



Intelligent Window Opening System

Yale is trusted by millions of people every day to keep what's important to them safe.



Our innovations have protected their homes, families and belongings for over 180 years. We have expanded from being a leader in mechanical lock engineering to innovating connected smart locks and homes. Because we always make every effort to push the boundaries in a changing world. We were there for your grandparents (and probably theirs) and we'll be there for your children. Today, and every day to come.

Trusted every day

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ASSA ABLOY In Brief

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 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.

Yale Brand Introduction

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.



System Introduction



Building Category Query Tables

Name	Classify	Item
Class 1 High Rise Building	Residential Architecture	High grade House and Common house with 19 stories and above
	Public Building	High Grade Hotel
		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
		Building height exceeds 50m or commercial residential building with are more than 1500㎡ on each Boor
		Broadcast and TV building of Central Authority Grade and Provincial Grade (including Separate Listed Cities)
		Power Control Building of Net and Bureau grade and Provincial Grade (including Separate Listed Cities)
		Provincial Grade (including Separate Listed Cities) Post Of pce buildings and Disaster Prevention Command and control building
		Library and book storeroom with more than 1000000 books
		Vital of pce building, Scientipc Research building, Archives
Class 2 High Rise Building	Residential Architecture	Common house with 10 to 18 stories
	Public Building	All the commercial buildings, exhibitions, comprehensive buildings, telecommunication buildings, Pnance and trade buildings, commercial residential buildings, libraries, book stores except the Class 1 buildings
		Post Ofpce buildings and Disaster Prevention Command and control building, Broadcast and TV buildings, Power Control Buildings that under provincial grade
		Teaching buildings, normal hotels, ofpce buildings, scientipc research buildings and archives thathigh less than 50m

The Important Function of Fire Safety and Smoke Venting System

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 beneficial 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.

Construction without Fire-Safety and Smoke Venting Window in Fire Alarm Situation.

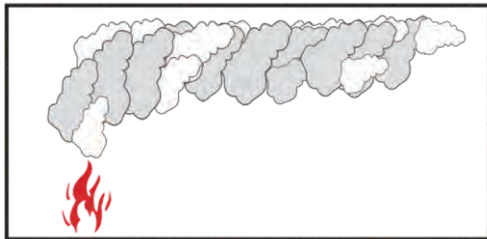


Smoke arises in pre alarm situation.

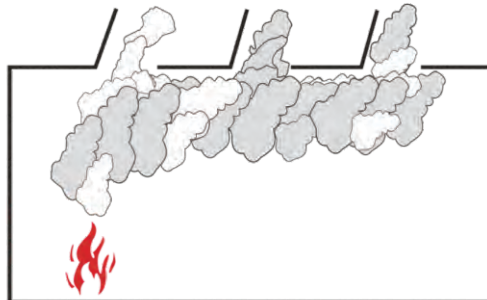
Construction with Fire-Safety and Smoke Venting Window in Fire Alarm Situation.



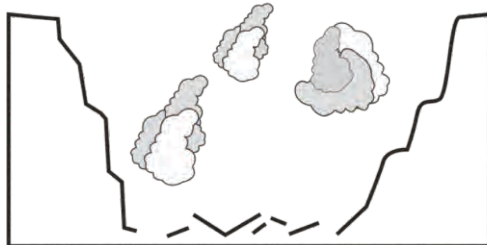
Smoke arises in pre alarm situation.



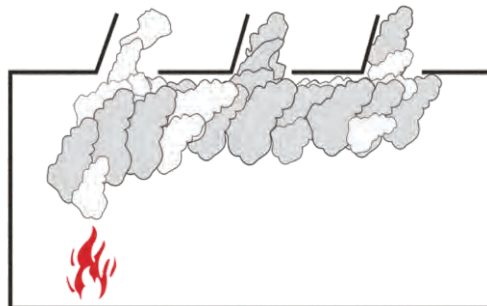
The room is full of smoke, causes obstacles to escape and rescue.



The smoke can be exhausted quickly, keep the emergency road and rescue channel clear.



Massive burning air with high temperature results in the collapse of construction partially.



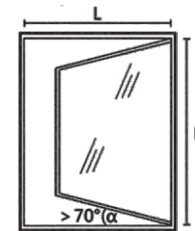
The dense smoke decreases, and the room temperature reduces, the construction doesn't fall down.

Smoke is the actual crime culprit to people's life in fire accident.

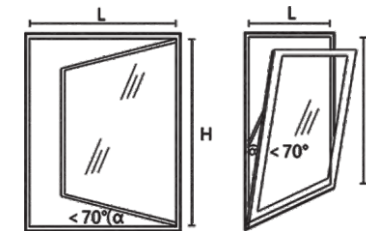
Calculation Method Of Effective Area Of Smoke Exhaust Window

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

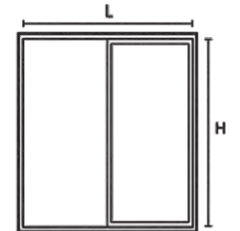
- When the window angle is greater than 70 degrees, the area should be calculated according to the window area; as shown in Figure 1
- When the window angle is less than 70 degrees, the area should be calculated according to the horizontal projection area of the window; as shown in Figure 2
- When using side pull windows, its area should be calculated according to the maximum window area open; as shown in Figure 3
- When the blinds are used, the area should be calculated according to the effective opening area of the window;
- 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
- 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
- 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



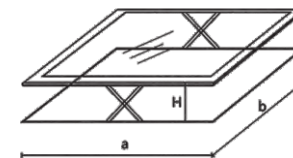
Casement window opening angle is greater than 70°. The effective area of the smoke exhaust window $S=L \times H$



The opening angle of casement windows is less than 70°. The opening angle of inward-opening and bottom-hung windows is less than 70°. Effective area of smoke exhaust window $S=L \times \sin \alpha \times H$



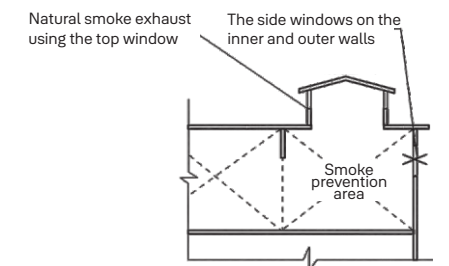
Side sliding window, The effective area of the smoke exhaust window $S=L \times H$



