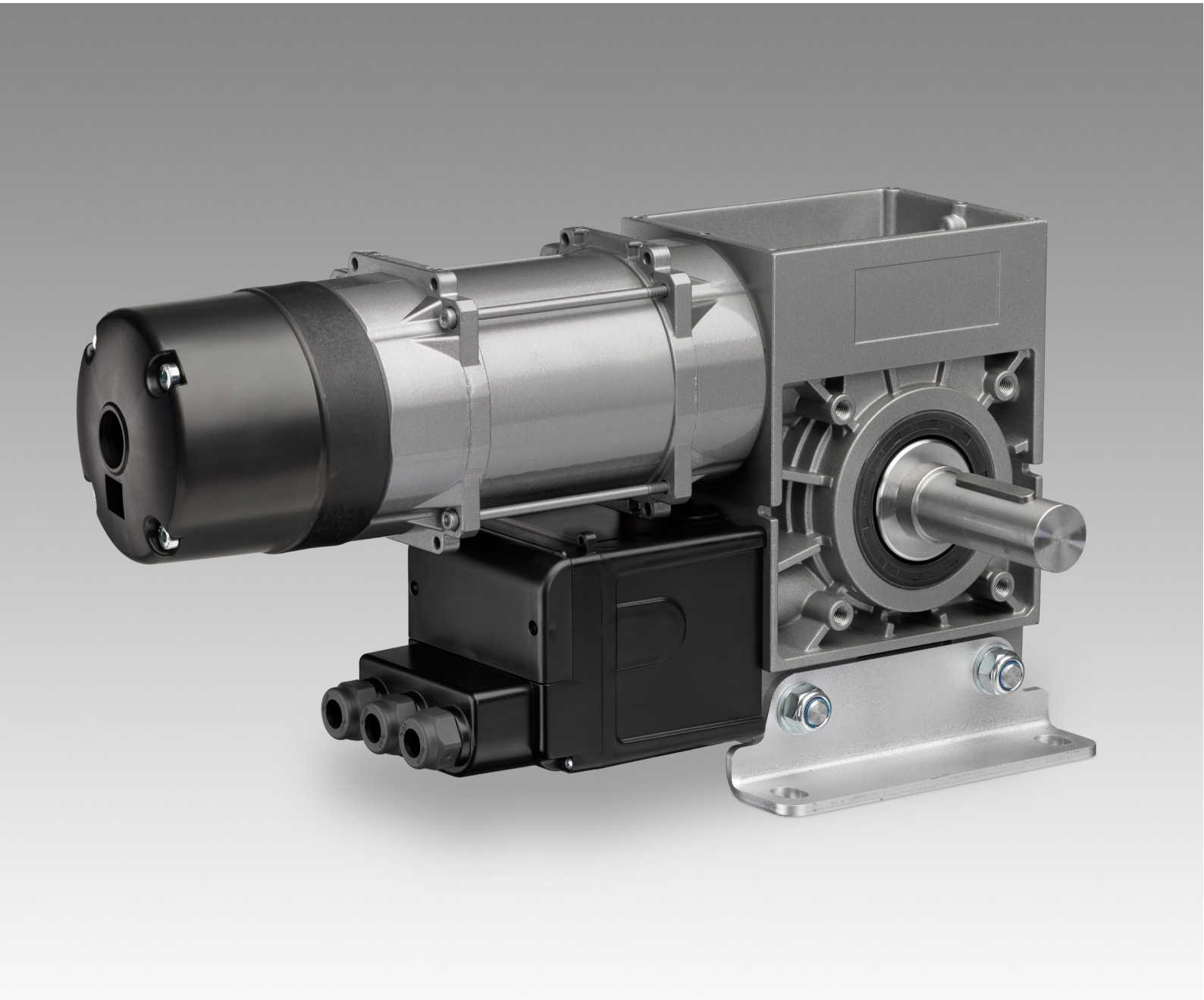
EN

Assembly Instructions

Sprocket drive for roller door KD



1. Contents

2. Information in this document

Original assembly instructions

– Subject to alterations in the interest of technical progress.
– All dimensions given in mm.
– The diagrams in this manual are not to scale.

Key to symbols

⚠ DANGER!

Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

⚠ WARNING!

Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ CAUTION!

Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

⚠ ATTENTION!

Indicates an imminent danger of damage or destruction.

☑ CHECK

Indicates a check to be performed.

ⓘ REFERENCE

Reference to separate documents which must be complied with.

☞ Action request

– List, itemisation

➔ Reference to other sections of this document

3. General safety instructions

⚠ DANGER!

Failure to comply with the documentation could result in life-threatening danger!

☞ Be sure to follow all the safety instructions in this document.

Warranty

The function and safety of the equipment is only guaranteed if the warning and safety instructions included in these operating instructions are adhered to.
The manufacturer is not liable for personal injury or damage to property if these occur as a result of the warnings and safety advice being disregarded.
The manufacturer does not accept any liability or warranty for damage due to the use of non-approved spare parts and accessories.

Use for the intended purpose

The drives in the KD series are suitable exclusively for opening and closing roller doors and roller grills without spring or weight compensation.
The door is actuated with a chain drive. Equipment with a special base means mounting is extremely safe.
Tensioning or re-tensioning the chain drive must be possible at all times via an MK tensioning bracket.

In the case of doors that must be secured against falling, a separate safety catch device is required.

Target group

Only qualified and trained specialist fitters are permitted to install the drive and perform mechanical maintenance.
Qualified and trained specialist fitters must satisfy the following requirements:

- Knowledge of the general and specific safety and accident prevention regulations,
- Knowledge of the relevant regulations,
- Training in the use and care of appropriate safety equipment,
- Capable of recognising the dangers associated with assembly.

Only qualified and trained electricians are permitted to connect the drive and perform the electrical maintenance.
Qualified and trained electricians must satisfy the following requirements:

- Knowledge of the general and specific safety and accident prevention regulations,
- Knowledge of the relevant electrical regulations,
- Training in the use and care of appropriate safety equipment,
- Capable of recognising the dangers associated with electricity.

Instructions regarding installation, connection and maintenance

- The system must be disconnected from the electricity supply before carrying out any electrical work. It must be ensured that the electricity supply remains disconnected for the duration of the work.
- Local protective regulations must be complied with.
- Mains cables and control cables must be routed separately.

Observe the valid standards and regulations!

4. Product overview

Versions

The following variants of the drive KD are available for delivery:

– KD 05-7-24 KU
– KD 05-13-24 KU
– KD 05-13-24 KU HD

– KD 05-7-24 KE
– KD 05-13-24 KE
– KD 05-13-24 KE HD

– KD 20-22-24 KU
– KD 20-22-24 KU HD

– KD 20-22-24 KE
– KD 20-22-24 KE HD

– KD 30-30-24 KU
– KD 30-30-24 KU HD

– KD 30-30-24 KE
– KD 30-30-24 KE HD
– KD 30-40-24 KE
– KD 30-40-24 KE HD

– KD 30-40-24 KU
– KD 30-40-24 KU HD

– KD 50-75-24 KU HD
– KD 50-75-24 KE HD

– KD 60-100-24 KU HD
– KD 60-100-24 KE HD

– KD 70-125-24 KU HD
– KD 70-165-24 KU HD

– KD 70-125-24 KE HD
– KD 70-165-24 KE HD

* HD = Drives with this suffix have a higher duty cycle.

For the precise values for all drives, see
➔ "9. Technical data"

Further product combinations are possible.
Information on this is available from the manufacturer.

5. Mounting

5.1 Preparation

⚠ WARNING!

Serious injuries possible due to incorrect installation of the drive!

- The structure and base of all components must be designed for the loads.
- Installation must take place whilst standing on a stable foundation (e. g. scaffolding).

⚠ ATTENTION!

Property damage due to improper installation of the drive!

To avoid damage to the drive and door, only install the drive if

- the drive is undamaged,
- the ambient temperature is -20 °C to +60 °C,
- the installation altitude does not exceed 1,000 above sea level,
- the correct protection type has been selected.

☞ Prior to assembly, make sure that

- the drive is not blocked,
- the drive has been newly prepared after an extended time in storage,
- all connections haven been established correctly,
- the direction of rotation of the gear motor is correct,
- all motor protection devices are active,
- no other danger sources are present,
- the installation location is widely cordoned off.

⚠ ATTENTION!

Property damage due to improper installation of the drive!

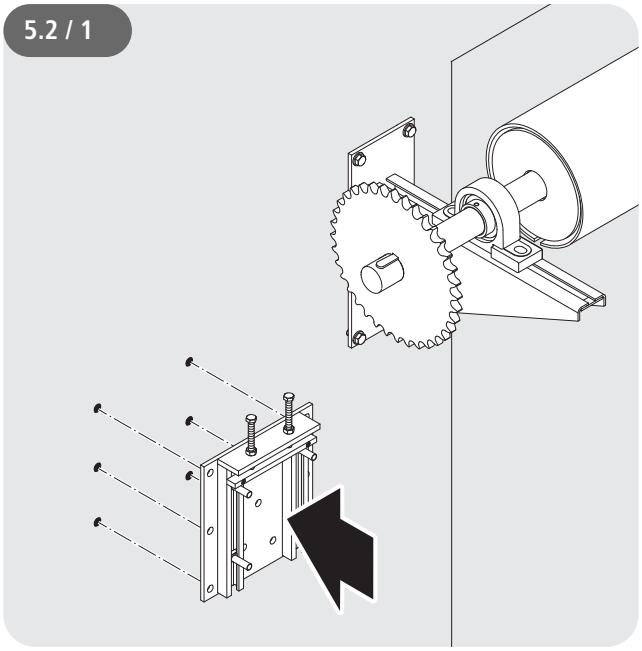
To avoid damage to the drive and door, the drive must be permanently mounted on an appropriate tensioning bracket.

i REFERENCE

When installing the drive on the door, observe the corresponding door manual.

5.2 Mounting the tensioning bracket

5.2 / 1

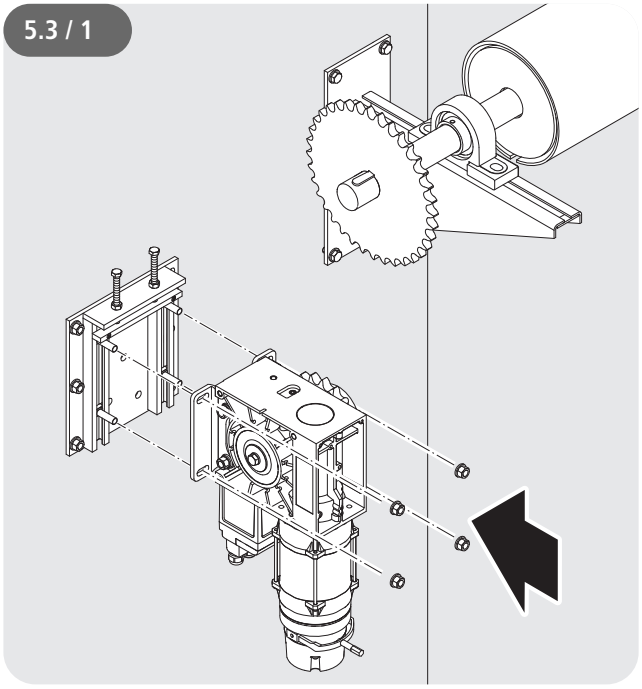


☞ Specify the installation location of the tensioning bracket. Observe the specifications for the drive installation:
➔ "5.3 / 4"

☞ Mount the tensioning bracket next to the roller door bracket.

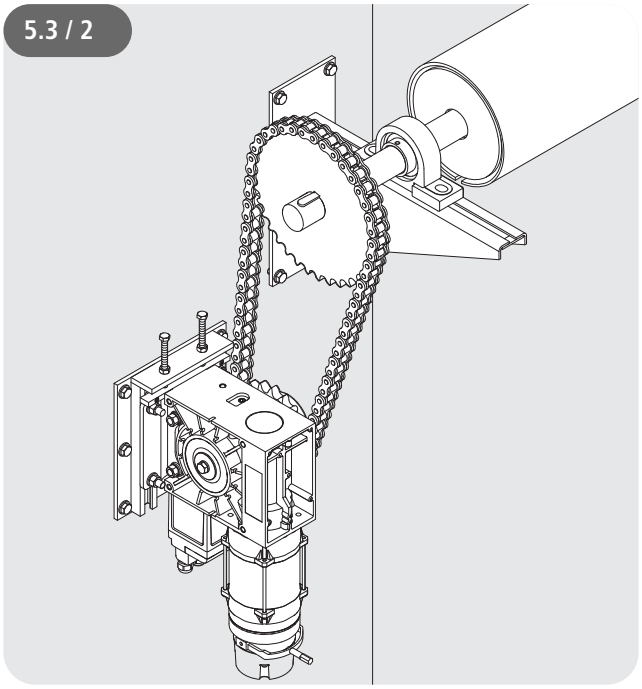
5.3 Mounting the drive

5.3 / 1



☞ Mount the drive on the tensioning bracket.
☞ Only tighten the screws lightly.

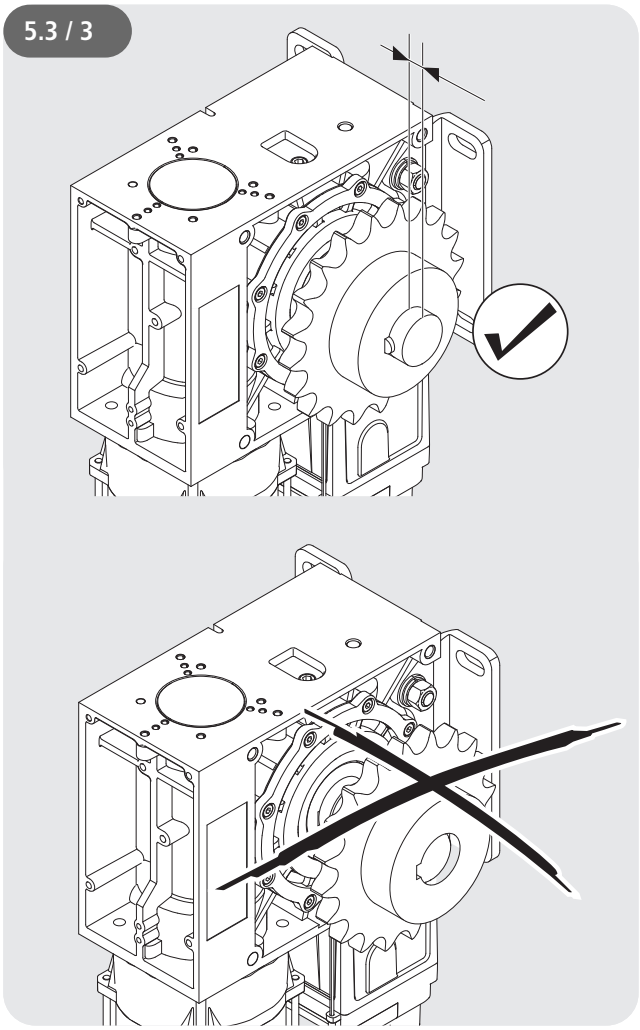
5.3 / 2



☞ Bring the sprocket into position.
☞ Mount the chain.

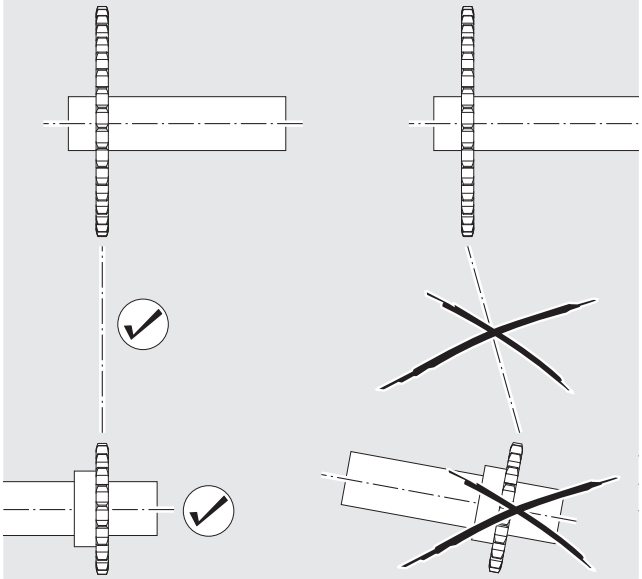
To guarantee correct function, it is essential to observe the following specifications ("5.3 / 3" – "5.3 / 5"):

5.3 / 3



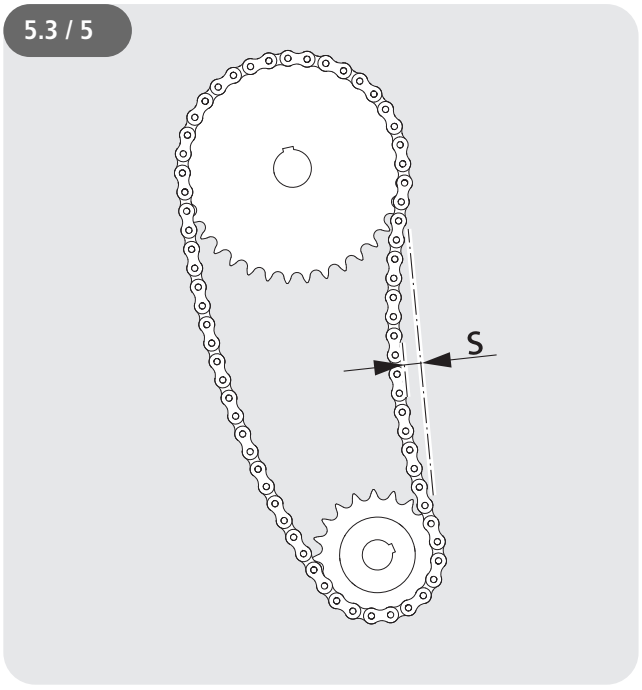
☞ Make sure the sprocket is slid correctly onto the drive shaft.

