

Xcelion® 6T-E

Rechargeable Li-ion battery system

SUPER LITHIUM-IRON PHOSPHATE 6T FORMAT BATTERY FOR HIGH ENERGY APPLICATIONS

One 24V Xcelion® 6T energy battery variant provides double the usable capacity of lead-acid batteries in the same footprint.

Saft's Xcelion® 6T-E is a 24V battery system that offers a drop-in replacement solution for legacy battery technology in military vehicles and other industrial applications.

This ruggedized battery uses Saft's proprietary Super-Phosphate® chemistry which is ideally suited for high performance applications requiring high levels of safety.



Benefits

- Significant weight savings and life cycle costs compared to lead-acid chemistries
- Maintenance free
- Drop-in replacement for current vehicle batteries
- Commercial off-the-shelf solution
- Communicates over J1939 CAN Bus protocol
- Compatible with MIL-STD-1275E power bus

Features

- Built-in self-balancing
- Fast charging under varying conditions*
- Self shut-down in unsafe conditions
- Internal battery management system

Applications

- Military ground vehicle power and energy
- Silent watch
- Applications requiring balance of power and energy

Electrical characteristics

Nominal capacity	82 Ah
Nominal voltage	26.4 V
Voltage at full state of charge	30.4 VDC
Voltage at zero state of charge	20.0 VDC
Energy	2.1 kWh
Cold cranking amps (CCA)	
at +25°C for 30 seconds	750 A
at -18°C for 30 seconds	600 A
at -30°C for 30 seconds	300 A

Maximum discharge current	
Continuous	120 A

Maximum charge current	
Continuous	120 A
Pulse (20 s)	250 A

Mechanical characteristics

Weight	20.7 kg
Height	230 mm
Width	256 mm
Length	269 mm

Operating conditions

Operating temperature	
Discharge	-40°C to +60°C
Charge*	

Storage and transportation temperature**	-46°C to +71°C
--	----------------

*For cold temperatures of -32°C and below, the battery can be commanded to self-heat to enable extreme cold temperature discharge. The battery will automatically engage the heaters during cold temperature charging to ensure maximum battery life.

**Sustained high temperature storage will reduce life.

Xcelion® 6T-E

Rechargeable Li-ion battery system

SUPERLITHIUM-IRON PHOSPHATE 6T FORMAT BATTERY FOR HIGH ENERGY APPLICATIONS

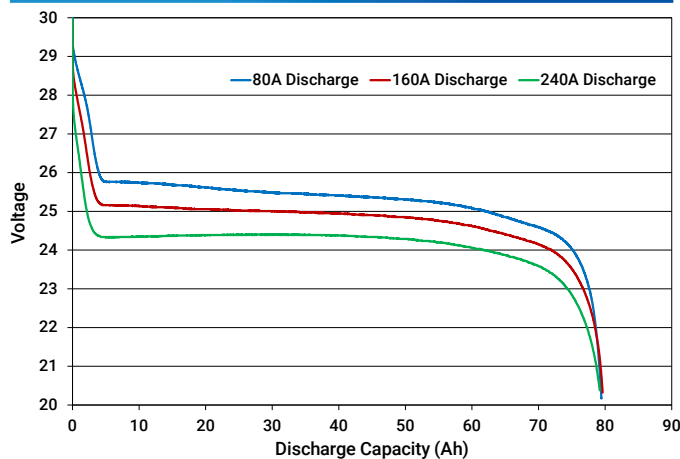
Top level system functions

- Graphical User Interface Tool allows detailed view of battery status
- Communication of battery state of charge, temperature, and other key parameters via J1939 CAN Bus
- Redundant overcharge protection
- Overload protection
- Short circuit protection
- Over-discharge protection
- Battery reserve protection (preserves energy for engine start)
- Battery monitoring
- Built-in-Test
- Cell heating (allows full battery capability over operating temperature)
- Continuous cell balancing

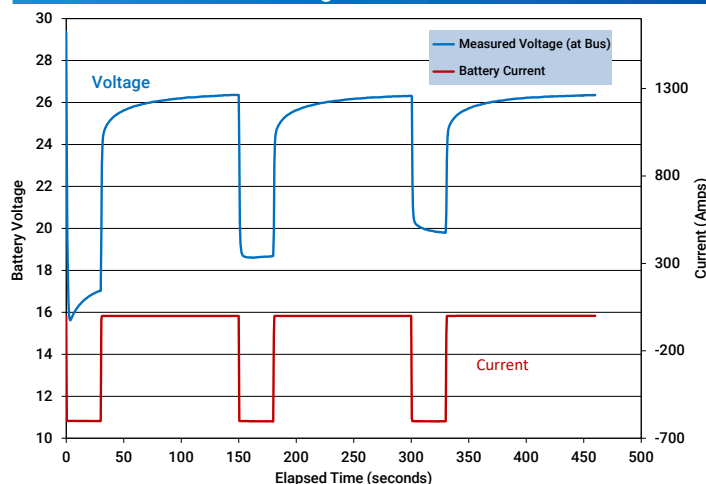
Safety heritage

- System design includes Saft's field proven electronic control architecture that includes overcharge protection, and over discharge, over temperature and overload protection.
- Cells equipped with hermetic seal and over pressure safety vent.
- Rechargeable Li-FePO4 cells ideally suited for applications requiring high discharge, continuous or pulse power, fast re-charge, long cycle and calendar life, and high levels of safety.

Xcelion® 6T-E rate capability



Xcelion® 6T-E 600 A cranking at -18°C



Saft

26 quai Charles Pasquai
92300 Levallois-Perret -
France
T. : +33 (0)1 58 63 16 00
F. : +33 (0)1 58 63 16 18

Saft Cockeysville

107 Beaver Ct.
Cockeysville, MD 21010
Tel: +1 410-771-3200
Fax: +1 410-771-1144
saftbatteries.com