Installation Instructions

ELEKTROMAT

SE 8.60 FU-25,40

Model: 10004398 30012

-en-

Status: 16.01.2019

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Symbols

Warning - Potential injury or danger to life!

Warning - Danger to life from electric current!

Note - Important information!

▶ **Requirement -** Required action!

Schematic representations are based on product examples. Deviations from delivered products are possible.

1 General safety information

Specified normal use

The drive unit is intended for sectional doors with full counter-balancing.
The safe operation is only guaranteed with normal specified use. The drive unit is to be protected from rain, moisture and aggressive ambient conditions. No liability for damage caused by other applications or non-observance of the information in the manual.
Modifications are only permitted with the agreement of the manufacturer. Otherwise the Manufacturer’s Declaration shall be rendered null and void.

Safety information

Installation and initial operation tasks are to be performed by trained, skilled fitters only.
Only trained electrical craftsmen are permitted to work on electrical equipment. They must assess the tasks assigned to them, recognise potential danger zones and be able to take appropriate safety measures.
The installation is only to be carried out with the supply off.
Observe the applicable regulations and standards.

Coverings and safety devices

Do not operate unless corresponding coverings and safety devices are fitted/installed.
Ensure that gaskets are correctly positioned and cable glands are correctly tightened.

Spare parts

Use only original spare parts.

2 Technical Data

Type	SG 40	
Output torque	80 (-)	Nm
Output speed OPEN	12-60	rpm
Output speed CLOSE	12-24	rpm
Output speed CLOSE > 2,5m	12-30	rpm
Output shaft / hollow shaft	25,40	mm
Maximum holding torque	300	Nm
Maximum door weight	3000	N
Supply voltage	1N~ 230	V
Operating current	7,35	A
Operating frequency	50	Hz
Power factor cos φ	0,85	
Maximum movement per hour	36	h^{-1}
Class of protection	IP 65	
Limit switch range (maximum revolutions of output shaft / hollow shaft)	14	
Temperature range	+5 / +40 (+60) 1)	°C
Operating sound pressure level	< 70 dB(A)	

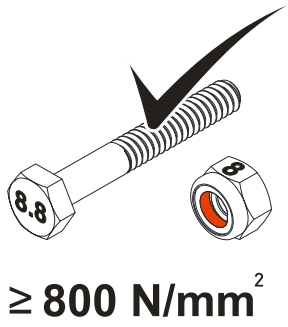
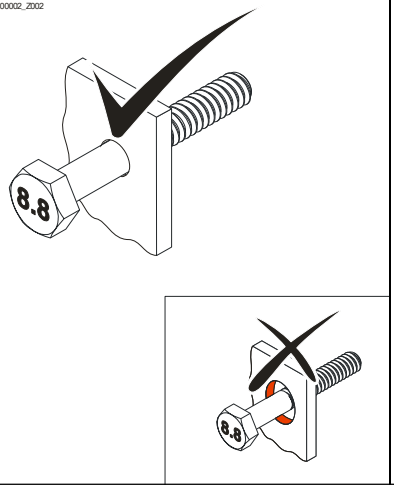
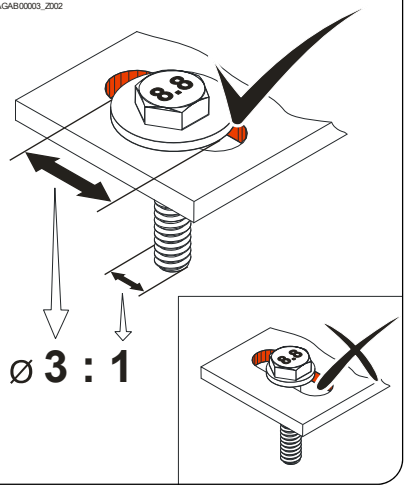
1) When using a temperature range of +40°...+60°C use half of maximum movements per hour.

3 Mechanical installation

Prerequisites

The permissible loads on walls, fastenings, mountings and transmission elements must not be exceeded, even for maximum holding torques or locking torques (▸ refer to technical data).

