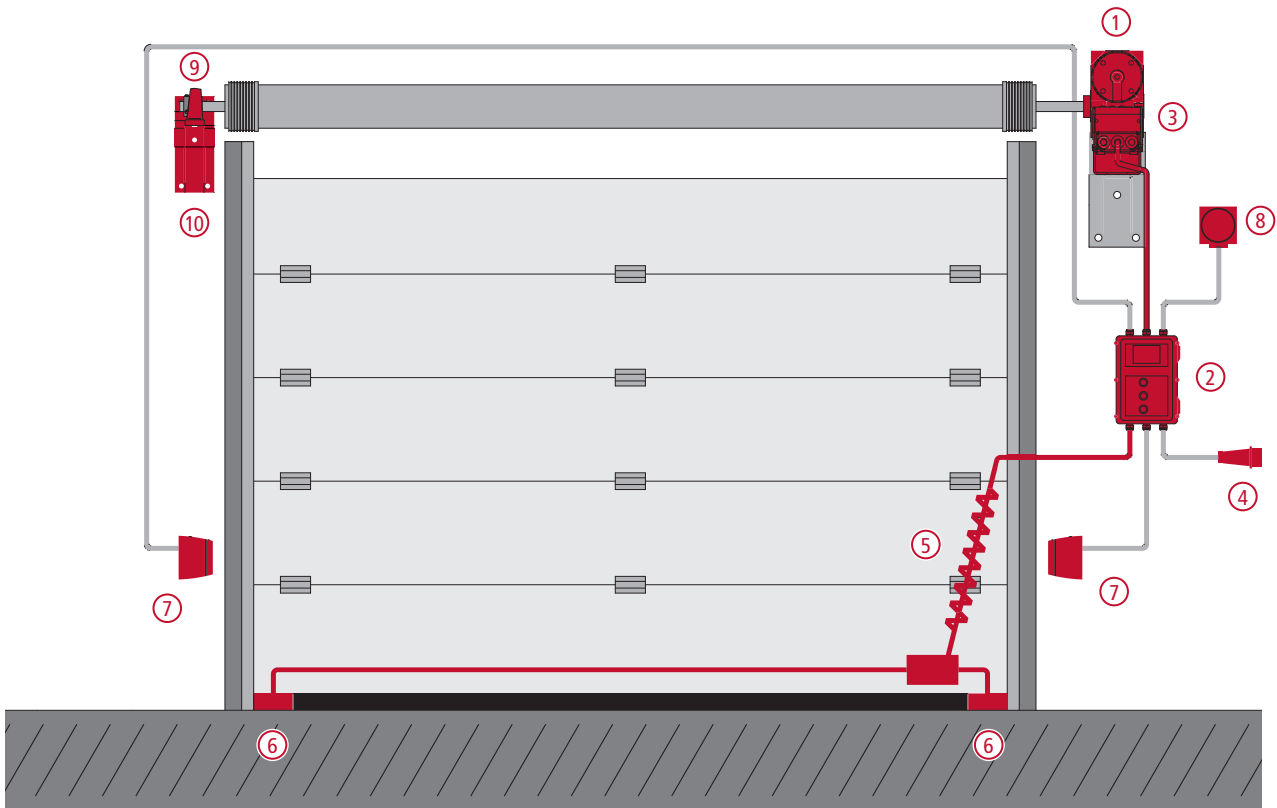


# Non spring balanced sectional doors

Informations | Door system

2 Non spring balanced sectional doors



## Opener with external control unit

- 1 Opener
- 2 Control unit
- 3 Cable loom
- 4 CEE plug or Schuko plug
- 5 Spiral cable with junction box
- 6 Optosensors, e.g. type M
- 7 Photocell, e.g. Special 630
- 8 Traffic light or signal light, e.g. Light 100
- 9 Motor bracket
- 10 Pedestal bearing

