



耶鲁智能开窗系统 Yale Intelligent Window Opening System 2018



地 址：上海市长宁区天山西路1068号  
联强国际广场A栋5楼A单元  
电 话：+86 21-6084-2888  
传 真：+86 21-6084-2777  
网 址：www.yalehardware.cn

耶鲁透过一系列不同的产品以其独特的全球影响力，  
打造百年品牌，是保障您家庭和财物安全的首选方案。

亚萨合莱是全球开门解决方案领先者，致力于满足用  
户对财产、人身安全以及生活便利性的需求。

**耶鲁智能开窗系统**  
Yale Intelligent Window-Opening System

An ASSA ABLOY Group brand

**ASSA ABLOY**

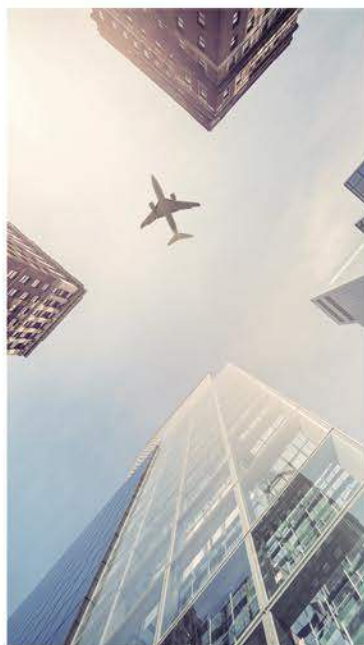
An ASSA ABLOY Group brand

**ASSA ABLOY**









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Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活



## 亚萨合莱简介

### ASSA ABLOY In Brief

亚萨合莱 (ASSA ABLOY) 是全球最大的智能锁和安防解决方案供应商。在全球所有已安装的锁具和安防产品中，亚萨合莱的子产品就占了十分之一。

自1994年成立以来，亚萨合莱由最初的一家区域性小公司发展成今天庞大的跨国集团，拥有约44000名员工，年销售额超过570亿瑞典克朗（约510亿人民币）。

在快速增长的安防市场中，集团已在访问控制、识别技术、入口自动化和酒店安保等领域处于领先地位。

我们的业务遍布世界各地的成熟市场和新兴市场，在欧洲、北美和亚太地区都占有领先地位。

ASSA ABLOY is the largest global supplier of intelligent lock and security solutions. Our products constitute one tenth of worldwide sales share on the installed locks and security products.

Since its formation in 1994, ASSA ABLOY has grown from a regional company into an international group with around 44000 employees and annual sales of over 57 billion SEK (approximately 51 billion 51 billion RMB).

In the fast growing security segment, the Group has taken the leading position in fields such as access control, identification technology, entrance automation and hotel security etc.

## 耶鲁品牌介绍

### Yale Brand Introduction

耶鲁品牌系亚萨合莱集团下属独立运营的高端全球性百年品牌。

美国的“耶鲁”品牌起源于1840年，美国纽约新港，经过几代人的潜心钻研和努力，成为美国最负盛名的锁具专家。1868年成立耶鲁汤尼公司，当时员工35人。20世纪初期开始全球化，发展，通过合资、收购和兼并迅速扩展，到目前员工达到12000人。

2000年被瑞典上市企业ASSA ABLOY收购，双方取长补短，耶鲁 (Yale) 技术研发和质控结合亚萨的全球化市场推广，使耶鲁品牌真正插上了腾飞的翅膀，成为全球知名品牌。耶鲁 (Yale) 与韩国数码电子锁领导者易保 (iRevo) 合作，在五金锁具中融入了先进的电子数码技术，使耶鲁品牌上升为高品质、智能化、安全、便利和时尚的领军品牌，成为ASSA ABLOY全球开门行业的重要组成部分。

Yale brand group's independent high-end Assa Abloy global brand for a century.

The American brand "Yale" was originated from Newport, New York in 1840, after several generations of great efforts and elaborative cultivation, Yale becomes America's most prestigious experts of locks. Yale & Towne company was founded in 1868, with 35 employees. Yale started its globalization development in the beginning of 20th century, through joint ventures, mergers and acquisitions and rapid expansion. Up to now, it has 12000 staff.

In 2000, Yale was acquired by ASSA ABLOY, the expert of door-opening, which is a listed company in Sweden. Both of them other's strong points to offset their weakness, Yale combined its strength of Technical research and quality control with Assa ABLOY's global marketing, brought the soaring wings to Yale brand and made it the world's well-known brand. Yale cooperated with eBao Tech (iRevo) from South Korean which is the leader in digital electronic locks, integrated the advanced electronic digital technology into hardware locks, promoting Yale to a leading brand with high quality, intelligence, security, convenience and fashion, turned it into an important part of the ASSA ABLOY global door opening industry.





百年耶鲁 智慧生活  
Centuries Yale, Wisdom Life!

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——开启您的智慧生活

## 耶鲁智能开窗系统发展历史

Yale Brand Development History Of Intelligent Open Window System

1840

1840年，美国纽约新港耶鲁锁具诞生。

In 1840, Yale locks were created in Newport New York.

1868

1868年，成立耶鲁汤尼公司，员工35人。

In 1868, Yale & Towne company was founded with 35 employees.

1900

20世纪初期开始全球化发展，通过合资、收购和兼并迅速扩展，到目前员工达到12000人。

Yale started it's globalization development in the beginning of 20th century, through joint ventures, mergers and acquisitions and rapid expansion. up to now, it has 12,000 staff.

2000

2000年亚萨合莱收购耶鲁五金锁具品牌，促进了耶鲁的全球化发展。

In 2000, ASSA ABLOY acquired Yale hardware lock brand, and facilitated Yale's globalization development.

2012

2012年耶鲁开始与国强五金合作，联合耶鲁电子控制系统及国强的机械制造系统，合作研发耶鲁电动开窗系统。

In 2012, Yale started to cooperate with Guoqiang Hardware CO.,by combining Yale's electronic control systems and Guoqiang's mechanical manufacturing system, and jointly developed the Yale Electric Window-Opening system.

2014

2014年诞生耶鲁电动开窗系统。

In 2014, Yale Electric Window-Opening system was launched.





## 系统介绍

System Introduction

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消防排烟相关规定 Fire Protection Rules

《建筑设计防火规范》 GB 50016-2014 第八章 8.5 防烟和排烟设施。  
《Code for fire protection design of buildings》 GB 50016-2014 Charter-8 8.5 Smoke and exhaust facilities.

8.5 防烟和排烟设施  
8.5 Smoke and exhaust facilities

8.5.1 建筑的下列场所或部位应设置防烟设施：

Smoke prevention facilities should be set up in the following places or parts of the building:

- 1. 防烟楼梯间及其前室； Smoke proof staircase and its antechamber;
- 2. 消防电梯间前室或合用前室； Fire elevator or common antechamber;
- 3. 避难走道的前室、避难层。 Antechamber, asylum aisle refuge floor.

建筑高度不大于50m的公共建筑、厂房、仓库和建筑高度不大于100m的住宅建筑，当其防烟楼梯间的前室或合用前室符合下列条件之一时，楼梯间可不设置防烟系统：

The height of the building is not greater than 50m public buildings, workshop, warehouse and building height not more than 100m of the residential building, when the anti smoke stair room or one of the following conditions in line with common antechamber, staircase may not be set in the smoke control system:

- 1. 前室或合用前室采用敞开的阳台、凹廊； 1.Or common antechamber with open balcony, concave corridor.
- 2. 前室或合用前室具有不同朝向的可开启外窗，且可开启外窗的面积满足自然排烟口的面积要求。  
2.Or common antechamber can open the windows of different orientations, and can be opened outside the window area to meet the requirements of natural smoke vent area.

8.5.2 厂房或仓库的下列场所或部位应设置排烟设施：

The following places or parts of the factory or warehouse should be set up:

- 1. 丙类厂房内建筑面积大于300㎡且经常有人停留或可燃物较多的地上房间，人员或可燃物较多的丙类生产场所；  
Class C workshop building area of more than 300 square meters and people often stay or more combustible floor room, class C production place more or combustible;
- 2. 建筑面积大于5000㎡的丁类生产车间； Class D production workshop building area of more than 5000 square meters;
- 3. 占地面积大于1000㎡的丙类仓库； It covers an area of more than 1000 square meters of class C warehouse;
- 4. 高度大于32m的高层厂房（仓库）内长度大于20m的疏散走道，其他厂房（仓库）内长度大于40m的疏散走道。

The evacuation aisle in a tall building (warehouse) with a height greater than 32m in length more than 20m, the evacuation aisle in the other workshop (warehouse) with a length greater than 40m.

8.5.3 民用建筑的下列场所或部位供应设置排烟设施：

The provision of smoke and exhaust facilities for the following places or parts of the civil building.

- 1. 设置在一、二、三层且房间建筑面积大于100㎡的歌舞娱乐放映游艺场所，设置在四层及以上楼层、地下或半地下的歌舞娱乐放映游艺场所；

Set in one or two, three and room construction area of more than 100 square meters public entertainment places, set the floor, in the four layer and above the underground or semi underground public entertainment places;

- 2. 中庭； Stalls;
- 3. 公共建筑内建筑面积大于100㎡且经常有人停留的地上房间；

The public building construction area of more than 100 square meters and people often stay on the room;

- 4. 公共建筑内建筑面积大于300㎡且可燃物较多的地上房间；

The public building construction area of more than 300 square meters and more combustible ground room;

- 5. 建筑内长度大于20m的疏散走道。 The evacuation aisle in the building with a length greater than 20m.

8.5.4 地下或半地下建筑（室）、地上建筑内的无窗房间，当总建筑面积大于200㎡或一个房间建筑面积大于50㎡，且经常有人停留或可燃物较多时，应设置排烟设施。

The construction of underground or semi underground (room), the room without windows in the building on the ground, when the total construction area of more than 200 square meters and a building area of more than 50 square meters of the room, and people often stay or more fuel, exhaust facilities should be set up.

建筑分类查询表 Building Category Query Tables

| 名称<br>Name                           | 分类<br>Classify                   | 项目<br>Item                                                                                                                                                                                                                                                  |
|--------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 一类高层建筑<br>Class 1 High Rise Building | 居住建筑<br>Residential Architecture | 高级住宅和十九层及十九层以上的普通住宅<br>High grade House and Common house with 19 stories and above                                                                                                                                                                          |
|                                      | 公共建筑<br>Public Building          | 医院<br>Hospital                                                                                                                                                                                                                                              |
|                                      |                                  | 高级旅馆<br>High Grade Hotel                                                                                                                                                                                                                                    |
|                                      |                                  | 建筑高度超过50m或每层建筑面积超过100㎡的商业楼、展览楼、综合楼、电信楼、财贸金融楼<br>Building height exceeds 50m or commercial building, exhibition buildings, comprehensive buildings, telecommunication buildings, pnance and trade buildings with area more than 1000 ㎡ on each boor          |
|                                      |                                  | 建筑高度超过50m或每层建筑面积不超过1500㎡的商住楼<br>Building height exceeds 50m or commercial residential building with are more than 1500 ㎡ on each Boor                                                                                                                       |
|                                      |                                  | 中央级和省级（含计划单列市）广播电视楼<br>Broadcast and TV building of Central Authority Grade and Provincial Grade (including Separate Listed Cities)                                                                                                                         |
|                                      |                                  | 网局级和省级（含计划单列市）电力调度楼<br>Power Control Building of Net and Bureau grade and Provincial Grade (including Separate Listed Cities)                                                                                                                               |
|                                      |                                  | 省级（含计划单列市）邮政楼、防灾指挥调度楼<br>Provincial Grade (including Separate Listed Cities) Post Of pce buildings and Disaster Prevention Command and control building                                                                                                     |
|                                      |                                  | 藏书超过100万册的图书楼、书库<br>Library and book storeroom with more than 1000000 books                                                                                                                                                                                 |
|                                      |                                  | 重要的办公楼、科研楼、档案楼<br>Vital of pce building, Scientipc Research building, Archives                                                                                                                                                                              |
|                                      |                                  | 建筑高度超过50m的教学楼和普通的旅馆、办公楼、科研楼、档案楼等<br>Teaching buildings, normal hotels, of pce buildings, scientipc research buildings and archives that high more than 50m                                                                                                  |
| 二类高层建筑<br>Class 2 High Rise Building | 居住建筑<br>Residential Architecture | 十层至十八层的普通住宅<br>Common house with 10 to 18 stories                                                                                                                                                                                                           |
|                                      | 公共建筑<br>Public Building          | 除一类建筑以外的商业楼、展览楼、综合楼、电信楼、财贸金融楼、商住楼、图书馆<br>All the commercial buildings, exhibitions, comprehensive buildings, telecommunication buildings, Pnance and trade buildings, commercial residential buildings, libraries, book stores except the Class 1 buildings |
|                                      |                                  | 省级以下邮政楼、防灾指挥调度楼、广播电视楼、电力调度楼<br>Post Ofpce buildings and Disaster Prevention Command and control building, Broadcast and TV buildings, Power Control Buildings that under provincial grade                                                                   |
|                                      |                                  | 建筑高度不超过50m的教学楼和普通的旅馆、办公楼、科研楼、档案楼等<br>Teaching buildings, normal hotels, ofpce buildings, scientipc research buildings and archives thathigh less than 50m                                                                                                   |

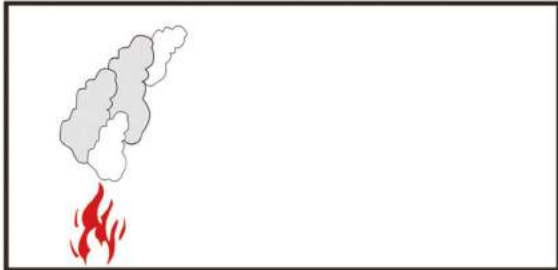


# 消防排烟的重要作用 The Important Function Of Fire Safety And Smoke Venting System

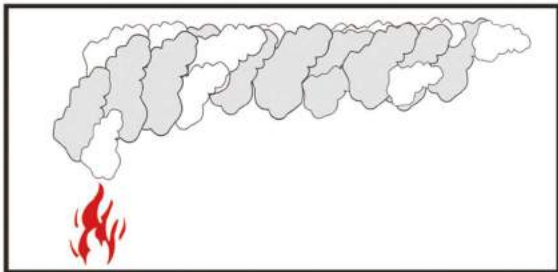
消防排烟系统的功能是在火灾发生时，导出烟雾和热量，并抑制建筑材料的燃烧；维持逃生和救援通道的能见度；有利于消防人员判断火势，采取相应应对措施，进而加快灭火进度，避免火势蔓延，保护人的生命安全，降低财产损失。

The function of Fire safety and smoke venting system is to exhaust smoke and heat energy, restrain the burning of construction materials, to maintain the visibility of emergency road and relief channel, the system is benepcial for fireman to determine fire situation and apply measures, to expedite the extinguishing progress, avoid fire spread, protect the life safety, reduce the property loss.

