

GIGAsedo



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General Information

Symbols



CAUTION SyMBOl:

Indicates imminent danger. If it is not observed serious or life-threatening injuries and property damage may occur.



IMpORTANT INfORMATION SyMBOl:

Information, useful advice!

1 (1) Refers to a respective picture in the introduction or main text.

This drive is manufactured in accordance with

- EN 12453 Safety in use of power operated doors, requirements
- EN 12978 Safety devices for power operated doors and gates, requirements and test methods
- EN 12604 Doors and gates - Mechanical aspects - Requirements
- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC

and has left the factory in good technical condition.

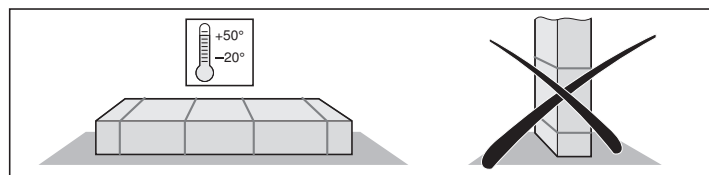
Safety instructions

General

- These installation and operating instructions must be read, understood and complied with by persons who install, use or perform maintenance on the drive.
- Keep the installation instructions within reach.
- Installation, connection and initial commissioning of the drive may only be carried out by an electrician.
- The system manufacturer is responsible for the complete system. The system manufacturer must ensure that all applicable standards, directives and regulations applicable at the installation site are observed.
The system manufacturer must test and maintain the maximum approved closing forces in accordance with EN 12445 (Safety in use of power operated doors, test methods) and EN 12453 (Safety in use of power operated doors, requirements). The system manufacturer is responsible for preparation of technical documentation for the complete system and the documentation must accompany the system.
- All electrical wiring must be firmly secured to prevent displacement.
- The manufacturer does not accept liability for damage or interruptions to business resulting from non-observance of the installation and operating manual.
- Before commissioning, ensure that the mains connection matches the specifications on the type plate. If this is not the case, the drive must not be operated.
- With a three-phase connection make sure that the direction of rotation is clockwise.
- Installations with a fixed mains connection require an all-phase disconnection device with appropriate fuses.
- Take heed of and comply with the 'ASR A1.7 Technical Regulations for Workplaces' of the committee for workplaces (ASTA). (Applicable for the operator in Germany, observe and comply with the applicable regulations in other countries).
- Regularly check power cables and wires for insulation defects or cracks. If a wiring fault is found, switch off the power immediately and repair the faulty cable or wire.
- Observe the requirements of the local power supplier.
- Before working on the gate or the drive, always disconnect the control unit and drive from the power supply and lock to prevent reactivation.
- Never operate a damaged drive.
- Only use OEM (Original Equipment Manufacturer) spare parts and accessories.

Storage

- The drive must be stored in an enclosed, dry area at a room temperature of -20 - +50.00 °C and relative humidity of 20 - 90% (non-condensing).
- The drive should be stored horizontally.



Operation

- When using the automatic close function, ensure compliance with EN 12453 (e.g. install photo relay).
- After installation and commissioning, all users must be instructed in the function and operation of the system. All users must be informed on the hazards and risks inherent in the system.
- Open and close the gate only if there are no persons, animals or objects within its area of movement.
- Continuously monitor the gate while it is in motion and keep all persons away from it until the door is completely opened or closed.
- Do not drive through the gate until it is fully open.
- Never put your hand near the gate when it is moving or near moving parts.
- Regularly check the safety and protection functions and repair faults when they are detected. See Care and maintenance.

Type plate

- The type plate is on the side of the gearing.
- The type plate shows the exact type designation and the date of manufacture (month/year) of the drive.

Intended use



IMpORTANT INfORMATION!

After installation of the drive, the person responsible for the installation must complete an EC declaration of conformity for the gate system in accordance with Machinery Directive 2006/42/EC and apply the CE mark and a type plate. This documentation and the Installation and Operating Instructions are retained by the operator.

- The drive is designed exclusively for opening and closing fully installed industrial gates (e.g. sectional, roller, overhead, folding, fast-acting and roller-grid gates) with complete spring or weight compensation. Any other use does not constitute intended use. The manufacturer accepts no liability resulting from use other than intended use. The user bears the sole responsibility for any risk involved. It also voids the warranty.
- The drive is designed exclusively for operation in dry, non-explosive indoor areas.
- Gates automated with a drive must comply with all valid standards and directives: e.g. EN 12453, EN 12604, and EN 12605.
- The drive must be in good technical condition, and it must be used for its intended purpose with awareness of the hazards as described by the installation and operating manual. Do not exceed the limit values specified in the technical specifications.
- Faults that may affect safety must be repaired without delay.
- The gate must be stable and rigid and correctly aligned, meaning that it may not bend or twist when being opened or closed.
- The GIGAcontrol and the GIGAsedo drive must only be used together. SOMMER industrial gate control units only must be used.

General Information

- The GIGAcontrol and the GIGAsedo drive are designed for commercial use.
- The drive conforms to the requirements of the IP-54 protection class. The drive must not be installed in areas with a corrosive atmosphere (e.g. salty air).

Technical specifications

Three-phase operation

| GIGAsedo | | 24.10x | 18.14x |
|---------------------------------|-------------------|----------------|----------------|
| Output torque | Nm | 100 | 140 |
| Static holding torque | Nm | 450 | 600 |
| Output speed | min ⁻¹ | 24 | 18 |
| Motor performance | kW | 0.37 | 0.55 |
| Operating voltage | V | 3~230/400 | 3~230/400 |
| Frequency | Hz | 50 | 50 |
| Rated current | A | 2.6/1.5 | 3.45/2.0 |
| Power factor cosφ | | 0.65 | 0.7 |
| Motor duty cycle | DC % | 60 | 60 |
| Limit switch range | | 14 | 14* |
| Protection type | IP | 54 | 54 |
| Insulation class | | F | F |
| Controlling voltage | V | 24 | 24 |
| Approved temperature range | °C | -5°C...+40 °C | -5°C...+40 °C |
| Continuous sound pressure level | dB(A) | <70 | <70 |
| Hollow shaft | mm | 25.4 | 25.4/31.75 |
| Building fuse | A | 10 (slow-blow) | 10 (slow-blow) |
| Building feed | mm ² | 5x1.5 | 5x1.5 |
| Weight (approx.) | kg | 13 | 14 |

