

HAZARDOUS SUBSTANCES  
STORAGE TECHNOLOGY  
BRAND QUALITY

**MADE IN  
GERMANY**



**LACONT**  
Umwelttechnik GmbH

# LITHIUM-ION BATTERY CABINETS

For the safe storage and charging of  
lithium-ion batteries (rechargeable batteries)

Premium

Safe Pro

Basic



**Dear customers and business partners,**

Lithium-ion batteries (rechargeable batteries) have become an important part of our everyday lives. Lithium-ion batteries (rechargeable batteries) are used in an increasing number of products and devices, not only in the private sector but also in particular in trade and industrial companies, e.g., in a wide range of power tools or mobile machines. Depending on the power required from the battery, a corresponding number of cells are combined.

**There is still no valid legislation for the storage of lithium-ion batteries (rechargeable batteries). Nevertheless, Li-ion batteries must be treated as hazardous materials.**

Leaflets, rules, and publications such as **VdS 3103, GDV brief information, DGUV Information 205-041, VDMA Standard Sheet 24994:2024-08, and TRGS 510, 13** can serve as assistance and recommendations for action (for further information, see pages 3/4).

Due to the steadily increasing number of batteries/rechargeable batteries in circulation, incidents/fires are becoming more frequent, sometimes causing considerable personal injury and property damage.

For fire-resistant components, fire walls, partitions, materials, and doors, as well as for hazardous material cabinets in accordance with DIN EN 14470 and fire-resistant hazardous material containers, a **fire resistance of > 90 minutes** has been considered state of the art for many years. That is why we only offer cabinets with fire protection of > 90 minutes for the storage of Li-ion batteries.



Klaus Heßmer  
Managing Director

**SiS Li-Ion Basic**

Focus on fire protection > 90 minutes from inside and outside according to DIN EN 1363-1



**SiS Li-Ion 90 Safe Pro**

Fire protection > 90 minutes from the inside according to DIN EN 1363-1 and from the outside according to DIN EN 14470-1 + GS sign MPA Dresden, test principle EK5 / AK4 22-01



**SiS Li-Ion Premium I/O 90**

Successfully tested according to VDMA 24994:2024-08 (thermal runaway from the inside) and fire protection > 90 minutes from the outside (test certificate ECB-S certificate I/O 90 requested)



# STORAGE AND CHARGING OF LITHIUM-ION BATTERIES (RECHARGEABLE BATTERIES)

Due to their very high energy density, lithium-ion batteries (rechargeable batteries) pose a risk that should not be undervalued. Rechargeable batteries can ignite fire and explode for a variety of reasons, sometimes with serious consequences.

Due to this high risk potential and the fact that fires caused by lithium-ion batteries (rechargeable batteries) are difficult to extinguish and water can only be used as a coolant, highest care should be taken when storing and charging the battery.

## Causes of fires in lithium-ion batteries (rechargeable batteries):



### FIRE SAFETY REQUIREMENTS

- in accordance with VdS 3103 information sheet on the storage of lithium-ion batteries (rechargeable batteries) (Association of German Property Insurers)
- According to DGUV Information 205-041, Fire protection when handling lithium-ion batteries (rechargeable batteries) (German Social Accident Insurance)

- ◆ Compliance with all specifications of the respective manufacturers of lithium-ion batteries (rechargeable batteries) and chargers, as well as the technical product data sheets.
- ◆ Prevention of external short circuits, protection against short circuits of the battery terminals, e.g. by using terminal caps
- ◆ Protection against mechanical damage
- ◆ Do not expose lithium-ion batteries (rechargeable batteries) to high temperatures directly or for long periods of time (e.g. direct sunlight)
- ◆ Never charge damaged or defective batteries
- ◆ Dispose of damaged or defective batteries immediately in accordance with regulations
- ◆ Minimum distance of 2.5 m or 5 m from other equipment or materials
- ◆ Storage of lithium-ion batteries (rechargeable batteries) in a fire-resistant, separate area
- ◆ If using more than 5 batteries, use a charging cabinet (safety cabinet) or a room that is separated by fire protection measures
- ◆ Disconnect batteries from the mains after charging (do not charge unattended)

### Our certified cabinet solutions:



# STORAGE AND CHARGING OF LITHIUM-ION BATTERIES (RECHARGEABLE BATTERIES)

To date, there is still no valid legislation governing the storage of lithium-ion batteries (rechargeable batteries). Nevertheless, lithium-ion batteries (rechargeable batteries) should be treated as hazardous materials.

