

# e6T military vehicle battery

## Rechargeable lithium-ion battery system

### Enhanced Li-ion 6T high performance battery

Saft's 28V battery system provides starting, lights and ignition power for military vehicles, along with silent watch capabilities.

This 69 Ah battery is comprised of VLP Li-ion cells in a 3p7s configuration. The battery system includes electronic devices for performance, thermal and safety management specific to the application.

Saft supplies complete energy storage systems customized as needed to meet customer specifications.

#### Benefits

- Best in industry power density and specific power
- Significant weight savings and life cycle costs compared to lead acid chemistries
- Maintenance free
- Off vehicle charging capability
- Communicates over MIL-STD-J1939 for vehicle compatibility
- Compatible with MIL-STD-1275D power bus

#### Features

- Built-in self-balancing - leveling approach
- Bus voltage tolerance enabling battery self-protection
- Self shut-down in unsafe conditions
- Flexible system architecture for customized solutions - batteries can be used in parallel or series for higher system capacity

#### Applications

- Military ground vehicle power
- Starting, lights, and ignition
- Silent watch
- Defense applications requiring balance of power and energy



#### Electrical characteristics

|                                 |             |
|---------------------------------|-------------|
| Nominal capacity                | 69 Ah       |
| Nominal voltage                 | 28 V        |
| Voltage at full state of charge | 28.7 V      |
| Voltage at zero state of charge | 23.1 V      |
| Energy                          | 1.7 kWh     |
| Peak current (ms pulse)         | 2,500+ Amps |

#### Mechanical characteristics

|        |           |
|--------|-----------|
| Weight | 49 lbs.   |
| Height | 9 in.     |
| Width  | 10.5 in.  |
| Length | 11.25 in. |

#### Operating Conditions

|  |                  |
|--|------------------|
| Operating temperature                  |                  |
| Discharge                              | -40 °C to +40 °C |
| Charge*                                |                  |
| Storage and transportation temperature | -60 °C to +65 °C |

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



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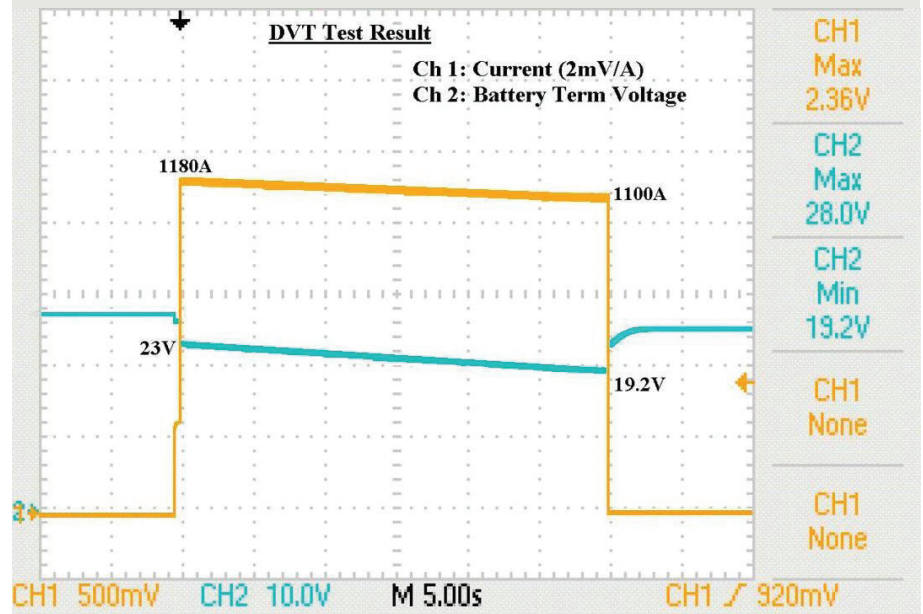
## Top-level system functions

- Communication of battery state of charge, temperature, and other key parameters vis J1939 CAN Bus
- Redundant overcharge protection
- Overload protection
- Short circuit protection
- Over-discharge protection
- Battery reserve protection
- Battery monitoring
- Built-in-Test
- Cell heating (Arctic conditions and battery charging)
- Continuous/off-line cell balancing

## Safety heritage

- System design includes Saft proven redundant overcharge protection
- Cells equipped with hermetic seal and over pressure safety vent
- VLP cells use Saft's fielded nickel cobalt aluminum (NCA) lithium-ion chemistry

## 1000 Amp power test at -18 °C



**Saft**

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