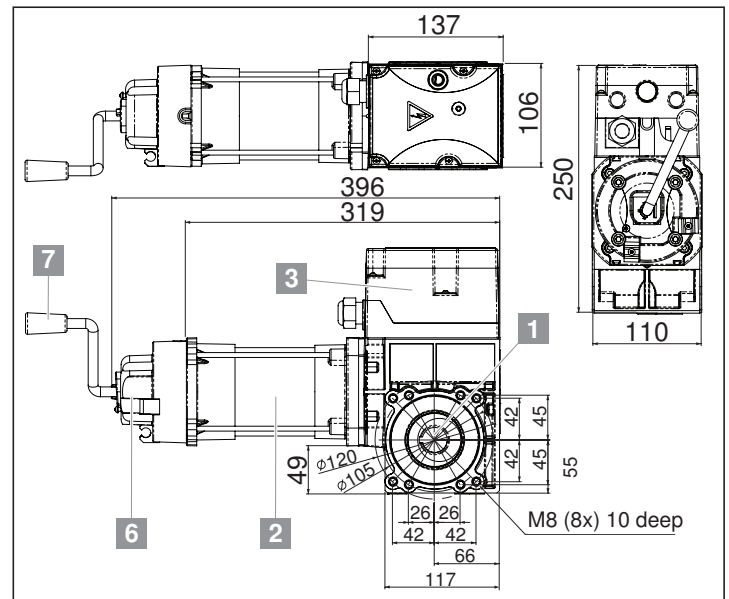
Single-phase drive

| GIGAsedo | | 24.07x-S | 18.10x-S |
|---------------------------------|-------------------|----------------|----------------|
| Output torque | Nm | 70 | 100 |
| Static holding torque | Nm | 450 | 600 |
| Output speed | min ⁻¹ | 24 | 18 |
| Motor performance | kW | 0.37 | 0.55 |
| Operating voltage | V | 1~230 | 1~230 |
| Frequency | Hz | 50 | 50 |
| Rated current | A | 2.6 | 3.45 |
| Power factor cosφ | | 0.65 | 0.7 |
| Motor duty cycle | DC % | 40 | 40 |
| Limit switch range | | 14* | 14* |
| Protection type | IP | 54 | 54 |
| Insulation class | | F | F |
| Controlling voltage | V | 24 | 24 |
| Approved temperature range | °C | -5°C...+40 °C | -5°C...+40 °C |
| Continuous sound pressure level | dB(A) | <70 | <70 |
| Hollow shaft | mm | 25.4 | 25.4/31.75 |
| Building fuse | A | 10 (slow-blow) | 10 (slow-blow) |
| Building feed | mm ² | 3x1.5 | 3x1.5 |
| Weight (approx.) | kg | 14 | 15 |

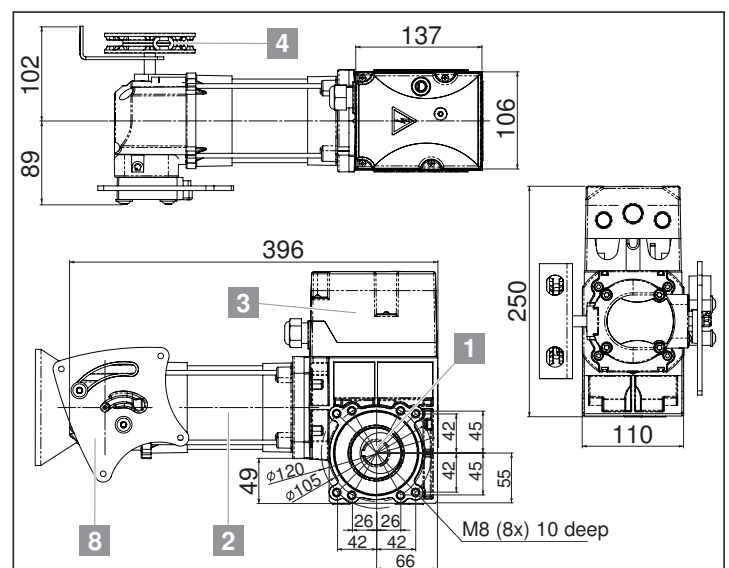
* if applicable with limit switch range = 20

Dimensional drawings

GIGAsedo 24.10H / 18.14H - direct drive with emergency crank

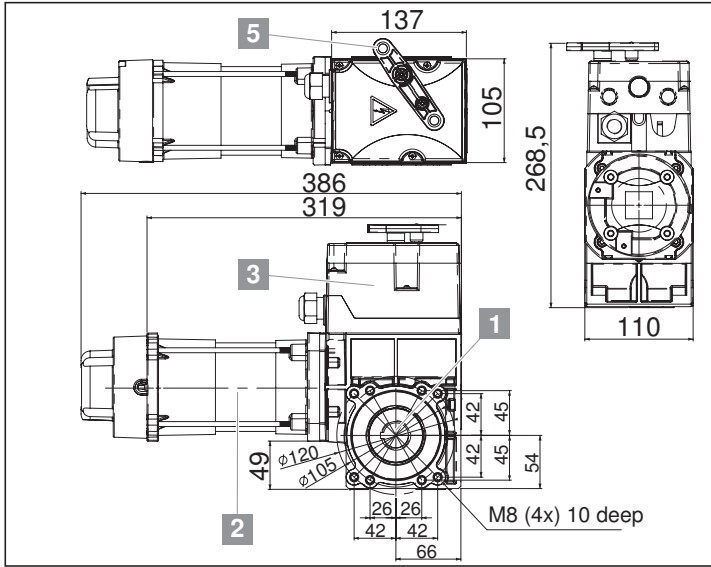


GIGAsedo 24.10C / 18.14C - direct drive with emergency chain

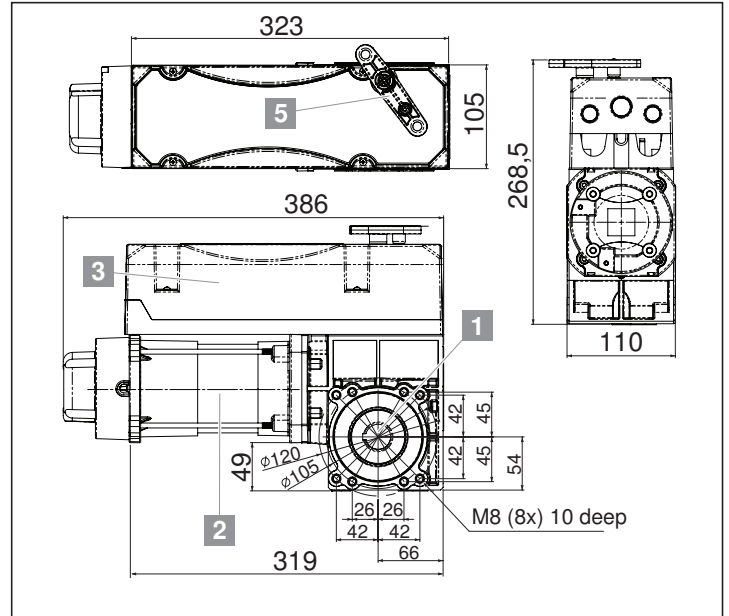


General Information

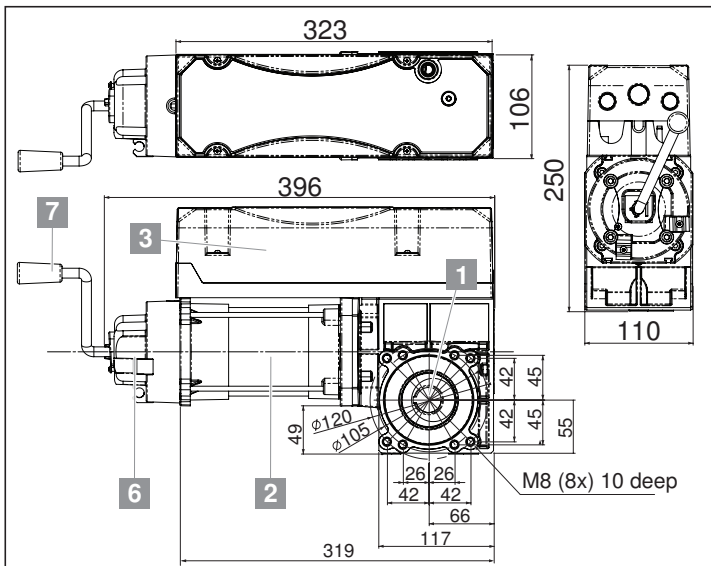
GIGAsedo 24.10D / 18.14D - direct drive with emergency release



