

asecos®

# LITHIUM BATTERIES

SAFE STORAGE AND CHARGING



»» **7 models in 4 sizes:** Solutions for every application

»» **All-round protection:** ION-LINE safety storage cabinets for your safety

# Lithium-ion batteries

## LITHIUM-ION BATTERIES – HOW PROFESSIONALS AND INSURERS RECOMMEND HANDLING BATTERIES

Ever more frequently, private individuals, tradespeople, and companies are using lithium-ion batteries classified as being in the moderate performance class according to VdS 3103. It is important to keep safety in mind when doing so. If you do not store and/or charge these batteries properly, they can pose hazards and safety risks.

Insurers, associations, and professionals have drawn attention to this issue.

Property insurers recommend using available protective equipment (such as type 90 safety storage cabinets) to minimise risks and avoid damage.

### Property insurers recommend the use of safety storage cabinets for the following reasons:

"If lithium ion batteries are required at production facilities, then measures and safety precautions such as (...) storing them in fire-resistant cabinets should be considered".

IMK Ber. No. 192  
Dipl.-Ing. Jürgen Kunkelmann  
Section 2.2, last updated 10/2017

"Past damage we have seen has shown that damaged or defective batteries, in particular, can cause a fire. We have also seen fires caused by lithium-ion batteries in bicycle stores".

Provinzial - Handling lithium-ion batteries safely in bicycle sales,  
[www.provinzial.de](http://www.provinzial.de) last updated May 2020

**"Lithium batteries should generally be treated as a hazardous material."**

Publication VdS 3103 : 2019-06 (03)  
General Association of the German Insurance Industry  
published by VdS Schadenverhütung GmbH

"Larger quantities, or more powerful LIB must be stored at a safe distance from flammable materials. If they are stored inside buildings, then a clearance of 2.5m from other goods must be maintained, or the LIB must be stored in a separate area secured by fire protection technology (like a safety storage cabinet or container)!"

LIB= Lithium-ion batteries  
DGUV Information 205-041  
Fire protection when handling lithium-ion batteries  
Last updated February 2024

"Areas with medium power batteries should be spatially (at least 5 m) or structurally separated from other areas with fire-resistant structures."

Publication VdS 3103 : 2019-06 (03)  
General Association of the German Insurance Industry  
published by VdS Schadenverhütung GmbH

"Fire-resistant safety storage cabinets (type 90) with smoke detector monitoring offer particular protection, as batteries can be both stored and charged there in a protected manner. "

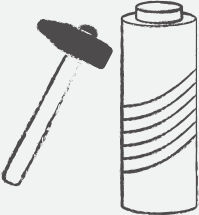

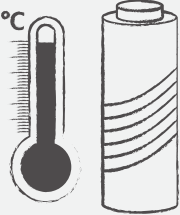
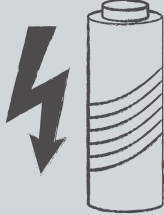
Provinzial Flyer – E-Bikes handling lithium safely, last updated 06/2020



# Lithium-ion batteries

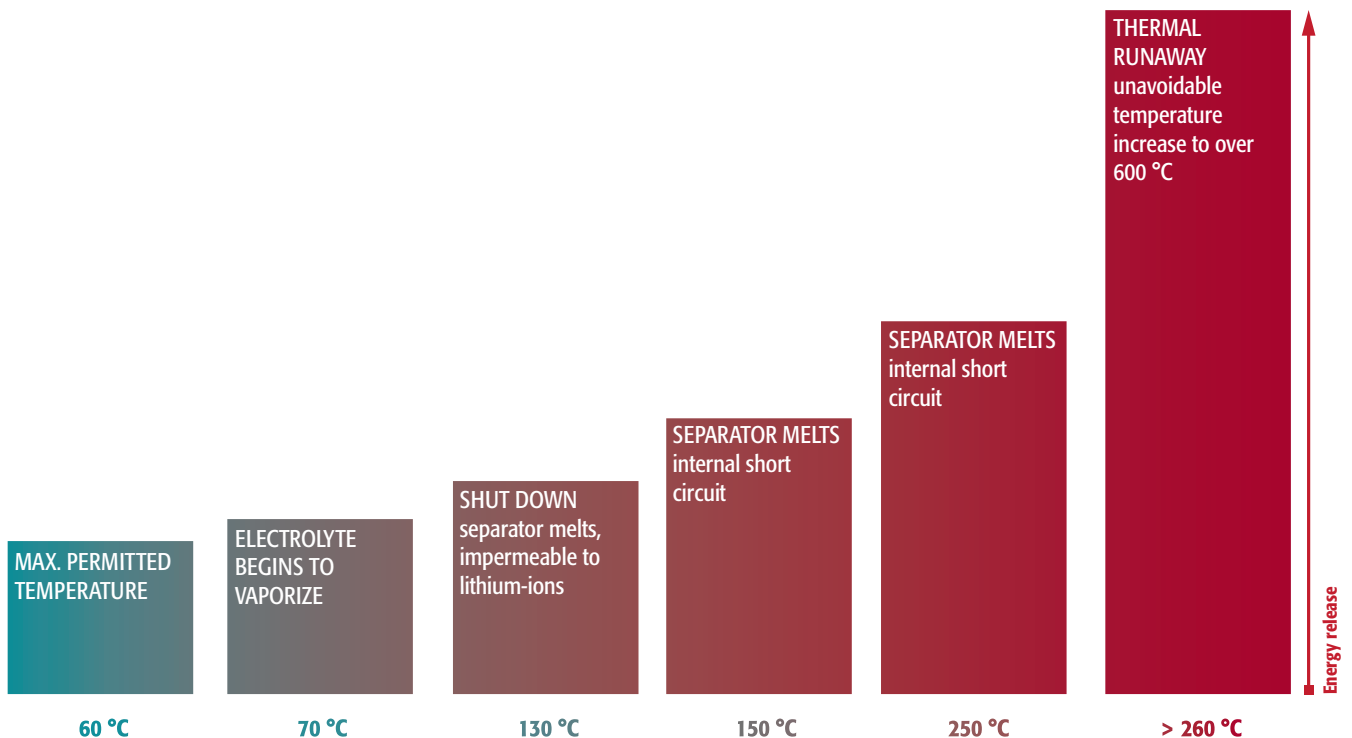
## IMPROVED SAFETY THROUGH FIRE PROTECTION – CHARGING AND STORING BATTERIES CORRECTLY