Connection elements:

▸ Self-locking connection elements with a minimum strength of 800 N/mm² (8.8) must be used.	▸ Utilize the hole diameter to the full.	▸ Use adequately dimensioned washers for elongated holes.
BAGAB00001_Z002  	BAGAB00002_Z002  	BAGAB00003_Z002 

Permissible mounting positions

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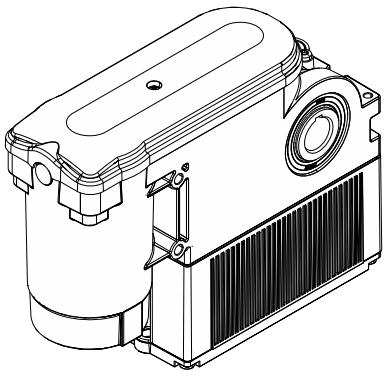
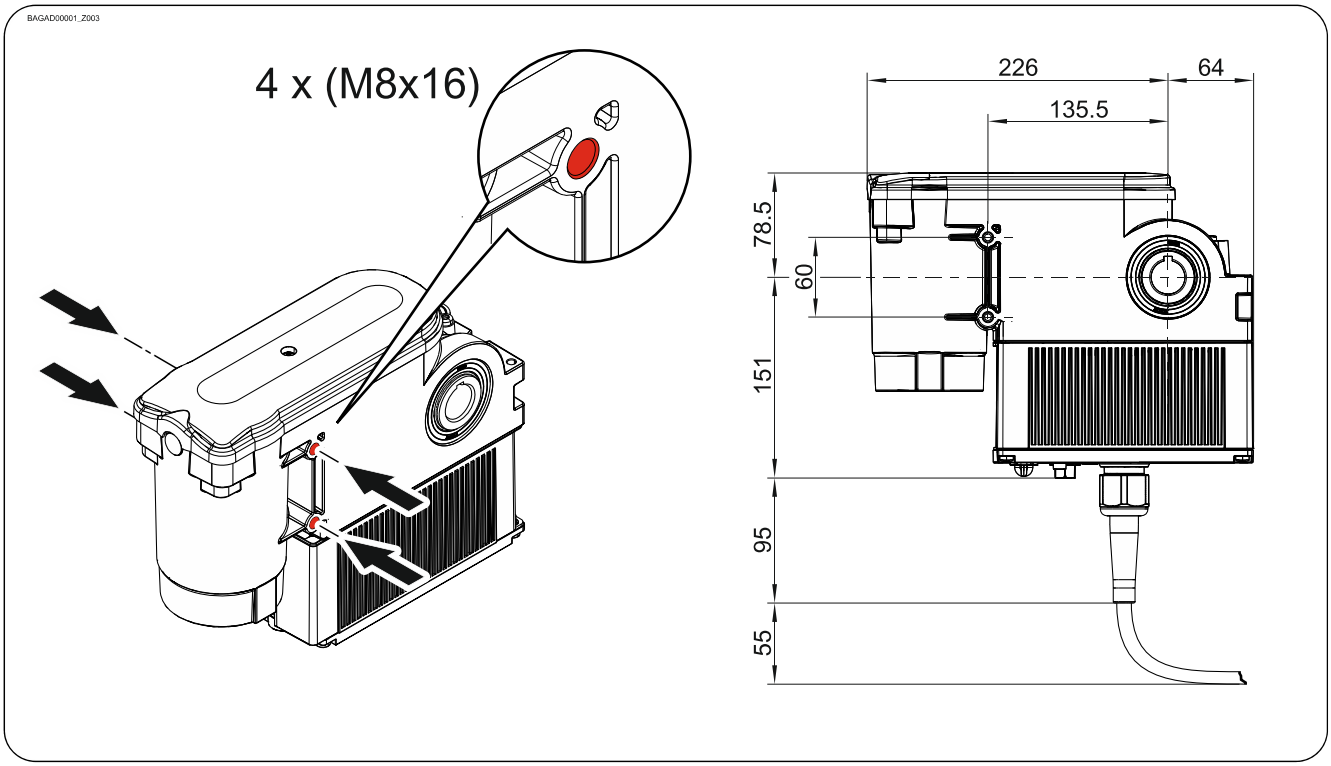


