EP.V.32907.04 | 09/2022

EN

asecos®

ION LINE

USER MANUAL

Safety storage cabinets for storage
and charging of lithium ion batteries

10 Years Warranty*

10 YEARS WARRANTY
Upon conclusion of an asecos service and maintenance agreement **(PREMIUM tariff)**, you will get a warranty extension for up to 10 years for your ION-LINE safety storage cabinet.

EN

ION LINE

ION-CHARGE-90

IO90.195.060.K9.WDC

IO90.195.060.L8.WDC

IO90.078.059.057.U9.S

ION-CHARGE PRO-90

IO90.195.120.K3.WDC

EN

asecos GmbH
Customer service
Weiherfeldsiedlung 16–18
D-63584 Gründau

Fax: +49 60 51 - 92 20-10
email: service asecos.com

YOUR PERSONAL DOCUMENTATION TO THE asecos SAFETY CABINET

Dear Customer,

you have made a decisive investment in safety for your company by purchasing this asecos safety storage cabinet. You now own an innovative product made of top-quality materials guaranteeing the highest quality standards.

asecos safety storage cabinets have complete authorisation documents. We archive the authorisation documents for every individual cabinet, keeping them ready for you should you ever need them (e.g. for a works inspection or similar). Simply request them using this form.

Tear of or copy that page and return to us by fax with your address and serial number of the cabinet on it.

Yours sincerely
asecos GmbH

Contact

Company

Street | **Postal code** | **Town**

Name of contact person

email | **Phone No.**

Serial numbers of safety storage cabinets

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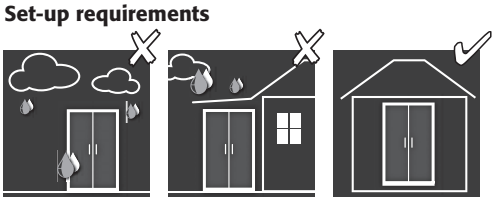
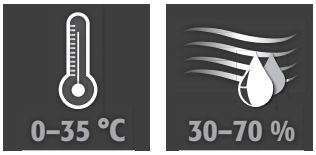
1. NOTES ▪ GUIDELINES ▪ GUARANTEE

1.1. GENERAL SAFETY NOTES

- When handling lithium-ion batteries, observe the applicable regulations and the information in these operating instructions
- Work on the electrical system is to be carried out only with the power turned off and only byqualified electricians – refer here to the regulations of the local electricity supply company.
- General damage to electronic components is to be repaired without delay by an asecos employee.
- Use only intact and undamaged mains cables for the battery charger
- Electrical protection in accordance with local standards must be provided by the customer (cabinets do not have their own RCD circuit breaker or circuit breaker)
- The on-site installation conditions are to be observed.
- The instructions of the supervisory engineering department must be followed.
- Observe accident prevention regulations and workplace ordinance
- **Ensure that the necessary safety checks are only carried out by authorised staff using original spare parts**
- Only use the cabinet after having been properly instructed; access is to be forbidden to unauthorised persons.
- The pivoting area of the doors is to be kept free at all times; doors are to be kept closed
- By assigning trained/authorised technical personnel you can prevent the malfunctions, damage and corrosion damage that result from inappropriate transport.
- Observe the upper limits for stored quantities, loading etc.
- The following substances may not be stored in the cabinets with a fire suppression system: acids, alkalis, magnesium, other metals (in powder form)

Set-up requirements





1.2. GUARANTEE

The guarantee for this product is agreed between you (the customer) and your dealer (the seller). As the manufacturer, asecos guarantees the products listed in the operating instructions for a period of 24 months from the date of delivery. All model safety equipment are subject to a compulsory annual inspection by specialised staff authorised by the manufacturer. Otherwise the customer's guarantee claim against the manufacturer expires.

1.3. CABINET DETAILS

Cabinet data: Logbook (included with the cabinet)
Technical drawing: Appenidix 1
Technical data: Table in Appendix 2

Model	Lithium ion batteries				
	Storing	Charging	Extraction air system	Fire supression unit	Alarm system
BATTERY CHARGE					
IO90.195.060.K9.WDC	✔	✔			✔
IO90.078.059.057.U9.S	✔	✔	✔		✔
IO90.195.060.L8.WDC	✔	✔			✔
BATTERY CHARGE PRO					
IO90.195.120.K3.WDC	✔	✔	✔	✔	✔

BATTERY CHARGE PRO & BATTERY CHARGE
This model is for the active storage (charging) of lithium-ion batteries.
With active storage, lithium-ion batteries or battery packs in the cabinet are charged or partially discharged using a charger (60—70%).

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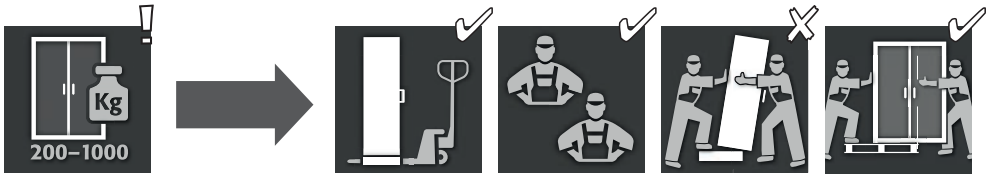
2. TRANSPORT



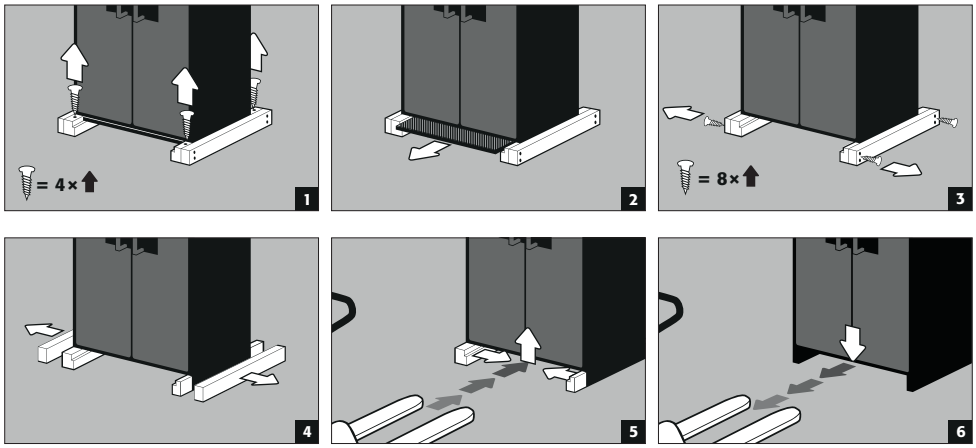
CAUTION:
Transport the cabinet in an upright position on a pallet truck, tied and secured against slipping, until the final place of installation is reached.The transport locks in the door joints may only be removed directly at the place of installation! Inappropriate transport can lead to concealed damage to the fire protection insulation! We can only guarantee the necessary quality if the cabinet is transported to the place of its use by our specially trained staff.

ATTENTION:
The doors must be locked prior to transport! The extraction unit is inside the cabinet and is only mounted after the in-plant transport to the place of use.

2.1. TILTING THE CABINET

CAUTION:
Tilting the cabinet may only be done without jolts!

2.2. DISMANTLING OF THE TRANSPORT PACKAGING



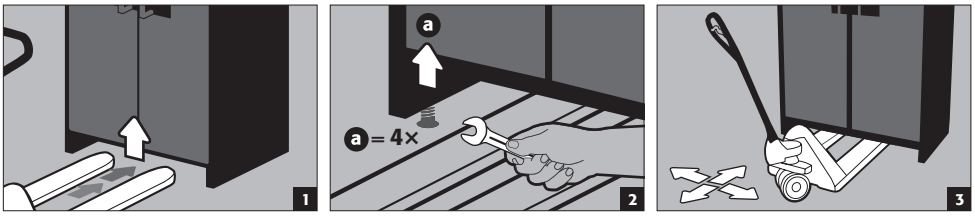
CAUTION:
Cabinets with a width of 600 mm: The clear entry width of the base is 520 mm.
Please note this when choosing your pallet truck! Devices with widths greater than the entry widths must not be used.

2.3. IN-PLANT TRANSPORT

- In-plant transport is also possible without transport locks (inserted as standard in the door joints)

ATTENTION:
The doors must be locked prior to transport! The extraction unit is inside the cabinet and is only mounted after the in-plant transport to the place of use.

