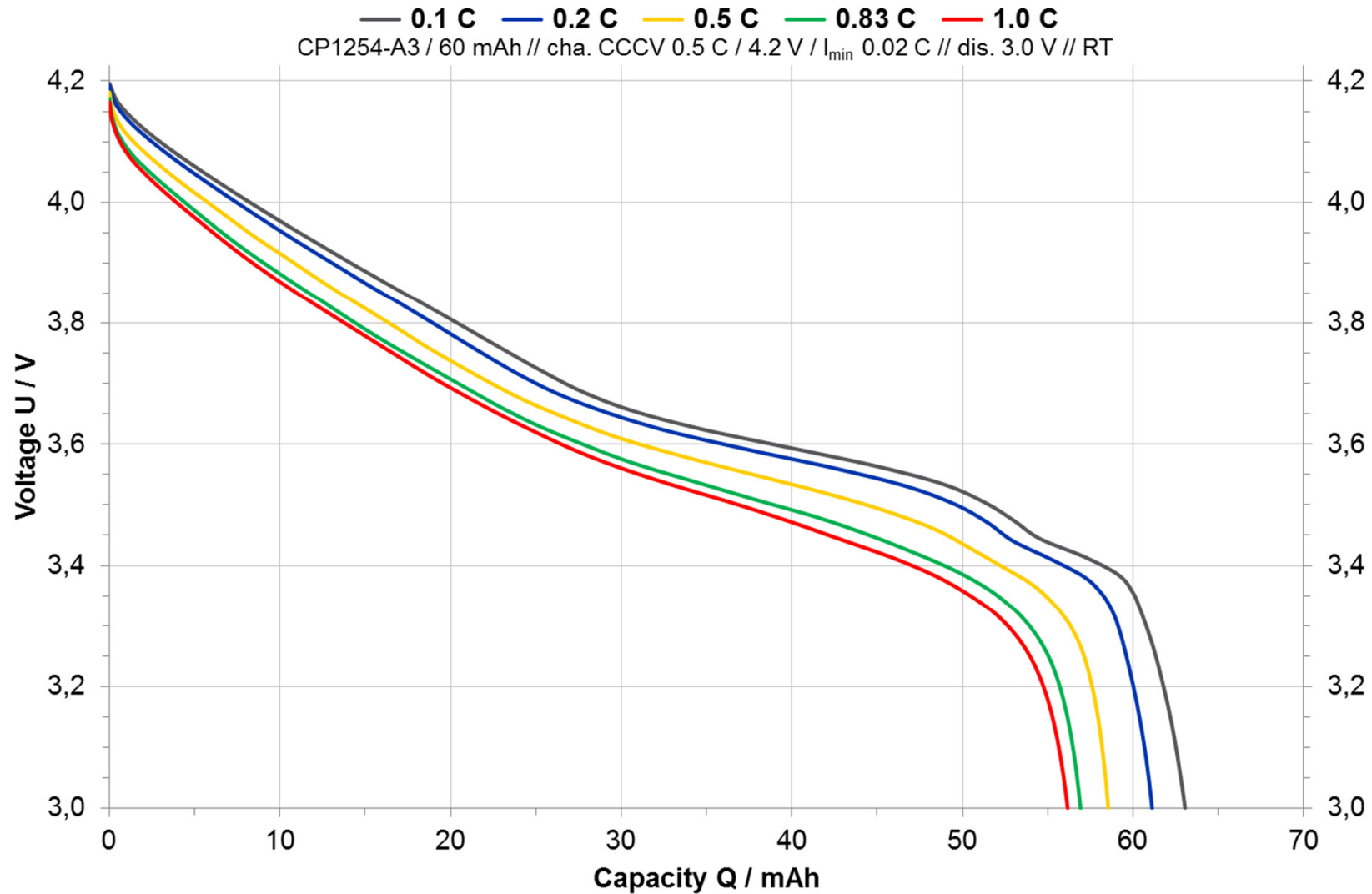
CP1454

CP1654

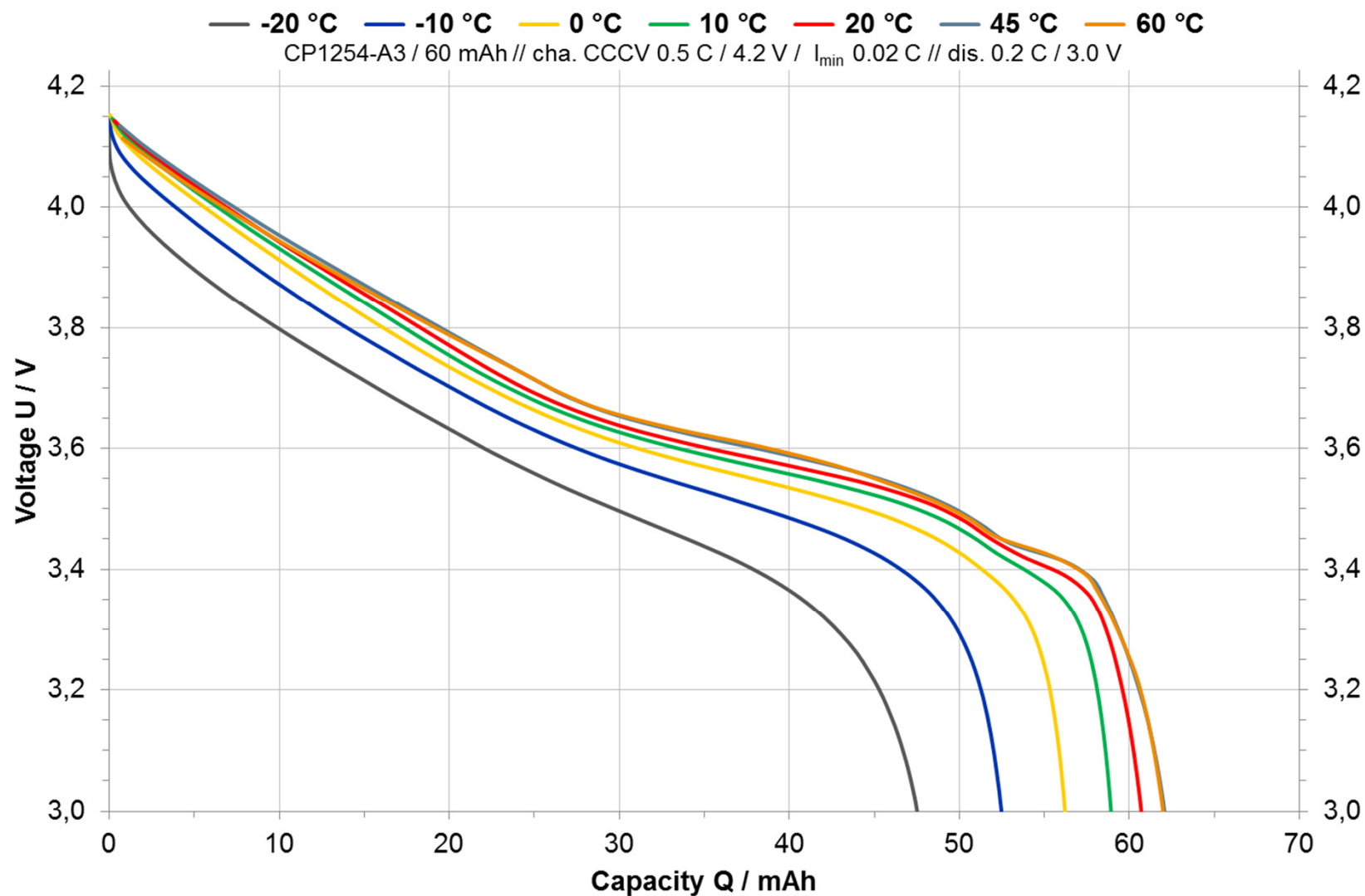
11th Oct 2016
Matthias Dorsch