GIGAsedo 24.10D-S / 24.10DI / 18.14D-S / 18.14DI - direct drive with emergency release



GIGAsedo 24.10H-S / 24.10 HI / 18.14H-S / 18.14HI - direct drive with emergency crank



| | |
|---|----------------------------|
| 1 | Worm gearing |
| 2 | Motor |
| 3 | Limit switch housing |
| 4 | Chain sprocket |
| 5 | Emergency release |
| 6 | Emergency crank housing |
| 7 | Emergency crank (d. 10 mm) |
| 8 | Shifting gate |

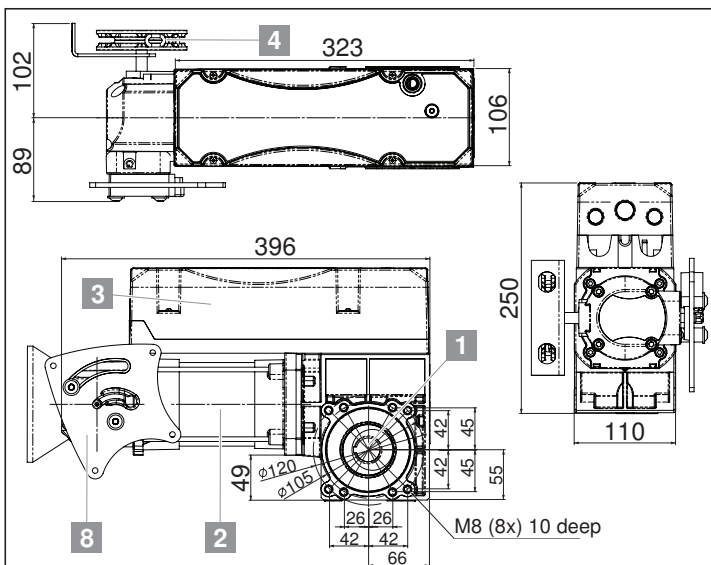
functional description



IMPORTANT INFORMATION!

The end positions (gate OpEN + ClOSE) are set by electric limit switches in the drive and detected during operation.

GIGAsedo 24.10C-S / 24.10CI / 18.14C - direct drive with emergency chain



General Information

Declaration of Installation

for the installation of an incomplete machine
in accordance with the Machinery Directive 2006/42/EC, Appendix II, Section 1 B

SOMMER Antriebs- und Funktechnik GmbH
Hans - Böckler - Straße 21 - 27
73230 Kirchheim unter Teck
Germany

hereby declares that the industrial gate drive

GIGAsedo

have been developed, designed and manufactured in conformity with the

- Machinery Directive 2006/42/EC
- Construction Products Directive 89/106/EEC
- Low Voltage Directive 2006/95/EC
- Electromagnetic Compatibility Directive 2004/108/EC
- RoHS Directive 2001/65/EU.

The following standards were applied:

- EN ISO 13849-1, PL "C" Cat. 2 Safety of machines - safety-related parts of controls
- Part 1: General design guidelines
- EN 60335-1, where applicable Safety of electrical appliances / drives for gates
- EN 61000-6-3 Electromagnetic compatibility (EMC) - interference
- EN 61000-6-2 Electromagnetic compatibility (EMC) - interference resistance

The following requirements of Annex 1 of the Machinery Directive 2006/42/EC are met:

1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.6, 1.3.2, 1.3.4, 1.3.7, 1.5.1, 1.5.4, 1.5.6, 1.5.14, 1.6.1, 1.6.2, 1.6.3, 1.7.1, 1.7.3, 1.7.4

The special technical documentation was prepared in accordance with Annex VII Part B and will be submitted to regulators electronically on request.

The incomplete machine is intended for installation in a gate system only to form a complete machine as defined by the Machinery Directive 2006/42/EC. The gate system may only be put into operation after it has been established that the complete system complies with the regulations of the above EC Directive.

The undersigned is responsible for compilation of the technical documents.

Kirchheim, 06-06-2013



i.v. 

Jochen Lude
Responsible for documents

Installation preparations

Safety instructions

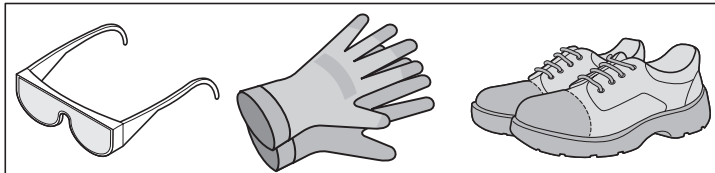


CAUTION!

Observe all installation instructions – improper installation can lead to serious injuries!

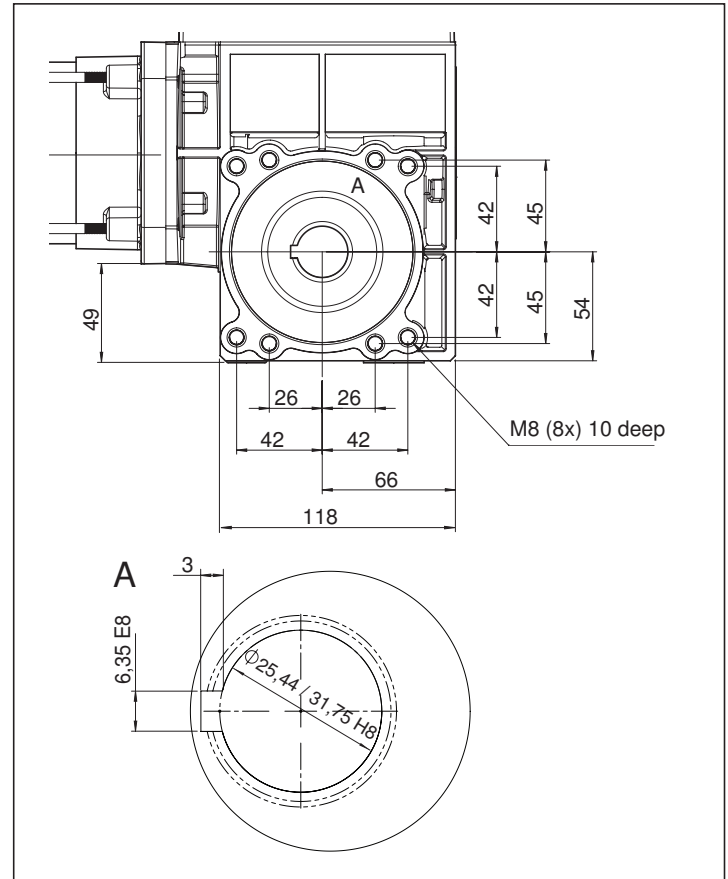
- Do not shorten or extend the mains cable.
- The voltage of the power source must correspond with the voltage listed on the drive type plate.
- All devices to be connected externally must have contacts safely isolated from the mains voltage supply, in accordance with IEC 60364-4-41.
- Live parts of the drive must not be connected to the earth or with live parts or protective conductors of other electrical circuits.
- Install all required covers and protective devices of the drive. Ensure that all parts and seals are correctly installed and all threaded connections are tight.
- Drives with a fixed connection must have an all-phase main switch with appropriate fuse protection.
- The drive must be connected to the power supply by an electrician only.
- Emergency Stop devices in accordance with EN 60204 must remain operational in all types of control unit. When the Emergency Stop device is unlocked, the system must not restart in an uncontrolled or undefined state.
- Ensure that the drive is securely fastened to gate and walls to withstand forces generated when opening and closing the gate.
- Use only approved fasteners (e.g. anchor fittings).
- Use lifting equipment and attachments designed for the weight of the drives.
- When installing the drive, do not hold it or lift it by the cable.