5.3 / 4



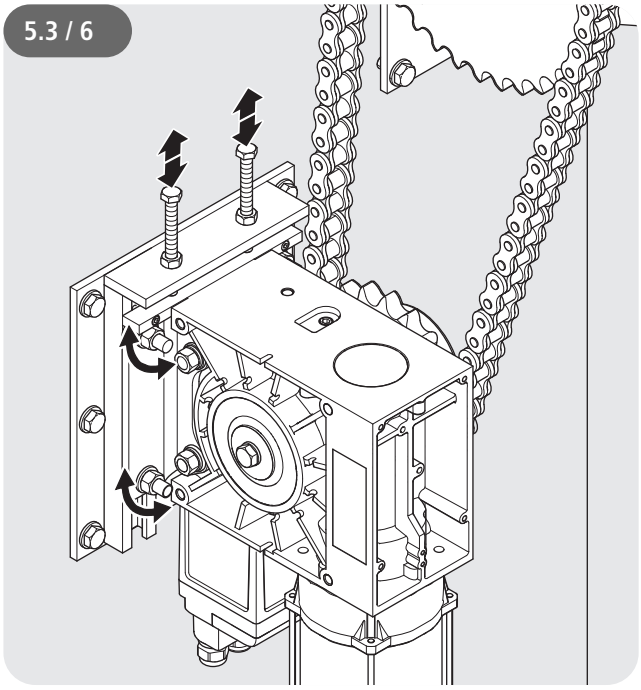
☞ Make sure the sprockets of the door shaft and drive shaft are flush with each other.

5.3 / 5



☞ Make sure that the chain tension specifications are observed (see = width of chain link).

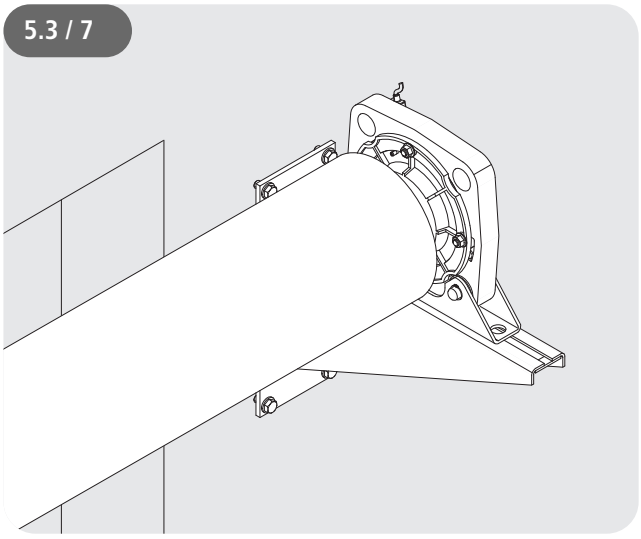
5.3 / 6



☞ Tension the chain.
☞ Tighten the connection screws for the tensioning bracket.
☞ Install all further connection elements in accordance with the door manufacturer's specifications.

The door must be equipped with an external safety catch device for correct operation.

5.3 / 7

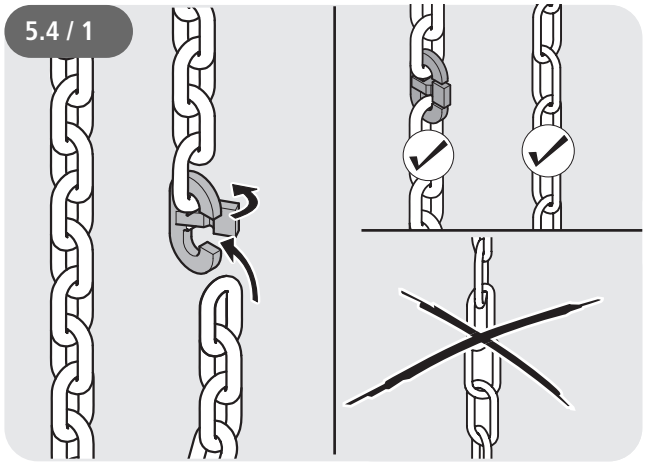


☞ Make sure that an external safety catch device is available on the door.

5.4 Mounting the emergency hand chain (only with drives with an emergency hand chain)

To ensure faultless functionality, the chain links must not be twisted.

5.4 / 1



☞ Connect the chain ends with the chain lock.

⚠ ATTENTION!

Property damage due to improper operation of the drive!

To avoid damage to the drive and door, the emergency hand chain must be secured during electrical door operation.

6. Initial Operation

6.1 Preparation

⚠ ATTENTION!

Property damage due to improper installation of the drive!

In order to avoid damage to the drive, observe the following points:

– The performance types and cross-sections must be selected in accordance with the valid specifications.
– The nominal currents and switching type must correspond with the information on the motor type plate.
– The drive data must concur with the connection values.

REFERENCE

In case of operation with electronic control devices, consider the respective commissioning instructions and wiring diagrams.

6.2 Opening the drive

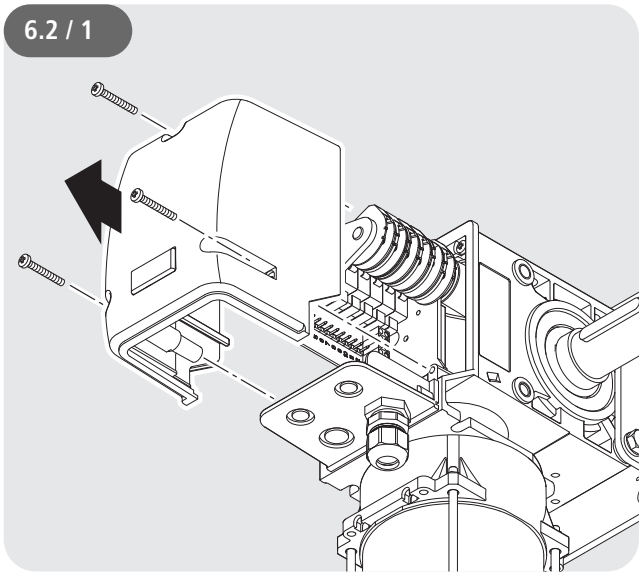
⚠ DANGER!

Life-threatening danger due to electric shock!

☞ Prior to wiring work, always disconnect the drive system from the power supply. Take measures to ensure that the power supply remains disconnected for the duration of the wiring work.

Model KD 05

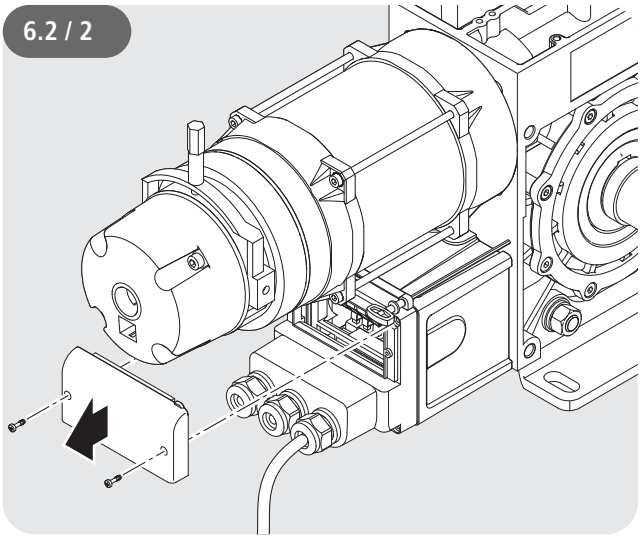
6.2 / 1



☞ Remove the hood screws.
☞ Take the hood off the drive.

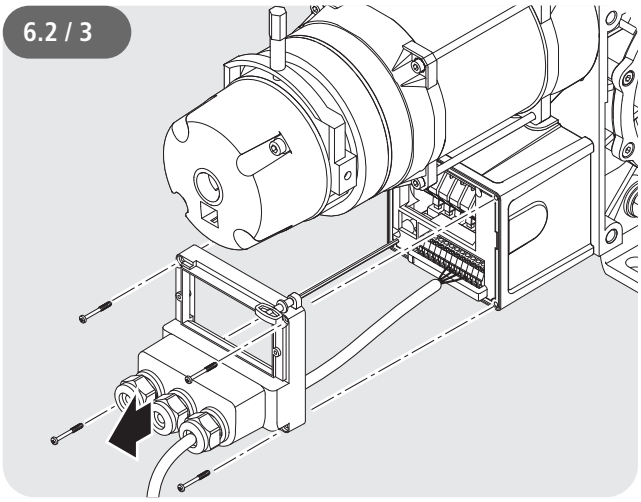
From model KD 20

6.2 / 2



☞ Remove the screws on the adjustment cover.
☞ Take the adjustment cover off the limit switch cover.

6.2 / 3



☞ Remove the screws on the limit switch cover.
☞ Remove the limit switch cover from the limit switch box.

6.3 Inserting and connecting the cable

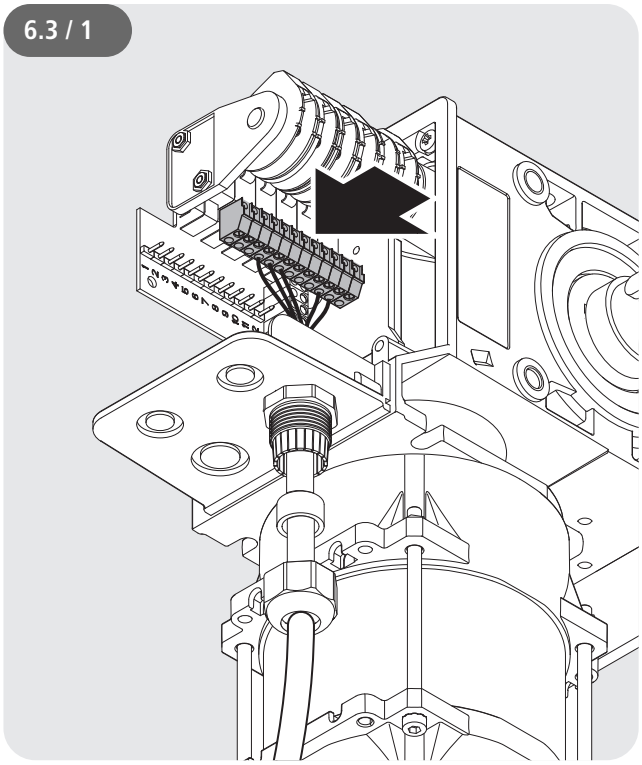
⚠ DANGER!

Life-threatening danger due to electric shock!

☞ Prior to wiring work, always disconnect the drive system from the power supply. Take measures to ensure that the power supply remains disconnected for the duration of the wiring work.

Model KD 05

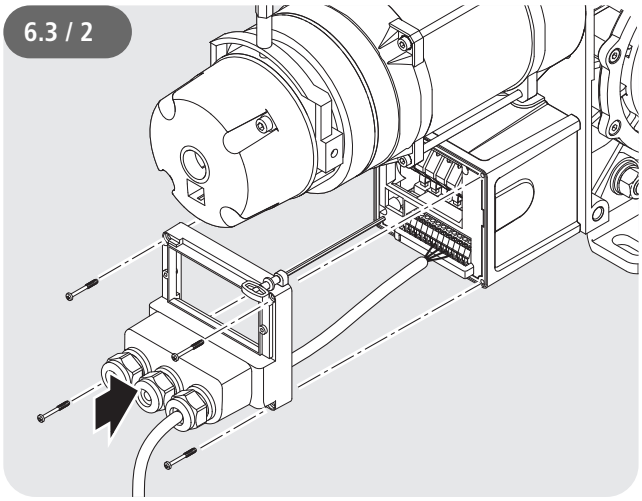
6.3 / 1



☞ Screw on the mounting plate of the cable harness.
☞ Plug the connector into the circuit board.
☞ If necessary, connect the control in accordance with the following circuit diagrams.
➔ "6.4 Connection options"

From model KD 20

6.3 / 2



☞ Plug the cable harness connector into the limit switch circuit board.

☞ If necessary, connect the control in accordance with the following circuit diagrams.

➔ "6.4 Connection options"

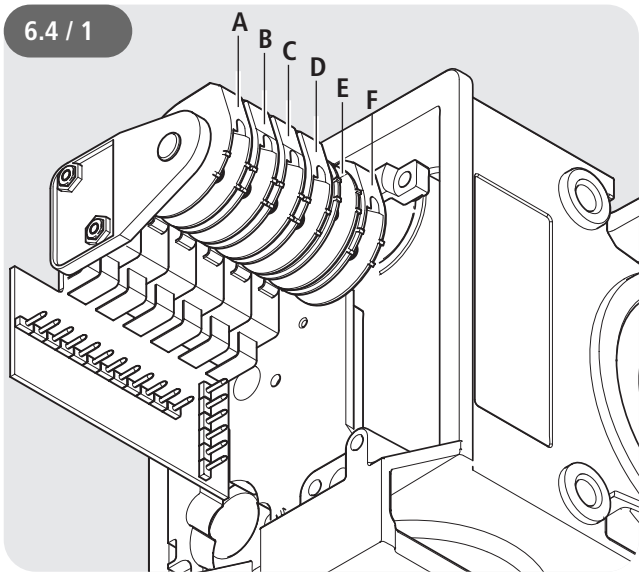
☞ Screw the limit switch cover on tightly.

6.4 Connection options

Connection 3 x 400 V star connection (Standard, pluggable)

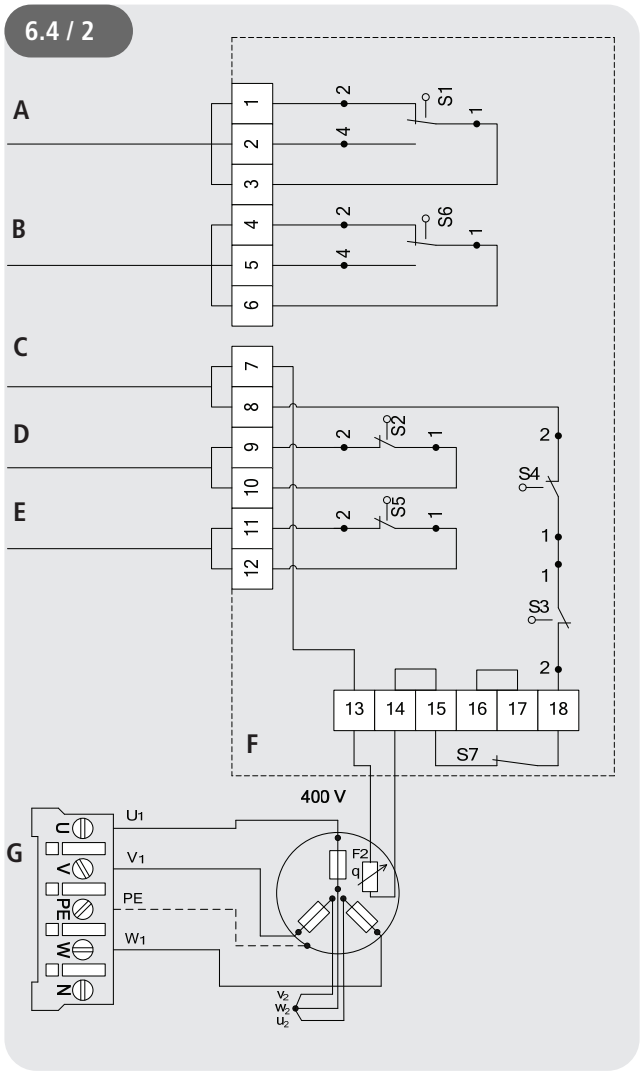
The motor is pre-wired for connection to a 3 x 400 V mains in star connection.

6.4 / 1



Initial Operation

6.4 / 2



☞ Connect all required cables.