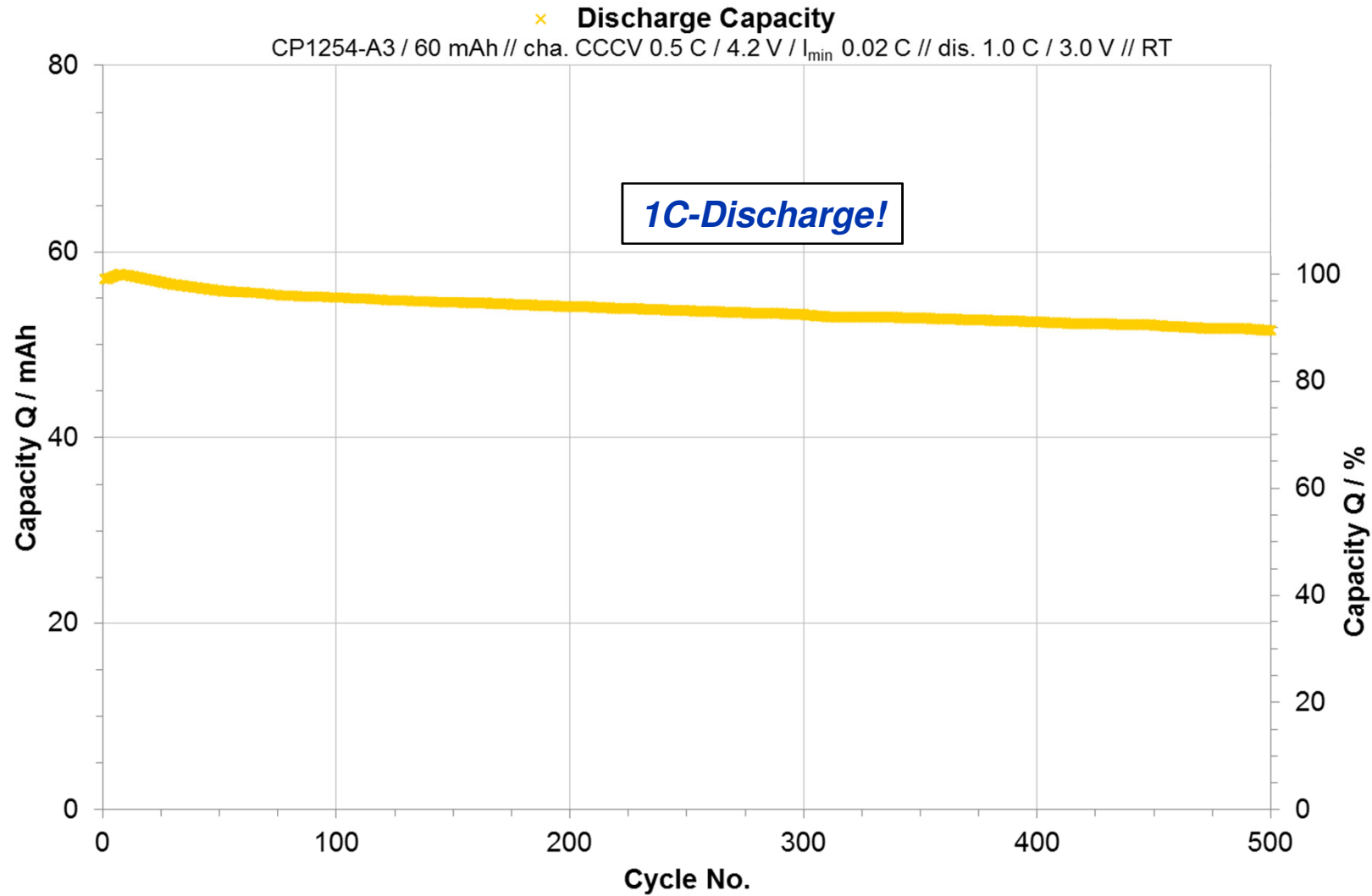
CP1254 A3 – Discharge Characteristic with different loads



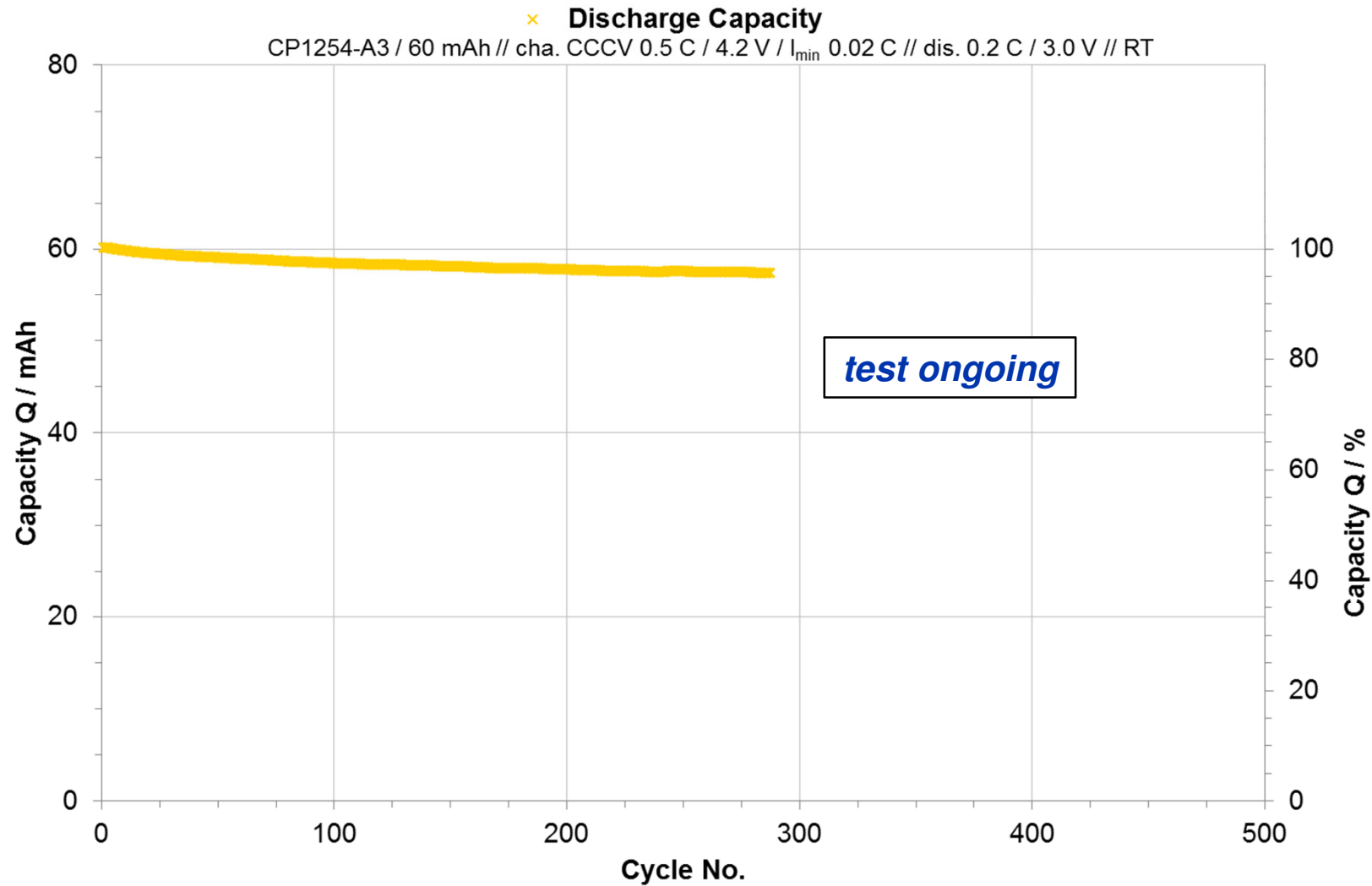
CP1254 A3 – Discharge