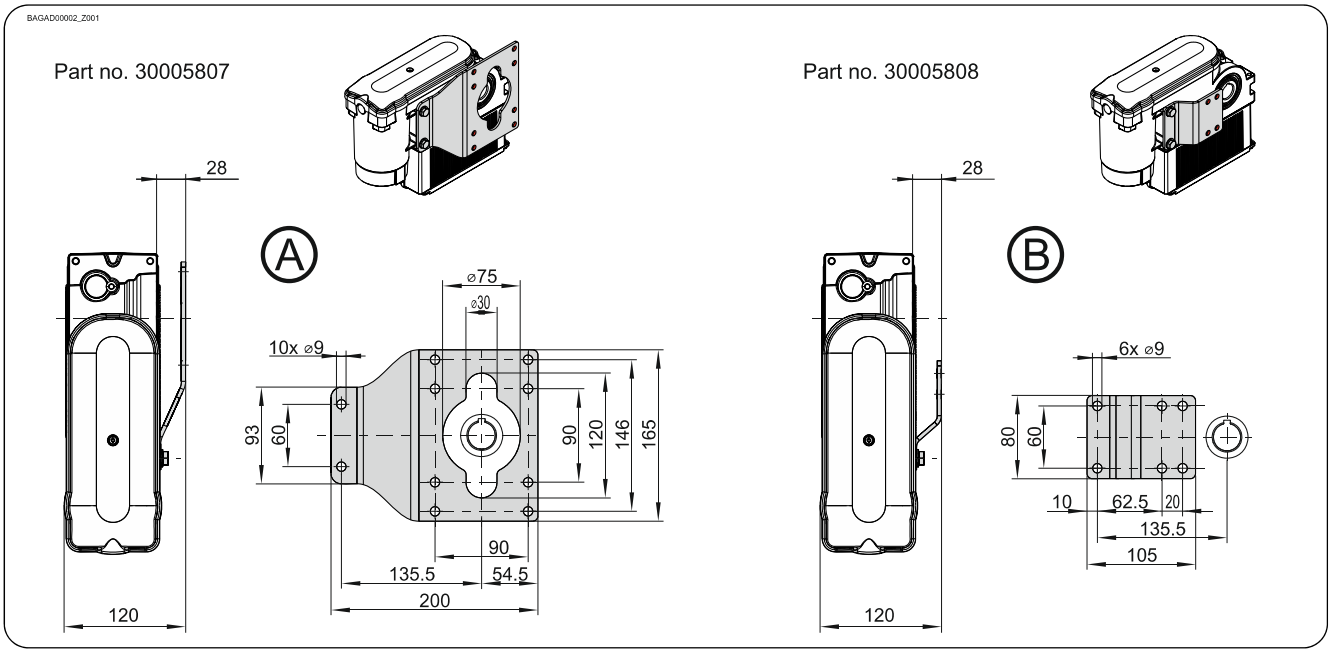
Mounting

Fourt threads are provided for mounting.

- Use at least 2 of these.



Additional mounting options

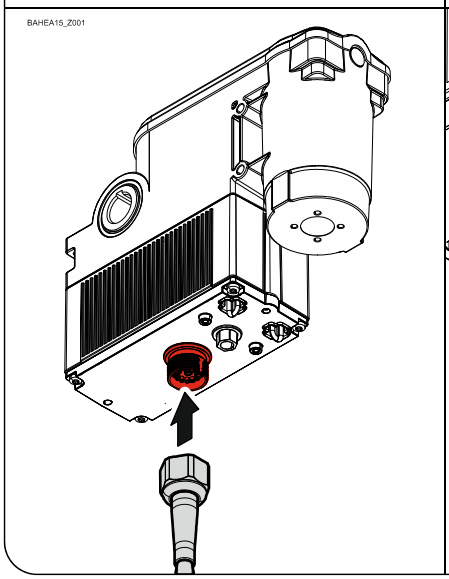
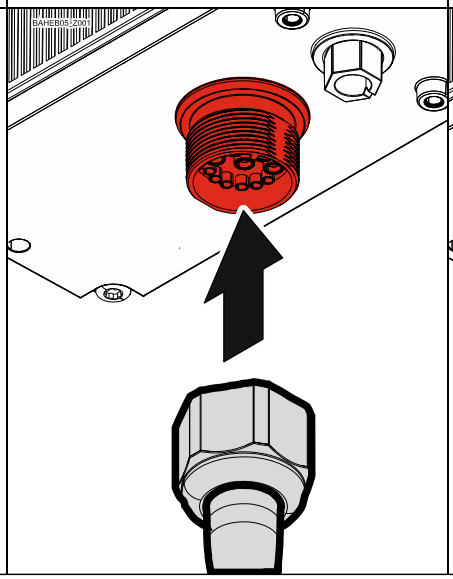
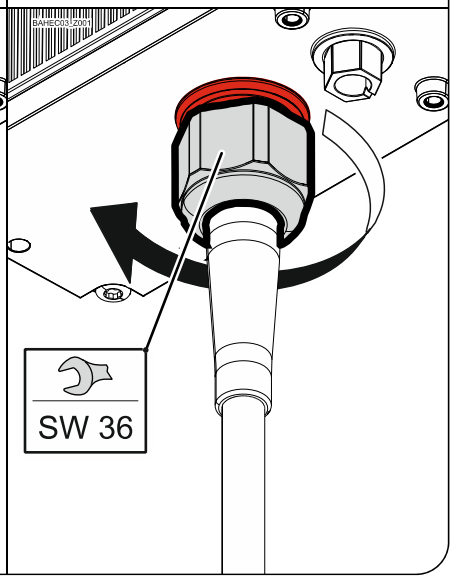


