



Ecosafe

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Lithium-ion selection

Safety cabinets for
lithium-ion batteries

Extract from the catalogue



JUNE 2023

Fume hoods, filtering cabinets - Ventilation
Lithium-ion cabinets
Flammable cabinets
Corrosive cabinets
Toxic cabinets and Multirisk
Containment and cans
File cabinets
Anti-fire equipments
Showers and first-aid equipments

OUR COMPLETE LITHIUM-ION RANGE

Range 790+LI



A white safety cabinet with its door open, revealing blue internal shelving and a red emergency stop button on top. It features a yellow hazard label on the door.

105-minute safety cabinets for the storage and charging of lithium-ion batteries

Range 790+FLI



A white safety cabinet with two doors and a yellow hazard label on the left door.

105-minute safety cabinets for the storage of lithium-ion batteries

Range 5LI



A white safety cabinet with its door open, showing white internal shelving.

Double-walled insulated safety cabinets

Range 14ELI



A blue safety cabinet with its door open, showing white internal shelving and a yellow hazard label on the door.

Safety cabinets for storing and recharging lithium-ion batteries


Range 14FLI



A blue safety cabinet with two doors and ventilation holes, featuring a yellow hazard label.

Storage cabinets without load for lithium-ion batteries

Range VTLI



A black ruggedized transport case with its lid open, showing internal compartments for batteries.

Safety transport cases for lithium-ion batteries

Range EXLI



A red fire extinguisher with a black handle and hose.









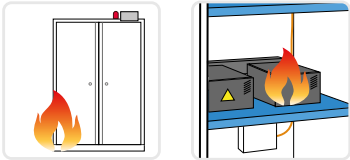
Fire extinguishers for lithium-ion batteries

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105-MINUTE SAFETY CABINETS FOR THE STORAGE OF LITHIUM-ION BATTERIES

TABLE OF EQUIPMENT FOR 795+LI, 795+LIA, 795+LIX4

	795+LI	795+LIA4	795+LIX4
 perforated shelves ref E35LI (X4)	Option	Included	Included
 Fire extinguisher ref. EX200LI	Option	Included	Included
 Visual & audible alarm	Option	Option	Included
 Control box	Option	Option	Included
 Automatic smoke detector	Option	Option	Included
 Cable duct ref. PINTOLI	Option	Option	Included
<div>   </div>  105 min external fire resistance Fire-stop construction (from inside to outside)	Included	Included	Included

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Fume hoods, filtering cabinets - Ventilation

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105 MINUTES SECURITY CABINETS FOR LITHIUM-ION BATTERY STORAGE

To ensure the safety of people and goods, we created a safety storage solution for lithium-ion batteries. Indeed, Li-ion batteries have the particularity to present many risks of which the most known and the most frequent is the thermal runaway which may be caused by a rise of temperature of the environment, a shock or a problem of assembly of the cabinet.

The consequence is that the battery can ignite dangerously and cause fire.

Based on our experience and our know-how on the EN14470-1 105 minutes European standard fire-proof cabinets, we offer several models of different sizes that can meet the widest variety of storage needs. These cabinets can be equipped as needed, with perforated shelves (with high load capacity - 100kg per level) and Containment sumps in the lower part of the cabinet to prevent possible electrolyte leakage damages from the battery. There is also the possibility to recharge batteries via the rack power strips. The exceptional fire resistance of our cabinets (105 minutes under the European test) guarantees maximum safety. However, it is possible to further secure the storage by adding optional solutions such as:

- The internal safety extinguisher in the special Li-ion battery cabinet (ref. EX100LI or EX200LI)
- Or the safety set including the extinguisher, an audible and visual alarm, the smoke detector, the control box and a cable pass-through in the upper part of the cabinet PINTOLI ref. (VIG190 ou VIG290).

There are four types of usage, depending on your needs:

- Simple battery storage: Cabinet equipped with perforated shelves and a Containment sump.
- Storage and charging of batteries: Cabinet equipped with perforated shelves, a Containment sump and electrical outlet racks + PEXTBALI (max. 4 cables from 4 to 15 mm).
- Simple battery storage + advanced protection system: Cabinet equipped with perforated shelves with a Containment sump + optional advanced protection system (either a fire extinguisher or a security set including visual and sound alarm, control box, automatic smoke detector, fire extinguisher and cable pass-through).
- Storage and charging of batteries + advanced protection system: Cabinet equipped with perforated shelves, a Containment sump and electrical outlet racks + optional advanced protection system (either a fire extinguisher or a security set including visual and sound alarm, control box, automatic smoke detector, fire extinguisher and cable pass-through).

The containment sump must be of controlled tightness and must resist the physiochemical properties of the material it contains.

In the event of a fire, the cabinets must not be moved except by the fire brigade.

OUR CABINETS ARE SUITABLE FOR STORING AND RECHARGING LITHIUM-ION BATTERIES INCLUDED IN THE FOLLOWING EQUIPMENT (NON-EXHAUSTIVE LIST):



Electric bicycles



Chainsaws, hedge trimmers, lawn mowers...



Drones



Electric bikes



Electro-portable battery powered tools



Electric scooters



Elevator trolleys

CONFORMITY

- Proven fire resistance of 105 minutes, according to the ISO 834 curve as per the EN 14470-1 standard
- Standardized warning labels in accordance to ISO 3864 and ISO 7010, as well as the European directive 92/58/EEC.

CONSTRUCTION

- Steel construction and double thermal insulation triple wall.
- Outer walls in 12/10th steel and white RAL 9010 epoxy painting.
- Thermal insulation panels limiting thermal bridges.
- Melamine interior panels.

EQUIPMENTS

- Thermomodulating door seals.
- Doors with automatic closing.
- Key closing.
- Ventilation holes with ventilation outlet Ø 100 mm for possible connection.
- Ventilation ducts with hot-melt system to isolate the contents of the cabinet in case of fire.
- Fixing point for earthing link.