Strand identification

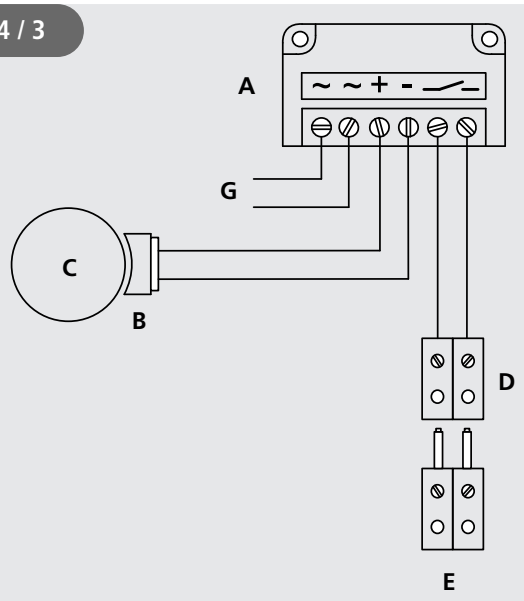
U1	Red
V1	Blue
W1	White
V2	Black
W2	Brown
U2	Green

A	Equipotential connection OPEN
B	Equipotential connection CLOSE
C	Safety circuit switch-off
D	Switch-off limit position OPEN
E	Switch-off limit position CLOSE
F	Internal safety chain
G	Drive
S1	Supplementary limit switch OPEN (standard only with drives without integrated control)
S2	Limit switch OPEN
S3	Safety limit switch OPEN
S4	Safety limit switch CLOSE
S5	Limit switch CLOSE
S6	Supplementary limit switch CLOSE (standard only with drives without integrated control)
S7	Safety limit switch emergency manual operation
F2	Motor thermal protection

Brake rectifier connection from size KD 30 with wired brake

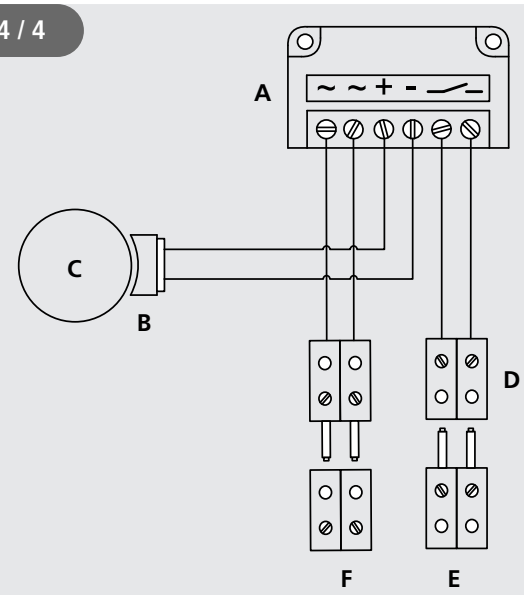
Connection with KD with contactor operation:

6.4 / 3



Connection with KD with frequency converter operation:

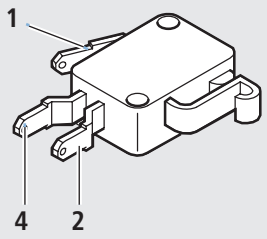
6.4 / 4



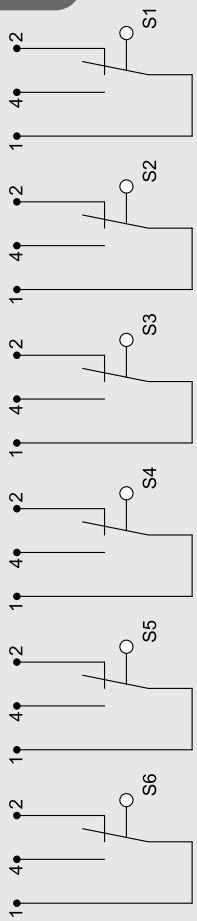
A Brake rectifier
B Motor brake
C Motor
D Brake contact coupling
E Brake contact connector
F Voltage for brake
G Voltage for brake (pre-wired)

Connection 3 x 400 V star connection

6.4 / 5



6.4 / 6



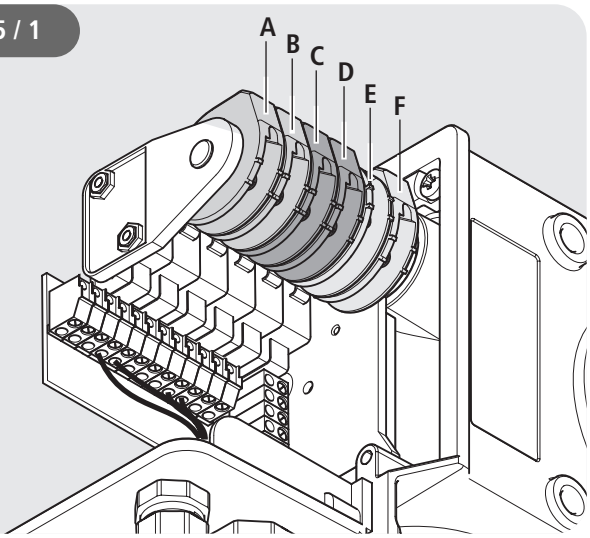
S1 Supplementary limit switch OPEN (standard only with drives without integrated control)
S2 Limit switch OPEN
S3 Safety limit switch OPEN
S4 Safety limit switch CLOSE
S5 Limit switch CLOSE
S6 Supplementary limit switch CLOSE (Standard only with drives without integrated control)

Connection 3 x 230 V delta connection

In order to operate the drive on 3 x 230 V mains, please contact the manufacturer.

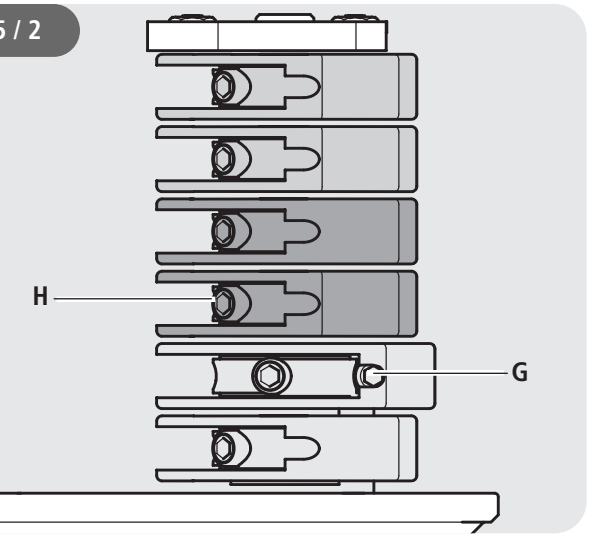
6.5 Manual settings model KD 05

6.5 / 1



A Switch cam supplementary limit switch OPEN (green)
B Switch cam limit switch OPEN (green)
C Switch cam safety limit switch OPEN (red)
D Switch cam safety limit switch CLOSE (red)
E Switch cam limit switch CLOSE (white)
F Switch cam supplementary limit switch CLOSE (white)

6.5 / 2



G Fine adjustment screw
H Set screw

Each switch cam is equipped with a set screw (H) and a fine adjustment screw (G).

Using the set screw (H), the corresponding switch cam is held in the desired position. A more precise setting can be realised with the fine adjustment screw (G).

Setting the CLOSE limit position

☞ Drive the door into the limit position CLOSE.
☞ Set the switch cam such that the limit switch CLOSE (E) is actuated.
☞ Tighten the set screw (H).

The safety limit switch CLOSE (D) must be set such that it switches immediately if the limit switch CLOSE (E) is overrun.

☞ Set the safety limit switch CLOSE (D).

Setting the OPEN limit position

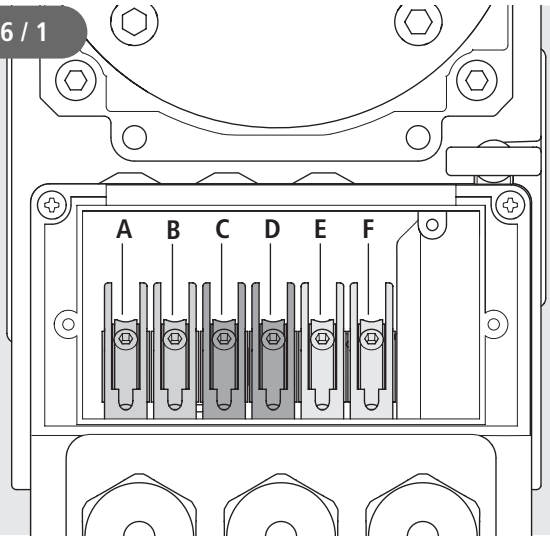
☞ Drive the door into the limit position OPEN.
☞ Set the switch cam such that the limit switch OPEN (B) is actuated.
☞ Tighten the set screw (H).

The safety limit switch OPEN (C) must be set such that it switches immediately if the limit switch OPEN (B) is overrun.

☞ Set the safety limit switch OPEN (C).

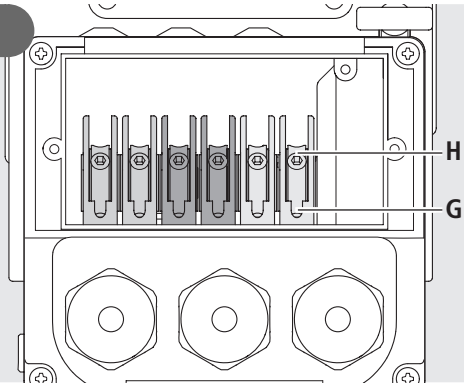
6.6 Manual settings from model KD 20

6.6 / 1



A Switch cam supplementary limit switch OPEN (green)
B Switch cam limit switch OPEN (green)
C Switch cam safety limit switch OPEN (red)
D Switch cam safety limit switch CLOSE (red)
E Switch cam limit switch CLOSE (white)
F Switch cam supplementary limit switch CLOSE (white)

6.6 / 2

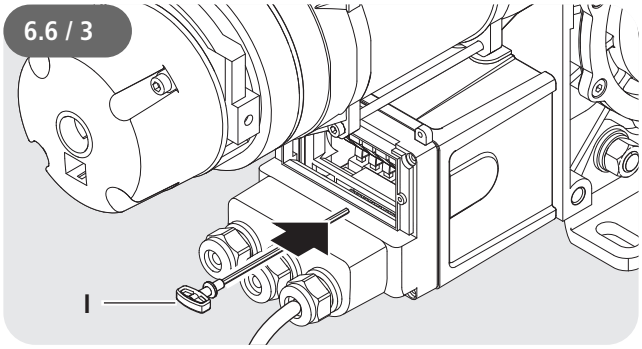


G Fine adjustment screw
H Set screw

Each switch cam is equipped with a set screw (H) and a fine adjustment screw (G).

Using the set screw (H), the corresponding switch cam is held in the desired position. A more precise setting can be realised with the fine adjustment screw (G).

6.6 / 3



The fine adjustment screw and set screw are turned with the adjustment tool (I).

Setting the CLOSE limit position

☞ Drive the door into the limit position CLOSE.
☞ Set the switch cam such that the limit switch CLOSE (E) is actuated.
☞ Tighten the set screw (H).

The safety limit switch CLOSE (D) must be set such that it switches immediately if the limit switch CLOSE (E) is overrun.

☞ Set the safety limit switch CLOSE (D).

Setting the OPEN limit position

☞ Drive the door into the limit position OPEN.
☞ Set the switch cam such that the limit switch OPEN (B) is actuated.
☞ Tighten the set screw (H).

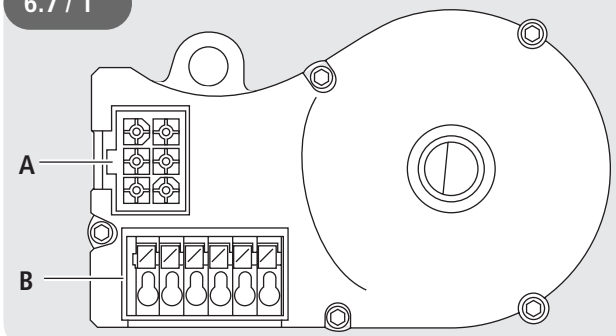
The safety limit switch OPEN (C) must be set such that it switches immediately if the limit switch OPEN (B) is overrun.

☞ Set the safety limit switch OPEN (C).

6.7 Digital settings – Limit switches and drive safety chain

Electrical interface

6.7 / 1

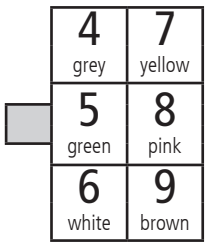


A: Absolute value encoder plug
B: Absolute value encoder plug-in terminal

REFERENCE

Refer to the operating manual of the control for the limit position settings.

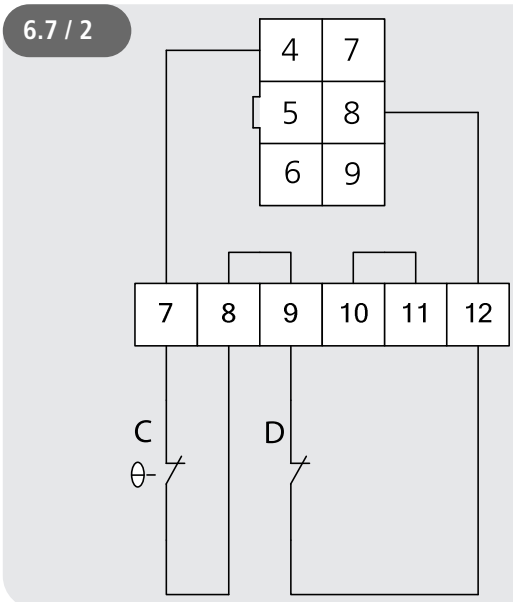
Absolute value encoder plug wire assignment



Cables with either numbered or coloured wires are used for the absolute value encoder, depending on the drive:
4 (grey): Safety chain input
5 (green): RS 485 B
6 (white): GND
7 (yellow): RS485 A
8 (pink): Safety chain output
9 (brown): 7 to 18V $_{DC}$

Absolute value encoder plug-in terminals (7-12)

6.7 / 2

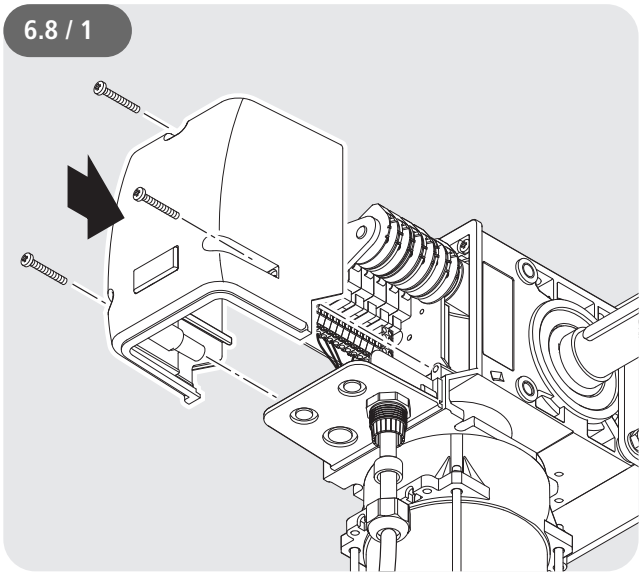


C: Thermal element in the drive
D: Emergency manual actuation (emergency crank or emergency chain)

6.8 Closing the drive

Model KD 05

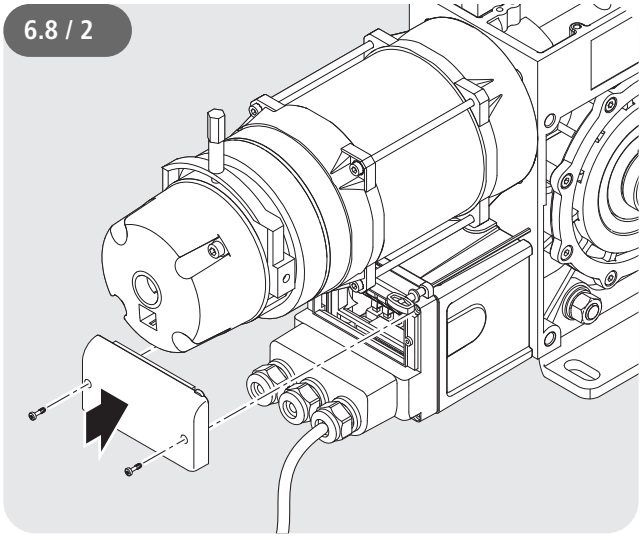
6.8 / 1



☞ Fit the hood on the drive.
☞ Screw the hood tight.

From model KD 20

6.8 / 2



☞ Fit the adjustment cover on the limit switch cover.
☞ Screw the adjustment cover on tightly.

6.9 Checking the system

Checking the running direction

☞ Drive the door in the CLOSE direction.
The drive must close the door.

☞ Drive the door in the OPEN direction.
The drive must open the door.

If the running direction of the door does not comply with the button commands, the direction of rotation must be changed. The running direction must then be checked again.

REFERENCE

In order to change the direction of rotation, refer to the operating manual for the control.

Checking the limit switch positions

☞ Drive the door into the limit position CLOSE.
The drive must stop in the desired position.

☞ Drive the door into the limit position OPEN.
The drive must stop in the desired position.

☞ Check the seating of the fastening screws.

Checking the mechanical functions

After assembling and installing all components it is necessary to check the system functions.

☞ Check all system functions.
☞ Check that the drive runs quietly.
☞ Check whether the drive is losing oil.