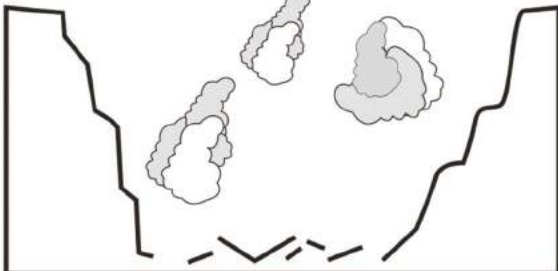
无消防排烟窗的建筑发生火警时的情况。  
Construction without Fire-Safety and Smoke Venting Window in Fire Alarm Situation.



火警发生时开始产生烟雾。  
Smoke arises in pre alarm situation.

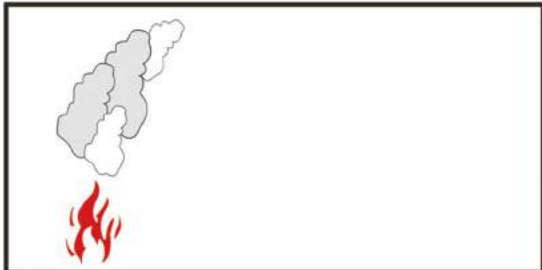


大量烟雾充塞在室内，给逃生和拯救带来阻碍。  
The room is full of smoke, causes obstacles to escape and rescue.

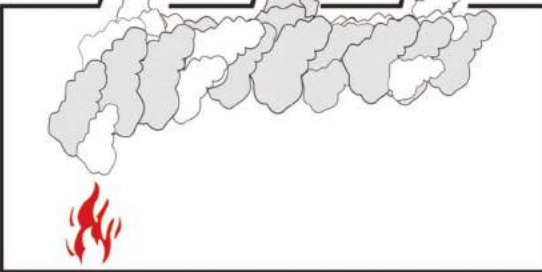


大量高温燃烧气体导致建筑物最终崩溃。  
Massive burning air with high temperature results in the collapse of construction pnally.

有消防排烟窗的建筑发生火警时的情况。  
Construction with Fire-Safety and Smoke Venting Window in Fire Alarm Situation.



火警发生时开始产生烟雾。  
Smoke arises in pre alarm situation.



烟雾迅速向外排出，保留了逃生和拯救通道。  
The smoke can be exhausted quickly, keep the emergency road and rescue channel clear.



地面浓烟减少室内气温下降，建筑物无法发生倒塌。  
The dense smoke decreases, and the room temperature reduces, the construction doesn't fall down.

火灾中真正危害人类生命的元凶是浓烟。 Smoke is the actual crime culprit to people's life in fire accident.

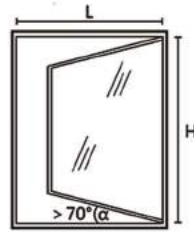
# 排烟窗有效面积计算方法 Calculation Method Of Effective Area Of Smoke Exhaust Window

排烟窗有效面积计算方法（引自《建筑防排烟系统技术规范》相关规定）

- 1、当开窗角度大于70°时，其面积应按窗的面积计算；如图示1
- 2、当开窗角度小于70°时，其面积应按窗的水平投影面积计算；如图示2
- 3、当采用侧拉窗时，其面积应按开启的最大窗口面积计算；如图示3
- 4、当采用百叶窗时，其面积应按窗的有效开口面积计算；
- 5、当采用平推窗设置在顶部时，其面积应按窗的1/2周长与平推距离乘积计算，且不应大于窗面积；如图示4
- 6、当平推窗设置在侧墙时，其面积应按窗的1/4周长与平推距离的乘积计算，且不应大于窗面积；如图示5
- 7、自然排烟采用顶窗时，其防烟分区内外墙上的侧窗面积不应计入有效排烟面积。如图示6

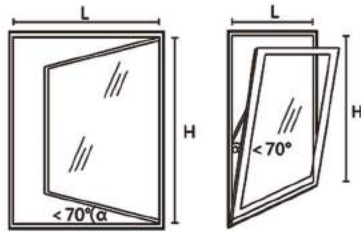
Calculation method of effective area of smoke exhaust window (from technical regulations for building smoke control system)

1. When the window angle is greater than 70 degrees, the area should be calculated according to the window area; as shown in Figure 1
2. When the window angle is less than 70 degrees, the area should be calculated according to the horizontal projection area of the window; as shown in Figure 2
3. When using side pull windows, its area should be calculated according to the maximum window area open; as shown in Figure 3
4. When the blinds are used, the area should be calculated according to the effective opening area of the window;
5. When the flat push window is set at the top, its area should be calculated according to the 1/2 perimeter of the window and the push distance product, and should not be greater than the window area; as shown in Figure 4
6. When the flat window is set on the side wall, its area should be calculated according to the product of the 1/4 perimeter and the pushing distance of the window, and should not be greater than the window area; as shown in Figure 5
7. When the top window is used for natural smoke exhaust, the area of the side windows on the inner and outer walls of the smoke prevention area should not be included in the effective smoke exhaust area. As shown in Figure 6



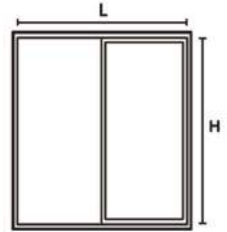
平开窗开窗角度大于70°  
排烟窗的有效面积  $S=L \times H$

图示1



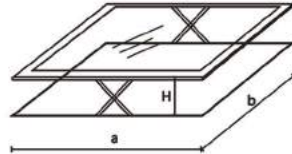
平开窗开窗角度小于70° 内开下悬开窗角度小于70°  
排烟窗的有效面积  $S=L \times \sin \alpha \times H$

图示2



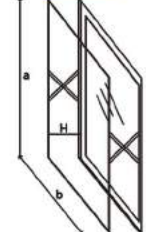
侧拉窗  
排烟窗的有效面积  $S=L \times H$

图示3



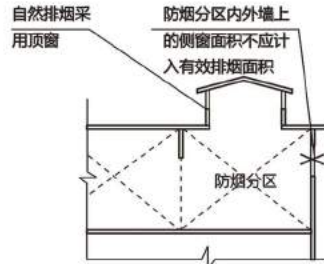
设置在顶部的平推窗  
排烟窗的有效面积  
 $S=1/2 \times (2a+2b) \times H$ 且 $S \leq a \times b$

图示4



设置在侧墙平推窗  
排烟窗的有效面积  
 $S=1/4 \times (2a+2b) \times H$ 且 $S \leq a \times b$

图示5

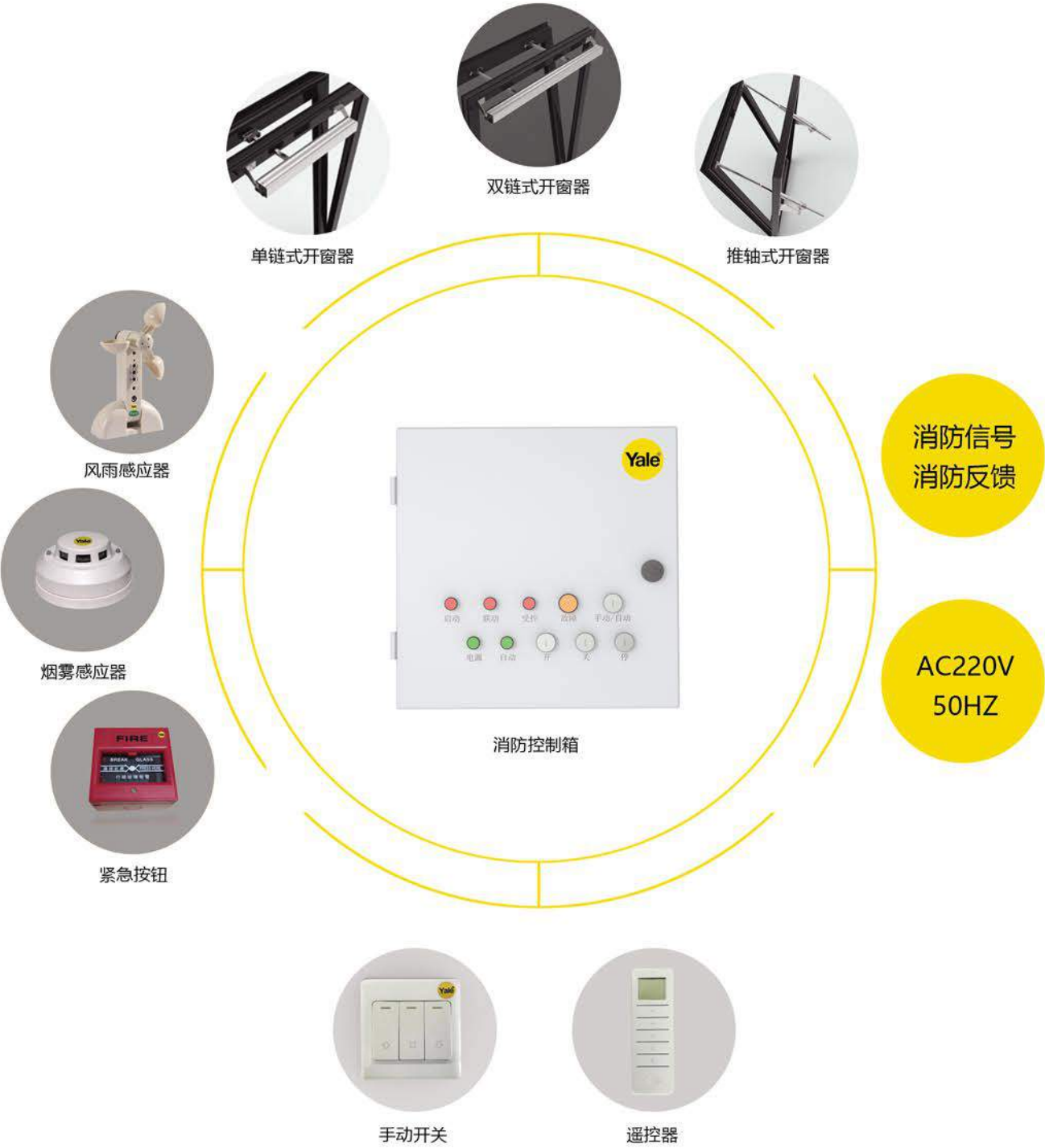


自然排烟采用顶窗  
防烟分区内外墙上的侧窗面积不应计入有效排烟面积

图示6



消防排烟系统 Fire Smoke Evacuation System



配置方案 Configuration Scheme

| 货号<br>Item No. | 可接单链式<br>开窗器数量<br>Qty.of Single<br>Chain Actuator<br>that can be<br>linked | 可接双链式<br>开窗器数量<br>Qty.of Double<br>Chain Actuator<br>that can be<br>linked | 可接推轴式<br>开窗器数量<br>Qty.of Linear<br>Spindle Actuator<br>that can be linked |       |       | 需接入<br>风雨感应器<br>数量<br>Required Rain<br>and wind<br>sensor Qty. | 需接入<br>紧急按钮<br>数量<br>Required<br>Emergency<br>Buttom Qty. | 需接入<br>手动开关<br>数量<br>Required<br>Manual Switch<br>Qty. | 需接入<br>遥控器数量<br>Required<br>Remote<br>Controler<br>Qty. | 需接入<br>烟感感应器<br>数量<br>Required<br>Smoke Sensor<br>Qty.           |
|----------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|-------|----------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------------------|
|                |                                                                            |                                                                            | 800N                                                                      | 1000N | 2000N |                                                                |                                                           |                                                        |                                                         |                                                                  |
| XFKZ-I-16A     | 10                                                                         | 5                                                                          | 13                                                                        | 10    | 6     | 1                                                              | 1                                                         | 1                                                      | 1                                                       | 根据设计要求<br>或客户需求<br>As per design<br>or customer's<br>requirement |
| XFKZ-I-32A     | 21                                                                         | 10                                                                         | 26                                                                        | 21    | 12    | 1                                                              | 1                                                         | 1                                                      | 1                                                       |                                                                  |
| XFKZ-I-64A     | 45                                                                         | 22                                                                         | 55                                                                        | 45    | 26    | 1                                                              | 1                                                         | 1                                                      | 1                                                       |                                                                  |

系统介绍 System Introduction

消防排烟系统，由烟雾感应器、风雨感应器、消防中心系统、消防控制箱、紧急按钮、开窗器、手动开关、遥控控制器等组成。在烟感检测到火灾时，发送信号给消防中心系统，消防中心处理判断后，报警并联动相应的消防控制箱，开启该区域消防排烟窗，导出烟雾和热量。在日常，可以使用手动开关或遥控器，开启消防排烟窗通风。消防控制箱内配有备用电源，在断电的情况下，可以正常开关消防排烟窗。

Fire-safety and smoke Venting System is consist of System is consist of Smoke Sensor, Wind and Rain Sensor, Fire-Safety Center System, Fire-Safety Control Box, Emergency Button, Window Actuator, Manual Switch etc. While the pre is detected by Smoke Sensor, the system will send signal to Fire-Safety Center will process and determine the signal, make alarm, link the Fire-Safety Control Box in the relevant area, and open the Fire-Safety and Smoke Venting window, to exhaust the smoke and heat energy. In usual, the Fire-Safety and Smoke Venting Window can be opening by Manual Switch and Remote Controller to get ventilation. There is also a back-up power in the Fire-Safety Control Box, to make sure the Fire-Safety and Smoke Venting Window can be open/closed normally in the outage situation.



