Flex’ion™ main advantages

Main benefits versus VRLA lead-acid batteries

- **LIFE TIME**
  - 20 YEARS CALENDAR LIFE

- **LOW MAINTENANCE**

- **INSTALLATION SPACE**
  - 3X MORE COMPACT

- **INSTALLATION WEIGHT**
  - 6X LIGHTER

- **REDUCED TCO & IMPROVED SYSTEM AVAILABILITY**

- **LIFE TIME**
  - 10X MORE CYCLE LIFE

- **LOW MAINTENANCE**

- **INSTALLATION SPACE**
  - 3X MORE COMPACT

- **INSTALLATION WEIGHT**
  - 6X LIGHTER

- **REDUCED BATTERY ROOM & INFRASTRUCTURE COST**

From cell to module and system

- **L-Ion Cell**

- **FLEX’ION™ Battery Module**

- **FLEX’ION™ System**

A WIDE RANGE OF COMBINATIONS:
- From 1 to 500 kWh
- From 10 kW to 2.3 MW
- From 110 to 750 Vdc (CE) and 600 Vdc (UL)
Battery Module
Stores electrical energy ready for use during mains failure

Cabinet
IP20, non-seismic or seismic

BMM
Manages safety functions at string level

Intelli-Connect™
Allows string to discharge if charging is interrupted

MBMM+PLC
Manages internal system-level & external communications

HMI
Touchscreen display providing system information

LED Button
Controlled system start / stop & battery status

Battery-stop Button
Opens the main breaker in each string to isolate the battery system

Door Handle
Lever design & lockable

DATA REMOTE MONITORING
VISUALIZE HMI DATA ON A SMART DEVICE
## Flex’ion™ Key Differentiators

### Dedicated Structure to Support Your Need
- Local support for engineering, services and after-sales
- Short lead-time thanks to US and European production
- Established recycling policy for a sustainable approach

### Modular & Scalable Battery Configuration
- Optimized configuration based on each load profile
- Supporting 2 and 3 wires (neutral / midpoint) UPS architecture
- Easily upgradable to support project extension

### Mission Critical Design for Maximum Availability
- Ability to discharge via Intelli-Connect™, even when the charging is interrupted
- Black-start function & continuous monitoring of the battery status thanks to self-powered system
- Fast recharge, right after a complete discharge, for highest system availability

### Advanced Lithium-Ion Technology
- Saft’s patented super phosphate chemistry (SLFP™)
- The best trade-off in terms of safety, power density and calendar life
- High operating temperature allowing less HVAC requirements and consumption

### Smart Monitoring & User-Friendly Data Access
- State of charge (SoC), state of health (SoH), temperature, alarms, etc.
- Multiple protocols embedded (Modbus, CanOpen, TCP-IP) for communication with UPS and/or building management system
- Data direct access via touchscreen HMI on the cabinet front face
- Remote access to battery information and remote troubleshooting ability
## Flex’ion™ product range

5 sizes of cabinet answering your specific needs

<table>
<thead>
<tr>
<th>CABINET TYPE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (mm/inch)</td>
<td>1300/51.2</td>
<td>1700/66.9</td>
<td>1900/74.8</td>
<td>2100/82.7</td>
<td>2300/90.6</td>
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<tr>
<td>Width (mm/inch)</td>
<td></td>
<td></td>
<td></td>
<td>611/24.1</td>
<td></td>
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<tr>
<td>Depth (mm/inch)</td>
<td></td>
<td></td>
<td></td>
<td>512/20.2</td>
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</tr>
<tr>
<td>Weight (kg/lbs)</td>
<td>100/220</td>
<td>120/265</td>
<td>130/287</td>
<td>140/309</td>
<td>150/331</td>
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<tr>
<td>Voltage (V)</td>
<td>110/230</td>
<td>360</td>
<td>415</td>
<td>480</td>
<td>600</td>
</tr>
<tr>
<td>Number of Modules (Up to)</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>11</td>
<td>13</td>
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</table>

Cabinets available in seismic and non-seismic versions

### COMPLIANCE TO STANDARDS

<table>
<thead>
<tr>
<th>CE MARKING</th>
<th>2011/65/UE</th>
<th>2014/35/UE</th>
<th>EN 62477-1</th>
<th>2014/30/UE</th>
<th>EN 61000-6-2/4</th>
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<tbody>
<tr>
<td>UL MARKING</td>
<td>UL1973</td>
<td>UL1998</td>
<td>UL991</td>
<td>UL94 V0</td>
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<tr>
<td>ENVIRONMENTAL</td>
<td>REACH compliancy and ROHS voluntary compliancy</td>
<td>IEC 60068-2-1</td>
<td>IEC 60068-2-2</td>
<td>IEC 60068-2-6</td>
<td>IEC60068-2-11</td>
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<tr>
<td>SAFETY</td>
<td>IEC 61508</td>
<td>IEC 62619</td>
<td>FCC</td>
<td>IFC 2012</td>
<td>5608</td>
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<td>PERFORMANCE</td>
<td>IEC 62620</td>
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<tr>
<td>TRANSPORTATION</td>
<td>UN 3480</td>
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</table>

### FURTHER INFORMATION

- View Saft’s Flex’ion video on Saft YouTube channel: [https://www.youtube.com/watch?v=dD1lEexdpwq](https://www.youtube.com/watch?v=dD1lEexdpwq)
### Flex’ion™ technical data

#### MEDIUM POWER

<table>
<thead>
<tr>
<th>Flex’ion 46 P Fe</th>
<th>Flex’ion 46 M Fe</th>
<th>Flex’ion 23 M Fe</th>
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</thead>
<tbody>
<tr>
<td>46 VDC</td>
<td>46 VDC</td>
<td>23 VDC</td>
</tr>
<tr>
<td>28 Ah</td>
<td>39 Ah</td>
<td>78 Ah</td>
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<tr>
<td>1304 Wh</td>
<td>1792 Wh</td>
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</table>

#### HIGH POWER

<table>
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<th>Flex’ion 46 P Fe</th>
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</thead>
<tbody>
<tr>
<td>46 VDC</td>
</tr>
<tr>
<td>28 Ah</td>
</tr>
<tr>
<td>1294 Wh</td>
</tr>
</tbody>
</table>

#### Mechanical Characteristics

- **Width (mm/in):** 445/17.5
- **Height (mm/in):** 131/5.2
- **Depth (mm/in):** 292/11.5
- **Weight (kg/lbs):** 18.5/40.7

#### Recharge Characteristics

- **Maximum Recharge Current (I):**
  - **Intelligent Charging:** 4C<sub>2</sub>Ah
  - **Conventional Charging:** 1C<sub>2</sub>Ah
- **Recommended Recharge Current (I):**
  - **Intelligent Charging:** 0.2C<sub>2</sub>Ah
  - **Conventional Charging:** 0.2C<sub>2</sub>Ah

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**Maximum system discharge performance**

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**Société par Actions Simplifiée au capital de 31 944 000 €**

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