If the drive makes unusual noises or loses oil, it is necessary to:

– put the drive out of operation immediately,
– inform customer service.

7. Emergency operation

⚠ WARNING!

Serious injuries possible due to incorrect operation!

In order to avoid personal injury, the following points must be observed:

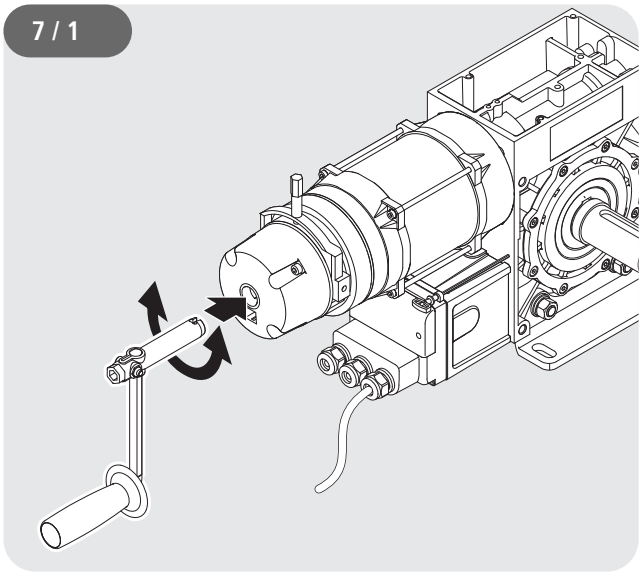
- Emergency operation must take place whilst standing on a stable foundation.
- Emergency operation shall only take place with the motor at a standstill.
- The system must be disconnected from the power supply during emergency operation.
- When opening and closing the door, drives with spring-loaded brake must be actuated against the closed brake.
- For safety reasons, brake venting with doors without weight compensation shall only take place for test purposes in the lower door position.
- The customer must implement measures to prevent unwanted brake venting.

With an electrical fault or during maintenance work, the door can be moved with the aid of the OPEN and CLOSE emergency operation.

If the door moves beyond the OPEN or CLOSE limit positions, the drive can no longer be electrically operated.

Drive with emergency hand crank

7 / 1

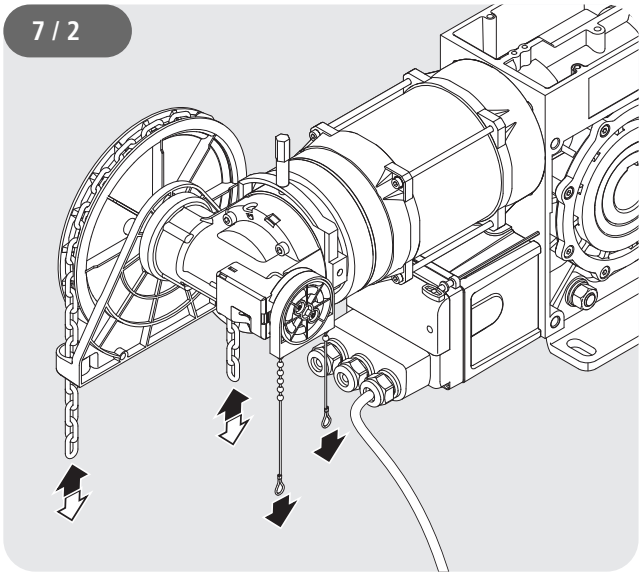


☞ Plug the emergency hand crank into the drive up to the stop. The control voltage is interrupted and the door can no longer be electrically operated.

☞ Drive the door in the OPEN or CLOSE direction by turning the emergency hand crank.

☞ After emergency actuation is complete, remove the crank again. The control voltage is switched on again and the door can be electrically operated.

Drive with emergency hand chain



Unlocking

☞ Gently pull the red handle to the stop.
The control voltage is interrupted and the door can no longer be electrically operated.
☞ Release the emergency hand chain from the safety catch.
☞ Drive the door in the OPEN or CLOSE direction by pulling the emergency hand chain on the corresponding side.

Locking

☞ Gently pull the green handle to the stop. The control voltage is switched on again and the door can be electrically operated.
☞ Fasten the emergency hand chain to the safety catch.
The door can be moved with the drive.

8. Maintenance

⚠ DANGER!

Life-threatening danger due to electric shock!

☞ Prior to wiring work, always disconnect the drive system from the power supply. Take measures to ensure that the power supply remains disconnected for the duration of the wiring work.

⚠ ATTENTION!

Property damage due to improper maintenance of the drive!

In order to avoid damage to the drive and door, observe the following points:

– Maintenance must only be carried out by authorised persons.
– Directive ASR A1.7 must be complied with.
– Worn or faulty parts must be replaced.
– Only approved parts may be installed.
– All maintenance work must be documented.

The gear is lifetime lubricated and maintenance-free.
The hollow shaft must be kept free of rust.

☞ Check that all fastenings are securely seated.
☞ Check the brake (if available).
The brake is subject to wear and must be checked regularly and tested for functionality.
☞ Check the limit switches and safety switches.
☞ Check for noise and oil loss.
☞ Check the drive fastening for corrosion.
☞ Check the housing for damage.

Replaced faulty parts must be disposed of properly in accordance with the materials they contain and local regulations.
In case of malfunctions, please contact the manufacturer.

9. Technical data

Type (KU / KE):	KD 05-7-24	KD 05-13-24	KD 05-13-24 HD	KD 20-22-24	KD 20-22-24 HD
Driving torque (Nm):	70	130	130	230	230
Driving motor speed (min -1):	24	24	24	24	24
Motor output (kW):	0.55	0.55	0.55	1.1	0.95
Operating voltage (V):	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~
Mains frequency Hz:	50	50	50	50	50
Control voltage: (V):	24	24	24	24	24
Nominal motor current (A):	3.3 / 1.9	3.0 / 1.7	3.0 / 1.7	4.7 / 2.7	4.1 / 2.4
Max. cycles per hour:*	20	20	30	36	36
Fuse protection on site (A):	10.0	10.0	10.0	10.0	10.0
Protection type (IP):	54	54	54	54	54
Temperature range (°C):	–20 / +60	–20 / +60	–20 / +60	–20 / +60	–20 / +60
Continuous sound pressure level (dB (A)):	< 70	< 70	< 70	< 70	< 70
Weight per piece (kg):	16	17	18	22	24
Maximum number of revolutions of driven shaft:	20	20	20	36	36
Hollow shaft (mm):	30	30	30	30	30

* One cycle equates to two travels of the door (opening and closing).
The cited values pertain to 10 revolutions of the output shaft per travel and assume equal distribution.

Type (KU / KE):	KD 30-30-24	KD 30-30-24 HD	KD 30-40-24	KD 30-40-24 HD
Driving torque (Nm):	300	300	400	400
Driving motor speed (min -1):	24	24	24	24
Motor output (kW):	1.5	1.2	1.7	1.5
Operating voltage (V):	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~
Mains frequency Hz:	50	50	50	50
Control voltage: (V):	24	24	24	24
Nominal motor current (A):	8.2 / 4.8	6.3 / 3.6	8.2 / 4.8	6.3 / 3.6
Max. cycles per hour:*	20	30	20	30
Fuse protection on site (A):	10.0	10.0	10.0	10.0
Protection type (IP):	54	54	54	54
Temperature range (°C):	–20 / +60	–20 / +60	–20 / +60	–20 / +60
Continuous sound pressure level (dB (A)):	< 70	< 70	< 70	< 70
Weight per piece (kg):	29	34	31	36
Maximum number of revolutions of driven shaft:	36	36	36	36
Hollow shaft (mm):	40	40	40	40

* One cycle equates to two travels of the door (opening and closing).
The cited values pertain to 10 revolutions of the output shaft per travel and assume equal distribution.

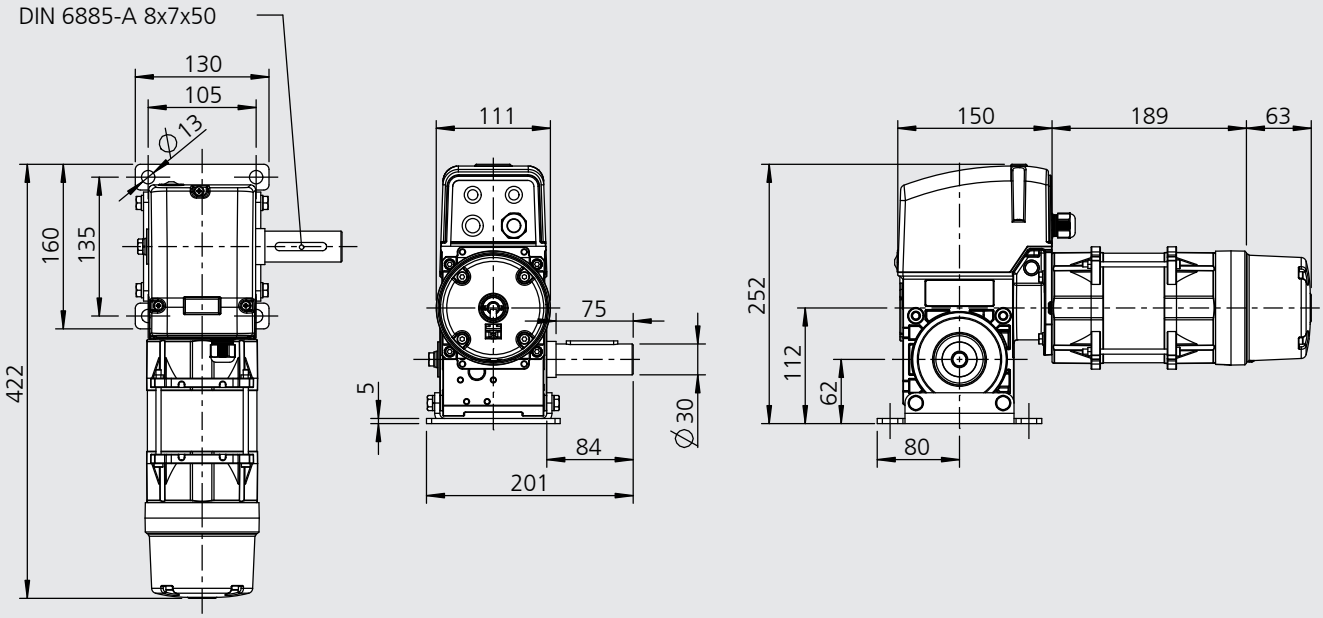
Technical data

Type (KU / KE):	KD 50-75-24 HD	KD 60-100-24 HD	KD 70-125-24 HD	KD 70-165-24 HD
Driving torque (Nm):	750	1000	1250	1650
Driving motor speed (min -1):	24	24	24	24
Motor output (kW):	3.0	4.0	4.0	5.5
Operating voltage (V):	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~	230 / 400 / 3~
Mains frequency Hz:	50	50	50	50
Control voltage: (V):	24	24	24	24
Nominal motor current (A):	12.1 / 7.0	18.2 / 10.5	18.2 / 10.5	16.0 / 25.0
Max. cycles per hour:*	30	20	20	20
Fuse protection on site (A):	16.0 / 10.0	20.0 / 16.0	16.0 / 20.0	16.0 / 25.0
Protection type (IP):	54	54	54	54
Temperature range (°C):	–20 / +60	–20 / +60	–20 / +60	–20 / +60
Continuous sound pressure level (dB (A)):	< 70	< 70	< 70	< 70
Weight per piece (kg):	48	72	72	81
Maximum number of revolutions of driven shaft:	36	36	36	36
Hollow shaft (mm):	50	50	70	70

* One cycle equates to two travels of the door (opening and closing).
The cited values pertain to 10 revolutions of the output shaft per travel and assume equal distribution.

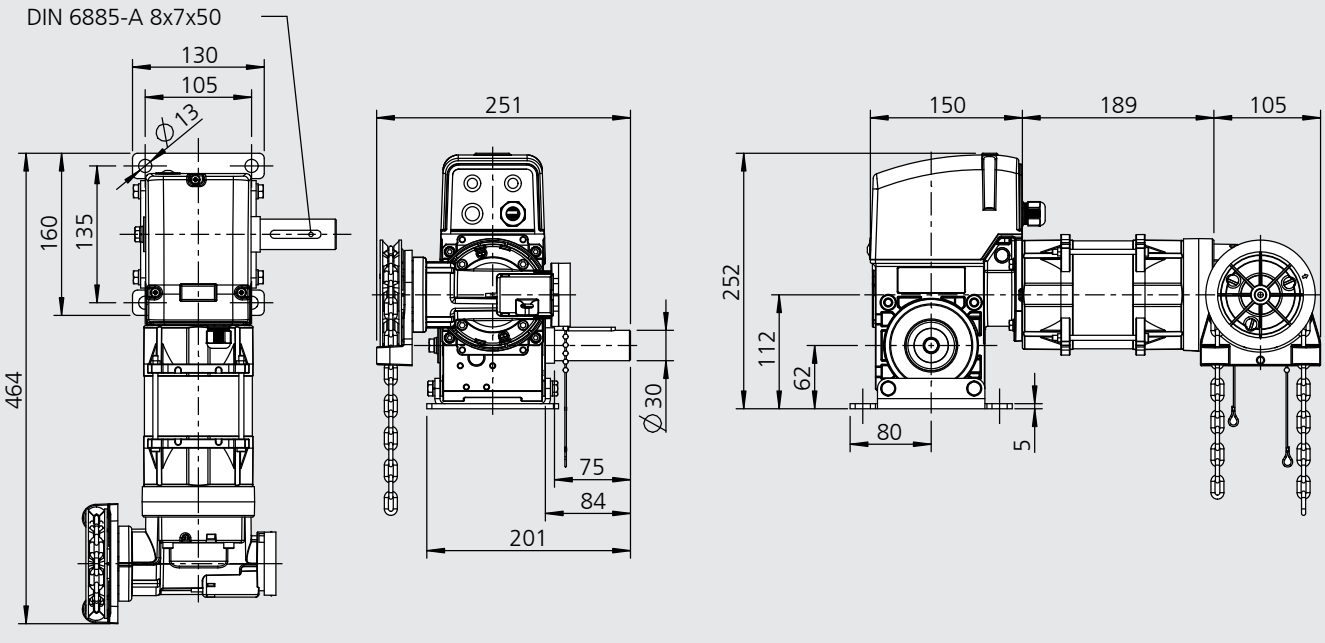
KD 05-7-24 KU (Crank)

9 / 1



KD 05-7-24 KE (Chain)

