ABOUT REVOLVING DOORS

Revolving doors offer an impressive aesthetic appearance and effectively separate indoor and outdoor conditions. IDC/KBB’s superior designs provide an imposing entrance to any building, while serving as an airlock as well, to minimize a building’s heating and air conditioning losses, therefore maximizing energy savings. There are numerous variations and functions according to the needs 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 the doors can be manual or automatic.

KA022

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

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.

DRUM WALL LOAD-BEARING

The KA022 doors use IDC/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 that are pole-bearing, the KA022 provides a door with better stability.
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 stow 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:
IDC/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 manager has remote operation functions and is able to monitor the operation status and alarms.

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

Opening Position Stop/Start
The key switch has three modes: Revolving Door, Sliding Door and Remote Controlled Door.

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.

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.

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.

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.
**ADVANCED SAFETY DESIGN**

**Safety Relay**
The safety relay can monitor whether the compressible horizontal safety buffer works at any moment. An alarm will sound 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 driving force will be reduced. At this point, users entering the space will not be hurt.

**Mechanical Axis Braking Driving**
The rotary table and the motor brake at the same time, 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. When the passengers are trapped inside a door, this function can make the door open.

**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.

**Anti-Squeeze Sensor**
When the from safety switch on the door comes within 27 9/16” (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.

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

**Vertical Safety Switch**
When detecting moving objects, sensor will be activated and door starts to operate.

**Sliding Door Anti-Squeeze Sensor (Ensure the safety of passengers when the sliding door operates)**
When operating the sliding door, if the sensor is activated, the sliding doors will automatically reverse direction, avoiding squeezing the pedestrian.

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

**Foot Sensor (optional)**
Installed below the compressible horizontal safety buffer, this sensor helps protect pedestrian.
ENERGY-SAVING AND ENVIRONMENT-FRIENDLY

IDC/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. It is estimated that the cost of a IDC/KBB two-wing automatic revolving door is equivalent to the money it saves in three years.

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.

The air exchange for revolving doors depend only on the inside air volume and the number of times

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

KA022
Features the operations of three in one

KA022-2W
Features two-wing revolving doors with the function swing doors

KA042
Features two-wing doors without showcases

KA062
Features frame decorated with column of different shapes
# REVOLVING DOOR

## TWO-WING REVOLVING DOOR

### TWO-WING REVOLVING DOORS DIMENSION

<table>
<thead>
<tr>
<th>Names</th>
<th>KA022-2364</th>
<th>KA022-2424</th>
<th>KA022-2484</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Diameter</td>
<td>141.73” (3600mm)</td>
<td>165.35” (4200mm)</td>
<td>188.98” (4800mm)</td>
</tr>
<tr>
<td>Outer Diameter</td>
<td>145.20” (3688mm)</td>
<td>168.82” (4288mm)</td>
<td>192.44” (4888mm)</td>
</tr>
<tr>
<td>Total Height</td>
<td>103 15/16” (2640mm)</td>
<td>103 15/16” (2640mm)</td>
<td>103 15/16” (2640mm)</td>
</tr>
<tr>
<td>Clear Passage Height</td>
<td>90.55” (2300mm)</td>
<td>90.55” (2300mm)</td>
<td>90.55” (2300mm)</td>
</tr>
<tr>
<td>Opening Width</td>
<td>70.87” (1800mm)</td>
<td>82.68” (2100mm)</td>
<td>94.49” (2400mm)</td>
</tr>
<tr>
<td>Opening Width of Sliding Door</td>
<td>43 5/16” (1100mm)</td>
<td>55 1/8” (1400mm)</td>
<td>66.93” (1700mm)</td>
</tr>
<tr>
<td>Emergency Escape Passage Width</td>
<td>70.87” (1800mm)</td>
<td>82.68” (2100mm)</td>
<td>94.49” (2400mm)</td>
</tr>
<tr>
<td>Canopy Height</td>
<td>13.39” (340mm)</td>
<td>13.39” (340mm)</td>
<td>13.39” (340mm)</td>
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<tr>
<td>Persons/Min</td>
<td>48</td>
<td>64mm</td>
<td>80mm</td>
</tr>
</tbody>
</table>

### TECHNICAL PARAMETERS

- **Power supply**: 220 V/AC ± 10% 50Hz
- **Revolving door motor power consumption**: 250 W/ACx2=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

### CONFIGURATION

<table>
<thead>
<tr>
<th>Standard</th>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curved glass: 4+4mm/ 5+5mm laminated glass/</td>
<td>Surface finish: anodizing, stainless steel cladding,</td>
</tr>
<tr>
<td>Laminated safety glass/ Aluminum frame</td>
<td>powder coating</td>
</tr>
<tr>
<td>Aluminum ceiling/ Control unit</td>
<td>waterproof cover dust cover</td>
</tr>
<tr>
<td>Digital display screen/ Emergency stop button/</td>
<td>Mobile phone monitoring system</td>
</tr>
<tr>
<td>Drive unit</td>
<td>Fixed door wing safety switch</td>
</tr>
<tr>
<td>Ceiling spot light: 12V/AC/</td>
<td>Safety relay/ Electromagnetism brake</td>
</tr>
<tr>
<td>Backup battery/ Radar</td>
<td>LED ceiling spot light/ Stainless steel ceiling</td>
</tr>
</tbody>
</table>

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