KA 022
Two-wing Revolving Door

Beijing KBB Automated Entrances Inc.
(Headquarter Office)
Add: No.22 Shui Ku Road, Changping District, Beijing, China 102200
Tel: 8610 69748800
Fax: 8610 69745747

Shenyang KBB Automated Entrances Inc.
Add: No.117 Shen Bei Road, Hu Shi Tai High-tech Development Zone, Shenyang, China 110122
Tel: 8624 89718800
Fax: 8624 89718800

Ningbo KBB Automated Entrances Inc.
Add: Jiang Bei Investment Pioneering Park, Ningbo, China 315038
Tel: 86574 87565800
Fax: 86574 87565898

KBB International Co., Ltd.
Add: Room A-1109, No.72 North Road of West 3rd Ring, Haidian District, Beijing, China 100048
Tel: 8610 88825668
Fax: 8610 88825668 ext 300

ATTN: SEAMAN ZHAO (MR.)
TEL: +86-24-31289888-609
FAX: +86-24-31289888-800
MOBILE PHONE: +86-13704052430
EMAIL: SEAMANZHAO@KBB.COM.CN
MSN: ROCZHAO@YAHOO.COM.CN
WEBSITE: EN.KBB.COM.CN

Overview

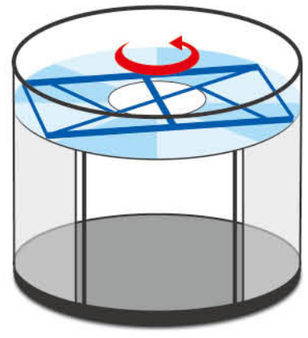
About Revolving Doors

Revolving doors offer an impressive aesthetic appearance and effectively separate indoor and outdoor conditions. KBB's superior design provides an imposing entrance to any building, while serving as an airlock as well, to minimize a building's heating or air conditioning losses, therefore maximizing energy savings. There are numerous variations and functions according to the needs of passing.

Revolving doors are categorized in two different categories according to the way they revolve: two-wing doors and three/four-wing doors. Each door consists of a glass body with an aluminum frame. The operation of three/four-wing doors can be manual or automatic.

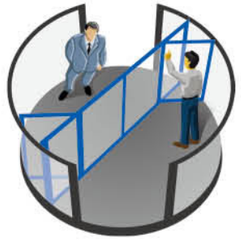
KBB Two-wing Automatic Revolving Doors - KA022

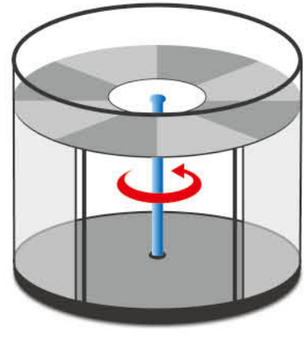
Comparing with ordinary revolving doors, the KA022 revolving doors provide the highest safety assurance as they adopt KBB's exclusive "drum wall load-bearing" structure. It is the firmest two-wing door across the world and has the strongest ability of evacuation. The unique design allows the doors to bear heavy and run steady providing superior safety. A key feature included is the panic breakout exit function for safe and efficient evacuations.



Two-wing automatic revolving doors

← The door wings of two-wing doors are fixed to the H-girder which can drive the door wings.



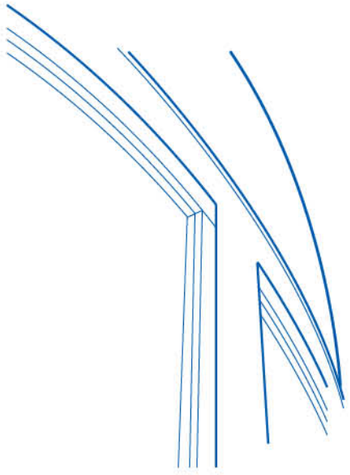


Three/Four-wing revolving doors

← The door wings of the three/four wings revolving doors are fixed to the central axis which can drive the door wings.

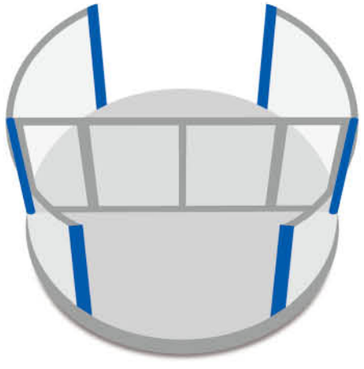
Structure

Drum Wall Load-Bearing



The KA022 doors use KBB's exclusive "drum wall load-bearing"structure.This is the essential element to keep the structure safe and of superior quality. Compared with other two-wing doors which are pole-bearing, the KA022 are much more stable.

