

EN TRANSLATION OF THE ORIGINAL INSTALLATION AND OPERATING MANUAL

**Industrial door operator**

**GIGAsedo**

Download the current  
manual:



# General information

## Information on the operator:

Serial No.: See the title page of the installation and operating manual (if applicable warranty label).

## Warranty

The warranty complies with statutory requirements. The contact person for warranties is the qualified dealer. The warranty is only valid in the country in which the operator was purchased. There is no warranty for consumables such as batteries, accumulators and safety products as well as light bulbs. This also applies for wear parts. The operator is only designed for a limited frequency of use. More frequent use leads to increased wear.

## Feedback on this Installation and Operating Manual

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



**+49 (0) 7021 8001-403**



**doku@sommer.eu**

## Service

If you require service, please contact us on our service hotline (fee required) or see our web site:



**+49 (0) 900 1800-150**

(€ 0.14/minute from land line telephones in Germany, mobile prices may vary)

**[www.sommer.eu/de/kundendienst.html](http://www.sommer.eu/de/kundendienst.html)**

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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!



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

## This operator is manufactured in accordance with

- EN 12453 Safety in use of power-operated doors and gates, 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 2014/35/EU
- EMC Directive 2014/30/EU

and has left the factory in good technical condition.

## Safety instructions

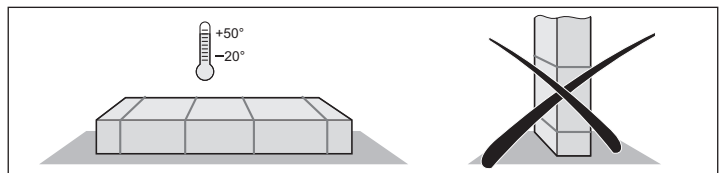
### General

- This installation and operating manual must be read, understood and complied with by persons who install, use or perform maintenance on the operator.
- Keep the installation instructions within reach.
- Installation, connection and initial commissioning of the operator 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. In addition to other items, the system manufacturer must test and maintain the maximum approved closing forces in accordance with EN 12445 (Safety in use of power-operated doors and gates, test methods) and EN 12453 (Safety in use of power-operated doors and gates, requirements). The system manufacturer is responsible for the 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 operator 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 mains circuit breaker with appropriate fuse protection.

- Read 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 door or the operator, always disconnect the control unit and operator from the power supply and lock to prevent reactivation.
- Never operate a damaged operator.
- Only use OEM (Original Equipment Manufacturer) spare parts and accessories.

### Storage

- The operator must be stored in an enclosed, dry area at a room temperature of between  $-20\text{ }^{\circ}\text{C}$  and  $+50\text{ }^{\circ}\text{C}$  and a relative humidity of 20–90 % (non-condensing).
- The operator should be stored horizontally.



### Operation

- When using the automatic close function, ensure compliance with standard EN 12453; install safety device (e.g. photocell).
- 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 door only if there are no persons, animals or objects within its area of movement.
- Continuously monitor the door 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 door until it is fully open.
- Never put your hand near the door when it is moving or near moving parts.
- Regularly check the safety and protection functions to ensure that they are working correctly and repair any faults when they are detected. See the chapter “Maintenance and care”.

### Type plate

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

# General information

## Intended use



### NOTE!

After installation of the operator, the person responsible for the installation must complete an EC Declaration of Conformity for the door 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 manual are retained by the operator.

- The operator is designed exclusively for opening and closing fully installed industrial doors (e.g. sectional, roller, folding, high-speed foil and roll-up grille doors) with complete spring balance or weight compensation.  
Any other use does not constitute intended use. The manufacturer accepts no liability for damage resulting from use other than the intended use. The user bears the sole responsibility for any risk involved. It also voids the warranty.
- The operator is designed exclusively for operation in dry, non-explosive indoor areas.
- Doors automated with an operator must comply with all valid standards and directives: e.g. EN 12453, EN 12604, EN 12605, DIN EN ISO 13241 etc.
- The operator 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 door must be stable, rigid and correctly aligned, i.e. it must not bend or twist during opening or closing.
- The GIGAcontrol and the GIGAsedo operator must only be used together. Only **SOMMER** industrial gate control units may be used.
- The GIGAcontrol and the GIGAsedo operator are designed for commercial use.
- The operator conforms to the requirements of protection class IP54 (IP65 possible on request). The operator must not be installed in areas with a corrosive atmosphere (e.g. salty air).

## Declaration of incorporation

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

### SOMMER Antriebs- und Funktechnik GmbH

Hans-Böckler-Straße 27

73230 Kirchheim/Teck

Germany

hereby declares that the industrial door operator

### GIGAsedo

has been developed, designed and manufactured in conformity with the

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU
- RoHS Directive 2011/65/EU.

The following standards were applied:

- EN 60335-1 Safety of electrical appliances/operators where applicable for doors
- 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 documents have been prepared in accordance with Annex VII Part B and will be submitted electronically to the regulators on request.

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

The undersigned is responsible for compilation of the technical documents.

Kirchheim,  
19 February 2021

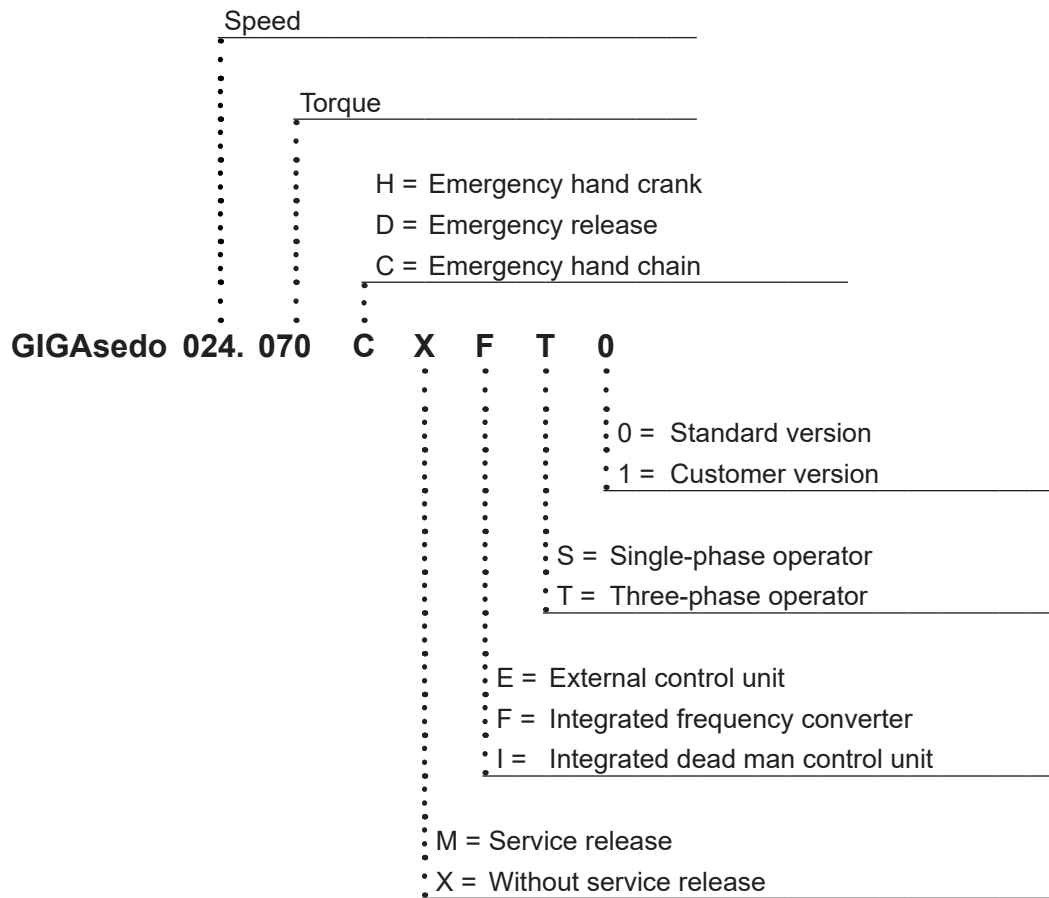


i.V.

Jochen Lude  
Responsible for documents

# General information

## Type designations



# General information

## Technical data

GIGAsedo	024.065 ■■■ES ■ ■■■IS ■	024.100 ■■■ET ■ ■■■IT ■	024.140 ■■■ET ■ ■■■IT ■	018.100 ■■■ET ■ ■■■IT ■	018.140 ■■■ET ■ ■■■IT ■
Output torque	65 Nm	100 Nm	140 Nm	100 Nm	140 Nm
Static holding torque	450 Nm	450 Nm	450 Nm	600 Nm	600 Nm
Output speed	24 rpm	24 rpm	24 rpm	18 rpm	18 rpm
Motor output	0.37 kW	0.37 kW	0.55 kW	0.37 kW	0.55 kW
Operating voltage	1~230 V	3~230/400 V	3~230/400 V	3~230/400 V	3~230/400 V
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Rated current	3.14 A	2.6/1.5 A	3.45/2.0 A	2.6/1.5 A	3.45/2.0 A
Motor duty cycle	ED 40 % S3	ED 60 % S3	ED 60 % S3	ED 60 % S3	ED 60 % S3
Limit stop range**	14	14	14	14	14
IP code	IP54/IP65*	IP54/IP65*	IP54/IP65*	IP54/IP65*	IP54/IP65*
Insulation class	F	F	F	F	F
Control voltage	24 V	24 V	24 V	24 V	24 V
Approved temperature range***	-5 °C to +60 °C	-5 °C to +60 °C	-5 °C to +60 °C	-5 °C to +60 °C	-5 °C to +60 °C
Continuous sound pressure level	<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)
Ø of hollow shaft	25.4 mm	25.4 mm	25.4 mm	25.4/31.75 mm	25.4/31.75 mm
Weight (approx.)	12 (13) kg	13 (15) kg	14 (16) kg	13 (15) kg	14 (16) kg