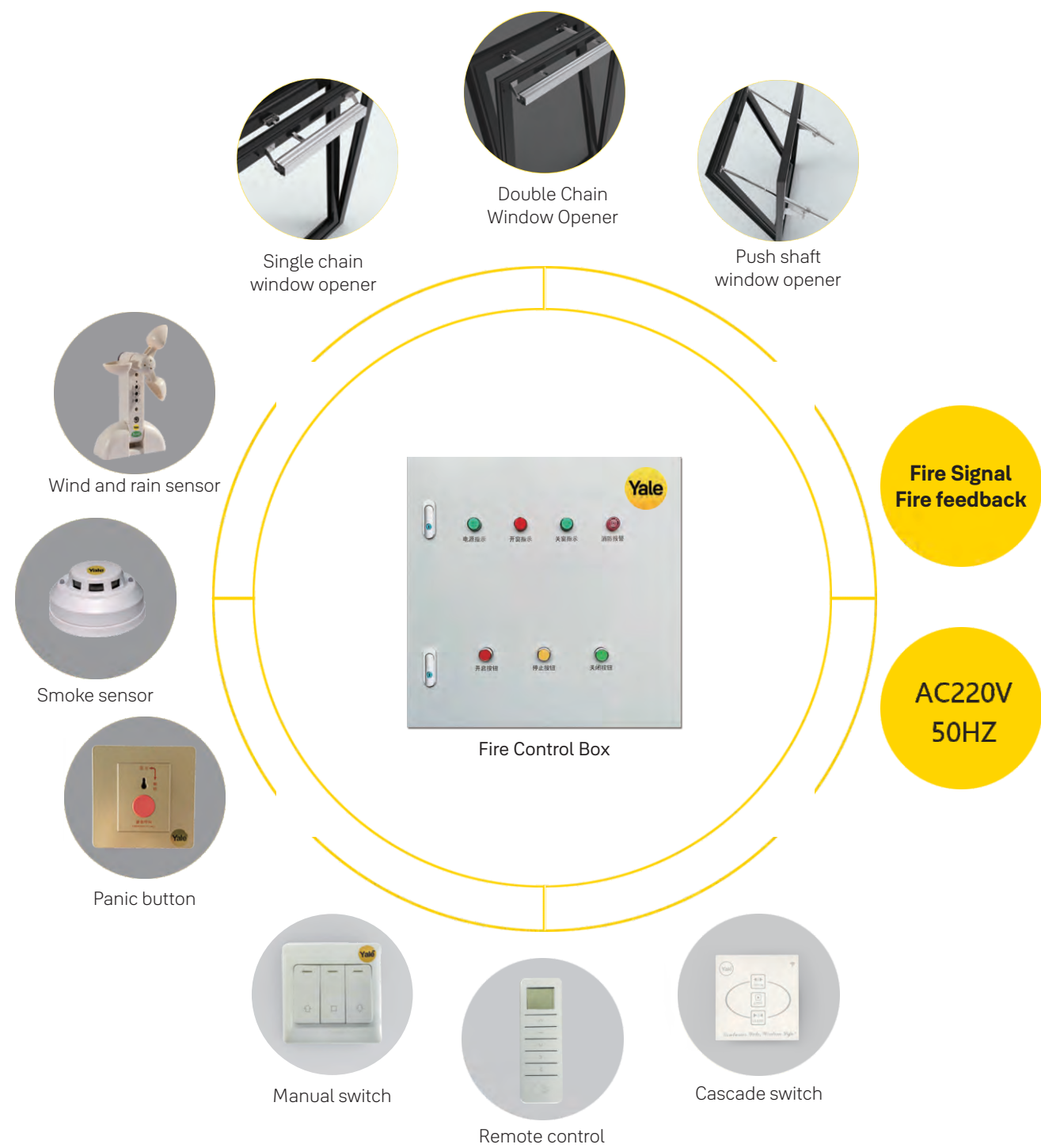
Sliding windows set at the top
Effective area of smoke exhaust window $S=1/2 \times (2a+2b) \times H$ and $S \leq a \times b$



Sliding windows set on side walls
Effective area of smoke exhaust window $S=1/4 \times (2a+2b) \times H$ and $S \leq a \times b$



Fire Smoke Evacuation System



Configuration Scheme

Item No.	Qty. of Single Chain Actuator that can be linked	Qty. of Double Chain Actuator that can be linked	Qty. of Linear Spindle Actuator that can be linked			Required Rain and wind sensor Qty.	Required Emergency Botton Qty.	Required Manual Switch Qty.	Required Remote Controler Qty.	Required Smoke Sensor Qty.
			800N	1000N	2000N					
XFKZ-IV-16A	10	5	13	10	6	1	1	1	1	As per design or customer's requirement
XFKZ-IV-16A	21	10	26	21	12	1	1	1	1	
XFKZ-IV-16A	45	22	55	45	26	1	1	1	1	