**The following leaflets, rules, and publications can serve as assistance and recommendations for action:**

- ◆ **VdS 3103:** Guideline of the German Insurance Association (VdS) with information on damage prevention during the storage and provision of lithium-ion batteries (rechargeable batteries) in production and storage areas
- ◆ **Short information GDV:** Information from the German Insurance Association (GDV); if there are more than 5 batteries, use a charging cabinet or a room that is separated for fire protection purposes
- ◆ **DGUV information 205-041:** Publication on fire safety when handling lithium-ion batteries (rechargeable batteries) by the DGUV (German Social Accident Insurance)
- ◆ **VDMA - Standard form 24994:2024-08:** Test requirements for fire-resistant storage cabinets for lithium-ion batteries (rechargeable batteries) in the event of thermal runaway from the VDMA (German Engineering Federation)
- ◆ **TRGS 510, 13 - Technical rules for hazardous substances:** Separate storage or storage in separate areas, e.g., using walls or cabinets made of non-combustible material with a fire resistance rating of > 90 minutes

Basic

Safe Pro

Premium

SiS Li-Ion Basic	SiS Li-Ion 90 Safe Pro	SiS Li-Ion Premium I/O 90
 <p>• Fire protection &gt; 90 minutes from inside and outside according to DIN EN 1363-1</p>	 <p>• Fire protection &gt; 90 minutes from the inside acc. to DIN EN 1363-1 and from the outside acc. to DIN EN 14470-1 • GS sign MPA Dresden EK 5 / AK 22-01</p>	 <p>• Successfully tested according to VDMA 24994:2024-08 (thermal runaway from the inside) • Fire protection &gt; 90 minutes from the outside according to VDMA 24994</p> <p>ECB-S Certificate (VDMA) requested</p>



## **RECOMMENDATION:**

- **Before starting a cabinet into operation, you should contact your damage insurer, the fire department, and/or experts.**
- **A risk assessment and a comprehensive fire protection concept are absolutely essential.**
- **The use of a fire alarm system, connection to an existing building fire alarm system, signal transmission, e.g., to a control center via potential-free contact, and/or a fire extinguishing system may be required.**

# OVERVIEW BATTERY CABINETS FOR LITHIUM-ION BATTERIES (RECHARGEABLE BATTERIES)

	Basic	Safe Pro	Premium
			
Property	SiS Li-Ion Basic	SiS Li-Ion 90 Safe Pro	SiS Li-Ion Premium I/O 90
Fire resistance class	EI90	90 Minutes	I/O 90
Fire resistance inside	90 Min. (acc. to EN 1363-1)	90 Min. (acc. to EN 1363-2)	Thermal Runaway (acc. to VDMA 24994)
Fire resistance outside	90 Min. (acc. to EN 1363-1)	90 Min. (acc. to EN 14470)	90 Min. (acc. to VDMA 24994)
Basis for testing	DIN EN 1363-1:2012-10	EK5/AK4 22-01	VDMA 24994
Certification	Expert opinion MPA Dresden	GS certificate	ECB•S Certificate (VDMA) requested
Max. load energy	max. 8 kWh recommended (only for standard batteries)	max. 12 kWh recommended (only for standard batteries)	8 kWh tested (with raw cells)
Max. load energy according to VDMA 24994	–	–	total 8.0 kWh
Charging possible in cabinet	optional	optional	optional
Number of charging strips	0 / 2 / 4	0 / 2 / 4	0 / 3
Maximum loading capacity per cabinet	3.5 kW	3.5 kW at 230 V and 10.5 kW at 400 V	10.5 kW
Integrated pressure relief	–	–	yes
Integrated technical ventilation	yes	yes	yes
Self-closing doors	no	yes (permanently)	no
Control unit	optional	as standard	as standard
Smoke detector / Fire detection	as standard	as standard	as standard
Technical ventilation	as standard	as standard	as standard
Closing the ventilation system in case of fire	as standard	as standard	as standard
Visual and audible status indication	– (visually optional)	yes	yes
Visual and audible alarms in the event of a fire	– (visually optional)	yes	yes
Shutdown in case of emergency	ventilation only	yes - complete power supply	yes - complete power supply
Active fire suppression	optional	optional	optional
Potential-free contact	yes*	yes	yes (with alarm differentiation)
Cable entry possible	yes	–	–
Pre-installed cable for customer-supplied fire alarm	–	yes*	yes
Locking system	Swivel lever with double-bit cylinder	Door handle with profile cylinder (suitable for locking systems)	Door handle with profile cylinder (suitable for locking systems)
Number of grating floors	4	4	0
Number of steel shelves, powder-coated	0	0	4
Load capacity of the shelves	75 kg	75 kg	75 kg
Accessible socle	yes (100 mm)	yes (100 mm)	yes (100 mm)
Base tray	yes (17 liter)	yes (5 liter)	yes (5 liter)
Overvoltage protection	yes	yes	yes
Connection voltage	230 V	230 V or 400 V	400 V
Pages in the brochure	6 - 7	8 - 9	10 - 11