智能通风系统 Intelligent Venting System Sketch



配置方案 Configuration Scheme

| 货号<br>Item No. | 可接单链式<br>开窗器数量<br>Qty.of Single<br>Chain Actuator<br>that can be<br>linked | 可接双链式<br>开窗器数量<br>Qty.of Double<br>Chain Actuator<br>that can be<br>linked | 可接推轴式开窗器数量<br>Qty.of Linear Spindle Actuator that can be linked |       |       | 需接入风雨<br>感应器数量<br>Required<br>Rain andwind<br>sensor Qty. | 需接入手动<br>开关数量<br>Required<br>Manual<br>Switch Qty. | 需接入遥控<br>器数量<br>Required<br>Remote<br>Controle Qty. | 需接入烟雾<br>感应器数量<br>Required<br>Smoke Sensor<br>Qty.               |
|----------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------|-------|-------|-----------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------|
|                |                                                                            |                                                                            | 800N                                                            | 1000N | 2000N |                                                           |                                                    |                                                     |                                                                  |
| ZNTF-I-16A     | 10                                                                         | 5                                                                          | 13                                                              | 10    | 6     | 1                                                         | 1                                                  | 1                                                   | 根据设计要求<br>或客户需求<br>As per design<br>or customer's<br>requirement |
| ZNTF-I-32A     | 21                                                                         | 10                                                                         | 26                                                              | 21    | 12    | 1                                                         | 1                                                  | 1                                                   |                                                                  |
| ZNTF-I-64A     | 45                                                                         | 22                                                                         | 55                                                              | 45    | 26    | 1                                                         | 1                                                  | 1                                                   |                                                                  |

系统介绍 System Introduction

智能通风系统，由烟雾感应器、风雨感应器、通风控制箱、开窗器、手动开关、遥控控制器等组成。在风雨天气，当风速和雨量达到预设值时，风雨感应器发送信号给通风控制箱，关闭控制区域电动窗，避免风雨的危害。在日常，可以使用手动开关或遥控器，控制电动窗开关。

In usual, Intelligent Venting System is consist of System Sensor, Wind and Rain Sensor, Venting Control Box, Window Actuator, Manual Switch and Remote Controller etc. When it's windy and raining, the Wind and Rain Sensor will send signal to Venting Control Box if the volume of wind and rain reach to the preset value. In usual, people can use the Manual Switch and Remote Controller to open/close the electrical windows.



开关控制方式 The Control Way Of Switch



配置方案 Configuration Scheme

| 货号<br>Item No. | 可接单链式<br>开窗器数量<br>Qty. of Single<br>Chain Actuator<br>that can be<br>linked | 可接双链式<br>开窗器数量<br>Qty. of Double<br>Chain Actuator<br>that can be<br>linked | 可接推轴式开窗器数量<br>Qty. of Linear Spindle Actuator that can be linked |       |       | 可选遥控器货号<br>Available Remote<br>Controller No. |
|----------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------|-------|-------|-----------------------------------------------|
|                |                                                                             |                                                                             | 800N                                                             | 1000N | 2000N |                                               |
| D-KZ04-1A      | 1                                                                           |                                                                             |                                                                  |       |       | D-KZ05                                        |
| D-KZ04-2A      | 2                                                                           | 1                                                                           | 2                                                                | 2     | 1     | D-KZ05                                        |

系统介绍 System Introduction

开关控制方式，由开窗器、触控开关、遥控器等组成。在日常，可以使用触控开关或遥控器，控制电动窗开关。

该系统安装方便灵活，触控开关时尚美观，开窗器强劲可靠，使家居更加智能便捷。

Use switch to control, consist of window Actuator, Touch Controller, Remote Controller etc. Usually, use Touch Switch or Remote Control the electrical window. This system is very easy to install, the touch switch is fashion and beautiful, the window actuator is strong and reliable, to make sure your life more intelligent and convenient.





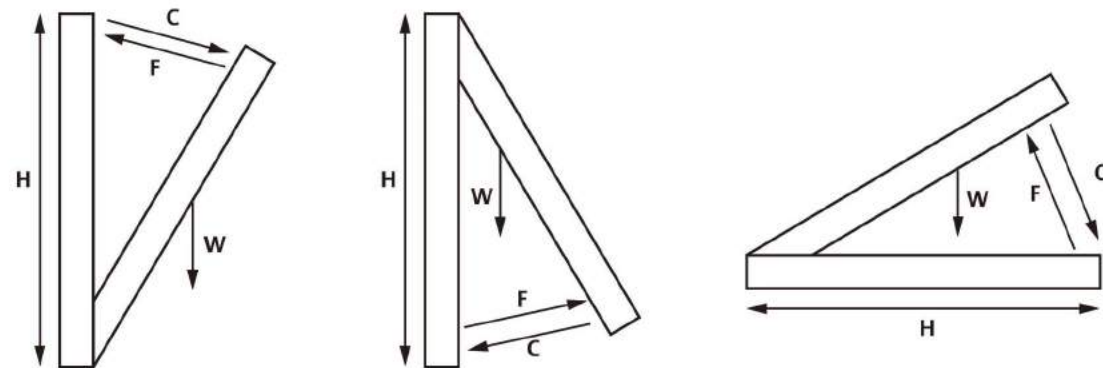
## 电动开启装置

Electric Opening Device

Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活



## 开窗力计算公式 Formulation for Window Open Force Calculation



Casement 悬开窗  $F \approx W/2 \times C/H \times 9.8$  (N)

Skyligh 天窗  $F \approx W/2 \times 9.8$  (N)

- Sash Weight(kg) W = 窗扇重量
- Required Push and Pull Force (N) F = 所需推拉力
- Window Open Distance (mm) C = 开窗距离
- Sash Height (mm) H = 窗扇高度

## 窗重计算公式 Formulation For Window Sash Weight Calculation

$$W = H \times L \times K \times 2.5 \times 1.2$$

- Window Sash Weight (kg) W = 窗扇重量
- Window Sash Height (m) H = 窗扇高度
- Window Sash width (m) L = 窗扇宽度
- Glass Thickness (mm) K = 玻璃厚度

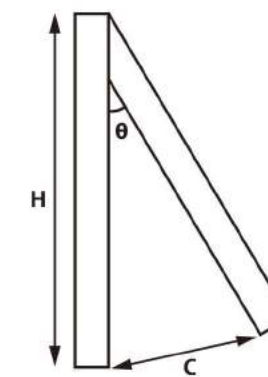
注: 2.5表示1毫米厚度玻璃每平方米的重量为2.5kg;

Remarks: 2.5means the weight of 1 m<sup>2</sup> glass in 1mm thick 2.5kg;

1.2表示窗户型材重量的平均系数。

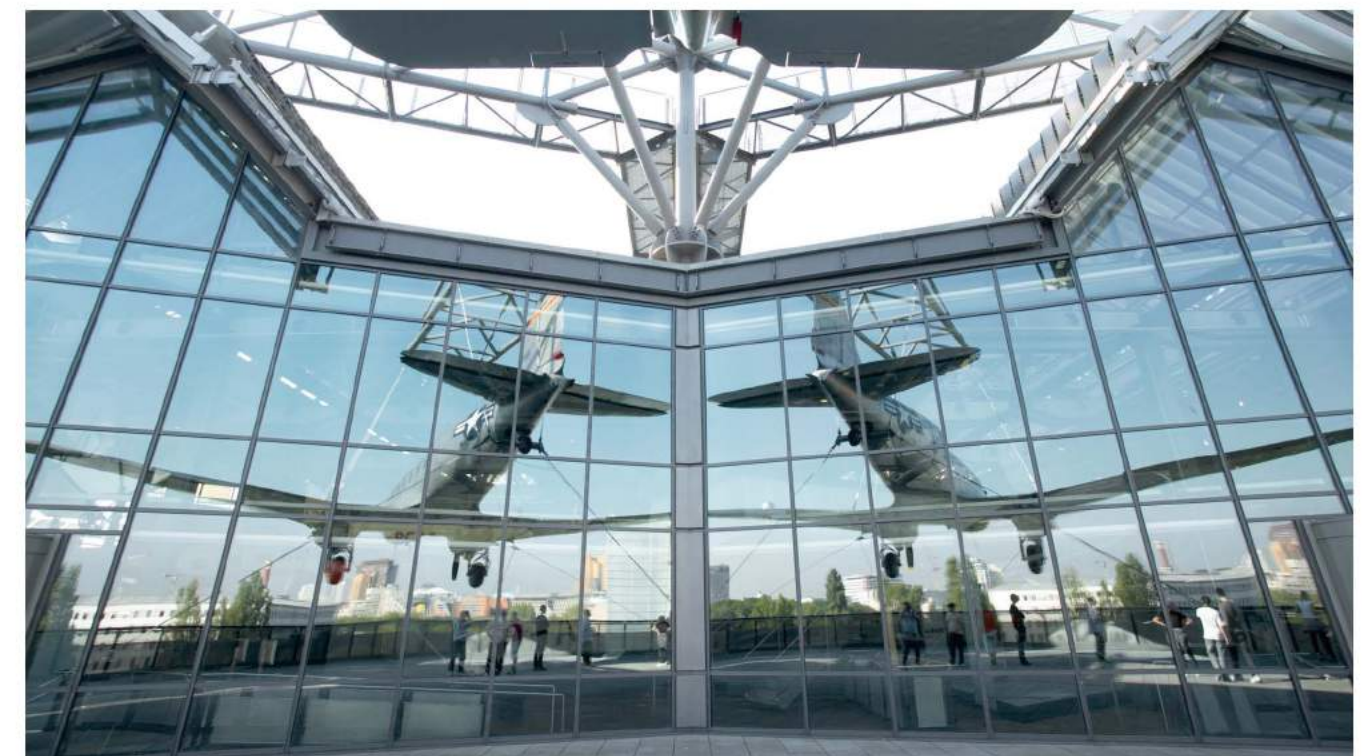
1.2 stands for the average ratio of window and prople weight.

## 窗户开启角度计算公式 Formulation For Window Opening Angle Calculation



$$\theta = 2 \arcsin (C/2H)$$

- Window Sash Height (mm) = 窗扇高度
- Stroke Of Window Actuator (mm) C = 开窗器行程
- Window Opening Angle  $\theta$  = 窗户开启角度





## 链条式开窗器正安装开启角度速查表 Zoom Table For Opening Angle

| 窗扇高度<br>Window<br>Sash Height | 600   | 800   | 1000  | 1200  | 1400  | 1600  | 1800  | 2000  |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 开窗器行程<br>Stroke               |       |       |       |       |       |       |       |       |
| 180mm                         | 17.3° | 12.9° | 10.3° | 8.6°  | 7.4°  | 6.4°  | 5.7°  | 5.2°  |
| 260mm                         | 25°   | 18.7° | 14.9° | 12.4° | 10.6° | 9.3°  | 8.3°  | 7.5°  |
| 360mm                         | 34.9° | 26°   | 20.7° | 17.3° | 14.8° | 12.9° | 11.5° | 10.3° |
| 450mm                         | 44°   | 32.7° | 26°   | 21.6° | 18.5° | 16.2° | 14.4° | 12.9° |
| 600mm                         | 60°   | 44°   | 34.9° | 29°   | 24.7° | 21.6° | 19.2° | 17.3° |
| 1000mm                        |       | 77.4° | 60°   | 49.2° | 41.8° | 36.4° | 32.2° | 28.9° |

## 链条式开窗器侧安装开启角度速查表 Zoom Table For Opening Angle

| 窗扇高度<br>Window<br>Sash Height<br>开窗器行程<br>Stroke | 600   | 800   | 1000  | 1200  | 1400  | 1600  | 1800  | 2000  |
|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 180mm                                            | 24.1° | 16.4° | 12.4° | 10°   | 8.4°  | 7.2°  | 6.3°  | 5.6°  |
| 260mm                                            | 35.1° | 23.8° | 18°   | 14.5° | 12.1° | 10.4° | 9.1°  | 8.1°  |
| 360mm                                            | 49.5° | 33.2° | 25°   | 20.1° | 16.8° | 14.5° | 12.6° | 11.2° |
| 450mm                                            | 63.1° | 41.8° | 31.5° | 25.2° | 21°   | 18.1° | 15.8° | 14.1° |
| 600mm                                            |       | 56.8° | 42.3° | 33.8° | 28.2° | 24.2° | 21.2° | 18.8° |
| 1000mm                                           |       |       | 74°   | 58°   | 47.9° | 40.9° | 35.7° | 31.7° |

## 推轴式开窗器侧安装开启角度速查表 Zoom Table For Opening Angle

| 开窗器行程<br>Stroke | 窗扇高度<br>Window<br>Sash Height | 600       | 800       | 1000        | 1200        | 1400        | 1600          | 1800          | 2000          |
|-----------------|-------------------------------|-----------|-----------|-------------|-------------|-------------|---------------|---------------|---------------|
|                 |                               |           |           |             |             |             |               |               |               |
| 300mm           |                               | 32° - 90° | 23° - 60° | 18.8° - 40° | 15.5° - 30° | 13° - 24.4° | 11.5° - 20.7° | 10.2° - 18°   | 9.2° - 15.9°  |
| 500mm           |                               |           | 39° - 90° | 30.9° - 90° | 25.5° - 62° | 21.8° - 48° | 19° - 39.5°   | 16.8° - 33.7° | 15.1° - 30°   |
| 750mm           |                               |           |           |             | 38.2° - 90° | 32.5° - 90° | 28° - 73.5°   | 25° - 60°     | 22.4° - 50.5° |
| 1000mm          |                               |           |           |             |             |             | 37.8° - 90°   | 31.6° - 90°   | 29.9° - 81.2° |

## 推轴式开窗器正安装开启角度速查表 Zoom Table For Opening Angle

| 窗扇高度<br>Window<br>Sash Height | 600   | 800   | 1000  | 1200  | 1400  | 1600  | 1800  | 2000  |
|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 开窗器行程<br>Stroke               |       |       |       |       |       |       |       |       |
| 300mm                         | 28.9° | 21.6° | 17.2° | 14.3° | 12.3° | 10.7° | 9.5°  | 8.6°  |
| 500mm                         | 49.2° | 36.4° | 28.9° | 24°   | 20.5° | 17.9° | 15.9° | 14.3° |
| 750mm                         | 77.3° | 55.9° | 44°   | 36.4° | 31°   | 27.1° | 24°   | 21.6° |
| 1000mm                        | 90°   | 77.3° | 60°   | 49.2° | 41.8° | 36.4° | 32.2° | 28.9° |





## 耶鲁开窗器产品优势

Advantages Of Yale Brand Window Opener

《建筑用开窗机》标准要求民用噪声 < 55dB;工业用噪声 < 65dB;国内开窗器噪声一般在50dB左右。

耶鲁开窗机采用数控机床加工，精度 < 0.02mm，工作噪声 < 40dB;40-60分贝相当于一般说话的声响，70分贝以上就比较吵了。高精度的加工，使产品密封性能好，减少水和粉尘侵蚀，保证了产品的使用寿命。

《建筑用开窗机》标准规定的开窗器启闭测试次数1万次；

国内开窗器启闭测试次数大多数在2-3万；耶鲁开窗器采用原装进口美国耶鲁电机，噪声小，力矩大，启闭测试次数10万次无故障，所以电机寿命远超标准要求。

国产开窗器传动系统，大多使用碳钢材质，电镀工艺，使用后很快就会损伤镀层而生锈损坏。

耶鲁开窗机传动系统为高强度304不锈钢，耐磨，耐腐蚀。

《Construction Window Actuator》standard requires noise < 55dB for civil use, and < 65dB for industrial use The noise of domestic actuator is about 50dB.