personal protective equipment



- Safety glasses (for drilling)
- Work gloves
- Safety shoes

Installation dimensions



Weight compensation

The gate is correctly weight-compensated when it is stable in every position. Check the weight compensation when opening and closing the gate manually.

This can also be done when the drive is installed for drives with a release.

Static holding torque

Spring breakage may occur in gates compensated with springs. The drive must be designed to hold the weight of the wing if a spring breaks. This is referred to as the static holding torque.

The static holding torque is the maximum approved load of the gearing, which must not be exceeded if a spring breaks. The required static holding torque M_{stat} is calculated as follows:

$$M_{stat} [\text{Nm}] = \text{wing weight} [\text{N}] \times \text{radius of the rope drum} [\text{m}]$$

Because more than one compensation spring can fail at the same time, we recommend sizing the drive so it can hold:

- the full weight of the wing for one or two springs
- 2/3 of the weight for three springs
- 1/2 of the weight for four springs

Use the largest winding diameter for staged rope drums. Observe the approved rope carrying capacity.

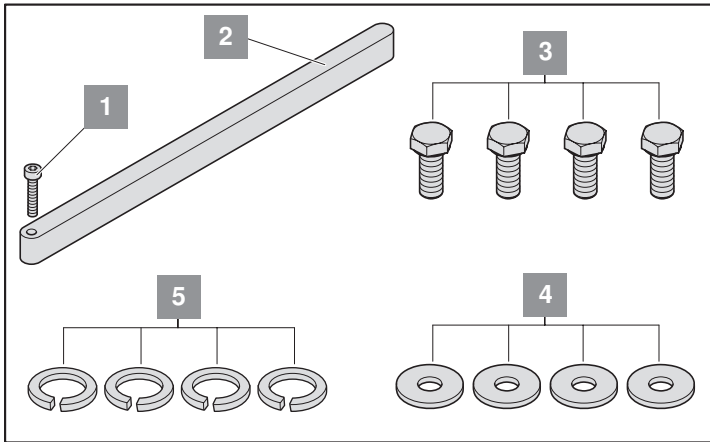
Set the output torque of the drive for the required torque for intact weight compensation.

If when a spring breaks the drive can still open and close the gate, if another spring breaks the static holding torque must not be exceeded.

Installation preparations

Scope of supply

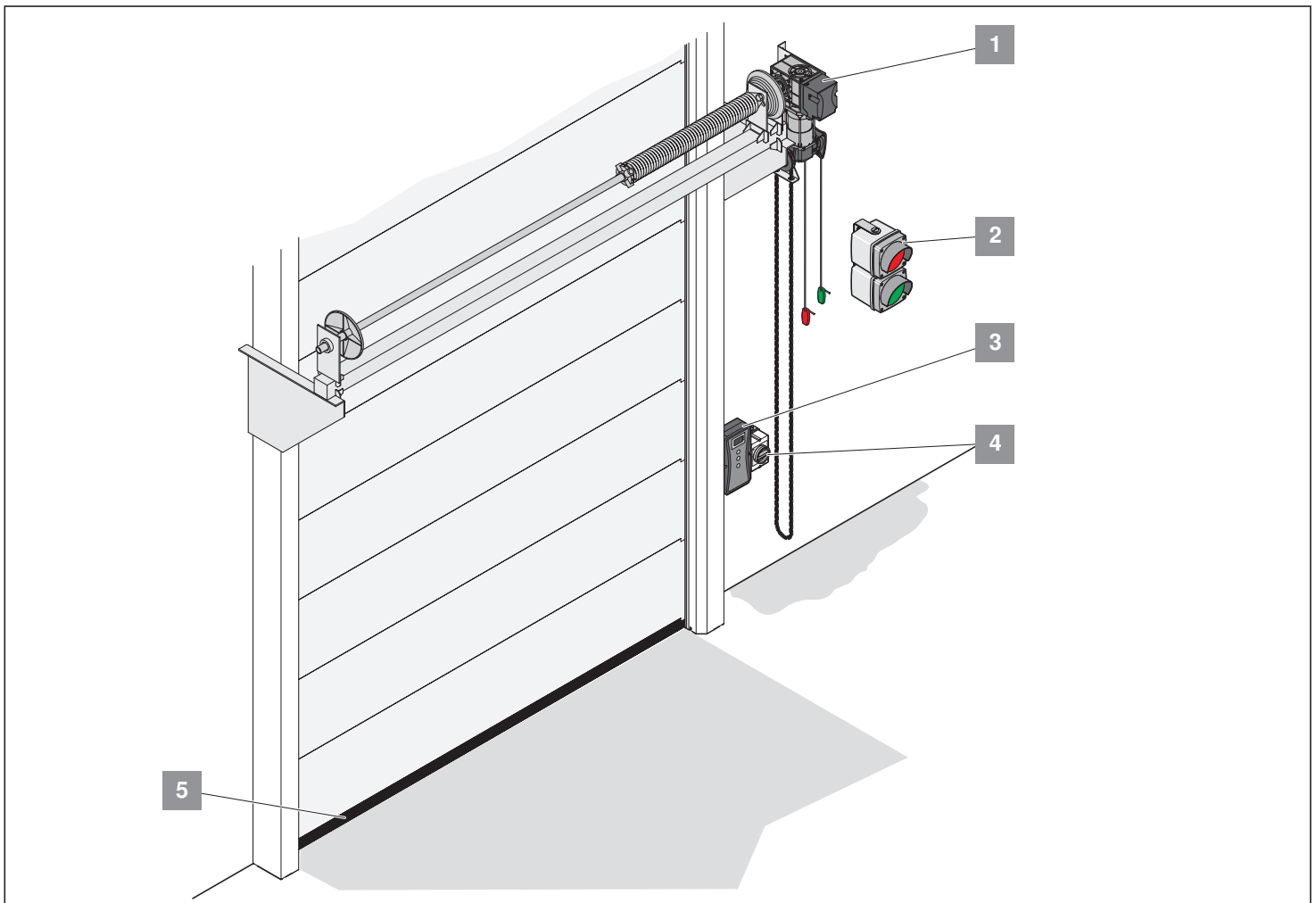
- Check the package before installation to avoid unnecessary work and expense if a part is missing.
- The detailed list of the scope of supply can be found on the delivery form.