GIGAsedo (with integrated frequency converter)	024.100 ■■■FS ■	024.140 ■■■FS ■	018.100 ■■■FS ■	018.140 ■■■FS ■
Output torque	100 Nm	140 Nm	100 Nm	140 Nm
Static holding torque	450 Nm	450 Nm	600 Nm	600 Nm
Output speed	10–35 rpm	10–35 rpm	08–25 rpm	08–25 rpm
Motor output	0.55 kW	1.0 kW	0.55 kW	1.0 kW
Operating voltage	3~230 V	3~230 V	1~230 V	3~230 V
Frequency	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz
Rated current	3.45 A	7.5 A	3.45 A	7.5 A
Motor duty cycle	ED 60 % S3	ED 60 % S3	ED 60 % S3	ED 60 % S3
Limit stop range**	14	14	14	14
IP code	IP54/IP65*	IP54/IP65*	IP54/IP65*	IP54/IP65*
Insulation class	F	F	F	F
Control voltage	24 V	24 V	24 V	24 V
Approved temperature range***	-5 °C to +60 °C	-5 °C to +60 °C	-5 °C to +60 °C	-5 °C to +60 °C
Continuous sound pressure level	<70 dB(A)	<70 dB(A)	<70 dB(A)	<70 dB(A)
Ø of hollow shaft	25.4 mm	25.4 mm	25.4/31.75 mm	25.4/31.75 mm
Weight (approx.)	18 kg	20 kg	18 kg	20 kg

\* on request

\*\* Revolutions of the hollow shaft

\*\*\* <-5°C with electrical heating on request

# General information

## Dimensions

GIGAsedo

CX ■■■■

CM ■■■■

0.37–0.55 kW

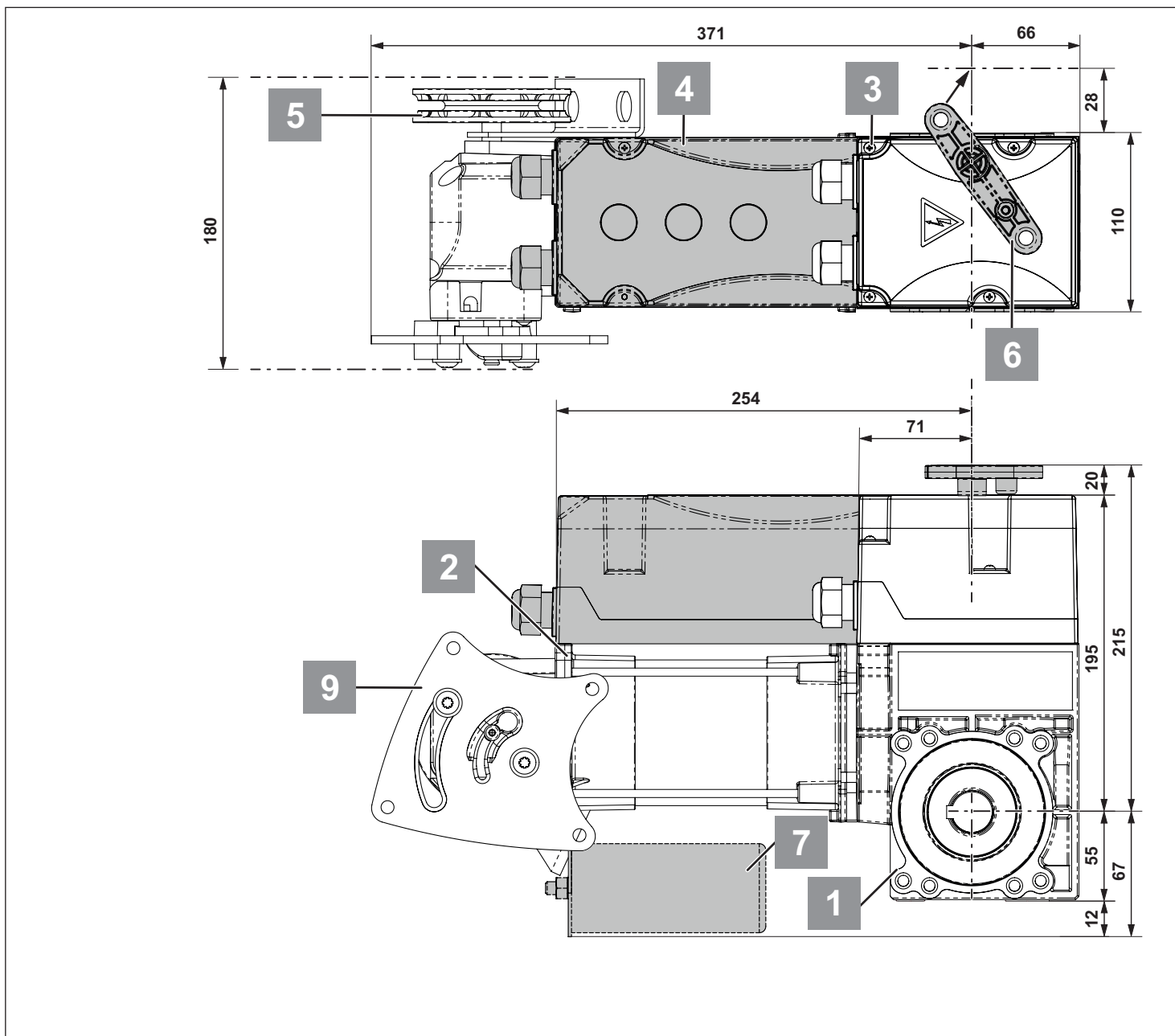


Fig. Dimensions in mm

No.	Components
1	Gear unit
2	Motor
3	Limit stop housing
4	Limit stop housing for frequency converter/dead man control unit
5	Chain sprocket (emergency hand chain)
6	Emergency release
7	Capacitor
8	Emergency hand crank (Ø 10 mm)
9	Shifting gate (emergency hand chain)



# General information

## Dimensions

GIGAsedo

DX ■■■■

0.37–0.55 kW

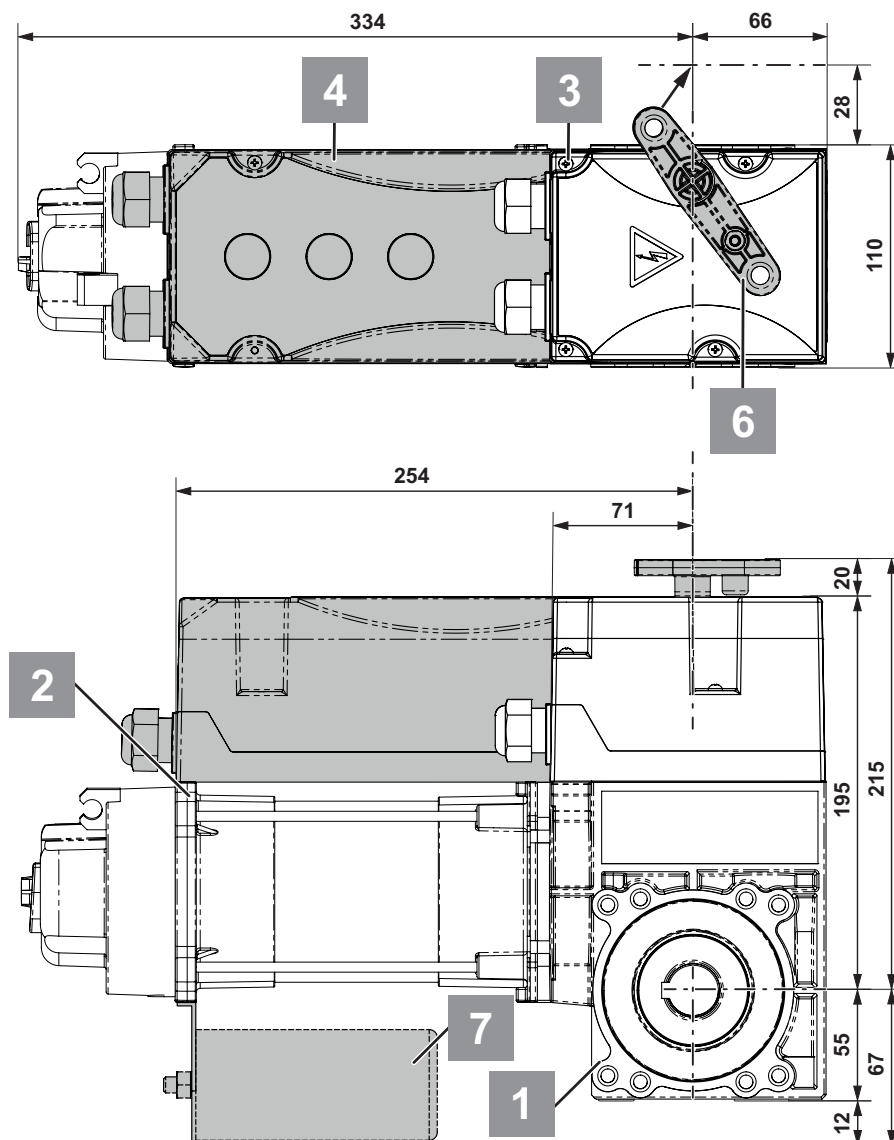


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9	Shifting gate (emergency hand chain)