The Yale brand actuator was processed by Numerical Control Machine, precision < 0.02mm, working noise < 40dB(40~60dB is equivalent to normal talk, 70dB is equivalent to loud speak, 70dB and above will be very noisy). High precision process makes the products with good tightness, prevent the corrosion from water and dust, guarantee the long working life of products.

《Construction Window Actuator》standards specify the open and close test qty. of window actuator should be more than 10000 times.

The open and close test qty. of domestic from America, with less noise, strong moment, pass 10000 times of open and close test without failure. Thus, the working life of motor exceeds the standard greatly.

Most of the domestic window actuators us carbon steel material with electroplating finish for transmission system, after several times of usage, the electroglating lay will be damaged and the transmission system will be rusted and ruined.

The transmission system of Yale brand window actuator is made of SS304 materials, which is wear resistant and corrosion resistant.



## 单链式开窗器

Single Chain Window Opener

Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活



单链式开窗器 Single Chain Window Opener D-QDL01



D-QDL01

10mm/s

开启速度  
Opening Speed

250N

拉力  
Pull Force

250N

推力  
Thrust Force

1500N

静态锁闭力  
Static Locking Force

应用范围 Application Range

- 1、可用于内开窗、内开上悬窗、内开下悬窗；  
The utility model can be used for inner window opening, inner opening hanging window, inner opening and lower hanging window;
- 2、可用于智能单控，与D-KZ04控制器配合使用；  
Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- 3、可用于智能通风系统、消防排烟系统；  
It can be used in intelligent ventilation system and fire smoke evacuation system;
- 4、最多2台开窗器可同步工作，与D-ZLTB-2同步器配合使用；  
Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer;
- 5、可用于木质、PVC、铝合金材质的窗系统；  
Window system for wooden, PVC and aluminium alloy materials;
- 6、可窗扇或窗框安装。 Window sash or window frame installation.

产品特性 Product Features

- 1、外壳材质为高强度铝合金； The shell is made of high strength aluminum alloy;
- 2、外壳表面处理方式为氟碳喷涂； The surface treatment of the shell is fluorocarbon spraying;
- 3、链条材质为高强度304不锈钢； The chain is made of high strength 304 stainless steel;
- 4、使用寿命≥30000次； Life is more than 30000 times of steel;
- 5、耐腐蚀性强、推拉力大； Strong corrosion resistance and large pulling force;
- 6、密封性能好。 Good sealing performance.

技术参数 Technical Parameters

| 货号<br>Item No.                    | D-QDL01-200                  | D-QDL01-300 | D-QDL01-400 |
|-----------------------------------|------------------------------|-------------|-------------|
| 行程<br>Stroke                      | 200mm                        | 300mm       | 400mm       |
| 外形尺寸<br>Outline Size              | 335mm                        | 385mm       | 435mm       |
| 窗扇重量<br>Window Weight             | 根据窗扇高度及开启角度不同而异              |             |             |
| 窗扇宽度<br>Window Width              | 400mm≤L≤1300mm               |             |             |
| 运行电压<br>Operating Voltage         | 24V±10%                      |             |             |
| 电流<br>Electric Current            | 0.6A                         |             |             |
| 功率<br>Power                       | 14.4W                        |             |             |
| 电源线尺寸<br>Wire Size                | 2×0.5mm <sup>2</sup>         |             |             |
| 防护等级<br>Protection Level          | IP32                         |             |             |
| 环境温度<br>Ambient Temperature       | -20℃~75℃                     |             |             |
| 限位断电<br>Limit Power-Off           | 电子，通过路径和负载（伸出）/电子，通过电流消耗（缩回） |             |             |
| 过载断电<br>Overload Power-Off        | 是                            |             |             |
| 机械自锁<br>Mechanical Self-Locking   | 是                            |             |             |
| 60s内完全开启<br>Fully Open Within 60s | 是，达到780mm行程                  |             |             |
| 同步工作<br>Synchronous Operation     | 2个电机                         |             |             |
| CCCF检测<br>CCCF Detection          | 通过                           |             |             |
| 安装附件<br>Installation Accessories  | 含支架，无需另配                     |             |             |

注意事项 Matters Need Attention

- 1、选择开窗器时，还需考虑雪荷载和风荷载；  
When choosing a window opener, snow load and wind load should be taken into account;
- 2、北方还需考虑结冰的情况。  
The North needs to be frozen.



## 单链式开窗器 Single Chain Window Opener D-QDL02



D-QDL02

10mm/s

开启速度  
Opening Speed

450N

拉力  
Pull Force

450N

推力  
Thrust Force

2500N

静态锁闭力  
Static Locking Force

## 应用范围 Application Range

- 1、可用于外开窗、平推窗、外开上悬窗、外开下悬窗、中悬窗、侧悬窗及小型外开天窗；  
The utility model can be used for external windows, flat sliding windows, outer open hanging windows, outer open lower windows, middle suspension windows, side suspension windows and small external open skylights;
- 2、可用于智能单控，与D-KZ04控制器配合使用；  
Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- 3、可用于智能通风系统、消防排烟系统；  
It can be used in intelligent ventilation system and fire smoke evacuation system;
- 4、最多2台开窗器可同步工作，与D-ZLTB-2同步器配合使用；  
Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer;
- 5、可用于木质、PVC、铝合金材质的窗系统；  
Window system for wooden, PVC and aluminium alloy materials;
- 6、可窗扇或窗框安装。 Window sash or window frame installation.

## 产品特性 Product Features

- 1、外壳材质为高强度铝合金； The shell is made of high strength aluminum alloy;
- 2、外壳表面处理方式为氟碳喷涂； The surface treatment of the shell is fluorocarbon spraying;
- 3、链条材质为高强度304不锈钢； The chain is made of high strength 304 stainless steel;
- 4、使用寿命≥30000次； Life is more than 30000 times of steel;
- 5、耐腐蚀性强、推拉力大； Strong corrosion resistance and large pulling force;
- 6、密封性能好。 Good sealing performance.

## 技术参数 Technical Parameters

| 货号<br>Item No.                    | D-QDL02-180L/180R            | D-QDL02-260 | D-QDL02-360 | D-QDL02-450 | D-QDL02-600L/600R | D-QDL02-1000L/1000R |
|-----------------------------------|------------------------------|-------------|-------------|-------------|-------------------|---------------------|
| 行程<br>Stroke                      | 180mm                        | 260mm       | 360mm       | 450mm       | 600mm             | 1000mm              |
| 外形尺寸<br>Outline Size              | 415mm                        | 415mm       | 465mm       | 515mm       | 585mm             | 760mm               |
| 窗扇重量<br>Window Weight             | 根据窗扇高度及开启角度不同而异              |             |             |             |                   |                     |
| 窗扇宽度<br>Window Width              | 500mm≤L≤1300mm               |             |             |             |                   |                     |
| 运行电压<br>Operating Voltage         | 24V±10%                      |             |             |             |                   |                     |
| 电流<br>Electric Current            | 1.0A                         |             |             |             |                   |                     |
| 功率<br>Power                       | 24W                          |             |             |             |                   |                     |
| 电源线尺寸<br>Wire Size                | 2×0.5mm <sup>2</sup>         |             |             |             |                   |                     |
| 防护等级<br>Protection Level          | IP32                         |             |             |             |                   |                     |
| 环境温度<br>Ambient Temperature       | -20℃~75℃                     |             |             |             |                   |                     |
| 限位断电<br>Limit Power-Off           | 电子，通过路径和负载（伸出）/电子，通过电流消耗（缩回） |             |             |             |                   |                     |
| 过载断电<br>Overload Power-Off        | 是                            |             |             |             |                   |                     |
| 机械自锁<br>Mechanical Self-Locking   | 是                            |             |             |             |                   |                     |
| 60s内完全开启<br>Fully Open Within 60s | 是，达到780mm行程                  |             |             |             |                   |                     |
| 同步工作<br>Synchronous Operation     | 2个电机                         |             |             |             |                   |                     |
| CCCF检测<br>CCCF Detection          | 通过                           |             |             |             |                   |                     |
| 安装附件<br>Installation Accessories  | 不含支架，需另配                     |             |             |             |                   |                     |

## 注意事项 Matters Need Attention

- 1、选择开窗器时，还需考虑雪荷载和风荷载；  
When choosing a window opener, snow load and wind load should be taken into account;
- 2、北方还需考虑结冰的情况。  
The North needs to be frozen.





## 双链式开窗器

Double Chain Window Opener

Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活



双链式开窗器 Double Chain Window Opener D-QDL06



D-QDL06

10mm/s

开启速度  
Opening Speed

900N

拉力  
Pull Force

900N

推力  
Thrust Force

3000N

静态锁闭力  
Static Locking Force

应用范围 Application Range

- 1、可用于外开窗、平推窗、外开上悬窗、外开下悬窗、中悬窗、侧悬窗及小型外开天窗;  
The utility model can be used for external windows, flat sliding windows, outer open hanging windows, outer open lower windows, middle suspension windows, side suspension windows and small external open skylights;
- 2、可用于智能单控，与D-KZ04控制器配合使用;  
Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- 3、可用于智能通风系统、消防排烟系统;  
It can be used in intelligent ventilation system and fire smoke evacuation system;
- 4、可用于木质、PVC、铝合金材质的窗系统;  
Window system for wooden, PVC and aluminium alloy materials;
- 5、可窗扇或窗框安装。  
Window sash or window frame installation.

产品特性 Product Features

- 1、外壳材质为高强度铝合金; The shell is made of high strength aluminum alloy;
- 2、外壳表面处理方式为氟碳喷涂; The surface treatment of the shell is fluorocarbon spraying;
- 3、链条材质为高强度304不锈钢; The chain is made of high strength 304 stainless steel;
- 4、使用寿命≥30000次; Life is more than 30000 times of steel;
- 5、耐腐蚀性强、推拉力大; Strong corrosion resistance and large pulling force;
- 6、密封性能好。 Good sealing performance.

技术参数 Technical Parameters

| 货号<br>Item No.                    | D-QDL03-360                   | D-QDL03-450 | D-QDL03-600 |
|-----------------------------------|-------------------------------|-------------|-------------|
| 行程<br>Stroke                      | 360mm                         | 450mm       | 600mm       |
| 外形尺寸<br>Outline Size              | 1015mm                        | 1115mm      | 1255mm      |
| 窗扇重量<br>Window Weight             | ×51mm×42mm<br>根据窗扇高度及开启角度不同而异 |             |             |
| 窗扇宽度<br>Window Width              | ≥1300mm                       |             |             |
| 运行电压<br>Operating Voltage         | 24V±10%                       |             |             |
| 电流<br>Electric Current            | 2.0A                          |             |             |
| 功率<br>Power                       | 48W                           |             |             |
| 电源线尺寸<br>Wire Size                | 2×0.5mm²                      |             |             |
| 防护等级<br>Protection Level          | IP32                          |             |             |
| 环境温度<br>Ambient Temperature       | -20℃~75℃                      |             |             |
| 限位断电<br>Limit Power-Off           | 电子，通过路径和负载（伸出）/电子，通过电流消耗（缩回）  |             |             |
| 过载断电<br>Overload Power-Off        | 是                             |             |             |
| 机械自锁<br>Mechanical Self-Locking   | 是                             |             |             |
| 60s内完全开启<br>Fully Open Within 60s | 是，达到780mm行程                   |             |             |
| 同步工作<br>Synchronous Operation     | 2个电机                          |             |             |
| 电机同步<br>Motor synchronization     | 内置同步器                         |             |             |
| CCCF检测<br>CCCF Detection          | 通过                            |             |             |
| 安装附件<br>Installation Accessories  | 不含支架及固定座，需另配                  |             |             |

注意事项 Matters Need Attention

- 1、选择开窗器时，还需考虑雪荷载和风荷载; When choosing a window opener, snow load and wind load should be taken into account;
- 2、北方还需考虑结冰的情况。The North needs to be frozen.



链条式开窗器安装附件 Mounting Accessories For Single Chain Window Opener



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks       |
|------------|----------------|---------------------|
| 外开支架       | D-ZJL01        | 与链条式开窗器配套使用，适用于外开窗型 |



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks       |
|------------|----------------|---------------------|
| 内开支架       | D-ZJL02        | 与链条式开窗器配套使用，适用于内开窗型 |



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks       |
|------------|----------------|---------------------|
| 外开短支架      | D-ZJL03        | 与链条式开窗器配套使用，适用于外开窗型 |

链条式开窗器安装附件 Mounting Accessories For Single Chain Window Opener



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks       |
|------------|----------------|---------------------|
| 外开固定座      | D-GZL01        | 与链条式开窗器配套使用，适用于外开窗型 |



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks       |
|------------|----------------|---------------------|
| 内开固定座      | D-GZL02        | 与链条式开窗器配套使用，适用于内开窗型 |





## 推轴式开窗器

Liner Spindle Window Opener

Since 1840 in Newport of New York, Yale,  
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——开启您的智慧生活



## 推轴式开窗器 Liner Spindle Window Opener D-QDZ01



D-QDZ01

6mm/s

开启速度  
Opening Speed

800N  
1000N  
2000N

拉力  
Pull Force  
推力  
Thrust Force

3000N

静态锁闭力  
Static Locking Force

## 应用范围 Application Range

- 1、可用于百叶窗、外开窗、内开窗、平推窗、上悬窗、下悬窗及大型天窗;  
It can be used for shutter, window opening, inner window opening, flat pushing window, upper hanging window, lower hanging window and large skylight;
- 2、可用于智能单控, 与D-KZ04控制器配合使用;  
Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- 3、可用于智能通风系统、消防排烟系统;  
It can be used in intelligent ventilation system and fire smoke evacuation system;
- 4、最多2台开窗器可同步工作, 与D-ZLTB-2同步器配合使用;  
Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer;
- 5、可用于木质、PVC、铝合金材质的窗系统;  
Window system for wooden, PVC and aluminium alloy materials;
- 6、可窗扇或窗框安装。 Window sash or window frame installation.