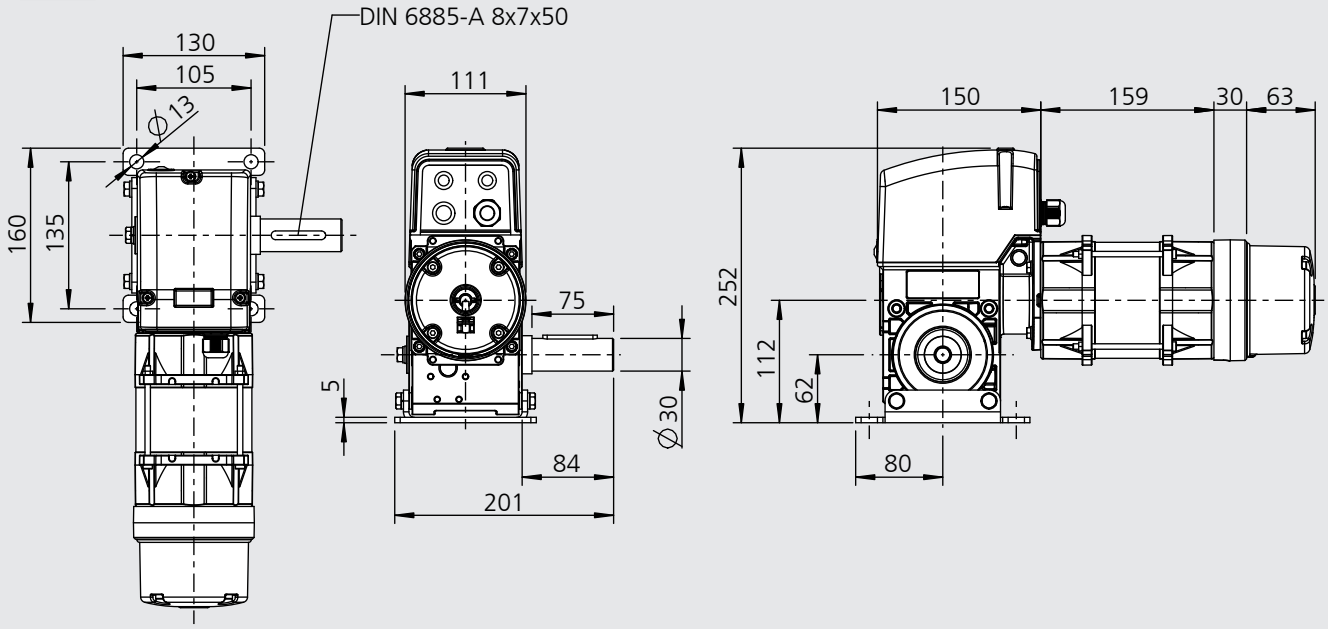
9 / 2



Technical data

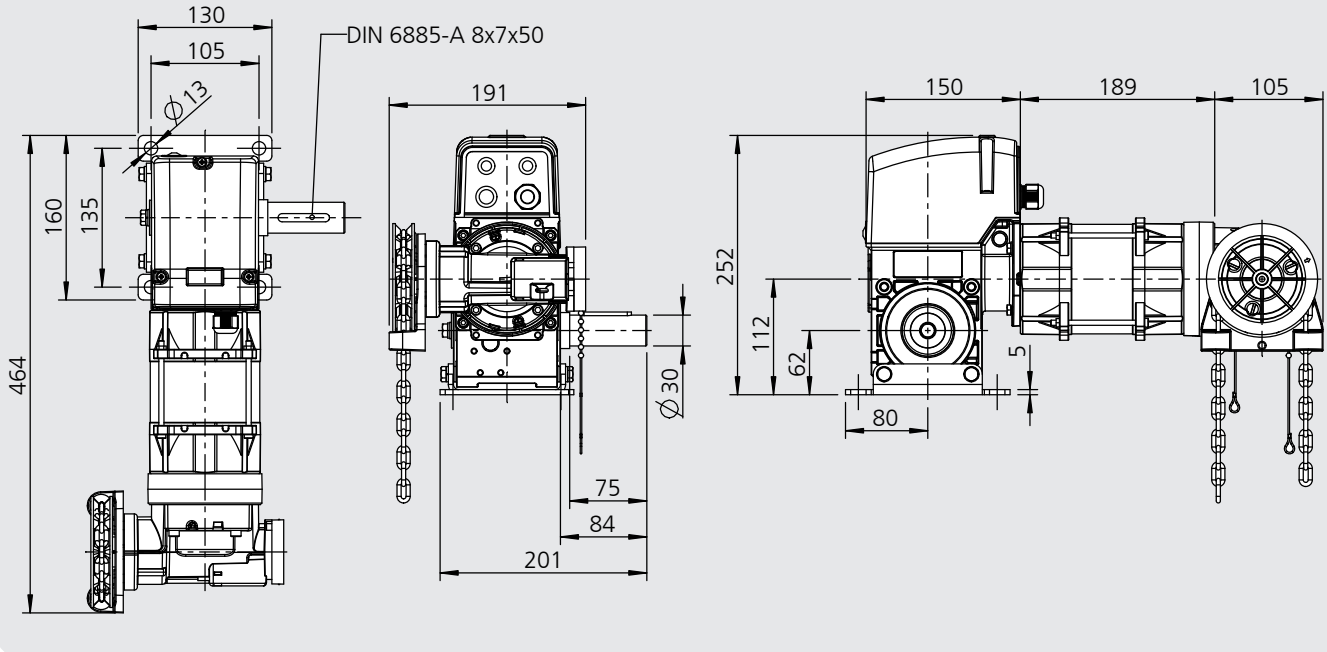
KD 05-13-24 KU (Crank)

9 / 3



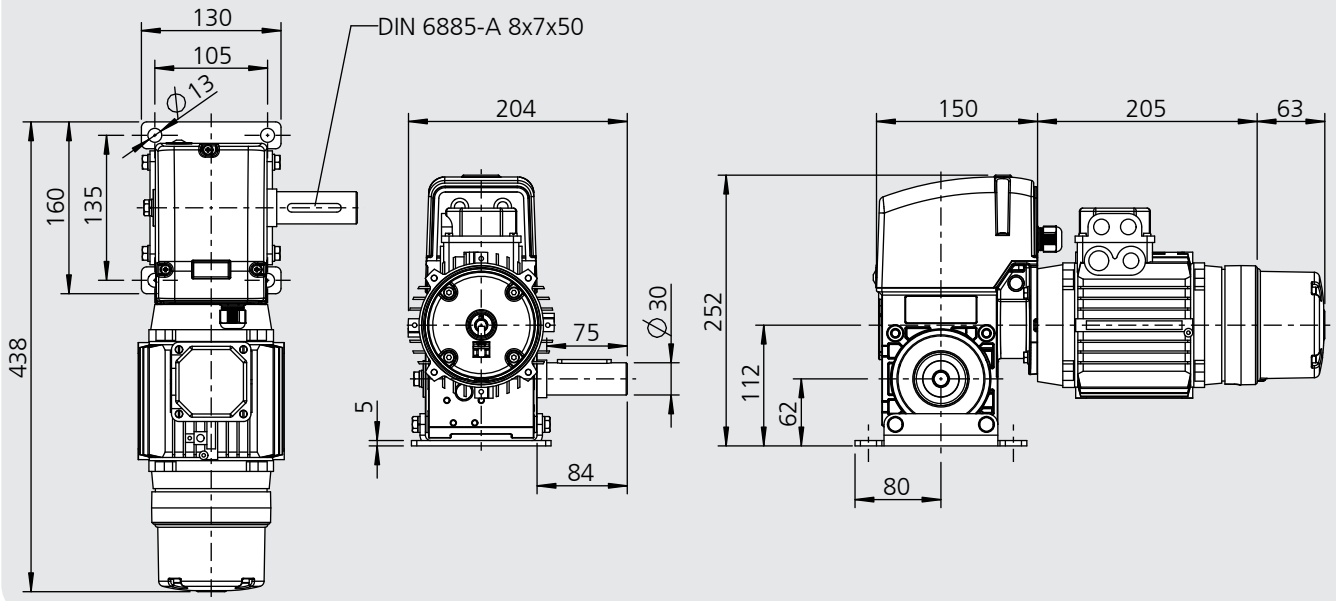
KD 05-13-24 KE (Chain)

9 / 4



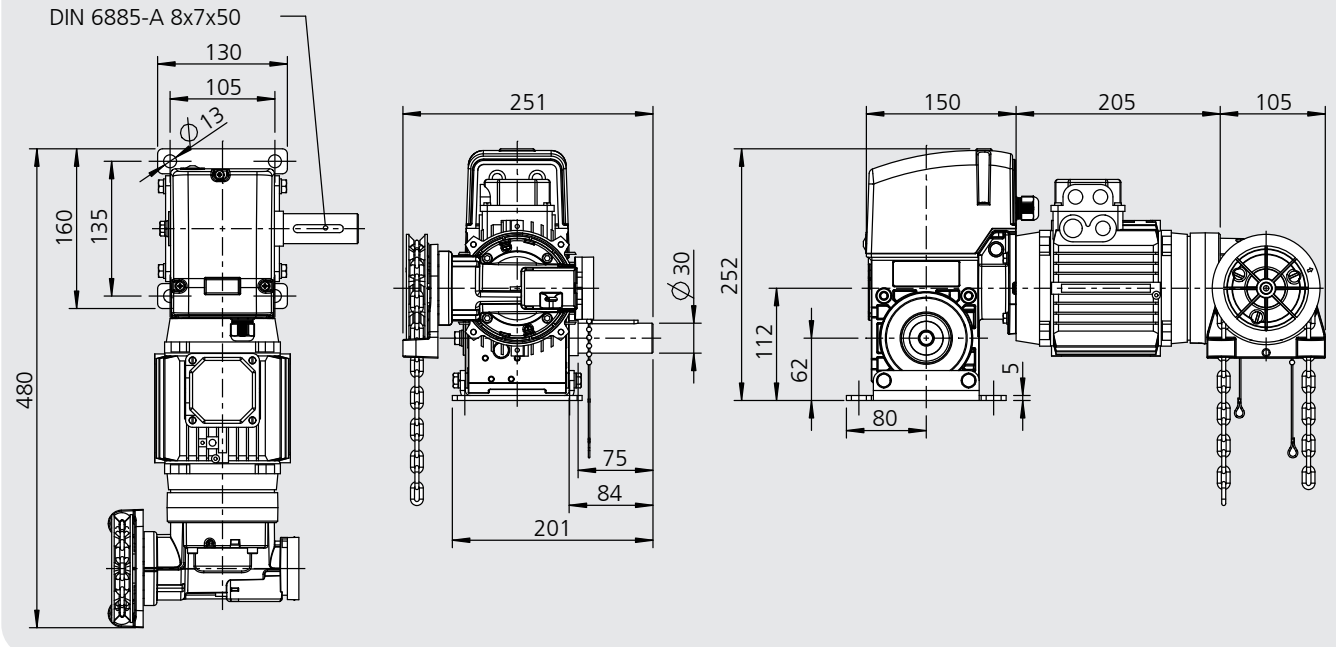
KD 05-13-24 KU HD (Crank)

9 / 5



KD 05-13-24 KE HD (Chain)

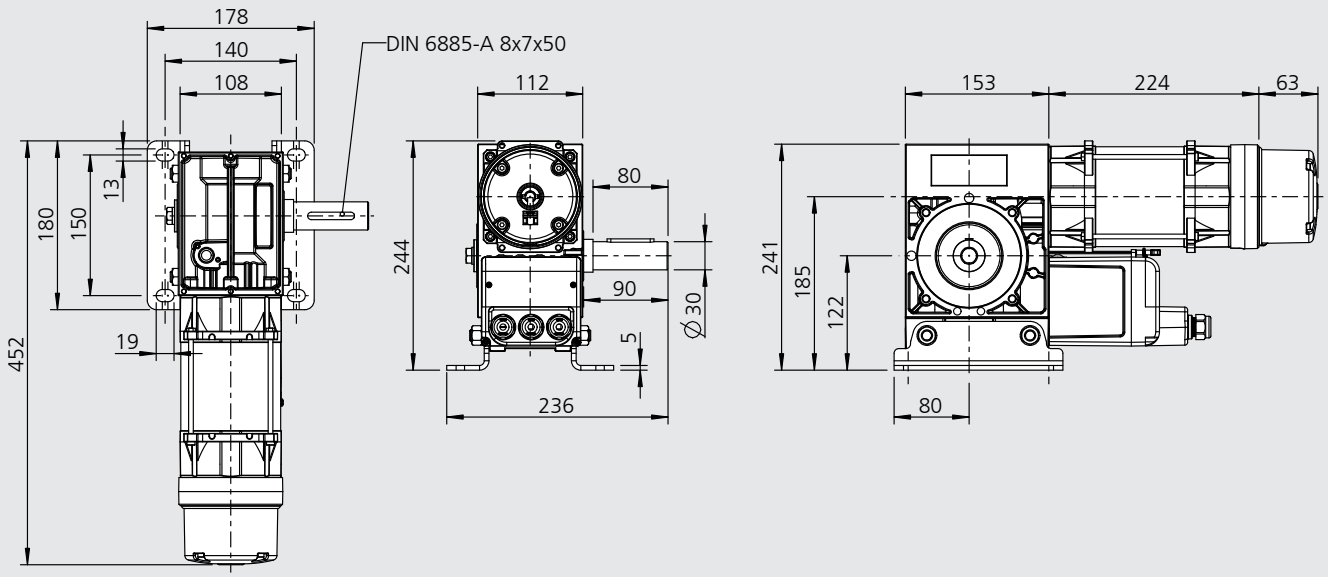
9 / 6



Technical data

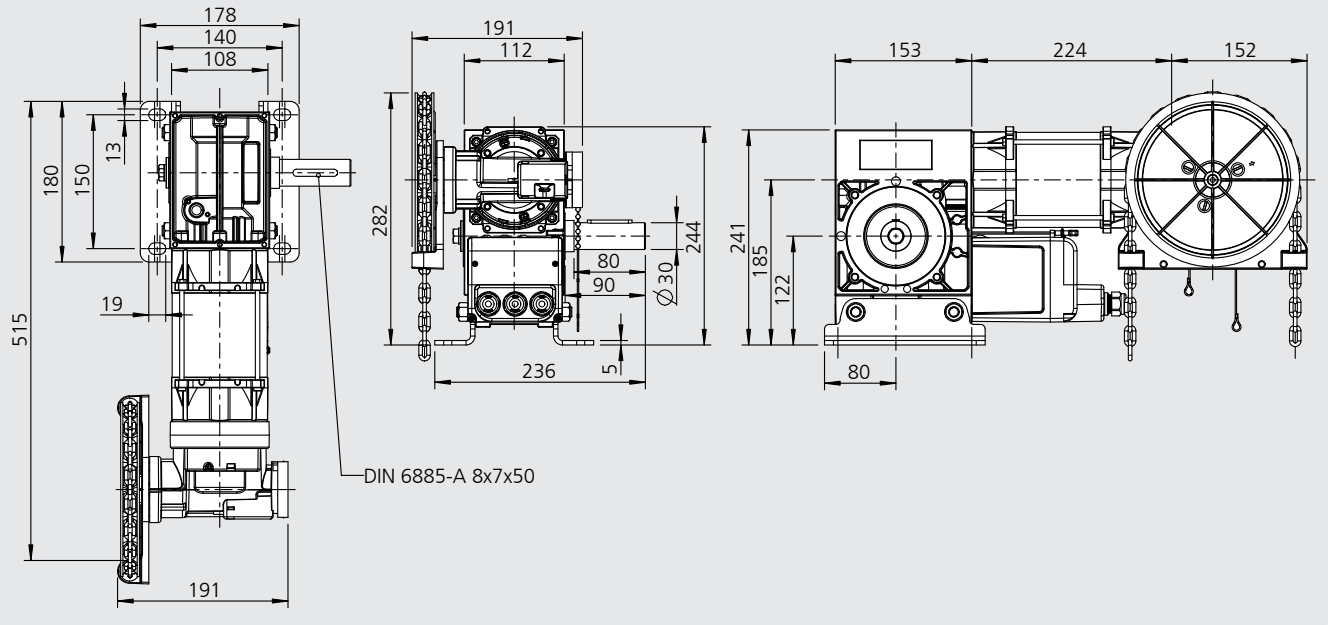
KD 20-22-24 KU (Crank)

9 / 7



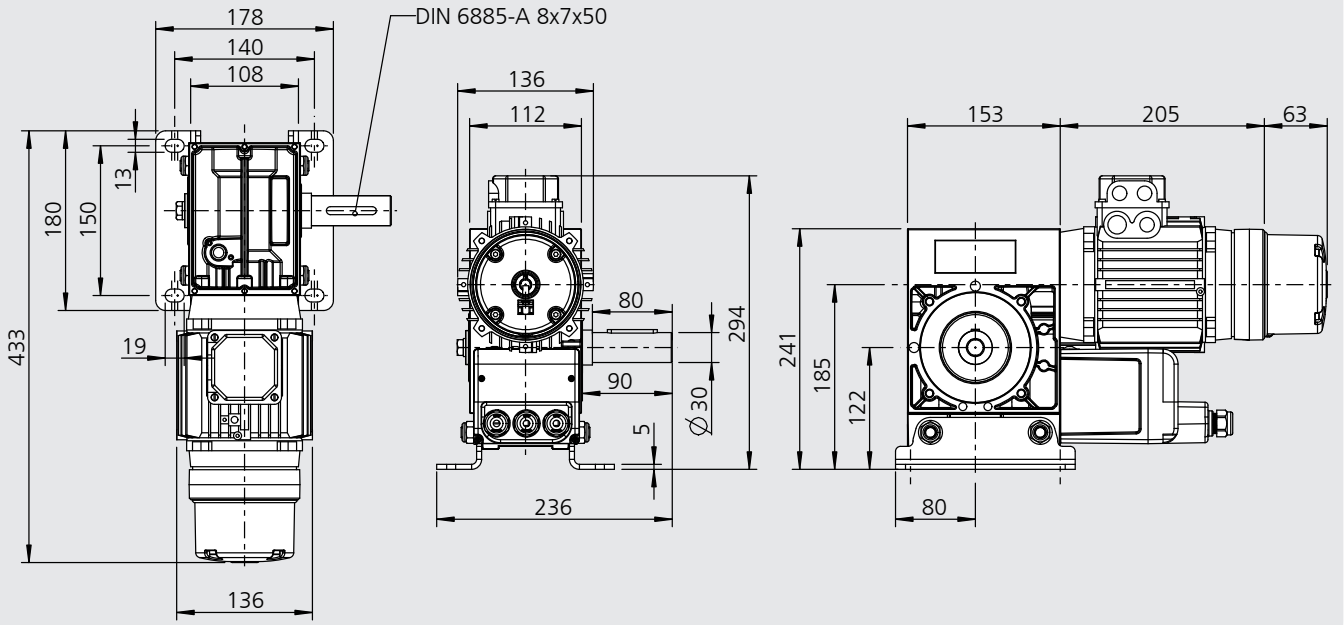
KD 20-22-24 KE (Chain)