OPTIONAL ACCESSORIES

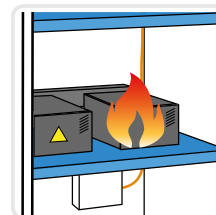
- Perforated shelves with a load capacity of 100 kg (ref. E34LI and E35LI)
- Removable Containment sump at the bottom (ref. B148 and B235)
- Fire extinguisher automatically triggered at 79°C by special lithium thermal bulb (Ref. EX100LI, EX200LI or EX500LI) (by smoke detection if included in the VIG190 / VIG290 / VIG590).
- Rack of 9 electrical outlets for recharging batteries (ref. PRISELI / see the chart by country)
- Drilling in the lower part for cable passage with fire-resistant cable (Ref. PEXTBALI)
- Security and alarm unit comprising: visual and audible alarm, control box, fire extinguisher with automatic smoke detector activation, and cable duct (Ref. VIG190 or VIG290).

VENTILATION

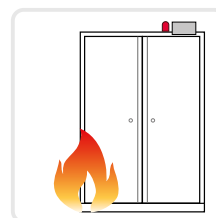
All cabinet models have ventilation holes, allowing them to be connected to a ventilation system. Forced ventilation is strongly recommended to prevent internal heat build-up or stagnation of vapors in the event of electrolyte liquid leakage. This can be connected either to an external outlet or to a ventilation or filter box.



795+LIX4 + 4 PRISELI + B235



180 min
Fire-resistant construction (from inside to outside) certified EI 180 min type A1, in accordance with standard NF EN 13501-2.



105 min
Fire resistance (from the outside inside) tested 105 min and approved for 90 min, in accordance EN 14470-1 & EN 1363-1.



Audible and visual alarm (VIG290)



Smoke detector (VIG290)



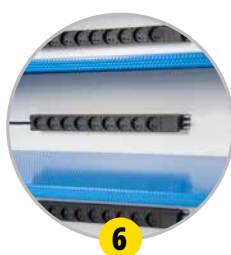
Visual and audible alarm box (VIG290)



Automatic fire extinguisher (EX200LI) included in VIG290



Pallet truck movement (empty)



PRISELI racks and shelves (E35LI)



Drilling for cable passage PEXTBALI



▲
798+LIX2 + 2 PRISELI + B148



▲
793+LIX2 + 2 PRISELI + B235

NON-EQUIPPED CABINETS

P/N	Description	External dimensions H x W x D (mm)	Internal dimensions H x W x D (mm)	Empty weight without options
793+LI	2 doors counter cabinet to be equipped	1100 x 1137 x 670 ⁽¹⁾	820 x 1000 x 410	297
798+LI	1 door counter cabinet to be equipped	1100 x 635 x 670 ⁽¹⁾	820 x 490 x 410	182
794+LI	1 door tall cabinet to be equipped	1950 x 635 x 620 ⁽²⁾	1620 x 490 x 410	287
795+LI	2 doors tall cabinet to be equipped	1950 x 1137 x 620 ⁽²⁾	1620 x 1000 x 410	453

PRE-EQUIPPED CABINETS

P/N	Description	External dimensions H x W x D (mm)	Weight (kg)
793+LIA2	2 doors counter-top 90 minutes fire cabinet for Li-ion batteries pre-equipped with 2 x E35LI shelves + 1 x EX100LI (extinguisher)	1100 x 1137 x 670 ⁽¹⁾	299
793+LIX2	2 doors counter-top 90-minutes fire cabinet for Li-ion batteries, pre-equipped with 2 E35LI shelves + 1 x VIG190 (visual and audible alarm, control box, automatic smoke detector, EX100LI fire extinguisher and cable duct on top [ref. PINTOLI])	1100 x 1137 x 670 ⁽¹⁾	302
798+LIA2	1 door counter-top 90 minutes fire cabinet for Li-ion batteries pre-equipped with 2 shelves E48LI + 1 x EX100LI (extinguisher)	1100 x 635 x 670 ⁽¹⁾	184
798+LIX2	90-minutes fire cabinet, counter-top, 1 door for Li-ion batteries, pre-equipped with 2 shelves E48LI + 1 x VIG190 (visual and audible alarm, control box, automatic smoke detector, EX100LI fire extinguisher and cable duct on top [ref. PINTOLI])	1100 x 635 x 670 ⁽¹⁾	187
794+LIA4	1 door high 90 minutes fire cabinet for Li-ion batteries pre-equipped with 4 shelves E48LI + 1 x EX100LI (extinguisher)	1950 x 635 x 620 ⁽²⁾	289
794+LIX4	1 door high 90 minutes fire cabinet for Li-ion batteries pre-equipped with 4 shelves E48LI + 1 x VIG190 (visual and audible alarm, control box, automatic smoke detector, EX100LI fire extinguisher and cable duct on top [ref. PINTOLI])	1950 x 635 x 620 ⁽²⁾	292
795+LIA4	2 doors high 90 minutes fire cabinet for Li-ion batteries pre-equipped with 4 shelves E35LI + 1 x EX200LI (extinguisher)	1950 x 1137 x 620 ⁽²⁾	455
795+LIX4	2 doors high 90-minutes fire cabinet for Li-ion batteries, pre-equipped with 4 E35LI shelves + 1 x VIG290 (visual and audible alarm, control box, automatic smoke detector, EX200LI fire extinguisher and cable duct on top [ref. PINTOLI])	1950 x 1137 x 620 ⁽²⁾	457

(1) Depth including connecting sleeve at the back. Depth without sleeve: 620 mm

(2) Height including connecting sleeve on top. Height without sleeve: 1900 mm

RANGE 790+LI



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▲
794+LIX4 + 4 PRISELI + B148



