



DRIVES FOR SECTIONAL DOORS

DESCRIPTION

SZX is made up of:

- A worm gear with hollow shaft
- One of the emergency manual devices available
- Integrated limit switches
- An electric motor

The self-braking worm gear makes the SZX irreversible.

ADDITIONAL DETAILS

EUROPEAN DIRECTIVES

SZX is made in accordance with product standards EN 13241-1 Doors- and EN 12453 Safety for power operated doors.

DUTY RATING

There is a relation between the weight of the door and the number of movements per hour so the motor duty rating varies according to the door weight.

OVERLOAD SAFETY FACTOR

Motor overload safety factor = 4 x the nominal motor amperage because the starting current of the SZX can reach these levels for short periods.

OUTPUT SPEED

The maximum admissible speed depends on the construction and the door type. The admissible closing speed shall be tuned so to let the operating forces comply with the EN 12453.

MANUAL OPERATION

In installations of SZX with hand crank or hand chain override, the door and the self braking gear construction remain always inter-connected. The door will never fall down if a spring breaks.

In installations of SZX with declutch device the door and the self-braking worm gear are disconnected during the manual operation. In this case the worm gear no longer sustains the door and a spring safety brake is required.

The counter-balancing system should be inspected at least once a years.

HOLDING TORQUE

The SZX drive unit is capable of holding the weight of the door when the spring breaks preventing the door from falling down. The holding capability is the admissible load the worm gear construction can bear.

SZX

Side motors for sectional doors

SZX 70M

SZX 90T

SZX 100T

SZX 140T

SZX 180TP

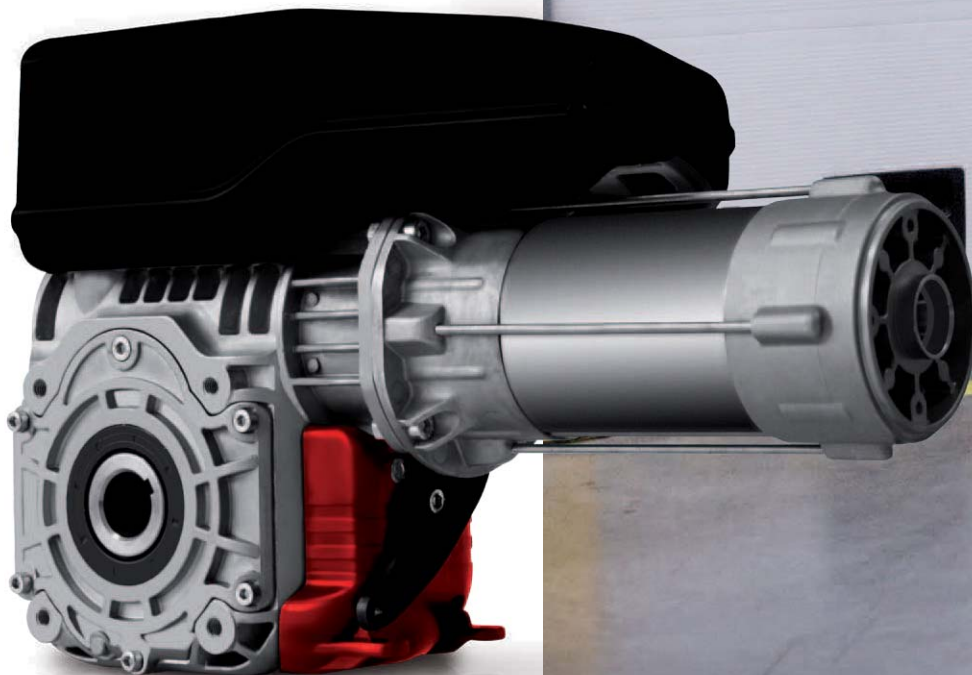
with integrated safety brake

Emergency manual operation types

- D** Declutch device (except SZX100/140/180TP)
- M** Hand Crank
- O** Hand Crank with eyelet
- C** Hand Chain Override

Limit switch types

- M** Mechanical Limits
- H** Mechanical Limits (2 cams) / 1phase
- I** With integrated control unit (in the 1ph motors only)
- E** Digital Limits