Characteristic at various temperatures



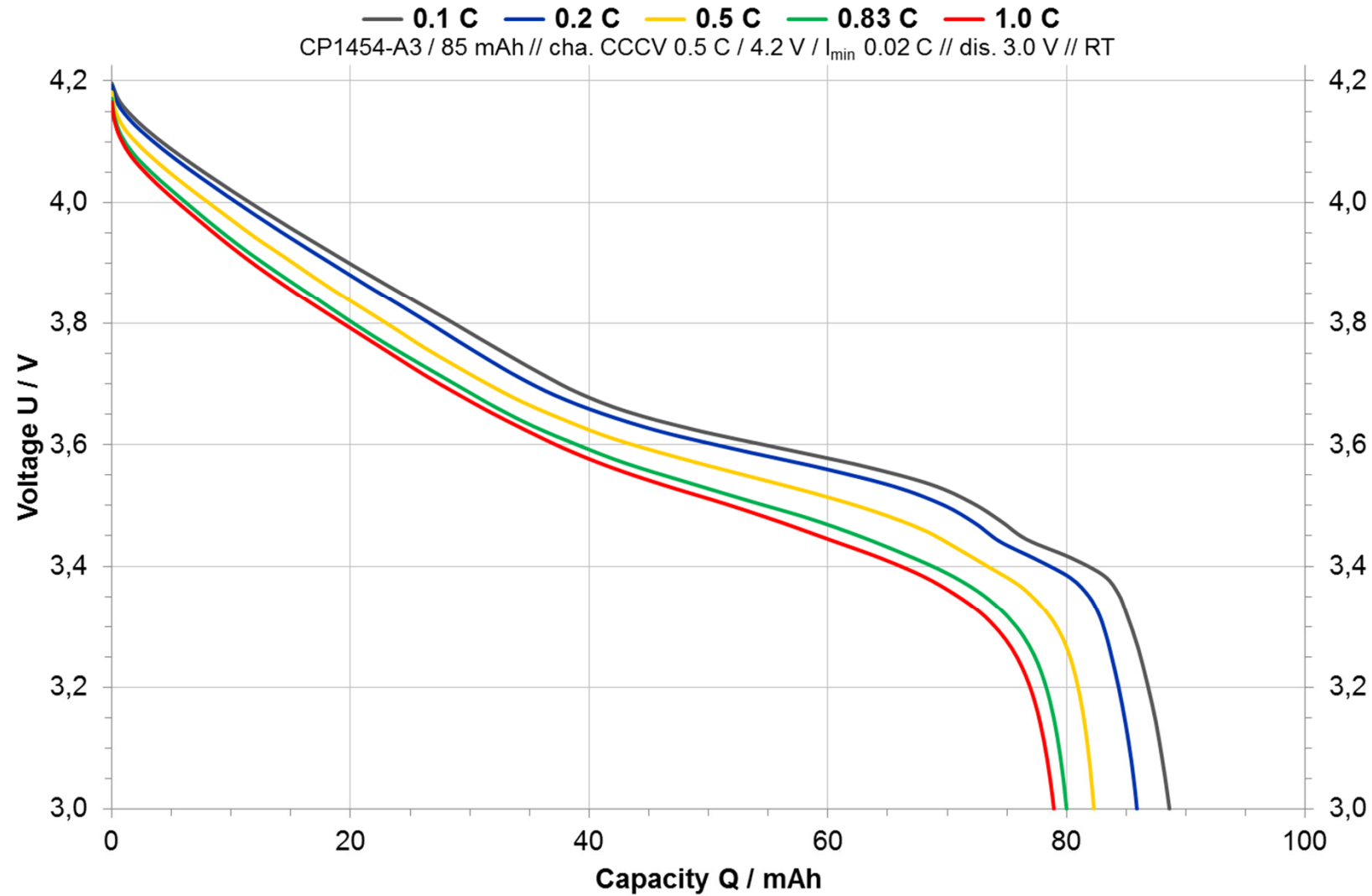
CP1254 A3 – Typical Cycle Characteristic – 0.5C/1C