Lithium-ion batteries can cause a fire. Causes include:

Mechanical damage	Deep discharge	Thermal overload	Electrical overload
In combination with the high energy density of the battery	Unstable cell	Caused by external heat or energy sources	During charging and discharging
			

Always store and charge lithium-ion batteries in a safety storage cabinet. Handle batteries properly and appropriately to reduce hazards such as the risk of fire. Lithium-ion batteries offer many advantages. They are long-lasting, offer high energy density, have a low level of self-discharge, and can be used in a wide range of different applications. Using lithium-ion batteries is safe. However, according to the VDE they are safe only when handled properly. Technical defects or improper handling can cause a fire. If a lithium-ion battery

discharges its energy in an uncontrolled manner, the heat released may exceed the melting point of the lithium. This will result in a chain reaction. Professionals call this "thermal runaway". The battery can explode as it burns. Because of this, it is important to understand and comply with the safety regulations for moderate performance batteries (see page 7). It is best to store and charge lithium-ion batteries in an asecos safety storage cabinet.



# SAFETY REGULATIONS FOR MEDIUM POWER CLASS BATTERIES

(Based on VdS 3103, Provincial flyer 06/2020)



## SAFETY REGULATIONS

- ▶ Comply with the manufacturer's specifications, and follow the information provided on technical product sheets.
- ▶ Protect the poles of the batteries from short circuiting.
- ▶ Protect the batteries from mechanical damage.
- ▶ Do not expose the batteries directly or continuously to high temperatures or heat sources, such as direct sunlight
- ▶ Store the batteries in a location structurally or spatially separate from other flammable materials if there is no automatic extinguishing system available: minimum distance 2.5 m
- ▶ Remove damaged or defective batteries from your warehouse and production areas immediately; store them temporarily until their disposal at a safe distance away, or in an area separated using fire protection technology.
- ▶ Only store batteries that have a testing certificate in accordance with UN 38.3; store prototypes only in exceptional cases and with a risk assessment.
- ▶ Only store batteries in separate, fire-resistant areas or at a safe distance of 5 m
- ▶ Do not store batteries with other products that can act as accelerants to a fire
- ▶ **Monitor the storage areas where your batteries are located using suitable sensors with connection to a permanently staffed alarm receiving office**
- ▶ With fire extinguishing systems, observe the information in the product data sheets for the batteries on suitable extinguishing agents.

## Conclusion

**Store and charge lithium-ion batteries  
in a safety storage cabinet!**



# ION-LINE

## CORE, PRO AND ULTRA – CUSTOMISED AND SAFE

The asecos ION-LINE offers three different safety levels for secure active and passive storage of lithium ion batteries.

**CORE:** Comprehensive fire protection with the proven asecos evacuation and alarm forwarding concept.

**PRO:** Expanded protection when handling lithium-ion batteries with improved monitoring

**ULTRA:** Improved fire protection, active smoke gas management, and expanded monitoring are useful even in sensitive areas with the highest safety requirements.



	ULTRA	PRO CHARGE	PRO STORE
<i>Fire resistance from the outside</i>	✓	✓	✓
<i>Fire resistance from the inside</i>	✓	✓	✓
<i>GS certified fire resistance</i>	✓		
<i>Store</i>	✓	✓	✓
<i>Charge</i>	✓	✓	
<i>Evacuable from site</i>	✓	✓	✓
<i>Smoke detector</i>	✓	✓	✓
<i>Potential-free alarm contact</i>	✓	✓	✓
<i>Temperature sensor</i>	✓	✓	✓
<i>Fire suppression system</i>	✓*	✓	✓
<i>Smoke-tight</i>	✓		
<i>Alarm differentiation</i>	✓	✓*	✓*
<i>Pressure relief opening in the head section</i>	✓	✓	✓
<i>Locker system</i>			

\*optional

from page 12

from page 16

from page 16

No matter what safety level you choose, all cabinets offer these key safety features:

- Fire protection, inside-out and outside-in
- Smoke detection
- Alarm forwarding

In addition, for the CORE and Pro models, you have these options:

If you only want to **store** batteries in the cabinet, choose the **STORE version**. If you intend to **charge (active storage)** batteries directly in the cabinet, then choose the **CHARGE version**.



CORE CHARGE	CORE STORE	CHARGE LOCKER	CHARGE UB
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓		✓	✓
✓	✓	✓	✓
✓	✓		✓
✓	✓	✓	✓
		✓	
✓	✓		
✓*		✓	

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## OUR asecos ION-LINE SAFETY CONCEPT

ION-LINE safety storage cabinets offer you the safety you need for storing and charging lithium-ion batteries. The CORE, PRO and ULTRA models immediately detect any fires that occur in the cabinet. This allows employees to evacuate the building quickly if an alarm sounds.

Connecting the cabinet to a continuously staffed building control system allows first responders:

- **to receive an alarm and be on site quickly.**
- **to immediately take further measures, for instance evacuating the building, to minimise subsequent damage caused by smoke or extinguishing water.**

ION-LINE cabinets are equipped with a transport base and quick-release power supply for safe evacuation. When the cabinet is removed from the setup location, this plug connection disconnects independently.