Included fastening materials for torque support on drive:

| | |
|---|---|
| 1 | 1 M3x12 DIN 912 mounting bolt |
| 2 | 1 6.35x6.35x105mm key |
| 3 | 4 M8x16 steel 8.8 DIN 933 bolts |
| 4 | 4 DIN 9021 washers |
| 5 | 4 W-0401 VSK (bevelled) locking washers |

Installation



| | |
|---|--|
| 1 | Drive with electronic limit switches Optional: With dead man or frequency converter control |
| 2 | Traffic light |
| 3 | Optional: Automatic control |
| 4 | Main switch (lockable) |
| 5 | Switch rail |

Safety instructions

CAUTION!
Observe all installation instructions – improper installation can lead to serious injuries!

CAUTION!
Control or regulating units (buttons) in a fixed position must be mounted within sight of the door. They must not be installed near moving parts. They must be installed at a height of at least 1.5 m.

CAUTION!
Always unplug the mains plug before opening the drive.

CAUTION!
After installation, check the drive to ensure that it has been correctly adjusted and that it reverses upon contacting a 50 mm high object on the floor.

- The drive may be installed, connected and commissioned by competent personnel only.
- Do not move the gate, if there are any people, animals or objects in the area of movement.

- Keep disabled persons and animals away from the gate.
- Wear safety glasses when drilling the fastening holes.
- Cover the drive during drilling to prevent dirt from entering the drive unit.
- Before opening the housing, make sure that drilling chips or any other material cannot fall into the housing.
- All electrical wiring must be firmly secured to prevent displacement.
- Before installing the drive, inspect it for damage caused by shipping or other causes.
 - ⇒ Never install a damaged drive. Severe injuries may result!
- Keep the system disconnected from the power supply when installing the drive.
- Close unused cable inserted with suitable material to maintain the IP 54 protection class.

CAUTION!
Walls and ceiling must be solid and stable. Only install the drive on a correctly aligned gate. An improperly aligned gate can cause serious injury.

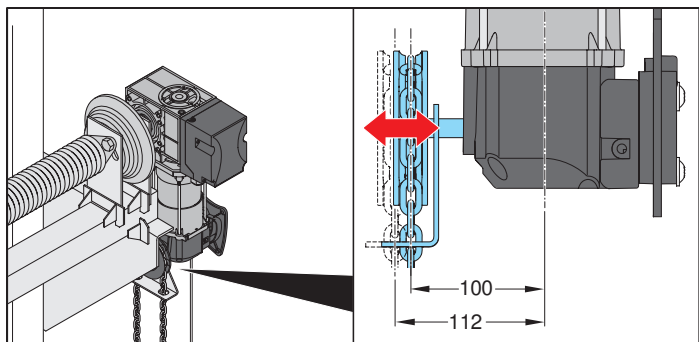
- Remove or disable gate locks.
- Use only approved fasteners (e.g. anchor fittings, bolts). The fasteners must be suitable to the material of the ceilings and walls.
- Check that the door runs smoothly.

Installation

Information on installation

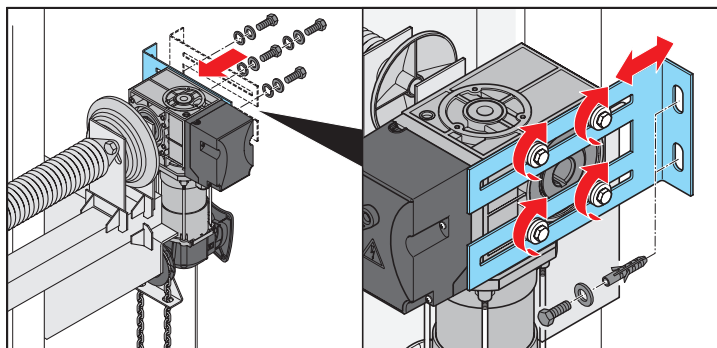
- Define the installation location together with the operator.
- If installing gearing with a release, install an arrester (e.g. specific safety device) on the gate.
- Use indoors (see „Technische Daten“ auf Seite 4 regarding temperature and IP protection class).
- Mount the drive vertically on a flat and low-vibration support.

positioning drive and installing torque support



i **IMPORTANT INFORMATION!**
When it is unlocked, the chain sprocket is moved 12 mm outwards. Minimum distance between chain sprocket and wall 15 mm.

! **CAUTION!**
Use a non-slip, stable ladder.



1. Grease the spring shaft of the gate.

i **IMPORTANT INFORMATION!**
Install drive with emergency release in vertical position (motor pointing up or down).

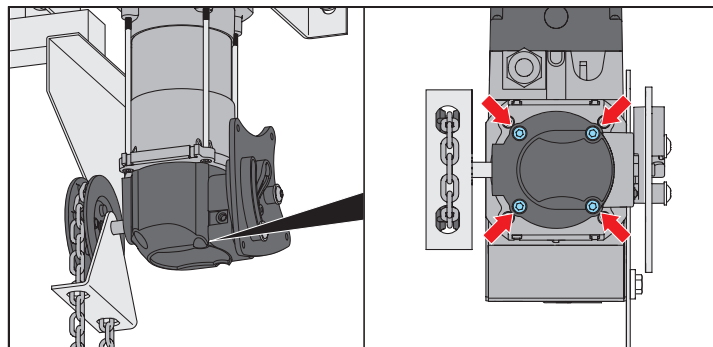
2. Push drive on to the spring shaft.
3. Lock key with the fixing screw to prevent it from moving with the continuous slot.
4. Place the torque support on the drive.
5. Fix the torque support with four bolts, washers and lock washers (tightening torque 22 Nm).

i **IMPORTANT INFORMATION!**
Wear safety glasses when drilling! Take the thickness of the ceiling into consideration!

6. Insert anchor fittings. Fix torque support with two bolts and washers.

Adjusting emergency chain system

The emergency chain system can be rotated in 90° units. This allows the position of the chain sprocket to be adjusted for the local conditions.



