

# STA 1-11-24 E-KE FU-I



## Article

Item no.	Description
185897	<b>STA 1-11-24 E-KE FU-I</b> Set for spring balanced sectional doors up to 20 m <sup>2</sup> (87 Hz) or 30 m <sup>2</sup> (50 Hz), 230 V-AC motor, 110 Nm, 24 min-1, AWG, with frequency converter control CS 320 FU

## Scope of delivery

- Operator' STA 1-11-24 E-KE 230 V/1~ FU/I AWG 25.4 mm with 1,000 mm reel chain
- CS 3 20FU/I 230V/1PH control unit in CS standard housing with 3-way push-button and LC display in the cover, connection cable with type F earthed plug
- Cable set with connection terminals and cable glands in control unit and drive, 7,000 mm
- Reel chain: 11,000 mm, with 2 chain locks
- Torque support 1 L-shape
- STA Standard accessory bag
- Spiral cable 5x0.25 mm<sup>2</sup> with mounting bracket, cable glands, connection terminals for the control unit and plug for the door leaf junction box, 1,600 mm uncoiled/800-3,200 mm coiled length
- Door leaf junction box with circuit board, opening for spiral cable and 4 cable entries
- Door leaf junction box with circuit board with connections for conventional safety elements, IP54, without cover opening for spiral cable
- Connection cable for connecting 2 door leaf junction boxes, 10 m
- F photoelectric sensor transmitter 10,500 mm/receiver 1,000 mm with 2 F spacer sleeves 11/22 mm

## Features

## STA 1-11-24 FU-I E-KE

### Features

- Die-cast aluminum housing, rolled worm shaft and double worm shaft bearings
- Emergency operation via emergency hand crank (KU), emergency hand chain (KE), emergency release (E), emergency release with spring return (E-FR) or maintenance release with emergency hand chain (E-KE)
- Maintenance release optional
- Easy conversion from crank to chain
- Hollow shaft 25.4 mm as standard, special hollow shaft on request
- Supply: 230 V/1~/50 Hz
- Thermal protection in the motor winding
- For gate systems with above-average circuits, a operator with an increased motor duty cycle (HD) should be selected
- Pluggable connections (control side)
- End position setting via electronic absolute encoder (AWG) or mechanical limit switches (MEC)
- Version with integrated frequency converter and external control. Supply: 230 V/1~, frequency: 50/60 Hz, control voltage: 24 V-DC
- The soft-start and soft-stop technology ensures a longer service life of the door system, as the door mechanism is subjected to less stress. This reduces repair costs.
- Special variants such as further voltages and frequencies, higher protection classes and hollow shaft Ø on request
- When the output speed is increased (operation with frequency converter), the output torque is reduced. In this case, the following applies: An increase of the output speed by 10 % causes a reduction of the output torque by 5 %.
- For temperature ranges below -20 °C there is suitable oil and electric heating on request

## CS 320 FU-I 0.75 kW

### Features functions

- Speed-independent control of gates
- Start and end speed separately adjustable for both running directions
- Additionally 2nd final speed adjustable in running direction CLOSE
- Acceleration and deceleration times adjustable for both directions
- Acceleration and deceleration times for actuation of travel command, stop command, closing edge safety device and light barrier can each be set separately
- Braking points freely selectable/adjustable braking deceleration
- Adjustable power values for adaptation to the motor
- 4 programmable relay outputs with 44 functions
- 2 programmable inputs with 27 functions
- Rotation direction monitoring and detection (only with AWG)
- Integrated gate run counter
- Programmable maintenance alarm (PIN code protected)
- Integrated error memory (readout of all error messages indicating frequency and cycle of last occurrence) only with LCD monitor
- Changing the direction of rotation via circuit board push button/display
- Adjustable power limitation in OPEN direction (only with AWG)
- Intermediate position programmable (only with AWG)

## Features end position adjustment

- Via mechanical limit switches (MEC) and/or via absolute encoders (AWG)
- Setting via LC monitor

## Features operation

- Circuit board push buttons and LEDs for status indication (standard)
- Pluggable LC display with plain text display
- 3-button navigation/status and diagnostic messages