INCIDENTS	Warning MESSAGE 1	ALARM LEVEL 1	ALARM LEVEL 2
CORE		<ul style="list-style-type: none"> <li>• Smoke detector detects incipient smoke development</li> </ul>	<ul style="list-style-type: none"> <li>• Alarm level 1 has been triggered</li> <li>• Interior temperature &gt;70 °C</li> </ul>
PRO	<ul style="list-style-type: none"> <li>• Possible causes:               <ul style="list-style-type: none"> <li>• Temperature build-up due to battery charging processes</li> <li>• Ventilation system failure</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Possible reasons:               <ul style="list-style-type: none"> <li>• Smoke detection without simultaneous temperature rise</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Possible reasons:               <ul style="list-style-type: none"> <li>• Fire development</li> </ul> </li> </ul>
ULTRA	<ul style="list-style-type: none"> <li>• The warning light (red LED) is activated and lights up permanently, the function indicator (green LED) goes out.</li> <li>• Alarm triggers with slow sound interval</li> <li>• The socket strips switch off</li> <li>• The potential-free alarm contact forwards an alarm</li> </ul>	<ul style="list-style-type: none"> <li>• The warning light (red LED) is activated and lights up permanently, the function indicator (green LED) goes out.</li> <li>• Alarm triggers with medium sound interval</li> <li>• The potential-free alarm contact forwards an alarm</li> </ul> <p>In the PRO CHARGE model</p> <ul style="list-style-type: none"> <li>• Switching off the technical ventilation and power strips</li> </ul>	<ul style="list-style-type: none"> <li>• The warning light (red LED) switches from steady light to flashing light</li> <li>• The alarm switches to a fast sound interval</li> <li>• The fire suppression system trips</li> </ul> <p>In the PRO CHARGE model</p> <ul style="list-style-type: none"> <li>• Switching off the technical ventilation and power strips</li> </ul>
SUBSEQUENT MEASURES	<p>Internal qualified personnel can immediately inspect the system to take any further necessary measures. If the interior temperature decreases below 50 °C once again, the system returns to normal operations, and the visual and acoustic signals are turned off.</p>	<p>Technicians (such as from the fire department) can immediately inspect the system to take any further necessary measures. If the smoke detector does not detect any further smoke production inside the cabinet, the system can be returned to normal operations by briefly unplugging it from mains voltage.</p>	<p>The overall system can then only be assessed by an authorised asecos service technician and reset to normal operation if possible. At least the fire suppression unit and smoke detector must be exchanged before doing so.</p>

# ALARM FORWARDING AS KEY COMPONENT

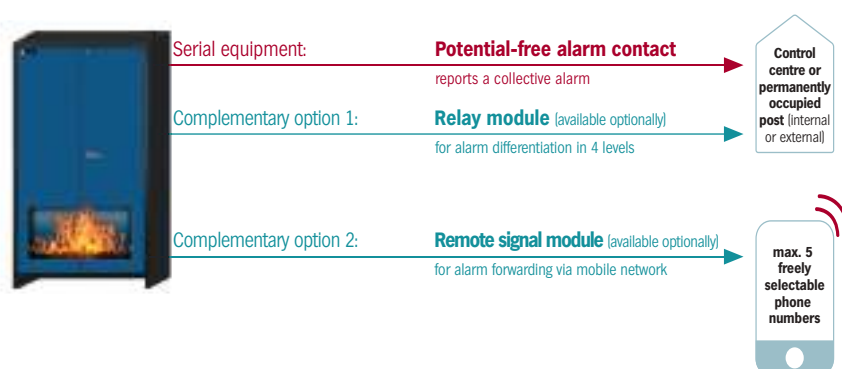
Whenever the cabinet is unattended, especially at night or on weekends, alarm forwarding is indispensable in an emergency. It is the only way to quickly detect the damage and initiate countermeasures.

## Manufacturer recommendation & series equipment:

### POTENTIAL-FREE SWITCHING CONTACT

All ION-LINE cabinets are equipped at the factory with a potential-free switch contact for forwarding the alarm on site within the building. The most reliable way to transmit the alarm is to connect this contact to a continuously staffed control centre (internal or external). Optional modules can be purchased as an alternative or extension to this system.

## Alarm forwarding – These are your options:



### Complementary option 1:

#### RELAY MODULE

By choosing this option, you are opting for alarm differentiation instead of a collective alarm.

The factory-installed module differentiates between four different warning and alarm levels:

- warning message at a temperature above 50 °C inside the cabinet
- alarm level 1 (see page 10)
- alarm level 2 (see page 10)
- power failure

Via potential-free alarm contacts, these signals are passed on to a central control centre. With the clear differentiation of the alarm conditions, you can initiate optimally coordinated measures.

**The relay module is suited for the PRO models of the ION-LINE.**

Order No. 38766



### Complementary option 2:

#### MODULE FOR REMOTE SIGNALLING

The module offers an alarm forwarding via the mobile phone network (SMS/call) and is therefore especially suitable for companies and facilities without a central building management system. In an emergency, the immediate alerting of one or several defined persons is triggered.

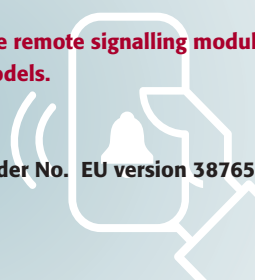
The module is easily installed on-site by the customer via plug (also suitable for retrofitting) and offers the following functions:

- five programmable telephone numbers
- configurable message texts
- collective alarm in case of an emergency or power failure

A SIM card is required for the initial operation of the module, which must be provided by the customer. Alternatively, the included SIM card (for European and UK use only) can be activated via an online portal. A good mobile phone connection is necessary to ensure that the signal can be transmitted.

**The remote signalling module is suited for all ION-LINE models.**

Order No. EU version 38765



# ION-LINE ULTRA

Seal of Conformity

The ION-LINE ULTRA is tested and certified in accordance with **GS Principle EK5/AK4 22-01** for testing and certification of safety storage cabinets for active and passive storage of lithium-ion batteries.