## 产品特性 Product Features

- 1、外壳材质为高强度铝合金; The shell is made of high strength aluminum alloy;
- 2、外壳表面处理方式为氟碳喷涂; The surface treatment of the shell is fluorocarbon spraying;
- 3、推轴材质为高强度304不锈钢; The liner spindle is made of high strength 304 stainless steel;
- 4、使用寿命≥30000次; Life is more than 30000 times of steel;
- 5、耐腐蚀性强、推拉力大; Strong corrosion resistance and large pulling force;
- 6、密封性能好。 Good sealing performance.

## 技术参数 Technical Parameters

|                                   |                              |             |                  |             |                  |             |              |
|-----------------------------------|------------------------------|-------------|------------------|-------------|------------------|-------------|--------------|
| 货号<br>Item No.                    | D-QDZ01-50                   | D-QDZ01-100 | D-QDZ01-200      | D-QDZ01-300 | D-QDZ01-500      | D-QDZ01-750 | D-QDZ01-1000 |
| 行程<br>Stroke                      | 50mm                         | 100mm       | 200mm            | 300mm       | 500mm            | 750mm       | 1000mm       |
| 外形尺寸<br>Outline Size              | 800N                         |             | 1000N            |             | 2000N            |             |              |
|                                   | 行程+290mm、外径φ36mm             |             | 行程+320mm、外径φ45mm |             | 行程+320mm、外径φ45mm |             |              |
| 窗扇重量<br>Window Weight             | 根据窗扇高度及开启角度不同而异              |             |                  |             |                  |             |              |
| 窗扇宽度<br>Window Width              | L≥400mm                      |             |                  |             |                  |             |              |
| 运行电压<br>Operating Voltage         | 24V±10%                      |             |                  |             |                  |             |              |
| 电流<br>Electric Current            | 1.0A/1.2A/2.0A               |             |                  |             |                  |             |              |
| 功率<br>Power                       | 24W/28W/48W                  |             |                  |             |                  |             |              |
| 电源线尺寸<br>Wire Size                | 2×0.5mm²                     |             |                  |             |                  |             |              |
| 防护等级<br>Protection Level          | IP65                         |             |                  |             |                  |             |              |
| 环境温度<br>Ambient Temperature       | -20℃~75℃                     |             |                  |             |                  |             |              |
| 限位断电<br>Limit Power-Off           | 电子，通过路径和负载（伸出）/电子，通过电流消耗（缩回） |             |                  |             |                  |             |              |
| 过载断电<br>Overload Power-Off        | 是                            |             |                  |             |                  |             |              |
| 机械自锁<br>Mechanical Self-Locking   | 是                            |             |                  |             |                  |             |              |
| 60s内完全开启<br>Fully Open Within 60s | 是，达到360mm行程                  |             |                  |             |                  |             |              |
| 同步工作<br>Synchronous Operation     | 2个电机                         |             |                  |             |                  |             |              |
| CCC检测<br>CCC Detection            | 通过                           |             |                  |             |                  |             |              |
| 安装附件<br>Installation Accessories  | 不含支架，需另配                     |             |                  |             |                  |             |              |

## 注意事项 Matters Need Attention

- 1、选择开窗器时, 还需考虑雪荷载和风荷载;  
When choosing a window opener, snow load and wind load should be taken into account;
- 2、北方还需考虑结冰的情况。  
The North needs to be frozen.





## 超防水推轴式开窗器

Super Waterproof Liner Spindle Window Opener

Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
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超防水推轴式开窗器 Super Waterproof Liner Spindle Window Opener D-QDZ01F



D-QDZ01F

6mm/s

开启速度  
Opening Speed

800N

拉力  
Pull Force

800N

推力  
Thrust Force

3000N

静态锁闭力  
Static Locking Force

应用范围 Application Range

- 1、可用于百叶窗、外开窗、内开窗、平推窗、上悬窗、下悬窗及大型天窗;  
It can be used for shutter, window opening, inner window opening, flat pushing window, upper hanging window, lower hanging window and large skylight;
- 2、可用于智能单控，与D-KZ04控制器配合使用;  
Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- 3、可用于智能通风系统、消防排烟系统;  
It can be used in intelligent ventilation system and fire smoke evacuation system;
- 4、最多2台开窗器可同步工作，与D-ZLTB-2同步器配合使用;  
Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer;
- 5、可用于木质、PVC、铝合金材质的窗系统;  
Window system for wooden, PVC and aluminium alloy materials;
- 6、可窗扇或窗框安装。 Window sash or window frame installation.

产品特性 Product Features

- 1、外壳材质为高强度铝合金； The shell is made of high strength aluminum alloy;
- 2、外壳表面处理方式为氟碳喷涂； The surface treatment of the shell is fluorocarbon spraying;
- 3、推轴材质为高强度304不锈钢； The liner spindle is made of high strength 304 stainless steel;
- 4、使用寿命≥30000次； Life is more than 30000 times of steel;
- 5、耐腐蚀性强、推拉力大； Strong corrosion resistance and large pulling force;
- 6、超级防水。 Super waterproof.

技术参数 Technical Parameters

| 货号<br>Item No.                    | D-QDZ01F-300                 | D-QDZ01F-500    | D-QDZ01F-750     | D-QDZ01F-1000    |
|-----------------------------------|------------------------------|-----------------|------------------|------------------|
| 行程<br>Stroke                      | 300mm                        | 500mm           | 750mm            | 1000mm           |
| 外形尺寸<br>Outline Size              | L:577mm、外径φ36mm              | L:777mm、外径φ36mm | L:1077mm、外径φ36mm | L:1277mm、外径φ36mm |
| 窗扇重量<br>Window Weight             | 根据窗扇高度及开启角度不同而异              |                 |                  |                  |
| 窗扇宽度<br>Window Width              | L≥400mm                      |                 |                  |                  |
| 运行电压<br>Operating Voltage         | 24V±10%                      |                 |                  |                  |
| 电流<br>Electric Current            | 1.0A                         |                 |                  |                  |
| 功率<br>Power                       | 24W                          |                 |                  |                  |
| 电源线尺寸<br>Wire Size                | 2×0.5mm²                     |                 |                  |                  |
| 防护等级<br>Protection Level          | IP68                         |                 |                  |                  |
| 环境温度<br>Ambient Temperature       | -20℃~75℃                     |                 |                  |                  |
| 限位断电<br>Limit Power-Off           | 电子，通过路径和负载（伸出）/电子，通过电流消耗（缩回） |                 |                  |                  |
| 过载断电<br>Overload Power-Off        | 是                            |                 |                  |                  |
| 机械自锁<br>Mechanical Self-Locking   | 是                            |                 |                  |                  |
| 60s内完全开启<br>Fully Open Within 60s | 是，达到360mm行程                  |                 |                  |                  |
| 同步工作<br>Synchronous Operation     | 2个电机                         |                 |                  |                  |
| CCCF检测<br>CCCF Detection          | 通过                           |                 |                  |                  |
| 安装附件<br>Installation Accessories  | 不含支架，需另配                     |                 |                  |                  |

注意事项 Matters Need Attention

- 1、选择开窗器时，还需考虑雪荷载和风荷载；  
When choosing a window opener, snow load and wind load should be taken into account;
- 2、北方还需考虑结冰的情况。  
The North needs to be frozen.



推轴式开窗器安装附件 Mounting Accessories For Liner Spindle Window Opener



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks        |
|------------|----------------|----------------------|
| 支架         | D-QDZ01-3601   | 与推轴式开窗器配套使用, 适用于外开窗型 |



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks        |
|------------|----------------|----------------------|
| 支架         | D-QDZ01-3602L  | 与推轴式开窗器配套使用, 适用于外开窗型 |

推轴式开窗器安装附件 Mounting Accessories For Liner Spindle Window Opener



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks        |
|------------|----------------|----------------------|
| 支架         | D-QDZ01-3602R  | 与推轴式开窗器配套使用, 适用于外开窗型 |



| 名称<br>Name | 货号<br>Item No. | 备注<br>Remarks        |
|------------|----------------|----------------------|
| 支架         | D-QDZ01-4501   | 与推轴式开窗器配套使用, 适用于外开窗型 |





## 滑臂式开窗器

Sliding Arm Type Window Opener

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## 滑臂式开窗器 Sliding Arm Type Window Opener D-QDC02



D-QDC02 (含支架)

15mm/s

开启速度  
Opening Speed

300N

拉力  
Pull Force

300N

推力  
Thrust Force

2000N

静态锁闭力  
Static Locking Force

## 应用范围 Application Range

- 1、可用于推拉窗、提拉窗；  
The utility model can be used for sliding windows and lifting windows;
- 2、可用于智能单控，与D-KZ04控制器配合使用；  
Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- 3、可用于智能通风系统、消防排烟系统；  
It can be used in intelligent ventilation system and fire smoke evacuation system;
- 4、可用于木质、PVC、铝合金材质的窗系统；  
Window system for wooden, PVC and aluminium alloy materials;
- 5、可窗扇或窗框安装。  
Window sash or window frame installation.

## 产品特性 Product Features

- 1、外壳材质为高强度铝合金； The shell is made of high strength aluminum alloy;
- 2、外壳表面处理方式为氟碳喷涂； The surface treatment of the shell is fluorocarbon spraying;
- 3、使用寿命≥30000次； Life is more than 30000 times of steel;
- 4、耐腐蚀性强、推拉力大； Strong corrosion resistance and large pulling force;
- 5、密封性能好。 Good sealing performance.

## 技术参数 Technical Parameters

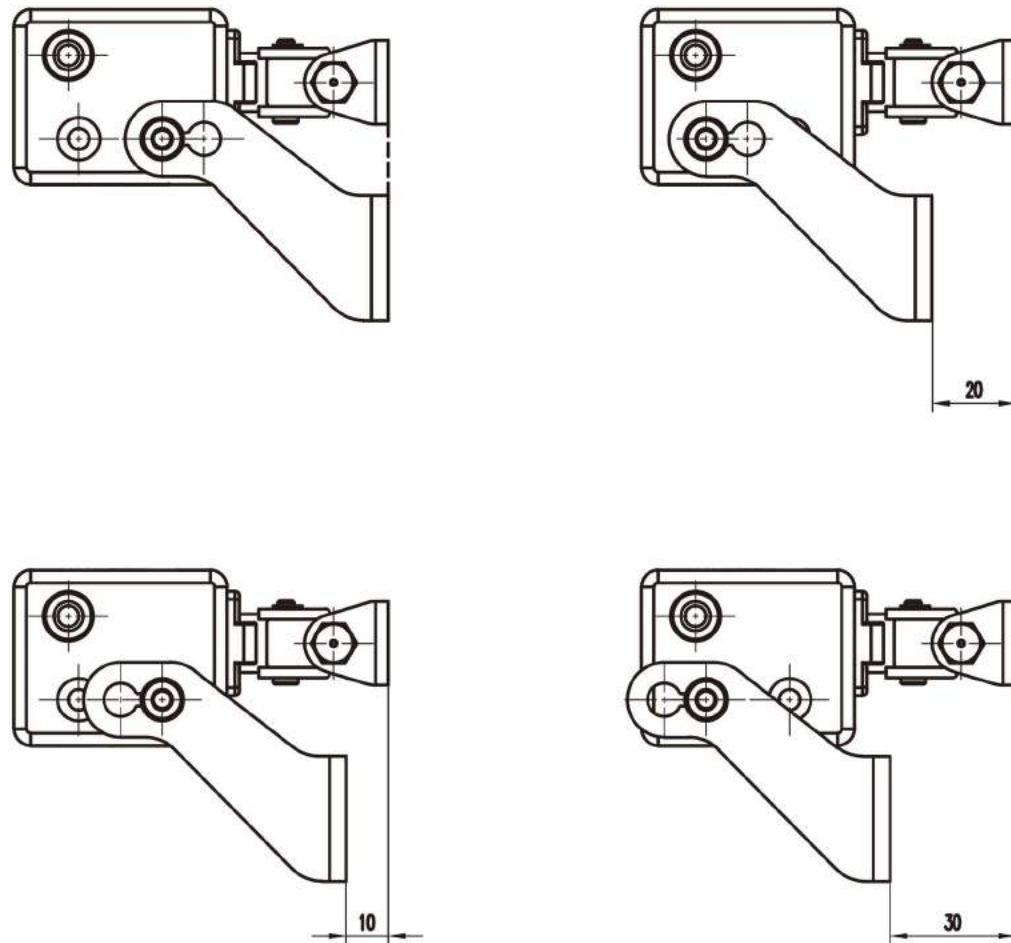
| 货号<br>Item No.                    | D-QDC02-300                  | D-QDC02-400 | D-QDC02-500 | D-QDC02-600 | D-QDC02-700 | D-QDC02-800 | D-QDC02-900 |
|-----------------------------------|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 行程<br>Stroke                      | 300mm                        | 400mm       | 500mm       | 600mm       | 700mm       | 800mm       | 900mm       |
| 外形尺寸<br>Outline Size              | (行程+218mm)×53.3mm×42mm       |             |             |             |             |             |             |
| 窗扇重量<br>Window Weight             | 30KG                         |             |             |             |             |             |             |
| 窗扇宽度<br>Window Width              | 300mm-900mm                  |             |             |             |             |             |             |
| 运行电压<br>Operating Voltage         | 24V±10%                      |             |             |             |             |             |             |
| 电流<br>Electric Current            | 0.8A                         |             |             |             |             |             |             |
| 功率<br>Power                       | 19W                          |             |             |             |             |             |             |
| 电源线尺寸<br>Wire Size                | 2×0.5mm <sup>2</sup>         |             |             |             |             |             |             |
| 防护等级<br>Protection Level          | IP32                         |             |             |             |             |             |             |
| 环境温度<br>Ambient Temperature       | -20℃~75℃                     |             |             |             |             |             |             |
| 限位断电<br>Limit Power-Off           | 电子，通过路径和负载（伸出）/电子，通过电流消耗（缩回） |             |             |             |             |             |             |
| 过载断电<br>Overload Power-Off        | 是                            |             |             |             |             |             |             |
| 机械自锁<br>Mechanical Self-Locking   | 是                            |             |             |             |             |             |             |
| 60s内完全开启<br>Fully Open Within 60s | 是，达到900mm行程                  |             |             |             |             |             |             |
| 同步工作<br>Synchronous Operation     | 2个电机                         |             |             |             |             |             |             |
| CCCF检测<br>CCCF Detection          | 通过                           |             |             |             |             |             |             |
| 安装附件<br>Installation Accessories  | 含支架，无需另配                     |             |             |             |             |             |             |

## 注意事项 Matters Need Attention

- 1、选择开窗器时，还需考虑雪荷载和风荷载；  
When choosing a window opener, snow load and wind load should be taken into account;
- 2、北方还需考虑结冰的情况。  
The North needs to be frozen.



