UNIFLOW

Japanese Technology

LINEAR MOTOR TYPE AUTOMATIC SLIDING DOOR

The door operates quietly, smoothly and less friction is generated with the same driving principle as an environmentally friendly linear motor car. Linear motor type sliding doors are highly suitable for places where dust and noise are unfavorable, such as hospitals, laboratories, offices, food factories, etc.

Features

Quiet and Smooth

It operates quietly and generates little dust due to friction, making it suitable for installation in food factories and clean rooms where you want to prevent the intrusion of foreign materials.

High security

It reverses when a contact of a person or an object is detected due to a fine control.

Wheelchair-friendly flat floor

There are no rails or grooves on the floor, so wheelchair users can pass through safely and comfortably.It is also sanitary as dirt and dust do not accumulate in the grooves.

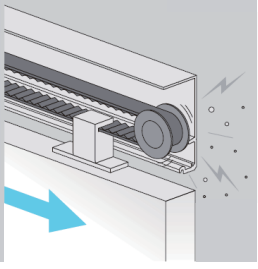
Securing safety at power failure

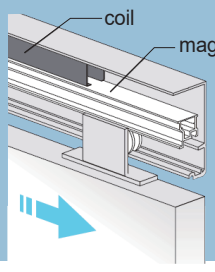
It can be opened as light as that of a manual door during power outage.

Operation principle

Conventional engine

A belt and a door are connected and it opens and closes by rotating motor to drive a belt. There are many places where friction is generated.





Linear Engine

A magnet and a coil (electromagnet) which are connected to a door are contactless. It opens and closes by the magnetic attraction・repulsive force between the magnet and the coil. There are less places where friction is generated.

Function List

Functions	Automatic specification	Details
Assist function	Standard	The door is manually activated by moving it about 2cm.
Safety Stop	Standard	The door is stopped for safety when pinching is continued twice at the same position.
Sliding door synchronization	Standard	The use of two engines can accommodate double doors.
Fitting of electric lock	Option	Unlocking type during power failure (electricity synchronization)

Operation sound comparisons

(dBA)

Linear motor type automatic sliding door	47 *
Bell of the telephone	70
Quiet office	50
Library	40

*Measured value within a company for a single sliding door
(It was measured at 1m away from the object.)

Manual operation force (during power outage)

Manual operation force is about 300g when the power source is OFF.

Specification / Performance (For indoor use only)

Dimensions	Effective opening width	AW 750 ~ 1500 mm
	Effective opening height	AH1100 ~ 2500 mm
	Standard window	W340, 640, 940 × H640 mm (window W is depending on its AW)
Door thickness		39 mm
Material	Door main body	Paper core
	Surface material	Colored steel plate (Ivory / White) 0.6t / Aluminum 0.8t / Electrogalvanized steel plate 0.8t / SUS 0.8t
	Window / Window frame	Acrylic panel 5.0t (clear)/Aluminum compound extrusion material
Linear engine	Type of motor	MM50
	Required power source capacity	AC100V±10% 50 / 60Hz MAX:4A
	Service temperature range	-10 ~ 40℃
	Door weight applied	Single sliding door 20 ~ 50kg
	Electricity consumption	Average at the time of operation: 0.2Wh / times (Door weight 50kg / pc)
		At standby: pressed all the time, 5.8W (Start-up sensor and auxiliary sensor are not included)
	Kind of motor	Brushless moving-magnet type linear DC motor
	Generated thrust	3pcs of stators are full-wrapped 40N
	Opening speed	0.2 ～ 0.5m / sec（At the time of shipping 0.4m / sec）
	Closing speed	0.2 ～ 0.5m / sec（At the time of shipping 0.3m /sec）
	Open-stop time	Adjustable within 1 to 10 sec.(3 sec. as initial setting)

*The door cannot be easily closed at the place where the differential pressure is high.

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