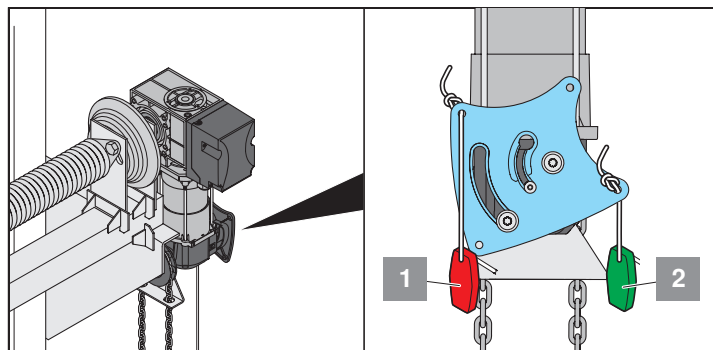
1. Loosen four fixing bolts.
2. Release the microswitch wire, insert it and fix it in place again.
3. Rotate the housing and screw down again (MS tightening torque = 7 Nm - lock with screw licking agent, e.g. Loctite).

Rope for emergency manual switching

i **IMPORTANT INFORMATION!**
fix the release lever in the "motorised operation" position with a bolt for use as service release. The lever must not be actuated with a rope. The system must be disengaged for service by a trained technician only. The release lever must only be removed by a tool.

In drives with a service release the drive for normal emergency manual operation must also be fitted with a crank or a chain.

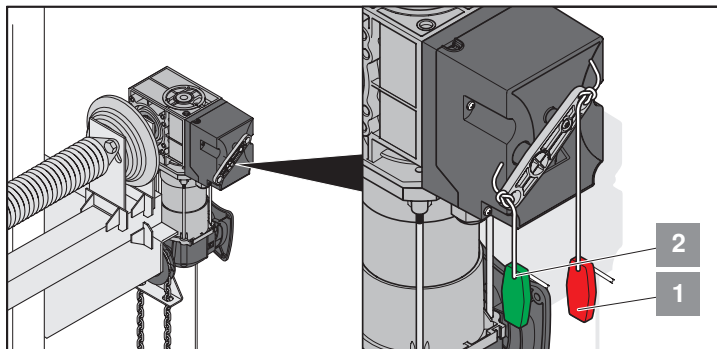
Drive with emergency chain



4. Select the holes in the shifting gate for fastening the emergency release rope depending on the position of the drive,
5. Fix the emergency release rope.
Install the locking rope with the red handle (1) and the release rope with the green handle (2) as shown here.

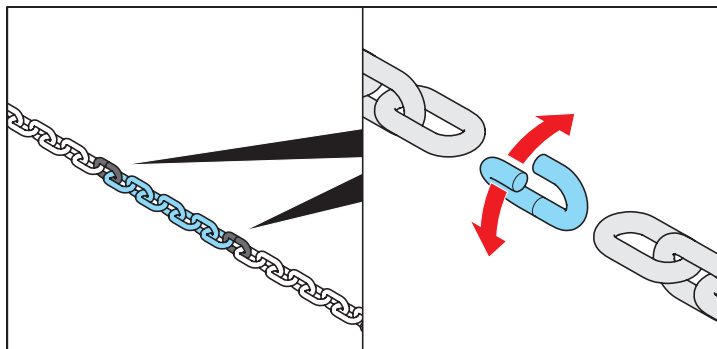
Installation

Drive with emergency release



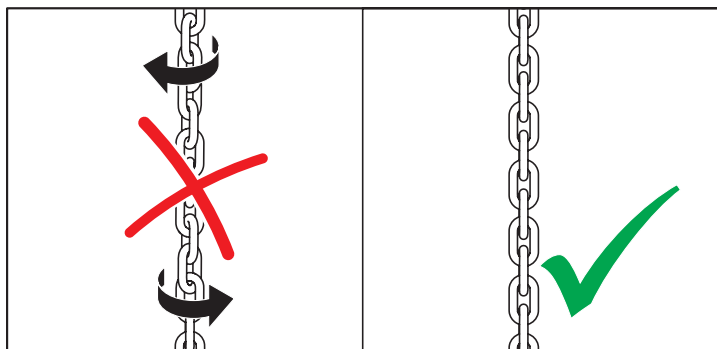
1. Fix the emergency release rope.
Install the locking rope with the red handle (1) and the release rope with the green handle (2) as shown here.

Extending or shortening the hoist chain at the drive



The hoist chain is connected by connecting links (yellow galvanised).

1. Open the hoist chain at the connecting link and shorten or extend to the desired length.
2. Connect the hoist chain with new connecting links.



When working on the hoist chain, make sure that the chain is not twisted when installed.

Connection to the power mains



CAUTION!

Connect the mains connection according to EN 12453 (all-pole line disconnecter). Install a lockable main switch (all-pole shut-off) to prevent the power from being accidentally switched on during maintenance work. See accessories, main switch on page 25. Use a suitable power cable with a fuse (10 A, slow-blow).



IMpORTANT INFORMATION!

Move the gate to the centre position before connection to mains power.



IMpORTANT INFORMATION!

Disconnect the power to the drive before working on it. The drive must be connected to mains power by an electrician.



IMpORTANT INFORMATION!

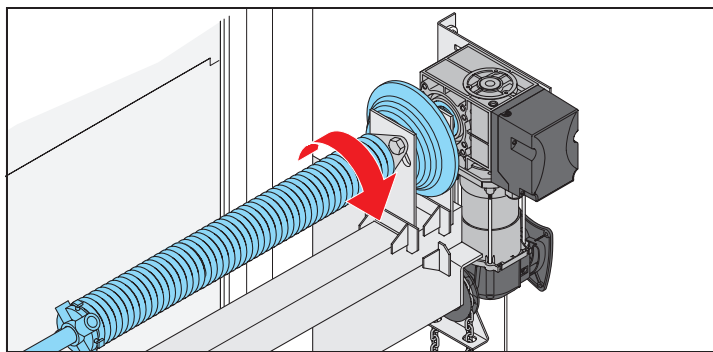
Cables should always be permanently installed.

Use the manufacturer's approved control lines to connect the GIGAsedo. The control line is plug-in. The screws must not be loosened to ensure that the strain relief and protection type are maintained.

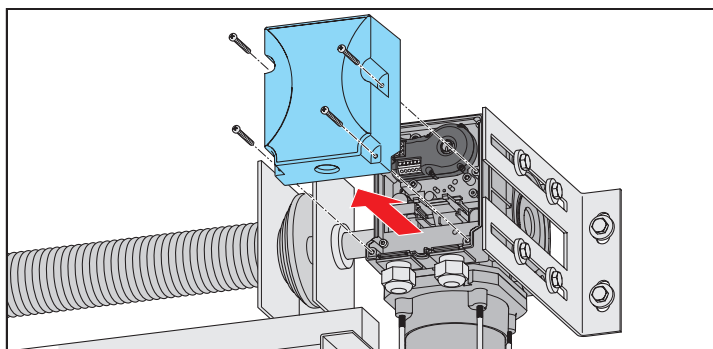
The standard GIGAsedo is suitable for 230 V/400 V operation. The factory wiring is designed for operation on the 3~400 V system. It can be rewired for operation on the 3~230 V system.

If the motor is rewired for operation on the 3~230 V system, make sure that the control unit is also designed for this voltage range.