\* from 06/2026



LaCont battery cabinet Li-Ion Basic Store / Charge Ei 90

**Starter model for the active and passive storage of lithium batteries, with the main focus on fire protection.**

- ◆ **Tested complete construction with fire resistance of 90 minutes FROM THE INSIDE AND OUTSIDE (EI 90)**
- ◆ Made of non-combustible material (class A2 - s1, d0 according to DIN EN 13501-1) incl. coating (body aluminium coloured / doors RAL 1023 - traffic yellow)
- ◆ Protection in the event of fire thanks to surrounding, self-foaming fire protection seals
- ◆ Doors lockable via double-bit cylinder lock
- ◆ Integrated ventilation system with smoke detector and fan
- ◆ Cable entries at top and bottom
- ◆ Smooth-running doors, 180° opening angle, not self-closing
- ◆ Driveable socle, height 100 mm with removable socle panel
- ◆ Storage levels with height-adjustable grids, load capacity 75 kg / shelf
- ◆ **Optional control unit with fire detection by Basic Charge EI 90:**
- Visual alarm and shutdown of the ventilation system
- ◆ Optional extinguishing generator with power-independent activation in case of fire and impermissible temperature increase



**SiS Li-Ion Basic Store EI 90, Article no. B80-8001-A**



**SiS Li-Ion Basic Store EI 90, Article no. B80-8013-A**



**SiS Li-Ion Basic Charge EI 90, Article no. B80-8015-A**



**i**

- Operating voltage 230 V, fuse protection 1-phase 16 A
- Maximum electrical power per charging cabinet 3.5 kW (max. 2 kW per socket strip)

**Protection goal:**

- In the event of a fire inside the cabinet, to gain time for the evacuation of people in the immediate vicinity and the initiation of extinguishing actions by the fire brigade.
- Protection of the batteries in the event of a fire outside the cabinet to prevent additional hazards from the stored goods.

Model	SiS Li-Ion Basic Store EI 90	SiS Li-Ion Basic Charge EI 90
External dimensions W x D x H (mm)	1148 x 591 x 1222	1148 x 591 x 1222
Internal dimensions W x D x H (mm)	1004 x 440 x 904	1004 x 440 x 904
Wing doors	2	2
Base tray, sheet steel galvanized, collection volume in litres	17	17
Grid storage levels	2	2
Socket strip per grid level (10 sockets per strip)	-	2
Integrated ventilation system with smoke detector	yes	yes
Control unit with fire detection	no	yes
Weight (kg)	370	370
<b>Outer body aluminum coloured / hinged doors RAL1023 - traffic yellow</b>		
<b>Article no., without fire suppression system (Aerosol extinguishing generator)</b>	<b>B80-8013-A</b>	<b>B80-8015-A</b>
<b>Article no., with fire suppression system (Aerosol extinguishing generator)</b>	<b>B80-8014-A</b>	<b>B80-8016-A</b>



