



Celsion Battery Case - Furnishing item



QUBE® - SAFETY CASE FOR BATTERIES

To store and charge undamaged batteries
Benefit: permanent cooling in the critical state
to prevent from a thermal runaway



GERMAN
ENGINEERING



**solution
for fire protection
from the inside**



**solution
for fire protection
from the outside**



Administration
Bautzen

COMPANY PORTRAIT

Celsion Brandschutzsysteme GmbH is one of the leading fire protection companies and has been your partner in fire protection for more than 20 years.

By protecting escape routes and safeguarding functional integrity in a case of fire and by being involved in various working groups and standards committees, we not only view ourselves as a manufacturer of products, but as a customer-related service provider.

During planning phases, we offer innovative solutions that are individually coordinated with planners and architects to ensure smooth building processes. Celsion develops, designs and produces fireprotection cabinets (free-standing and wall cabinets, wall add-on enclosures), inspection doors and fire-resistant partition wall systems for a wide variety of applications.



Training room
Munich

Production plant,
Werk II

Training room
Spreetal

Technical office
Mainz

Training room
Mainz

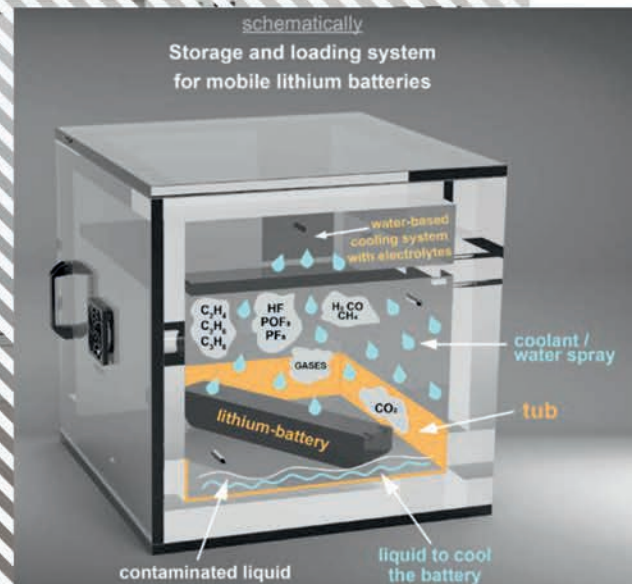
Production plant,
Werk I

Technical office
Munich

90



QUBE® SAFETY CASE FOR BATTERIES



QUBE® Safety Case Series



Fire resistance: 90 minutes
 Fire from inside and outside: 90 minutes



example design

Areas of application - escape routes and corridors in:

Residential and office buildings
 Industrial buildings
 Shops/salesrooms
 Schools and childcare centres
 Nursing homes and hospitals
 Public meeting places
 Restaurants and hotels
 Leisure and tourism event organisers

Fields of application



Fire load insulation

- Protection against a fire caused by a battery with a plastic housing burning from the inside outwards



Fire resistance

- Protection against a fire from the outside



Thermal runaway protection

(Tested on rechargeable batteries in a plastic housing, up to 625 Wh)

The QUBE® series of enclosures is available in 2 different designs

- BASIC PLUS
- PREMIUM

As an option, the system can also be upgraded or adapted with the following components:

- Doorstop
- Choice of positioning of the cable bushing
- EN 54-7 smoke detector
- Electro-mechanical door opener
- Potential-free signal contact (for BMZ, etc.)
- Tablet holder incl.
- 2 x 10-port USB charger



European basis of development/
 scope of testing compliant with:

EN 1363-1
 Directive 2014/35/EU, VdS 3103:2019-06

In the sense of the
 European classification
 criteria:



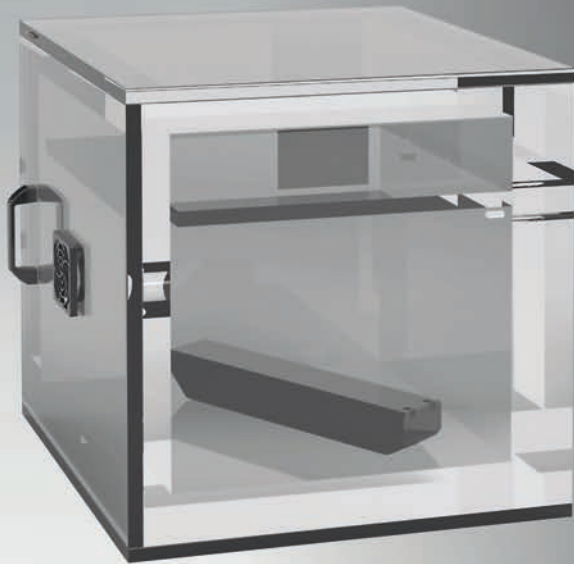
QUBE® safety case

The safety enclosure of type **QUBE®** is suitable for safe storage and charging of undamaged batteries, in particular lithium-ion rechargeable batteries for e.g. e-bikes and e-scooters, but also for other small batteries with plastic housings. In the event of a fault in the battery, which can rapidly develop into a thermal runaway, the battery is cooled using the innovative extinguishing system, reducing fires and other destructive effects.

QUBE® offers a modular design, so you can set up multiple **QUBE®** units either in a row or stacked on top of each other, or in other ways: free-standing in the room, tucked away in a recess, and many more. The **QUBE®** series of enclosures is available in **2 different design: BASIC PLUS** and **PREMIUM**.

Important information about working on used electrical devices containing critical lithium-ion rechargeable batteries:

If the received used lithium-ion rechargeable battery meets at least one of the following criteria then the battery must be classified as critical and may no longer be used or loaded: Deformation or swelling of the outer housing of the battery; damage to individual or multiple cells that is visible to the eye; (abnormally) increased surface temperature of the battery/outer housing; signs of electrolyte leakage; signs of degassing. In this case, do NOT continue using the battery, but keep it in the **QUBE®** with the door closed. Do NOT connect or charge the battery. Contact the battery manufacturer to clarify the safe and proper recycling. In the event of fire- call the firebrigade!



Technical data

Operating voltage / load voltage	230V / 50Hz
Max. current draw	250mA
Number of earthed sockets	3
Total connectable load (max.)	3450W
Fusing Earthed sockets	15A
Operating temperature	0 to +40°C
External dimensions (HxWxD)	600 x 600* x 600 mm
Internal dimensions (HxWxD)	343 x 458 x 458 mm
Weight	approx. 98Kg*

*without fire extinguisher

Versions

BASIC PLUS

(Based on F90 und I90)

1. 3-way power socket for charging the batteries
2. Automated fire extinguishing system
3. Base trough with 5 cm upstand for fire-extinguishing agents
(to prevent the release of toxic battery components in the event of an alarm/fire and to ensure proper subsequent disposal of the fire-extinguishing agents)
4. Fire extinguisher with wall mounting
5. Temperature monitoring system in the battery charging area
6. Optional: Temperature monitoring system in the battery charging area plus ambient temperature monitoring
7. Optional doorstop (self-closing latch)
8. Choice of positioning of the cable bushing
9. Possible installation variants: wall mounting/ corner installation/ recessed installation/ free standing in the room
10. Ventilation system in the battery charging area
11. Automatic interruption of charging in the event of an alarm
12. Water-based fire extinguishing agent
13. Continuous cooling for prevention of thermal runaway in the battery in the event of an alarm or fire and to prevent thermal runaway of further cells and modules. Optional: Potential-free signal contact for transmission of alarms to a higher-level system (BMZ etc.)
14. Lockable housing fastening for secure access and permanent locking
Optional: Potential-free signal contact for transmission of alarms to a higher-level system (BMZ, etc.)