# General information

## Dimensions

GIGAsedo

HX ■■■■

HM ■■■■

0.37–0.55 kW

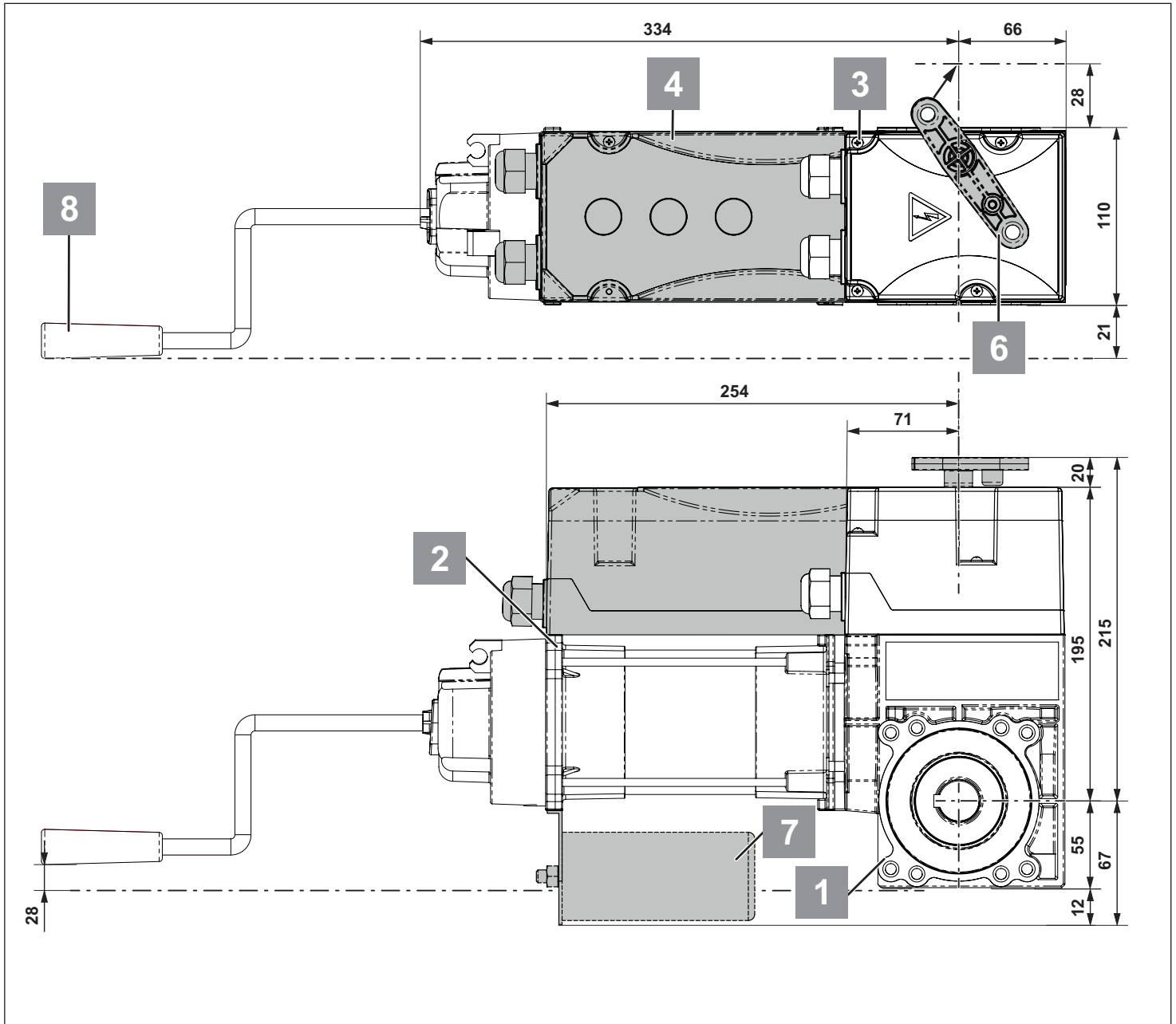


Fig. Dimensions in mm

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9	Shifting gate (emergency hand chain)

# General information

## Dimensions

GIGAsedo

CX ■■■■

CM ■■■■

1.0 kW

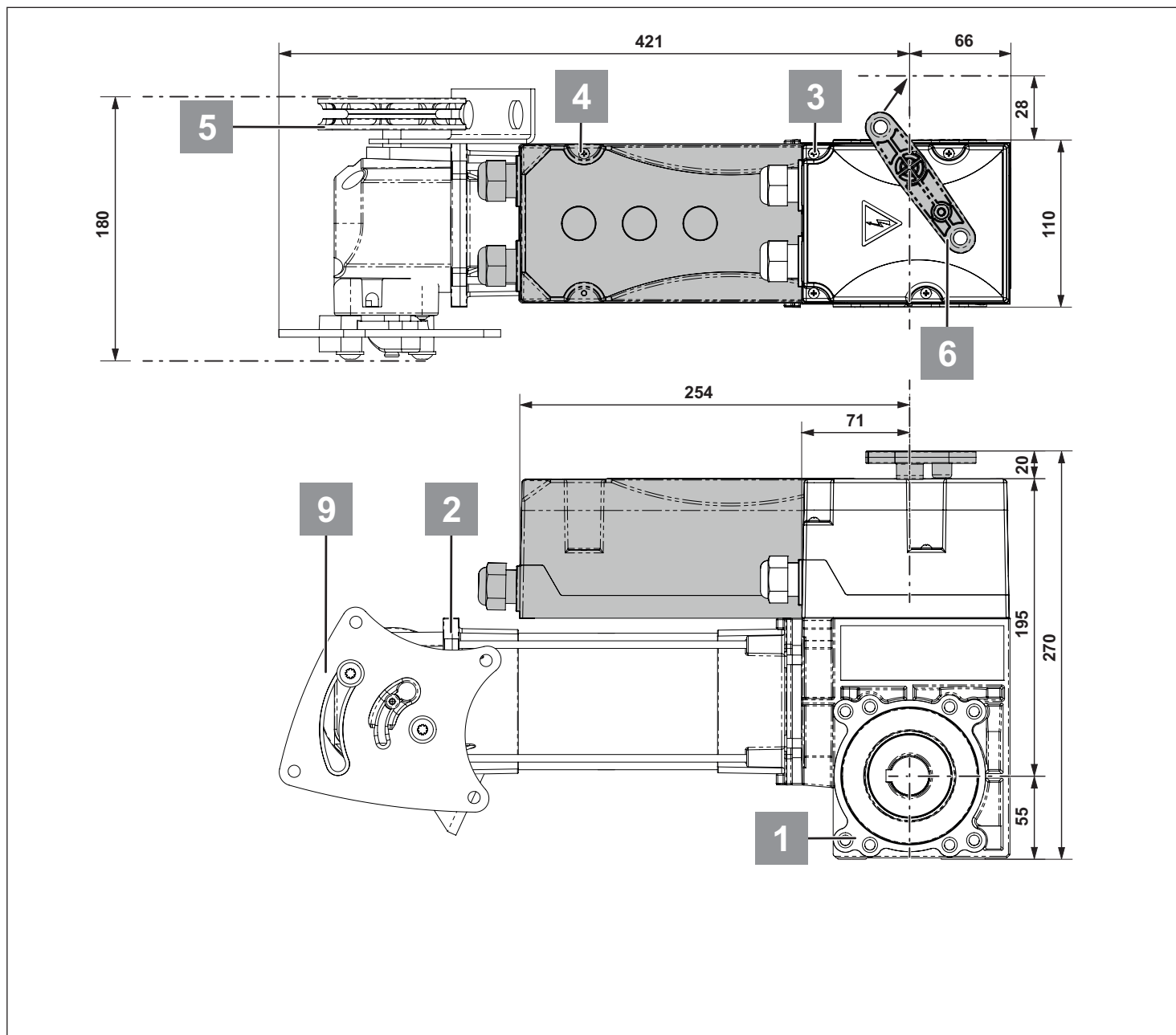


Fig. Dimensions in mm

No.	Components
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9	Shifting gate (emergency hand chain)

# General information

## Dimensions

GIGAsedo

DX■■■■

1.0 kW

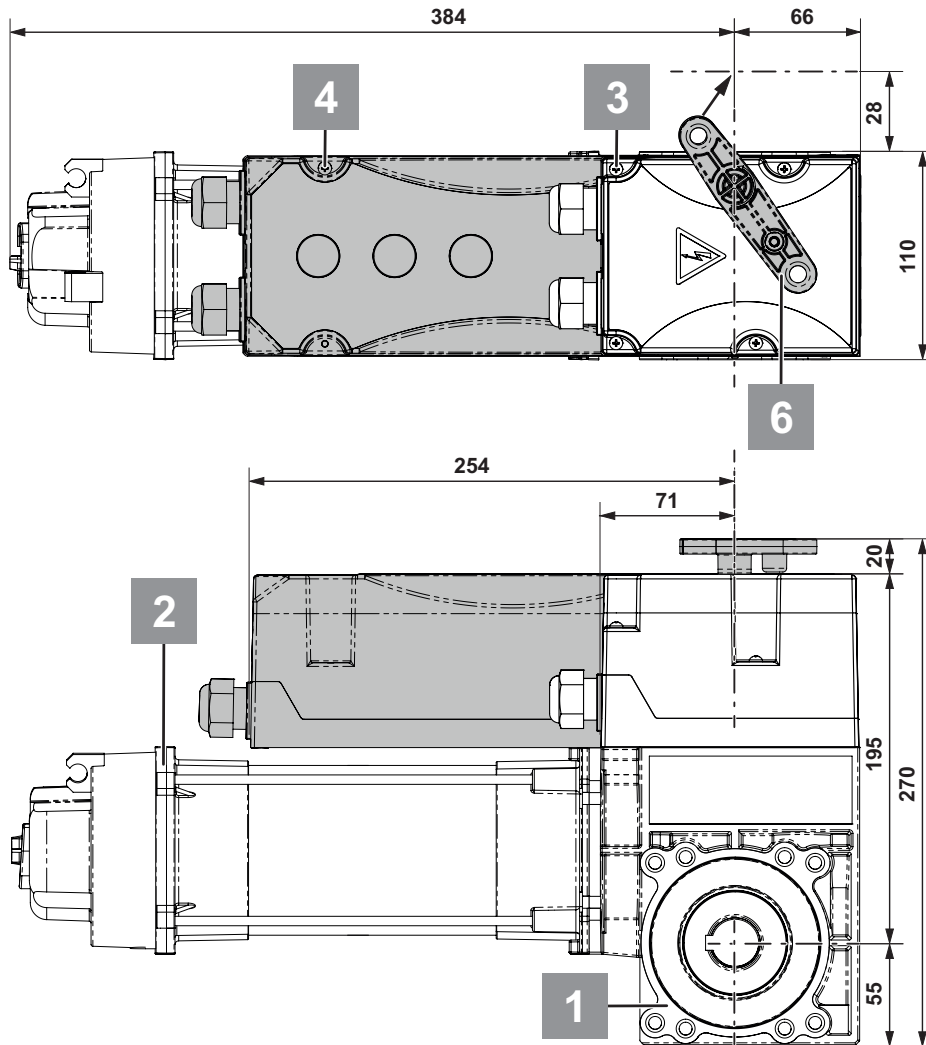


Fig. Dimensions in mm

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7	Capacitor
8	Emergency hand crank (Ø 10 mm)
9	Shifting gate (emergency hand chain)

