



CS SERIES
CS1000
Automatic Sliding Door Solutions



CS1000 Automatic Sliding Door System

Apply to doors for garage, usage of anti-radiation for hospital, warehouse, science and technology factory, barrier-free space, fire prevention, commercial buildings, salerooms, craft.... etc.

We, Tronco, accumulated over 10 years experiences for development, manufacture as well as production in Automatic Sliding Door System for CS1000 series.

Based on the demand of consumers, we research and develop for new potential products ourselves which passed through multinational safety standards and have been sold to European and American regions for many years.

The motion of door leaves for Tronco CS1000 series is set up by IC microprocessor controller and support the security system. The controller has multiple emergency set-up to ensure the users' safety. CS1000 series adopted DC Brushless Motor with accurate opening and closing action, environmental protection, low noise, electricity saving and durable rotation rate 1,000,000 times. The low consumption motive power supply system make door wings with elegant and smooth movement.

All components for Tronco CS1000 series are modular. It makes the installation and overhauling more convenient. In addition, one more function, LED display, is for your visual inspection when there is a breakdown. Tronco's CS1000 series is applied to doors for garage, usage of anti-radiation for hospital, warehouse, science and technology factory, barrier-free space, fire prevention, emergency doors, commercial buildings, salesrooms, craft and has produced widespread favorable comment.



The applications of narrow and small space

The minimum opening distance for CS1000 series is 400mm. It means that you can install bi-parting automatic door system in the condition of smaller exits in a golden shop front in city area.

Excellent Electrical Functions

Environmental protection, Safety, Efficient circuit system

Intimate design for power supply system

CS 1000 series adopted high efficiency changeable power supply unit which can input universal voltage 85VAC ~ 265 VAC and provide extra power source 12VDC/1.5A and 24 VDC/1.5A to satisfy surrounding electrical requirements of other electrical appliances and not need to purchase extra power supply to save cost and space.

High efficiency circuit design for electricity saving

It includes RFC design and power rate to tend towards to perfect 100% so as to make utilization rate the optimum and the consumed power of this system is only 25W. This device can operate smoothly only requiring power supply that is equal to a energy saving light Bulb or fluorescent tube.

Safety power supply system for emergencies

The CS1000 series support UPS and can connect with rechargeable batteries or normal batteries. The rechargeable function is able to turn off as you installed normal batteries. The controller can response the volume of power for emergency. It is also available to set up the status of door leaves in advance as power of emergency is going to use up. All up to your decisions.

- A. Regular opening
- B. Regular closing
- C. Manual opening
- D. Regular closing and lock up

Between opening and closing, everything is under your control

The rhythm of opening and closing for door leaves follow your inclination.

Whatever in commercial buildings or salesroom, the motion of door leaves influence the viewpoint of guests and visitors directly. Tronco always keep an eye on the most smallest requirements for the CS1000 series to have you to set up the motion of door leaves leisurely and carefree.

To remind the operation status of equipment

Tronco CS1000 series included monitor display to make users understanding the existing operation status easily and below 6 points can be revealed.

- A. R.P.M. for Motor at present
- B. Position display for door leaves
- C. R.P.M. for Motor
- D. Speed of Opening and Closing for each second
- E. Power display for batteries in reserve
- F. Position display for Opening

Whatever inspection, maintenance, installation and to save strength easily are through monitor display to decrease wrong judgement.

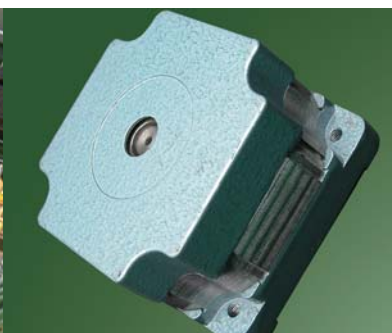
To set up functions in humanistic opinions

If the set-up for multiple functions of Tronco CS1000 series is time-consuming ? Or only need the crossed keystroke on panel of controller to complete the set-up of functions. Buttons have sound assistance and make operators to use more easily. Simple and easy Menu help you to set up and test anytime so as to shorten time of installation.