9 / 8



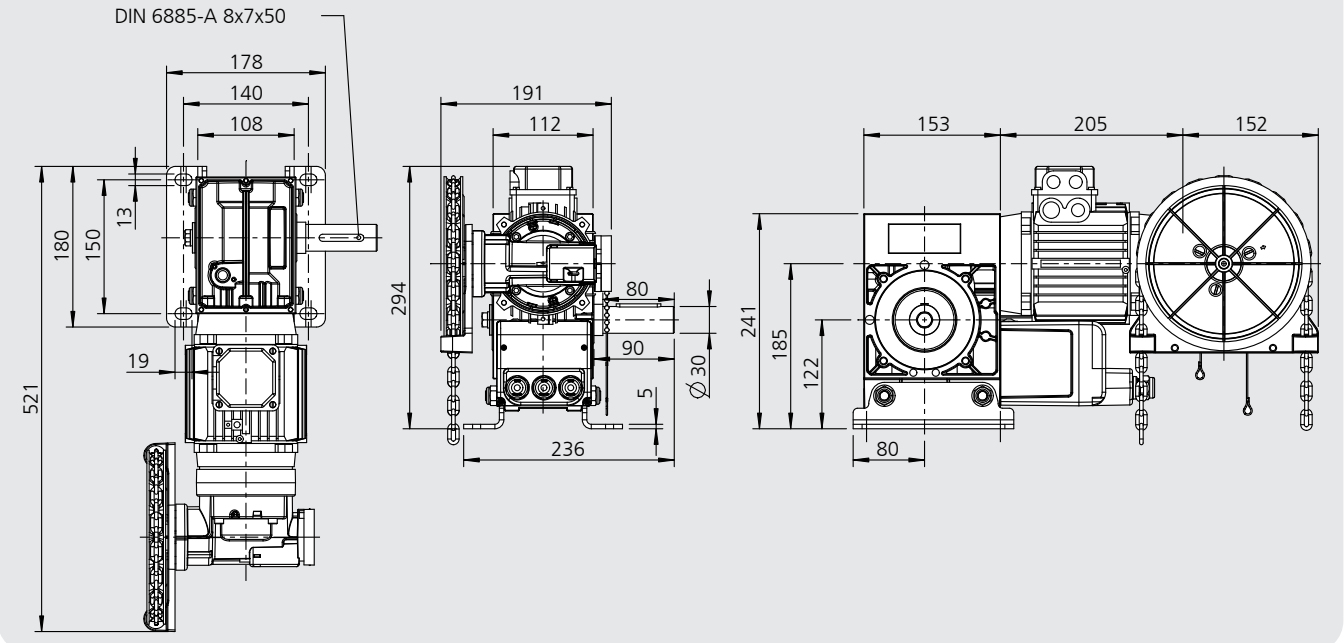
KD 20-22-24 KU HD (Crank)

9 / 9



KD 20-22-24 KE HD (Chain)

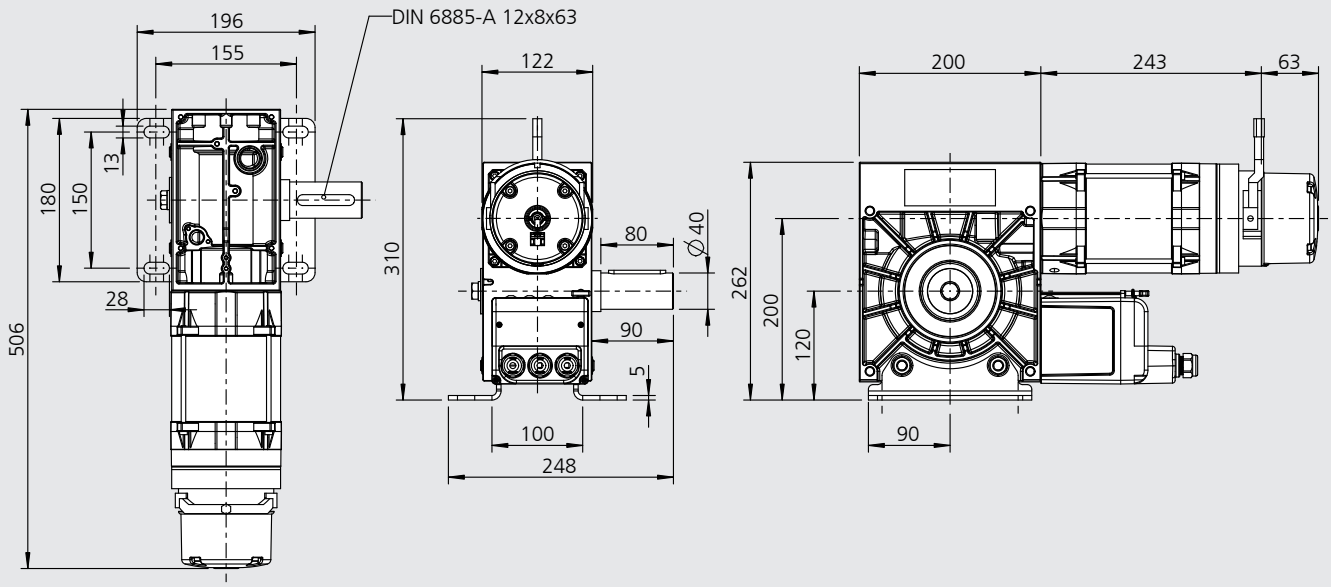
9 / 10



Technical data

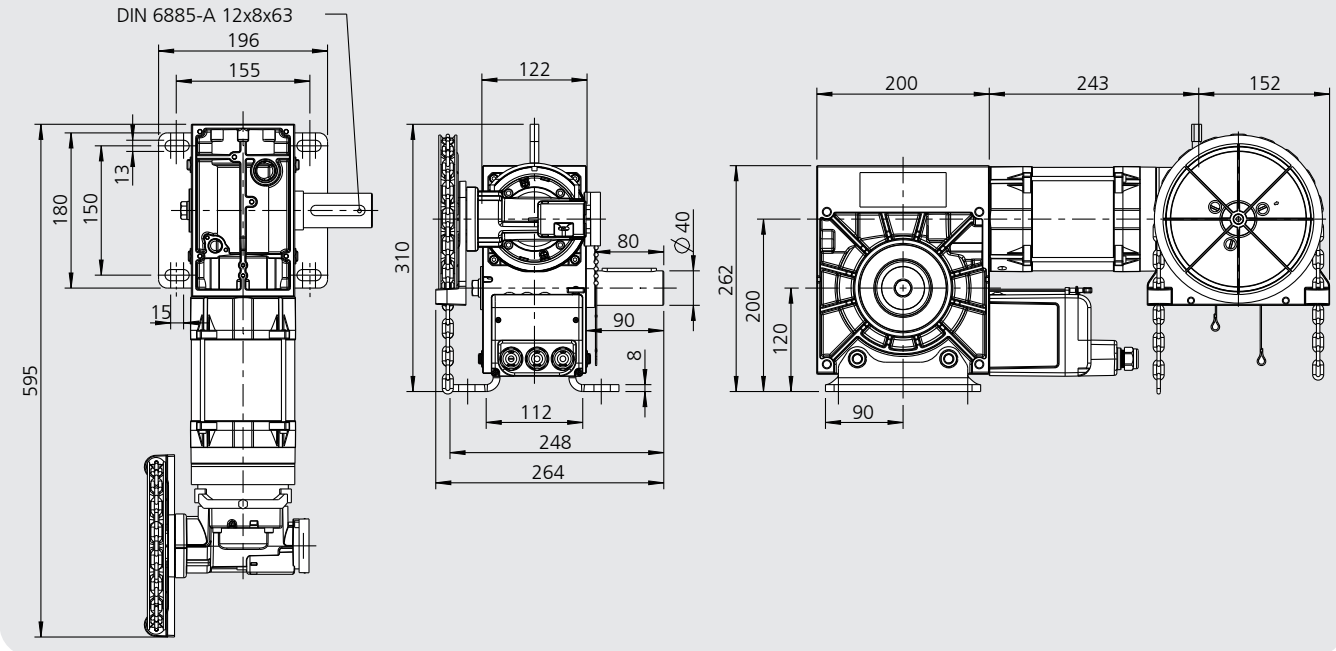
KD 30-30-24 KU (Crank)

9 / 11



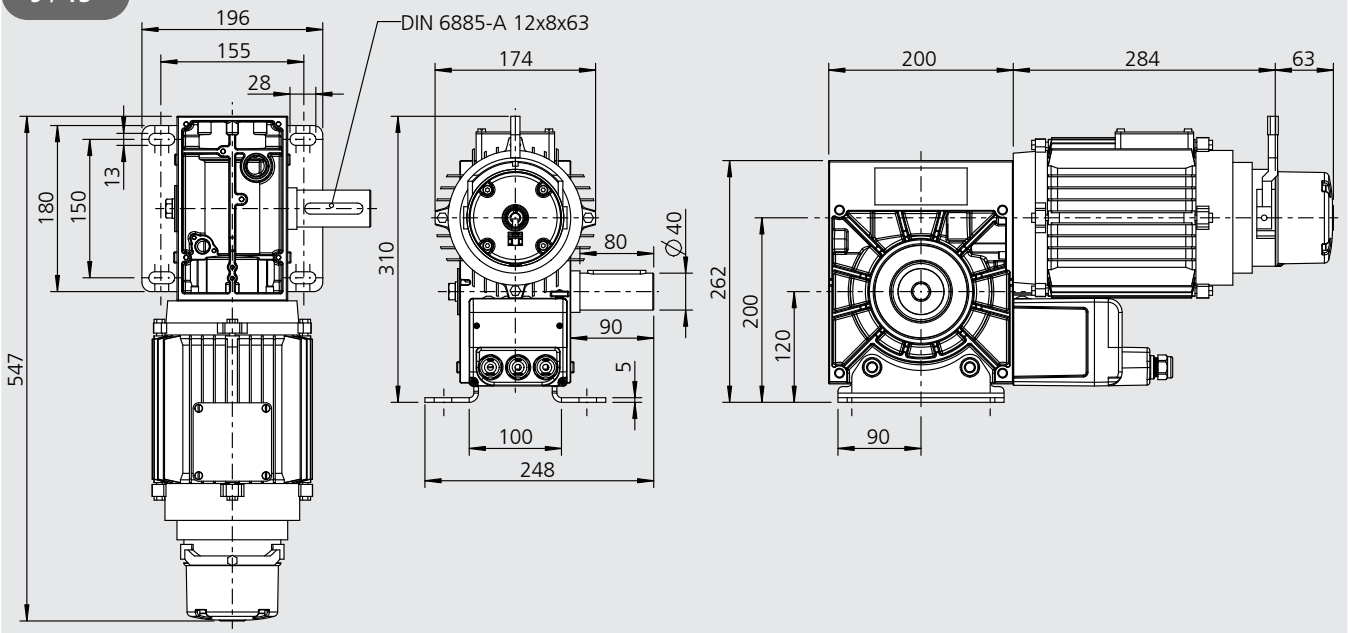
KD 30-30-24 KE (Chain)

9 / 12



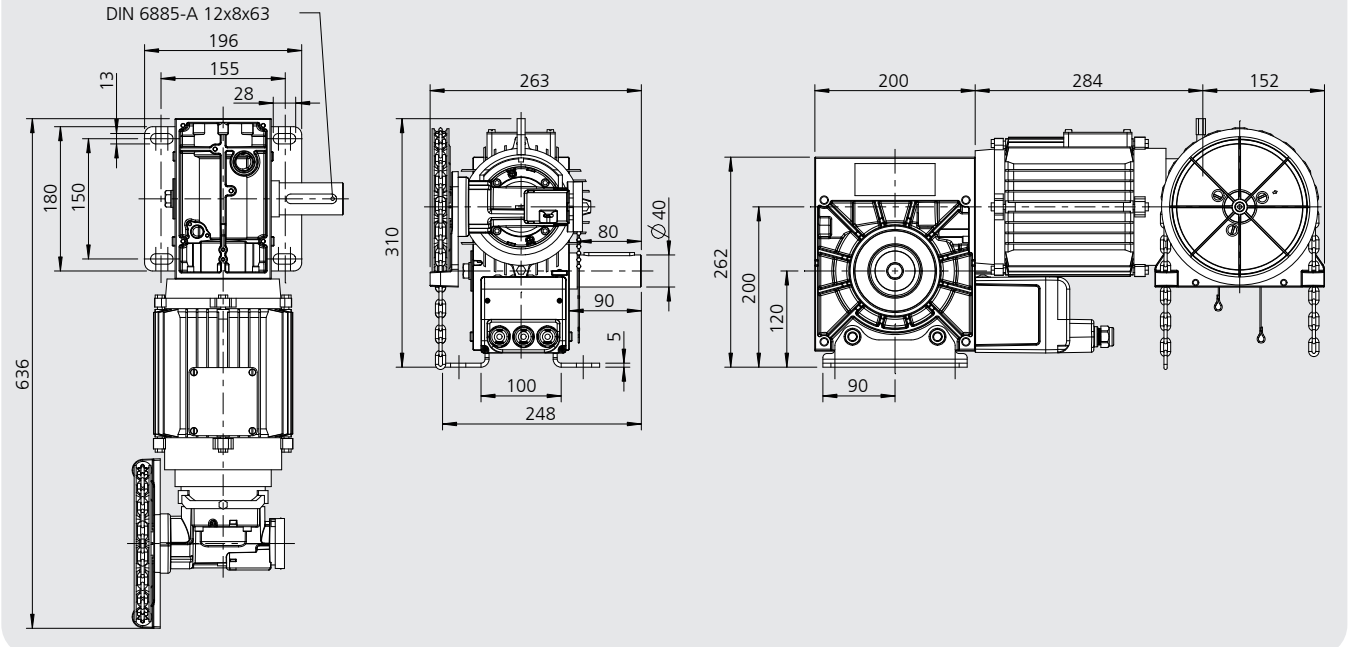
KD 30-30-24 KU HD (Crank)

9 / 13



KD 30-30-24 KE HD (Chain)

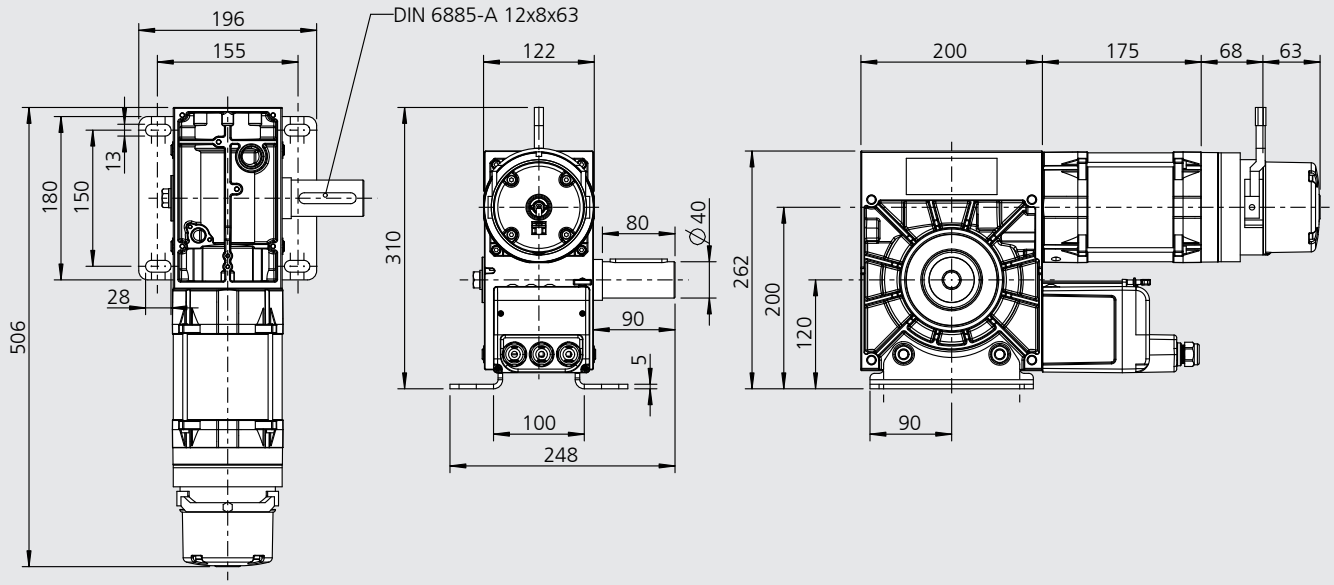
9 / 14



Technical data

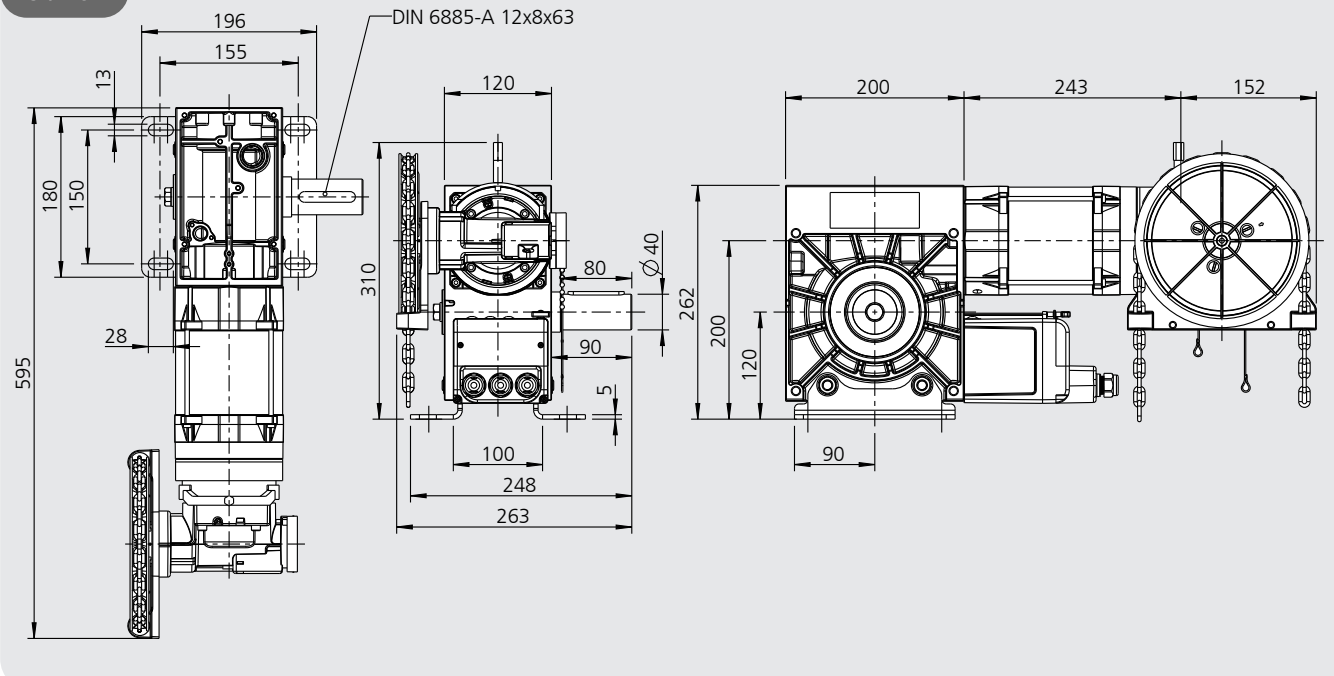
KD 30-40-24 KU (Crank)