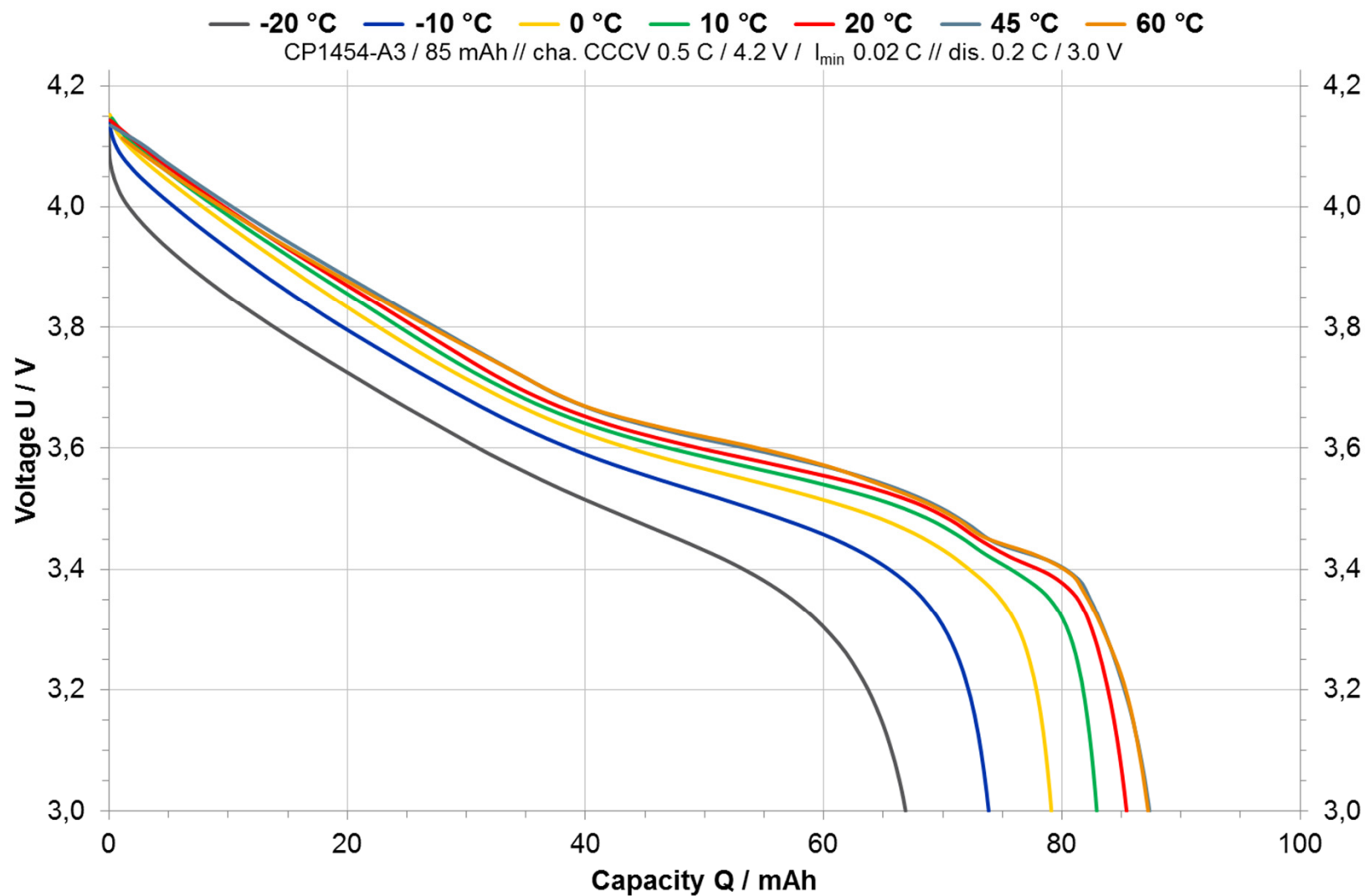
CP1254 A3 – Typical Cycle Characteristic – 0.5C/0.2C



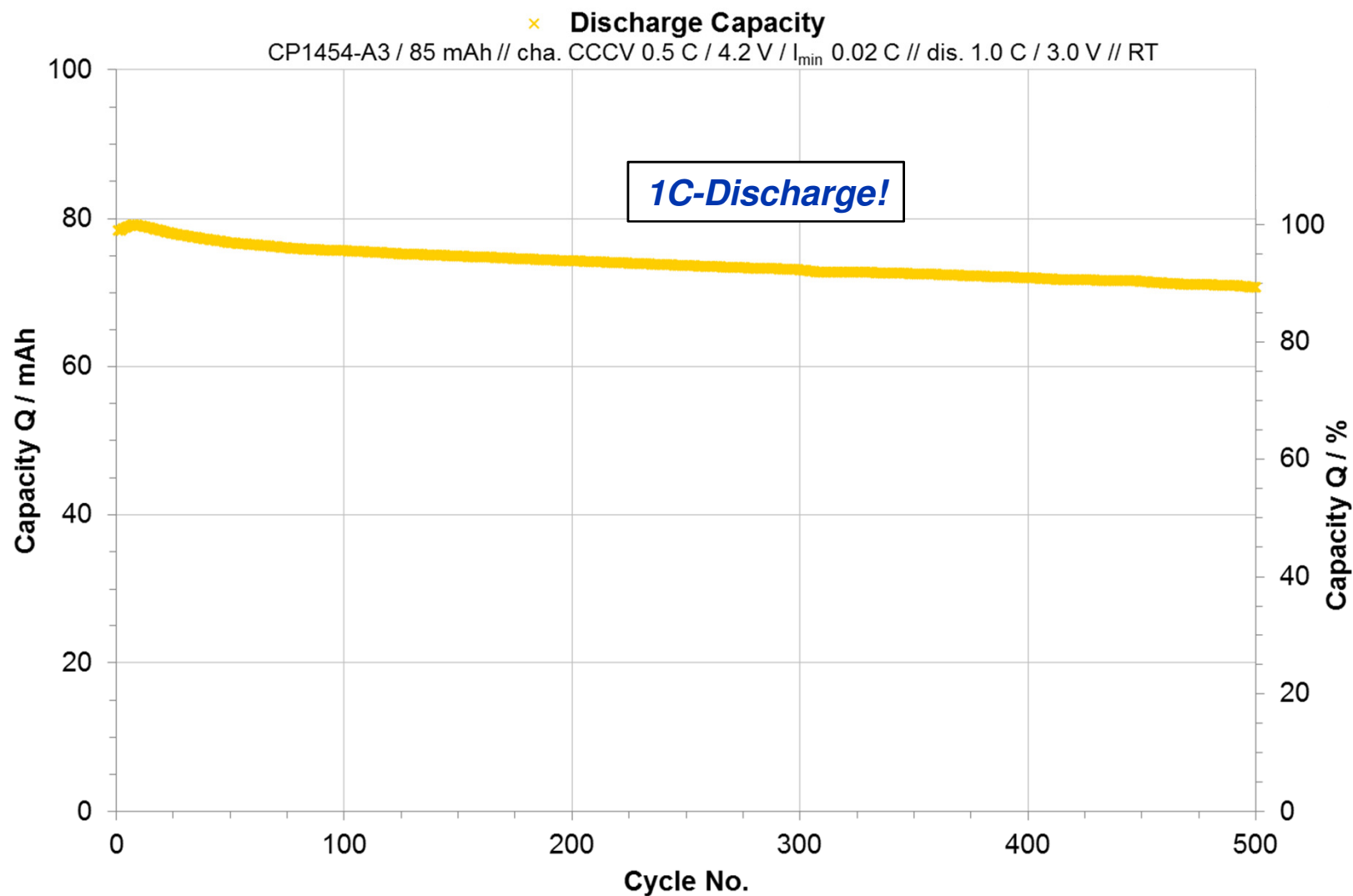
CP1454 A3 – Discharge Characteristic