Tiny but ingenious, high efficiency, environmental protection DC BRUSHLESS MOTOR

Tronco's CS1000 series use high efficiency DC magnetic brushless motors which developed and researched ourselves with tiny volume, high rotational speed, low electricity consumption and not to give out heat under the temperature 50 degrees centigrade. It runs quietly and possesses the functions of overloading protection and automatic restoration, especially for high load bearing in sites of salesroom, hospitals, office buildings.

There are a lot of advantages for traditional D.C. motor. Such as rapid response, potent actuating torque. plus linear variation for voltage and the rotational speed ... etc. For traditional D.C. motor got respectable market occupation but a big defect, the high-speed sliding of brushes and commutators causes friction each other and even made the carbon sputtering to bring unusual electric arcs. And further to occur unnecessary electrical obstacles and failures. It needs to adjust and overhaul for a period of time and also increase the maintenance cost. To be aimed at this defect of brushless D.C. motor, we remove brushes and commutators with shortcoming and choose electronic components instead. But original advantages for former D.C. motors can still be reserved. It is said that the high efficiency DC magnetic brushless motor is an upgrade version for original traditional D.C. motor without brushes, such as AC interaction powder-driven machines, synchronizing machines ... etc. They are not so called brushless motors. The brushless motors without brushes and commutators but add some characteristics which not provided for traditional D.C. motors, such as small inertia, acceleration in a short time and fit for frequent motion of keystroke ON / OFF. That's why most of them adopted brushless motors, such as VTR, FDD, HDD on the moment ... etc.



On the basis of human beings and up to durability.

The function of pressurizing to against vacant spaces

Tronco's door leaves can avoid leaking out of an air conditioner and pollution of dust and will not have gap when affected by wind pressure or be fiddled with.

Set-up for crashproof sensitivity & to examine foreign body automatically

1. When door leaves closed and struck staffs or foreign bodies, door leaves will reverse. This function is available to set up sensitivity.
2. After door leaves reversed and re-closed, the system will close slowly to ensure without obstacles and to resume to regular speed of opening and closing.
3. This function is to assist the infrared sensor collision avoidance system to prevent from invalidation and the injuries of staffs.

Set-up for multi-function automatic locking

1. Substantial offices, such as a Financial Department or MIS server room, staffs just need to switch to the 'automatic lock up' mode when leaving. The door leaves will close and lock up immediately after staffs left.
2. After staffs came back, it is capable of using key to open door leaves or to open according to Security to achieve your demand of official safety.

Only Exit mode

The set-up mode can switch to "only Exit mode" before the closing time of a shop every day, this mode can make the customers outside unable to enter but the customers inside be able to go out. This function is also available to apply to guide the route.

Set-up motions for door leaves in a fire accident and ordinary emergency Escape

Tronco CS1000 series automatic sliding door system can cooperate with fire prevention door to do fireproof discrimination. There are five types emergent movements for door leaves that can set up emergency flee route and map out fireproof discrimination in advance. When a fire accident comes up, these movements will help door leaves to close off the scene of a fire, escape guidance and emergent power supply in reserve ... etc. They can decrease the loss to the lowest level and protect the safety of your life and property.

A.P.O. mode

For special circumstances, (for example in the midnight), if customers want to buy something, you can switch to APO mode to open door leaves in smaller range. The staffs of store can proceed business transactions through a crack between a door and its frame and prevent mobsters get into.

Closing time of door leaves will be adjusted automatically after induction.

The pause of opening time for Tronco CS1000 series automatic sliding system is able to set up according to user's demand. Besides, plus the function of induction and adjusting. It is said that the microprocessor controller will increase seconds of opening automatically to match up the actual situation and reduce repeating opening consumption of door leaves and no pressure to access for the staff as the pause of opening time that pre-scheduled is over the original set-up values in actual process.

The functions of rapid emergent close-off and lock-up

Tronco CS1000 series automatic sliding door system possesses the function of emergent closing and locking. The door leaves will close and lock immediately to besiege or prohibit gangsters to prevent the possessions and staffs from danger.

The speed of opening will slow down or stop when reacted human beings at the side of door opening.

In the process of opening for door leaves if reacted human beings or objects, the system will slow down or stop automatically to avoid the damage of people or foreign body and to avoid the accident occur.

The minimum opening distance is 400mm.

The minimum opening distance for CS1000 series is 400mm. It means that you can install bi-parting automatic door systems in the condition of smaller exits in a golden shop front in city area.

