

High energy lithium-ion cell

VL 45 E cell

Saft VL E cell is highly suited to any charge/discharge cycling application that demands a battery with drastically reduced weight and volume. This cell is proposed in Saft modules or customized battery system constructions.

Saft's Battery system :

Individual lithium-ion cells need to be mechanically and electrically integrated into battery systems to operate properly. The battery system include electronic devices for performance, thermal and safety management specific to each application.

Features

- Very high specific energy
- Maintenance free
- Excellent cycle and calendar life

Applications

- Electric and hybrid vehicles
- Telecommunication networks
- Stationary
- Space and Defence
- Any application requiring high energy storage capability

Technology

- Graphite-based anode
- Nickel oxide-based cathode
- Electrolyte: blend of carbonate solvents + LiPF₆

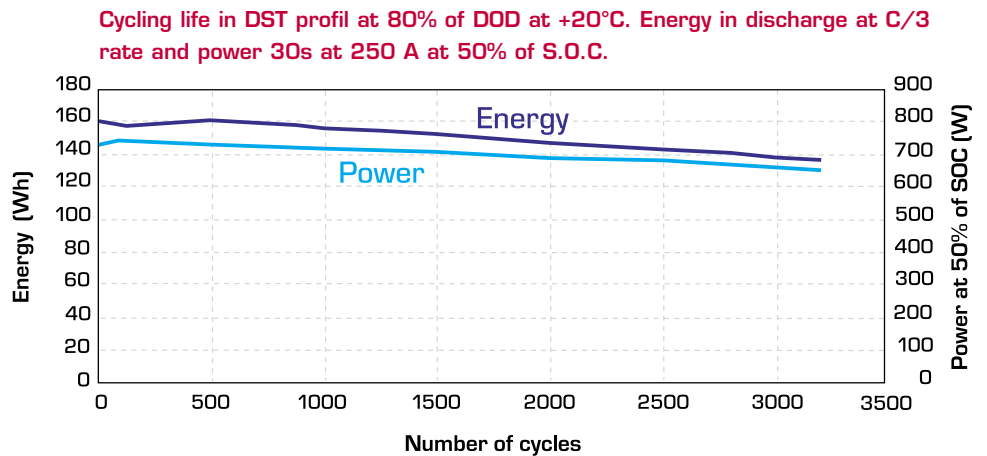
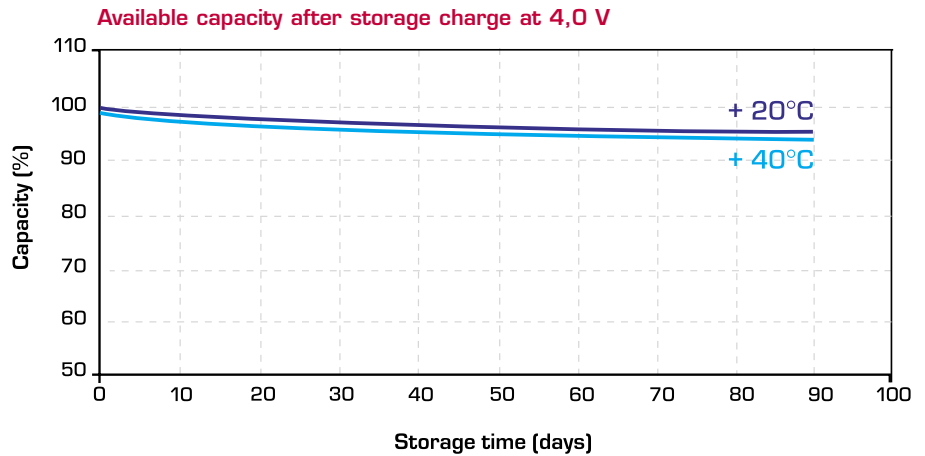
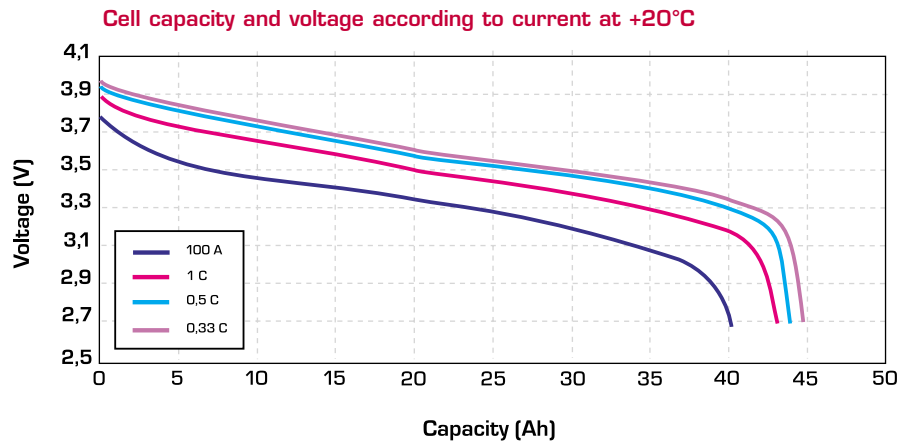


VL 45 E	
Electrical characteristics	
Nominal voltage (V)	3.6
Average capacity C/3 after charge to 4.0 V/cell (Ah)	45
Minimum capacity C/3 after charge to 4.0 V/cell (Ah)	42
Specific energy after charge to 4.0 V/cell (Wh/kg)	149
Energy density after charge to 4.0 V/cell (Wh/dm ³)	313
Specific power (30s peak/50% DOD) (W/kg)	664
Power density (30s peak/50% DOD) (W/dm ³)	1392
Mechanical characteristics	
Diameter (mm)	54.3
Height (mm)	222
Typical weight (kg)	1.07
Volume (dm ³)	0.51
Voltage limits	
Charge (V)	4.0 (4.1 for peak)
Discharge (V)	2.7 (2.3 for peak)
Current limits	
Max continuous current (A)	100
Max peak current during 30 s (A)	250



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