9 / 15



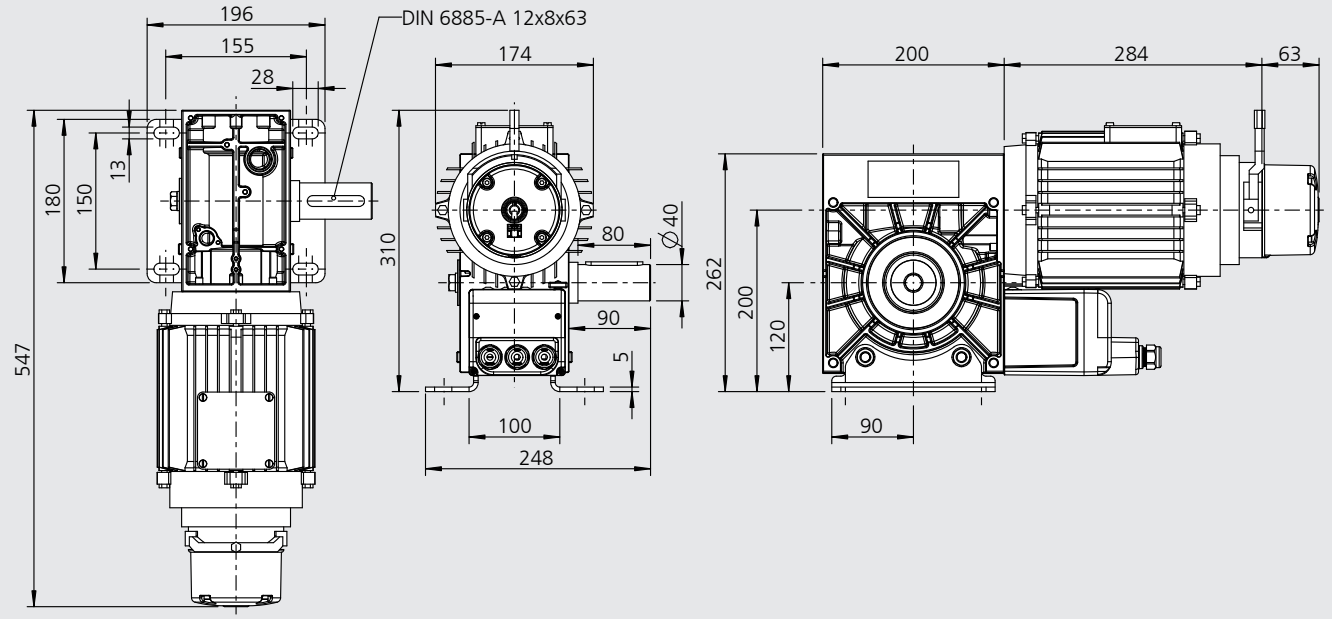
KD 30-40-24 KE (Chain)

9 / 16



KD 30-40-24 KU HD (Crank)

9 / 17



KD 30-40-24 KE HD (Chain)

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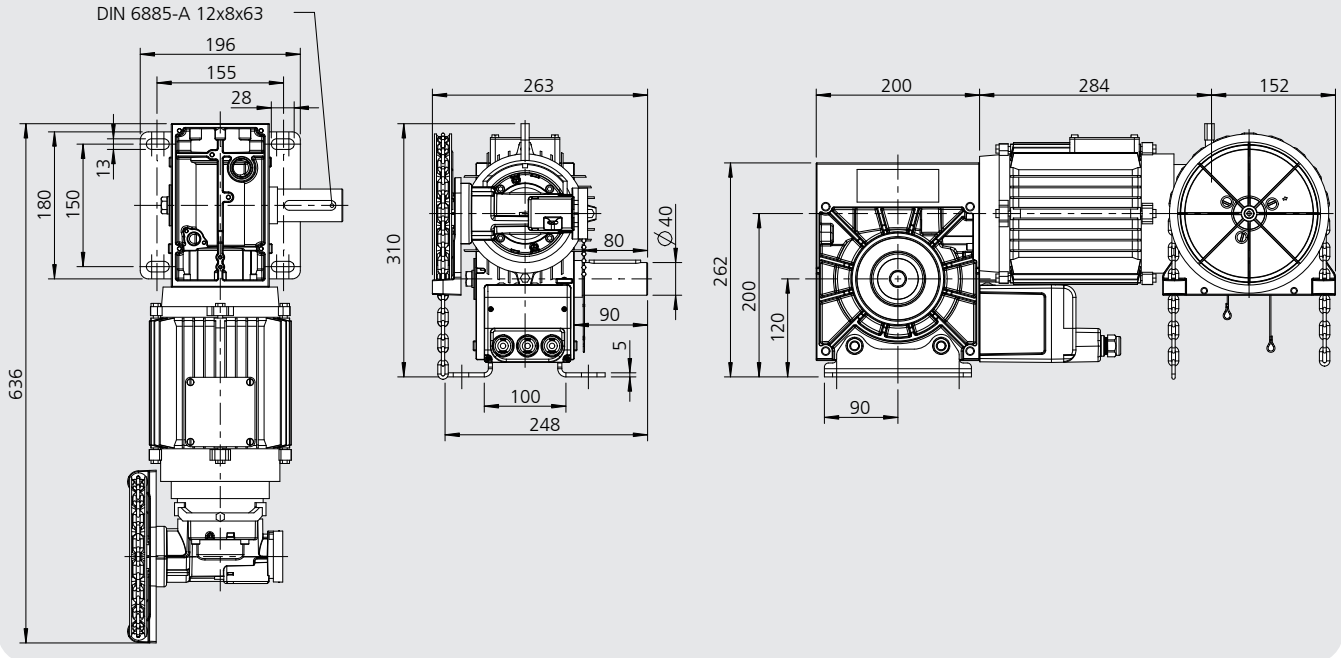
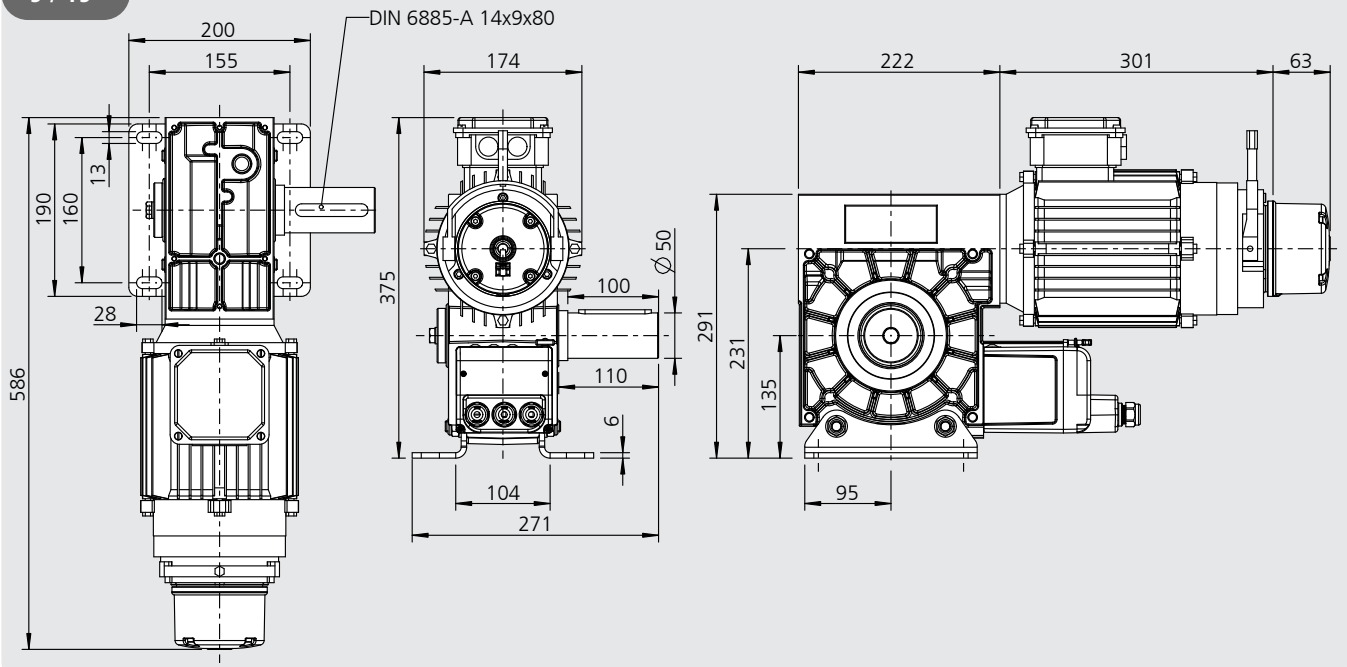


Technical data

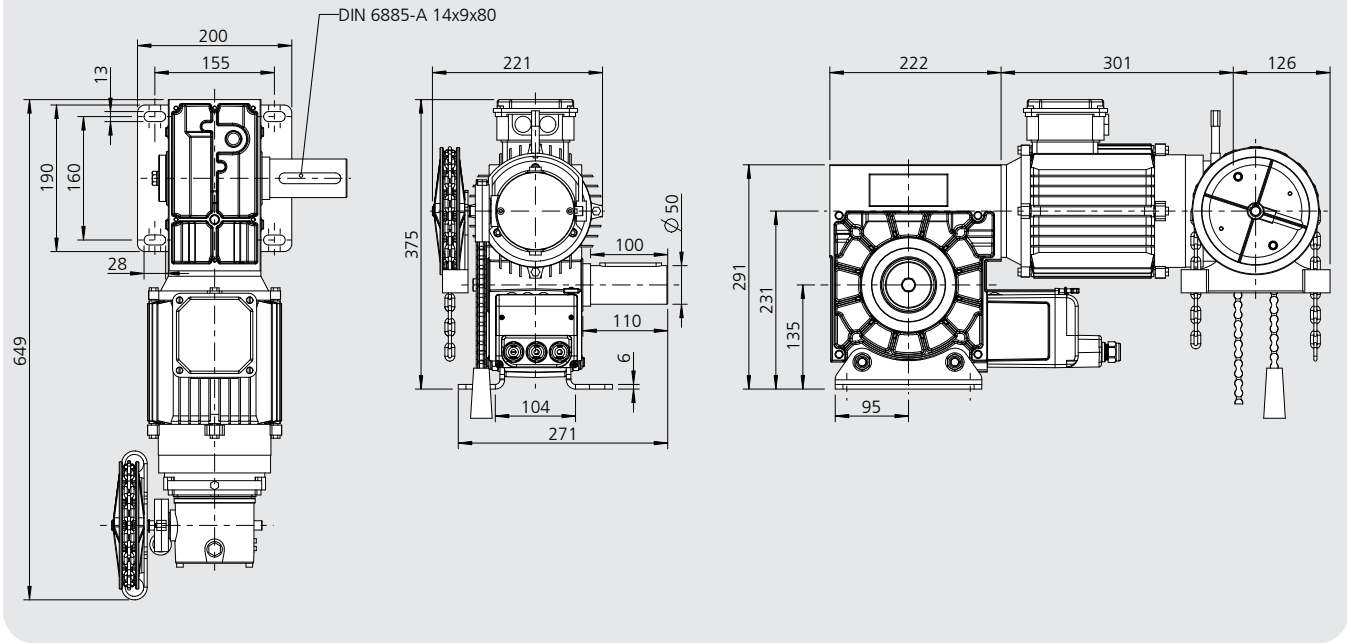
KD 50-75-24 KU HD (Crank)

9 / 19



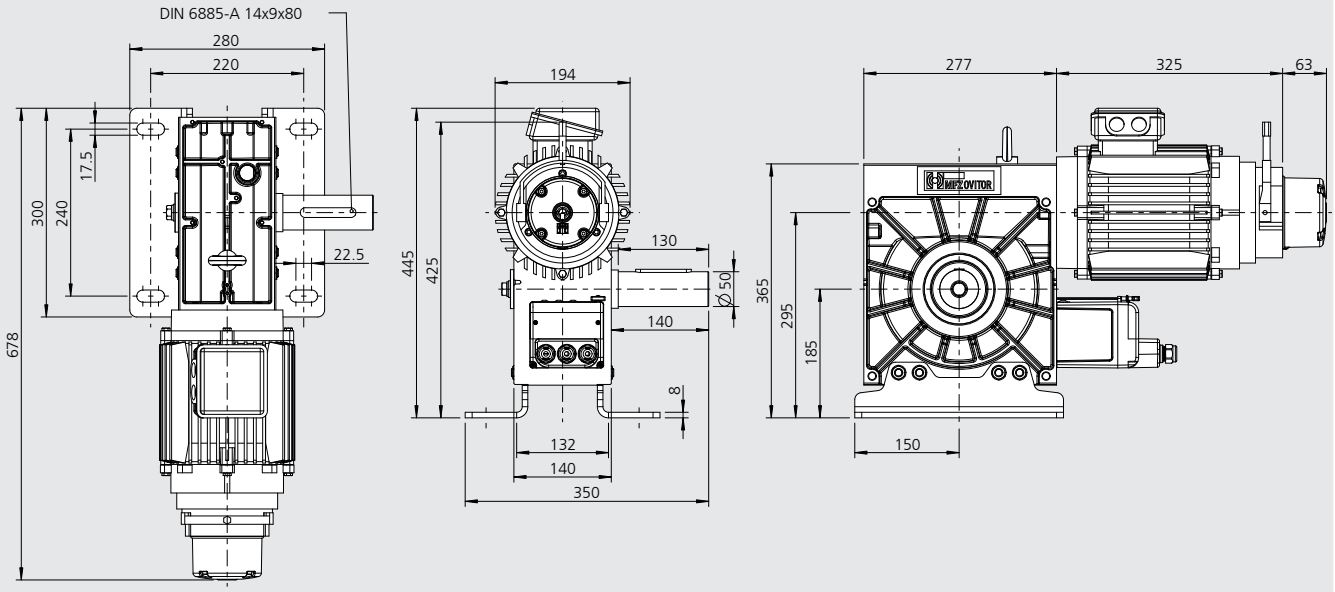
KD 50-75-24 KE HD (Chain)