In support of Security

Users need to make use of security card to access the door. The controller will notify door leaves to open after replying the sensor. After door opening, the sensor start to operate to react until no objects in the inducting area and then notify the controller to close door. After door closing, the sensor stop action and have to use security card to open it. This system can co-operate with various Security products easily and to achieve the result under Security control. In the circumstances of different levels for Security System, it is available to install surrounding facilities anytime, such as a remote control, access controller system, the card swipe machine, Encryption, fingerprint access... etc.

To supply solutions of load bearing under 1000kgs

The CS1000 series automatic sliding door system can operate door leaves under load bearing 1000kgs easily to cooperate with different level transmission accessories. It can also run smoothly for high carrying capacity door leaves, such as protection against radiation doors of medical treatment center or negative pressure doors, fire prevention doors ... etc

Applied to negative pressure isolation room.

The CS1000 series can apply to negative pressure isolation room and the system can also react air pressure automatically and increase R.P.M. of Motor to let it operate more stable and smooth.

Display of emergent signals

To supply a contact of a relay as 1, The switch over of signal after door closed. 2, The switch over for operation of power-driven machine. This connection point can be cited by other control systems in the condition of operation and the door leaves have been locked up. The display function of signal is also capable of connecting Alarm to match up your environmental requirement to install additional control systems.

Set-up for Logical signals

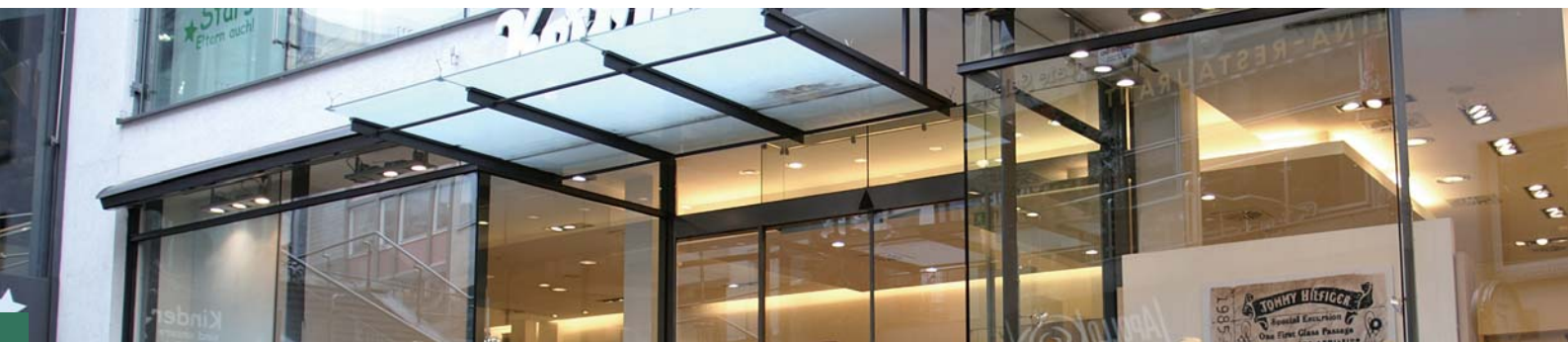
In order to satisfy more requirements of automatic door systems, this system can set up to be once for opening and another for closing or reversing function immediately. It depends on your decisions of the actual usage.