# General information

## Dimensions

GIGAsedo

HX ■■■■

HM ■■■■

1.0 kW

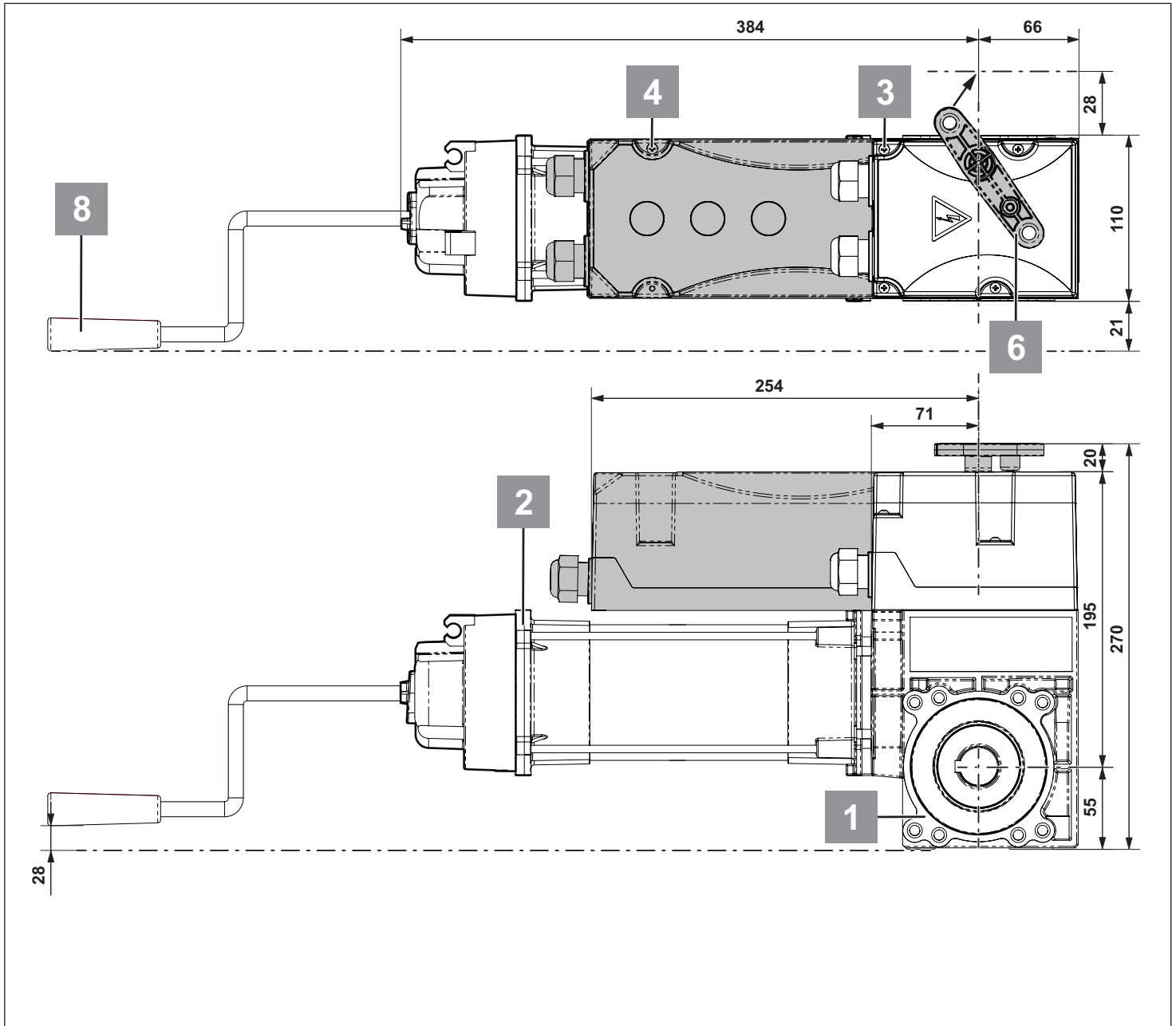


Fig. Dimensions in mm

No.	Components
1	Gear unit
2	Motor
3	Limit stop housing
4	Limit stop housing for frequency converter/dead man control unit
5	Chain sprocket (emergency hand chain)
6	Emergency release
7	Capacitor
8	Emergency hand crank (Ø 10 mm)
9	Shifting gate (emergency hand chain)

# Installation preparations

## Safety instructions

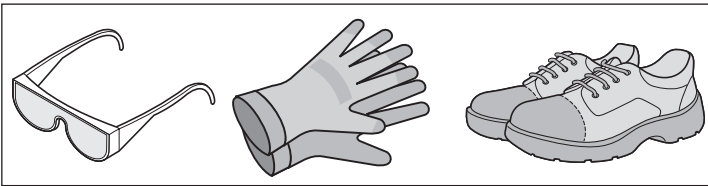


### CAUTION!

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 shown on the type plate of the operator.
- The contacts of all devices to be connected externally must be safely isolated from the mains voltage supply in accordance with IEC 60364-4-41.
- Live parts of the operator 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 operator. Ensure that all parts and seals are correctly installed and all threaded connections are tight.
- Operators with a fixed connection must have an all-phase main switch with appropriate fuse protection.
- The operator 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 mounting material (e.g. anchor fittings).
- Use lifting equipment and attachments designed for the weight of the operators.
- When installing the operator, do not hold it or lift it by the cable.

## Personal protective equipment



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

## Installation dimensions



### NOTE!

Only for sectional doors with complete spring-loaded suspension or weight compensation!

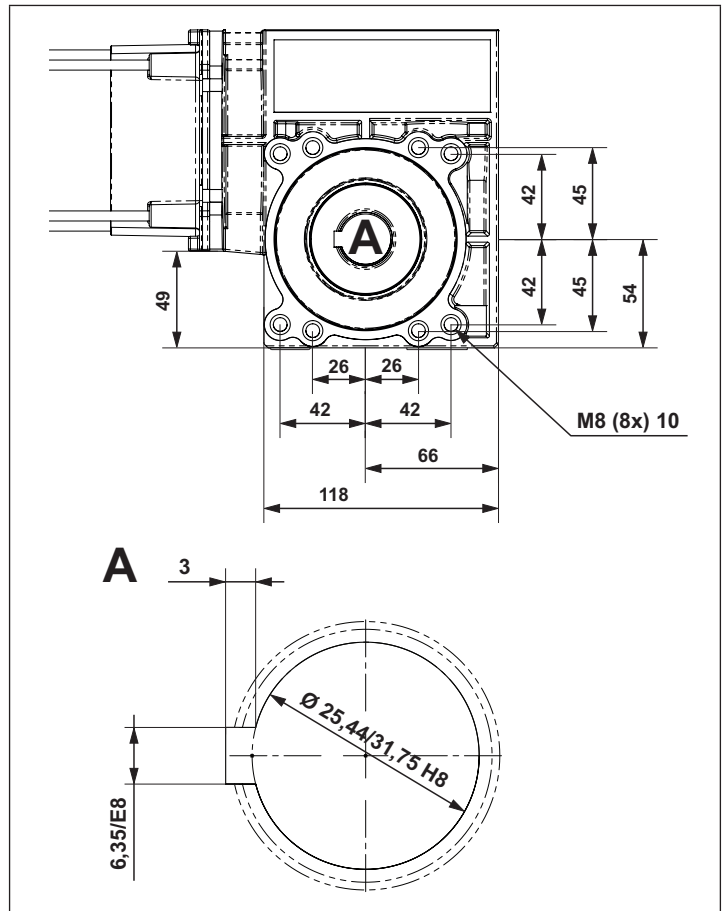


Fig. Dimensions in mm

## 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 operator is installed for drives with a release.

# Installation preparations

## Static holding torque

Spring breakage may occur in gates compensated with springs. The operator 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:

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

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

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

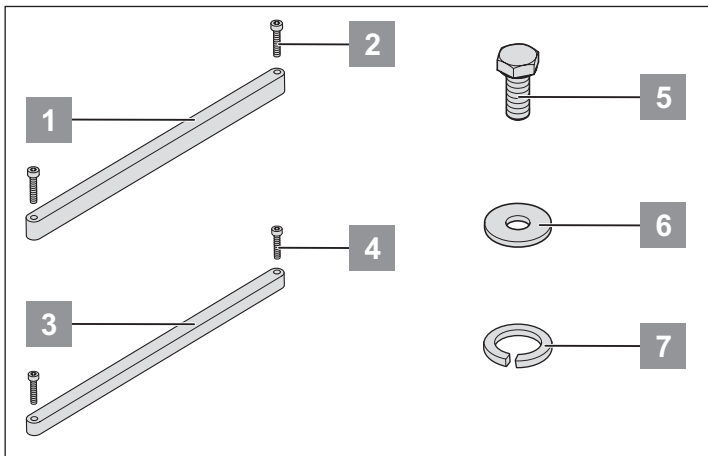
Use the largest winding diameter for staged rope drums. Observe the approved rope carrying capacity.

