Technical Door Description

EFA-STR® L / A-C-S - DS Type 257

High speed - turbo – rollup door
Issue 03

EFAFLEX
schnelle und sichere Tore

1. Technical Design Data

Dimensions

STR-L/A-C-S - DS 257	
Width	1.200 mm – 4.000 mm
Height	1.950 mm – 5.000 mm

Door speed

STR-L/A-C-S - DS 257	*with TLG:*
Opening speed	approx. 3.6 m/s
Closing speed	approx. 1.0 m/s

Area of application

Application	Interior and exterior doors
Operational temperatures	- 15°C to + 50°C

Performance parameters according to DIN EN 13241-1

Resistance against wind load according to DIN EN 12424	STR-L / A-C-S DS	class 0
Resistance against penetrating water according to DIN EN 12425	STR-L / A-C-S DS	Class 0
Air permeability according to DIN EN 12426	STR-L / A-C-S DS	Class 0
Airborne sound insulation according to EN ISO 717-1	STR-L / A-C-S DS	Rw = 11 dB
Thermal insulation according to DIN EN 12428	STR-L / A-C-S DS	not examined

Door design

It is based on a self-supporting design and modular construction

Spiral form	Round Spiral
Possible materials	- Galvanized steel standard
Option	- Stainless steel V2A (1.4301) corrosion resistant
Option	- Stainless steel V4A (1.4571) corrosion and acid resistant, unpolished
Possible covers	- Galvanized standard
Option	- Powder coating, colors in accordance with RAL
Covers option	- Spiral coverings bottom and front (for H<2.500mm required as finger protection)
	- Spiral covering top as dust cover, no weather protection

Door leaf construction with crash protection

The door leaf consists of several segments. Aluminium segments stabilise the individual segments at a distance of 225 mm. The outer flap hinges hold the door leaf in the desired form by power-grip. Rollers with ball bearings guide the door leaf in aluminium tracks.
The door leaf is moved by a motor which is directly coupled to the drive shaft. On both sides of the drive shaft extension arms are fitted which adjust to the spiral diameter. The extension arms are connected with the hinge chains on both sides at the lintel-side of the door leaf. Crash-out hinges on the inside, connected through ball-type screws to the outer hinge strap. The size of the field can be displaced 915 mm and extends over four hinges. On collision, a displacement of the door leaf to both sides is possible. The continuous hinge strap remains reliably in the lateral track and keeps the door leaf functioning. Any displacement of the door leaf is registered by two non-contacting proximity switches. Within the control, an immediate stop is triggered. Thus, the door leaf can move upwards at reduced speed. Shortly before the upper end position, the displaced hinges are again connected to the outer hinge strap by resetting through rollers. After reaching the upper end position, the door leaf can once again be operated in the automatic function.

Technical Door Description

EFA-STR® L / A-C-S - DS Type 257

High speed - turbo – rollup door
Issue 03

Drive

	Bevel-gear three-phase motor IP54
Power classes	1.5 kW
Position recording	Contactless sensory technology, integrated into the motor

Type crash protection

Basic setting “automatic“ clicking in	On clicking out, stop, automatic slow upwards travelling and clicking in of the door leaf on top, ready for operation in top end position, automatic closing
“Manual” clicking in option	On clicking out, stop, manual upwards travelling in dead man’s travel through membrane keyboard and clicking in of the door leaf on top, automatic closing
“Manual” clicking in with key switch option	On clicking out, stop, manual upwards travelling in dead man’s travel through key switch in the front cover of the control box and clicking in of the door leaf on top, ready for operation in top end position, automatic closing

2. Assembly

The design of a high-speed door requires a stable foundation (concrete of steel structure). Light masonry, e.g. hollow block masonry, expanded concrete or ISO walls are to be supported by auxiliary structural elements. In the case of technically difficult installation conditions, please contact EFAFLEX - Bruckberg. Method of installation “pegs”, “bolts in steel”, “welding to steel” or bolt and nut installation must be specified.

Installation dimensions	STR - L/A-C-S - DS	AZ 257
Installation position		Internal installation
Installation type		Front header
max. tensile force (F_Z, see quotation drawing) per member		“L” approx. 3.0 KN

3. Applied Directives and Standards

The following directives and standards were applied when designing, producing and assembling the door.

EN 13241-1:2000 Door product standard

EFAFLEX Tor- und Sicherheitssysteme GmbH & Co. KG
Technical Department

Bruckberg, 14/09/2009