## Features structure and connection

- Short-circuit proof extra-low voltage
- Supply for external devices (24 V-DC/500 mA and 230 V-AC/1 A)
- Illuminated cover keypad (night illumination)
- Housing protection for printed circuit board
- Adjustable, preassembled wall brackets
- Connection for elements of the safety circuit
- Connection for closing edge protection (opto, 8.2 kOhm, pressure wave bar or leading light barrier) in CLOSE direction
- Connection for closing edge protection (8.2 kOhm and opto) in OPEN direction
- Connection for 2 light barriers (2-wire, relay, NPN, PNP) with/without testing
- Connection for wicket door and slack rope switch PL c cat. 2 (8.2 kOhm) with testing according to EN 12453:2017
- Connection for 2 light grid systems with/without testing
- Interface for connecting expansion modules
- Slots for radio module and weekly timer
- Slot for 2-channel radio transmission system for wireless signal transmission of closing edge system and/or safety circuit
- Control of the magnetic brake via relay output
- For operators with externally switched brake, a brake monitoring module is additionally installed (BWM1)
- Interface for connecting a frequency converter
- Switchable transformer from 230 V/1~/3~ to 400 V/3~
- Pluggable LC display with plain text display

## Features Optional

- MS-Bus extension module two-way traffic control
- MS-Bus extension module pull-in safety device
- Integrated main switch
- Customized cover lamination
- Frequency converter integrated in operator (FU-I version without brake, only 0.75 kW)
- Control in steel cabinet

## Use

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### Connecting cable

- For door leaf junction boxes

## Technical data

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### STA 1-11-24 FU-I E-KE

- Gearbox: Rolled worm shaft Double bearing worm shaft
- Safety catch integrated: No
- Brake control: Without brake
- Brake type: Without brake
- Emergency operation: Maintenance release with emergency hand chain (E-KE)
- End position system: Absolute encoder
- Overload protection: Thermal protection 140 °C
- Continuous sound pressure level (max.) [dB(A)]: 70
- Control type: External
- Connection type: Conventional
- Protection class: IP54
- Door area at 50 Hz (max.) [m<sup>2</sup>]: 45
- Door area at 87 Hz (max.) [m<sup>2</sup>]: 30
- Operation with CS 320 FU (frequency converter 230 V/1~): 0,75 kW
- Temperature (min.) [°C]: -20
- Temperature (max.) [°C]: 60
- Temperature (min./max.) [°C]: -20/60
- Temperature (min.) [°F]: -4 °F
- Temperature (max.) [°F]: 140 °F
- Output torque at 50 Hz [Nm]: 110
- Output torque at 87 Hz [Nm]: 77
- Output speed at 50 Hz [1/min]: 24
- Output speed at 87 Hz [1/min]: 42
- Holding torque (min.) [Nm]: 600
- Output revolutions (max.)<sup>\*\*</sup>: 20
- Cycles per hour (max.)<sup>\*</sup>: 20
- Motor power [kW]: 0.55
- Operating voltage [V]: 230 V/1~
- Operating voltage type: Alternating current
- Nominal frequency [Hz]: 50
- Motor voltage [V]: 230 V/3~
- Control voltage [V]: 12-24 V-DC
- On-site fuse protection (frequency converter operation 230V/1~) [A]: 16
- Power factor cos phi: 0.62
- Rated current in delta connection [A]: 4.20
- Dimension A [mm]: 278
- Dimension A1 [mm]: 55

- Dimension B [mm]: 104
- Dimension C [mm]: 409
- Dimension C1 [mm]: 55
- Shaft support [mm]: 25.4
- Shaft mounting (optional) [mm]: 25 30 31.75 32 mm hexagon (HEX) 35
- Weight [kg]: 16

## CS 320 FU-I 0.75 kW

- Housing type: CS Standard
- Pushbutton in the control cover: Electronic 3-series pushbutton CS
- Function switch in the control cover: Without function switch
- Main switch in the control cover: Without main switch
- Emergency stop in the control cover: Without emergency stop
- Power plug: Schuko plug type F
- Frequency converter type: Internal frequency converter
- Display type: LCD
- Protection class: IP65
- Temperature (min.) [°C]: -10
- Temperature (max.) [°C]: 45
- Temperature (min./max.) [°C]: -10/45
- Output power [kW]: 0.75
- On-site supply: 230 V/1~/50 Hz
- Input voltage [V]: 230 V/1~
- Output voltage [V]: 230 V/1~
- Control voltage [V]: 24 V-DC
- Switching current (max.) [A]: 4.1
- Input current [A]: 10
- Output current [A]: 4.1
- Load capacity Power (max.) [kW]: 0.75
- Width [mm]: 215
- Height [mm]: 275
- Depth [mm]: 190
- Weight [kg]: 1.8

## Connecting cable

- Number of wires: 7
- Wire cross-section [mm<sup>2</sup>]: 0.25
- Cable length [m]: 10
- Packing width: 185
- Packing height: 38
- Packing depth/length: 237
- Packing weight: 0.461
- Freight forwarding articles: No

- GTIN: 4062435000617
- Customs tariff number: 85444210
- Country of origin 1000: Deutschland
- Garantie: -

## Technical drawings

### CS 320 FU-I 0.75 kW