with different loads



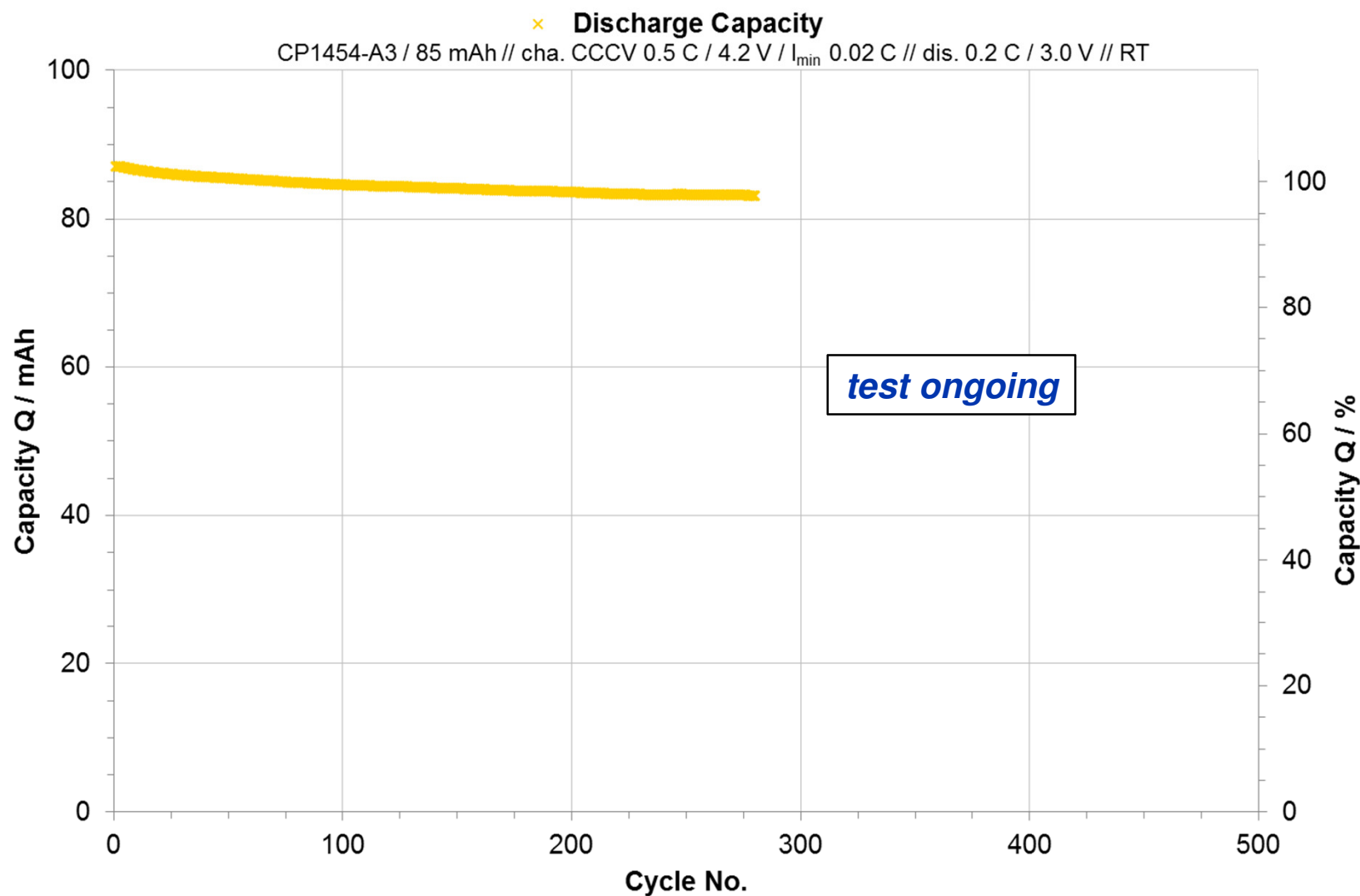
CP1454 A3 – Discharge Characteristic at various temperatures