## Further accessories

- Extension set for emergency hand chain
- Key switch, e.g. Command 414
- Code keypad, e.g. Command 202
- Transponder system, e.g. Command 812
- Induction loop detector, e.g. Control 403
- Transmitter, e.g. Digital 304 or 564

# Non spring balanced sectional doors

Informations | Product key

## Product name

SA Opener 3-PH

## Torque index

The torque index number multiplied by factor 10 is the drive torque (Nm):  $18 \times 10 = 180 \text{ Nm}$

## Type of emergency operation

KU	Emergency hand crank
KE	Emergency hand chain

## Nominal voltage

**SA 20-18-24 KU 400V/3PH 80%**

## Gear size index

## Nominal rotational speed

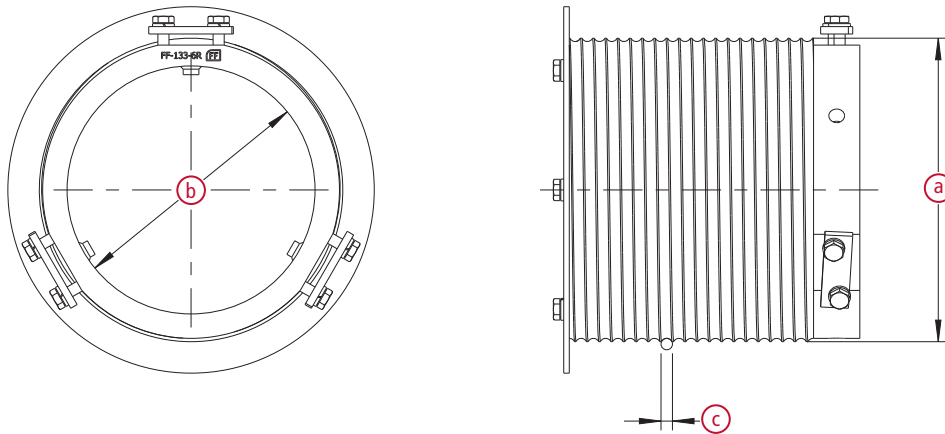
The speed ( $\text{min}^{-1}$ ) with which the gear hollow shaft rotates.

## Additional informations

80%	Duty cycle
IP 65	Protection category

# Non spring balanced sectional doors

Informations | Table of weights



**Outside diameter of the tube**

133.0 mm
159.0 mm
193.7 mm
219.1 mm
244.5 mm

**Rope drum**

			133.0 mm	159.0 mm	193.7 mm	219.1 mm	244.5 mm
Outside diameter	(a)	mm	162	192	225	250	277
Inside diameter	(b)	mm	134	160	195	220	245
Rope diameter	(c)	mm	6 / 8	8 / 10	8 / 10	8 / 10	10 / 12
Rope capacity		m	9.4 / 6.8	12.6 / 10.1	11.2 / 9.7	12.4 / 10.7	13.8 / 12.0

Special versions available on request.

**Gear motor / Armour weight (max. kg)**

<b>SA 05-14-24</b>	141	119	101	91	82
<b>SA 20-18-24</b>	181	153	130	117	106
<b>SA 30-32-24</b>	322	272	232	209	188
<b>SA 30-40-24</b>	403	340	290	261	236
<b>SA 50-75-24</b>	755	637	544	489	442
<b>SA 60-100-24</b>	1,007	849	725	652	589
<b>SA 70-125-24</b>	1,258	1,062	906	815	736
<b>SA 70-165-24</b>	1,661	1,402	1,196	1,076	972

The values in the table take into account 20 % safety reserve. In certain situations the friction can be greater than this and must be included when calculating the values.