IO90.195.120.K3.WDC
IO90.195.060.K9.WDC
IO90.195.060.L8.WDC



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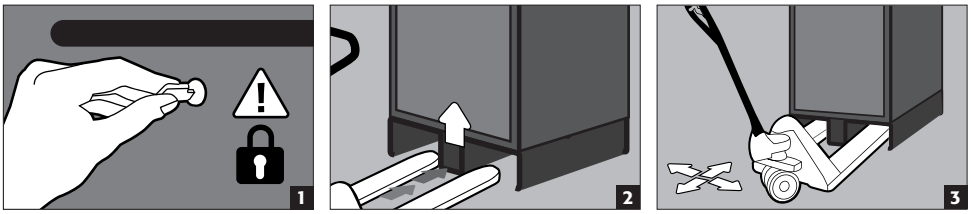
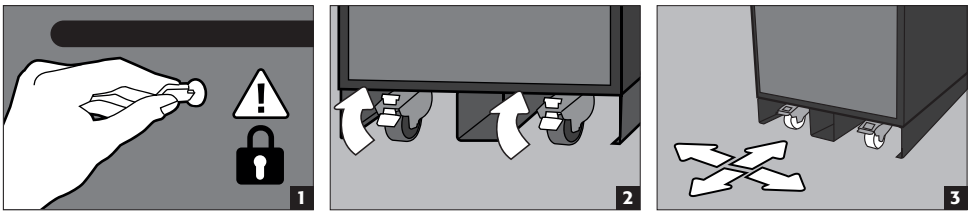
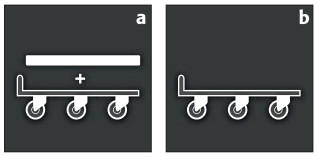


IO90.078.059.057.U9.S
plinth with castors

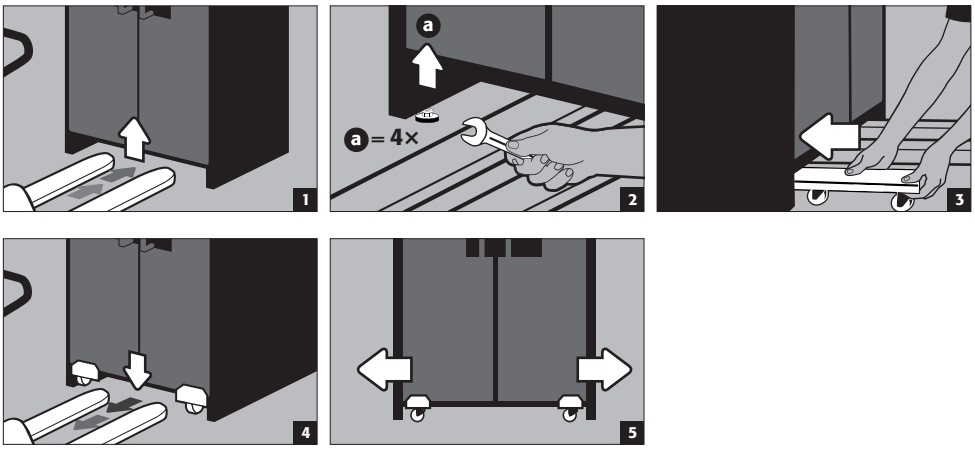


2.4. Q-MOVER

- Order no. 30037, available from your authorised dealer



a: upright transport
b: upright transport through standard doors (headroom 1986 ± 2mm)



CAUTION:
Written notification of any damage to the cabinet must be given immediatly!

2.5. TITLING ONTO THE SIDE WALL

- Titling onto the side wall is only possible with the optionally available tilting bracket (order no. 29556).

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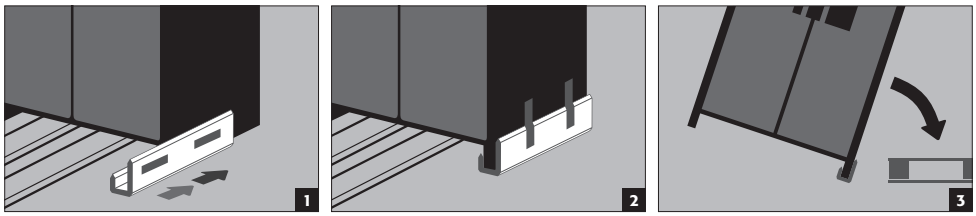
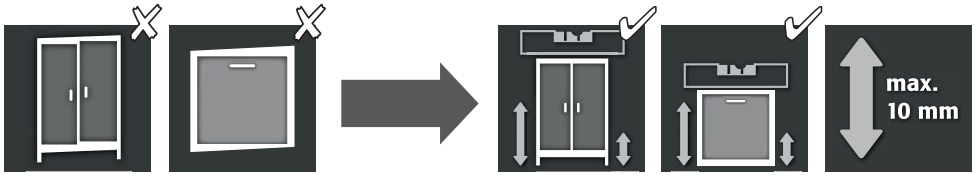
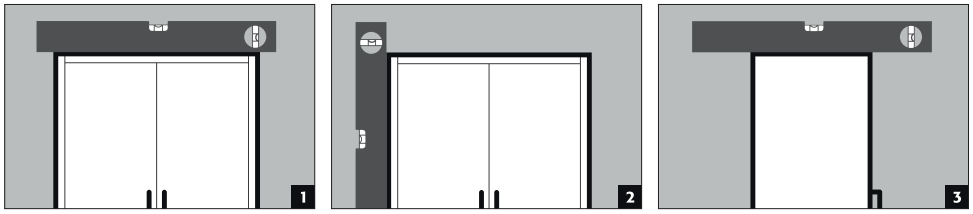


3. INSTALLATION

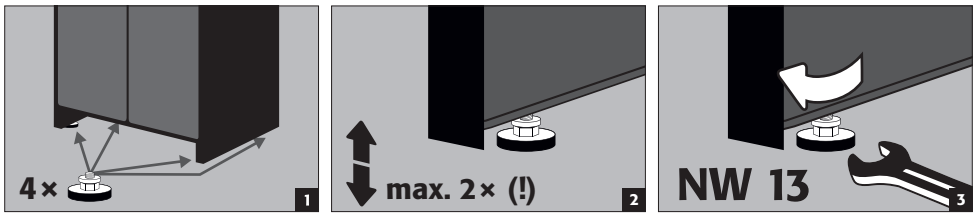
3.1. ALIGNMENT OF THE CABINETS





CAUTION:
Door elements must not scrape against the fire prevention seals in the fold of the door when opening and closing! Doors with an automatic closing mechanism must close automatically from every position and the lock must be able to lock!

IO90.195.120.K3.WDC
IO90.195.060.K9.WDC
IO90.195.060.L8.WDC



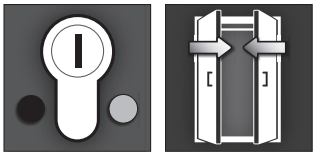
3.2. COMMISSIONING

- Before putting into operation for the first time, the user must carry out an examination of the safety storage cabinet for possible damage, such as defective or loose sealing elements, correct alignment and perfect functioning of the door elements.
  Use the cabinet and accessories only if they are in an orderly condition.

4. CLOSING

4.1. IN GENERAL

IO90.195.120.K3.WDC
IO90.195.060.K9.WDC
IO90.195.060.L8.WDC



The doors are permanently self-closing.
The cabinets feature a cylinder lock with closing status indicator.
They can be integrated into a master key system.

asecos

IO90.078.059.057.U9.S

The drawer is not permanently self-closing. The cabinet has a cylinder lock with a locking status indicator.
The drawer has a thermal release and closes automatically in the event of a fire.

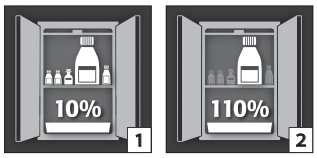
ATTENTION:
The owner/user must ensure that all doors are kept closed whenever the contents of the cabinet are not being accessed. In general, it must be noted that the cabinets do not possess an emergency unlocking facility. This means that persons trapped inside the cabinet cannot free themselves!

4.2. LOCKER SYSTEM

- Lockers can be closed manually and each has a cylinder lock with its own key pair
- An additional master key opens all 7 lockers
- Lockers and keys can be individually numbered using the key ring set and sticker sheet provided

5. INTERIOR FITTINGS

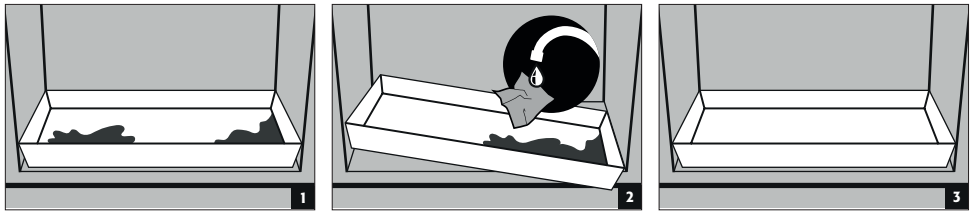
5.1. BOTTOM COLLECTING SUMP



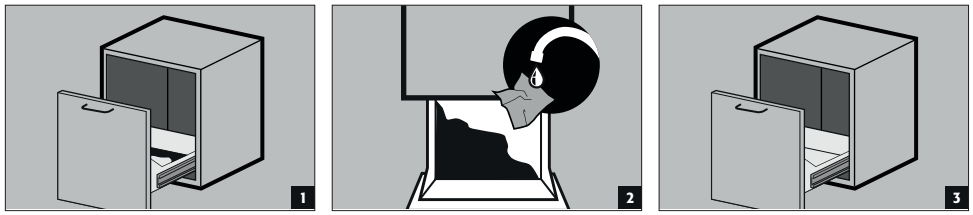
According to EN 14470-1: The bottom collecting sump must be able to hold a minimum volume of 10 %of all the containers stored in the cabinet **[1]** or at least 110 %of the volume of the largest single container **[2]** , whichever of these volumes is larger.

