

# Xcelion<sup>®</sup> 56V-LEV

## Rechargeable Li-ion battery system

SUPER LITHIUM-IRON PHOSPHATE 6T LOW RATE ENERGY VARIANT

The Xcelion<sup>®</sup> 56V-LEV (low-rate energy variant) battery provides operating voltage from 40V-60V and is designed for repetitive cycling applications including defense, electric mobility, and UPS.

This ruggedized battery uses Saft's proprietary Super-Phosphate<sup>®</sup> 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
- Commercial off-the-shelf solution
- Communicates over J1939 CAN Bus protocol

### Features

- Built-in self-balancing
- Self shut-sown in unsafe conditions
- Resettable short circuit protection
- IPG5 ingress protection
- Internal battery management system

### Applications

- Defense
- Back-up power storage
- UPS
- Electric mobility

### Electrical characteristics

Nominal capacity	41 Ah
Nominal voltage	52.8 V
Voltage at full state of charge	60.8 VDC
Voltage at zero state of charge	40 VDC
Energy	2.16 kWh
Maximum discharge current Continuous	50 A
Maximum charge current recommended for continuous cycling	50 A 20 A

### Mechanical characteristics

Weight	21 kg
Height	249 mm
Width	120 mm
Length	460 mm

### Operating conditions

Operating temperature Discharge	-30°C to +60°C
Charge*	0°C to +60°C
Storage and transportation temperature**	-46°C to +71°C

\*Allowed charge current is derated down to 0°C. Charging is blocked for conditionals outside of the allowed operation.

\*\*Sustained high temperature storage will reduce life.

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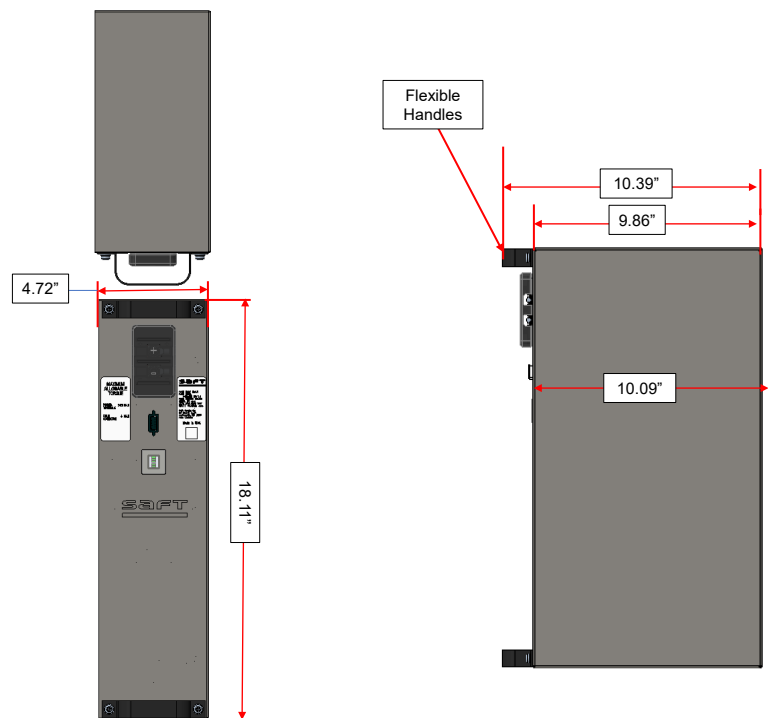
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### Top level system functions

- 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-FePO<sub>4</sub> 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.



- Power terminals: M6x8mm sockets
- Comms Port: DB9