▲
795+LIX4 + 4 PRISELI + B235

ACCESSORIES

P/N	Description	Weight (kg)	Corresponding cabinet(s)
E48LI	Perforated shelf for 1 door cabinet	5	798+LI and 794+LI
E35LI	Perforated shelf for 2 doors cabinet	7	793+LI and 795+LI
B148	Containment sump for 1 door cabinet	5	798+LI and 794+LI
B235	Containment sump for 2 doors cabinet	10	793+LI and 795+LI
EX100LI	Fire extinguisher with automatic triggering at 79°C per thermal bulb for lithium	2	All models except 795+LI
EX200LI	Fire extinguisher with automatic triggering at 79°C per thermal bulb for lithium for 795+LI	3	795+LI
VIG190	Security and alarm package including visual and audible alarm, control box, self-activating smoke detector, EX100LI fire extinguisher and cable duct	5	All models except 795+LI
VIG290	Security and alarm package including visual and audible alarm, control box, self-activating smoke detector, EX200LI fire extinguisher and cable duct for 795+LI	6	795+LI
PEXTBALI	Cable entry hole with fire-resistant cable entry at the bottom (max. 4 cables)	-	Any model
PINTOLI	Internal cable duct in the upper part	-	Any model
PRISELI	Rack of 9 electrical outlets (220 volts - 4000 watts - 16 amps -50hz)	2	Any model
PRISELIF	Rack of 9 electrical outlets type F (Germany)	2	Any model
PRISELICH	Rack of 8 electrical outlets type J (Switzerland)	2	Any model
PRISELIUK	Rack of 7 electrical outlets type G (United Kingdom)	1,7	Any model
PRISELICC	Rack of 6 electrical outlets equipped with a thermal-magnetic circuit breaker	-	Any model
ONDULI	4-socket safety inverter for VIG190 or VIG290 only (H 90 x W 163 x D 245 mm - 230 volts - 300 watts - 500 volts)	3,5	Any model
SERCODE	Digital code lock (one per door)	1	Any model

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105 MINUTE SAFETY CABINETS FOR LITHIUM-ION BATTERY STORAGE



▲ 790+1FLI



▲ 790+2FLI

COMPLIANCE

- Construction for fire resistance (from outside to inside) of 105 min or 90 min, according to EN 14470-1 & EN 1363-1.
- Fireproof construction (from the inside to the outside) certified EI 180 min type A1, according to NF EN 13501-2.
- Standardised pictograms in accordance with ISO 3864, ISO 7010, European Directive 92/58/EEC and EN 14470-1.

ADVANTAGES

- Full height handle for better ergonomics and ease of opening.
- Legs for easy movement by pallet truck: avoids heavy handling and allows the cabinet to be moved easily in the event of a new layout
- Aesthetic and easy to use skirting board cover without the need for fixing tools.
- Ventilation ducts with hot-melt system to isolate the contents of the cabinet in the event of fire.

PASSIVE SAFETY

- Double wall construction:
 - External walls in 12/10th steel + white epoxy paint RAL 9010.
 - Internal walls in white RAL 9010 melamine.
- Thermal insulation panels between the walls to limit thermal bridges.
- Fixing point for earthing.

ACTIVE SAFETY

- Thermo-expanding door seals.
- Ventilation holes with 100 mm diameter ventilation outlet for possible connection.
- Doors with automatic closing and key lock.
- Door holding system in open position with automatic closing thermoregulated at 47°C.

OPTIONS

- Perforated shelf for 790+1FLI with 100 KG load capacity (Ref. E1FLI)
- Shelving consisting of 4 perforated levels for 790+2FLI with 150 KG load capacity (Ref. R2FLI). Total shelf weight: 30kg. Colour: grey RAL 7035. Perforated posts at 25mm pitch
- Containment sump at the bottom (Ref. B1FLI or B2FLI)
- Fire extinguisher automatically triggered at 79°C by special lithium thermal bulb (Ref. EX500LI) (by smoke detection if included in the VIG590).
- Rack of 9 electrical sockets for recharging the batteries (Ref: see chart according to country)
- Drilling in the lower part for cable passage with fireproof cable gland (Ref. PEXTBALI)
- Security and alarm unit comprising: visual and audible alarm, control box, fire extinguisher automatically triggered by a smoke detector, and cable duct (Ref. VIG590).



NON-EQUIPPED CABINETS

Ref.	Description	External dimensions H x W x D (mm)	Internal dimensions H x W x D (mm)	Weight (kg)
790+1FLI	Safety cabinet for the storage of lithium-ion batteries	2050 ⁽¹⁾ x 905 x 903	1685x760x 695	392
790+2FLI	Safety cabinet for the storage of lithium-ion batteries	2050 ⁽¹⁾ x 1502 x 903	1685x1350x695	652

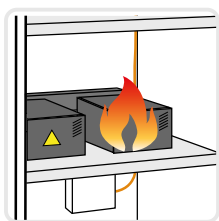
PRE-EQUIPPED CABINETS

Ref.	Description	External dimensions H x W x D (mm)	Weight (kg)
790+1FLIA4	2 doors 90 minute fire cabinet for Li-ion batteries pre-equipped with 4 shelves E1LI + 1 x EX500LI (extinguisher)	2050 ⁽¹⁾ x 905 x 903	432
790+1FLIX4	2 doors 90-minute fire cabinet for Li-ion batteries, pre-equipped with 4 E1FLI shelves + 1 x VIG590 (visual and audible alarm, control box, automatic smoke detector, 1 EX500LI fire extinguishers and cable duct on top [ref. PINTOLI])	2050 ⁽¹⁾ x 905 x 903	442
790+2FLIA4	2 doors 90 minute fire cabinet for Li-ion batteries pre-equipped with 4 E2LI shelves + 2 x EX500LI (fire extinguisher)	2050 ⁽¹⁾ x 1502 x 903	692
790+2FLIX4	2 doors 90-minute fire cabinet for Li-ion batteries, pre-equipped with 4 E2FLI shelves + 1 x VIG590 (visual and audible alarm, control box, automatic smoke detector, 2 EX500LI fire extinguishers and cable duct at the top [ref. PINTOLI])	2050 ⁽¹⁾ x 1502 x 903	702