Leaks:
- Liquid in the sump is to be collected using suitable means.
- The choice of means is your own responsibility.

IO90.195.120.K3.WDC
IO90.195.060.K9.WDC
IO90.195.060.L8.WDC



IO90.078.059.057.U9.S



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5.2. STORAGE LEVELS WITH POWER SOCKET STRIPS

LOAD CAPACITY (KG/ DRUM PLATFORM)

IO90.195.120.K3.WDC		
		
Standard interior equipment	**Only special interior equipment:** Order No. 38520 Order No. 38521 Order No. 38522 Order No. 38523	**Only interior equipment with grids:** Order No. 38776 / 38772 Order No. 38777 / 38773 Order No. 38778 / 38774 Order No. 38779 / 38775

IO90.195.060.K9.WDC IO90.195.060.L8.WDC	IO90.078.059.057.U9.S	
		
Standard interior equipment	drawer	Second level drawer

CAUTION:
The position of the shelves / 2nd level drawer and socket strips cannot be changed.

5.3. TOTAL POWER RATING OF THE POWER SOCKET STRIPS

Standard: single-phase, 230 V

Version	EU	CH	UK	FR
fusing	16 A	10 A	13 A	16 A
max. total power	3,68 kW	2,3 kW	2,99 kW	3,68 kW

Optional: 3-phase, 400 V (accessories article 38038)
Note on model with a width of 600 mm IO90.195.060.K9.WDC, IO90.078.059.057.U9.S: Only 2 of the 3 connected phases are required by the cabinet electronics. The third phase remains unused.

Version	EU	CH	UK	FR
fusing	3 x 16 A	3 x 10 A	3 x 13 A	3 x 16 A
max. total power	11,04 kW	6,9 kW	8,97 kW	11,04 kW

ATTENTION:
The load on the system is to be distributed as evenly as possible over the power socket strips! The individual power strip must not be loaded with more than the specified power max. (see table)!
The necessary fuse protection is to be provided by the customer!

6. STORAGE

ATTENTION:
Never store obviously damaged lithium-ion batteries inside buildings.
Dispose of them without delay in disposal containers that are provided outside the building and approved for transport.

6.1. NOTES ON STORAGE AND CHARGING

Storage

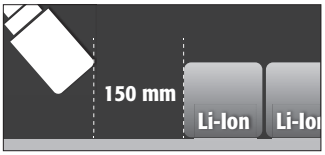
- It is recommended to store new and used lithium-ion batteries separately (each on a different storage level) in the safety storage cabinet.

Occupation of the storage levels (IO90.195.XXX.XX.WDC)
Grid shelves may be covered only up to 60% by battery chargers and batteries in order to ensure trouble-free operation of the fire suppression system and sufficient air circulation.

CAUTION:
Full-surface occupancy of the storage levels is not permitted.

IO90.195.120.K3.WDC:
The following substances must not be stored in the cabinets with fire suppression system:
Acids, bases, magnesium, other metals (in powder form).

Heat is generated during the charging of a lithium-ion battery!
Please note: The technical ventilation (to avoid heat accumulation in the interior) needs to be kept in operation permanently.



CAUTION:
A distance of min. 150 mm must be maintained in the area in front of the fire suppression unit.

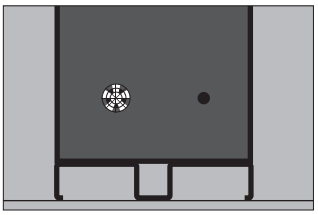
7. VENTILATION

7.1. EXTRACTION UNIT (IO90.195.120.K3.WDC)

- **See point 10.1** for the installation.
The green indicator lamp signals that the fan is switched on.

ATTENTION:
Heat is generated during the charging of a lithium-ion battery!
Please note:
The technical ventilation (for the avoidance of heat accumulation in the interior) must run continuously Repairs to the extraction unit are only to be carried out by specialists specifically trained for this. Given damage the appliance is to be repaired or replaced by the manufacturer.

7.2. FAN (IO90.078.059.057.U9.S)



- With model IO90.078.059.057.U9.S, a fan is permanetly mounted on the rear of the cabinet.

8. BATTERY FIRE ▪ EVENT OF FIRE ▪ DISPOSAL

CAUTION
After a battery fire and triggered fire suppression device, the safety cabinet must be subjected to a thorough inspection so that both fire protection and CE conformity are maintained. For this purpose, the cabinet must be handed over to the main factory of asecos GmbH in Gründau, where the specialist department - depending on the degree of damage - makes an assessment of the economic efficiency and technical possibilities of a repair. The customer then receives an offer of either a repair or a replacement, which can be handed over to the responsible property insurer.

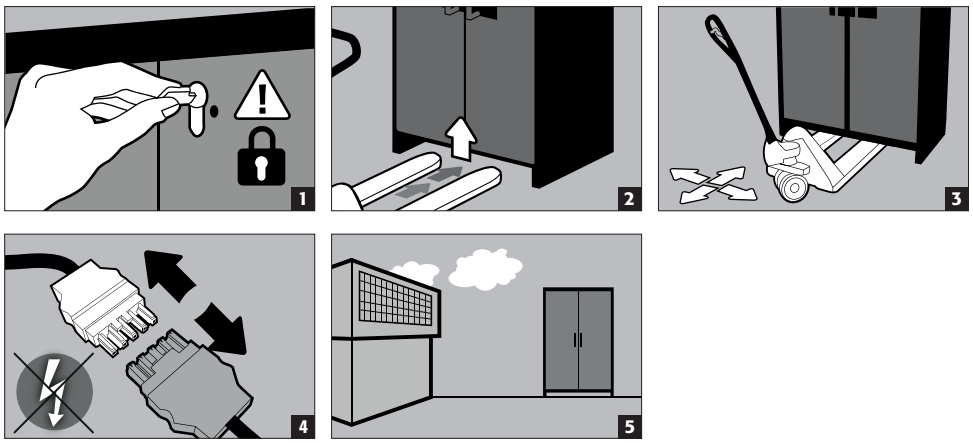
8.1. FIRE INSIDE THE CABINET (BATTERY FIRE)

- For fast transport the cabinets are equipped with a transport base.
  The cabinets are automatically disconnected from the mains supply in the case of transport.

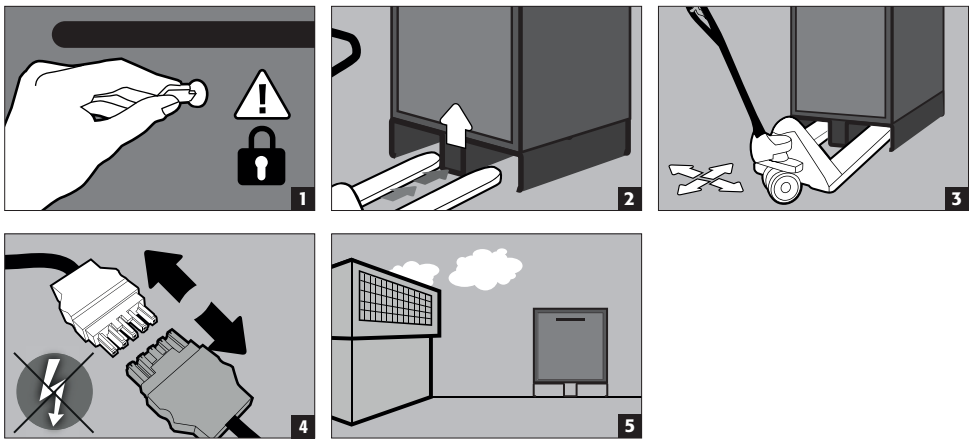
NOTE for 2-door tall cabinets
Evacuation by at least 2 persons is recommended.

CAUTION:
The doors must be locked before transport! Depending on the door heights, it may be necessary to remove the ventilation attachment beforehand. Transport may only be carried out by qualified personnel!

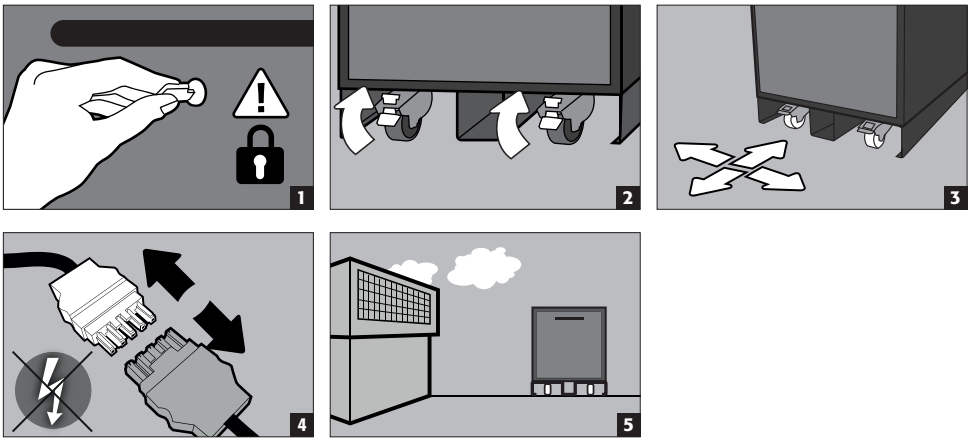
IO90.195.120.K3.WDC
IO90.195.060.K9.WDC
IO90.195.060.L8.WDC



IO90.078.059.057.U9.S



IO90.078.059.057.U9.S
plinth with castors



8.2. OPENING THE CABINET AFTER THE FIRE

CAUTION:
Do not open the cabinet until it has cooled down. This is 6 times the fire duration!
The cabinet may only be opened by authorised personnel (e.g. fire brigade)!
Depending on the duration of the fire, an ignitable vapour-air mixture may have formed, therefore remove all ignition sources within a 10-metre radius around the cabinets before opening.
Use only non-sparking tools! Open the cabinets with extreme caution!