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

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

## Scope of delivery

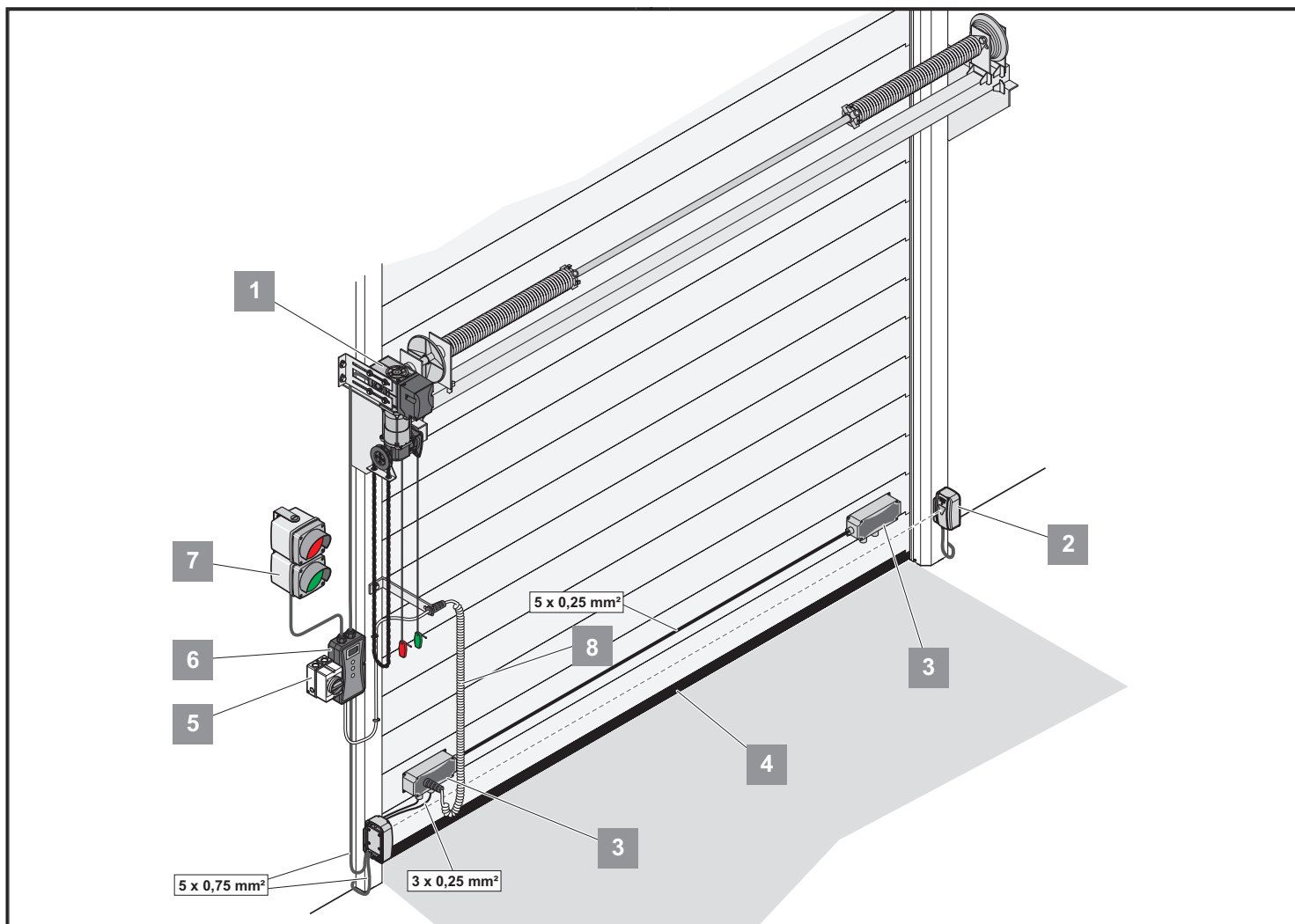
- Check the package before installation to avoid unnecessary work and expense if a part is missing.
- The detailed list of the scope of supply can be found on the delivery form.



### Included fastening materials for torque support on operator:

1	1x key 6.35 x 130 x 9.5 mm
2	2x hexagon socket bolt M4 x 12 (DIN 912)
3	1x key 6.35 x 130 x 6.35 mm
4	2x hexagon socket bolt M4 x 10 (DIN 912)
5	4x hexagon head bolt M8 x 18 8.8 (DIN 933)
6	4x washer
7	4x lock washer W-0401 VSK (bevelled)

# Installation



1	Operator
2	Photocell
3	GIGAbottom (door socket)
4	Closing edge
5	Main switch
6	GIGAccontrol (controller)
7	Traffic light
8	Spiral cable

## 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 operator.



### CAUTION!

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

- The operator may only be installed, connected and taken into operation by technical specialists.
- Only move the door if there are no people, animals or objects within its range of movement.
- Keep disabled persons and animals away from the door.
- Wear safety glasses when drilling the fastening holes.
- Cover the operator during drilling to prevent dirt from entering the operator 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 operator, inspect it for damage caused by shipping or other causes.
  - ⇒ Never install a damaged operator. Severe injuries may result!
- Keep the system disconnected from the power supply when installing the operator.
- Close unused cable inlets with suitable material to maintain the IP code 54!



# Installation



## CAUTION!

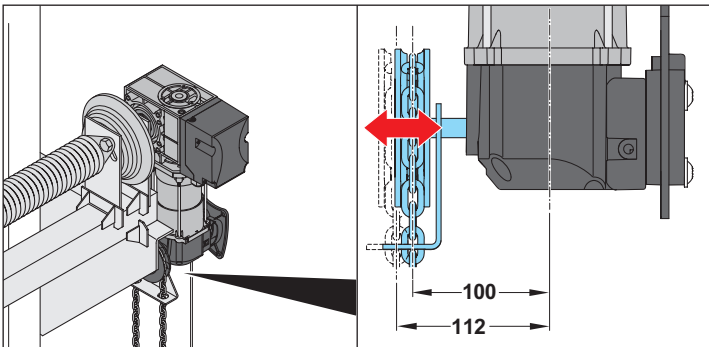
Walls and ceiling must be solid and stable.  
Only install the operator on a correctly aligned door.  
An improperly aligned door can cause serious injury.

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

## Information on installation

- Define the installation location of the control unit together with the operator.
- If installing gearing with a release, install an arrester (e.g. spring fracture safety device) on the door.
- Use indoors (see "Technical data" with regard to the temperature and IP protection class).
- Mount the operator vertically on a flat and low-vibration support.

## Positioning operator and installing torque support



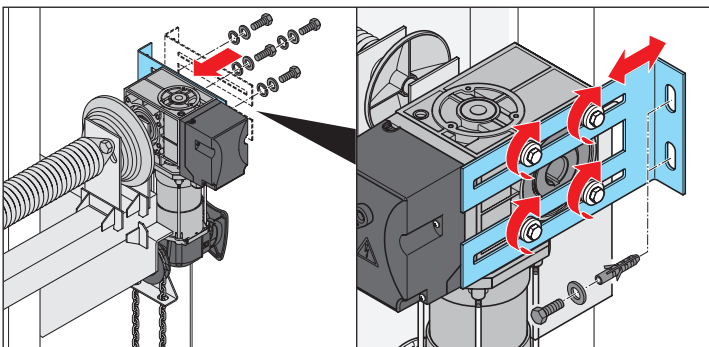
## NOTE!

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.



## NOTE!

Install operator with emergency release in vertical position (motor pointing up or down).

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



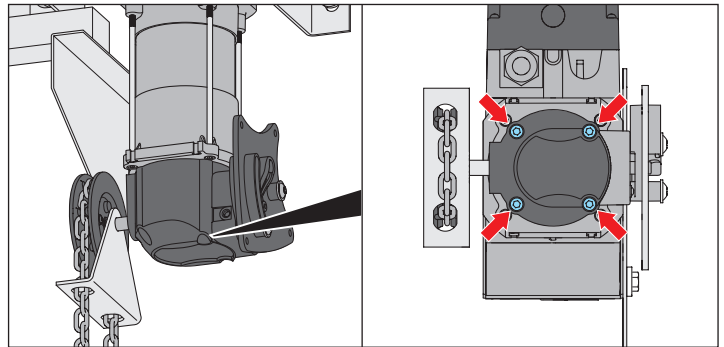
## NOTE!

Wear safety glasses when drilling! Take the thickness of the ceiling into consideration!

6. Insert plug, 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.

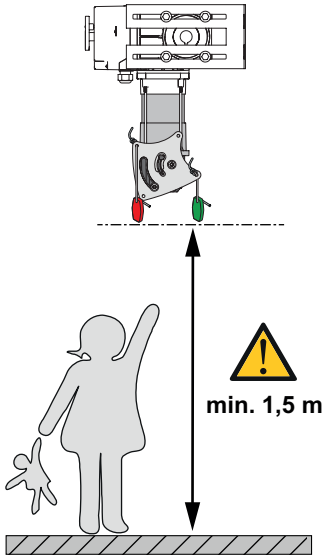


1. Loosen 4 fixing bolts.
2. Release the microswitch wire, insert it and fix it in place again.
3. Rotate the housing and screw down again (MS tightening torque = 7 Nm – lock with screw locking agent, e.g. Loctite).