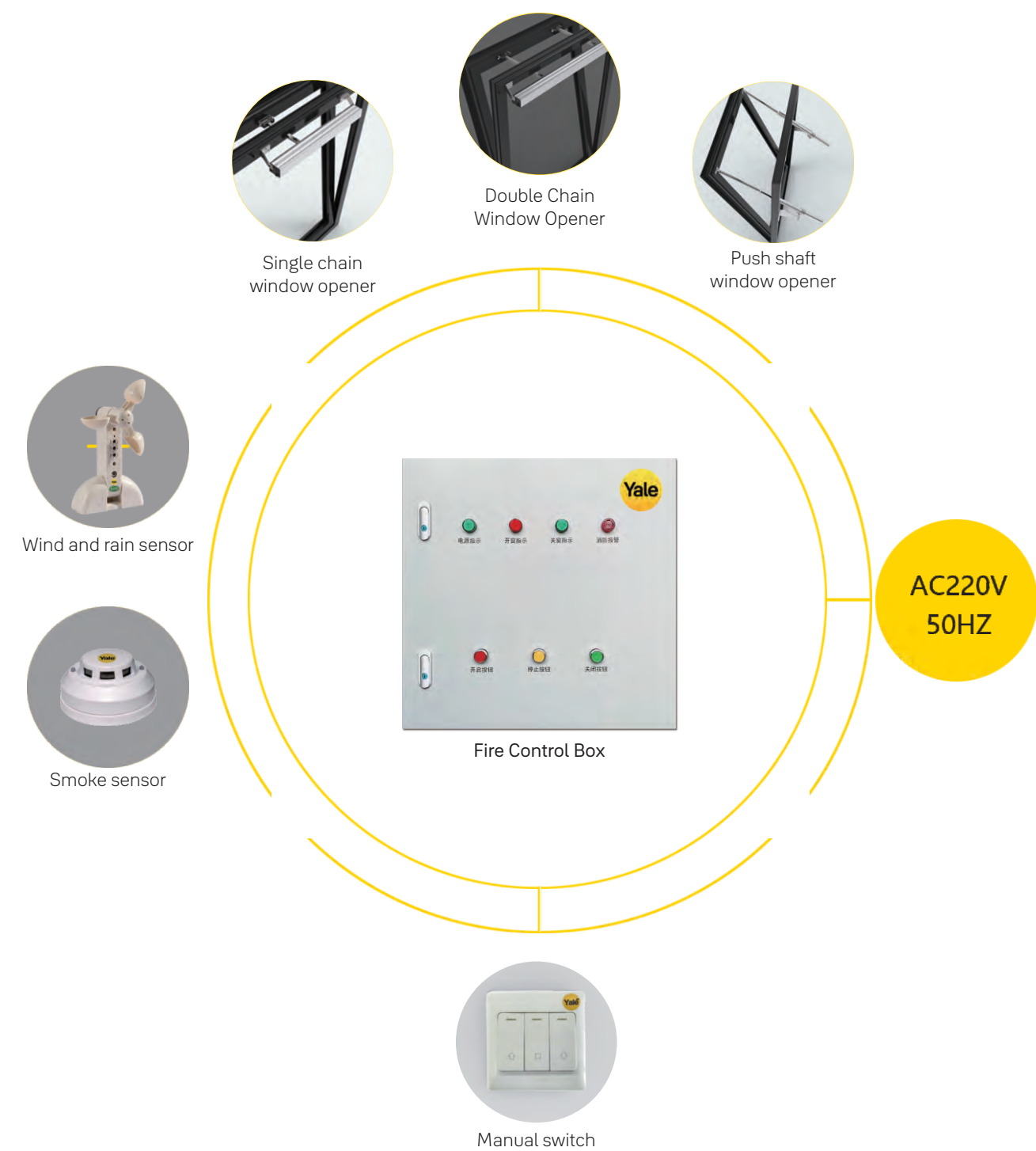
System Introduction

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.

Intelligent Venting System Sketch



Configuration Scheme

Item No.	Qty.of Single Chain Actuator that can be linked	Qty.of Double Chain Actuator that can be linked	Qty.of Linear Spindle Actuator that can be linked			Required Rain and wind sensor Qty.	Required Manual Switch Qty.	Required Remote Controller Qty.	Required Smoke Sensor Qty.
			800N	1000N	2000N				
XFKZ-IV-16A	10	5	13	10	6	1	1	1	As per design or customer's requirement
XFKZ-IV-32A	21	10	26	21	12	1	1	1	
XFKZ-IV-64A	45	22	55	45	26	1	1	1	

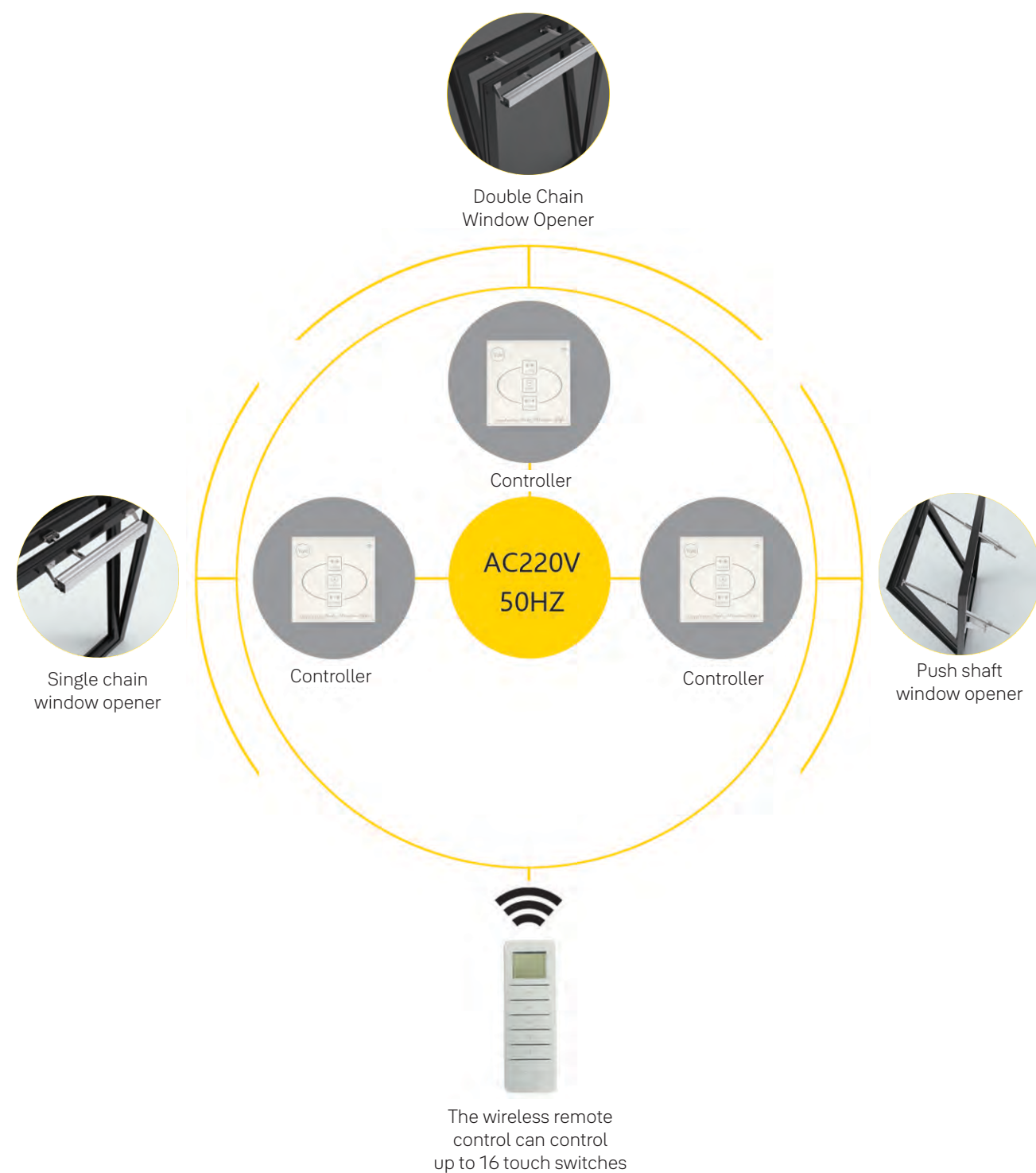
System Introduction

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.