8.3. DISPOSAL

The models can be disposed of once they have been dismantled and the materials sorted.

9. SAFETY CHECKS

9.1. ALL MODELS

As safety equipment the cabinets have to be checked for safety at least once per year. The next checking date can be taken from the service sticker on the outside of the door. This annual check can be carried out with the necessary care, and for securing your warranty claims in the case of fire, only by an authorised asecos employee (refer also to our service brochure regarding this).

9.2. IO90.195.120.K3.WDC

A necessary service is automatically indicated by the cabinet by a flashing green LED.
Within the context of the annual check, the fire suppression system, smoke detector and sensors will be checked in addition to the check of all safety-related parts.

9.3. IO90.195.060.K9.WDC - IO90.078.059.057.U9.S

A necessary service is indicated by service sticker on the door of the cabinet.
Within the context of the annual check, all safety-related parts, the smoke detector and the alarm signalling will be checked.

9.4. IO90.195.060.L8.WDC

A necessary service is automatically indicated by the cabinet by a flashing green LED
s part of the annual test, in addition to testing all safety-related parts, the sensor system is also tested.

ATTENTION
In accordance with DIN 14676 the proper function of the smoke detector must be checked at least once per year. In addition, we recommend the regular visual inspection of the battery chargers, batteries and connecting cables.

9.5. CONTACT

The cabinets can be cleaned with a mild household cleaner and a soft cloth.
In case of damage please contact your dealer in order to have the cabinet repaired using original spare parts.

CONTACT:
In the case of defects or complaints about our products (within and also after the warranty period), and for requesting safety checks or taking out a service contract, please contact our service hotline on:
Tel: +44 1785 22 70-90 info@asecos.co.uk

10. TECHNICAL DATA

		IO90.195.060.K9.WDC	IO90.195.120.K3.WDC
Type		90	90
External dimensions W x D x H	mm	599 x 615 x 1953	1193 x 615 x 2224
Internal dimensions W x D x H	mm	450 x 522 x 1647	1050 x 522 x 1647
Weight without interior equipment	kg	265	424
Distributed load	kg/m²	894.00	531.00
Extraction air	DN	75	75
Entry width transport base	mm	526	1120
Entry height transport base	mm	90	90
Max. shelf load (evenly distributed)	kg	25	75 (50 / 180)*
Power consumption of control electronics			
Power consumption in operation	W		47,5
Nominal voltage	V		230
Frequency	Hz		50/60

Total power rating of the power socket strips

		EU	CH	UK	FR/BE	EU	CH	UK	FR/BE
Fuse (1-phase)	A	16	10	13	16	16	10	13	16
Power max. (1-phase)	kW	3,68	2,3	2,99	3,68	3,68	2,3	2,99	3,68
Fuse (3-phase)	A	3 x 16(1)	3 x 10(1)	3 x 13(1)	3 x 16(1)	3 x 16	3 x 10	3 x 13	3 x 16
Power max. (3-phase)	kW	7,36	4,6	5,98	7,36	11,04	6,9	8,97	11,04

* Information applies to special interior equipment, see chapter 5.2
(1) With this model only 2 of the 3 phases are used.

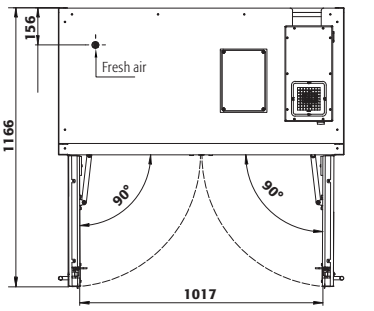
		IO90.195.060.L8.WDC	IO90.078.059.057.U9.S
Type		90	90
External dimensions W x D x H	mm	599 x 615 x 1953	593 x 574 x 780
Internal dimensions W x D x H	mm	450 x 522 x 1647	470 x 452 x 582
Weight without interior equipment	kg	265	130
Distributed load	kg/m²	894.00	461.00
Extraction air	DN	75	
Entry width transport base	mm	526	526
Entry height transport base	mm	90	90
Load capacity shelf / 2nd level drawer	kg	25	25
Load capacity drawer	kg		50

Total power rating of the power socket strips

		EU	CH	UK	FR/BE	EU	CH	UK	FR/BE
Fuse (1-phase)	A	16	10	13	16	16	10	13	16
Power max. (1-phase)	kW	3,68	2,3	2,99	3,68	3,68	2,3	2,99	3,68

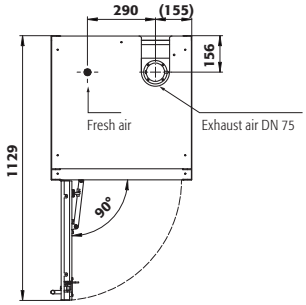
11. TECHNICAL DRAWING

Top view



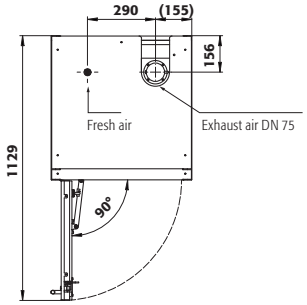
IO90.195.120.K3.WDC

Top view



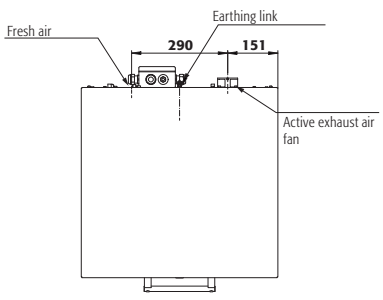
IO90.195.060.K9.WDC

Top view



IO90.195.060.L8.WDC

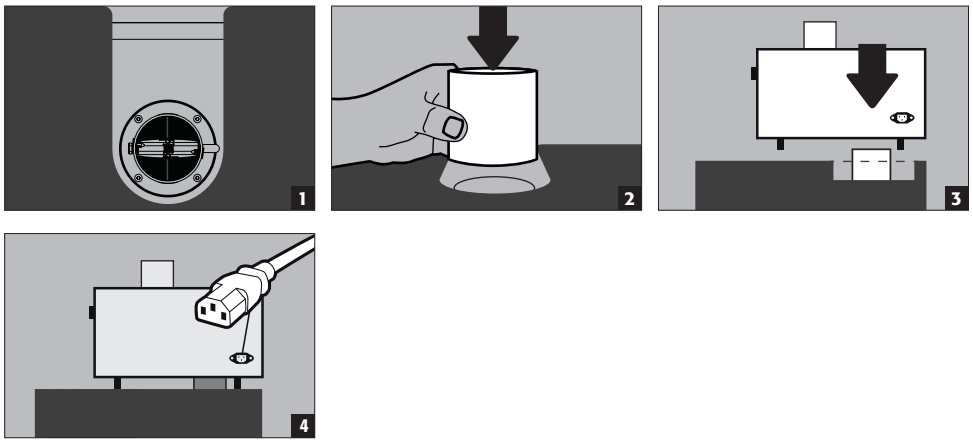
Top view



IO90.078.059.057.U9.S

12. IO90.195.120.K3.WDC

12.1. INSTALLATION OF THE EXTRACTION UNIT

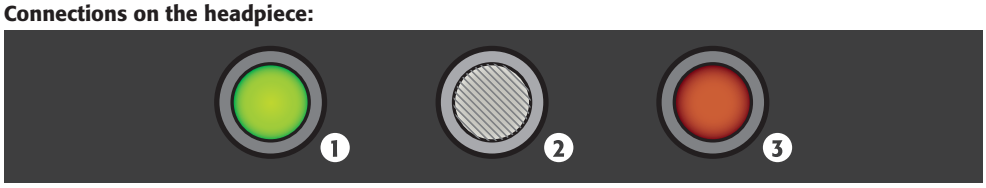


The extraction unit is for the avoidance of a heat accumulation in the interior during the charging process inside the cabinet. The exhaust air from the cabinet is exhausted directly into the room. Connection to an exhaust duct is not necessary.