# Installation

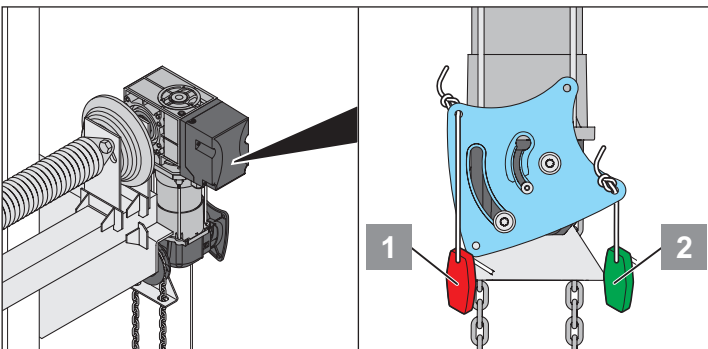
## Rope for emergency manual switching

**CAUTION!**



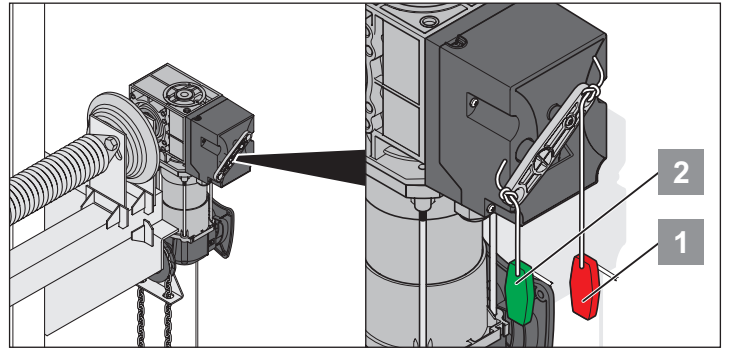
**NOTE!**  
 Fix the release lever in the “motorised operation” position with a bolt for use as service release. The lever must not be actuated with a rope. The system must be disengaged for service by a trained technician only.  
 The release lever must only be removed by a tool.

## Operator with emergency chain



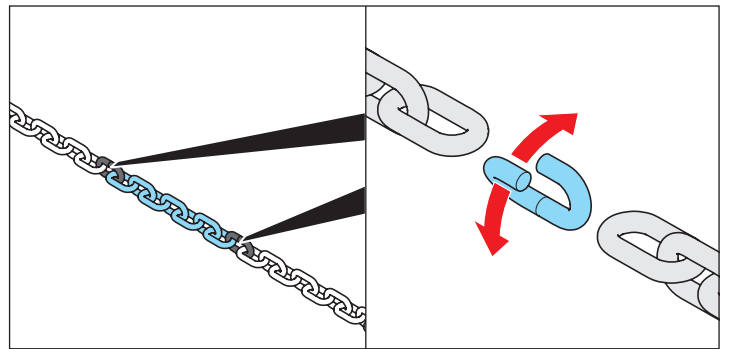
1. Select the holes in the shifting gate for fastening the emergency cables depending on the position of the operator.
2. Fix emergency cables.  
 Install the locking rope with red handle (1) and the rope with the green handle (2) as shown here.

## Operator with emergency release



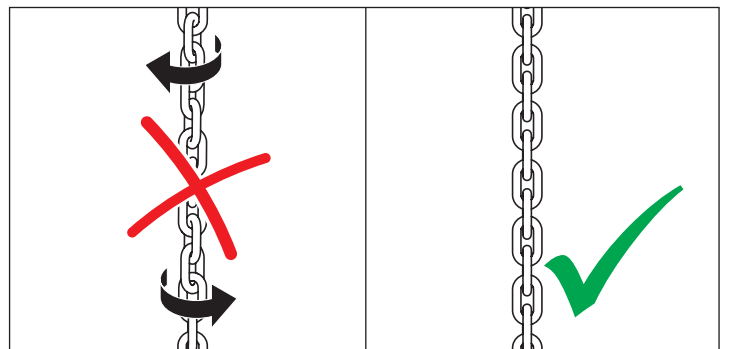
1. Fix emergency cables.  
 Install the locking rope with red handle (1) and the rope with the green handle (2) as shown here.

## Extending or shortening the hoist chain at the operator



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.

# Installation

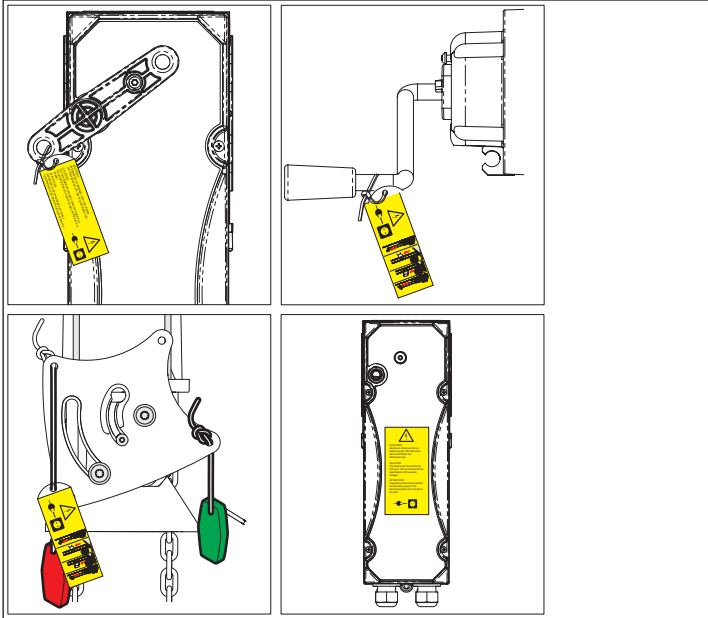
## Attaching information signs to the operator



### NOTE!

Attach the supplied information sign appropriate to the type of release.

Stick the warning sign in the centre of the housing for operators with frequency converters.



## Connection to the mains power



### CAUTION!

The mains connection must be in accordance with EN 12453 (omnipolar mains circuit breaker). Install a lockable main switch (omnipolar shut-off) to prevent the power from being accidentally switched on during maintenance work.

Use a suitable power cord with a fuse (10 A, slow-blow).



### NOTE!

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



### NOTE!

Disconnect the power to the operator before working on it.

The operator must be connected to mains power by an electrician.



### NOTE!

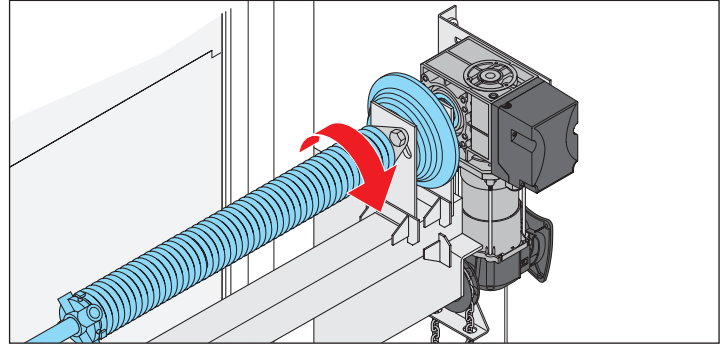
Cables should always be permanently installed.

Use the manufacturer's approved control lines to connect the GIGAsedo. The control line is pluggable. The screws must not be loosened to ensure that the strain relief and IP code are maintained.

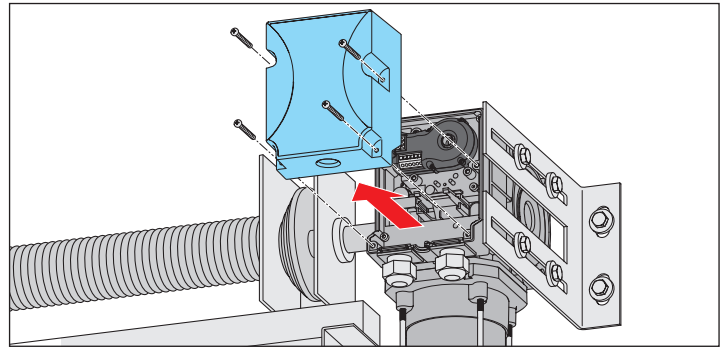
The standard GIGAsedo is suitable for 230 V/400 V operation. The factory wiring is designed for operation on the 3~400 V system. It can be rewired for operation on the 3~230 V system.

If the motor is rewired for operation in a 3~230 V network, 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 operator



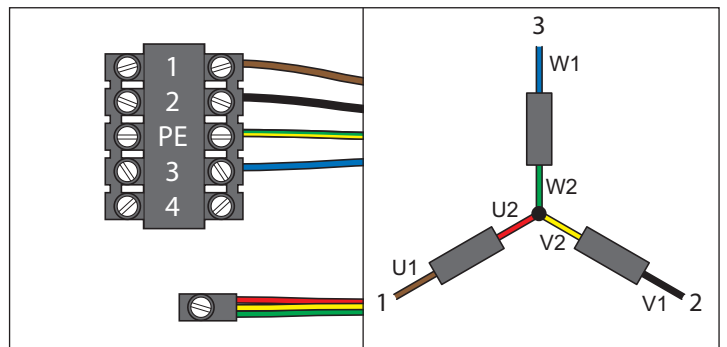
1. Loosen 4 screws on the cover.
2. Remove cover.

## 3~400 V wiring



### NOTE!

Approved wire cross sections for all terminals:  
Max. 2.5 mm<sup>2</sup>.