The GS mark verifies that ION-ULTRA safety storage cabinets have successfully completed and passed the required, comprehensive set of tests and inspections.

**ION-LINE ULTRA: Tested in Germany – safe throughout Europe.**



**Trust in the GS mark.**

Please review the tests and certificates yourself. To review our certificates, please see our document **“Seal of Conformity”** at [www.asecos.com](http://www.asecos.com).



ULTRA

ULTRA 90kV 90kV

ULTRA 90kV 90kV

# ION-LINE | ION-ULTRA-90

*Safe and approved passive and active storage of lithium-ion batteries in working areas  
Premium models for the highest safety requirements – how you can benefit from the advantages of the ION-ULTRA-90:*

1

GS-certified fire resistance in accordance with GS test principle EK5/ AK4 22-01. Smoke-tight cabinet construction with pressure relief opening in the head section and self-closing, automatically locking doors.



2

Thanks to an integrated transport base, you can immediately evacuate the cabinet and transport it to a safe location outdoors.



3

An LED indicator and visual/acoustic alarms quickly inform you of fires when they begin, without having to open the doors of the cabinet.



4

Optionally equipped with fire suppression system, which automatically triggers in the event of a fire.



5

Smoke detectors and two temperature sensors detect even incipient fires and can transmit alarms to the building control system quickly.



6

The built-in, temperature-controlled ventilation system prevents heat build-up when charging the batteries.



7

If your work area is not staffed, the standard potential-free switching contacts forward differentiated alarms immediately to a connected control centre. Optional remote signalling module available.



8

Thanks to the adjustable-height shelves with a 75 kg load capacity, you can flexibly adjust the interior of the cabinet.



9

Bottom collecting sump is used to catch any leakage which may occur from burning batteries.





- **Fire resistance of 90 minutes** (type 90), type-tested in accordance with EN 14470-1



- **Fire resistance of 90 minutes from inside to outside** in accordance with EN 1363-1



- **GS-tested** (document EK5/AK4 09-10, ProdSG)



- **CE compliant**



- Extended **manufacturer warranty of up to 10 years** in combination with an asecos service tariff





**Model IO90.195.120.065.WDAC**  
Order No. 40559-047-41105

Image shows optional accessories



**Model IO90.195.120.065.WDAC**  
Order No. 40559-047-41112

Image shows optional accessories






**Model IO90.195.120.065.WDAC**  
Order No. 40559-047-40888

Image shows optional accessories

Technical data		UK version	EU version
External dimensions W x D x H	mm	1193 x 650 x 1953	1193 x 650 x 1953
Internal dimensions W x D x H	mm	1050 x 565 x 1643	1050 x 565 x 1643
Weight without interior equipment	kg	550	550
Maximum load	kg	600	600
Entry width transport base	mm	1120	1120
Entry height transport base	mm	90	90
<b>Total power rating of the power socket strips</b>			
Fuse (1-phase)	A	13	16
Power max. (1-phase)	kW	2,99	3,68
Fuse (3-phase)	A	3 x 13	3 x 16
Power max. (3-phase)	kW	8,97	11,04
Number of socket outlets per strip	kW	8	8

## Main features

-  Safe storage and charging of batteries
-  Integrated warning system incl. LED display
-  Optional: fire suppression unit



Model	Body colour	Door colour	Order No.
IO90.195.120.065.WDAC	anthracite grey RAL 7016	gentian blue RAL 5010 anthracite grey RAL 7016	40559-047 40559-053

Interior equipment packages (can only be ordered in combination with the cabinet)	Material	Order No.
		UK version EU version
3x perforated shelf incl. outlet strips, 1x bottom collecting sump (V=2,85L)	powder-coated sheet steel	40888 40878
4x perforated shelf incl. outlet strips, 1x bottom collecting sump (V=2,85L)	powder-coated sheet steel	41105 41102
5x perforated shelf incl. outlet strips, 1x bottom collecting sump (V=2,85L)	powder-coated sheet steel	41109 41106
6x perforated shelf incl. outlet strips, 1x bottom collecting sump (V=2,85L)	powder-coated sheet steel	41112 40921

Accessories		Order No.
		UK version EU version
Power supply cable 400 V (can only be ordered in combination with the cabinet)	3-phase, for further properties see technical data table	38038 38038
Fire suppression unit with hoop guard		40941 40941
Module for remote signalling	alarm transmission to a mobile of your choice	39221 38765



# ION-LINE | ION-PRO-90

*Safe and approved passive and active storage of lithium-ion batteries in working areas  
Cabinet models for expanded safety requirements – how you benefit from the advantages of the ION-LINE PRO:*

1

An LED indicator and visual/acoustic alarms quickly inform you of fires when they begin, without having to open the doors of the cabinet.



2

The fire suppression system triggers automatically if there is a fire in the cabinet.



3

Smoke detectors and a temperature sensor detect even incipient fires and can transmit alarms to the building control system quickly.



4

If your work area is not staffed, the standard potential-free switching contact forwards alarms immediately to a connected control centre. With optional relay or remote signalling module.



5

The ventilation attachment prevents heat build-up when charging the batteries.



6

Convenient cabinet entry – open both doors at the same time with just one hand.



7

Your battery charging process is safe – thanks to high-quality protective contact outlets in the fire safe interior of the cabinet.



8

The automatic 2-point locking mechanism permanently and securely closes the cabinet doors.



9

Thanks to an integrated transport base, you can immediately evacuate the cabinet and transport it to a safe location outdoors.