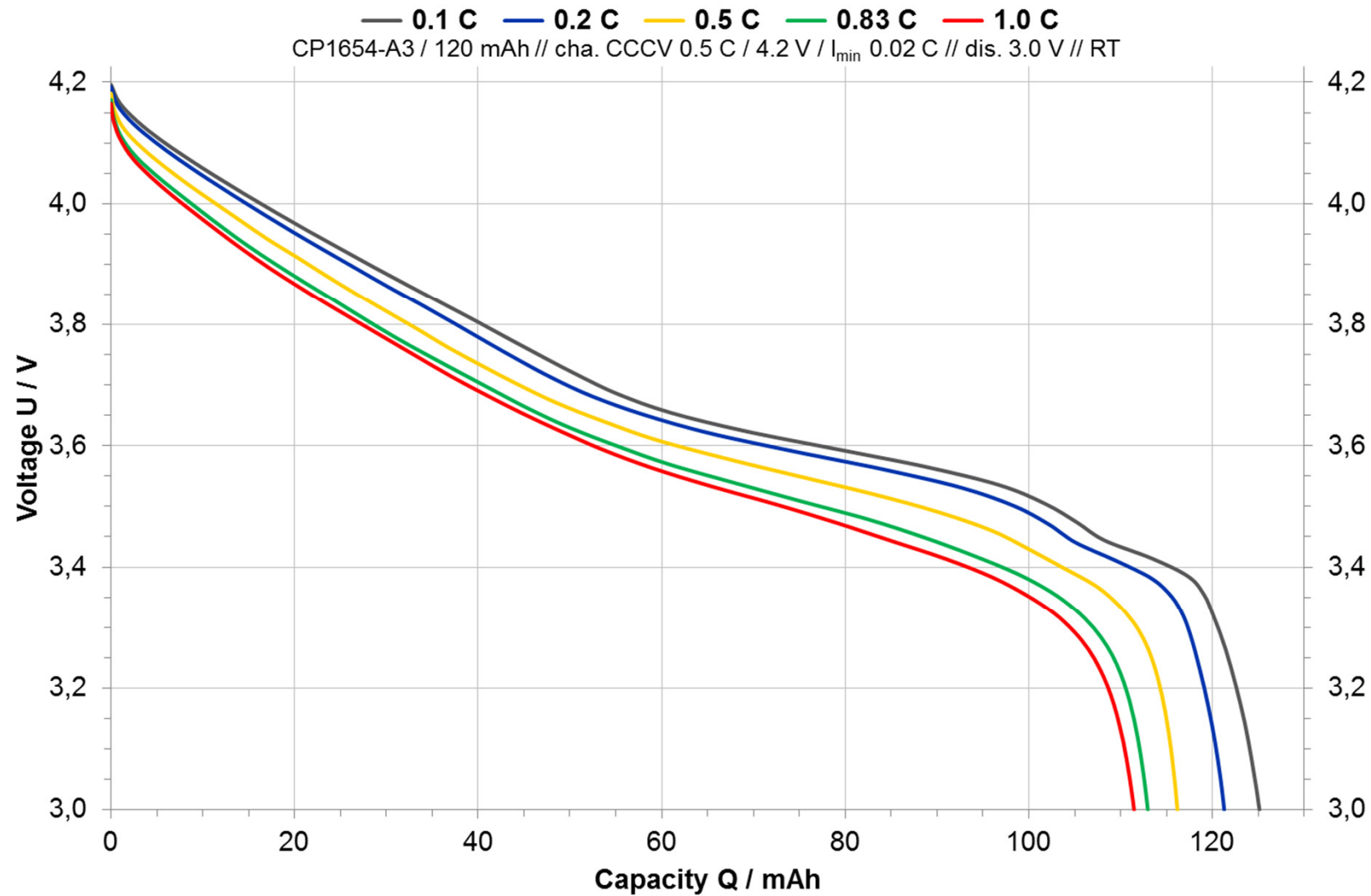
CP1454 A3 – Typical Cycle Characteristic – 0.5C/1C



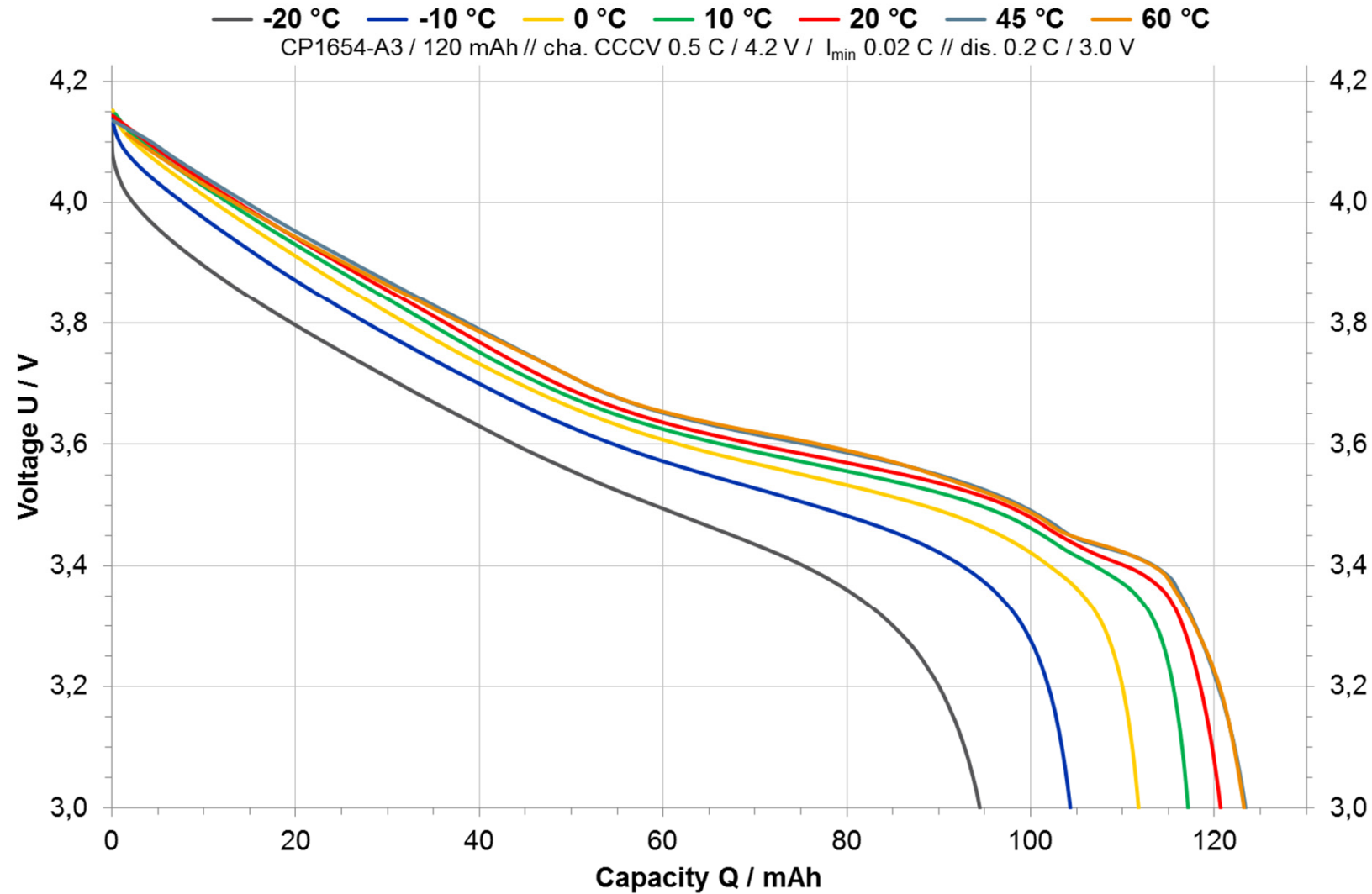
CP1454 A3 – Typical Cycle