The Control Way of Switch



Configuration Scheme

Item No.	Qty.of Single Chain Actuator that can be linked	Qty.of Double Chain Actuator that can be linked	Qty.of Linear Spindle Actuator that can be linked			Available Remote Controller No.
			800N	1000N	2000N	
D-KZ04-1A	1		1	1		D-KZ05
D-KZ04-2A	2	1	2	2	1	D-KZ05
D-KZ04-8A	8	4	8	8	4	D-KZ05

System Introduction

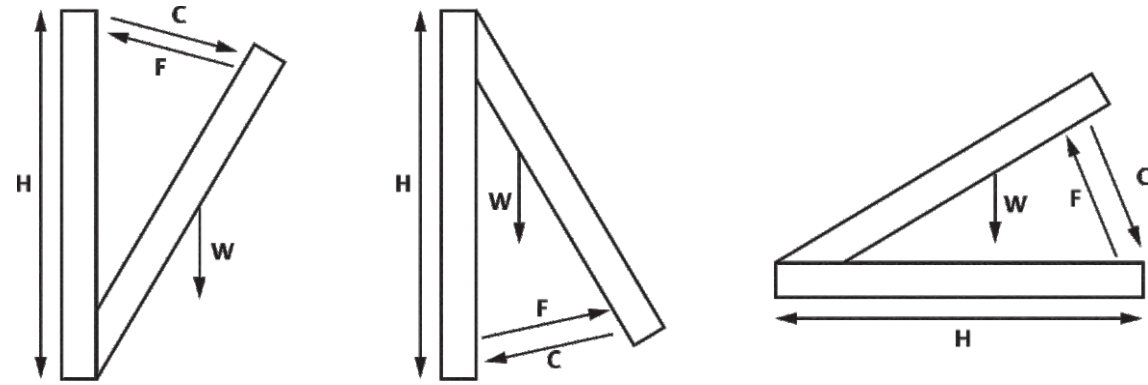
Use switch to control, consist of window Actuator, Controller, Remote Controller etc. Usually, use Switch or Remote Control the electrical window.

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.



Electric Opening Device

Formulation for Window Open Force Calculation



Casement $F \approx W/2 \times C/H \times 9.8 \text{ (N)}$
 Skylight $F \approx W/2 \times 9.8 \text{ (N)}$

- Sash Weight(kg) W
- Required Push and Pull Force (N) F
- Window Open Distance (mm) C
- Sash Height (mm) H

Formulation For Window Sash Weight Calculation

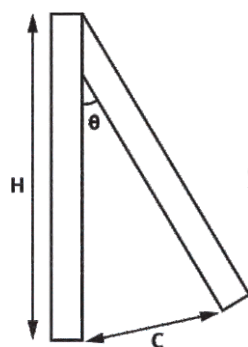
$$W = H \times L \times K \times 2.5 \times 1.2$$

- Window Sash Weight (kg) W
- Window Sash Height (m) H
- Window Sash width (m) L
- Glass Thickness (mm) K

Note :

Remarks : 2.5means the weight of 1m² glass in 1mm thick 2.5kg
 1.2 stands for the average ratio of window and prople weight.

Formulation For Window Opening Angle Calculation



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

- Window Sash Height (mm)H
- Stroke Of Window Actuator (mm) C
- Window Opening Angle Ø

Zoom Table for Opening Angle - Chain Type Actutor- Bottom Installation

Stroke / Window Sash Height	600	800	1000	1200	1400	1600	1800	2000
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°

Zoom Table for Opening Angle - Chain Type Actutor- Side Installation

Stroke / Window Sash Height	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°

Zoom Table for Opening Angle - Liner Type Actutor- Bottom Installation

Stroke / Window 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°

Zoom Table for Opening Angle - Liner Type Actutor- Side Installation

Stroke / Window Sash Height	600	800	1000	1200	1400	1600	1800	2000
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°

Single Chain Window Opener



D-QDL23



10mm/s
Opening Speed

450N
Pull Force

450N
Thrust Force

2500N
Static Locking Force

Application Range

- 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
- Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of
- It can be used in intelligent ventilation system and fire smoke evacuation system
- Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer
- Window system for wooden, PVC and aluminium alloy materials
- Window sash or window frame installation