- **Fire resistance of 90 minutes** (type 90), type-tested in accordance with EN 14470-1



- **Fire resistance of 90 minutes from inside to outside** in accordance with EN 1363-1



- **CE compliant**



- Extended **manufacturer warranty of up to 10 years** in combination with an asecos service tariff








**Model IO90.195.120.PC.WDC**  
Order No. 41269-047-41401

**Model IO90.195.120.PC.WDC**  
Order No. 41269-047-41400

Technical data		EU version	UK version
External dimensions W x D x H	mm	1193 x 615 x 2224	1193 x 615 x 2224
Internal dimensions W x D x H	mm	1050 x 522 x 1647	1050 x 522 x 1647
Weight without interior equipment	kg	424	424
Maximum load	kg	600	600
Entry width transport base	mm	1120	1120
Entry height transport base	mm	90	90
<b>Total power rating of the power socket strips</b>			
Fuse (1-phase)	A	16	13
Power max. (1-phase)	kW	3,68	2,99
Fuse (3-phase)	A	3 x 16	3 x 13
Power max. (3-phase)	kW	11,04	8,97
Number of socket outlets per strip	kW	8	8

### Main features

-  Safe storage and charging of batteries
-  Warning and fire suppression system
-  Extraction unit and LED display included

**PRO-Model incl. fire suppression unit and LED display for a quick indication of emergencies.**



Model	Body colour	Door colour	Order No.
IO90.195.120.PC.WDC	anthracite grey RAL 7016	gentian blue RAL 5010	41269-047

Interior equipment packages (can only be ordered in combination with the cabinet)	Material	Order No.
		<b>EU version UK version</b>
3x perforated shelf incl. outlet strips, 1x bottom collecting sump [V=2.6L]	powder-coated sheet steel	41391 41399
4x perforated shelf incl. outlet strips, 1x bottom collecting sump [V=2.6L]	powder-coated sheet steel	41392 41400
5x perforated shelf incl. outlet strips, 1x bottom collecting sump [V=2.6L]	powder-coated sheet steel	41393 41401
6x perforated shelf incl. outlet strips, 1x bottom collecting sump [V=2.6L]	powder-coated sheet steel	41394 41402

Accessories	Order No.
	<b>EU version UK version</b>
Power supply cable 400 V (can only be ordered in combination with the cabinet)	3-phase, for further properties see technical data table 38038 38038
Module for remote signalling	alarm transmission to a mobile of your choice 38765 39221
Relay module	potential-free forwarding of 4 different alarm states 38766 38766

Service	Order No.
Service (UK only)	SER90018



**Model IO90.195.120.PS.WDC**  
Order No. 41429-047-41388

**Model IO90.195.120.PS.WDC**  
Order No. 41429-047-41389

**Technical data**

**IO90.195.120.PS.WDC**

External dimensions W x D x H	mm	1193 x 615 x 1953
Internal dimensions W x D x H	mm	1050 x 522 x 1647
Weight without interior equipment	kg	424
Maximum load	kg	600
Entry width transport base	mm	1120
Entry height transport base	mm	90

**Main features**

- Store batteries safely
- Warning and fire suppression system
- LED display included

**EXPERT TIP**

Lithium-ion batteries with **obvious damage** should generally **not be stored inside buildings**.

Dispose of them **promptly in appropriate disposal containers** suitable for transportation, **outside of buildings**.

Improper or irregular inspection of safety-related equipment, not only risks the **loss of insurance cover** but also threatens your **personal liability** – you can be held personally responsible for damage or injury.

**Increase the service life** and improve the operational safety of your **ION-LINE cabinets with the assecos original service.**

**ONE-HAND OPERATION**

Are you looking for a comfortable storage solution for your Lithium-ion Batteries?

Operate **two doors with one hand!**

Model	Body colour	Door colour	Order No.
IO90.195.120.PS.WDC	anthracite grey RAL 7016	gentian blue RAL 5010	41429-047

Interior equipment packages (can only be ordered in combination with the cabinet)	Material	Order No.
		EU version UK version
3x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41386 41386
4x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41387 41387
5x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41388 41388
6x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41389 41389

Accessories	Order No.
	EU version UK version
Relay module	potential-free forwarding of 4 different alarm states 38766
Module for remote signalling	alarm transmission to a mobile of your choice 38765 39221

Service	Order No.
Service (UK only)	SER90017

# ION-LINE | ION-CORE-90

*Safe and approved passive and active storage of lithium-ion batteries in working areas  
Cabinet models for comprehensive safety requirements – how you can benefit from the advantages of the ION-CORE-90:*

1

Storing lithium-ion batteries safely in cabinets with 90 minutes fire resistance.



2

Convenient cabinet entry – open both doors at the same time with just one hand.



3

Smoke detectors detect even incipient fires and can transmit alarms to the building control system quickly.



4

If your work area is not staffed, the standard potential-free switching contact forwards alarms immediately to a connected control centre. Optional remote signalling module available.



5

Your battery charging process is safe – thanks to high-quality protective contact outlets in the fire safe interior of the cabinet.



6

Thanks to an integrated transport base, you can immediately evacuate the cabinet and transport it to a safe location outdoors.



7

The automatic 2-point locking mechanism permanently and securely closes the cabinet doors.





- **Fire resistance of 90 minutes** (type 90), type-tested in accordance with EN 14470-1



- **Fire resistance of 90 minutes from inside to outside** in accordance with EN 1363-1



- **CE compliant**



- Extended **manufacturer warranty of up to 10 years** in combination with an asecos service tariff





**Model IO90.195.060.CC.WDC**  
Order No. 41302-047-41370



**Model IO90.195.060.CC.WDC**  
Order No. 41302-047-41375

Technical data		IO90.195.060.CC.WDC
External dimensions W x D x H	mm	599 x 615 x 1953
Internal dimensions W x D x H	mm	450 x 522 x 1647
Weight without interior equipment	kg	265
Maximum load	kg	600
Entry width transport base	mm	526
Entry height transport base	mm	90
<b>Total power rating of the power socket strips</b>		
Fuse (1-phase)	A	13
Power max. (1-phase)	kW	2,99
Fuse (2-phase)	A	2 x 13
Power max. (2-phase)	kW	5,98
Number of socket outlets per strip	kW	8 *

\* EU 41366/UK 41370: A minimum of 3 power sockets available per shelf.  
EU 41373/UK 41375: Each locker has access to a minimum of 1 power socket.

