

Battery storage and charging cabinet PG 9

Fire prevention is important when charging lithium batteries. CEMO now offers a safe solution. Providing important safety equipment can minimise the consequences of these storage devices burning and significantly increase safety.

- lithium batteries in the cabinet
- early alarm in case of damage
- all relevant safety regulations for charging lithium batteries are observed
- ideal for separating batteries on charge from stored units
- can also be used as an under-table cabinet under the workbench
- certifications from the TÜV NORD Group using the latest test programme with real battery fire testing and induced gas explosions
- MPA-tested fire resistance over 60 minutes from inside to outside according to DIN EN 1363-1
- built using non-combustible, fire-resistant components

- **NEW:** Spring-based CEMO lockEX door locking for controlled pressure relief during explosions
- special fire prevention seals prevent flames escaping
- cold smoke-tight sealing system for openings
- transportable for positioning at the place of installation
- lockable double doors with sturdy lock and hinges
- doors painted orange, matching RAL 2004; body grey, matching RAL 7035

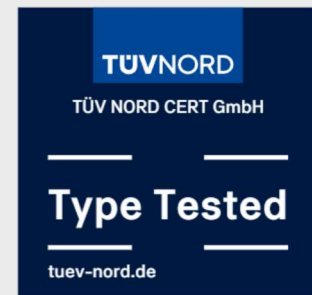
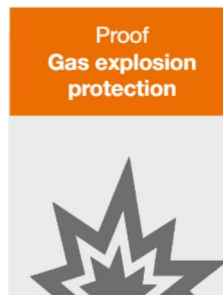
New test programme and certification from the TÜV Nord Group

The new test programme of the TÜV Nord Group was developed on the basis of many years of testing experience with lithium batteries in a variety of sizes and performance categories. The result is test requirements that most closely approximate to the real dangers of failing and burning lithium batteries.

The scope of testing comprises both battery fire testing and induced gas explosions. Propane gas is used for the gas explosion because the explosion characteristics are very similar to those of battery gases and ensure a reproducible test format.

The 3 proofs of safety and quality

Test component of the new certification programme of the TÜV NORD Group.



Controlled pressure relief as explosion protection.



If a damaged lithium battery explodes, the cabinet doors can burst open. By means of a spring mechanism, the cabinet door is opened very slightly then immediately retracted and locked again. This dissipates the explosive pressure.



NEW

Includes property rights lodged with the German Patent and Trademark Office.

It has long been known in specialist circles that lithium batteries can not only catch fire, which can lead to explosive burning of individual cells, but can also cause gas explosions as a result of the vapour leaking out of the cells. This represents the worse case scenario in the event of a battery fire. In some cases, however, this can render the entire protective effect null and void and is thus the most decisive criterion in performing a risk assessment.

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Fire prevention meets explosion protection

CEMO now also has the solution for explosion protection.

Sequence of a battery fire:

An explosion can happen even before a thermal runaway occurs. If the cabinet housing gives way or the doors open, the protective effect can be instantly lost. There is then nothing to prevent the burning cells and battery packs being ejected into the area around the cabinet.

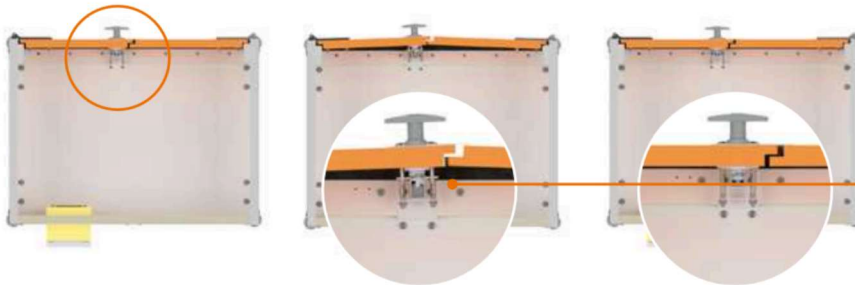
The solution:

CEMO lockEX is a spring-based mechanism in the door lock that effectively manages the explosive pressure of gases that ignite inside the cabinet. This NO-BANG technology guarantees that the protective effect is maintained.

NEW



OPERATING PRINCIPLE OF THE LOCKEX LOCKING MECHANISM (PLAN VIEW)



1. Battery failure begins, cells emit flammable vapours which spread throughout the cabinet.

2. An ignition source (possibly initiated by electrical sparks or the build-up of heat inside the battery itself) results in an explosion/ignition of the gas. The lockEX mechanism releases the explosive energy in a controlled way through a narrow gap.