OVERRIDE
OPTIONS

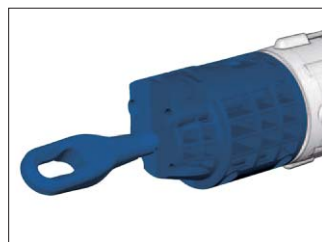
Declutch device



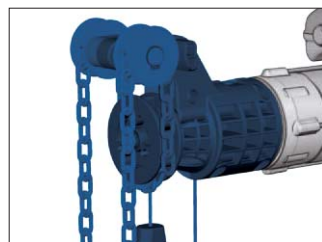
Hand crank



Hand Crank with eyelet

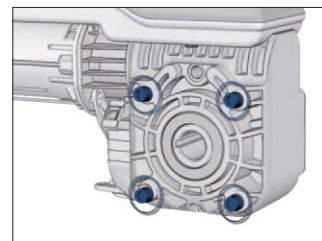


Hand chain override



INSTALLATION
TYPE

M8 fitting thread



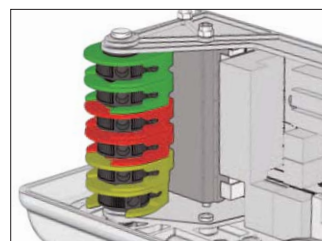
Bracket



LIMIT SWITCH
OPTIONS

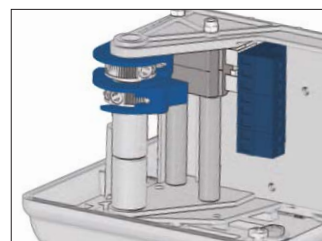
Mechanical limits

2 Green cams for operating limits
2 Red cams for safety limits
2 Yellow cams for auxiliaries



Mechanical limits

2 Cams in 1ph motors (H version)



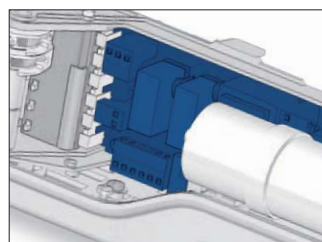
Digital limits

Absolute encoder
No readjustment after power failure



Integrated control unit

Low voltage integrated control panel
2 Cams in 1ph motors (I version)



TECHNICAL
DATA

	SZX70M	SZX90T	SZX100T	SZX140T	SZX180TP
Torque (Nm)	70	90	100	140	180
Output Speed (rpm)	21	21	30	18	18
Hollow shaft (mm)	25.4	25.4	25.4	25.4	30 [25.4*]
Max. door weight (Kg)	350	400	450	650	-
Holding torque (Nm)	450	450	450	500	500
Power (kW)	0.50	0.80	0.84	0.87	0.87
Power Supply (Vac)	1~ 230	3~ 400	3~ 400	3~ 400	3~ 400
Frequency (Hz)	50	50	50	50	50
Amperage (A)	2.20	2.20	1.70	2.30	2.30
Max Cycles Per Hour	12	20	20	20	20
Limit Switch range	18	18	18	18	18
Protection Rate (IP)	54	54	54	54	54

Notes: Allowed temperature range -10°C to +40°C // Operating sound pressure level SPL<math>70\text{ dB (A)}\text{/math> // The operating current in door drives can reach up to 4x the rated current for limited periods

* On demand

SELECTION TABLE (SZX140T/ SZX180TP models)

Sectional doors without springs

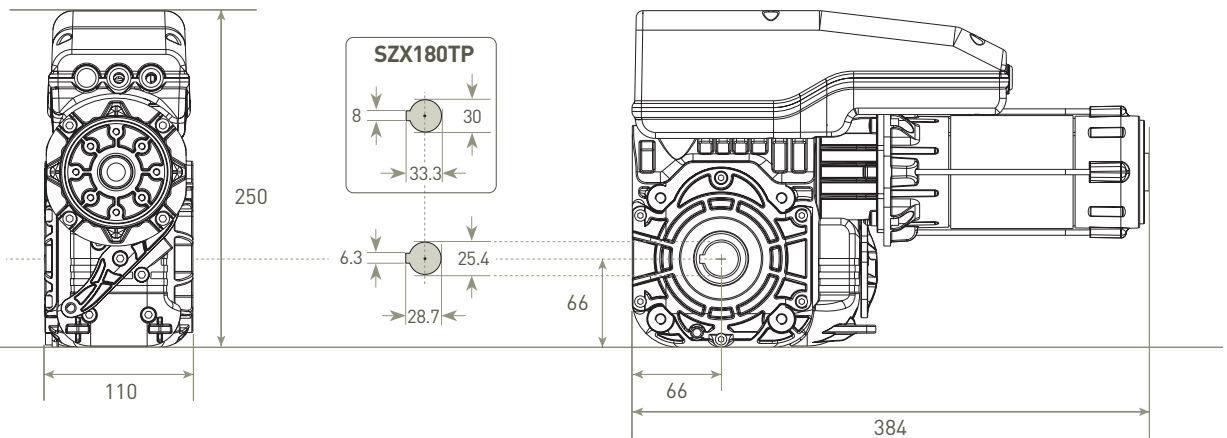
Cable drum	SZX140T			SZX180TP		
	N	Kg	V (cm/s)	N	Kg	V (cm/s)
160 mm	1577	161	15	2027	207	15
200 mm	1261	129	19	1622	165	19

Sectional doors without springs

Ø tube x thickness	SZX140T			SZX180TP		
	N	Kg	V (cm/s)	N	Kg	V (cm/s)
101,6x3.6 mm	1842	188	11	2368	241	11
108x3.6 mm	1750	178	12	2250	229	12
133x4.0 mm	1464	149	14	1882	192	14
159x4.5 mm	1251	128	17	1609	164	17

N = lifting capacity in Newton (includes friction)
Kg = max weight of the door (includes friction)
V = door speed (initial speed in roller shutters)

DIMENSIONS (mm)



VERRIDE OPTIONS

Hand crank

Hand Crank with eyelet

Hand chain override

