

## **Data Sheet** CoinPower® CP 9440 A3

## Data Sheet - CP 9440 A3 (CoinPower®)1

**Type Designation** CP 9440 A3 Type Number 63094 **Cell Code** ICR9440

System Graphite - layered metal oxide

 $(LiNi_xMn_vCo_zO_2)$ 

**UL Recognition** MH13654

Nominal Voltage [V] 3.7 (average)

Typical Capacity C [mAh] 25 (at 0.2C from 4.2 V to 3.0 V at 20 °C)



Dimensions [mm] (without Tags)

Diameter 9.4 + 0.1 / - 0.1Height 4.0 + 0.1 / - 0.1

Weight. approx [g] 8.0



**Charging Method** Constant Current + Constant Voltage

Charge Voltage [V]  $4.20 \pm 0.05$ 

Initial Charge Current [mA] Standard Charge: 12.5

Fast Charge<sup>2</sup>: 25

Charging Cut-Off (a) or (b) Standard Charge: 5 Fast Charge: a) by time [h]

b) by min current [mA] 0.5 Discharge Cut-Off Voltage [V] 3.0

Max. Pulse Discharge Current [mA] 50 @ 2s

Max. Continuous Discharge Current [mA] 25

Operating Temperature [°C] Charge: 0 to 45

> Discharge: -20 to 60

1 Month at -20 to 60 °C > 85

at -20 to 20 °C > 90 Storage Temperature 1 Year Capacity Recovery Rate<sup>3</sup> [%] 3 Month at -20 to  $45 \,^{\circ}\text{C} > 90$ 

Impedance Initial  $[\Omega]$ < 0.7 @ 1kHz

Cycle Life 0.5C/0.2C, 20 °C<sup>4</sup> [Cycles] >500 (> 85% of C<sub>ini</sub>)

Safety UN 38.3 passed

relevant tests acc. IEC 62133 passed

Date of Issue: 2018-10-17

Subject to change without prior notice!

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 6066184 A, US 9178251 B2, US 9231281 B2, US 9586232 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 Min. charging temperature: 15°C.

 $<sup>^{3}</sup>$  After storage at initial cell voltage of 3.6 to 3.7 V / cell  $^{4}$  typical values