Basic

# LITHIUM-ION BATTERY CABINET

## LaCont battery cabinet Li-Ion Basic Store / Charge Ei 90

### Control unit of the SiS Li-Ion Basic Charge Ei 90

- ◆ Main switch
- ◆ Visual status indicator
- ◆ If smoke is detected, automatic switch-off of the integrated fan in the cabinet
- ◆ No automatic switch-off of the power supply
- ◆ No standard acoustic alarm in the event of fire - retrofitting of fire detector or potential-free contact possible by the customer through fire-resistant cable entries in the cabinet
- ◆ **Includes potential-free contact for signal transmission, e.g. to a control centre (from 06/2026)**
- ◆ Operating voltage 230 volts



Control unit with smoke detection



SiS Li-Ion Basic Store Ei 90,  
Article no. B80-8001-A



SiS Li-Ion Basic Charge Ei 90,  
Article no. B80-8006-A



Aerosol extinguishing generator



Socket strip



Integrated base tray



Cabinet accessible with lift truck thanks removable socle panel

Model	SiS Li-Ion Basic Store Ei 90	SiS Li-Ion Basic Charge Ei 90	SiS Li-Ion Basic Charge Ei 90
External dimensions W x D x H (mm)	1148 x 591 x 2048	1148 x 591 x 2048	1148 x 591 x 2048
Internal dimensions W x D x H (mm)	1004 x 440 x 1804	1004 x 440 x 1804	1004 x 440 x 1804
Wing doors	2	2	2
Base tray, sheet steel galvanized, collection volume in litres	17	17	17
Grid storage levels	4	4	4
Socket strip per grid level (10 sockets per strip)	-	2	4
Integrated ventilation system with smoke detector	yes	yes	yes
Control unit with fire detection	no	yes	yes
Weight (kg)	600	600	600
<b>Outer body aluminum coloured / hinged doors RAL1023 - traffic yellow</b>			
Article no., without fire suppression system (Aerosol extinguishing generator)	B80-8001-A	B80-8003-A	B80-8005-A
Article no., with fire suppression system (Aerosol extinguishing generator)	B80-8002-A	B80-8004-A	B80-8006-A

## LaCont battery cabinet Li-Ion Safe Pro

**Pro model specially developed for the active and passive storage of lithium batteries, with GS certification in accordance with the EK5 / AK4 22-01 test principle and real fire test of the cabinet fitted with lithium batteries carried out by the MPA Dresden**

- ◆ Tested fire resistance of 90 minutes according to **DIN EN 14470-1** from outside to inside
- ◆ Tested fire resistance of 90 minutes from the inside to the outside in accordance with **DIN EN 1363-2**
- ◆ **GS sign tested by MPA Dresden** in accordance with test principle **EK5 / AK4 22-01**
- ◆ Tested smoke tightness
- ◆ Self-closing doors, permanently function-tested in accordance with **DIN EN 16121 and DIN EN 16122**
- ◆ Made of non-combustible material incl. coating (body aluminium coloured / doors RAL 1023 - traffic yellow)
- ◆ Protection in the event of fire thanks to surrounding, self-foaming fire protection seals
- ◆ Double-wing door with centre bar, lockable via profile cylinder lock; cabinet doors close automatically
- ◆ Incl. technical ventilation (to prevent heat build-up in the cabinet)
- ◆ Driveable socle, height 100 mm with removable socle panel
- ◆ Storage levels with height-adjustable grids, load capacity 75 kg / shelf
- ◆ Incl. base sump tray according to AwSV, powder-coated sheet steel RAL 7035 - light grey, collection volume 5 litres
- ◆ Each grid level can be equipped with a socket strip with 10 earthed sockets
- ◆ Equipped as standard with control unit (visual + acoustic status signal), fire detection, smoke detector
- ◆ Complete disconnection of the power supply of the cabinet in the event of an accident
- ◆ Overvoltage protection
- ◆ Nominal voltage 230 V or 400 V (Version without power strip only in 230 volts)



**SiS Li-Ion 90 Safe Pro,  
Article no. B80-8012-A**



**SiS Li-Ion 90 Safe Pro,  
Article no. B80-8012-A**



- i**
- Operating voltage 230 V, fuse protection 1-phase 16 A
  - Maximum electrical power per charging cabinet for 230 V version: 3.5 kW (max. 2 kW per socket strip)
  - Operating voltage 400 V, fuse protection 3-phase 3 x 16 A
  - Maximum electrical power per charging cabinet for 400 V version: 10.5 kW (max. 3.5 kW per socket strip; for models with 4 x socket strips, the upper two socket strips each have 3.5 kW, the lower two each have 1.75 kW)

- 💡**
- Protection goal:**
- Protection of the stored goods against fire from the outside
  - In the event of a fire inside the cabinet, protection against the spread of smoke and fire
  - Minimise the risk of injury to persons due to the possible release of explosive burning or toxic gases from the cabinet
  - Signalling of critical conditions inside the safety storage cabinet (for people in the danger zone and rescue services) and, if necessary, management of the existing fire protection equipment.