Main features	
	Safe storage and charging of batteries
	Integrated smoke detector for fire detection
	Accessible transport base

**EXPERT TIP**

Lithium-ion batteries with **obvious damage** should generally **not be stored inside buildings**.  
Dispose of them **promptly in appropriate disposal containers** suitable for transportation, **outside of buildings**.

Model	Body colour	Door colour	Order No.
IO90.195.060.CC.WDC	anthracite grey RAL 7016	gentian blue RAL 5010	41302-047

Interior equipment packages (can only be ordered in combination with the cabinet)	Material	Order No.
7x metal locker with perforated shelf incl. outlet strips, 1x bottom collecting sump (V=1.0L)	powder-coated sheet steel	<b>EU version UK version</b> 41373 41375
4x perforated shelf incl. outlet strips, 1x bottom collecting sump (V=1.0L)	powder-coated sheet steel	41366 41370

Accessories	Order No.
Power supply cable 400 V (can only be ordered in combination with the cabinet)	<b>EU version UK version</b> 38038 38038
Module for remote signalling	38765 39221

Service	Order No.
Service (UK only)	SER90019



**Model IO90.195.120.CS.WDC**  
Order No. 41426-047-41387



**Model IO90.195.120.CS.WDC**  
Order No. 41426-047-41389






**Model IO90.195.060.CS.WDC**  
Order No. 41419-047-41363

#### Technical data

		IO90.195.120.CS.WDC	IO90.195.060.CS.WDC
External dimensions W x D x H	mm	1193 x 615 x 1953	599 x 615 x 1953
Internal dimensions W x D x H	mm	1050 x 522 x 1647	450 x 522 x 1647
Weight without interior equip.	kg	424	265
Maximum load	kg	600	600
Entry width transport base	mm	1120	526
Entry height transport base	mm	90	90

#### Main features

-  Store batteries safely
-  Integrated smoke detector for fire detection
-  Accessible transport base

Model	Body colour	Door colour	Order No.
IO90.195.120.CS.WDC	anthracite grey RAL 7016	gentian blue RAL 5010	41426-047
IO90.195.060.CS.WDC	anthracite grey RAL 7016	gentian blue RAL 5010	41419-047

Interior equipment packages (can only be ordered in combination with the cabinet)	Material	Order No.
<b>IO90.195.120.CS.WDC</b>		
3x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	EU version 41386 UK version 41386
4x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41387 41387
5x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41388 41388
6x perforated shelf, 1x bottom collecting sump (V=2.6L)	powder-coated sheet steel RAL 7035	41389 41389
<b>IO90.195.060.CS.WDC</b>		
3x perforated shelf, 1x bottom collecting sump (V=1.0L)	powder-coated sheet steel RAL 7035	EU version 41362 UK version 41362
4x perforated shelf, 1x bottom collecting sump (V=1.0L)	powder-coated sheet steel RAL 7035	41363 41363
5x perforated shelf, 1x bottom collecting sump (V=1.0L)	powder-coated sheet steel RAL 7035	41364 41364
6x perforated shelf, 1x bottom collecting sump (V=1.0L)	powder-coated sheet steel RAL 7035	41365 41365

Accessories	For cabinet width	Order No.
Perforated shelf	1200	EU version 41293 UK version 41293
Perforated shelf	600	41313 41313
Module for remote signalling	alarm transmission to a mobile of your choice	38765 39221

Service	Order No.
Service (UK only)	SER90016

# ION-LINE | ION-CHARGE-90

*Safe and approved passive and active storage of lithium-ion batteries in working areas  
Cabinet models for customer-specific safety requirements – how you can benefit from  
the advantages of the ION-CHARGE-90:*

1

Your battery charging process is safe – thanks to high-quality protective contact outlets in the fire safe interior of the cabinet.



2

Smoke detectors detect even incipient fires and can transmit alarms to the building control system quickly.



3

If your work area is not staffed, the standard potential-free switching contact forwards alarms immediately to a connected control centre. Optional remote signalling module available.



4

The under bench cabinet can be flexibly integrated under worktops due to a height of 78 cm.



5

Fire-safe locked compartments reduce the spread of fires inside the cabinet. You can remove the locked compartments individually in case of a fire.



6

Protect yourself from unauthorised access and theft with the lockable drawer



7

The temperature sensor detects fires in each locked compartment. This allows alarms to be indicated and forwarded immediately via LED and acoustic/visual alarms.



8

The integrated transport base and optional rollers allow for easy transport and immediate evacuation to a safe location outdoors in case of damage.





- **Fire resistance of 90 minutes** (type 90), type-tested in accordance with EN 14470-1



- **Fire resistance of 90 minutes from inside to outside** in accordance with EN 1363-1



- **CE compliant**



- **Excellent products with special manufacturer warranty**
- Extended **manufacturer warranty of up to 10 years** in combination with an asecos service tariff