The direction of rotation is defined as follows for the clockwise rotation of the connected phases:



Connecting drive



1. Loosen 4 screws on the cover.
2. Remove cover.

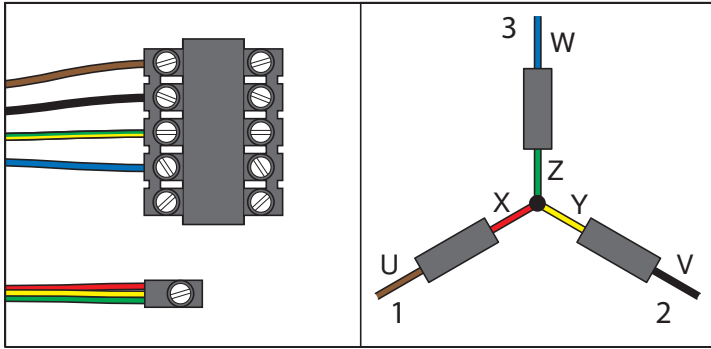
Installation

3~400 V wiring



IMPORTANT INFORMATION!

Approved wire cross sections for all terminals:
Max. 2.5 mm².



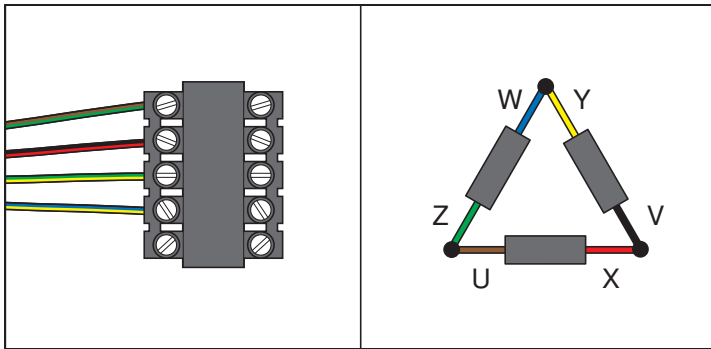
| Terminal | Ref. | Colour |
|---------------|--------------|------------------|
| 1 | U1 | Brown |
| 2 | V1 | Black |
| 3 | PE | green-yellow |
| 4 | W1 | Blue |
| neutral point | U2 / V2 / W2 | red/yellow/green |

3~230 V wiring

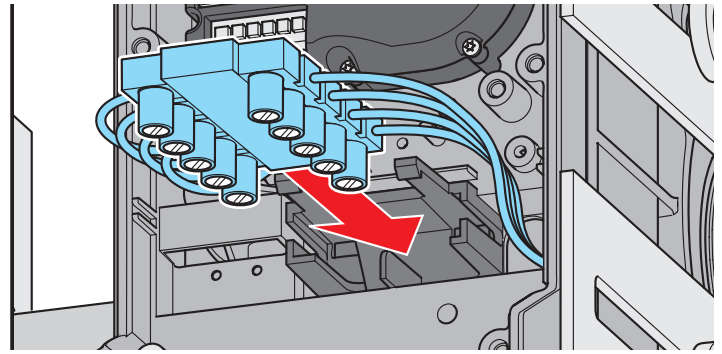


IMPORTANT INFORMATION!

Approved wire cross sections for all terminals:
Max. 2.5 mm².



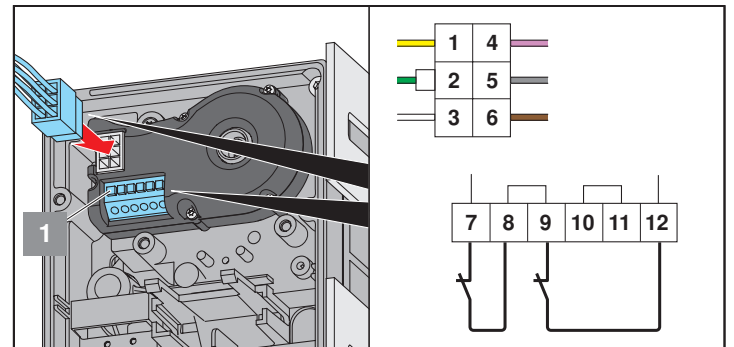
| Terminal | Ref. | Colour |
|----------|------|--------------|
| 1 | U1 | brown/green |
| 2 | V1 | black/red |
| 3 | PE | green-yellow |
| 4 | W1 | blue/yellow |



3. Check the connection by pulling lightly on the wire.
4. Insert plug-in terminal into holder.
5. Fix cable, make sure that plug-in terminal and cable sleeves are correctly seated.

Connecting digital limit switches (encoders)

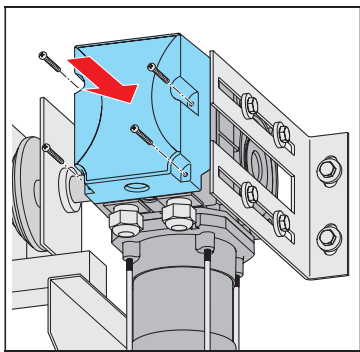
The digital limit switch is an absolute value encoder that is connected to the control unit by a RS485 interface. It is adjusted and end positions are analysed by the control unit, which also sets safety positions and additional switching points.



| Terminal | function |
|--|---|
| 7 + 8 | Motor thermal contact |
| Default | |
| 9 + 12 | Emergency manual actuation of microswitch |
| Additional safety device (optional) | |
| 9 + 10 | Emergency actuation of microswitch |
| 11 + 12 | Additional safety device |

1. Connect the serial port and the safety circuit to the control unit with the 6-pin encoder plug.
2. Connect the NC contacts of the safety devices, such as thermal contact and emergency actuation, to the side terminal strip.
3. Place jumpers on unused terminals or remove the jumpers when connecting additional safety devices to the spring terminals.
4. Open spring terminals with button (1) to insert or remove wires.
5. Fix cable, make sure that plug-in terminal and cable sleeves are correctly seated.

Installation



6. Attach the hood.

7. Fasten the hood with 4 screws.

In the case of drives with a long housing, control units can be installed (see the device operating instructions).

Mounting and connecting the control unit

1. Mount and connect the control unit (dead man control unit, automatic control unit or frequency converter control unit) as directed by the control unit operating instructions.

Connecting safety and accessory parts

- If additional safety and accessory parts are connected later, adjust them in the control unit (see the control unit operating instructions).

Safety instructions

**CAUTION!**

Open or close gates with adjusted and complete spring or weight compensation only. Otherwise the motor and gearing will be damaged or destroyed.

**CAUTION!**

Remove all transport locks and all cords or straps necessary to operate the door by hand.

**CAUTION!**

for frequency-converter control units:
Always perform programming run under supervision. This is dangerous for persons, animals and object within the range of motion of the gates.

**CAUTION!**

The programming for frequency-converter control units is always performed at reduced speed.

Checking the direction of running

**IMPORTANT INFORMATION!**

See the instructions for the control unit to control the direction of running. It is very important and must be performed carefully.

- After the first command the drive must traverse in the gate "OPEN" direction. If the drive travels in the gate CLOSE direction, the direction of running must be reversed as described in the instructions.

Setting the end positions and limit switches

See the control unit operating instructions.

Emergency release



CAUTION!

