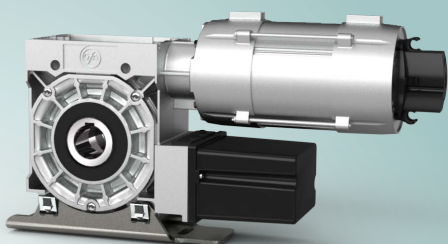


“Safedrive®” ELEKTROMATEN SI are special drives for industrial doors which require an anti-fallback device. The patented safety brake is built into the gear. The drive unit is directly fitted to the door shaft.

SG85F



Approvals and certificates

ELEKTROMATEN
Type test according to:
DIN EN 12453
DIN EN 60335-1
DIN EN 60335-2-103
TÜV NORD CERT GmbH



Built-in safety brake
Certificate of conformity
according to:
DIN EN 12604 / 12605
ift Rosenheim GmbH



ELEKTROMATEN

Series

SI 45.15

SG85F

Output torque	Nm	450
Output speed	rpm	15
Output shaft / hollow shaft (Ø)	mm	40
Locking torque	Nm	1100
Max. OPEN / CLOSE output speed for frequency inverter operation	rpm	26 / 15
Motor power	kW	1,1
Supply voltage	V	3-230 / 400
Frequency	Hz	50
Operating current	A	5,2 / 3,0
Max. Cycles per hour		9 (3,5)
Limit switch range (Max. revolutions of hollow shaft)		20
Max. hand force NHK / KNH	N	153 / 170
Permissible temperature range	°C	-10...+40 (+60)
Degree of protection	IP	65
Weight (with NHK)	kg	29
Part no.		10003115

Further notes on the following page

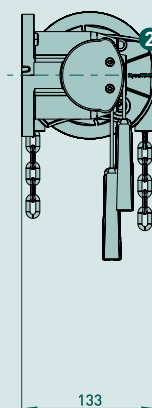
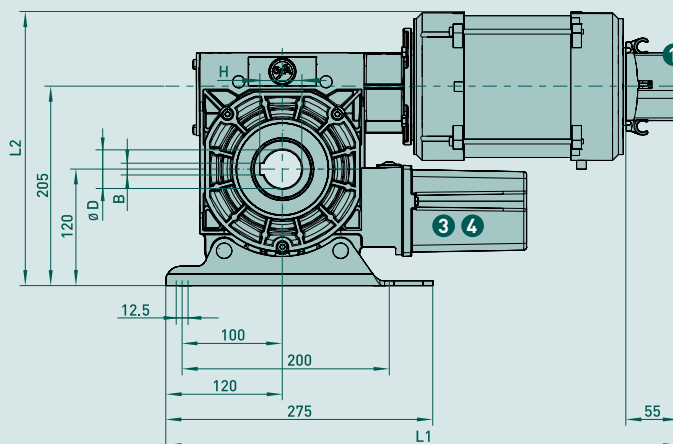
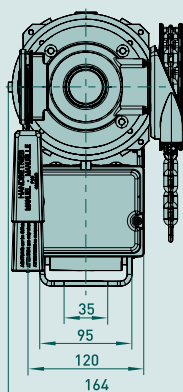


Emergency manual operation:

- 1 Handcrank NHK 2 Hand chain operator KNH

Limit switch:

- 3 Mechanical limit NES 4 Digital limit DES



ELEKTROMATEN	L1	L2	Ø D	H	B
SI 45.15	533	278	40	43,3	12

1 European directive

In accordance with the product standard EN 13241 Doors- and EN 12453 Safety in use of power operated doors-Requirements.

2 Selection chart / Cycles per hour

The specified cycles per hour (see technical data) apply to even distribution and the limit switch range first mentioned. One cycle consists of a complete opening and closing movement of the door. The value according to EN 60335-2-103 is given in brackets. If the limit switch range is not fully used, the number of possible cycles can be increased in relation to the reduced number of revolutions of the output shaft. When using the temperature range +40 °C to +60 °C, the specified value must be halved. For other limit switch ranges, the values must be converted accordingly.

The selection chart includes 20% friction for roller shutters with single-wall profiles (profile thickness 20mm) and 10% friction for sectional doors.

Reduce the weight by a further 20% for vertical lifted doors and insulated shutters with double walled, thick and/or deep sections. Do not calculate using the tube diameter. The highest torque will occur normally after 1-2 turns of the barrel from close.

3 Gear self-braking / Brake

Drives without an electric brake have a self-sustaining worm gear and stop automatically.

On drives with an electric brake, stopping is achieved by the external brake. Brake inspection must always be carried out by qualified service engineers.

4 Manual operation

In accordance with EN 12453 and 12604 hand force up to 390 N is permissible. For large, heavy doors, manual operation is only used for closing the door. In the case of drive units with an electric brake; emergency manual operation is carried out against the closed brake (Read note in 3).

5 Locking torque / Holding torque

The permissible loads on walls, fastenings, mountings and transmission elements must not be exceeded, even for maximum holding torques or locking torques.

6 Motor overload protection

Motor overload protection must be able to withstand 4x the operating motor current because the starting current of the drive unit can reach these levels for short periods.

7 Use with external frequency inverter

We recommend ELEKTROMATEN FI with an integrated frequency inverter (on request).

For external frequency inverters applies:

A higher than recommended drive speed puts extra load onto the gear. This extra load must be taken into account when sizing a drive by reducing the available output torque.

Increasing the drive speed by 10% reduces the admissible drive torque by 5%. In the case of higher drive speeds reduce the drive torque accordingly (enquire if necessary).

The admissible drive speeds may not be exceeded (see Technical data). The operating forces must comply with EN 12453, and the corresponding EMC directives must likewise be observed.

If selecting a frequency inverter, note that the starting current of the drive unit can reach 4x the operating motor current.

8 Cable / Cable drums

When calculating the cable size the max. permitted door weight is required with a safety of 6x for the cables; requirement of EN 12604.

Cable drum selection – ensure that two turns of the cable remain on the drum at all times. The diameter of the cable drum must be at least 20x the diameter of the cable.