ACCESSORIES

Ref.	Description	External dimensions H x W x D (mm)	Weight (kg)	Corresponding cabinet(s)
E1FLI	Perforated shelf for cabinet 790+1FLI	50 x 750 x 680	7.5	790+1FLI
B1FLI	Containment sump for 790+1FLI cabinet	90 x 750 x 680	5	790+1FLI
R2FLI	Shelf with 4 perforated levels for 790+2FLI	1500 x 1250 x 600	30	790+2FLI
E2FLI	Additional level for 790+2FLI cabinet	50 x 1250 x 600	11	790+2FLI
B2FLI	Containment sump for 790+2FLI cabinet	90 x 1250 x 600	10	790+1FLI
EX500LI	Self-activating fire extinguisher at 79°C with special lithium bulb for 790+1FLI and 790+2FLI		2	Any model
VIG590	Security and alarm package including visual and audible alarm, control box, automatic smoke detector, EX500LI fire extinguisher and cable entry for 790+1FLI and 790+2FLI		6	Any model
PEXTBALI	Cable entry hole with fire-resistant cable entry at the bottom (max. 4 cables)		-	Any model
PINTOLI	Internal cable duct in upper part		-	Any model
PRISELI	Rack of 9 electric sockets (220 volts - 4000 watts - 16 amps - 50hz)		2	Any model
PRISELIF	Rack of 9 electric sockets type F (Germany)		2	-
PRISELICH	Rack of 8 electrical sockets type J (Switzerland)		2	-
PRISELIUK	Rack of 7 electrical sockets type G (United Kingdom)		1,7	-
PRISELICC	Rack of 6 sockets equipped with a thermal-magnetic circuit breaker		-	Any model
ONDULI	4-socket safety inverter for VIG590 only (H 90 x W 163 x D 245 mm - 230 volts - 300 watts - 500 volts)		3,5	Any model
SERCODE	Digital code lock (one per door)		1	Any model

(1) Height including connecting sleeve on top. Height without sleeve: 2000 mm



15 min
Fire-resistant construction
(from inside to outside)
certified EI 15 min type A1,
in accordance with standard NF EN 13501-1.



▲ S806+LIA1 + PRISELI + GL06 + PEXTBALI50



▲ S2004+LIA5 + 5 PRISELI + GL04 + 2 PEXTBALI50

COMPLIANCE

- Non-flammable insulating panels, classified A1 according to NF EN ISO 1182, between the walls.
- Fireproof construction certified EI 15 min type A1, according to NF EN 13501-1.
- Standardized warning labels in accordance to ISO 3864, ISO 7010 and NF X08.003, and to European Directive 92/58/EEC.

CONSTRUCTION

- Double wall 12/10 steel construction.
- Mineral fibre insulation 20 mm thick in accordance to NF EN ISO 1182.
- White epoxy paint RAL 9010.
- Adjustable retention shelves on racks.

EQUIPMENTS

- Ventilation by means of a lateral inner duct with opening at the top and bottom (Ø 100 mm).
- Roof ventilation outlet with connection sleeve (Ø 100 mm).
- Hinged doors with reinforced hinges with manual closing.
- Two-point locking.
- Key lock.

OPTIONS

- Perforated shelves with 50 KG load capacity (Ref. E04LI or E06LI)
- Removable Containment sump at the bottom (Ref. GL04 or GL06)
- Fire extinguisher automatically triggered at 79°C by special lithium thermal bulb (Ref. EX100LI, EX200LI or EX500LI) (by smoke detection if included in the VIG190 / VIG290 / VIG590).
- Rack of 9 electrical sockets for recharging batteries (Ref. PRISELI / see the chart by country)

- Drilling in the lower part for cable passage with fireproof cable (Ref. PEXTBALI50)

VENTILATION

All cabinet models are equipped with ventilation holes, allowing them to be connected to a ventilation system. Forced ventilation is strongly recommended to avoid internal heat build-up or stagnation of vapors in case of electrolyte leakage. This can be connected either to an external outlet or to a ventilation or filter box.

ALARMWI DESCRIPTION

This Wi-Fi smoke detector alerts you if there is smoke or excessive heat build-up. It alerts you with an audible alarm for people nearby and an alert sent to your phone wherever you are.

- Easy to connect to your Wi-Fi, for alerts on your phone.
- Audible alarm to warn as many people as possible.
- Threshold of detection: 37 °C.
- Powered by 2x AA/LR6 battery.

VENTILATION

All cabinet models are equipped with ventilation holes, allowing them to be connected to a ventilation system. Forced ventilation is strongly recommended to avoid internal heat build-up or stagnation of vapours in case of electrolyte leakage. This can be connected either to an external outlet or to a ventilation or filter box.



NON-EQUIPPED CABINETS

P/N	Description	External dimensions H x W x D (mm)	Interior dimensions H x W x D (mm)	Empty weight without options
S804LI	2 doors counter cabinet to be equipped (depth 450)	895 x 1000 x 450 ⁽¹⁾	745 x 950 x 400	75
S806LI	2 doors counter cabinet to be equipped (depth 600)	895 x 1000 x 600 ⁽¹⁾	745 x 950 x 550	90
S2004LI	2 doors tall cabinet to be equipped (depth 450)	2095 x 1000 x 450 ⁽²⁾	1945 x 950 x 400	152
S2006LI	2 doors tall cabinet to be equipped (depth 600)	2095 x 1000 x 600 ⁽²⁾	1945 x 950 x 550	174

PRE-EQUIPPED CABINETS

P/N	Description	External dimensions H x W x D (mm)	Weight (kg)
S804+LIA1	2 doors counter-top fire resistant cabinet for lithium batteries pre-equipped with 1 x E04LI shelf + 1 x EX100LI (fire extinguisher)	895 x 1000 x 450 ⁽¹⁾	77
S806+LIA1	2 doors countertop fire resistant cabinet for lithium batteries pre-equipped with 1 x E06LI shelf + 1 x EX100LI (fire extinguisher)	895 x 1000 x 600 ⁽¹⁾	92
S2004+LIA5	2 doors high fire resistant cabinet for lithium batteries pre-equipped with 5 shelves E04LI + 1 x EX200LI (fire extinguisher)	2095 x 1000 x 450 ⁽²⁾	154
S2006+LIA5	2 doors high fire resistant cabinet for lithium batteries pre-equipped with 5 shelves E06LI + 1 x EX200LI (fire extinguisher)	2095 x 1000 x 600 ⁽²⁾	176