Terminals		Ref.	Colour
GIGAsedo	GIGAcontrol A		
1	38	U1	brown
2	40	V1	black
PE	PE	PE	green-yellow
3	42	W1	blue
Neutral point		U2/V2/W2	red + yellow + green

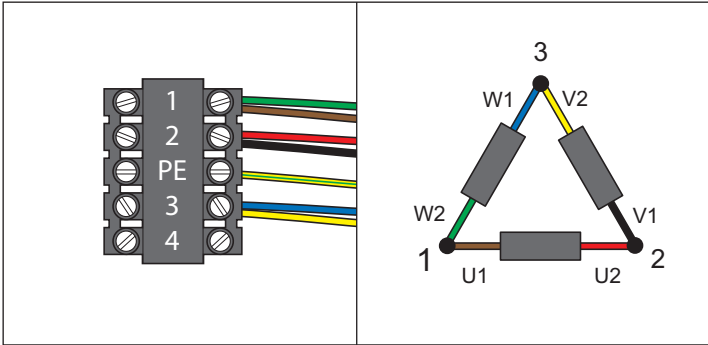
# Installation

## 3~230 V mains wiring



**NOTE!**

Approved wire cross sections for all terminals:  
Max. 2.5 mm<sup>2</sup>.



Terminals	Ref.	Colour
<b>GIGAsedo</b>	<b>GIGAcontrol A</b>	
1	38	U1/W2 brown + green
2	40	V1/U2 black + red
PE	PE	PE green-yellow
3	42	W1/V2 blue + yellow

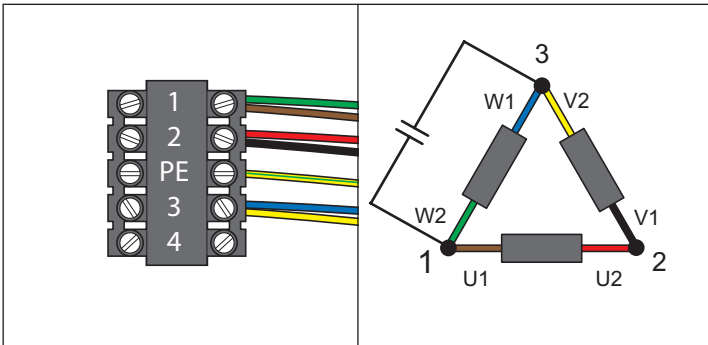
## Wiring 1~230 V power supply (version with capacitor)



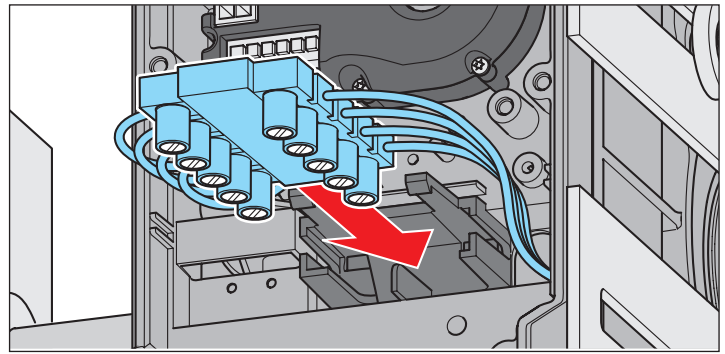
**NOTE!**

Approved wire cross sections for all terminals:  
Max. 2.5 mm<sup>2</sup>.

### Version with capacitor



Terminals	Ref.	Colour
<b>GIGAsedo</b>	<b>GIGAcontrol A</b>	
1	38	U1/W2 brown + green
2	40	V1/U2 black + red
PE	PE	PE green-yellow
3	42	W1/V2 blue + yellow

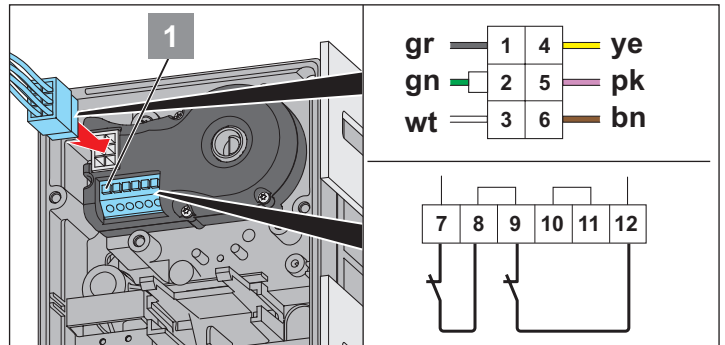


3. Check the connection by pulling lightly on the wire.
4. Insert plug-in terminal into holder.
5. Fix cable, make sure that plug-in terminal and cable sleeves are correctly seated.

## Connecting digital limit stops (encoders)

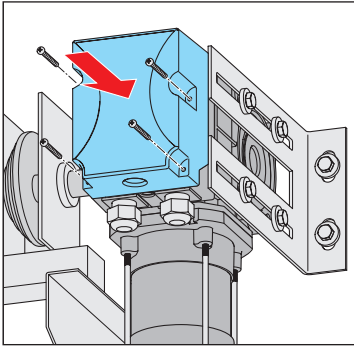
The digital limit stop is an absolute value encoder that is connected to the control unit by a RS485 interface.

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
<b>Standard</b>	
9 + 12	Emergency manual actuation of microswitch
<b>Additional safety device (optional)</b>	
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.



6. Attach the hood.
7. Fasten the hood with 4 screws.

In the case of operators with a long housing, control units, for example, 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

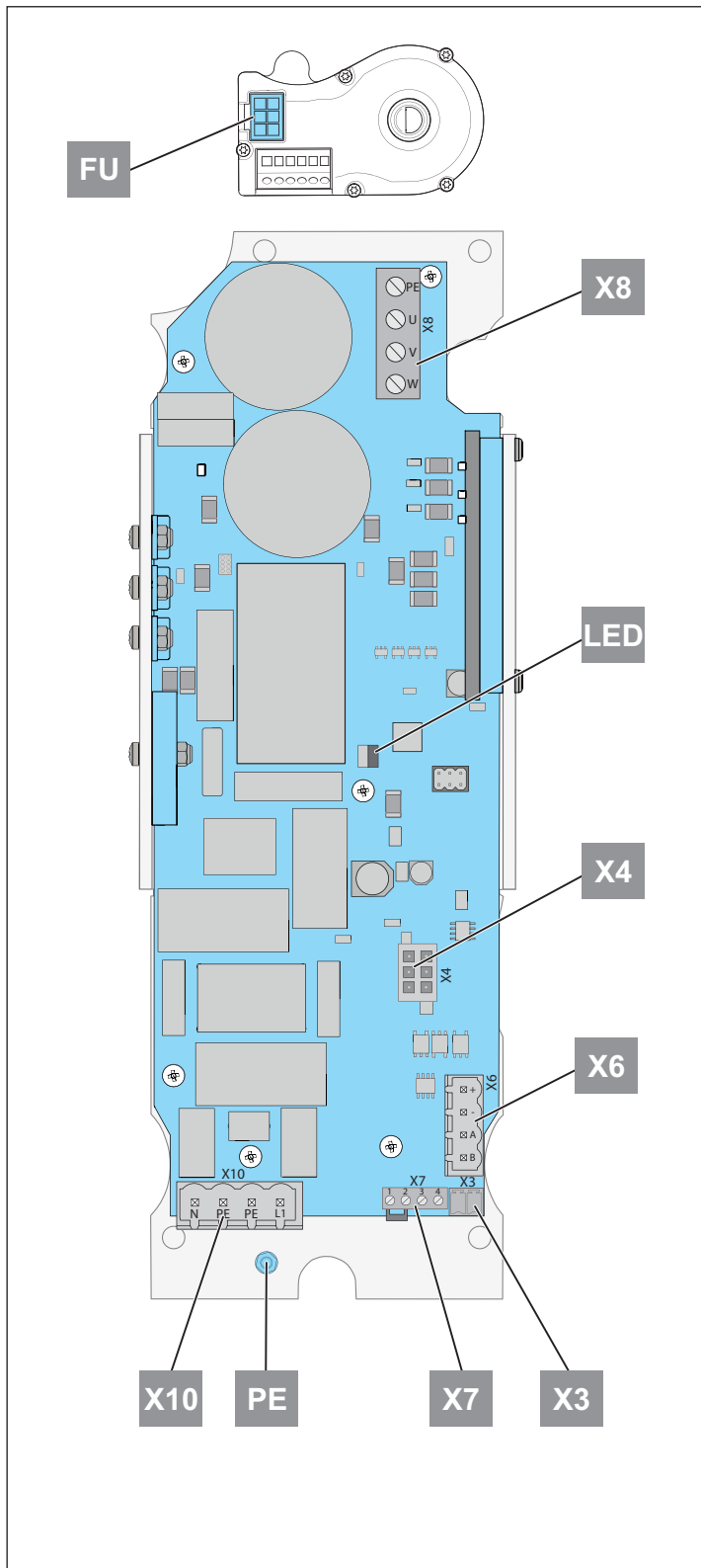
- If additional safety and accessory parts are connected later, adjust them in the control unit (see the control unit operating instructions).