9 / 20



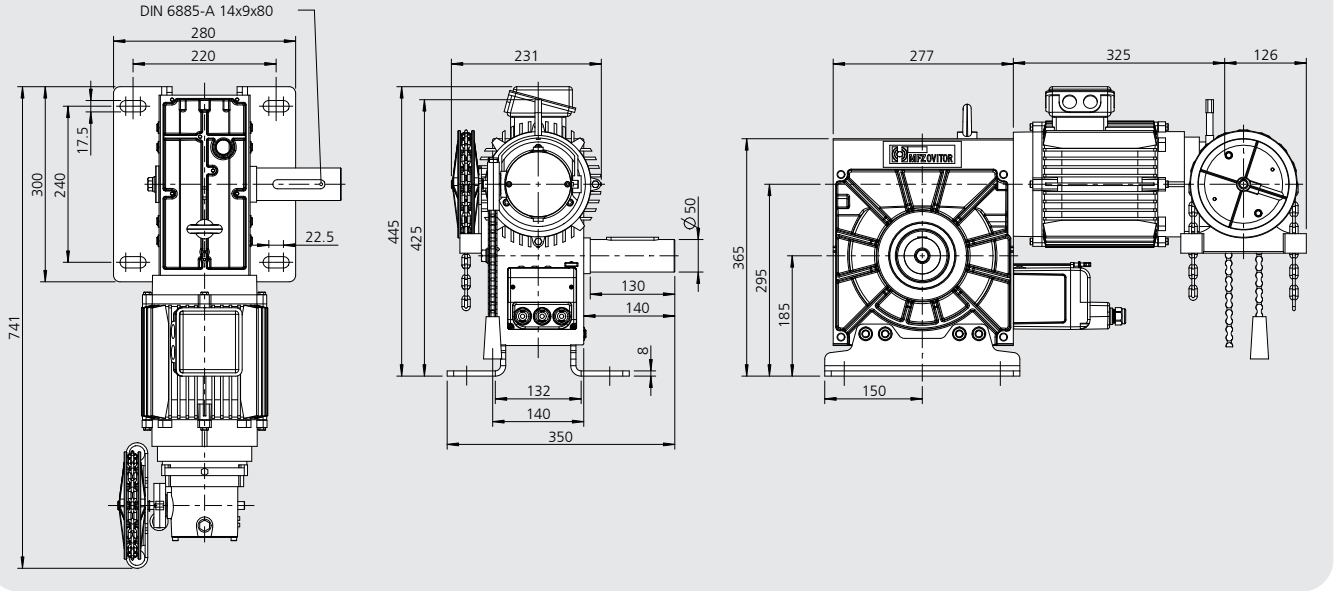
KD 60-100-24 KU HD (Crank)

9 / 21



KD 60-100-24 KE HD (Chain)

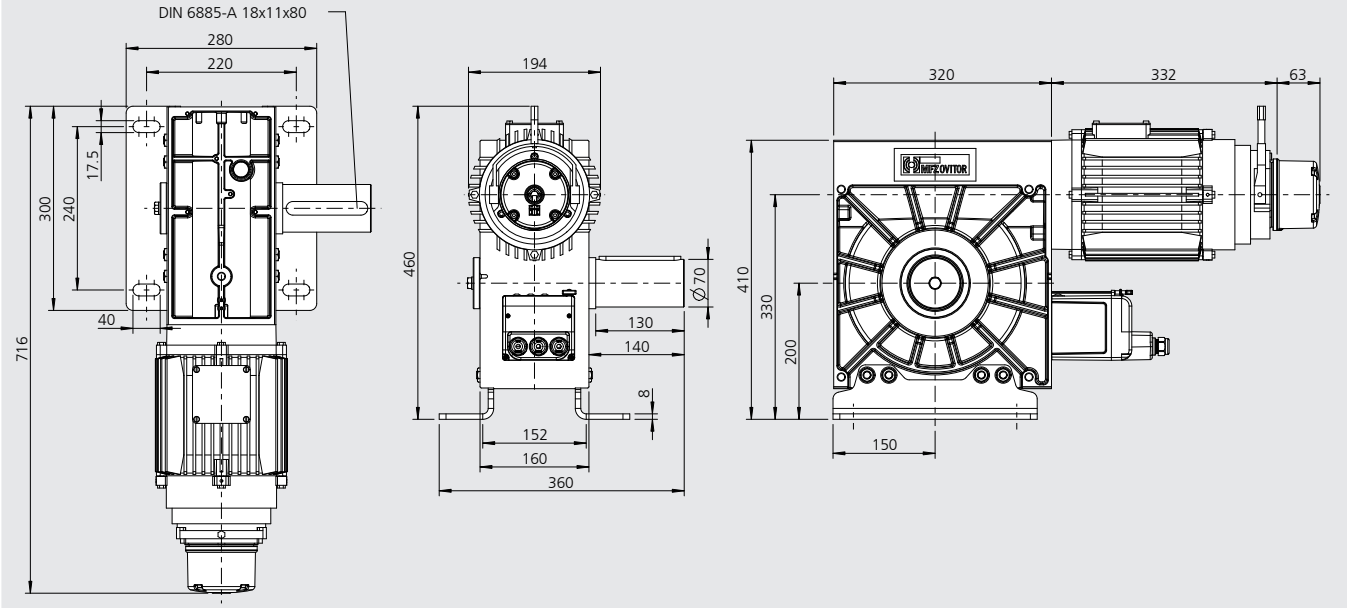
9 / 22



Technical data

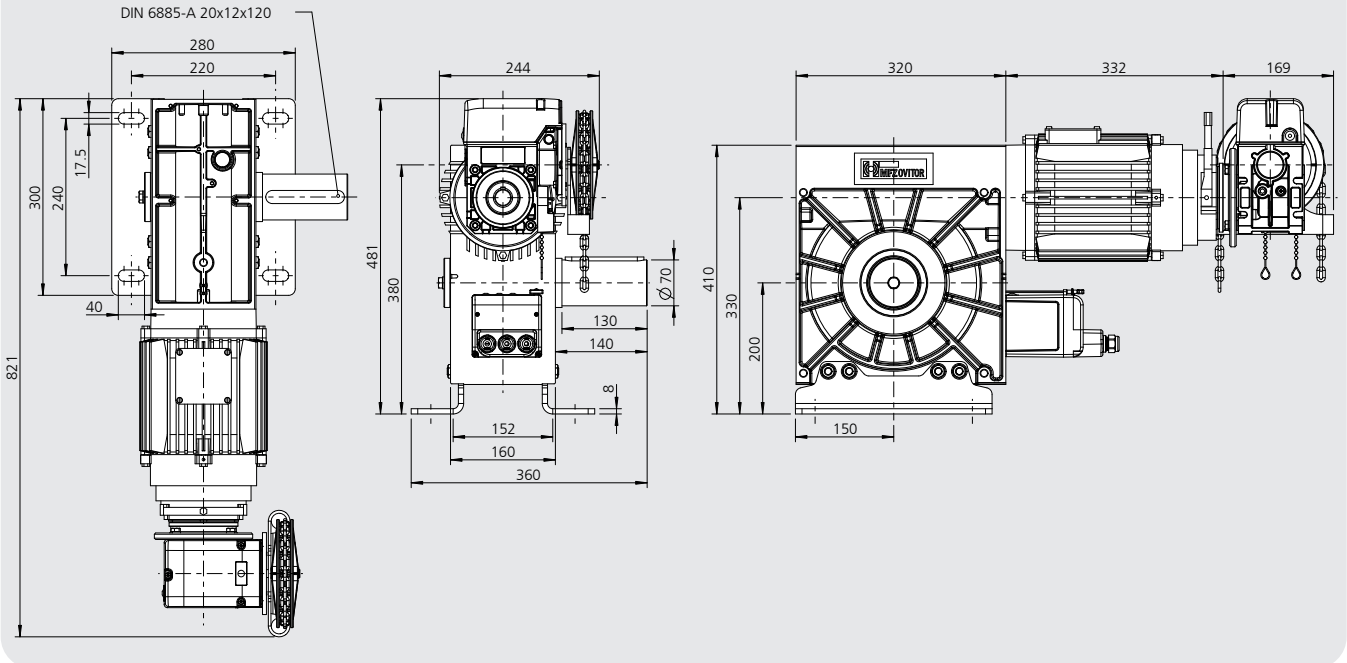
KD 70-125-24 KU HD (Crank)

9 / 23



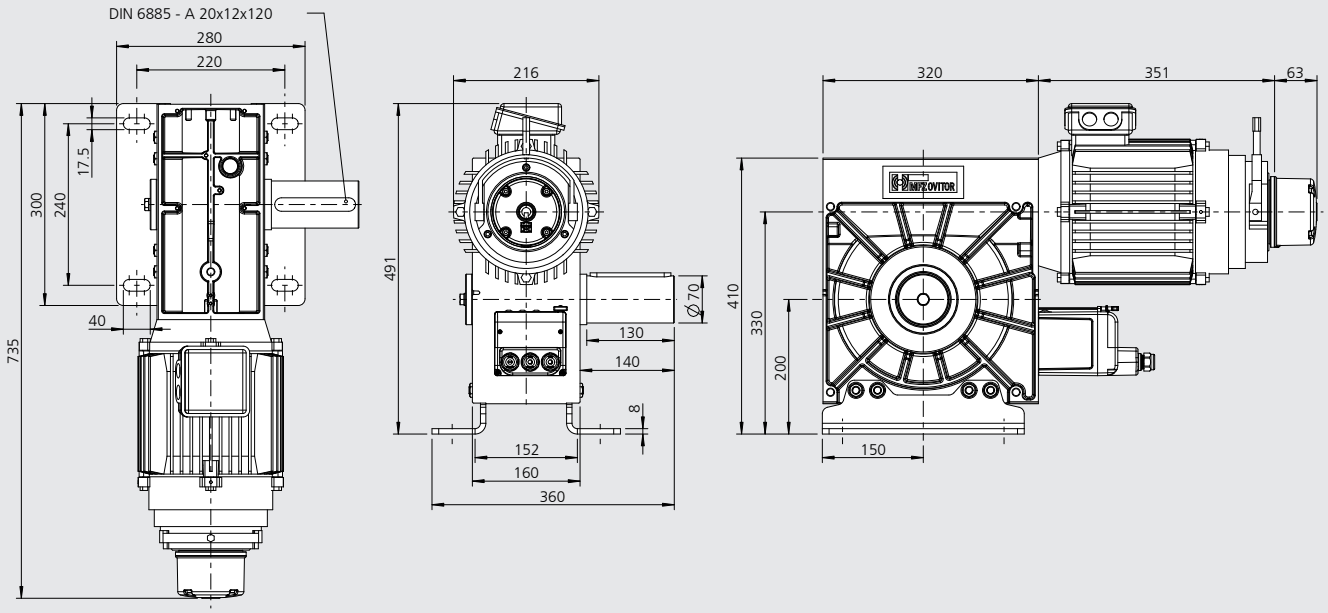
KD 70-125-24 KE HD (Chain)

9 / 24



KD 70-165-24 KU (Crank)

9 / 25



KD 70-165-24 KE (Chain)

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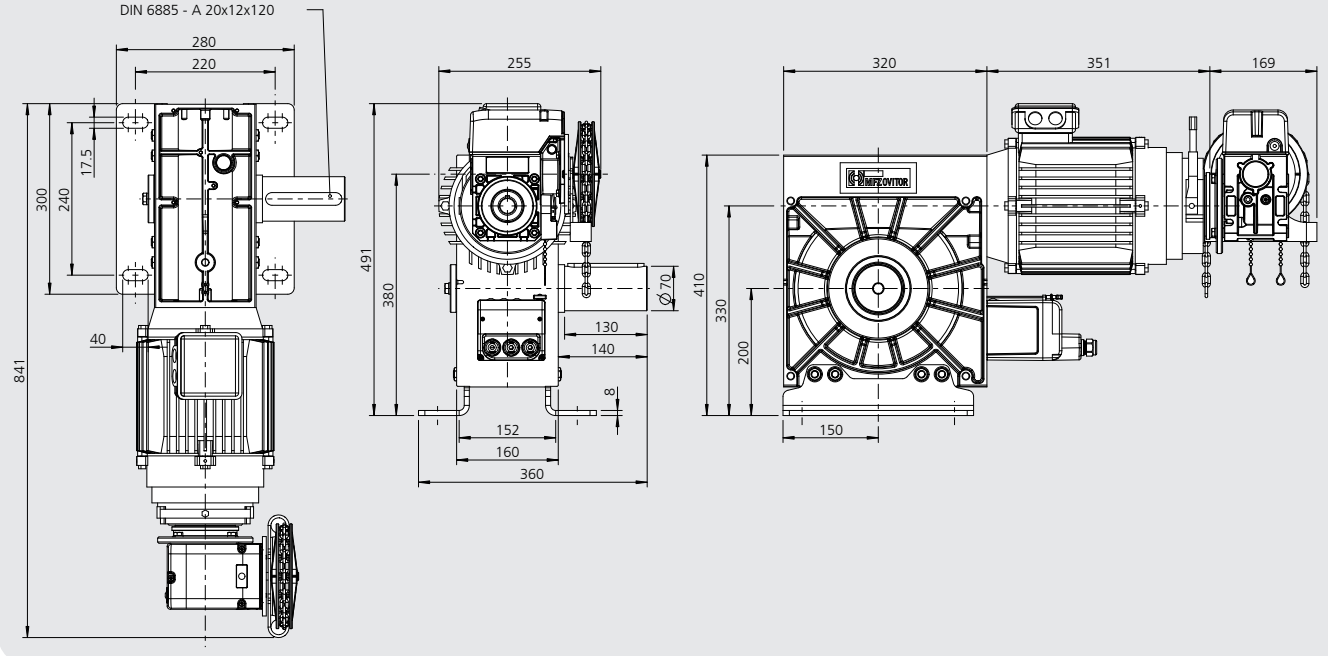

10. Manufacturer's Declaration

Declaration of incorporation

within the context of Machinery Directive 2006/42/EC for incorporation in an incomplete machine according to Appendix II, Part 1B

Marantec Legden GmbH & Co.KG
Neue Mühle 4
D - 48739 Legden

Declaration of conformity

within the context of the directives on Electromagnetic Compatibility 2014/30/EU and RoHS 2011/65/EU

We hereby declare that the following listed product

Product designation: **Sprocket drives for industrial doors**
Type designation: **KD 05, KD 20, KD 30, KD 50, KD 60 and KD 70**

as an incomplete machine specified exclusively for integration with a door system and designed, constructed, and produced in conjunction with the following directives:

Machinery Directive 2006/42/EC
Electromagnetic Compatibility Directive 2014/30/EU
RoHS Directive 2011/65/EU

Furthermore, the requirements of the Low-Voltage Directive 2014/35/EU are met according to Appendix I Part 1.5.1 of the Machinery Directive 2006/42/EC.

Applied and consulted standards:

EN 12453	Doors - Safety in use of power operated doors: Requirements and test methods
EN 12604	Doors - Mechanical aspects: Requirements and test methods
EN 60335-1	Household and similar electrical appliances - Safety - Part 1: General requirements
EN 60335-2-103	Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows
EN 61000-6-2	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments
EN 61000-6-3	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments

The special technical documents were created according to Appendix VII Part B of the Machinery Directive (2006/42/EC).
We are obligated to transmit these to market monitoring agencies in a timely manner upon justified request in electronic form.

Person authorised to compile the technical documentation is the signer.

Incomplete machines within the context of EC Directive 2006/42/EC are therefore only specified for incorporation with other machines or with other incomplete machines or systems or combined with them to form a machine within the contact of the directive indicated above. For this reason, this product may only be commissioned once it has been determined that the complete machine /system into which it has been incorporated corresponds with the indicated EC guidelines.

In case of changes to the product that are not confirmed by us, this declaration is void.

Legden, dated 01.06.2018

ppa. Wesseling

Dirk Wesseling, General Manager

engineered for you

Declaration of incorporation

within the context of Supply of Machinery (Safety) Regulations 2008
for incorporation in a an incomplete machine according to
Appendix II, Part 1B

Marantec Legden GmbH & Co.KG
Neue Mühle 4
D-48739 Legden

Declaration of conformity

within the context of Electromagnetic Compatibility Regulations 2016
within the context of The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

UK Representative:
Link Controls
Stuart Road, Manor Park
Runcorn Cheshire, WA7 1TS

We hereby declare that the following listed product

Product designation: **Chain operators for industrial doors**
Type designation: **KD**

is exclusively intended for integration in a door system and has been developed, designed and produced in accordance with the following Directives:

Supply of Machinery (Safety) Regulations (2008 No.1597)

Appendix 1: 1.1.2, 1.1.3, 1.1.5, 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.

Electromagnetic Compatibility Regulations (2016 No.1091)
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (2012 No.3032)
Electrical Equipment (Safety) Regulations (2016 No.1101) according to Annex I Part 1.5.1 of “2008 No.1597”

Applied and consulted standards:

EN 12453:2022	Doors - Safety in use of power operated doors: Requirements and test methods
EN 12604:2021	Doors - Mechanical aspects: Requirements and test methods
EN 60335-1:2020	Household and similar electrical appliances - Safety - Part 1: General requirements
EN 60335-2-103:2016	Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows
EN IEC 61000-6-1:2019	Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments
EN IEC 61000-6-2:2019	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments
EN IEC 61000-6-3:2022	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for equipment in residential environments
EN IEC 61000-6-4:2020	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments

The special technical documents were created according to Appendix VII Part B of the Machinery Directive (2006/42/EC). We are obligated to transmit these to market monitoring agencies in a timely manner upon justified request in electronic form.
Authorised representative for compiling the technical documents is the undersigned.
Incomplete machines within the context of Supply of Machinery (Safety) Regulations 2008 are therefore only specified for incorporation with other machines or with other incomplete machines or systems or combined with them to form a machine within the contact of the directive indicated above. For this reason, this product may only be commissioned once it has been determined that the complete machine /system into which it has been incorporated corresponds with the indicated UK guidelines.
In case of changes to the product that are not confirmed by us, this declaration is void.

Legden, dated 01.11.2022

ppa. Wesseling

Dirk Wesseling, Geschäftsleitung

UK CA