ACCESSORIES

Ref.	Description	Weight (kg)	Corresponding Cabinet(s)
E04LI	Perforated shelf (depth 450)	3	S804LI et S2004LI
E06LI	Perforated shelf (depth 600)	3,5	S806LI et S2006LI
GL04	Containment sump (depth 450)	4	S804LI et S2004LI
GL06	Containment sump (depth 600)	5	S806LI et S2006LI
EX100LI	Self-activating fire extinguisher at 79°C with special lithium bulb	2	S804LI et S806LI
EX200LI	Self-activating fire extinguisher at 79°C with special lithium bulb	3	S2004LI I
EX500LI	Self-activating fire extinguisher at 79°C with special lithium bulb	3	S2006LI
PEXTBALI50	Hole for cable passage with fireproof cable passage at the bottom (max. 4 cables)	-	Any model
PRISELI	Rack of 9 electrical sockets E+F (220 volts - 4000 watts - 16 amps - 50hz)	2	Any model
PRISELIF	Rack of 9 electric sockets type F (Germany)	2	
PRISELICH	Rack of 8 electrical sockets type J (Switzerland)	2	
PRISELIUK	Rack of 7 electrical sockets type G (United Kingdom)	1,7	
PRISELICC	Rack of 6 sockets equipped with a thermal-magnetic circuit breaker (4000 watts)	-	Any model
ONDULI	4-socket safety inverter for VIG190 or VIG290 or VIG590 (H 90 x W 163 x D 245 mm - 230 volts - 300 watts - 500 volts)	3,5	Any model
ALARMWI	Connected smoke detector with alarm on mobile application in case of triggering with wifi connection	-	-

(1) Depth including connecting sleeve at the back. Depth without sleeve: 400mm (S804LI) 550mm (S806LI)

(2) Height including connecting sleeve at top. Height without sleeve: 2045 mm



SAFETY CABINETS FOR STORAGE AND CHARGING OF LITHIUM-ION BATTERIES

Fume hoods, filtering cabinets - Ventilation

Lithium-ion cabinets

Flammable cabinets

Corrosive cabinets

Toxic cabinets and Multirisk

Containment and cans

File cabinets Anti-fire equipments

Showers and first-aid equipments



▲ AZ301BLI + 4 PRISELI14 + EX200LI + PEXTBALI14



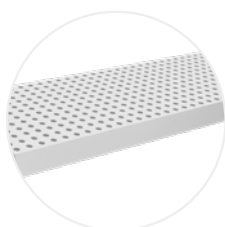
▲ AZ151BLI



▲ AZ111BLI



▲ AZ51BLI



Perforated shelf C150 / C300



Ventilation box CDV-A (option)



Option SERCODE14



ALARMWI connected smoke detector (option)



Fire extinguisher EX100LI/EX200LI (option)



Cable management PEXTBALI14 (option included with PRISELI14)



COMPLIANCE

- Complies with I.N.R.S recommendations: allows batteries to be stored in a dedicated area.
- Standardised pictograms in accordance with ISO 3864-1 and ISO 7010 standards, and with the European directive 92/58/EEC.

ADVANTAGES

- Cost-effective solution for storing and charging your Li-ion batteries safely and in compliance with legislation.
- Standardised pictogram for the storage of Li-ion batteries.
- Work surface of the countertop cabinets (ref. AZ51BLI and AZ111BLI) covered by a rubber mat.

ACTIVE SAFETY

- Top and bottom ventilation holes on each door.
- Hinged door(s) with 110° opening angle.
- 3-point lock and key.
- Drilling for connection to a forced ventilation system. (ref. AZVENT), supplied with a Ø 100 mm sleeve (included).

PASSIVE SAFETY

- One-piece steel construction.
- Epoxy paint: Body grey RAL 7035; Door(s) blue RAL 5010.
- Perforated shelves, adjustable in height on racks, with a 15 mm pitch.

DESCRIPTION ALARMWI

This Wi-Fi smoke detector alerts you if there is smoke or excessive heat build-up. It alerts you with an audible alarm for people nearby and an alert sent to your phone wherever you are.

- Easy to connect to your Wi-Fi, for alerts on your phone.
- Audible alarm to warn as many people as possible.
- Threshold of detection: 37 °C.
- Powered by 2x AA/LR6 battery.

OPTIONS

- Fire extinguisher automatically triggered at 79°C by special lithium thermal bulb (Ref. EX100LI or EX200LI (by smoke detection if included in the VIG190 / VIG290).
- Additional perforated shelf (ref: C150 and C300).
- Self-activating fire extinguisher (ref. EX100LI and EX200LI).
- Hole for 1 cable (ref. PEXTBALI14).
- Rack of 9 electrical sockets (ref. PRISELI14, including PEXTBALI14).
- Rack of 9 F-type sockets (Germany, PRISELIF14)
- Rack with 8 socket outlets J type (Switzerland, PRISELICH14)
- Rack of 7 G-type sockets (United Kingdom, PRISELIUK14)
- Rack of 6 socket outlets with circuit breaker (PRISELICC14)
- Ventilation box (ref. CDVA).
- Connection kit (ref.KRC).
- Connected smoke detector (ref ALARMWI).
- Digital code lock (ref Sercode14).

