

Xcelion[®] 6T Type 1-A75

Rechargeable Li-ion battery system

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

Saft P/N 230056
Designed to meet MIL-PRF 32565 Rev C

Saft's Xcelion 6T[®] 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

- Higher energy variant
- 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
- UN transport approved

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
- Starting, lights and ignition (SLI)
- 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 -18°C for 30 seconds	600 A
at -32°C for 30 seconds	300 A
at -40°C for 30 seconds	200 A
Maximum discharge current	
Continuous	400 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	-46°C to +71°C
Charge*	

*Battery manages charge energy to ensure maximum battery life. At low temperature, the battery will automatically engage built-in heaters for optimum charging.

**Sustained high temperature storage will reduce life.

Xcelion® 6T Type A-175

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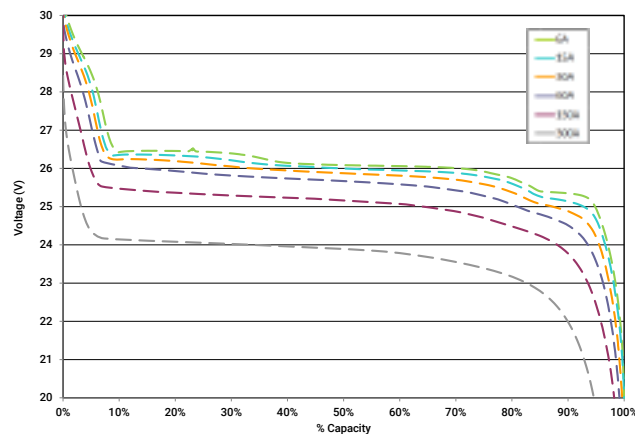
Top level system functions

- 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
- Battery monitoring
- Built-in-Test
- Cell heating (allows full battery capability over operating temperature)
- Continuous cell balancing

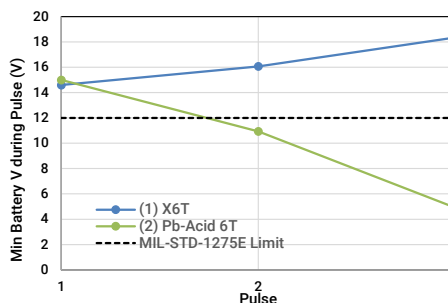
Safety heritage

- 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.
- Designed based upon proven Xcelion® 6T fielded worldwide since 2015.

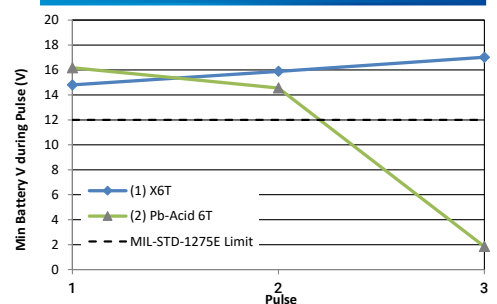
Xcelion® Type A-175 rate capability



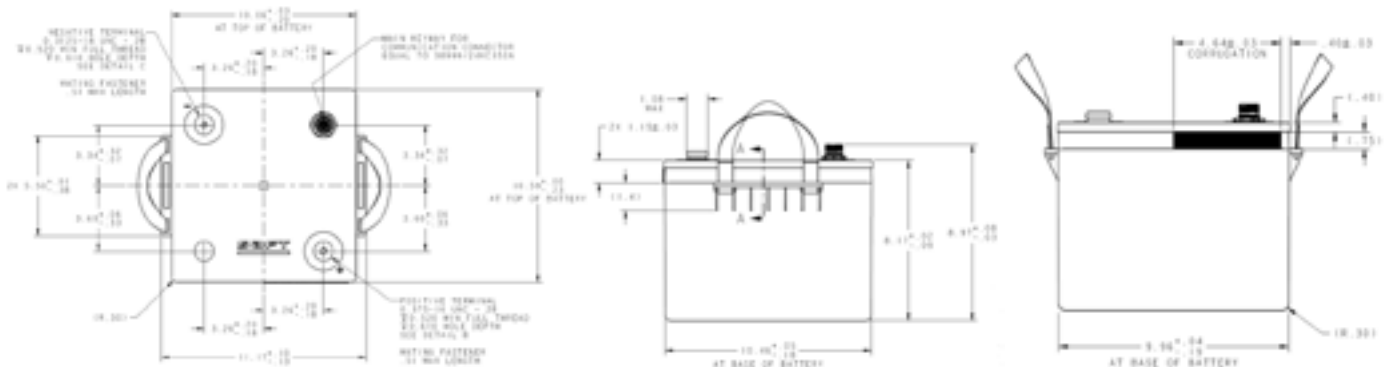
-40°C: 30s 400 Amp pulse



-18°C: 30s 1,100 Amp pulse



More stable performance across multiple start attempts compared to lead-acid batteries.



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Saft, a subsidiary of TotalEnergies SE
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