Single Chain Window Opener

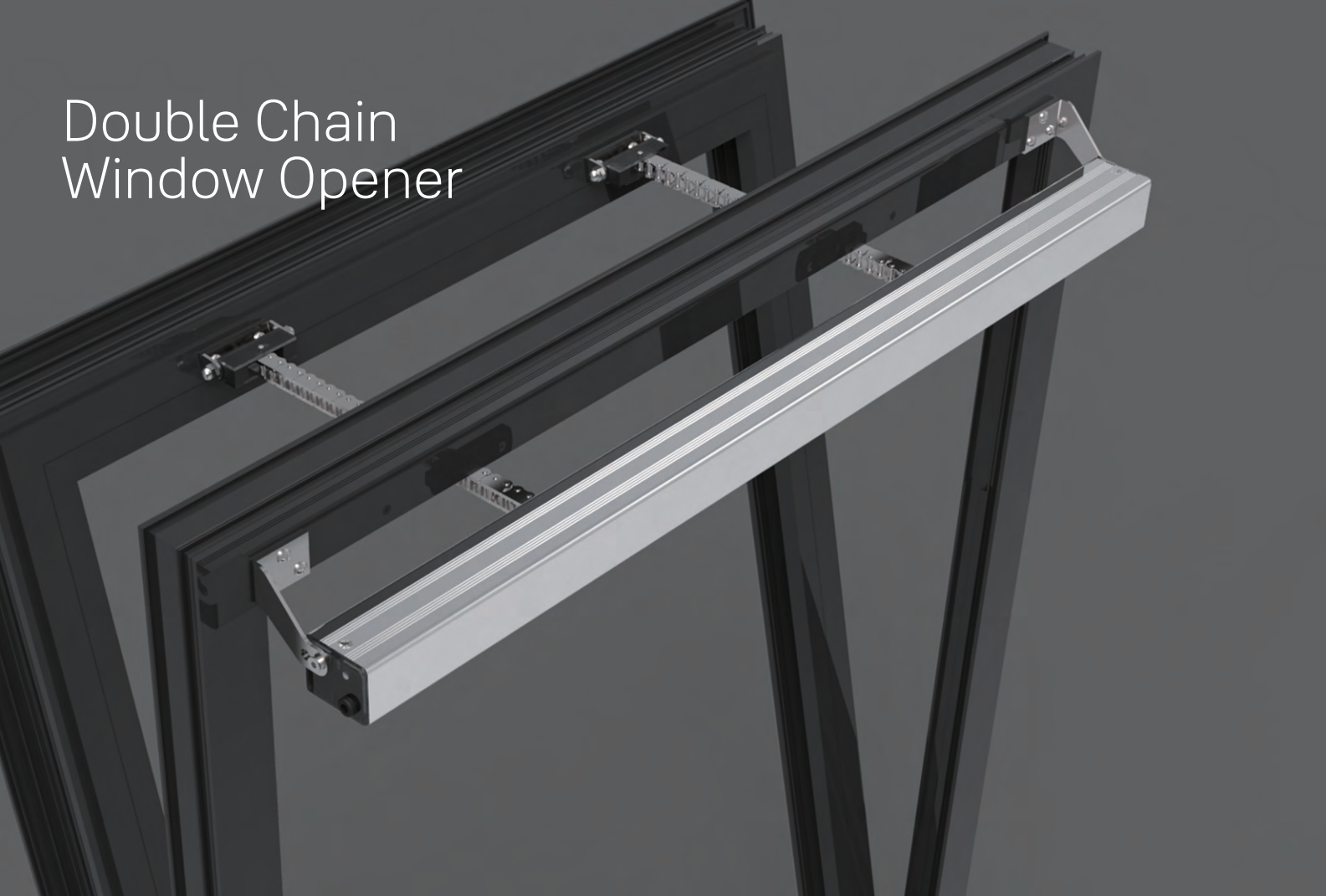
Product Features

- The shell is made of high strength aluminum alloy
- The surface treatment of the shell is fluorocarbon spraying
- The chain material is carbon steel nickel plated;
- Life is more than 30000 times of steel
- Strong corrosion resistance and large pulling force
- Good sealing performance.

Technical Specifications									
Item No.	D-QDL23-20	D-QDL23-300	D-QDL23-400	D-QDL23-500	D-QDL23-600	D-QDL23-700	D-QDL23-800	D-QDL23-900	D-QDL23-1000
Stroke	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
Outerline Size	356mm	406mm	456mm	506mm	556mm	606mm	656mm	706mm	756mm
	x 51mm x 42mm								
Window Weight	Varies depending on window sash height and opening angle								
Window Width	500mm≤L≤1300mm								
Operating Voltage	24V±10%								
Electric Current	1.0A								
Power	24W								
Wire Size	2×0.5mm²								
Protection Level	IP32								
Ambient Temperature	-20°C~75°C								
Limit Power-Off	Electrons, through path and load (extended)/Electrons, drawn through current (retracted)								
Overload Power-Off	Yes								
Mechanical Self-Locking	Yes								
Fully Open Within 60s	Yes, reach 600mm stroke								
Synchronous Operation	2 motors, additional synchronizer is required								
CCCF Detection	Pass								
Installation Accessories	Installation accessories not included, need to be purchased separately								

Matters Need Attention	
• When choosing a window opener, snow load and wind load should be taken into account	
• The North needs to be frozen.	

Double Chain Window Opener



D-QDL08-180



10mm/s
Opening Speed

900N
Pull Force

900N
Thrust Force

3000N
Static Locking Force

Application Range

- 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
- Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of
- It can be used in intelligent ventilation system and fire smoke evacuation system
- Window system for wooden, PVC and aluminium alloy materials
- Window sash or window frame installation.

Double Chain Window Opener

Product Features

- The shell is made of high strength aluminum alloy
- The surface treatment of the shell is fluorocarbon spraying
- The chain is made of high strength 304 stainless steel
- Life is more than 30000 times of steel
- Strong corrosion resistance and large pulling force
- Good sealing performance.

Technical Specifications

Item No.	D-QDL08-180	D-QDL08-360	D-QDL08-450	D-QDL08-600
Stroke	180mm	360mm	450mm	600mm
Outerline Size	761mm	941mm	1031mm	1181mm
	x 51mm x 42mm			
Window Weight	Varies depending on window sash height and opening angle			
Window Width	≥1300mm			
Operating Voltage	24V±10%			
Electric Current	2.0A			
Power	48W			
Wire Size	2×0.5mm ²			
Protection Level	IP32			
Ambient Temperature	-20°C~75°C			
Limit Power-Off	Electrons, through path and load (extended)/Electrons, through current drain (retracted)			
Overload Power-Off	Yes			
Mechanical Self-Locking	Yes			
Fully Open Within 60s	Yes, reach 780mm stroke			
Synchronous Operation	2 motors			
Motor synchronization	Built-in synchronizer			
CCCF Detection	Pass			
Installation Accessories	Bracket and fixed base not included, need to be purchased separately			

Matters Need Attention

- When choosing a window opener, snow load and wind load should be taken into account
- The North needs to be frozen.

Mounting Accessories For Single Chain Window Opener



Name	Item No.	Remarks
External opening mounting accessories	D-QDL23-01	Used in conjunction with chain-type window openers, suitable for outward-opening windows

Mounting Accessories For Single Chain Window Opener



Name	Item No.	Remarks
Internal opening installation accessories	D-QDL23-02	Used in conjunction with chain-type window openers, suitable for inward-opening windows



Liner Spindle Window Opener

D-QDZ11



6mm/s
Opening Speed

1000N
Pull Force

1000N
Thrust Force

3000N
Static Locking Force

Application Range

- It can be used for shutter, window opening, inner window opening, flat pushing window, upper hanging window, lower hanging window and large skylight;
- Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of;
- It can be used in intelligent ventilation system and fire smoke evacuation system;
- Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer;
- Window system for wooden, PVC and aluminium alloy materials;
- Window sash or window frame installation.

Liner Spindle Window Opener

Product Features

- The shell is made of high strength aluminum alloy
- The surface treatment of the shell is fluorocarbon spraying
- The liner spindle is made of high strength 304 stainless steel
- Life is more than 30000 times of steel
- Strong corrosion resistance and large pulling force;
- Good sealing performance.

Technical Specifications								
Item No.	D-QDZ11-300	D-QDZ11-400	D-QDZ11-500	D-QDZ11-600	D-QDZ11-700	D-QDZ11-800	D-QDZ11-900	D-QDZ11-1000
Storke	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1000mm
Outerline Size	1000N							
	Stroke +360mm, outer diameter Ø36mm							
Window Weight	Varies depending on window sash height and opening angle							
Window Width	L≥400mm							
Operating Voltage	24V±10%							
Electric Current	1.2A							
Power	28W							
Wire Size	2×0.5mm²							
Protection Level	IP65							
Ambient Temperature	-20°C~75°C							
Limit Power-Off	Electrons, through path and load (extended)/Electrons, through current drain (retracted)							
Overload Power-Off	Yes							
Mechanical Self-Locking	Yes							
Fully Open Within 60s	Yes							
Synchronous Operation	2 motors, Synchronizer							
CCCF Detection	Pass							
Installation Accessories	Bracket not included, needs to be purchased separately							
Matters Need Attention								



Super Waterproof Liner Spindle Window Opener

D-QDZ01F



6mm/s
Opening Speed

800N
Pull Force

800N
Thrust Force

3000N
Static Locking Force

Application Range

- It can be used for shutter, window opening, inner window opening, flat pushing window, upper hanging window, lower hanging window and large skylight;
- Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of
- It can be used in intelligent ventilation system and fire smoke evacuation system;
- Up to 2 window opener can work synchronously, and cooperate with D-ZLTB-2 synchronizer;
- Window system for wooden, PVC and aluminium alloy materials;
- Window sash or window frame installation.