3. The doors are locked again and the batteries can continue reacting without causing any danger. The cabinet system remains operational and protects the employees and the surroundings.

lockEX
inside



Battery storage cabinet 8/5



Battery storage cabinet 8/10
with 1 shelf as standard at half height. Optionally 2 more shelves possible (see accessories).

BATTERY STORAGE CABINETS

Description	External dimensions cm (l x w x h)	Internal dimensions cm (l x w x h)	Weight approx. kg	Order no.
Battery storage cabinet 8/5 Two battery-operated audible smoke detectors - without power connection, without fan -	80 x 66 x 52	73 x 53 x 45	80	11890
	Additionally with stacking feet*	80 x 66 x 62	73 x 53 x 45	83
Battery storage cabinet 8/10 With stacking feet*, two battery-operated audible smoke detectors - without power connection, without fan	80 x 66 x 111	73 x 53 x 91	132	11898
	NEW With castors, two battery-operated audible smoke detectors - without power connection, without fan -	80 x 66 x 115	73 x 53 x 91	144

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For all charging versions:

- heat dissipation by fan during charging
- charging current is interrupted if the doors are opened
- charging stops if a malfunction or accident occurs
- vents sealed with thermocouples

Battery charging cabinet 8/5

- power supplied by 6-way socket power strip (3500 W, 16 A)

Battery charging cabinet 8/10

- Charging versions with 2 vertically arranged 6-way socket power strip for power supply
- 230 V version with 1-phase power supply (3500 W / 16 A)
- 400 V version with 3-phase power supply (2 x 3500 W / 2 x 16 A)



Battery charging cabinet 8/10
Premium Plus 3-phase



Battery charging cabinet 8/5 Basic



TIP: The 3-phase version is necessary if, for example, batteries are to be charged with fast chargers that have a greater current requirement than the 1-phase version can provide.



All versions with audible alarm. Premium and Premium Plus: Now with improved connection option for combination alarm transmitter (12V) and connection to fire alarm system.



Battery charging cabinet 8/10
Basic can be supplied on castors

NEW

lockEX
inside

BATTERY CHARGING CABINETS

Description		Type	External dimensions cm (l x w x h)	Internal dimensions cm (l x w x h)	Weight approx. kg	Order no.
Battery charging cabinet Basic	Two battery-operated audible smoke detectors, power supply in cabinet, technical ventilation, power disconnection in case of heat development, door contact switch	8/5 1-phase	80 x 66 x 52	73 x 53 x 45	81	11892
		8/5 with stacking feet* 1-phase	80 x 66 x 62	73 x 53 x 45	84	11893
		8/10 with stacking feet* 1-phase	80 x 66 x 111	73 x 53 x 84	135	11899
		8/10 with stacking feet* 3-phase	80 x 66 x 111	73 x 53 x 84	136	11900
		8/10 with castors 1-phase NEW	80 x 66 x 115	73 x 53 x 84	146	11723
		8/10 with castors 3-phase NEW	80 x 66 x 115	73 x 53 x 84	147	11726
Battery charging cabinet Premium	<u>Modification to charging Basic:</u> electronic smoke detector (without audible alarm) <u>In addition to charging Basic:</u> power disconnection in case of smoke detection and voltage-free output on the outside of the cabinet for connection to a fire alarm system, 12 V connection for e.g. accessory combination alarm unit (visual and audible)	8/5 1-phase	89 x 66 x 52	73 x 53 x 45	82	11894
		8/5 with stacking feet* 1-phase	89 x 66 x 62	73 x 53 x 45	85	11895
		8/10 with stacking feet* 1-phase	89 x 66 x 111	73 x 53 x 88	135	11901
		8/10 with stacking feet* 3-phase	95 x 66 x 111	73 x 53 x 88	136	11902
		8/10 with castors 1-phase NEW	89 x 66 x 115	73 x 53 x 88	146	11724
		8/10 with castors 3-phase NEW	95 x 66 x 115	73 x 53 x 88	147	11727
Battery charging cabinet Premium Plus	<u>In addition to charging Premium:</u> Internal temperature display, with remote alarm and data transmission via SIM card; additional functions via remote access	8/5 1-phase	89 x 66 x 52	73 x 53 x 45	82	11896
		8/5 with stacking feet* 1-phase	89 x 66 x 62	73 x 53 x 45	85	11897
		8/10 with stacking feet* 1-phase	89 x 66 x 111	73 x 53 x 88	135	11903
		8/10 with stacking feet* 3-phase	95 x 66 x 111	73 x 53 x 88	136	11904
		8/10 with castors 1-phase NEW	89 x 66 x 115	73 x 53 x 88	146	11725
8/10 with castors 3-phase NEW	95 x 66 x 115	73 x 53 x 88	147	11728		