The Xcelion® 56V battery provides operating voltage from 40V-60V and is designed for 48V applications such as military microgrids, electric mobility and stationary power.

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 technology
- Maintenance free
- 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 microgrids
- Silent watch
- Electric mobility applications
- Applications requiring a balance of power and energy

Electrical characteristics
- Nominal capacity: 41 Ah
- Nominal voltage: 52.8 V
- Voltage at full state of charge: 60 VDC
- Voltage at zero state of charge: 40.0 VDC
- Energy: 2.16 kWh
- Maximum discharge current: Continuous 100 A
- Maximum charge current: Continuous 20 A

Mechanical characteristics
- Weight: 20.7 kg / 46 lb
- Height: 230 mm / 9.2 in
- Width: 256 mm / 10.1 in
- Length: 269 mm / 10.6 in

Operating Conditions
- Operating temperature: Discharge -30˚C to +60˚C
- Charge* -30˚C to +60˚C
- Storage and transportation temperature** -46˚C to +71˚C

*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.
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.