Safe Pro

# LITHIUM-ION BATTERY CABINET

## LaCont battery cabinet Li-Ion Safe Pro

### Control unit of the SiS Li-Ion 90 Safe Pro

- ◆ Main switch
- ◆ Visual status indicator
- ◆ If a fire is detected inside the cabinet, the power supply and the integrated ventilation will be switched off completely
- ◆ Visual and acoustic alarms will be triggered when a fire is detected
- ◆ **Incl. potential-free contact for signal forwarding (e.g. to a control centre)**
- ◆ **Includes cable preparation (inside and outside) for subsequent installation of a fire alarm by the customer, for connection to a fire alarm system (from 06/2026)**
- ◆ Optional GSM module for remote monitoring and alerting



Control unit with fire detection



SiS Li-Ion 90 Safe Pro,  
Article no. B80-8012-A



Integrated ventilation system



Integrated base tray



Aerosol extinguishing generator



Socket strip



Automatic door closing device



Cabinet accessible with lift truck thanks removable socle panel

Model	SiS Li-Ion 90 Safe Pro	SiS Li-Ion 90 Safe Pro	SiS Li-Ion 90 Safe Pro
External dimensions W x D x H (mm)	1212 x 664 x 2250	1212 x 664 x 2250	1212 x 664 x 2250
Internal dimensions W x D x H (mm)	1004 x 453 x 1687	1004 x 453 x 1687	1004 x 453 x 1687
Wing doors	2	2	2
Base tray, sheet steel, painted RAL 7035, collection volume in litres	1 x 5	1 x 5	1 x 5
Grid storage levels	4	4	4
Socket strip per grid level (10 sockets per strip)	-	2	4
Control unit, ventilation system and fire detection	yes	yes	yes
Weight (kg)	706	706	706
<b>Outer body aluminum coloured / hinged doors RAL 1023 - traffic yellow</b>			
Article no., Version 230 V, without fire suppression system (Aerosol extinguishing generator)	B80-8007-A	B80-8009-A	B80-8011-A
Article no., Version 230 V, with fire suppression system (Aerosol extinguishing generator)	B80-8008-A	B80-8010-A	B80-8012-A
Article no., Version 400 V, without fire suppression system (Aerosol extinguishing generator)	-	B80-8009-V	B80-8011-V
Article no., Version 400 V, with fire suppression system (Aerosol extinguishing generator)	-	B80-8010-V	B80-8012-V



## LaCont battery cabinet Li-Ion Premium I/O 90

**Premium model specially developed for the storage and charging of lithium-ion batteries (rechargeable batteries), successfully tested in accordance with VDMA 24994, tested for thermal runaway from the inside and fire resistance of > 90 minutes from the outside to the inside**

- ◆ Tested fire resistance of 90 minutes from the outside to the inside in accordance with **VDMA 24994**
- ◆ Tested against thermal runaway from the inside according to **VDMA 24994**
- ◆ Successfully tested for internal battery combustion, reliably preventing the escape of flames, projectiles and splinters
- ◆ **The maximum energy capacity of the stored or rechargeable batteries is 8 kWh per cabinet (verified in real testing)**
- ◆ Made of non-combustible material incl. coating (body aluminium coloured / doors RAL 1023 - traffic yellow)
- ◆ Protection in the event of fire thanks to surrounding, self-foaming fire protection seals
- ◆ Double-wing door with centre bar, lockable via profile cylinder lock
- ◆ Double wing door without self-closing mechanism, acoustic signal sounds after 60 seconds when doors are open
- ◆ Incl. technical ventilation (to prevent heat build-up in the cabinet)
- ◆ Accessible socle, height 100 mm with removable socle panel
- ◆ Storage levels height-adjustable, load capacity 75 kg / level
- ◆ Incl. base sump tray according to AwSV, powder-coated sheet steel RAL 7035 - light grey, collection volume 5 litres
- ◆ Each level can be equipped with a socket strip with 10 earthed sockets
- ◆ Equipped as standard with control unit (visual + acoustic status signal), fire detection, smoke detector
- ◆ Complete disconnection of the power supply of the cabinet in the event of an accident
- ◆ Overvoltage protection
- ◆ Nominal voltage 400 V