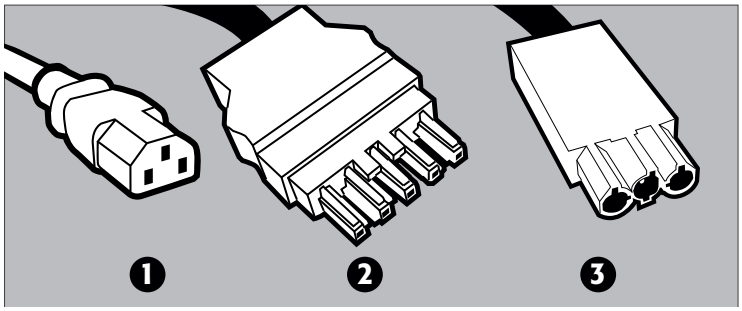
12.2. CONNECTION TO THE POWER SUPPLY

IO90.195.120.K2.WDC
IO90.195.120.K3.WDC

Connections on the headpiece:



❶ LED: Operating (green) ❷ RESET BUTTON ❸ LED: Error (red)

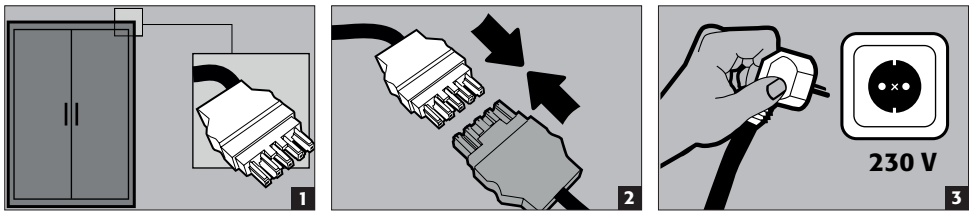


❶ Mains connection for extraction unit

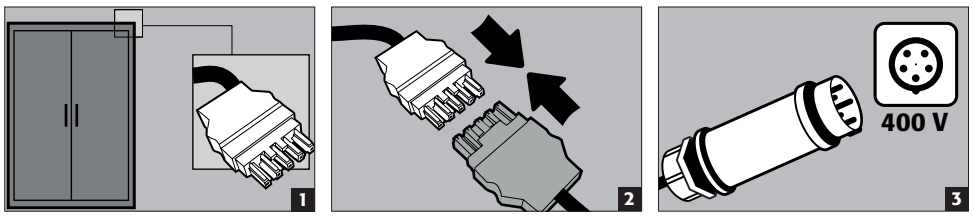
❷ Mains plug connector

❸ Potential-free switch contact

Connection to the power supply

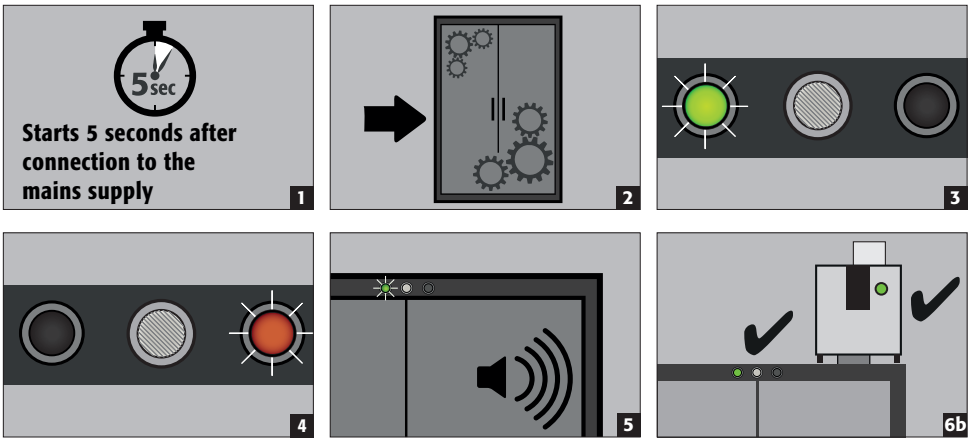


Connection to the power supply with 400 V (optional with item 38038)

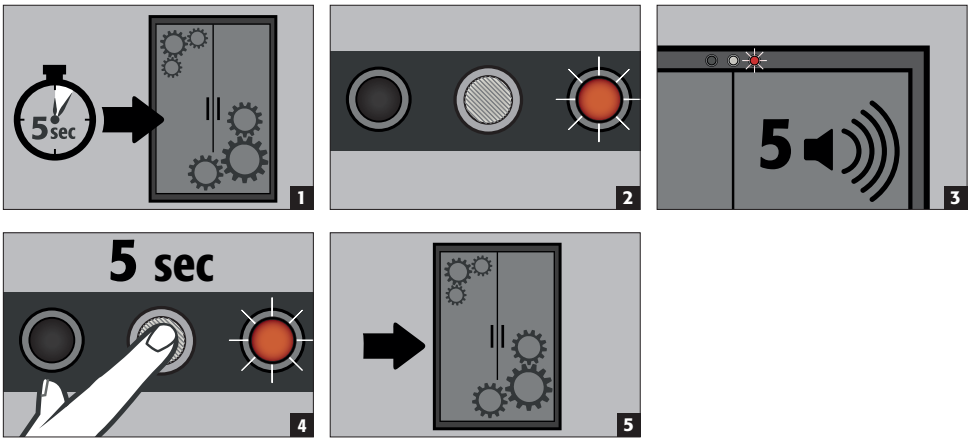


NOTE:
Retrofitting is easy due to the plug-in connection, so that no intervention in the electrical components is necessary.

12.3. SELF-TEST



12.4. ERROR DURING SELF-TEST



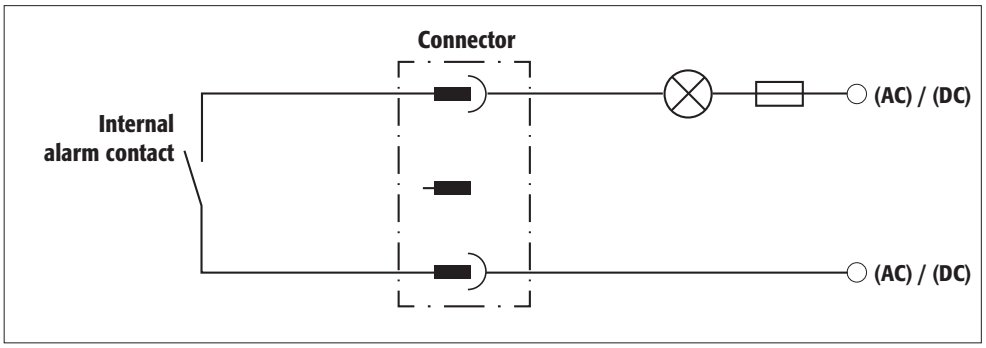
ATTENTION:
After pressing the reset button, the self-test begins again. If the error persists, please contact the asecos Service department.

12.5. ERROR AND ALARM OVERVIEW

EVENT	LED GREEN	LED RED	ACOUSTIC ALARM	ACTIONS
Error during self-test	off	turned on	5 signal tones	1.) Restart with RESET button if error persists: 2.) Contact Service
Service interval reached	flashing	off	off	Contact Service
Power failure	off	Flashes every 20 seconds	3 short signal tones every 60 seconds	Check power supply
Warning message: Temperature in the cabinet >50 °C	off	turned on	**Tone interval** (every 2 seconds for 250 ms)	see 10.8
Alarm stage 1: Smoke detector detects smoke in the cabinet	off	turned on	**medium tone interval** (every 0.5 seconds for 250 ms)	see 10.9
Alarm stage 2: Smoke detector detects smoke in the cabinet, Temperature in the cabinet >70 °C	off	flashing	**fast tone interval** (every 0.25 seconds for 125 ms)	see 10.10

12.6. POTENTIAL-FREE ALARM CONTACT

NOTE:
The potential-free alarm contact is used to connect a signal to a control centre/control room. Direct integration into a fire alarm control panel (FACP) is not recommended or may only be carried out in consultation with the person responsible for the system.
However, it is always recommended to connect the signal to a manned control centre/control room!
The potential-free switching contact must always be connected by the customer (not a service).