PREMIUM

(Based on F90 und I90)

15. Emergency release
16. Status indication for the 3-stage monitoring system via LED indicator lights
17. Automatic door locking in the event of an alarm
(opening via the emergency release is possible at any time)
18. Automatic access/opening via RFID card (up to 2000 users possible)
or via PIN code
Optional: Potential-free signal contact for transmission of alarms to a higher-level system (BMZ, etc.)

Regulations, norms and laws - a short excerpt

Please refer to:

International

the individual state building orders and fire protection - or life safety guide-lines, administrative rules and technical building regulations valid in the individual federal states

IEC 60364-5-56 Ed.3.0 2018, IEC International Electrotechnical Dictionary

ISO 834-1, EN 1366-11, EN 1363-1

Dubai/UAE

UAE Fire and Life Safety Code of Practice 2018

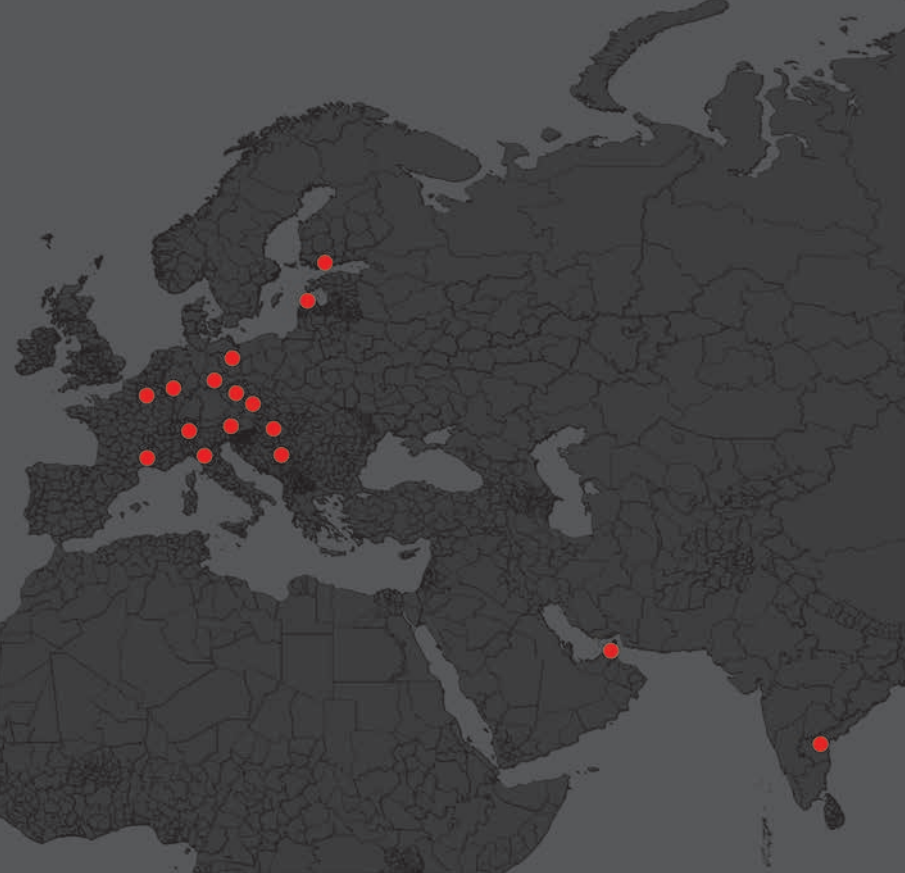
India

National Electrical Code of India 2023















National Building Code of India 2016

List not exhaustive - for orientation purposes only.

Please observe the customer-specific and building regulations, specifications and notes.



International sales locations

-  Germany, Dresden
-  Austria, Klagenfurt
-  Switzerland, Zurich
-  France, Villerbanne
-  Luxembourg, Bettembourg
-  Italy, Turin
-  Czech Republic, Prague
-  Slovakia,
-  Hungary, Budapest
-  Serbia, Belgrade
-  Estonia, Tallinn
-  Finland, Vantaa
-  India, Chennai
-  UAE, Dubai



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