

Xcelion® 56V-LEV

Rechargeable lithium-ion battery system

Super lithium-iron phosphate low-rate energy variant battery

The Xcelion® 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® 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

Features

- Built-in self-balancing
- Self shut-down in unsafe conditions
- Resettable short circuit protection
- IP65 ingress protection
- Internal battery management system

Applications

- Defense
- Back-up power storage
- UPS
- Electric mobility
- 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	60.8 VDC
Voltage at zero state of charge	40.0 VDC
Energy	2.16 kWh
Maximum discharge current (continuous)	50 A
Maximum charge current	50 A
Recommended for continuous cycling	20 A

Mechanical characteristics

Weight	21 kg	50 lb
Height	249 mm	9.8 in
Width	120 mm	4.72 in
Length	460 mm	18.11 in

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 conditions outside of the allowed operation.

** Sustained high temperature storage will reduce life.

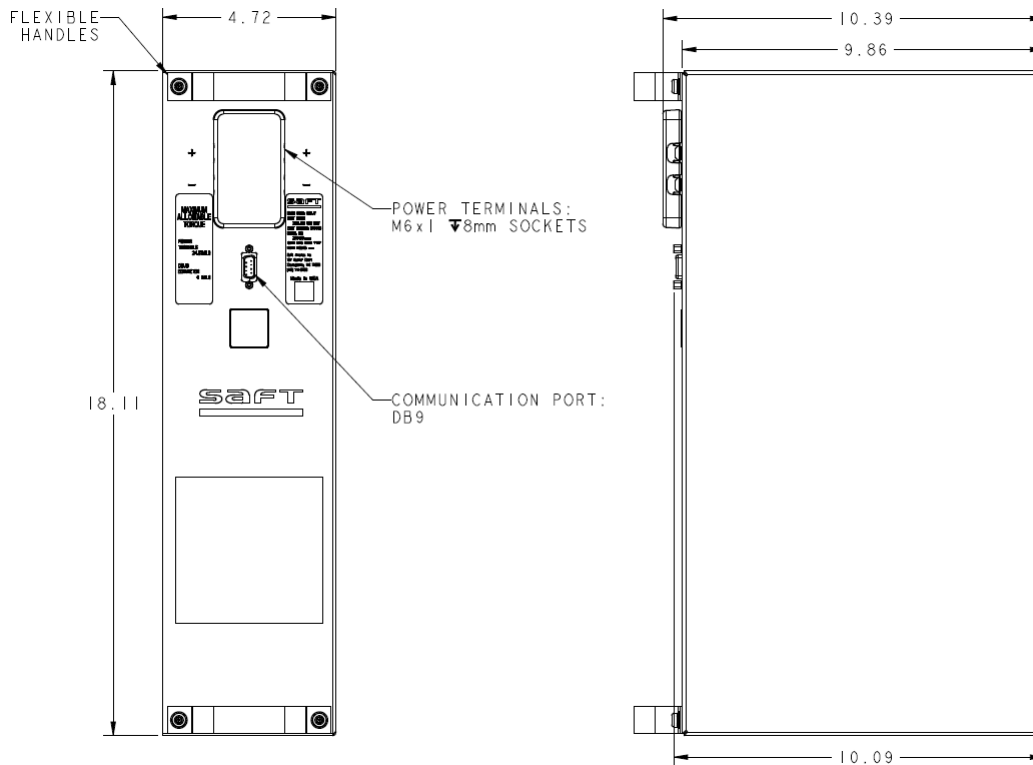
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Top-level system functions

- 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

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.



Saft America, Inc.

Space & Defense Division
107 Beaver Ct.
Cockeysville, MD 21030
Tel.: +1 410-771-3200
Fax: +1 410-771-1144
Email: SaftDefenceUS@saftbatteries.com
www.saftbatteries.com

Saft SAS

Space & Defense Division
Rue Georges Leclanché
86000, Poitiers
Tel.: +33 (0) 549 551 866
Fax: ++33 (0) 549 554 780
www.saftbatteries.com

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