## 链条式开窗器安装注意事项 Double Chain Window Opener



1、开窗器端盖上、安装支架上各有两个螺孔，可以根据型材的不同，选择不同的孔位固定。

There are two screw holes in the opening and mounting bracket, which can be fixed according to different profiles.

2、链式开窗器用于内开窗时，只能安装在中挺部位；没有中挺的单扇内开窗或对开窗无法使用。

The chain open window can only be installed in the middle part when opening the window. No medium - made single window or open window can not be used.

3、安装时，应依照靠模贴纸上的孔位进行安装。

Installation should follow the hole position on the die sticker.

4、开窗器固定好后，应该能够绕阶梯螺钉灵活旋转。

After the window is fixed, it should be able to rotate around the step screw.

5、开窗器固定好后，电源线不应该与安装支架有干涉。

The power cord should not be interfered with the mounting bracket after the window holder is fixed.

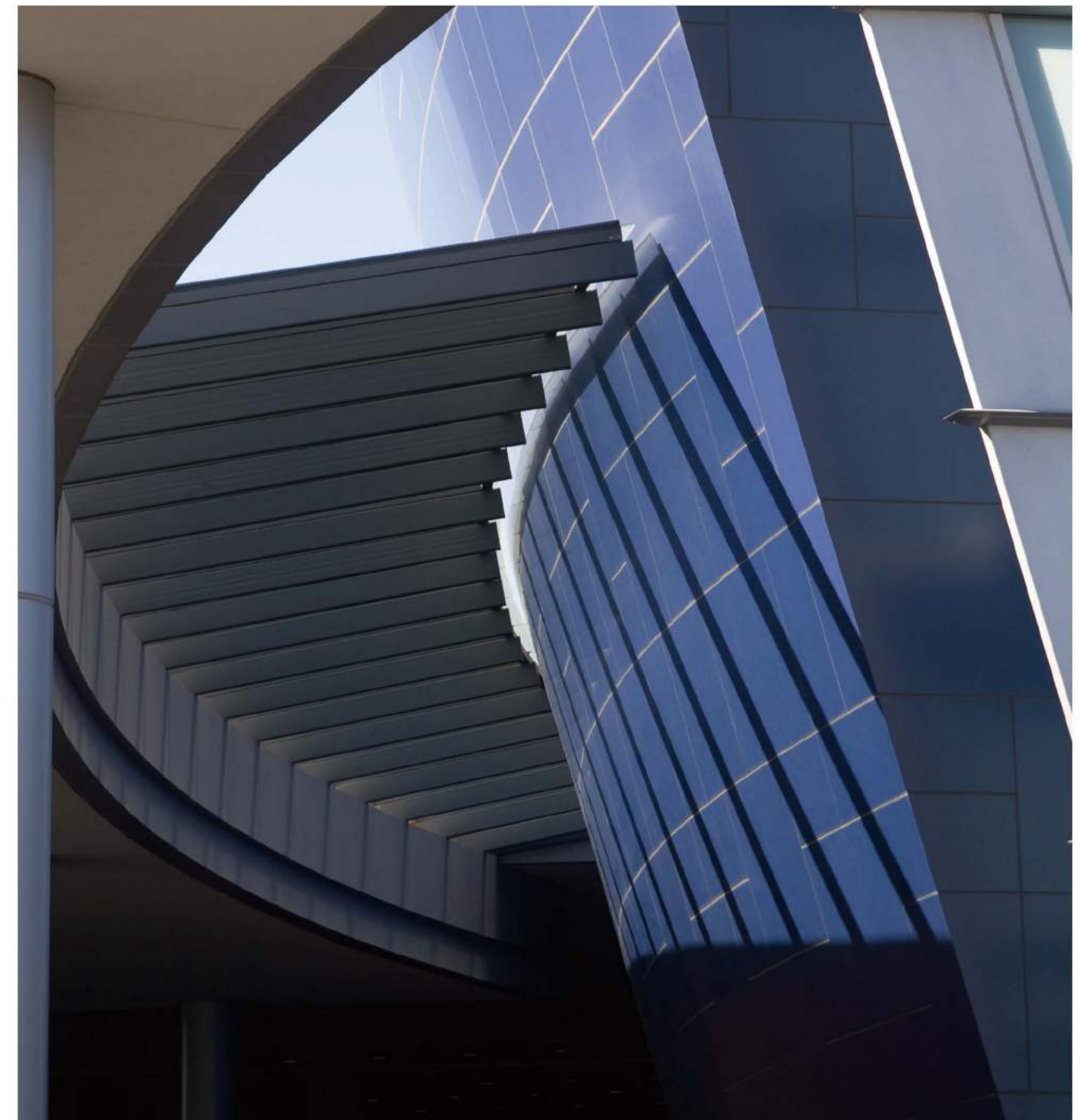
## 推轴式开窗器安装注意事项 Application Range

1、推轴式开窗器用于侧安装时，可以根据支架的安装位置调节开启角度。

When the push-shaft type window type is used for side mounting, the Angle of opening can be adjusted according to the mounting position of the bracket.

2、推轴式开窗器用于侧安装时，支架需要最小的安装空间为55mm。

When the push-shaft type window type windowing device is used for side mounting, the minimum mounting space of the bracket is 55mm.







## 控制系统

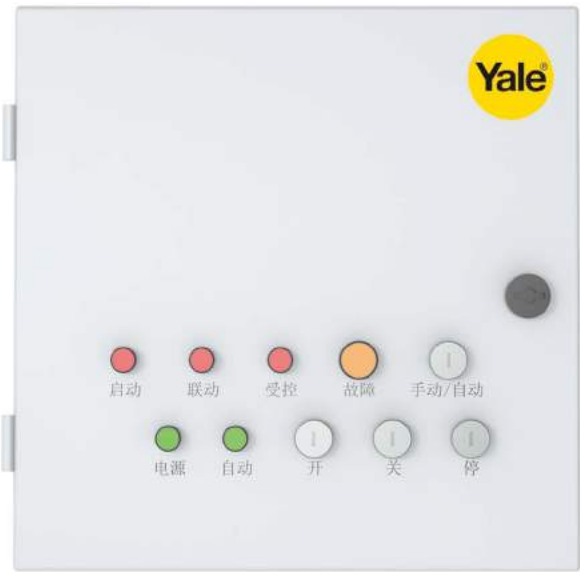
Control System

Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活



消防控制装置 Fire Control Device XFKZ-I

XFKZ-I



应用范围 Application Range

- 1、火灾情况下，用于控制24V DC开窗器紧急开启，排烟排热；  
In the case of fire, it is used to control the emergency opening of 24V DC opener, exhaust smoke and heat;
- 2、正常情况下，用于群控通风；  
Normally, it is used for group ventilation;
- 3、可用于办公楼、机场、车站等公共建筑；  
It can be used in public buildings such as office buildings, airports, stations and so on;
- 4、不可用于室外。  
Not for outdoor use.

产品特性 Product Features

- 1、系统可以连接风雨控制器、烟感控制器、紧急消防按钮等探测设备；  
The FPSE(Fire Protection and Smoke Exhaust) system can be connected with wind and rain controller, smoke sensor control, emergency pre protection buttons and other detective equipment;
- 2、与消防信号联动，当发生火灾时可以及时开窗排烟，正常情况下可以手动控制开关窗；  
The FPSE system can be Linked with pre protection signal net, when the pre occurs, the windows can be opened in time to exhaust smoke Normally, the window can also be opened or closed by hand;
- 3、系统有备用电源，可以在电力断开情况下紧急开窗排烟；  
The system has backup power, in case the electricity is off, the window can be opened emergently, to exhaust smoke.

技术参数 Technical Parameters

| 货号<br>Item No.                             | XFKZ-I-16A                    | XFKZ-I-32A        | XFKZ-I-64A        |
|--------------------------------------------|-------------------------------|-------------------|-------------------|
| 外形尺寸<br>Outline Size                       | 435mm×195mm×450mm             | 435mm×195mm×450mm | 500mm×195mm×500mm |
| 外壳材质<br>Shell Material                     | 涂漆钢板                          |                   |                   |
| 颜色<br>Colour                               | 灰色喷涂                          |                   |                   |
| 接线方式<br>Connection Mode                    | 从下方接入                         |                   |                   |
| 电源电压<br>Supply Voltage                     | 220V AC±10% 50Hz              |                   |                   |
| 输出电压<br>Operating Voltage                  | 24V DC±15%                    |                   |                   |
| 输出功率<br>Output Power                       | 312W                          | 720W              | 1440W             |
| 输出电流<br>Output Current                     | 13A                           | 30A               | 60A               |
| 防护等级<br>Protection Level                   | IP30                          |                   |                   |
| 环境温度<br>Ambient Temperature                | -20℃~75℃                      |                   |                   |
| 输出电源线截面<br>Output Power line Cross Section | 2×6mm²                        |                   |                   |
| 输出线路<br>Output Line                        | 1 组                           | 1 组               | 2 组               |
| 每个通风组<br>Each Ventilation Group            | 13A                           | 30A               | 30A               |
| 蓄电池电压<br>Battery Voltage                   | 24V                           |                   |                   |
| 电池使用时长<br>Battery Life Is Long             | 待机72小时，可实现电机运行2次开启加一次关闭       |                   |                   |
| 可外接控制模块<br>External Control Module         | 烟雾感应器、风雨感应器、开关、紧急按钮、定时器、温度感应器 |                   |                   |
| 故障报警<br>Fault Alarm                        | 是，可转换                         |                   |                   |
| 自动/手动<br>Automatic / Manual                | 不含支架及固定座，需另配                  |                   |                   |
| CCCF检测<br>CCCF Detection                   | 通过                            |                   |                   |
| 消防总控连接<br>Fire Control Connection          | 是                             |                   |                   |
| 消防信号<br>Fire Signal                        | 12~24V 有源                     |                   |                   |
| 安装方式<br>Installation Method                | 明装、嵌入                         |                   |                   |



消防控制装置 Fire Control Device XFKZ-II

XFKZ-II



应用范围 Application Range

- 1、火灾情况下，用于控制24V DC开窗器紧急开启，排烟排热；  
In the case of fire, it is used to control the emergency opening of 24V DC opener, exhaust smoke and heat;
- 2、正常情况下，用于群控通风；  
Normally, it is used for group ventilation;
- 3、可用于办公楼、机场、车站等公共建筑；  
It can be used in public buildings such as office buildings, airports, stations and so on;
- 4、不可用于室外。  
Not for outdoor use.

产品特性 Product Features

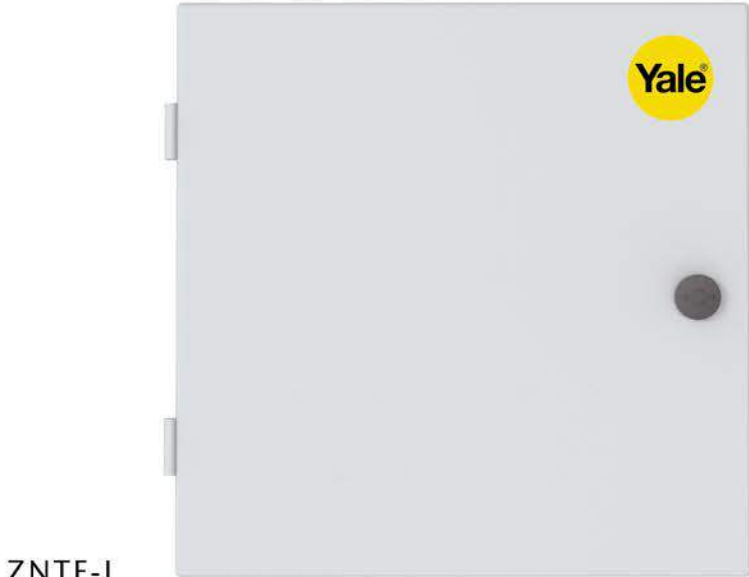
- 1、交流电状态异常提示；  
AC status abnormal prompt;
- 2、语音报警功能；  
Voice alarm function;
- 3、开窗器云数据查询及保存；  
Query and save of window opener cloud data;
- 4、液晶触屏操作功能；  
LCD manual touch screen operation function;
- 5、主分控多级联动功能；  
Main sub control multi-level linkage function;

技术参数 Technical Parameters

|                                            |                               |                 |                 |
|--------------------------------------------|-------------------------------|-----------------|-----------------|
| 货号<br>Item No.                             | XFKZ-II-16A                   | XFKZ-II-32A     | XFKZ-II-64A     |
| 外形尺寸<br>Outline Size                       | 650m×500m×220mm               | 650m×500m×220mm | 650m×500m×220mm |
| 外壳材质<br>Shell Material                     | 涂漆钢板                          |                 |                 |
| 颜色<br>Colour                               | 灰色喷涂                          |                 |                 |
| 接线方式<br>Connection Mode                    | 从下方接入                         |                 |                 |
| 电源电压<br>Supply Voltage                     | 220V AC±10% 50Hz              |                 |                 |
| 输出电压<br>Operating Voltage                  | 24V DC±15%                    |                 |                 |
| 输出功率<br>Output Power                       | 312W                          | 720W            | 1440W           |
| 输出电流<br>Output Current                     | 13A                           | 30A             | 60A             |
| 防护等级<br>Protection Level                   | IP30                          |                 |                 |
| 环境温度<br>Ambient Temperature                | -20℃~75℃                      |                 |                 |
| 输出电源线截面<br>Output Power line Cross Section | 2×6mm²                        |                 |                 |
| 输出线路<br>Output Line                        | 1 组                           | 1 组             | 1组              |
| 每个通风组<br>Each Ventilation Group            | 13A                           | 30A             | 60A             |
| 蓄电池电压<br>Battery Voltage                   | 24V                           |                 |                 |
| 电池使用时长<br>Battery Life Is Long             | 待机72小时，可实现电机运行2次开启加一次关闭       |                 |                 |
| 可外接控制模块<br>External Control Module         | 烟雾感应器、风雨感应器、开关、紧急按钮、定时器、温度感应器 |                 |                 |
| 故障报警<br>Fault Alarm                        | 是，可转换                         |                 |                 |
| 自动/手动<br>Automatic / Manual                | 不含支架及固定座，需另配                  |                 |                 |
| CCCF检测<br>CCCF Detection                   | 通过                            |                 |                 |
| 消防总控连接<br>Fire Control Connection          | 是                             |                 |                 |
| 消防信号<br>Fire Signal                        | 12~24V 有源                     |                 |                 |
| 安装方式<br>Installation Method                | 明装、嵌入                         |                 |                 |



智能通风控制装置 Intelligent Venting Control Device    ZNTF-I



应用范围 Application Range

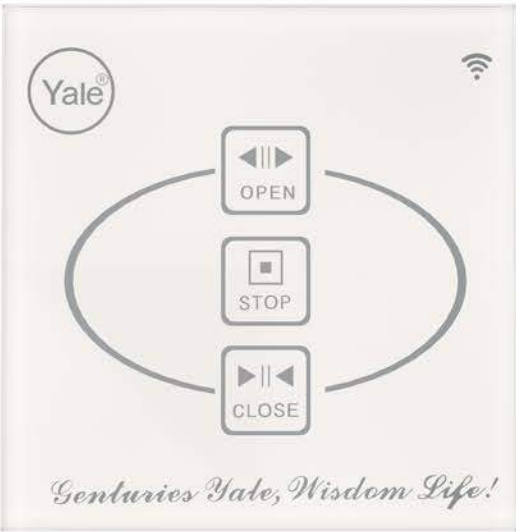
- 1、正常情况下，用于群控通风;  
Normally, it is used for group ventilation;
- 2、可用于办公楼、机场、车站等公共建筑;  
It can be used in public buildings such as office buildings, airports, stations and so on;
- 3、不可用于室外。  
Not for outdoor use.