Super Waterproof Liner Spindle Window Opener

Product Features

- The shell is made of high strength aluminum alloy
- The surface treatment of the shell is fluorocarbon spraying
- The liner spindle is made of high strength 304 stainless steel
- Life is more than 30000 times of steel
- Strong corrosion resistance and large pulling force
- Super waterproof

Technical Specifications				
Item No.	D-QDZ01F-300	D-QDZ01F-500	D-QDZ01F-750	D-QDZ01F-1000
Storke	300mm	500mm	750mm	1000mm
Outerline Size	L:577mm	L:777mm	L:1077mm	L:1277mm
Window Weight	Varies depending on window sash height and opening angle			
Window Width	L≥400mm			
Operating Voltage	24V±10%			
Electric Current	1.0A			
Power	24W			
Wire Size	2×0.5mm²			
Protection Level	IP68			
Ambient Temperature	-20°C~75°C			
Limit Power-Off	Electrons, through path and load (extended)/Electrons, drawn through current (retracted)			
Overload Power-Off	Yes			
Mechanical Self-Locking	Yes			
Fully Open Within 60s	360mm			
Synchronous Operation	2 motors			
CCCF Detection	Pass			
Installation Accessories	Bracket not included, needs to be purchased separately			
Matters Need Attention				

Mounting Accessories For Liner Spindle Window Opener



Name	Item No.	Remarks
Bracket	D-QDZ01-3601	Used in conjunction with push-shaft window openers, suitable for outward-opening windows

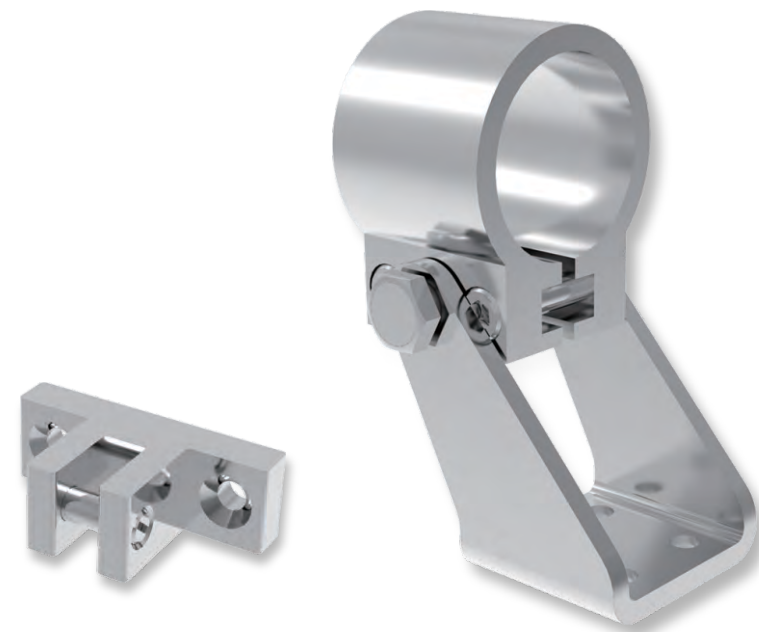


Name	Item No.	Remarks
Bracket	D-QDZ01-3602L	Used in conjunction with push-shaft window openers, suitable for outward-opening windows

Mounting Accessories For Liner Spindle Window Opener



Name	Item No.	Remarks
Bracket	D-QDZ01-3602R	Used in conjunction with push-shaft window openers, suitable for outward-opening windows



Name	Item No.	Remarks
Bracket	D-QDZ01-3602R	Used in conjunction with push-shaft window openers, suitable for outward-opening windows



Sliding Arm Type Window Opener

D-QDC02



15mm/s
Opening Speed

300N
Pull Force

300N
Thrust Force

2000N
Static Locking Force

Application Range

- The utility model can be used for sliding windows and lifting windows
- Can be used for intelligent single control, and D-KZ04 controller in conjunction with the use of
- It can be used in intelligent ventilation system and fire smoke evacuation system
- Window system for wooden, PVC and aluminium alloy materials
- Window sash or window frame installation.

Sliding Arm Type Window Opener

Product Features

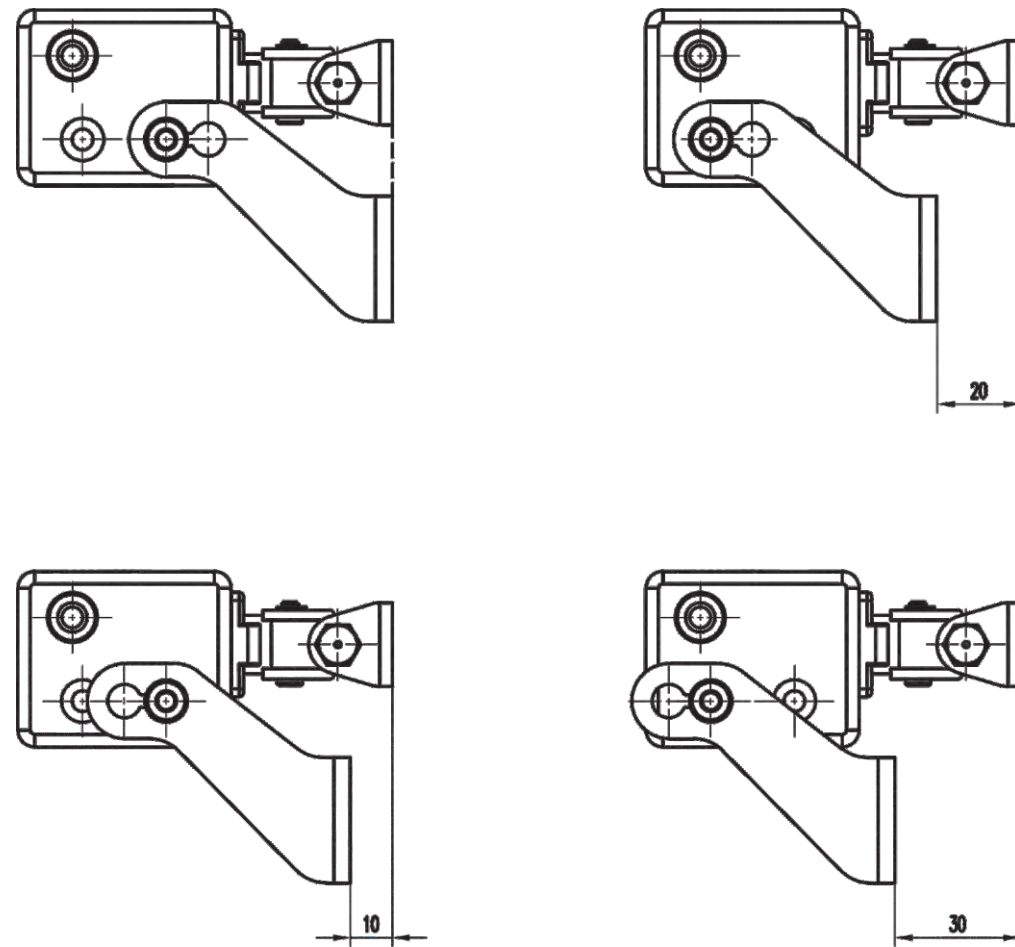
- The shell is made of high strength aluminum alloy
- The surface treatment of the shell is fluorocarbon spraying
- Life is more than 30000 times of steel
- Strong corrosion resistance and large pulling force
- Good sealing performance