Characteristic – 0.5C/0.2C



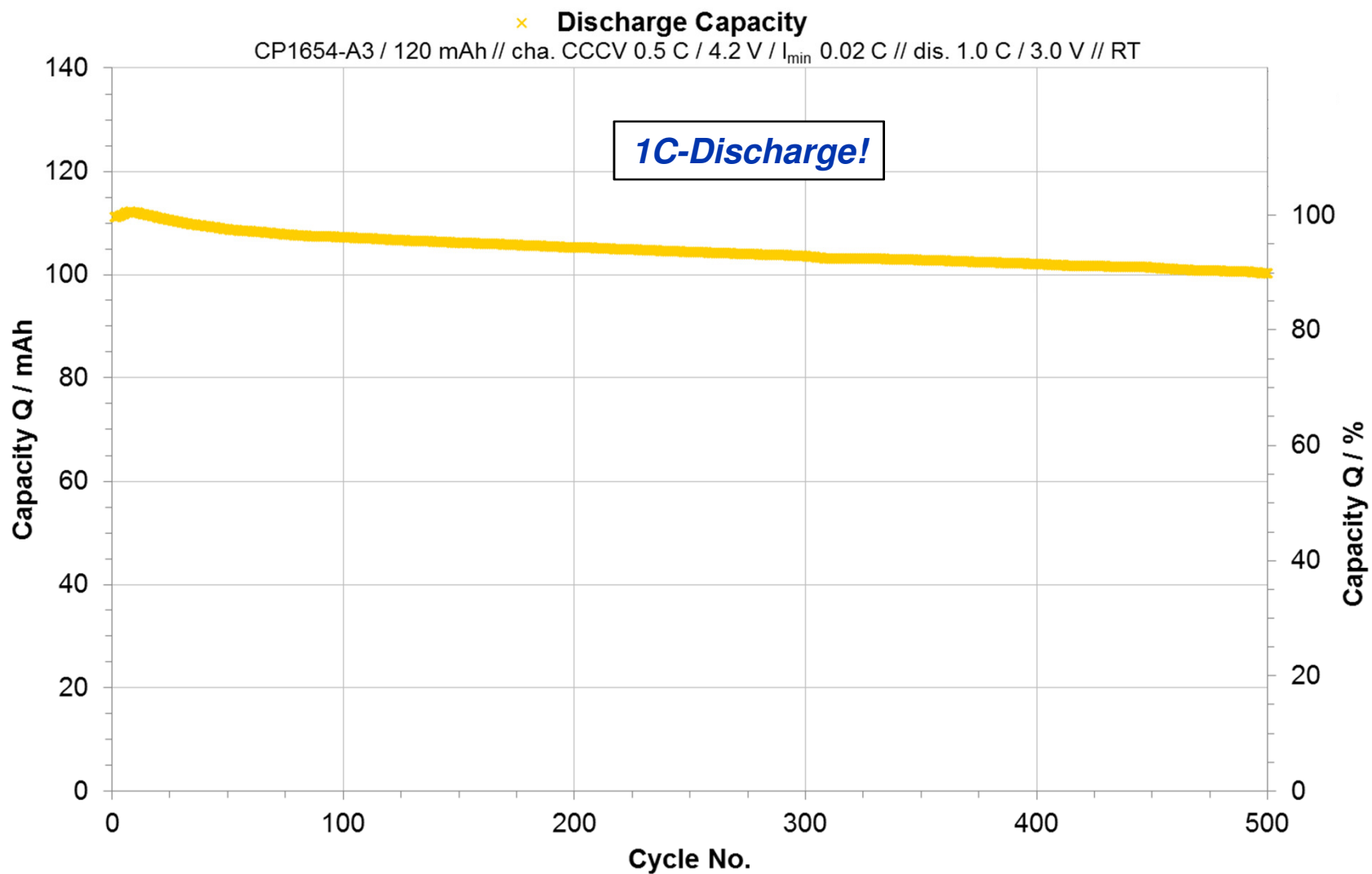
CP1654 A3 – Discharge Characteristic with different loads



CP1654 A3 – Discharge Characteristic at various temperatures



CP1654 A3 – Typical Cycle Characteristic – 0.5C/1C



CP1654 A3 – Typical Cycle Characteristic – 0.5C/0.2C