技术参数 Technical Parameters

|                                            |                               |                   |                   |
|--------------------------------------------|-------------------------------|-------------------|-------------------|
| 货号<br>Item No.                             | ZNTF-I-16A                    | ZNTF-I-32A        | ZNTF-I-64A        |
| 外形尺寸<br>Outline Size                       | 365mm×150mm×425mm             | 435mm×195mm×450mm | 435mm×195mm×450mm |
| 外壳材质<br>Shell Material                     | 涂漆钢板                          |                   |                   |
| 颜色<br>Colour                               | 灰色喷涂                          |                   |                   |
| 接线方式<br>Connection Mode                    | 从下方接入                         |                   |                   |
| 电源电压<br>Supply Voltage                     | 220V AC±10% 50Hz              |                   |                   |
| 输出电压<br>Operating Voltage                  | 24V DC±15%                    |                   |                   |
| 输出功率<br>Output Power                       | 312W                          | 720W              | 1440W             |
| 输出电流<br>Output Current                     | 13A                           | 30A               | 60A               |
| 防护等级<br>Protection Level                   | IP30                          |                   |                   |
| 环境温度<br>Ambient Temperature                | -20℃~75℃                      |                   |                   |
| 输出电源线截面<br>Output power line Cross section | 2×6mm²                        |                   |                   |
| 输出线路<br>Output Line                        | 1 组                           | 1 组               | 2 组               |
| 每个通风组<br>Each ventilation group            | 13A                           | 30A               | 30A               |
| 蓄电池<br>Battery                             | 无                             |                   |                   |
| 可外接控制模块<br>External Control Module         | 烟雾感应器、风雨感应器、开关、紧急按钮、定时器、温度感应器 |                   |                   |
| CCCF检测<br>CCCF Detection                   | 通过                            |                   |                   |
| 消防总控连接<br>Fire Control Connection          | 是                             |                   |                   |
| 消防信号<br>Fire Signal                        | 否                             |                   |                   |
| 安装方式<br>Installation Method                | 明装、嵌入                         |                   |                   |



控制器 Controller D-KZ04



D-KZ04

应用范围 Application Range

- 1、正常情况下，用于群控通风；  
Normally, it is used for group ventilation;
- 2、可用于办公楼、机场、车站等公共建筑；  
It can be used in public buildings such as office buildings, airports, stations and so on;
- 3、不可用于室外；  
Not for outdoor use;
- 4、可与D-QDL01、D-QDL03、D-QDL04、D-QDL06、D-QDL01、D-QDC02配合使用。  
It can be used in conjunction with D-QDL01, D-QDL03, D-QDL04, D-QDL06, D-QDZ01 and D-QDC02.

产品特性 Product Features

- 1、触屏控制器防水性良好，面板潮湿无漏点，高安全保证；  
The touch screen controller has good waterproofng quality, with moistureproof panel, no leakage, high security guaranteed;
- 2、高钢化玻璃面板，表面易清洁，不易刮花，高灵敏触控屏；  
High-grade tempered glass panel, easy to clean, anti-scratching, high sensitive touch screen;
- 3、LED夜光设计，不惧黑暗。  
With LED night light design, fearless of darkness.

技术参数 Technical Parameters

| 货号<br>Item No.                             | D-KZ04-1A             | D-KZ04-2A |
|--------------------------------------------|-----------------------|-----------|
| 外形尺寸<br>Outline Size                       | 86m×86m×33mm          |           |
| 面板材质<br>Panel Material                     | 钢化玻璃                  |           |
| 颜色<br>Colour                               | 白色                    |           |
| 接线方式<br>Connection Mode                    | 从下方接入                 |           |
| 电源电压<br>Supply Voltage                     | 220V AC±10% 50Hz      |           |
| 输出电压<br>Operating Voltage                  | 24V DC±15%            |           |
| 输出功率<br>Output Power                       | 24W                   | 48W       |
| 输出电流<br>Output Current                     | 1A                    | 2A        |
| 防护等级<br>Protection Level                   | IP43                  |           |
| 环境温度<br>Ambient Temperature                | -40℃~85℃              |           |
| 输出电源线截面<br>Output power line Cross section | 2×1.5mm <sup>2</sup>  |           |
| 输出线路<br>Output Line                        | 1 组                   | 1 组       |
| 可外接控制模块<br>External Control Module         | 烟雾感应器、风雨感应器、定时器、温度感应器 |           |
| 消防控制装置连接<br>Fire Control Device Control    | 是                     |           |
| 消防信号<br>Fire Signal                        | 是                     |           |
| 安装方式<br>Installation Method                | 明装、嵌入                 |           |
| 背光<br>Backlight                            | LED 背光                |           |
| 按键模式<br>Key Mode                           | 触摸电容                  |           |
| 使用寿命<br>Service Life                       | ≥10万次                 |           |



遥控器 Wireless remote controller     D-KZ05



应用范围 Application Range

可与D-KZ04配合使用。  
In the case of fire, it is used to control the emergency opening of 24V DC opener, exhaust smoke and heat.

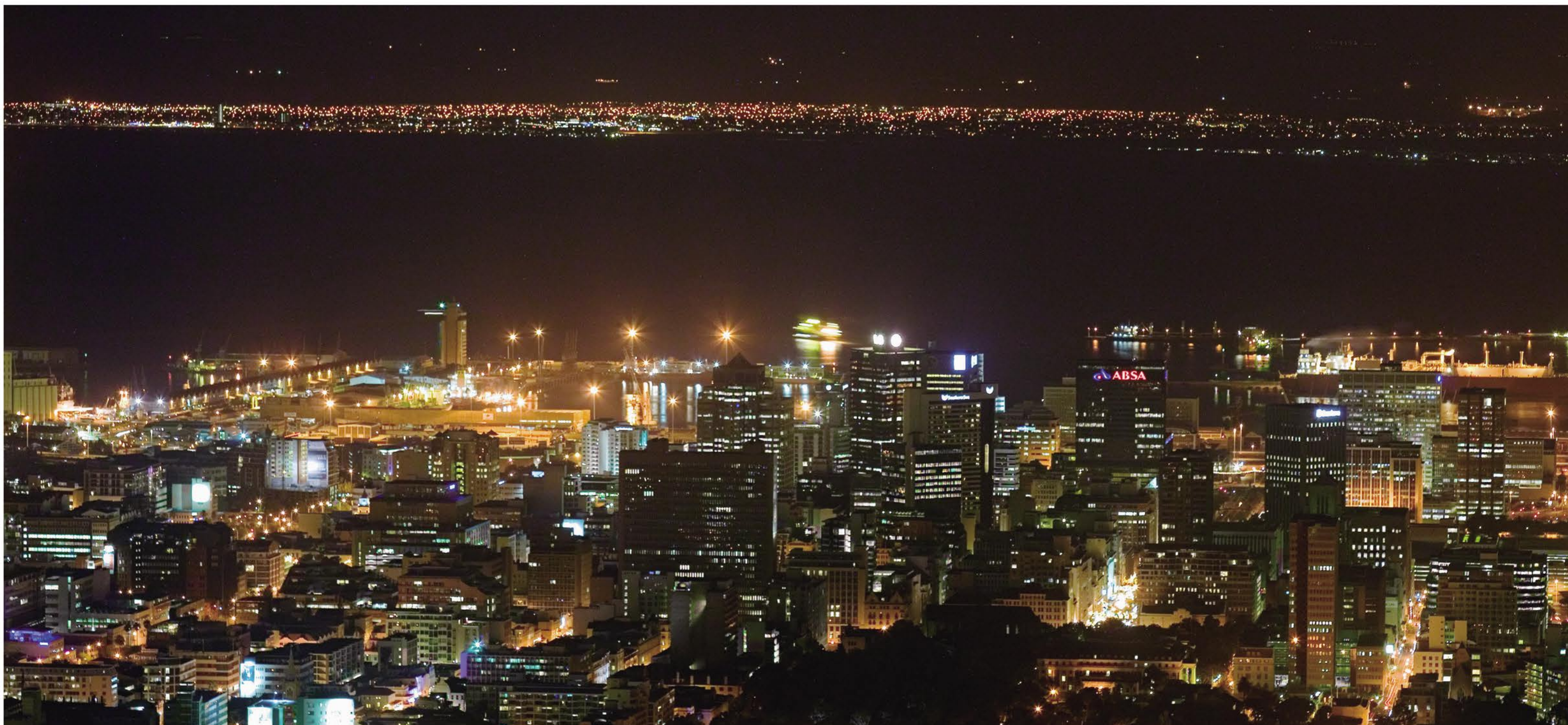
产品特性 Product Features

- 1、遥控器运用电磁波调频发射接收原理，不受物体遮挡影响；  
Utilizing FM transmitting and receiving theory, the remote controller will not be affected by the obstacles;
- 2、一个遥控发射器可控制一个或多个相同频率的遥控接收器。  
One remote controller can control one or several remote receivers which have the same frequency.

技术参数 Technical Parameters

|                                           |                   |          |          |
|-------------------------------------------|-------------------|----------|----------|
| 货号<br>Item No.                            | D-KZ05            | D-KZ05-2 | D-KZ05-6 |
| 外形尺寸<br>Outline Size                      | 126m×45m×16mm     |          |          |
| 控制频道数量<br>Number Of Control Channels      | 1                 |          | 1~16     |
| 面板材质<br>Panel Material                    | 高档塑料              |          |          |
| 颜色<br>Colour                              | 白色                |          |          |
| 信号<br>Signal                              | 电磁波调频发射接收原理       |          |          |
| 工作电压<br>Working Voltage                   | 7号电池×2    AAA1.5V |          |          |
| 环境温度<br>Ambient Temperature               | -40℃~85℃          |          |          |
| 控制距离<br>Control Distance                  | 30米               |          |          |
| 受遮挡物体影响<br>Affected By Obstructed Objects | 微小                |          |          |
| 使用寿命<br>Service Life                      | ≥10万次             |          |          |
| 按键方式<br>Button Mode                       | 实体按键              |          |          |
| 重量<br>Weight                              | 58 g              |          |          |



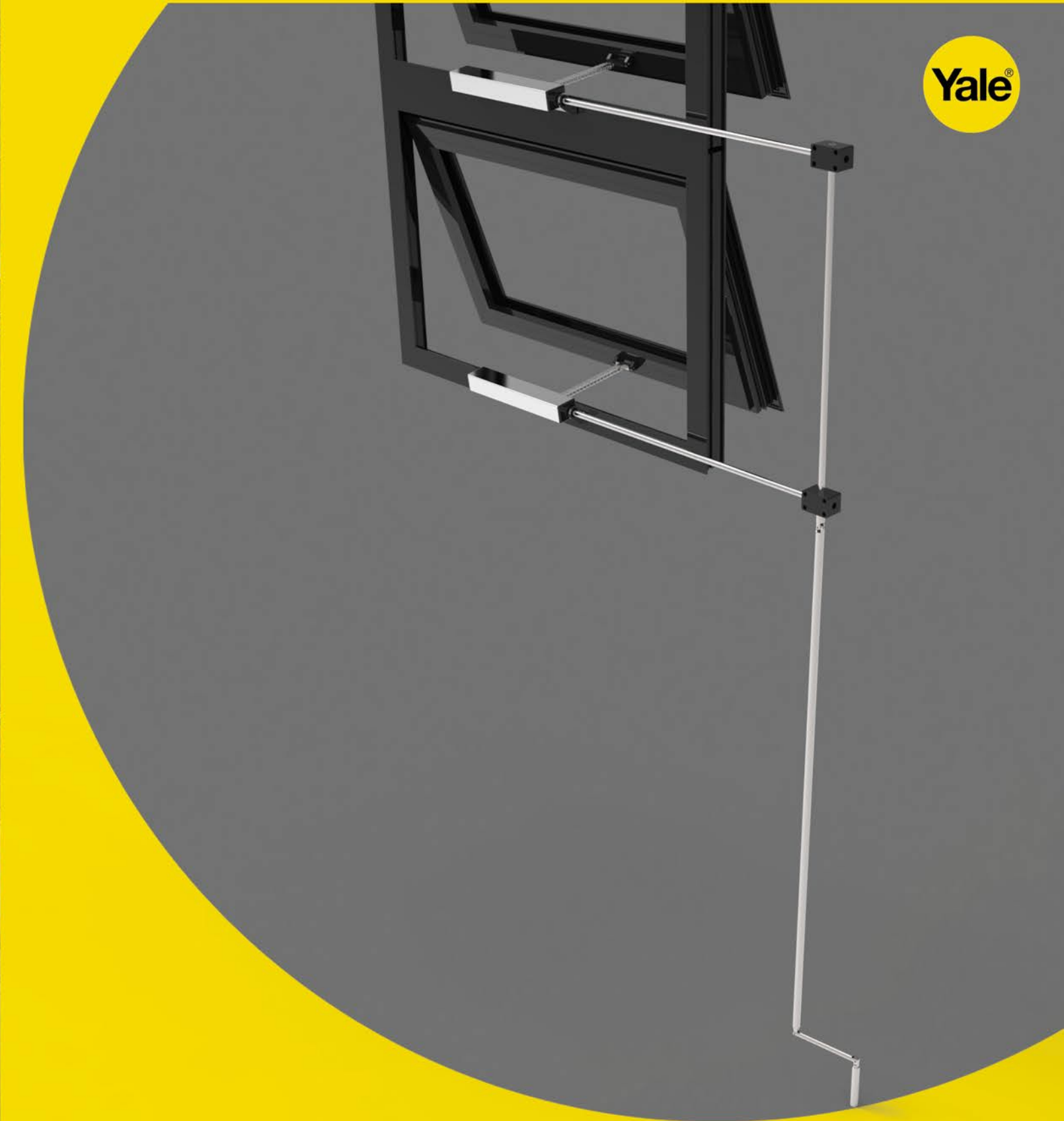


## 手摇式开窗器

Hand - Operated Window Opener

Since 1840 in Newport of New York, Yale,  
a time-honored brand-Open your wisdom life.  
来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活