# Frequency converter (FC)

## Frequency converter (FC)

### Technical data

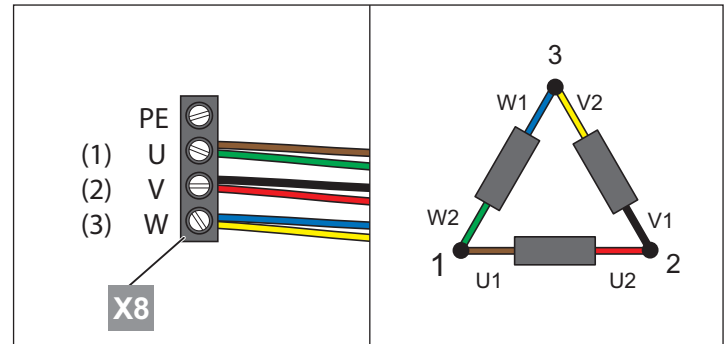
Output	0.5–1.1 kW
Voltage supply	1~230 V
Frequency	50–60 Hz
Approved temperature range	–5 °C to +60 °C
Overheating protection	+80 °C
Frequency range	20 to 120 Hz



### Overview of the terminals

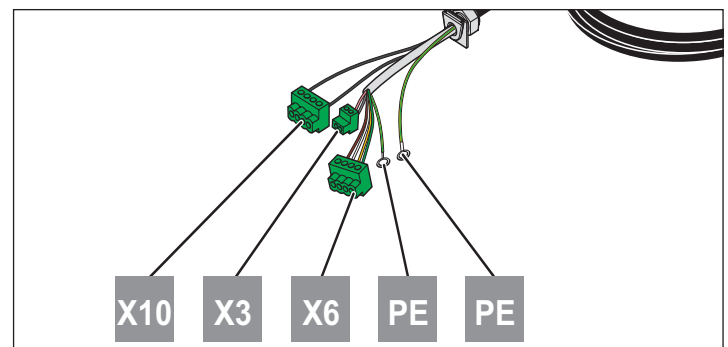
Ref.	Connection
X10	Mains feed
X7	1–2 = microswitch Emergency release
	3–4 = motor thermal contact
X3	Safety circuit (control unit)
X6	RS485 interface
X4	Absolute value encoder
X8	Motor connection
FC	Frequency converter

### Motor connection



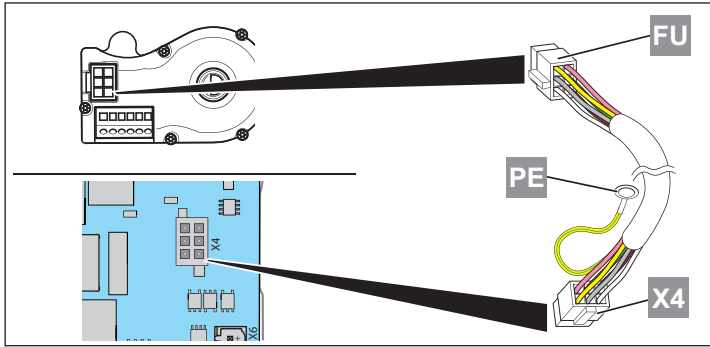
Terminals (FC)	Ref.	Colour
1 (U)	U1/W2	brown + green
2 (V)	V1/U2	black + red
3 (W)	W1/V2	blue + yellow

### GIGAcontrol A connections

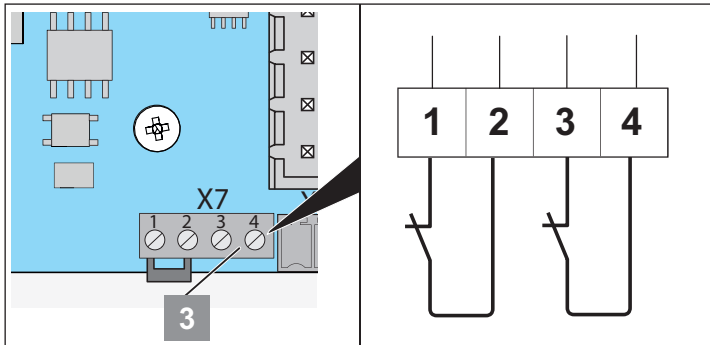


# Frequency converter (FC)

## Absolute value encoder connection

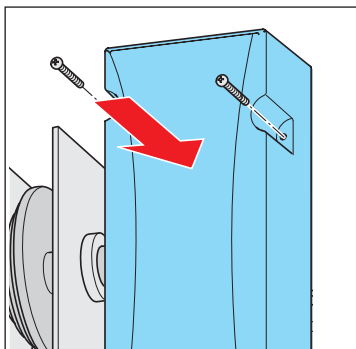


## Safety circuit connection (X7)



Terminals	Connection
1	Microswitch
2	Emergency release
3	Motor thermal contact
4	

## Completing FC mounting



1. Attach the hood.
2. Fasten the hood with 4 screws.

## 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) before commissioning. See 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!

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

## Checking the direction of travel



### CAUTION!

Risk of injury if the direction of running is incorrect:

To avoid the risk of injury, the gate must be moved to the middle position before checking the direction of running! In this way, there is sufficient time to get out of the way or stop the operator if a hazardous movement is in progress.

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

## Setting the end positions and limit stops

See the control unit operating instructions.



# Operation/use

## Emergency release



### CAUTION!

Disconnect the door system from the mains before using the emergency manual actuation. 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 FALLING!

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



### NOTE!

A switchover between manual and motorised operation can take place in any position of the door.



### NOTE!

The emergency release can be combined with an emergency hand crank (HM) with an emergency manual chain (CM) (service release).

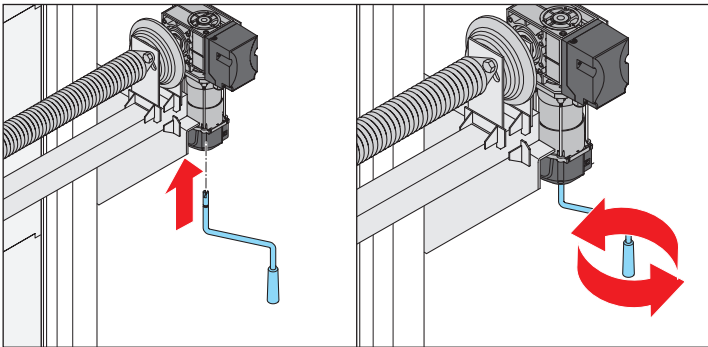


### NOTE!

The door must not be moved past the end positions, otherwise a safety switch will be approached.

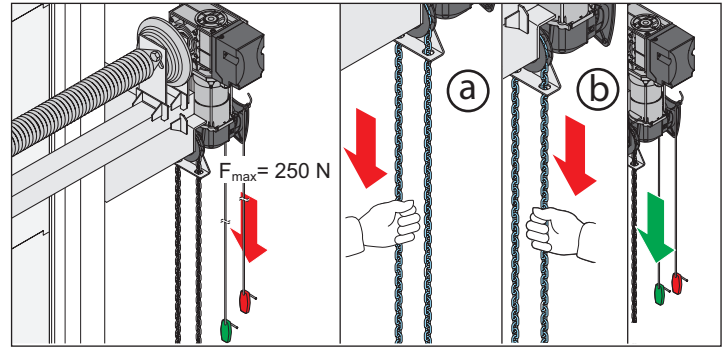
The door system can only be electrically operated again when the safety switch has been "released" by emergency actuation.

## Opening and closing door with emergency hand crank



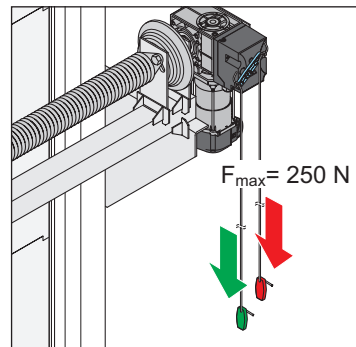
1. Take crank from holder.
2. Insert crank into crank housing to the stop with light pressure and slight rotation.  
⇒ This interrupts the safety circuit of the operator.
3. Rotate crank and open or close the door.
4. Remove crank from crank housing and replace in holder.  
⇒ The operator is ready for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

## Opening and closing door with emergency hand chain



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

## Opening and closing door with emergency release



1. Pull the emergency cable with the red handle once (pull force max. 250 N).  
⇒ The gearing moves freely and the door can be moved manually.
2. Open or close the gate manually.
3. Pull the emergency cable with the green handle once (pull force max. 250 N).  
⇒ The operator is ready for motorised operation again.

# Maintenance and care

## Safety instructions



### DANGER!

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

- Do not use acid or alkaline cleaning products.

## Regular testing

- Keep the operator clean and wipe it occasionally with a dry cloth.
- Check the weight compensation or spring tension on spring or weight balanced sectional doors.  
Read the door operating instructions.

- Check the operator regularly for insect infestation and moisture; if necessary clean and dry.
- Check all fastening screws and bolts for tight seating and re-tighten them where necessary.
- The gearing is lubricated for life and maintenance-free. Keep the output shaft rust-free.
- Check that the operator is correctly seated.
- 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 additional testing

Test	Behaviour	Yes/No	Possible cause	Remedy
<b>Emergency release</b>				
Procedure as described in "Emergency release".	The door must be easily opened and closed by hand.	Yes	• All OK!	
		No	• Hinges rusted. • Guide rails damaged • Spring balance not correct	• Lubricate door hinges. • Repair damage • Adjust weight compensation
<b>Safety contact strip, if installed</b>				
Open and close the door and actuate the safety contact strip at the same time.	Behaviour of the door as set at the control unit.	Yes	• All OK!	
		No	• Cable breakage, terminal loose. • Control unit incorrectly adjusted. • Safety contact strip defective.	• Check the wiring and re-tighten the terminals. • Adjust control unit. • Decommission the system and lock it to prevent reactivation. Then, contact customer service.
<b>Photocell, if installed</b>				
<b>See instructions for control unit</b> Open and close the door while interrupting the photocell.	Behaviour of the door as set at the control unit.	Yes	• All OK!	
		No	• Cable breakage, terminal loose. • Control unit incorrectly adjusted. • Photocell dirty. • Photocell defective.	• Check the wiring and re-tighten the terminals. • Adjust control unit. • Clean the photocell. • Decommission the system and lock it to prevent reactivation. Then, contact customer service.
<b>Safety limit switch</b>				
<b>See instructions for control unit</b> Move door to the set top or bottom end position. Move door past the end position with the emergency manual actuation.	The control unit must display an error message. The door must not be movable with the motor. Then move the door back manually via emergency manual actuation. When the door 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 instructions!**

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

## Disposal

Follow the relevant 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 Manual as easy as possible to follow. If you have any suggestions as to how we could improve it or if you think more information is needed, please send your suggestions to us:




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