Ref.	Description	External dimensions H x W x D (mm)	Load capacity per shelf (kg)	perforated shelves	Weight (kg)
AZ51BLI	1 door counter cabinet (AZVENT included)	Ext. : 1000 x 500 x 500 Int. : 890 x 498 x 453	51	2	26
AZ111BLI	2 doors counter cabinet (AZVENT included)	Ext. : 1000 x 930 x 500 Int. : 890 x 925 x 453	102	2	43
AZ151BLI	Tall cabinet 1 door (AZVENT included)	Ext. : 1950 x 500 x 500 Int. : 1840 x 498 x 453	51	4	55
AZ301BLI	Tall cabinet 2 doors (AZVENT included)	Ext. : 1950 x 930 x 500 Int. : 1840 x 925 x 453	102	4	90
C150	Perforated shelf for model type AZ51BLI and AZ151BLI	50 x 483 x 438	51	-	5
C300	Perforated shelf for model type AZ111BLI and AZ301BLI	50 x 913 x 438	102	-	10
EX100LI	Self-activating fire extinguisher at 79°C with special lithium bulb for AZ51BLI, AZ111BLI, AZ151BLI			-	2
EX200LI	Self-activating fire extinguisher at 79°C with special lithium bulb for AZ301BLI			-	3
PRISELI14	Rack of 9 electrical outlets (250 volts - 4000 watts - 16 amps) Rack in E & F socket; Wall outlet in E socket (included PEXTBALI14)			-	2
PRISELIF14	9 socket outlet rack F type (Germany) (included in PEXTBALI14)			-	2
PRISELICH14	Rack with 8 socket outlets type J (Switzerland) (included in PEXTBALI14)			-	2
PRISELIUK14	Rack of 7 G-type sockets (UK) (included in PEXTBALI14)			-	1,7
PRISELICC14	Rack of 6 sockets equipped with a thermal magnetic circuit breaker (4000 watts) (included in PEXTBALI14)			-	-
PEXTBALI14	Hole for cable passage with cable passage at the bottom for 1 cable.			-	2
SERCODE14	Digital code lock for 14ELI series			-	1
CDV-A	Steel ventilation box			-	8
KRC	Connection kit for box (between box and cabinet)			-	1
AZVENT	Drilling for ventilation connection (included in AZ51BLI, AZ111BLI, AZ151BLI, AZ301BLI).			-	-
ALARMWI	Connected smoke detector with alarm on mobile application in case of triggering with wifi connection.			-	-



NO-CHARGE STORAGE CABINETS FOR LITHIUM-ION BATTERIES

Fume hoods, filtering cabinets - Ventilation

Lithium-ion cabinets

Flammable cabinets

Corrosive cabinets

Toxic cabinets and Multirisk

Containment and cans

File cabinets
Anti-fire equipments

Showers and first-aid equipments



▲ AZ300BLI



▲ AZ150BLI



▲ AZ110BLI



▲ AZ50BLI



▲ COU300



▲ COU150



Ventilation box CDV-A (option)



Connected smoke detector ALARMWI (option)



Option SERCODE14



COMPLIANCE

- Complies with I.N.R.S recommendations: allows batteries to be stored in a dedicated area.
- Standardised pictograms in accordance with ISO 3864-1 and ISO 7010 standards, and with the European directive 92/58/EEC.

ADVANTAGES

- Cost-effective solution for storing and charging your Li-ion batteries safely and in compliance with legislation.
- Standardised pictogram for the storage of Li-ion batteries.
- Work surface of the countertop cabinets (ref. AZ51BLI and AZ111BLI) covered by a rubber mat.

ACTIVE SAFETY

- Top and bottom ventilation holes on each door.
- Hinged door(s) with 110° opening angle.
- 3-point lock and key.
- Drilling for connection to a forced ventilation system. (ref. AZVENT), supplied with a Ø 100 mm sleeve (included).

PASSIVE SAFETY

- One-piece steel construction.
- Epoxy paint: Body grey RAL 7035; Door(s) blue RAL 5010.
- Perforated shelves, adjustable in height on racks, with a 15 mm pitch.

DESCRIPTION ALARMWI

This Wi-Fi smoke detector alerts you if there is smoke or excessive heat build-up. It alerts you with an audible alarm for people nearby and an alert sent to your phone wherever you are.

- Easy to connect to your Wi-Fi, for alerts on your phone.
- Audible alarm to warn as many people as possible.
- Threshold of detection: 37 °C.
- Powered by 2x AA/LR6 battery.

OPTIONS

- Ventilation box (ref. CDVA).
- Connection kit (ref. KRC).
- Connected smoke detector (ref ALARMWI).
- Digital code lock (ref Sercode14).

INSULATING CUSHION OPTION

- Cushions with non-flammable textured glass fibre filling (ref. COU150 et COU300).
- Absorbent, dust-free, flame-retardant according to DIN 4102-4 and non-conductive material.

Ref.	Description	External dimensions H x W x D (mm)	Load capacity per shelf (kg)	Perforated shelves	Weight (kg)
AZ50BLI	1 door counter cabinet (2 fireproof & AZVENT cushions included)	Ext. : 1000 x 500 x 500 Int. : 890 x 498 x 453	75	2	28
AZ110BLI	2 doors counter cabinet (2 fireproof & AZVENT cushions included)	Ext. : 1000 x 930 x 500 Int. : 890 x 925 x 453	125	2	49
AZ150BLI	1 door tall cupboard (4 fireproof & AZVENT cushions included)	Ext. : 1950 x 500 x 500 Int. : 1840 x 498 x 453	75	4	59
AZ300BLI	Tall cupboard 2 doors (4 fireproof & AZVENT cushions included)	Ext. : 1950 x 930 x 500 Int. : 1840 x 925 x 453	125	4	102
COU300	Fireproof and absorbent pad for AZ300BLI and AZ110BLI	1000 x 600	-		2,7
COU150	Fireproof and absorbent pad for AZ150BLI and AZ50BLI	600 x 400	-		1
ESE150	Containment sump/bin for AZ50BLI and AZ150BLI				3
ESE300	Containment sump/bin for A110BLI and AZ300BLI				6
SERCODE14	Digital code lock for 14FLI series				1
AZVENT	Hole for ventilation connection (included in AZ50BLI, AZ110BLI, AZ150BLI, AZ300BLI).				-
ALARMWI	Connected smoke detector with alarm on mobile application in case of triggering with wifi connection.				-
KRC	Connection kit for box (between box and cabinet)				1
CDV-A	Steel ventilation box				8

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Fume hoods, filtering
cabinets - Ventilation

Lithium-ion
cabinets

Flammable
cabinets

Corrosive
cabinets

Toxic cabinets
and Multirisk

Containment
and cans

File cabinets
Anti-fire equipments

Showers and first-
aid equipments



SECURE TRANSPORT CASES FOR LITHIUM-ION BATTERIES



▲ VT1LI



▲ VT2LI

WHY CARRY YOUR LITHIUM BATTERIES IN SECURE CASES?

