

cell chemistry: Li-Ion (LiFePO₄)
cell size: AA (14500)
cell type: round cell

Conditions

nominal voltage: 3.2 V

capacity

nominal: 500 mAh discharge at 0.2C
 minimum: 450 mAh discharge at 0.2C
 400 mAh discharge at 1C
 ta: 20°C; EV(Discharge End Voltage): 2.75V

discharge

max. continuous discharge current: 250 mA ta: 0...45°C

max. pulse discharge current: 500 mA 10sec

important: avoid cell temperature above 60°C

discharge end voltage: ≥ 2.0 V (recommended)

external charge (at +/- poles)

charging method: CC - CV (Constant Current - Constant Voltage)

charge current: 100 mA at standard charge (0.2C)

max. charge current: 250 mA at fast charge (0.5C)

charge end voltage: 3.65 V ± 50mV

charge cut off

by time: 6 h at standard charge
 1.5...2.0 h at fast charge

by current drop: 25 mA end current - cut off

internal resistance: ≤ 120 mΩ at 1kHz, sine wave measurement according to IEC 896-2

energy: 1.6 Wh

protection functions

overcharge cut off voltage: 3.7 V ± 0.05V

deep disch.cut off voltage: 2.1 V ± 0.1V

overload cut off current: 4.0 A ± 0.5A

life time expectance

(C>70% of min. capacity) ≥ 1000 cycles at 0.2C charge/discharge rate

self discharge: ≤ 2 %/month at 20°C
 ≤ 5 %/month at 30°C
 ≤ 10 %/month at 40°C

ambient temperature range:

0...45 °C charge
 - 20...60 °C discharge
 0...30 °C storage max. 1 year
 - 20...35 °C storage max. 3 months

recommended SOC: 30...50 % for long-time storage
 (SOC = state of charge)

mechanical specifications

cell dimensions (incl. sleeve)

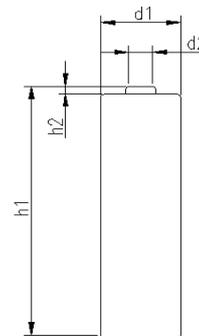
diameter d1: 14.3 - 0.5 mm

diameter d2: 5.0 - 1 mm

height h1: 50.3 - 1 mm

height h2: 1.5 ± 0.5 mm

weight: 18 ± 2 g



	ANSMANN Specifications for model:	Protected 14500 Li-Ion Battery 3.2V 500mAh
	data sheet no. / part no.	1300-0021
	s.n.	704507
	author / date	TG / 18.03.2024