Connection instructions

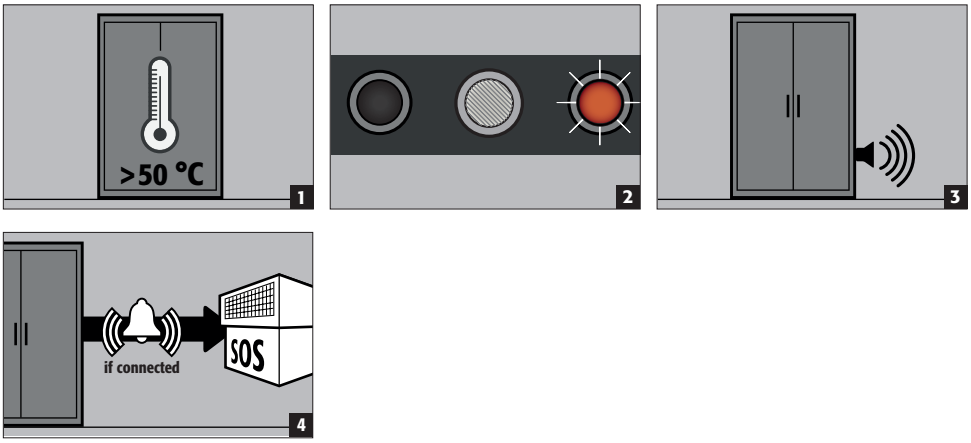
- Use only the supplied mating part (colour-coded black) to the plug for the connection
- The connection must be done by a qualified electrician
- The contact is designed for a max. DC voltage of 30 V or a max. AC voltage of 230 V
- The maximum current load is 10 A
- The switch contact is normally closed!
- The switch contact opens as soon as mains voltage is present and no error is pending (device is „ready to operate“)

12.7. WARNING/FIRE SUPPRESSION SYSTEM

- The warning/fire suppression system offers the option of connection to a constantly manned building management system or fire alarm centre.
- Make use of this option so that trained rescue personnel can be quickly alerted and be on-site in a very short time and, following an initial assessment of the situation, immediately initiate further measures (for example, transporting the cabinet out of the building).
- In this way consequential damage to the building and personal injuries can be avoided.
- The extinguishing agent, based on potassium carbonate, is harmless in the necessary extinguishing agent concentration and has no harmful effects on the human organism.
- In case of triggering, the aerosol is ejected at a high temperature and temperatures of over 300 °C are briefly generated in front of and on the housing of the fire suppression cartridge (according to the manufacturer's data, a minimum distance to combustible materials need not be maintained; however, a distance of at least 150 mm to the fire suppression cartridge should generally be maintained).
- After triggering of the fire suppression cartridge, ventilate the room and the cabinet well, observing the instructions in point 8.

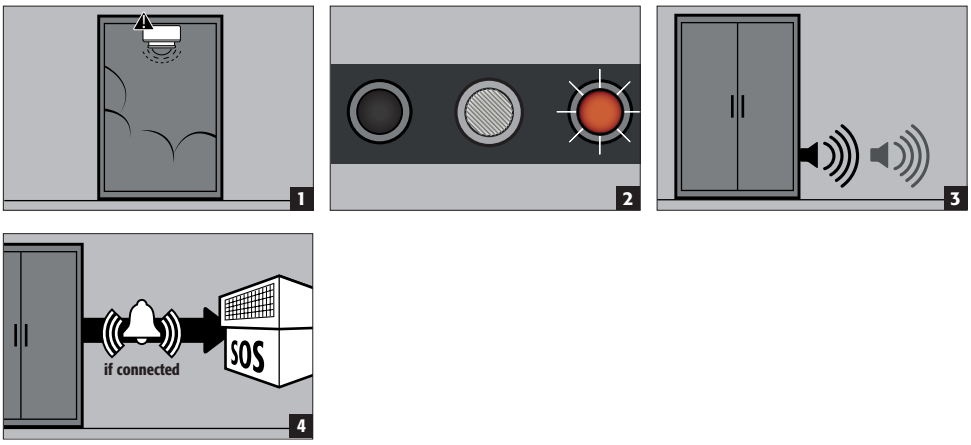
ATTENION:
The complete warning/fire suppression system is active only with mains operation. The integrated smoke detector is part of the entire fire suppression system (direct power supply).

12.8. WARNING MESSAGE



- **Actions**
  Immediate visual inspection of the system by the company's own qualified personnel.
  Initiation of necessary actions.
  If the interior temperature falls below 50 °C, the system returns to normal operation and the visual and acoustic signals are switched off.

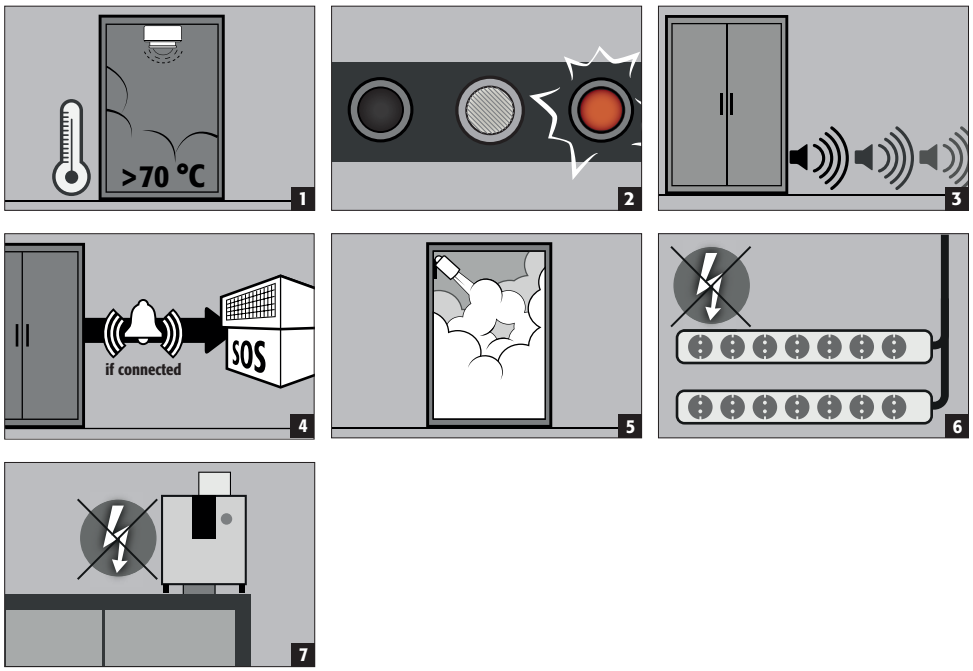
12.9. ALARM STAGE 1



- **Actions**
  Immediate visual inspection of the system **by technical personnel (e.g. fire brigade).**
  Subsequently, initiation of necessary actions.
  If the smoke detector does not detect any further smoke development in the cabinet, the system can be reset to normal operation by briefly disconnecting the mains voltage.

EN

12.10. ALARM STAGE 2



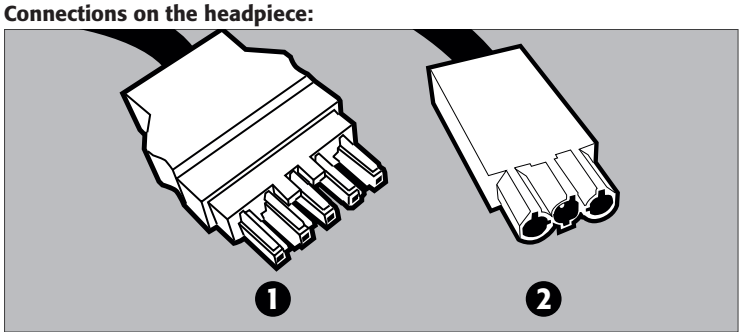
- **Actions**
  Immediate visual inspection of the system by **technical personnel (e.g. fire brigade).**
  Subsequently, initiation of necessary actions.
  See 8.2 for the transport of the cabinets out of the building.

NOTE:
After the fire suppression device has been triggered, the safety cabinet must be subjected to a thorough inspection so that both fire protection and CE conformity are maintained. For this purpose, the cabinet must be handed over to the main factory of asecos GmbH in Gründau, where the specialist department - depending on the degree of damage - will make an assessment of the economic efficiency and technical possibilities of a repair. The customer then receives an offer of either a repair or a replacement, which can be handed over to the responsible property insurer.

13. IO90.195.060.K9.WDC

13.1. CONNECTION TO THE POWER SUPPLY

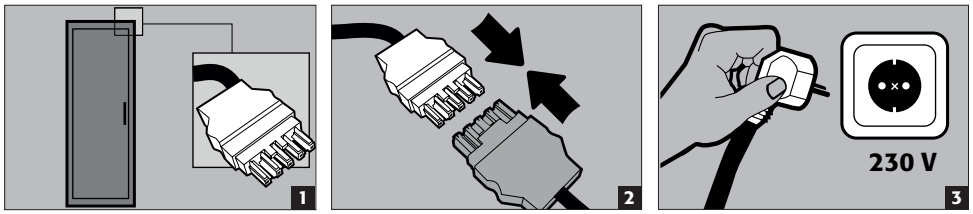
Connections on the headpiece:



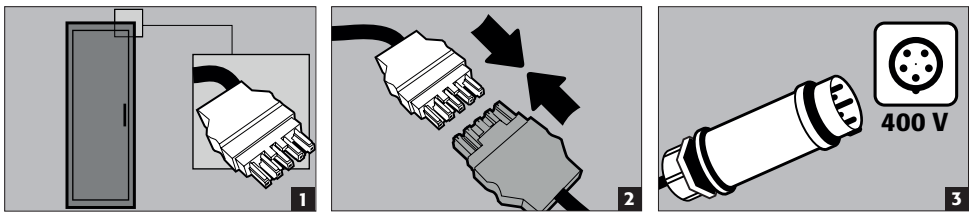
❶ Mains plug connector

❷ Potential-free switch contact

Connection to the power supply



Connection to the power supply with 400 V (optional with item 38038)



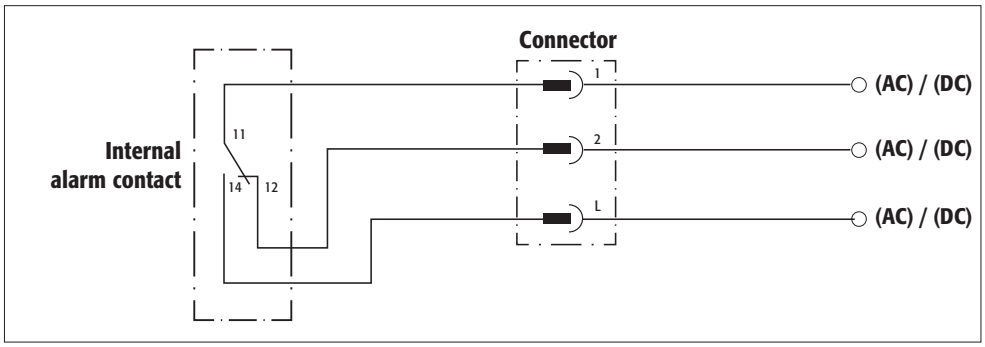
NOTE:
Retrofitting is easy due to the plug-in connection, so that no intervention in the electrical components is necessary.