↑
KBB
drum wall load-bearing



↑
Other
pillar-bearing

Three in One

- **Revolving Door:**

The revolving door design effectively controls indoor and outdoor air exchange. Energy consumption is lowered due to the controlled environments in air conditioning and heat preservation. Other benefits of these doors are the wind proofing, ash proofing and noise reduction.

- **Sliding Door:**

Sliding door incorporated within a revolving door can provide a more efficient flow for faster and heavier pedestrian traffic.

- **Balanced Door:**

Balanced door is able to provide maximum opening width for peak flows, large cargo and evacuation situations.

Main Functions

- **Emergency Stop Button:**

The emergency stop button is able to stop movement of the automatic door under any circumstance, ensuring safety of the passerby in case of emergency.

- **Key Switch:**

The key switch has three modes: Revolving Door, Sliding Door and Remote-Controlled Door.

- **LED:**

The LED lighting panel displays the operating state of the door, and shows possible error codes for troubleshooting.

- **Disabled Push Button:**

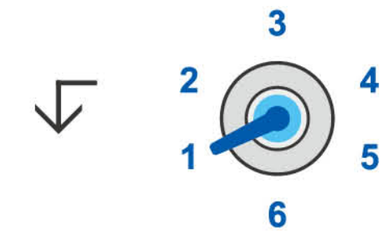
The disabled button can control the speed of the door and slow it down for the safety of younger, older and disabled passersby.

- **Backup Battery:**

The backup battery ensures normal operations when the door is powered off.

- **Mobile Phone / Internet Monitoring:**

KBB's unique control software can be used to facilitate the management of the door through mobile phones or the internet. With this feature, the operator could monitor the operation status and alarms of the door.



- **Program Selector:**

The switch allows the user to control the operating state of the door through six programs depending on their needs.

[1] Night Lock

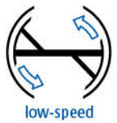
In this position, the door stops after automatically revolving at the Night Lock position. The electromechanical lock is then triggered to lock the door, keeping the building safe.

[2] Opening Position Stop/Start

In this position, the door will automatically stop in the open position when nobody passes by. When the door is approached upon, infrared radars will be activated and the door will revolve for one circle (and continue when people walk through). This setting is ideal for normal weather conditions and when the temperature difference is minimal.

[3] Closing Position Stop/Start

In this position, the door will automatically stop in the closing position when nobody passes by. When the door is approached upon, infrared radars will be activated and the door will revolve for one circle (and continue when people walk through). This setting is ideal for difficult weather conditions and when the temperature difference is more significant.



[4] Low/ High Speed

In this position, the automatic door will revolve slowly (0.5~2.5 c/min, adjustable) when no one is passing by. When the door is approached upon, infrared radars will be activated and the door will revolve for one circle (in a higher speed, to allow a more efficient passage). This setting is ideal for difficult weather conditions and when the temperature difference is more significant.

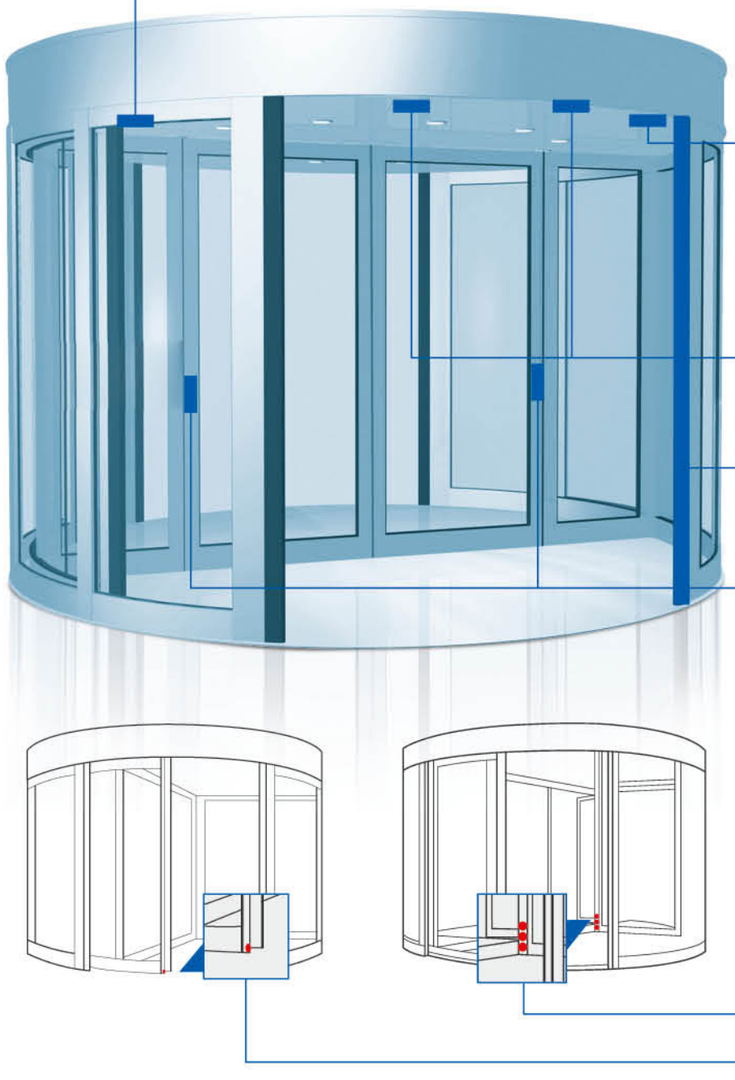
[5] Revolving Counter-Clockwise Manually