4 Electrical installation

Warning - Danger to life from electric current!

- Switch the mains OFF and check that the cables are de-energised
- Observe the applicable regulations and standards
- Make the electrical connection according to standard
- Use suitable tools

Performing electrical installation

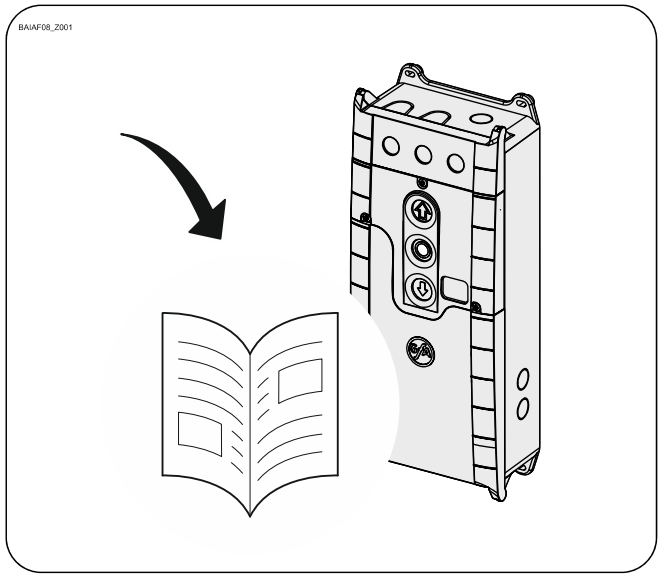
▸ Insert plug.		▸ Tighten nuts to 6 Nm.
		

Completing the electrical installation

Mount the cable entries and/or cable glands.

5 Limit switch adjustment

The adjustment of the final limit positions OPEN and CLOSE is described in the instructions for the door control panel.



6 Emergency manual operation

Emergency manual operation is designed for opening or closing the door without power supply. Its activation interrupts the control voltage. Electrical operation is no longer possible.

Warning – Injuries due to incorrect operation!

- Switch off voltage.

Warning - Danger of the door dropping!

If you need to apply more than the permissible force of 390N (according to DIN EN 12604/DIN EN 12453) to move the door by emergency manual operation, this indicates a stalling on the drive unit or door. Releasing the stalling may cause the door to drop.

- Take a safe stand.
- For drive units with brake, the emergency manual operation must be carried out against the closed brake.

Caution - Risk of injury due to unexpected movement!

The emergency manual operation has an integrated overload protection. The overload protection causes a disconnection of the force transmission in the case of unbalanced doors. In this case, the chain slips.

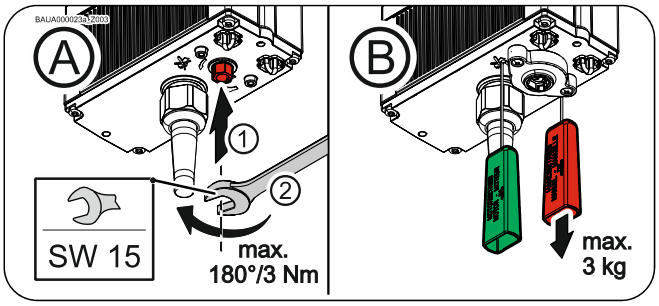
- Take a safe stand.
- Check the counter-balancing of the door in case of a triggering overload protection.

Caution – Damage to components!