Technical Specifications					
Item No.	D-QDC02-500	D-QDC02-600	D-QDC02-700	D-QDC02-800	D-QDC02-900
Storke	500mm	600mm	700mm	800mm	900mm
Outerline Size	(Stroke+218mm)×53.3mm×42mm				
Window Weight	30kg				
Window Width	300mm - 900mm				
Operating Voltage	24V±10%				
Electric Current	0.8A				
Power	19W				
Wire Size	2×0.5mm²				
Protection Level	IP32				
Ambient Temperature	-20°C~75°C				
Limit Power-Off	Electrons, through path and load (extended)/Electrons, drawn through current (retracted)				
Overload Power-Off	Yes				
Mechanical Self-Locking	Yes				
Fully Open Within 60s	900mm				
Synchronous Operation	2 motors				
CCCF Detection	Pass				
Installation Accessories	Bracket included, no additional accessories required				

Matters Need Attention

- When choosing a window opener, snow load and wind load should be taken into account
- The North needs to be frozen.

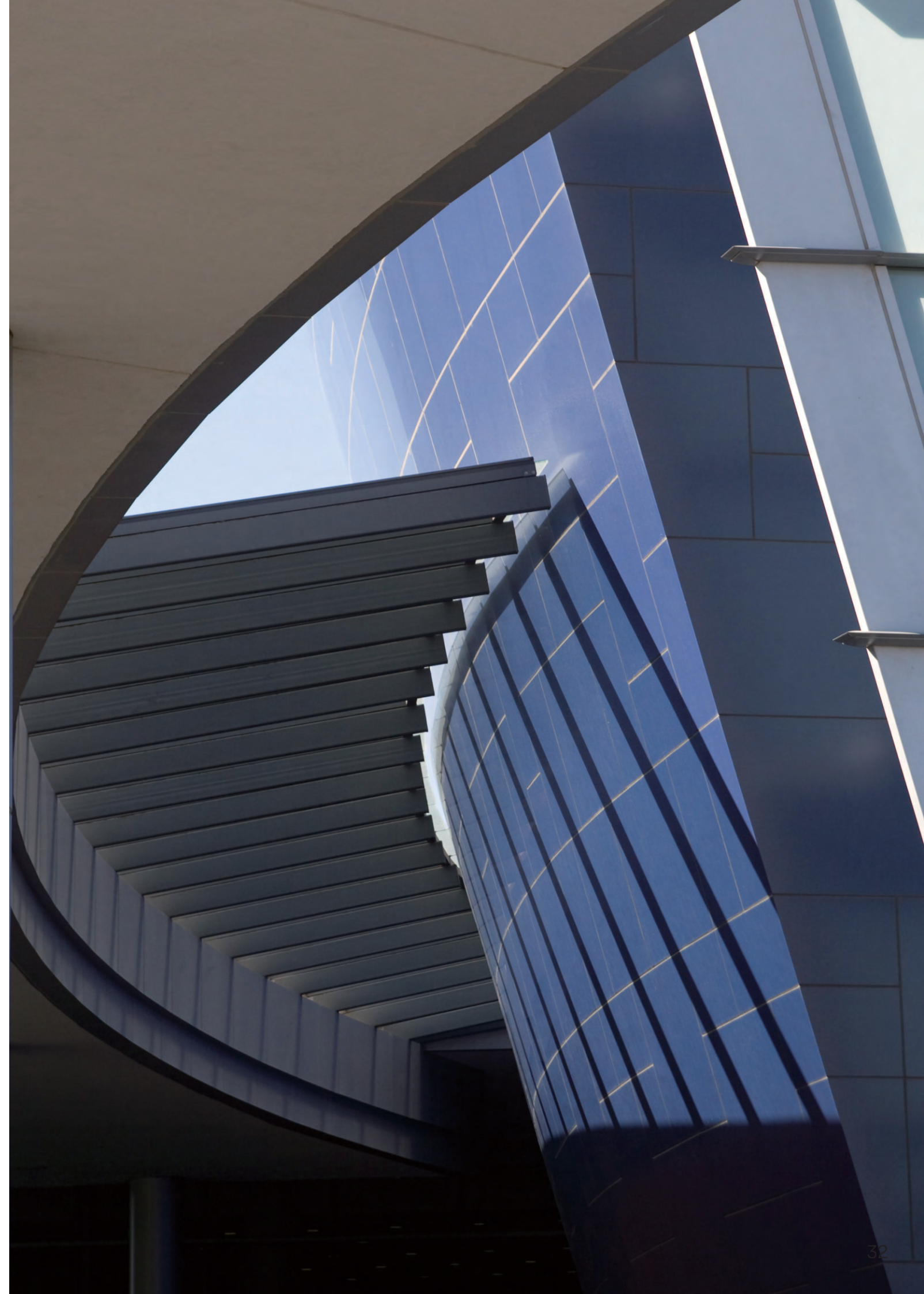
Double Chain Window Opener



- There are two screw holes in the opening and mounting bracket, which can be fixed according to different profiles.
- 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.
- Installation should follow the hole position on the die sticker.
- After the window is fixed, it should be able to rotate around the step screw.
- The power cord should not be interfered with the mounting bracket after the window holder is fixed.

Application Range

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





Control System

Fire Control Device - XFKZ-IV

XFKZ-IV



Product Features

- 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
- 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
- The system has backup power, in case the electricity is off, the window can be opened emergently, to exhaust smoke

Application Range

- In the case of fire, it is used to control the emergency opening of 24V DC opener, exhaust smoke and heat
- Normally, it is used for group ventilation
- It can be used in public buildings such as office buildings, airports, stations and so on
- Not for outdoor use.