# Non spring balanced sectional doors

Informations | Technical details

**SA 20-18-24**  
400V/3PH · 60%

**SA 30-40-24**  
400V/3PH · 60%

**SA 50-75-24**  
400V/3PH · 60%

**SA 60-100-24**  
400V/3PH · 60%

**SA 70-125-24**  
400V/3PH · 60%

**SA 70-165-24**  
400V/3PH · 60%

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Non spring balanced sectional doors

## Mechanical details

Drive torque	Nm	180	400	750	1.000	1.250	1.650
Safety catch torque of the integrated unit (max.)	Nm	784	2,680	4,030	3,974	7,738	7,738
Nominal rotational speed	min <sup>-1</sup>	24	24	24	24	24	24
Number of drive shaft revolutions (max.)		18	18	36	36	36	36
Hollow shaft		30	40	50	50	55	55
Emergency operation		KU KE	KU KE	KU KE	KU KE	KU KE	KU KE

## Electrical details

Nominal voltage	V AC	400/3~	400/3~	400/3~	400/3~	400/3~	400/3~
Nominal frequency	Hz	50	50	50	50	50	50
Power consumption	A	2.8	4.2	7.0	8.6	10.0	13.0
Motor output	kW	1.1	1.7	3.0	3.6	4.0	5.2
Cycles per hour (max.)		20	20	20	20	20	20
Protection category		IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
Protection class		I	I	I	I	I	I

## General details

Weight	kg	23	32	43	72	72	81
Range of temperature (min./max.)	°C	-20/+60	-20/+60	-20/+60	-20/+60	-20/+60	-20/+60

KU: Emergency hand crank    KE: Emergency hand chain

	CS 310	CS 255 AC
<b>Features</b>		
Digital and mechanical end position processing	•	•
Programmable relay outputs	4	1
Programmable inputs	2	2
MS-Bus interface for connecting expansion modules	•	•
Transformer switchable from 400 V to 230 V	•	•
Short-circuit proof low voltage	•	•
Built in standard or large housing	•	
Built in small housing or built on gear motor		•
Protective housing for the circuit board	•	
Programming via buttons on the circuit board	•	•
Illuminated 3-button push button integrated into housing cover	•	•
Illuminated LC-display with clear text integrated	•	
Status and diagnostic messages via LEDs	•	•
Excess travel stop	•	•
Evaluation closing edge safety devices: optosensor, 8.2 kΩ, pressure switch bar, non-contact closing edge safety device	•	•
Evaluation photocells: 2-wire, relay, NPN, PNP	•	•
Programming and status indication via LEDs	•	•
Programming and status indication via LC-display	•	•
Direction of rotation monitoring and detection (only in combination with absolute value encoder)	•	•
Direction of rotation programmable	•	•
Automatic closing function (only usable in combination with photocell)	•	•
Door open duration and warning time programmable	•	•
Power limitation 'OPEN' programmable (only in combination with absolute value encoder)	•	•
Soft start/soft stop/soft run/fast run (only in combination with STA 1 FU/I)	•	
Partial opening programmable	•	•
Servicing counter and door cycle counter	•	•
Servicing interval programmable (PIN code protected)	•	•
Fault messages with memory	•	•
Multistage reset function	•	•
<b>Connection for:</b>		
Mechanical limit switches	•	•
Absolute value encoder	•	•
Frequency converter	•	
Push button (conventional)	•	•
Push button (system cabling)		•
Radio receiver (pluggable)	•	•
Week timer (pluggable)	•	
Marantec 2-wire photocell with testing 'CLOSE' (conventional)	•	•
Other's photocell relay, NPN, PNP with/without testing 'CLOSE' (conventional)	•	•
Hold circuit (conventional)	•	•
Wicket door contact 8.2 kΩ with/without testing (conventional)	•	•
Closing edge safety device optosensor, 8.2 kΩ, pressure switch bar, non-contact closing edge safety device 'CLOSE' (conventional)	•	•
Closing edge safety device 8.2 kΩ 'OPEN' (conventional)	•	•
Radio transmission system for closing edge safety device (pluggable)	•	
Expansion modules (MS-Bus)	•	•
Power supply for external elements 24 V DC (max. mA) (conventional)	500	200
Power supply for external elements 230 V AC (max. mA) (conventional)	1,000	