



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

105 MINUTES SAFETY CABINETS FOR LITHIUM-ION BATTERY STORAGE AND CHARGING

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 physicochemical properties of the material it contains.

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



The cabinets can be connected to a **three-phase** electrical supply system. We can design and equip our cabinets according to your requirements or electrical constraints. Quick disconnection systems and other electrical specifications are available according to your needs.

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

COMPLIANCE

- REGULATION - EU -2023/1542 - Article 42 - 4. Storage or transport conditions ensure the conformity of batteries.
- Complies with level 2 of standard EN 16121+A1 (opening/closing 80000 cycles and placement of the load defined by the manufacturer on the shelves).
- 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

- Thermodilating 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.