
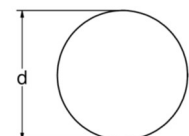




Preliminary Data Sheet – CP1454 A4X (CoinPower®)¹

	Type Designation	CP1454 A4X
	Type Number	63145
	VKB Number	63145 301 551
	Cell Code	INR1454
	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 [mAh]	111 (at 0.1C from 4.3 V to 3.0 V at RT)
	Nominal Capacity [mAh]	108 (at 0.2C from 4.3 V to 3.0 V at RT)
	Rated Capacity C [mAh]	105 (at 0.2C from 4.3 V to 3.0 V at RT)
	Dimensions [mm] (without Tags)	
	Diameter	14.1 +0.0/-0.3
	Height	5.4 +0.2/-0.1
	Weight. approx [g]	2.4 +0.2/-0.2
	Charging Method	Constant Current + Constant Voltage
	Charge Voltage [V]	4.30 ± 0.05
	Initial Charge Current [mA]	Standard Charge ² : 52.5 Fast Charge ² : 105 Rapid Charge ³ : 210
Charging Cut-Off (a) or (b)		
a) by time [h]		Standard Charge: 3.5 Fast/Rapid Charge: 2
b) by min current [mA]		2.2
Discharge Cut-Off Voltage [V]		3.0
Max. Pulse Discharge Current [mA]		330 @ 2s
Max. Continuous Discharge Current [mA]		220
Operating Temperature [°C]		Charge: 0 to 45 Discharge: -20 to 60
Cell Surface Temperature [°C]		60
Storage Temperature		1 Year at -20 to 20 °C > 90
Capacity Recovery Rate⁴ [%]		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 °C⁵ [Cycles]		>500 (> 80% of C _{ini})
Safety		UN 38.3 passed relevant tests acc. IEC 62133 passed
Internal Approval		passed
Overcharge Test (4.8V, 3C, 12h)		

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 patents, please see: www.varta-ag.com/patents

² "CoinPower A4-Version Charging Document" must be observed.

³ "CoinPower A4-Version Charging Document" must be observed. Max. charging voltage: 4.05V ± 0.05V; min. charging temperature: 20°C

⁴ After storage at initial cell voltage of 3.6 to 3.7 V / cell

⁵ typical values