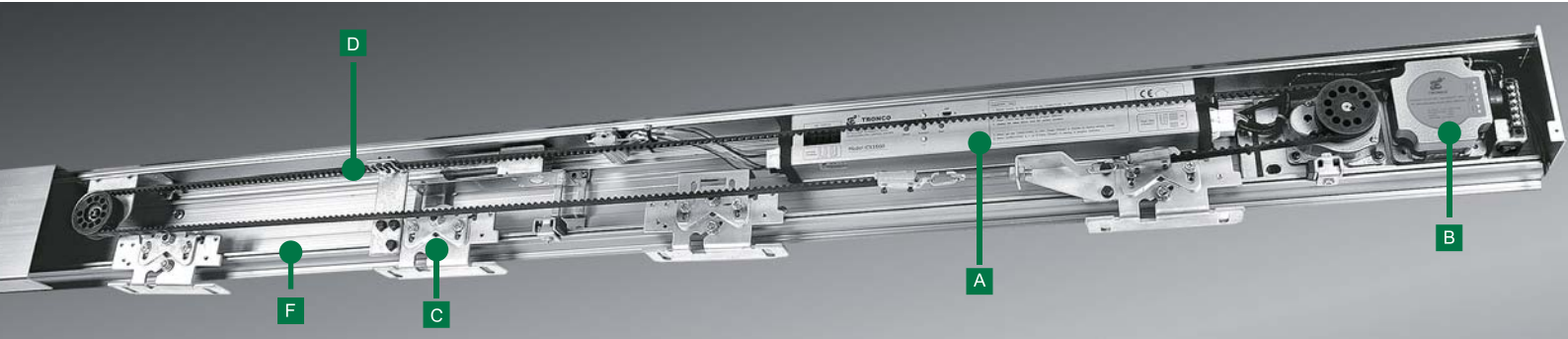
Free set-up half-opening distance of door leaves

1. The opening of door leaves for an operation room of hospital only need half-open to avoid intrusion of disease germ and infection of patients to protect their personal safety.
2. Simple and convenient set-up and just need to move door leaves to the required size of opening and finish the steps according to system set-up value.
3. This function can be applied to the essential exit and entrance of a sickroom for hospital and laboratory ... etc.

The best protection of hygiene and health

Infectious diseases are more and more formidable and easy to infect in the present generation. To make use of automatic door systems can avoid being infected with touching and diseases spread out.





Precise interior, intelligence included

Low consumption motive power transmitting system.

A Microcomputer digital controller

Intelligent digital controller that is micro computerized completely. The regular function circuit is controlled by the computer indication with fixed-point switch free. The door position adjustment, tracking distance set-up, various energy strength, open and closing speed are all controlled by the microcomputer. In a long time operation, the open and closing ction is still precise. Auto-detection by the microcomputer improves the using safety: When the auto-door is opening and closing, if the door hits something while functioning, the digital control system will reverse moving immediately and get into safety protection condition with a continuous warning sound to avoid the accident of any damage to human body or broken machine parts and increase the entering safety

B Drive belt

Hi flexible function is provided with superior anti-gland feature that can be repeated uses without getting loosen and fatigued resilience after long term sing.

C Drive motor

Hi efficiency permanent magnet brushless serve motor, which is small volume, Hi-RPM and low power consumption that will not heat after continuous using. It makes the door open and close quickly and silent during whole functioning period. For the reason of strong twist distance, the door can execute the mission of the door open, close, slow speed, and stop correctly.

D Door fixing hanger

The door system is adapted the hanger type of the fixing hardware with small resistance and smooth turning that is easy to open and close. It equips with stopper wheel to prevent the door from slipping down.

E Aluminum alloy housing

Strong alloy housing with the flexible using may easily combine with other accessory parts after cutting. The alloy housing is one-unit shaping that has beautified profile and smooth track would not get deformed or worn down after long term using.

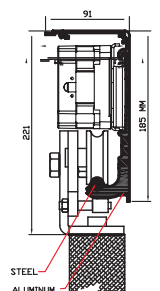
F Increasable entrance guard system available

Good quality of the CS series has super-elasticity expended functions with entrance guard system together allow only inhabitants or management open the auto-door that prevent other people enters to the department. It did achieve a target of the intelligent auto door can accept inhabitants or specified people entrance.

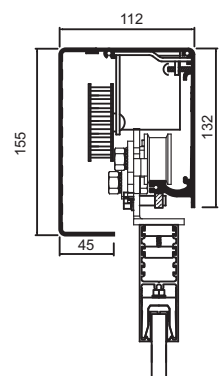
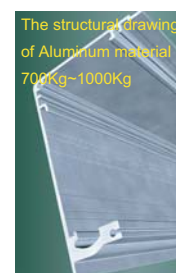
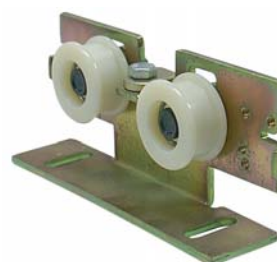
Rails and Hangers

L5 level rails and hangers (700kgs~1000kgs)

L5 level rails and accessories are special designed for door leaves that belong to the load between 700kgs and 1000kgs. To collocated with the formidable functions of CS1000 series, they can satisfy the professional demands for fire-prevention doors, anti-radiation doors ... etc. L5 rails and accessories passed through the national endurance test and acquired widespread reverberation.