13.2. ERROR AND ALARM OVERVIEW

EVENT	LED RED ON SMOKE DETECTOR	ACOUSTIC ALARM	ACTIONS
Smoke detector detects smoke in the cabinet	flashing	pulsating alarm tone	**see 8.1**
Triggered by connected detectors	off	pulsating alarm tone	The triggering detector can be identified by parallel to the alarm tone flashing LED
Battery replacement due	flashing	short beep every 45 seconds	see 11.5
Operational readiness	flashes every 45 seconds	off	
Malfunction	flashes alternately with the beep	short beep every 45 seconds	change smoke detector

13.3. POTENTIAL-FREE ALARM CONTACT

NOTE:
The potential-free alarm contact is used to connect a signal to a control centre/control room. Direct integration into a fire alarm control panel (FACP) is not recommended or may only be carried out in consultation with the person responsible for the system.
However, it is always recommended to connect the signal to a manned control centre/control room!
The potential-free switching contact must always be connected by the customer (not a service).



Connection instructions

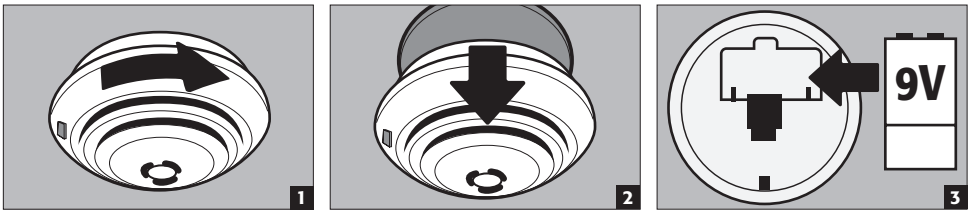
- Use only the supplied mating part (colour-coded brown) to the plug for the connection.
- The connection must be done by a qualified electrician.
- The internal switch contact is designed for a max. DC voltage of 24 V or a max. AC voltage of 230 V.
- The maximum current load is 5 A at 230 V AC and 10 A at 24 V DC.
- The internal switch contact is a changeover contact; in case of alarm, therefore, the switching state may be queried as „opened“ or „closed“.

13.4. FALSE ALARM OF THE SMOKE DETECTOR

- By interrupting the power supply for a few seconds, the smoke detector is reset and the system returns to normal operation.

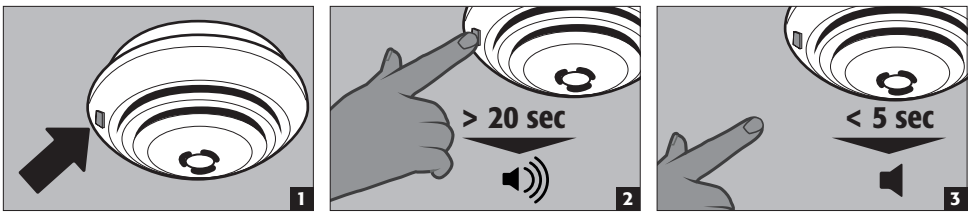
13.5. SMOKE DETECTOR - BATTERY CHANGE

CAUTION:
The use of rechargeable batteries is not permitted!
The life of the battery is highly dependent on local conditions such as temperature, temperature fluctuations, humidity and the number of test alarms/alarms, among other things. In the case of lithium, this is up to 5 years. The smoke detector announces a necessary battery change approx. 30 days in advance (see 10.2).



13.6. SMOKE DETECTOR - MAINTENANCE

ATTENTION
In accordance with DIN 14676 the proper function of the smoke detector must be checked at least once per year.



- The smoke detector is completely tested with the LED test button (fig. 1): battery function test, electronic smoke chamber test and a test of the evaluation electronics.
- After releasing, the test alarm resets itself
- Following a successful test, the alarm is silenced and the LED flashes every 45 seconds - the smoke detector is ready to operate
- If the test failed, see error and alarm overview for error analysis

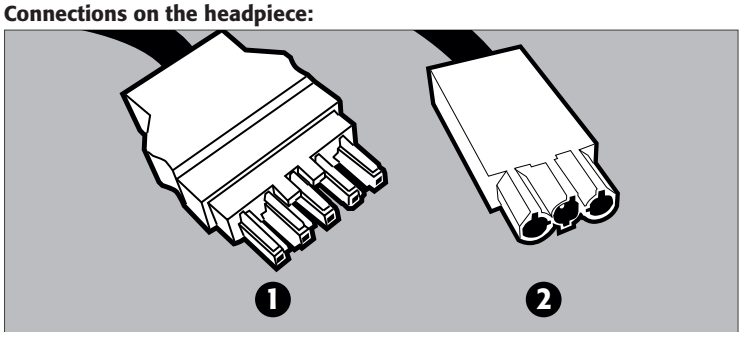
Self-test

- The smoke detector carries out an automatic self-test, in which the evaluation electronics as well as the voltage and the internal resistance of the battery are checked about every 45 seconds.
- This check is signalled by a short flashing signal of the red LED.

14. IO90.195.060.L8.WDC

14.1. CONNECTION TO THE POWER SUPPLY

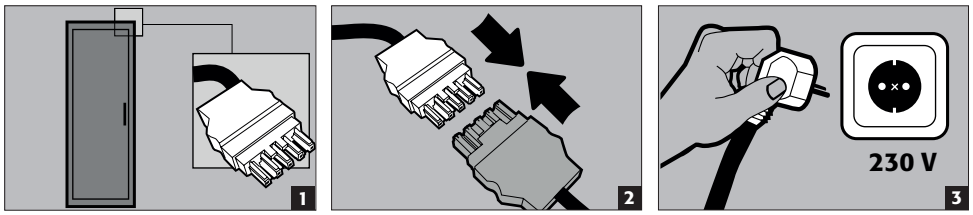
Connections on the headpiece:



❶ Mains plug connector

❷ Potential-free switch contact

Connection to the power supply



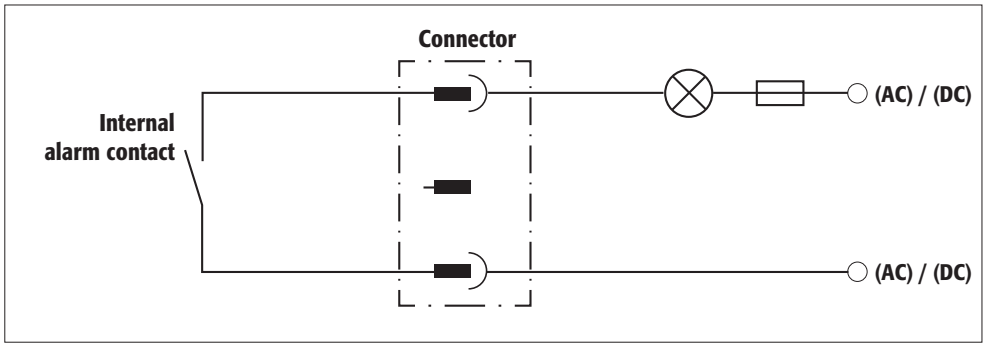
14.2. ERROR AND ALARM OVERVIEW

EVENT	LED GREEN	LED RED	ACOUSTIC ALARM	LED ON THE COMPARTMENT GREEN/RED	ACTIONS
Self-test error / system error	off	turned on	5 signal tones	off	1.) Restart with RESET button if error persists: 2.) Contact Service
Operational readiness	turned on	off	off	lights up "green"	
Power failure	Flashes every 20 seconds	off	3 short signal tones every 60 seconds	off	Check power supply
Service interval reached	LED flashes (0.5 s on, 0.5 s off)	off	off	lights up "green"	Contact Service
Warning message: Temperature in the cabinet >50 °C	off	turned on	**Tone interval** (every 2 seconds for 250 ms)	lights up "green"	• Immediate inspection of the system by in-house qualified personnel • Initiation of necessary measures • If the internal temperature falls below 50 °C, the system returns to normal operation and the optical and acoustic signals are switched off.
Alarm 1: Temperature in a compartment >60 °C	off	turned on	**Tone interval** (every 2 seconds for 250 ms)	ON, LED flashes "red" (250 ms on, 250 ms off)	Evacuation of the compartment or entire cabinet

- The visual alarm is not time-limited.
- The acoustic alarm can be switched off using the button. However, the acoustic alarm is switched on again after 2 minutes if the event is still present.
- If the event is no longer present, the acoustic and visual alarm is switched off.
- If the alarm I (temperature in a compartment too high) was triggered, the monitoring electronics are blocked. The relays remain switched off, so that it is no longer possible to charge batteries in the cabinet.
- A reset can be carried out by pressing the button for longer (longer than 5 seconds) or by interrupting the mains voltage and restarting the system. However, it only works if the temperature in the compartment is below 60 ° C again.