Lithium-ion batteries have become an essential part of everyday life and are used in many applications. However, they also present a high degree of potential danger and are subject to increasingly strict regulations, particularly during transport. They are classified as dangerous goods and require generally approved packaging that must comply with strict safety regulations.. Our storage cases for Li-ion batteries are UN-approved for the transport of intact or defective lithium batteries.

CHARACTERISTICS AND COMPLIANCE

- Cushions with textured fibreglass padding, flame retardant according to DIN4102-4 and non-conductive.
- Certified to STANAG 4280, DEF STAN 81-41, ATA 300, UN3480.
- IP67 approved: completely dust and waterproof to a depth of 1 m for 30 min.
- The total weight (including case and padding) must not exceed 13 kg.
- If the case is shipped, you must affix the class 9 hazardous materials label to the packaging.

ADVANTAGES

- The laser engraving of the approval number is easily visible by the control body.
- Reusable transport case.
- You can use these cases for shipments if the packing instructions are followed (see instructions).
- No individual packaging of the batteries is necessary.
- Stackable and extremely robust case.
- Possibility to install a padlock (2 eyelets).
- Simplified packing and shipping.
- To protect against a dangerous rise in temperature, the cells/ batteries must be fully encapsulated in a non-combustible thermal insulation material. This insulation and absorption material is designed for the transport of new or defective Li-ion batteries. If your batteries leak, the cushions do not react with electrolytes or other hazardous substances and have a very high shock and electrolyte absorption capacity. They have a high compression elasticity and help to minimise shocks and vibrations during transport.

Ref.	Description	External dimensions H x W x D (mm)	Internal dimensions H x W x D (mm)	Weight (kg)
VT1LI	Transport case for lithium battery, 1 compartment	150 x 510 x 420	130 x 475 x 350	4,5
VT LI	Transport case for lithium batteries, 2 compartments	150 x 475 350	130 x 475 x 350	4,5

FIRE EXTINGUISHER FOR LITHIUM-ION BATTERIES



▲ EX9LI



▲ EX6LI

COMPLIANCE

Fire extinguisher compliant with NF EN 3-7+A1 and the Pressure Equipment Directive 2014/68/EU.

TECHNICAL CHARACTERISTICS

- The fire extinguishers in the water range are auxiliary pressure refillable devices, fitted with a propellant capsule.
- Extinguishing agent: Water + fluorine-free additive + additional charge.
- New generation additives free of fluorinated chemical compounds PFAS perfluorohexanoic acid (PFHxA), PFOA and PFOS recognized as Persistent, Bioaccumulative and Toxic (PBT), safe for the environment, for living beings and totally biodegradable.
- Painted steel body and anti-corrosion coating in oven-cured epoxy polyester resin.
- Light alloy cover head protected against corrosion by black cataphoresis.
- Brass striker with nickel plating for better perforation and corrosion protection.
- Green safety pin, with plastic seal (breakable, non-repositionable seal with space for marking the verification date).

ADVANTAGES

- Easy to maintain and environmentally friendly.
- Hose with trigger valve and sprayer on pipe with crimped connection for targeted and metered delivery to the fire.
- Wide top opening for easy control and loading.
- Visualisation of the impact by locking the handle in the lower position.
- The extinguishers are charged with water not mixed with the extinguishing agent. The extinguishing agent is contained in a patented floating bottle (the extinguishing agent mixes with the water when pressurised). In this way, during regulatory checks, the water to be recycled can be discharged as it is not altered by the additive.

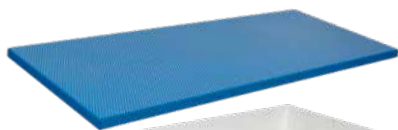
A fire extinguisher must be checked annually and overhauled every ten years by a competent person or organisation. It must be marked with a clearly identifiable label by the person or organisation that carried out the check.

Ref.	Description	External dimensions H x W x Ø (mm)	Volume (L)	Fire class	Maximum energy capacity of the battery (Wh)	Weight (kg)
EX6LI	Fire extinguisher for Lithium	440 x 240 x 175	6	AB	135	11
EX9LI	Fire extinguisher for Lithium	590 x 240 x 175	9	AB	315	15

EQUIPMENT FOR LITHIUM CABINETS

SHELVES & RETENTION BINS

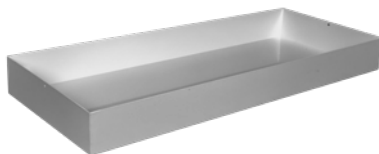
▼ E35LI



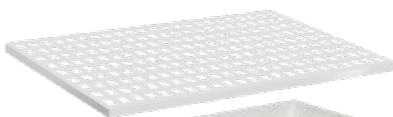
▲ B235



▲ ESE300



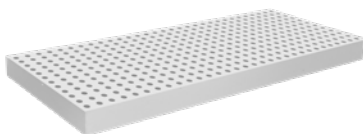
▼ E06LI



▲ GL06



▲ C300



▲ R2FLI

ADVANCED SECURITY SOLUTIONS

▼ VIG190 - Security and alarm package comprising (or VIG590) :



Visual and audible alarm



Control box

Automatically triggered
smoke detectorSpecial lithium
extinguisher

PINTOLI cable duct

▼ Additional features



SERCODE



SERCODE 14



ONDULI

EX100LI / EX200LI
/ EX500LI

PEXTBALI



PEXTBALI14



PEXTBALI50



PRISELI



ALARMWI

RISKS ASSOCIATED WITH LITHIUM-ION BATTERIES

WHAT IS A LITHIUM-ION BATTERY?

A Li-ion battery, or Li-ion accumulator, consists of two electrodes (cathode and anode) and an electrolyte that ensures the ion exchange of the system.

During the discharge (use) of the battery, ions move from the anode to the cathode. During charging, the reverse occurs. These two electrodes are insulated by a separator to prevent a short circuit.

WHAT ARE THE DANGERS ASSOCIATED WITH THESE BATTERIES?