L2 level rails and hangers (150kgs~240kgs)



Easy installation, Easy maintenance

It is capable to set up "Trigger" switching to "Latch" for 4 sets functional contacts.

This system supply 4 sets functions. A. To close doors B. To lock up C. Fire accident D. The prevention of robbing. It is no problem to set up functions freely from "Trigger" switching to "Latch", whatever in opening or closing mode, it can set up to be your preferable mode and no need to purchase new switches and only need to set up system in the process of installation.

To gather up wiring in favor of maintenance.

To be arranged in all kinds of Connecting sensors, Security control systems, Power supply, Emergent stopping buttons, Security switches, Timing controller, Multiple function expanding facilities to gather up and fix on the wiring HUB and make it ordered and be clear at a glance in favor of construction and examination or modification for wiring in the future.

Hangers of door leaves are adjustable for locations "up", "down", "front", "rear".

Hangers of door leaves can process slight adjustment for locations "up", "down", "front", "rear", the vertical and horizontal height on the rail to achieve accurate construction in favor of maintenance and adjustment in the future. Hangers of door leaves can pass through the underneath of Motor so as to make the installation and adjustment of door leaves easy.

Detecting breakdowns and protecting itself in abnormal situations.

This system possesses the function of detecting breakdowns itself. When the system out of order, the Led lamp will flash lights to reveal the anomalous conditions to remind maintenance staff to survey and maintenance promptly, for example, if foreign matter interfere with the process of operation for door leaves and bring about extraordinary conditions, the door leaves will reverse and test automatically. If the extraordinary conditions still fail to shut out after several times examination, the system will stop the operation automatically to avoid accident and the destroy of automatic door systems to extend its using life-span.

Learning itself after switching on and judging itself after operation.

After switching on, the system will learn the operational logic automatically itself according to the weight of door leaves and factors of the scene. It will operate itself automatically and not need man-made set-up additionally. This system will also judge itself automatically to see if in extraordinary situations or to reveal alarm signals according to the figures of starting operation for door leaves.

The function of buzzer is adjustable.

This system included the function of buzzer. It will alarm and remind automatically in below 4 conditions and you got 4 choices to set up the status and to adjust according to the demand of exact environment. A. The first time detecting stroke B. To reset the location of switch-on C. The alarm of knocking against foreign matters D. Warning signal of abnormality.

Led Display

This system displays self-inspection signal of motor's operation. The maintenance staff reviews signals to see if the operation of motor is normal by means of LED (light emitting diode). Upon receipt of any extraordinary signals of automatic door systems, the maintenance staff will do suitable handling for failures on-site directly.