**SiS Li-Ion Premium I/O 90,**  
Article no. B80-8023-A

**ECB-S Certificate  
(VDMA) requested**



**SiS Li-Ion Premium I/O 90,**  
Article no. B80-8017-A



- Operating voltage 400 V, fuse protection 3-phase 3 x 16 A
- Maximum electrical power per charging cabinet for 400 V version: 10.5 kW (per socket strip max. 3.5 kW)



**Protection goal:**

- Protection of the stored goods against fire from the outside
- In the event of a fire inside the cabinet, protection against the spread of smoke and fire
- Minimise the risk of injury to persons due to the possible release of explosive burning or toxic gases from the cabinet
- Protection against projectiles and splinters
- Signalling of critical conditions inside the safety storage cabinet (for people in the danger zone and rescue services) and, if necessary, management of the existing fire protection equipment.



Premium

# LITHIUM-ION BATTERY CABINET

## LaCont battery cabinet Li-Ion Premium I/O 90

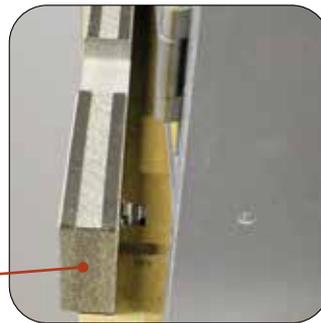
### Control unit of the SiS Li-Ion Premium I/O 90

- ◆ Visual status indicator
- ◆ If a fire is detected inside the cabinet, the power supply and the integrated ventilation will be switched off completely
- ◆ Optical and acoustic alarms are triggered in the event of fire detection
- ◆ **Incl. potential-free contact for signal forwarding (e.g. to a control centre)**
- ◆ **Includes cable preparation (inside and outside) for subsequent installation of a fire alarm by the customer, for connection to a fire alarm system**
- ◆ Optional GSM module for remote monitoring and alerting



SiS Li-Ion Premium I/O 90,  
Article no. B80-8023-A

**i** VDMA Standard Sheet 24994 is a test standard that defines the requirements for fire-resistant storage cabinets for lithium-ion batteries (rechargeable batteries). Classification: 'I' stands for a cabinet that has been tested against thermal runaway from the inside, and 'O' stands for a cabinet that has been tested against fire from the outside (e.g. O 90 = fire protection > 90 minutes from the outside).



Cabinet accessible with lift truck thanks removable socle panel - stackable



Visual status indicator



Aerosol extinguishing generator



Integrated smoke detector



Socket strip



Storage levels height-adjustable, load capacity 75 kg / level

Model	SiS Li-Ion Premium I/O 90	SiS Li-Ion Premium I/O 90
External dimensions W x D x H (mm)	1194 x 635 x 1955	1194 x 635 x 1955
Internal dimensions W x D x H (mm)	1004 x 440 x 1504	1004 x 440 x 1504
Wing doors	2	2
Base tray, sheet steel, painted RAL 7035, collection volume in litres	1 x 5	1 x 5
Storage levels	4	4
Socket strip per grid level (10 sockets per strip)	-	3
Control unit, ventilation system and fire detection	yes	yes
Weight (kg)	706	706
<b>Outer body aluminum coloured / hinged doors RAL 1023 - traffic yellow</b>		
Article no., Version 400 V, without fire suppression system (Aerosol extinguishing generator)	B80-8017-A	B80-8023-A
Article no., Version 400 V, with fire suppression system (Aerosol extinguishing generator)	B80-8018-A	B80-8024-A



## **LaCont Umwelttechnik GmbH**

Halberstädter Str. 20A • 39435 Egelin

**Phone +49 39 268 / 98 96 - 0**

**Fax +49 39 268 / 98 96 - 29**

**E-mail: [info@lacont.de](mailto:info@lacont.de)**

**Internet: [www.lacont.de](http://www.lacont.de)**