In this position, the infrared radars are disabled and the door stops revolving. The doors will revolve slowly in a counter clockwise direction when the reset button is pushed. In this position, the door can be pushed to operate (force: 110~150N). This setting is most suitable for cleaning and maintenance.

[6] Revolving Clockwise Manually

In this position, the infrared radars are disabled and the door stops revolving. The doors will revolve slowly in a clockwise direction when the reset button is pushed. In this position, the door is to be pushed to operate. This setting is most suitable for cleaning and maintenance. This function also ensures that any trapped object can be safely removed.

Safety Design



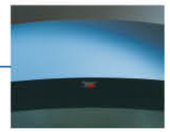
OPEN UP NEW HORIZONS

1 Anti-Collision Sensor:

In case of a person or object obstruction, the system will stop and the door will halt. This sensor is operational at all times.

2 Anti-Squeeze Sensor:

When the front safety switch on the door comes within 700mm of the outer safety rubber (distance can be adjusted), the sensor function becomes active. If there are any people or object obstructions within the limit range at this time, the system will stop and the doors will halt.



3 Radar:

When detecting moving objects, sensor will be activated and the door starts to operate.

4 Vertical Safety Buffer:

When detecting moving objects, sensor will be activated and door starts to operate.

5 Sliding Door Anti-Squeeze Sensor (Ensure the safety of passengers when the sliding door operates):

When operating the sliding doors, if the sensor is activated, the sliding doors will automatically reverse direction, avoiding squeezing the pedestrian.

6 Photo Cell:

Six total, if a pedestrian is sensed, the doors will immediately reduce speed, brake and finally stop.

7 Foot Sensor (optional):

Installed below the compressible horizontal safety buffer, this sensor helps protect pedestrian.

Safety Design

Advanced Safety Function

- **Safety Relay:**

The safety relay can monitor whether the safety buffer works at any moment. The door will stop suddenly when the buffer breaks down.

- **Torque Control Function:**

When the distance between the moving door wing and the fixed one is less than a certain space, the drive power output from the motor will reduce to a safe level, so that the pedestrian will not be hurt even if all the sensors are breakdown.

- **Mechanical Axis Braking Driving:**

The rotary table and the motor brake will work simultaneously to stop the door, providing the passerby complete safety in case of an emergency.

- **Emergency Switch Function:**

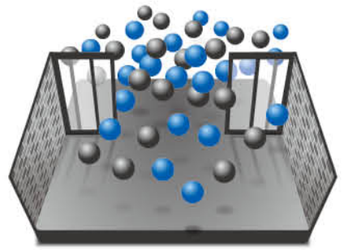
To ensure complete safety, a UPS power supply is incorporated in case of emergencies. This switch prevents a passerby from being trapped inside a door in extreme situations.

Energy-saving and Environment-friendly

KBB's revolving doors use an unique design referred to as windmill revolving body. Its revolving direction is consistent with that of the wind. The design cuts of the exchange of indoor and outdoor air, allowing for cost and energy savings of 10% or more than other revolving doors.

Through simple calculation, you will find the price difference of revolving doors and sliding doors is equal to the energy consumption cost saving of 2-3 years by using revolving door instead of sliding door.