14.3. POTENTIAL-FREE ALARM CONTACT

NOTE:
The potential-free alarm contact is used to connect a signal to a control centre/control room. Direct integration into a fire alarm control panel (FACP) is not recommended or may only be carried out in consultation with the person responsible for the system.
However, it is always recommended to connect the signal to a manned control centre/control room!
The potential-free switching contact must always be connected by the customer (not a service).



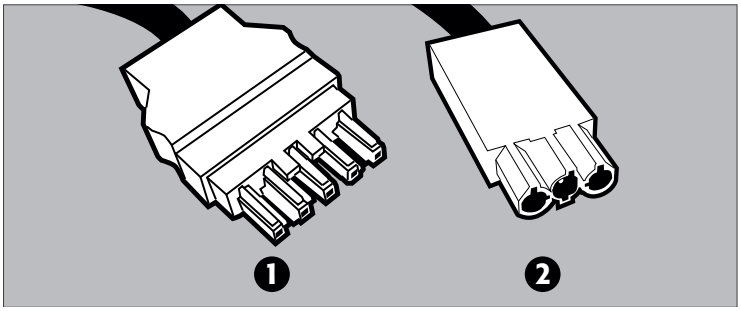
Connection instructions

- Use only the supplied mating part (colour-coded black) to the plug for the connection
- The connection must be done by a qualified electrician
- The contact is designed for a max. DC voltage of 30 V or a max. AC voltage of 230 V
- The maximum current load is 10 A
- The switch contact is normally closed!
- The switch contact opens as soon as mains voltage is present and no error is pending (device is „ready to operate“)

EN

15. IO90.078.059.057.U9.S

15.1. CONNECTION TO THE POWER SUPPLY

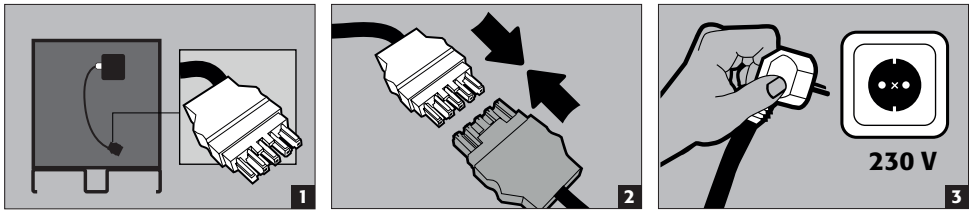


❶ Mains plug connector

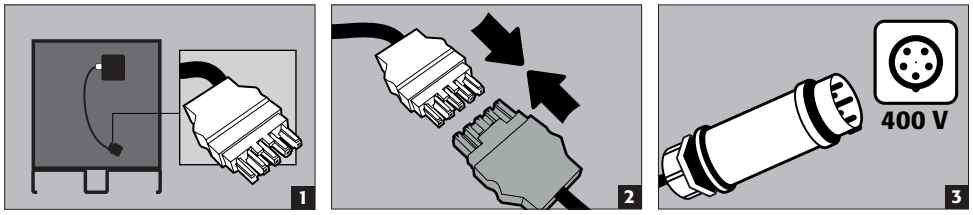
❷ Potential-free switch contact

NOTE:
Retrofitting is easy due to the plug-in connection, so that no intervention in the electrical components is necessary.

Connection to the power supply



Connection to the power supply with 400 V (optional with item 38038)

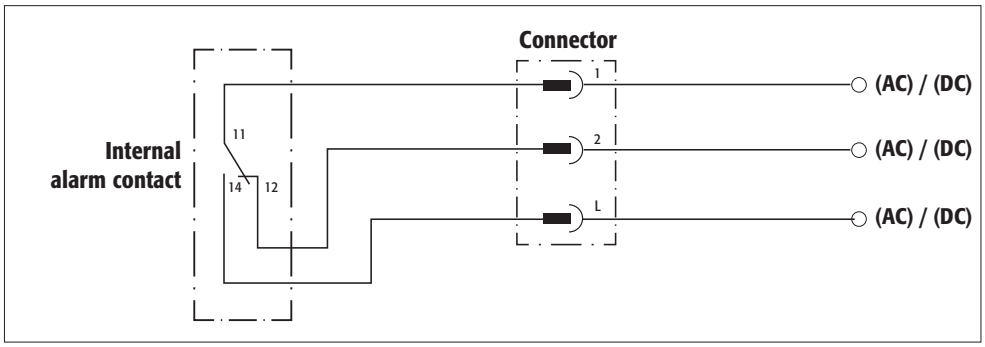


15.2. ERROR AND ALARM OVERVIEW

EVENT	LED RED ON SMOKE DETECTOR	ACOUSTIC ALARM	ACTIONS
Smoke detector detects smoke in the cabinet	flashing	pulsating alarm tone	**see 8.1**
Triggered by connected detectors	off	pulsating alarm tone	The triggering detector can be identified by parallel to the alarm tone flashing LED
Battery replacement due	flashing	short beep every 45 seconds	see 13.5
Operational readiness	flashes every 45 seconds	off	
Malfunction	flashes alternately with the beep	short beep every 45 seconds	change smoke detector

15.3. POTENTIAL-FREE ALARM CONTACT

NOTE:
The potential-free alarm contact is used to connect a signal to a control centre/control room. Direct integration into a fire alarm control panel (FACP) is not recommended or may only be carried out in consultation with the person responsible for the system.
However, it is always recommended to connect the signal to a manned control centre/control room!
The potential-free switching contact must always be connected by the customer (not a service).



Connection instructions

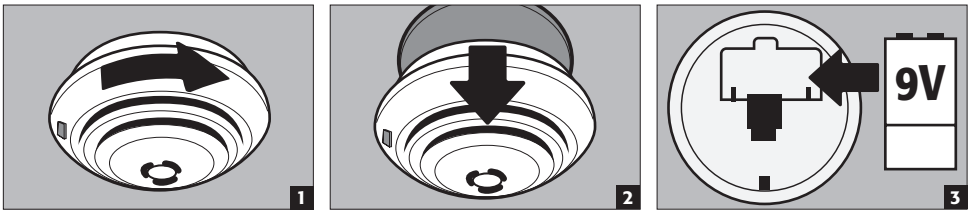
- Use only the supplied mating part (colour-coded brown) to the plug for the connection.
- The connection must be done by a qualified electrician.
- The internal switch contact is designed for a max. DC voltage of 24 V or a max. AC voltage of 230 V.
- The maximum current load is 5 A at 230 V AC and 10 A at 24 V DC.
- The internal switch contact is a changeover contact; in case of alarm, therefore, the switching state may be queried as „opened“ or „closed“.

15.4. FALSE ALARM OF THE SMOKE DETECTOR

- By interrupting the power supply for a few seconds, the smoke detector is reset and the system returns to normal operation.

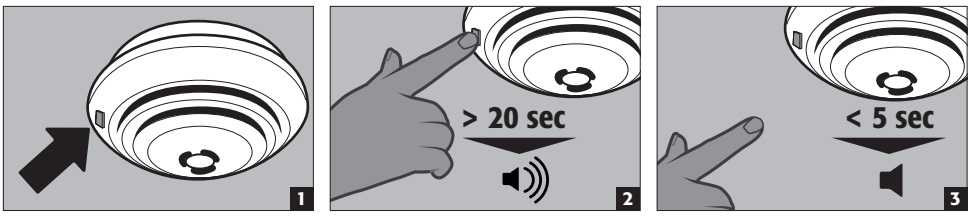
15.5. SMOKE DETECTOR - BATTERY CHANGE

CAUTION:
The use of rechargeable batteries is not permitted!
The life of the battery is highly dependent on local conditions such as temperature, temperature fluctuations, humidity and the number of test alarms/alarms, among other things. In the case of lithium, this is up to 5 years. The smoke detector announces a necessary battery change approx. 30 days in advance (see 10.2).



15.6. SMOKE DETECTOR - MAINTENANCE

ATTENTION
In accordance with DIN 14676 the proper function of the smoke detector must be checked at least once per year.



- The smoke detector is completely tested with the LED test button (fig. 1): battery function test, electronic smoke chamber test and a test of the evaluation electronics.
- After releasing, the test alarm resets itself
- Following a successful test, the alarm is silenced and the LED flashes every 45 seconds - the smoke detector is ready to operate
- If the test failed, see error and alarm overview for error analysis

Self-test

- The smoke detector carries out an automatic self-test, in which the evaluation electronics as well as the voltage and the internal resistance of the battery are checked about every 45 seconds.
- This check is signalled by a short flashing signal of the red LED.

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