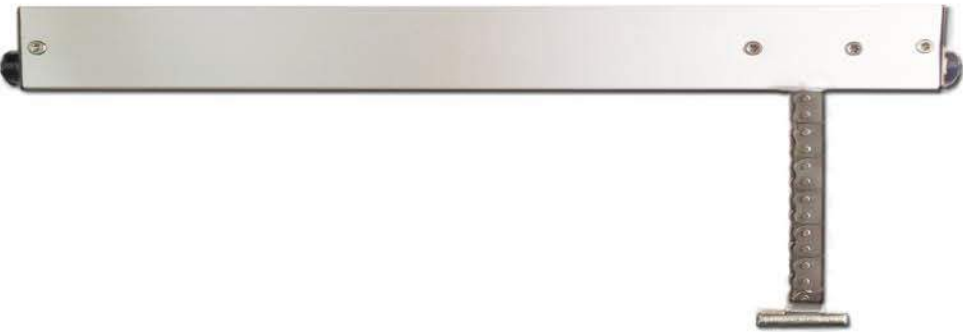
## 手摇式开窗器

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——开启您的智慧生活



手摇式开窗器 Hand - Operated Window Opener



300N  
拉力  
Pull Force

300N  
推力  
Thrust Force

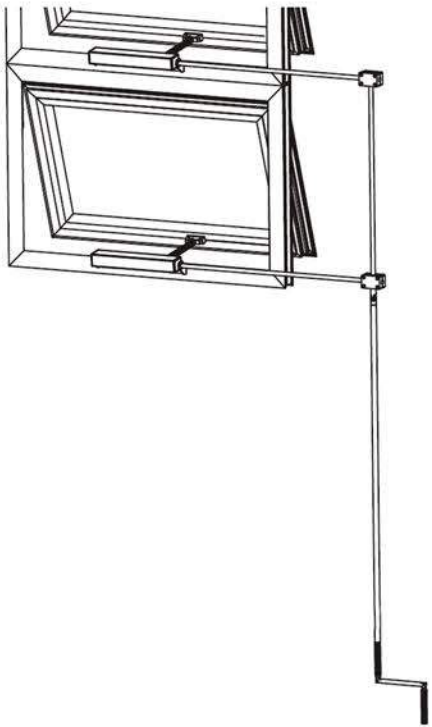
2000N  
静态锁闭力  
Static Locking Force

技术参数 Technical Parameters

|                                  |                     |         |         |            |            |         |
|----------------------------------|---------------------|---------|---------|------------|------------|---------|
| 货号<br>Item No.                   | S-SYB01-300         | S-SYB02 | S-SYB03 | S-SYB04-01 | S-SYB04-02 | S-SYB05 |
| 产品名称<br>Product Name             | 手摇链式开窗器             | 手摇杆     | 两通及配件   | 三通及配件      | 两通及配件      | 三通及配件   |
| 开启方式<br>Open Means               | 手动开启                |         |         |            |            |         |
| 行程<br>Stroke                     | 300mm/400mm/500mm三种 |         |         |            |            |         |
| 开启窗扇数量<br>number of open Windows | ≤3                  |         |         |            |            |         |
| 开启速度<br>Opening Speed            | 手动可调                |         |         |            |            |         |

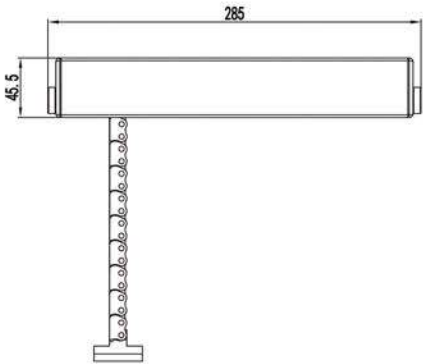
应用范围 Application Range

- 1、可用于上悬、中悬窗，可操作高窗、排窗；  
Can be used in hanging, middle hanging window, can operate tall window, row window;
- 2、可用于木质、PVC、铝合金材质的窗系统；  
Window system for wooden, PVC and aluminium alloy materials;



安装示意图

链盒式开窗器尺寸 Product Size



注：图中尺寸为行程为300的链盒开窗器的外形尺寸

产品特性 Product Features

- 1、外形美观、经济实用； Beautiful appearance, economical and practical;
- 2、独特力学结构，轻松开启； Unique mechanical structure, easy to open;
- 3、根据需求调节通风量； Adjust air volume according to demand;
- 4、耐腐蚀性强、推拉力大； Strong corrosion resistance and large pulling force;
- 5、密封性能好。 Good sealing performance.

注意事项 Matters Need Attention

- 1、本产品不可以安装在可被雨水淋到的室外；  
This product can not be installed outside the rain water;
- 2、开窗器运行时，不要将手放在窗框与窗扇之间，防止发生夹手危险。  
Do not put your hand between the window frame and the window fan when the window is running, to prevent the danger of clamping.





## 传感器 Sensor

Since 1840 in Newport of New York, Yale,  
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来自1840年美国纽约新港的百年品牌  
——开启您的智慧生活



风雨感应器 Wind And Rain Sensor D-KZ10



D-KZ10

应用范围 Application Range

- 1、可与D-KZ04、ZNTF-I、XFKZ-I配合使用；  
It can be used in conjunction with D-KZ04, ZNTF-I and XFKZ-I;
- 2、由风速、雨量、光照强度触发。  
Triggered by wind speed, rainfall and light intensity.

产品特性 Product Features

- 1、外壳材料抗紫外线辐射，符合室外使用标准；  
The outer casing contains anti-ultraviolet materials, in line with the standard for outdoor use;
- 2、风雨强度调节精度高且反应灵敏；  
High precision wind and rain intensity adjustment, with quick response;
- 3、风光雨传感器采用单片机智能化的控制，既保证了风感的快速响应，又兼顾了光感、雨感的稳定可靠。  
The sensor for wind, light and rain using SCM intelligent control mode, not only to ensure a rapid response of wind sensor, but also guarantee the stable and reliable of light sensor and rain sense.

技术参数 Technical Parameters

|                                 |                                          |
|---------------------------------|------------------------------------------|
| 货号<br>Item No.                  | D-KZ10                                   |
| 外形尺寸<br>Outline Size            | 120m×152m×46mm                           |
| 面板材质<br>Panel Material          | 高档塑料                                     |
| 颜色<br>Colour                    | 米黄色                                      |
| 工作电压<br>Working Voltage         | 12V±15%                                  |
| 环境温度<br>Ambient Temperature     | -40℃~60℃                                 |
| 风速<br>Wind Speed                | 可设定                                      |
| 雨量<br>Rainfall                  | 可设定                                      |
| 光照<br>Illumination              | 可设定                                      |
| 延迟保护时间<br>Delay Protection Time | 15min                                    |
| 安装方式<br>Installation Method     | 室外明装                                     |
| 响应时间<br>Response Time           | 风感3s、光感2min、雨感25s                        |
| 感应强度<br>Induction Strength      | 风感10KM/H~50KM/H、光感0.2~10Klux、雨感1~100mm/H |



烟雾感应器 Smoke Sensor     D-KZ08



D-KZ08

应用范围 Application Range

- 1、可与D-KZ04、ZNTF-I、XFKZ-I配合使用；  
It can be used in conjunction with D-KZ04, ZNTF-I and XFKZ-I;
- 2、由火灾浓烟触发。  
Triggered by fire smoke.

产品特性 Product Features

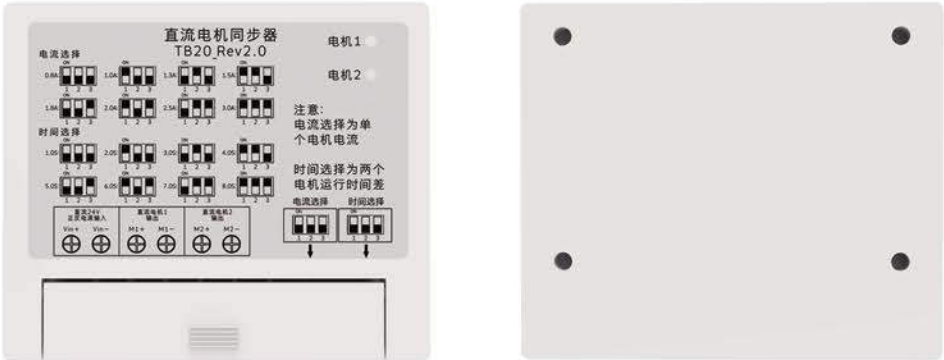
- 1、手动测试； Manual testing;
- 2、自动复位； Automatic reset;
- 3、采用专用微处理器控制； Using special microprocessor controller;
- 4、防尘、防虫、抗白光干扰； Dustproof、mothprof、white light interference resistant;
- 5、采用SMT工艺制造，稳定性强； Using SMT manufacturing process, with high stability;
- 6、执行标准：GB4715-1993； Performance Standards;
- 7、烟雾灵敏度符合UL的217号标准。 Smoke sensitivity comply with the UL 217 stander.

技术参数 Technical Parameters

|                                  |                      |
|----------------------------------|----------------------|
| 货号<br>Item No.                   | D-KZ08               |
| 外形尺寸<br>Outline Size             | φ103×53              |
| 面板材质<br>Panel Material           | 高档塑料                 |
| 颜色<br>Colour                     | 白色                   |
| 工作电压<br>Working Voltage          | 12V±15%              |
| 环境温度<br>Ambient Temperature      | -40℃~60℃             |
| 检测面积<br>Detection Area           | 25~40m²              |
| 复位<br>Reset                      | 自动                   |
| 执行标准<br>Implementation Standards | GB4715-1993\UL217号标准 |
| 声光指示<br>Acousto Optic Indication | 光指示                  |
| 浓度报警<br>Concentration Alarm      | 0.65~15.5%FT         |
| 信号输出<br>Signal Output            | 常开常闭                 |
| 安装方式<br>Installation Method      | 吸顶                   |



同步器 Synchronizer D-ZLTB-2



D-ZLTB-2

应用范围 Application Range

- 1、可与D-QDL01、D-QDZ01、D-QDC02配合使用； It can be used in conjunction with D-QDL01, D-QDZ01 and D-QDC02;
- 2、保证两台开窗器同步运行。 Ensure the synchronous operation of two window opener.

技术参数 Technical Parameters

|                                  |                 |
|----------------------------------|-----------------|
| 货号<br>Item No.                   | D-ZLTB-2        |
| 外形尺寸<br>Outline Size             | 112mm×69mm×39mm |
| 面板材质<br>Panel Material           | 高档塑料            |
| 颜色<br>Colour                     | 白色              |
| 工作电压<br>Working Voltage          | 24V±15%         |
| 环境温度<br>Ambient Temperature      | -20℃~75℃        |
| 声光指示<br>Acousto Optic Indication | 光指示             |
| 安装方式<br>Installation Method      | 明装              |
| 保护电流<br>Protection Current       | 可调              |
| 保护时间<br>Protection Time          | 可调              |

适用场合 Applications

- 1、窗的安装位置较高或过远，单靠人力触及不到的窗，如：建筑高层窗；  
Where the window location are too high or too far, out of reach, such as: high building window;
- 2、窗太重，开启或关闭费力，手动开关使用不便；  
Where the window are too heavy, not convenient to open or close hand;
- 3、楼层有消防联动通风要求的消防排烟窗；  
Where the boors have pre protection and smoke exhausting windows with ventilation requirements for pre protection;
- 4、有气象开关窗要求的窗，如：仓库下雨时需要自动关闭的窗；  
For the window with meteorogical open and close requirement, such as: warehous windows which need to be closed automatically when it's raining;
- 5、对室内有恒温要求的窗，如：蔬菜或花卉温室的窗；  
For the windows on rooms with constant temperature requirement, such as: vegetable or flowers greenhouse windows;
- 6、工作在对室内空气指数要求严格，需要及时定时通风换气环境中的窗；  
For the windows on rooms, with strict requirement for indoor air quality index, need timely ventilation and aeraton;
- 7、窗需要较严格的关闭密封力量，如天窗防雨需要关闭较紧固；  
For automatic control stories close and sealing requirement, such as: skylight which need tight close for rainproof purpose;
- 8、楼宇自动控制，智能家居控制等；  
For automatic control stories, and intelligent control home appliances;
- 9、具体使用场合包括：家庭、大型体育场、候车（机）厅、商场、宾馆、学校、医院、公共娱乐场所、车间、仓库、写字楼、养老院等。  
Specipc applicatons including: families, large stadiums, waiting lounges, shopping malls, hotels, schools, hospitals, public entertain-ment places, workshops, warehouses, of pce buildings, nursing homes, etc.





工程案例 Project Cases



1

温州文化艺术大楼



2

贵阳渔安安井  
温泉旅游城“未来方舟”



3

盐城环保科技城  
创业投资服务中心



4

新疆伊犁州新华医院



5

唐山公安局办公大楼



6

海口日月广场

工程案例 Project Cases



7

东北师大大连保税区师范学校



8

太原龙投大厦



9

北京奥润顺达门窗博物馆



10

菏泽佳和广场



11

长春奥林匹克公园



12

西安兰池大厦



工程案例 Project Cases



海南海事学院图书馆



营口市中心医院 (沈阳项目)



南京浦口区桥北文化中心



中航光电



西安电子商务大厦



唐山风情小镇

工程案例 Project Cases



旭辉地产办公楼



西安科技大学



海南罗牛山项目



海南淇水湾1号



黄山太平洋购物中心



荣成一中



工程案例 Project Cases



青岛西站



营口市中心医院 (沈阳项目)



南宁新媒体中心



昆明滇中商务广场



石家庄少年宫



邢台博物馆

工程案例 Project Cases



太原植物园



兰州名城广场



大连海上东方



晋江第二体育中心



沈阳恒大养生谷



大连二十四城



工程案例 Project Cases



鲁西南记忆龙头景区



辽宁阜新车站



南昌首创奥特莱斯



唐山第二人民医院



长沙融创售楼中心



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