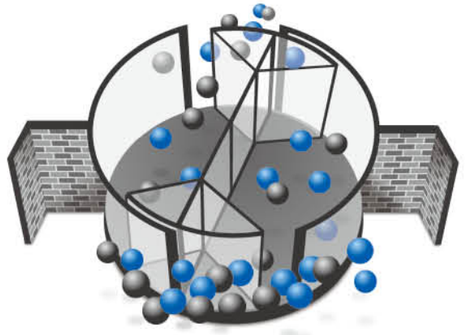
As for the sliding doors, the amount of air exchanged varies according to the size of the area, time of the opening of the door and the speed of airflow.



sliding doors

● ● = Air

The air exchange for revolving doors depends only on the inside air volume and the times of opening.

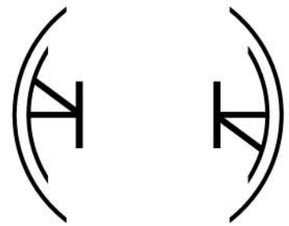


revolving doors

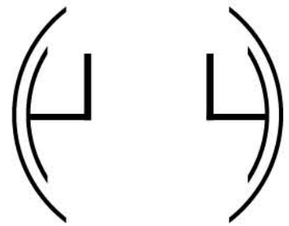
Environment Energy Consumption(EC)=Temperature Difference Between Internal & External(TD)× Air Exchange Volume(EV)×Specific Heat Capacity of Air(C)

Series

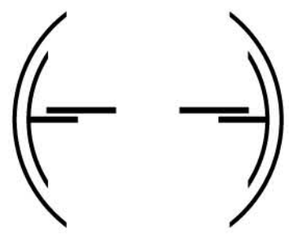
KBB offers different series of two-wing doors to fulfill its consumers' requirements and expectations.



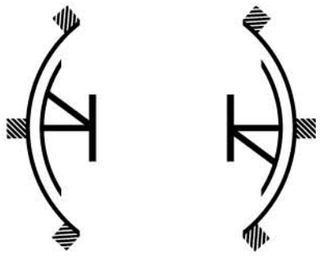
- Model **KA022**
- Key Feature
  the operations of three in one



- Model **KA022-2W**
- Key Feature
  two-wing revolving door with the swing door function

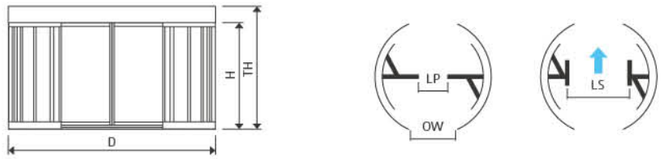


- Model **KA042**
- Key Feature
  two-wing door without showcase



- Model **KA062**
- Key Feature
  frame decorated with column of different shapes

Specifications



Name \ Model	• KA022-2364	• KA022-2424	• KA022-2484
Inner Diameter	3600mm	4200mm	4800mm
Outer Diameter	3688mm	4288mm	4888mm
Total Height	2640mm	2640mm	2640mm
Clear Passage Height	2300mm	2300mm	2300mm
Opening Width	1800mm	2100mm	2400mm
Opening Width of Sliding Door	1100mm	1400mm	1700mm
Emergency Escape Passage Width	1800mm	2100mm	2400mm
Canopy Height	340mm	340mm	340mm
Persons/Min	48	64	80

• Power supply	220V/AC±10% 50Hz
• Revolving door motor power consumption	250W/AC×2=500W/AC
• Lighting	12V/AC 420W
• Lighting power	12V/AC 600W
• High speed adjustment range	1~4r/m
• Low speed adjustment range	0.5-2.5r/m
• Ambient temperature range	-15°C—50°C

• Standard

Curved glass: 4+4/5+5mm laminated glass
Laminated safety glass
Aluminum frame
Aluminum ceiling
Control unit
Digital display screen
Emergency stop button
Drive unit
Ceiling spot light:12V/AC
Backup battery
Radar

• Optional Parts

Surface finish: anodizing, stainless steel cladding, powder coating
Waterproof cover/dust cover
Mobile phone monitoring system
Fixed door wing safety switch
Safety relay
Electromagnetism brake
LED ceiling spot light
Stainless steel ceiling

Note: Design and specifications are subject to change without notice, as they are based on product development.

Surface Treatment

• Anodizing

KBB keeps the strictest and highest standards in its process. The finish of the anodized aluminum is no exception, offering more than twenty different choices of color and surface texture finishing. Other advantages of this surface treatment include its wear-resistance, corrosion resistance, electrostatic prevention, amongst other features to meet different architectural styles and demands.

• Stainless Steel Cladding

Mirror surface

Satin pattern

Hair pattern

Carving pattern

Arenaceous pattern

• Coating

KBB provides two kinds of coating: powder coating and PVDF coating.