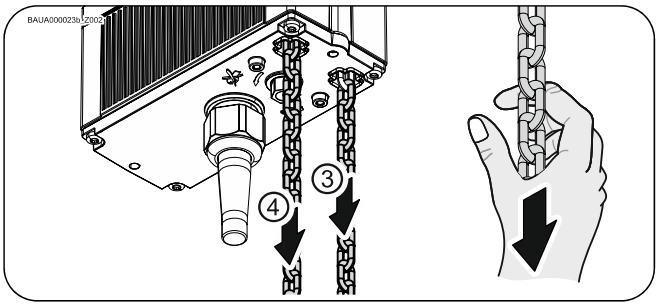
- Do not move the door beyond the final limit positions.

Ⓐ: Attach tool (①). Switch on by turning to the right until stop (②).

Ⓑ: Switch on by pulling the red handle.

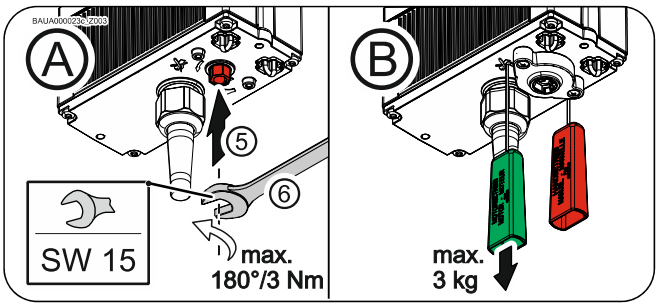


Ⓐ+Ⓑ: Open (③) or close (④) the door by pulling the chain by hand.



Ⓐ: Attach tool (⑤). Switch off by turning to the left until stop (⑥).

Ⓑ: Switch off by turning to the right until stop.



7 Completing commissioning / inspection

Check the following components and then install all covers.

Gearbox

Check the drive unit for loss of oil (a few drops can be neglected). Protect the output-shaft permanently against corrosion.

Mounting

Check that all connection elements (consoles, torque mounts, screws, locking rings, etc.) are secure and in proper condition.

Electrical wiring

Check the connection cables and cabling for damage or crushing. Check that the screw connections and plug connections are fitted properly with a good electric contact.

Emergency manual operation

Check the function with the power disconnected. Perform the check only between the final limit positions.

Limit switch

Check the final limit positions by opening and closing fully. The safety area must not be approached.

Drive unit

Note!

- Engage a qualified engineer to check the drive unit annually
- Apply shorter inspection intervals for doors that are operated frequently
- Observe the applicable regulations and standards

Declaration of incorporation

within the meaning of Machinery Directive 2006/42/EC
for partly completed machinery, Appendix II Part B

Declaration of conformity

within the meaning of EMC Directive 2014/30/EU
within the meaning of RoHS Directive 2011/65/EU

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Germany

We,
GfA ELEKTROMATEN GmbH & Co. KG
declare under our sole responsibility that the following product complies with the above directives and is only intended for installation in a door system.

Drive unit
SE 8.60 FU-25,40
Part no.: 10004398 30012

We undertake to transmit in response to a reasoned request by the appropriate regulatory authorities the special documents on the partly completed machinery.

This product must only be put into operation when it has been determined that the complete machine/system in which it has been installed complies with the provisions of the above-mentioned directives.

Authorised representative to compile the technical documents is the undersigned.

Düsseldorf, 10.08.2018

Stephan Kleine
CEO

Signature

The following requirements from Appendix I of the Machinery Directive 2006/42/EC are met: 1.1.2, 1.1.3, 1.1.5, 1.2.2, 1.2.3, 1.2.6, 1.3.2, 1.3.3, 1.3.9, 1.5.1, 1.5.2, 1.5.4, 1.5.6, 1.5.7, 1.5.8, 1.5.9, 1.5.10, 1.5.11, 1.5.13, 1.6.1, 1.6.2, 1.6.4, 1.7.2, 1.7.3, 1.7.4.3.

Standards applied:

EN 12453:2001
Industrial, commercial and garage doors and gates - Safety in use of power operated doors - Requirements

EN 12604:2017
Industrial, commercial and garage doors and gates - Mechanical aspects - Requirements

EN 60335-1:2012
Household and similar electrical appliances - Safety - Part 1: General requirements

EN 61000-6-2:2005
Electromagnetic compatibility (EMC) Part 6-2 Generic standards – Immunity standard for industrial environments

EN 61000-6-3:2007
Electromagnetic compatibility (EMC) Part 6-3 Generic standards – Emission standard for residential, commercial and light-industrial environments