



Conscious Charging of the E-Bike

You need a power outlet and the e-bike charger. However, when only providing a power source near the bike, the charger must be stored with the bike (e.g., in the bike bag).

This charger is then not protected against weather and theft, and there can also be an unwanted “cable mess” in the bike storage area.

A bike battery can fall, or the bike itself can tip over, potentially damaging the internal parts of the battery or allowing moisture to enter, which can cause issues when charging. Battery fires can occur during or after charging if there is a power surge.

In the event of possible overheating of the bike battery, a fire can break out, and the cells can explode and shoot through the space. We tested this with firefighters at PLOT in Genk (B), as seen in the video.

Safe Charging of the E-Bike Battery

Charging batteries in a dedicated area is very important for maintaining order and preventing cable mess. By implementing a policy and consciously storing and charging batteries correctly, hazardous situations, including the release of toxic smoke, can be better controlled.

It's important to note that battery charging should always follow the safety instructions and the manufacturer's manual for the bike.

Click on the fire department logo for tips and "All About the Lithium-Ion Battery."

Charging is possible at low temperatures, although the battery capacity decreases significantly. Ideally, a dry battery should be charged at room temperature.

However, the e-bike battery should not be charged at excessively high temperatures. Prolonged parking of the e-bike with the battery in direct sunlight is therefore not advisable and may lead to overheating and a risk of fire.

The steel NSA E-locker cabinet has an average weight of about 18 kg per locker. The roof is equipped with two additional steel plates and an extra rear wall, providing a fire-retardant function in case of emergencies, allowing firefighters to do their work. The lockers can be fitted with a temperature sensor that gives a warning if a temperature threshold is exceeded, allowing you as the manager to intervene in time.

It can also be connected to the Building Management System (BMS) and fire alarm system. The NSA E-locker cabinet can also be equipped with an automatic fire suppression system.

We always recommend installing a smoke detector near the locker cabinet.

Cooling an overheated or burning lithium battery is certainly not easy and is unsafe to attempt on your own. Immediately alert the fire department and ensure your own and others' safety. In the event of a fire, try to control the smoke development from a safe distance by ventilating the room, and avoid inhaling toxic smoke.

Outdoor Installation

The E-locker cabinet is also suitable for outdoor installation. However, placing it in a dry location and at room temperature is recommended, also for the comfort of the cyclist.

All charging points must be connected in accordance with NEN1010.

Fire Test

Safety also means that the charger and e-bike battery are properly connected to the power grid, with no risk of overloading or spontaneous combustion of the e-bike battery.

This is why we conducted a fire test with our charging locker. In July 2021, in cooperation with PLOT in Genk (B) and UMC Maastricht, we successfully conducted a fire test.



8er



2 x 8er Railway Station Den Bosch (NL)



12er Horizontal VAC Leuven (B)