# ION-LINE | ION-CHARGE-90



**Model IO90.078.059.057.U9.S**  
Order No. 39354-247-39489






**Model IO90.078.059.057.U9.S**  
Order No. 39354-247-39489

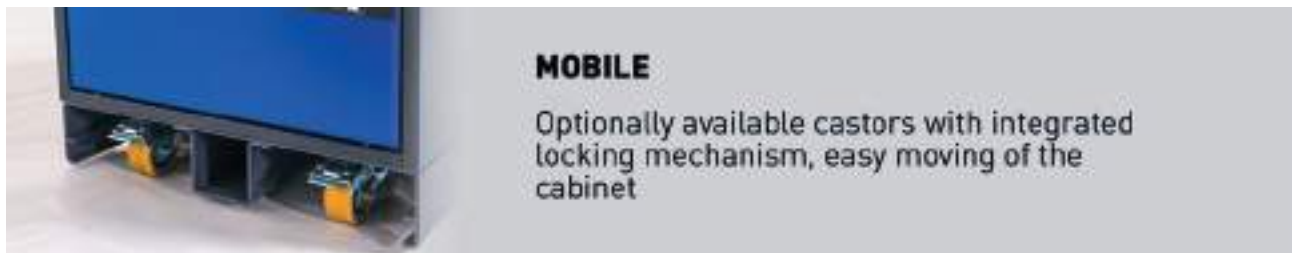
Picture shows castors optional

Technical data		EU version	UK version
External dimensions W x D x H	mm	593 x 574 x 780	593 x 574 x 780
Internal dimensions W x D x H	mm	470 x 452 x 582	470 x 452 x 582
Weight without interior equip.	kg	130	130
Maximum load	kg	300	300
Entry width transport base	mm	548	548
Entry height transport base	mm	95	95
<b>Total power rating of the power socket strips</b>			
Fuse	A	16	13
Power max.	kW	3,68	2,99
Number of socket outlets per strip	piece	4 *	4 *

\* 4 power sockets available per drawer.

## Main features

-  Safe storage and charging of batteries
-  Perfect for installation under work surfaces
-  Optionally available with castor set for the transport base



## MOBILE

Optionally available castors with integrated locking mechanism, easy moving of the cabinet

Model	Body colour	Door colour	Order No.
IO90.078.059.057.U9.S	anthracite grey RAL 7016	gentian blue RAL 5010	39354-247
Interior equipment packages (can only be ordered in combination with the cabinet)			Order No.
1x drawer (load capacity = 50 kg) incl. socket strip, 1x second level drawer (load capacity = 25 kg) incl. socket strip			<b>EU version UK version</b> 39368 39489
Accessories			Order No.
Castor set for plinth			<b>EU version UK version</b> 39374 39374
Module for remote signalling			can only be ordered in combination with cabinet alarm transmission to a mobile of your choice 38765 39221
Service			Order No.
Service (UK only)			SER90019






**Model IO90.195.060.L8.WDC**

Order No. 39409-047

Technical data		EU version	UK version
External dimensions W x D x H	mm	599 x 615 x 1953	599 x 615 x 1953
Internal dimensions W x D x H	mm	450 x 522 x 1647	450 x 522 x 1647
Weight without interior equip.	kg	265	265
Maximum load	kg	600	600
Entry width transport base	mm	526	526
Entry height transport base	mm	90	90
<b>Total power rating of the power socket strips</b>			
Fuse	A	16	13
Power max.	kW	3,68	2,99
Number of socket outlets per strip	piece	2 *	2 *


**Main features**

-  Safe storage and charging of batteries
-  Fire-protected lockers
-  Temperature sensor for fire detection

\* Each locker has access to a minimum of 2 power sockets.

**FIRE RESISTANT LOCKERS**

prevent the spread of fire throughout the entire interior of the cabinet by removing them individually and protect stored batteries from flame spread.

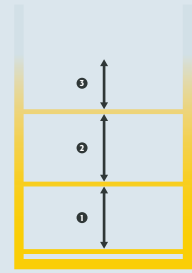


Model	Body colour	Door colour	Order No.				
IO90.195.060.L8.WDC	anthracite grey RAL 7016	gentian blue RAL 5010	39409-047				
Interior equipment packages (can only be ordered in combination with the cabinet) Material			Order No.				
5x fire-protected lockers incl. outlet strips, 1x bottom collecting sump (V=2.0L), 1x, 1x, 6x, 6x			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>EU version</th> <th>UK version</th> </tr> </thead> <tbody> <tr> <td>39413</td> <td>41119</td> </tr> </tbody> </table>	EU version	UK version	39413	41119
EU version	UK version						
39413	41119						
Accessories			Order No.				
Module for remote signalling			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>EU version</th> <th>UK version</th> </tr> </thead> <tbody> <tr> <td>38765</td> <td>39221</td> </tr> </tbody> </table>	EU version	UK version	38765	39221
EU version	UK version						
38765	39221						
Service			Order No.				
Service (UK only)			SER90018				

# Storage heights

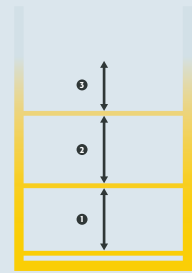
## IO90.195.120.065.WDAC

Shelves/number	6	5	4	3
Distance ⑥ (mm)	250			
Distance ⑤ (mm)	245	300		
Distance ④ (mm)	245	295	380	
Distance ③ (mm)	245	295	375	515
Distance ② (mm)	245	295	375	510
Distance ① (mm)	245	295	375	510



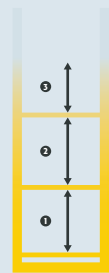
## IO90.195.120.XX.WDC

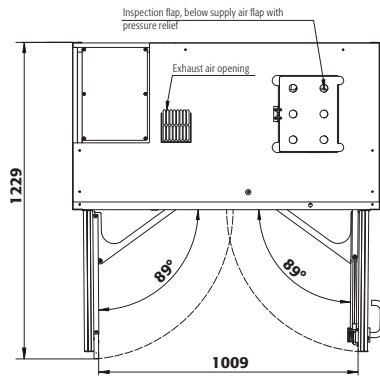
Shelves/number	6	5	4	3
Distance ⑥ (mm)	240			
Distance ⑤ (mm)	235	305		
Distance ④ (mm)	235	300	435	
Distance ③ (mm)	235	300	360	500
Distance ② (mm)	235	300	360	520
Distance ① (mm)	235	300	360	520