Full accessories, modular, speedy installation and easy maintenance

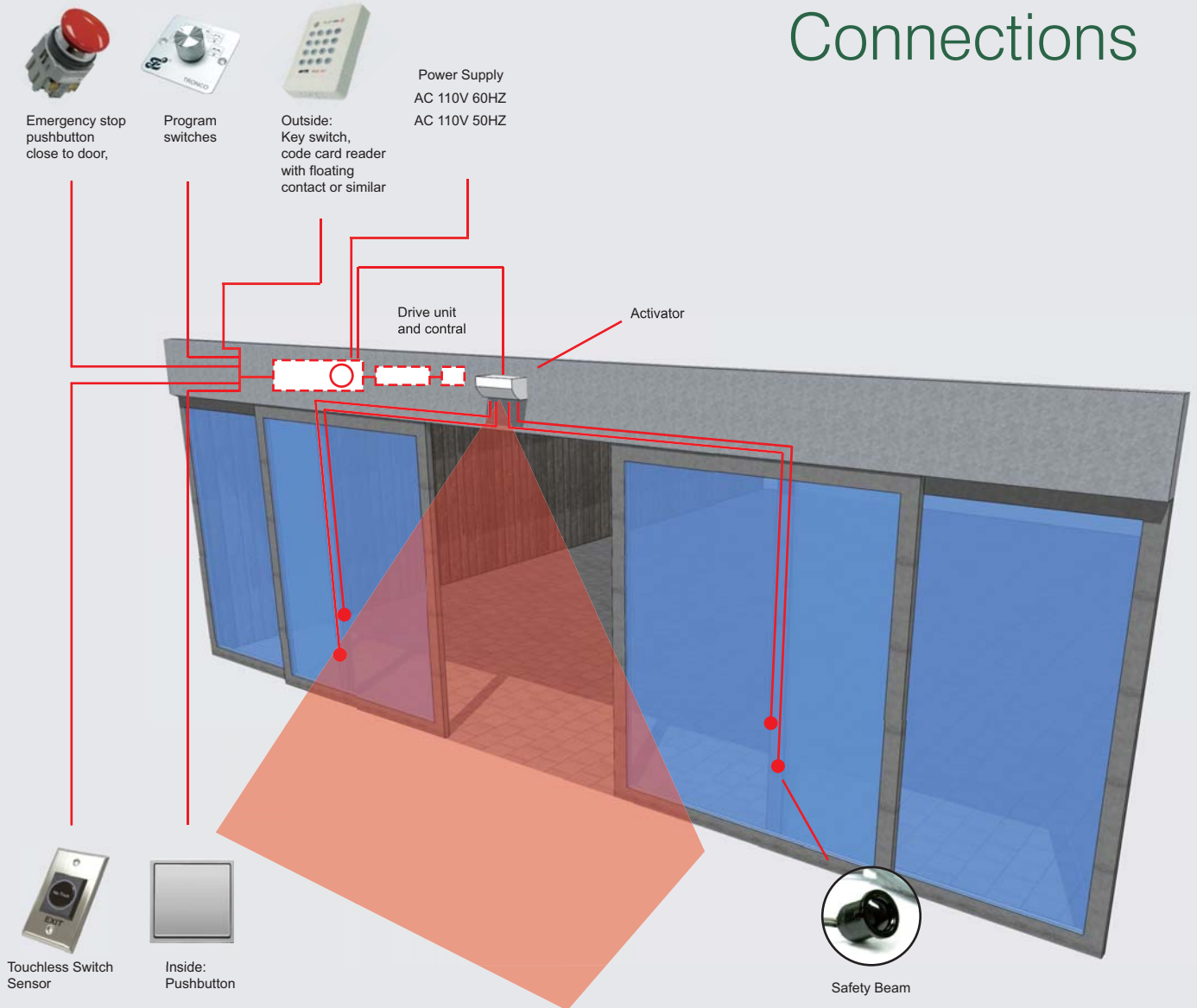
Tronco CS1000 series automatic sliding door system is modulize for full components, easy examination, easy maintenance. In addition, its high compatibility is available to collocate with other brand components.

To load and unload is very easy for RJ45 connecting wire

The signal wire hole for Tronco CS1000 series automatic sliding door system is RJ45 wire hole. Easy to obtain and easy to install.



Connections



CS1000 Specification

Level	CS1000-L1	CS1000-L2	CS1000-L3	CS1000-L4	CS1000-L5
Capacity	90kg×1(Single) 5kg×2(2Wings)	150kg×1(Single) 120kg×2(2Wings)	240kg×1(Single) 200kg×2(2Wings)	400kg~700kg	700kg~1000kg
Door Fitting Size	Width:700~1500mm↓ Height:1900~2400mm↓			Please refer to the right side and confirm with the commercial agent(manufacturer)upon manufacturing and using	
Door Fitting Size (Min&Max)	(Max)Width:5000mm ↓ Height:3500mm ↓ (Min)Width:450mm ↑ Height:Up to exact design for special dimensions, please contact with the commercial agent.。				
Tracking	400~12000mm (24000mm 2Wings)				
Speed	150-650 mm/sec (Adjustable)		150-450 mm/sec (Adjustable)		
Power supply	AC 90V~ 250V 60/50Hz				
Consumption	75W 100W(peak)		250W(P.F.C)		
Output Power	DC12V/1.5A DC24V/1A				
Motor	Brushless DC electric motor				
Watt	40W	40W	60W	80W	
Case Dim.	H 155mm × L112mm			H 220mm × L112mm	
Ambient temperature	IP20				
Temp. range	-20°C~+45°C				



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