Disconnect the gate from the mains before using the emergency release. The emergency release must be used only with the motor stopped and only by service technicians or trained persons. The emergency release must be operated from a safe position only.



DANGER Of f AllING!

In case of an emergency release, the gate could independently open or close itself due to a broken spring or incorrect setting of the weight balancing. The drive could be damaged or destroyed.



NOTE!

It can be locked and released in any gate position.



NOTE!

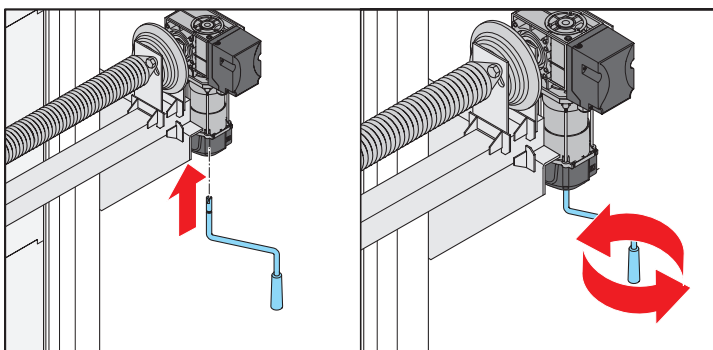
The emergency release can be combined with an emergency crank (HD) with an emergency manual chain (CD) (service release).



NOTE!

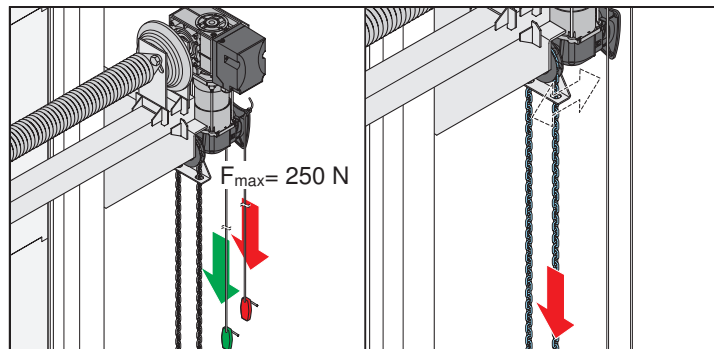
The gate must not be moved past the end positions, otherwise safety switch will be approached. The gate system can be electrically operated again when the safety switch has been "released" by emergency actuation.

Opening and closing gate with emergency crank



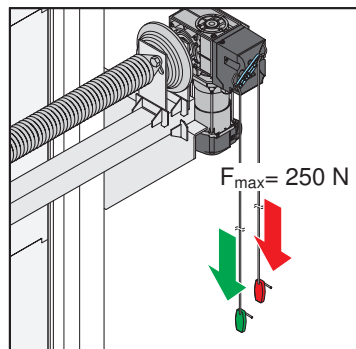
1. Take crank from holder.
2. Insert crank into crank housing to the stop with light pressure and slight rotation.
⇒ This interrupts the safety circuit of the drive.
3. Rotate crank and open or close the gate.
4. Remove crank from crank housing and replace in holder.
⇒ The drive is ready for motorised operation again.

Opening and closing gate with emergency chain



1. Pull release rope with red handle once (pull force max. 250 N).
⇒ This interrupts the safety circuit of the drive.
⇒ The chain hoist is moved and the gate can be moved with the emergency chain.
2. Open or close the gate with the emergency chain.
3. Pull emergency release rope with green handle once (pull force max. 250 N).
⇒ The drive is ready for motorised operation again.

Opening and closing gate with emergency release



1. Pull emergency release rope with red handle once (pull force max. 250 N).
⇒ The gearing moves freely and the gate can be moved manually.
2. Open or close the gate manually.
3. Pull emergency release rope with green handle once (pull force max. 250 N).
⇒ The drive clicks into place and the gate can only be moved mechanically.

Maintenance and care

Safety instructions



DANGER!

Never use a water hose or high-pressure cleaner to spray down the drive or the control unit.

- Do not use acids or alkalis for cleaning.

Regular testing

- Keep drive clean and wipe it with a dry cloth regularly.
- Check the weight compensation or spring tension on spring or weight balanced sectional gates. Read the gate operating instructions.
- Check the drive regularly for insect infestation and moisture; if necessary clean and dry.

- Check all fastening screws and bolts of the drive for tight seating and retighten them where necessary.
- The gearing is lubricated for life and maintenance-free. Keep the output shaft rust-free.
- Check that the drive is correctly seated.
- Check that safety equipment is fully functional regularly, at least once a year (e.g. BGR 232, 2003; applicable in Germany only).
- Regularly check power cables and wires for breakage or insulation defects.



DANGER!

If a fault is found, do not operate the system, lock to prevent operation and repair the fault (or have it repaired).

Maintenance and addition testing

| Testing | behaviour | yes or No | possible cause | Remedy |
|--|--|-----------|--|--|
| Emergency release Procedure as described in "Emergency release". | The gate must be easily opened and closed by hand. | Yes No | • Everything is OK. • Hinges rusted. • Guide rails damaged • Spring balance not correct | • Lubricate gate hinges. • Repair damage • Adjust weight compensation |
| Switchrail, if installed Open and close the gate and actuate the switchrail at the same time. | Behaviour of the gate as set at the control unit. | Yes No | • Everything is OK. • Cable breakage, terminal loose. • Control unit incorrectly adjusted. • Switchrail defect. | • Check the wiring; retighten the terminals. • Adjust control unit. • Decommission the system and lock it to prevent reactivation. Then, contact customer service. |
| photo relay, if present See instructions for control unit. Open and close the gate while interrupting the photo relay. | Behaviour of the gate as set at the control unit. | Yes No | • Everything is OK. • Cable breakage, terminal loose. • Control unit incorrectly adjusted. • Photo relay dirty. • Photo relay fault. | • Check the wiring; retighten the terminals. • Adjust control unit. • Clean the photo relay. • Decommission the system and lock it to prevent reactivation. Then, contact customer service. |
| Safety limit switch See instructions for control unit. Move gate to top or bottom end position. Move gate past the end position with the emergency actuation. | The control unit must display an error message. The gate must not be movable with the motor. Then move the gate back manually. When the gate reaches the set end position again, it can be operated with the motor again. | | | • Adjust the safety limit switches so there is no damage when end positions are reached or the ropes jump off the tracks. |

Disassembly



IMpORTANT!

Observe the safety notices!

The sequence is identical to that described in the "Installation" section, but in reverse order. Ignore the setting instructions.

Disposal

Observe applicable national regulations.



IMpORTANT!

The gearing contains oil. Dispose of correctly.

Warranty and customer service

The warranty complies with statutory requirements. Please contact your specialist retailer/supplier if you have any queries regarding the warranty. The warranty is only valid in the country in which the product was purchased.

Ownership of replaced parts passes to us.

If you require after-sales service, spare parts or accessories, please contact your specialist retailer/supplier.

We have tried to make the Installation and Operating Instructions as easy as possible to follow. If you have any suggestions as to how we could improve them or if you think more information is needed, please send your suggestions to us:

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