Of the 50 potential accidental scenarios identified by INERIS (Institut National de l'Environnement Industriel et des Risques) during the various stages of the battery life cycle, 12 were considered critical. They concern in particular the storage, recharging and use stages. The most problematic outcome of these risks concerns battery fire (or metal fire). This is a significant risk because the fire caused by Li-ion batteries cannot be extinguished in a conventional way, as the battery itself generates the oxygen molecules and heat needed for combustion. It can only be extinguished with the help of special powders, all in a confined environment (with the risk of the powder losing its effectiveness).

HOW DO THESE BATTERY FIRES ORIGINATE?

By thermal runaway due to overcharging or exposure to excessive temperatures

A battery usually delivers the chemically stored energy on discharge as electrical energy. However, not all of the energy may be delivered as electrical energy, but may cause overheating that can be as much as 7 to 11 times the electrically stored energy. Given the structure of the battery, the reaction itself becomes stronger and causes critical overheating. The materials of the battery also release bound oxygen, which further fuels the fire.

By full discharge

The full discharge associated with not using the battery for too long periods can damage the battery. If the battery is then exposed to temperatures that are too cold, this can cause a change in the physical and chemical properties of the electrolyte liquid and lead to the formation of flammable gas. The absence of the liquid breaks down the protection of the battery, leading to a short circuit or fire.

By mechanical damage

Shocks or misuse can damage the internal structure of the battery and lead to deterioration of the battery separator, leading to a short circuit or fire.

HOW TO STORE THEM SAFELY?

Storage recommendations depend on the size and power of the battery:

Low power lithium batteries (less than 100 Wh per battery)

Those are the small batteries contained in mobile phones or computers, for example.

No special safety requirements apply here, as long as all the manufacturer's instructions and safety locations are followed.

For larger quantities stored (volume over 7 m3) the guidelines for medium capacity lithium batteries applies.

Medium capacity lithium batteries (approx. 100 Wh per battery and 12 kg gross per battery)

Batteries in this category are used in electric bicycles, electric scooters or similar small vehicles. They should be stored in separate fire-resistant enclosures (e.g. a fireproof room or safety cabinet).

They should not be stored with other products and this area should be constantly monitored.

For larger quantities stored (area occupied at 60 m2) the guidelines for high power lithium batteries applies.

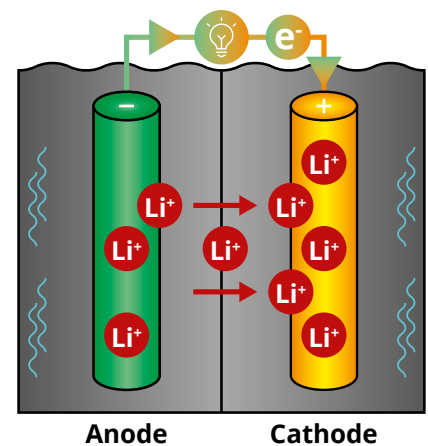
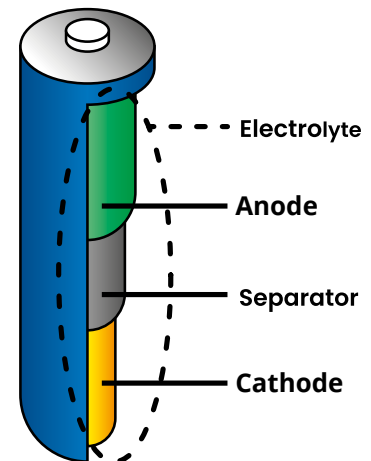
High capacity lithium batteries (more than 100 Wh per battery and 12 kg gross per battery)

Batteries in this category are mainly used in electric cars and large stand-alone appliances.

The recommendations for the storage of medium power batteries should form the basis for consideration. However, safeguards should be put in place on a case-by-case basis after consideration.

- If the storage space is large, fire protection must be adapted.

- If the use of sprinklers is allowed, it should be as localised as possible and it is recommended that the batteries are separated and stored in a confined environment to prevent a fire outbreak.



Top, components of a Li-ion battery.
Below, how a Li-ion battery works in use.

VENTILATION OF YOUR CABINET

ESSENTIAL ACCESSORY TO IMPROVE THE SECURITY OF YOUR CABINET

CE

We strongly recommend that you add a ventilation or filtration box to your safety cabinet.

The box extracts the stagnant vapors contained in your cabinet and renews the air, thus reducing internal overheating.



▲ CDV-A



▲ KRC



▲ CDV-A + option KRC + option KL100 + option CDS100

THE CDV-A VENTILATION BOX

Connected to the cabinet using a connection kit (ref. KRC); the fan included in this box allows the extraction of toxic vapors generated in the cabinet and sucked outside the building via a wall outlet to be created.

P/N	Description	Dimensions H x W x D (mm)	Weight (kg)
CDV-A	Steel ventilation box	235 x 260 x 245	8
KRC	Connection kit for box	-	1
KL100	Hose diam. 100 mm, per metre	-	0,2
CHJ	Steel connection sleeve diam. 100 mm	-	0,1
CDS100	Clamp diam. 100 mm	-	-

THE RIGHT QUESTIONS TO ASK

- What is the composition of the fire extinguisher ?**
Metal fires, and particularly lithium, are extremely difficult to stop. Nevertheless, the technology developed by our experts use an assembly of potassium nitrate and polyepoxide to act on the lithium fire.
- Is it dangerous for humans ?**
No, but it is of course recommended to properly ventilate in order to remove stale air.
- How long does the fire extinguisher last and when should it be changed ?**
The fire extinguisher does not require any specific maintenance during its lifespan of approximately 15 years.
- How does a smoke detector work ?**
It is an optical smoke detector, an electric voltage is applied to the terminals of the electrodes, generating a current caused by ionization of the air in the chamber. When the smoke particles enter inside, the intensity of the current is disturbed, which then triggers the detector alarm.
- What is the volume of the «VIG» alarm in decibel ?**
3 sound levels are possible depending on the connection made. We chose the most intense, at 109 db (A).