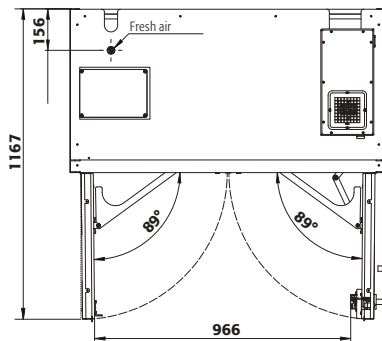
## IO90.195.60.XX.WDC

Shelves/number	6	5	4	3
Distance ⑥ (mm)	240			
Distance ⑤ (mm)	235	305		
Distance ④ (mm)	235	300	435	
Distance ③ (mm)	235	300	360	500
Distance ② (mm)	235	300	360	520
Distance ① (mm)	235	300	360	520

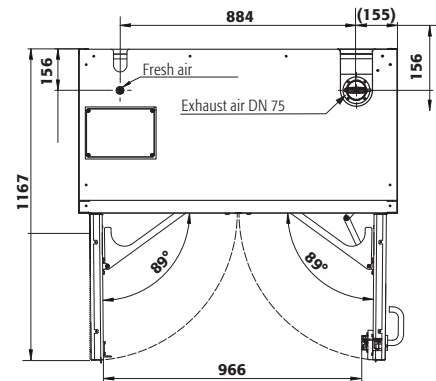




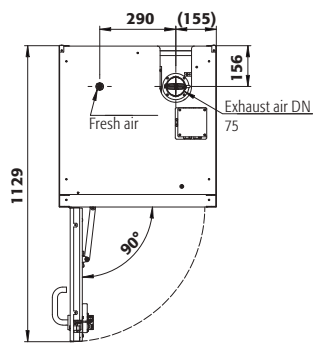
**IO90.195.120.065.WDAC**



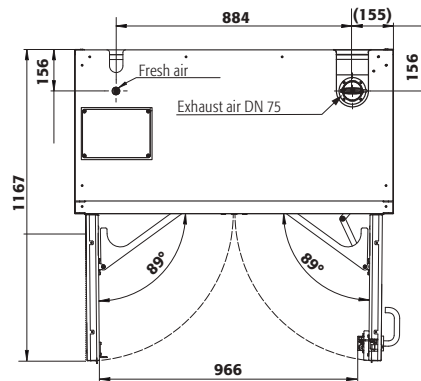
**IO90.195.120.PC.WDC**



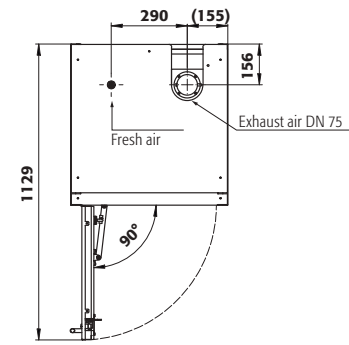
**IO90.195.120.PS.WDC**



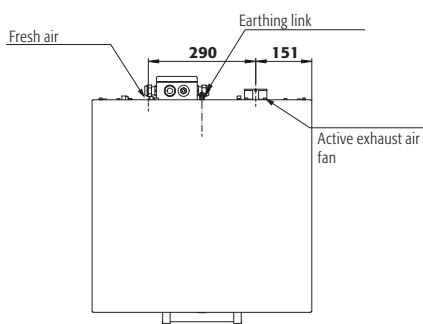
**IO90.195.060.CC.WDC**  
**IO90.195.060.CS.WDC**



**IO90.195.120.CS.WDC**



**IO90.195.060.L8.WDC**



**IO90.078.059.057.U9.S**

# Service and maintenance

## DO NOT COMPROMISE WHEN IT COMES TO SAFETY

### Make yourself secure - safety for employees, work equipment and buildings

Have your safety systems, such as safety cabinets, serviced regularly, properly and in accordance with manufacturer's guidelines from the asecos experts. This will ensure greater safety in your workrooms or workshop. If you do not maintain and service your safety equipment, or do so improperly or inadequately, you may lose your insurance cover as the operator in the event of damage. This is often associated with costs, e.g. caused by a plant shutdown or closure.

Therefore, focus on safety. More security for your staff or employees, your buildings and everything inside them. Our ION-LINE safety storage cabinets are categorised as fire protection and therefore safety systems.

According to "Health and Safety at Work Act 1974 section 2 (d)", these must be properly maintained and checked for functionality at regular intervals by a competent person. We support you in this!

Benefit from our asecos original service to maintain the full functionality of your safety storage cabinets and your insurance cover. Our service technicians are qualified persons as defined by TRBS 1203 and offer you legal security. Contact us now!

### Our proposal (for UK only) - tailored to your individual needs:



## BASICPlus



#### The regular inspection according to EC-directives 89/391/EEC

##### Inspection

- Visual inspection including ventilation test
- Error analysis

##### Legal Certainty Inspectorate

- Control of stored goods, legal marking, checking the documentation, installation conditions

##### Immediate maintenance

- Measures to delay wear and tear
- Functional test
- Feedback of maintenance work

##### Immediate repair

- Replacement of parts to a value of £5 are included in the service.
- Immediate repair in 98% of cases for manufactured products

**Signed entry in the asecos service booklet / inspection sticker / inspection record**





## TERMS AND CONDITIONS

### Dimensions, weights and illustrations

Technical data such as dimensions and weights shown in the catalogue are approximate values. Illustrations may contain special equipment. Products will be delivered without any decoration material.

### Price and delivery information

To obtain binding price information and delivery times, please contact your respective dealer/retail partner.

### Customs duty / documents dispatch

In case any country-specific extra costs occur for an order (like for example customs confirmation, express shipping of documents, chamber of commerce (IHK) confirmations, etc.), the charges will be passed on accordingly.

### Other information

Furthermore we refer to the general terms and conditions of the asecos GmbH on [www.asecos.global](http://www.asecos.global) and the terms and conditions of your specialised dealer.

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