Technical Specifications			
Item No.	XFKZ-IV-16A	XFKZ-IV-32A	XFKZ-IV-64A
Outerline Size	600mm×600mm×210mm		
Shell Material	Painted Steel Plate		
Colour	Grey Spray		
Connection Mode	Access from above		
Supply Voltage	220V AC±10% 50Hz		
Operating Voltage	24V Dc±15%		
Output Power	312W	720W	1440W
Output Current	13A	30A	60A
Protection Level	IP30		
Ambient Temperature	-20℃~75℃		
Output Power line Cross Section	2×6mm²		
Ouput Line	1 group	1 group	2 group
Each Ventilation Group	13A	30A	30A
Battery Voltage	24A		
Battery Life Is Long	Standby for 72 hours, the motor can be turned on twice and turned off once		
External Control Module	Smoke sensor, wind and rain sensor, manual switch, emergency button, timer, temperature sensor		
Fault Alarm	Yes, it will automatically alarm in case of failure		
Automatic / Manual	Yes, convertible		
CCCF Detection	Pass		
Fire Control Connection	Yes		
Fire Signal	12~24V active/passive, both available		
Installation Method	Surface mounted, embedded		

Fire Control Device - XFKZ-II

XFKZ-II



Product Features

- AC status abnormal prompt
- Voice alarm function
- Query and save of window opener cloud data
- LCD manual touch screen operation function
- Main sub control multi-level linkage function

Application Range

- In the case of fire, it is used to control the emergency opening of 24V DC opener, exhaust smoke and heat
- Normally, it is used for group ventilation
- It can be used in public buildings such as office buildings, airports, stations and so on
- Not for outdoor use.

Technical Specifications			
Item No.	XFKZ-II-16	XFKZ-II-32A	XFKZ-II-64A
Outerline Size	650mm×500mm×220mm	650mm×500mm×220mm	650mm×500mm×220mm
Shell Material	Painted Steel Plate		
Colour	Grey Spray		
Connection Mode	Access from below		
Supply Voltage	220V AC±10% 50Hz		
Operating Voltage	24V Dc±15%		
Output Power	312W	720W	1440W
Output Current	13A	30A	60A
Protection Level	IP30		
Ambient Temperature	-20°C~75°C		
Output Power line Cross Section	2×6mm²		
Ouput Line	1 group	1 group	2 group
Each Ventilation Group	13A	30A	30A
Battery Voltage	24A		
Battery Life Is Long	Standby for 72 hours, the motor can be turned on twice and turned off once		
External Control Module	Smoke sensor, wind and rain sensor, manual switch, emergency button, timer, temperature sensor		
Fault Alarm	Yes, it will automatically alarm in case of failure		
Automatic / Manual	Yes, convertible		
CCCF Detection	Pass		
Fire Control Connection	Yes		
Fire Signal	12~24V active/passive, both available		
Installation Method	Surface mounted, embedded		

Controller - D-KZ04



D-KZ04

Product Features

- The touch screen controller has good waterproofng quality, with moistureproof panel, no leakage, high security guaranteed;
- High-grade tempered glass panel, easy to clean, anti-scratching, high sensitive touch screen;
- With LED night light design, fearless of darkness.

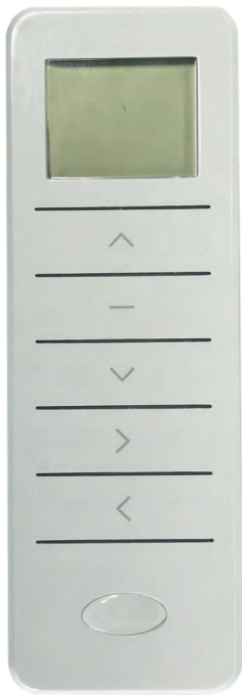
Application Range

- Normally, it is used for group ventilation;
- It can be used in public buildings such as office buildings, airports, stations and so on;
- Not for outdoor use;
- It can be used with electric chain window opener and electric push shaft window opener.

Technical Specifications			
Item No.	D-KZ04-1A	D-KZ04-2A	D-KZ04-8A
Outerline Size	86mm×86mm×33mm		132mm×117mm×70mm
Panel Material	Tempered Glass		
Colour	White		
Connection Mode	Access from below		
Supply Voltage	220V AC±10% 50Hz		
Operating Voltage	24V DC±15%		
Output Power	24W	48W	192W
Output Current	1A	2A	8A
Protection Level	IP43		
Ambient Temperature	-40℃~85℃		
Output Power line Cross Section	2×1.5mm²		
Ouput Line	1 group	1 group	1 group
External Control Module	Smoke sensor, wind and rain sensor, manual switch, emergency button, timer, temperature sensor		
Fire Control Device Control	Yes		
Fire Signal	Yes		
Installation Method	Surface mounted, embedded		
Backlight	LED		
Key Mode	Touch		
Service Life	≥100,000 times		

Wireless remote controller - D-KZ05

D-KZ05



Product Features

- Utilizing FM transmitting and receiving theory, the remote controller will not be affected by the obstacles;
- One remote controller can control one or several remote receivers which have the same frequency.

Application Range

- In the case of fire, it is used to control the emergency opening of 24V DC opener, exhaust smoke and heat.

Technical Specifications		
Item No.	D-KZ05	D-KZ05-6
Outerline Size	126mm×45mm×16mm	
Number Of Control Channels	1	1~16
Panel Material	High-grade plastic	
Colour	White	
Signal	Principle of electromagnetic wave frequency modulation transmitting and receiving	
Working Voltage	AA battery × 2 AAA1.5V	
Ambient Temperature	-40℃~85℃	
Control Distance	24W	
Affected By Obstructed Objects	Small	
Service Life	≥100,000 times	
Button Mode	Button type	
Weight	58 g	



Manual Opening Device

Hand Chain Window Opener

D-QDC02



300N
Pull Force

300N
Thrust Force

2000N
Static Locking Force

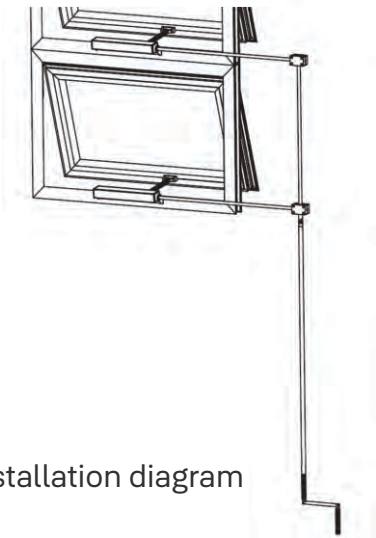
Product Features

- Beautiful appearance, economical and practical;
- Unique mechanical structure, easy to open;
- Adjust air volume according to demand;
- Strong corrosion resistance and large pulling force;
- Good sealing performance.

Hand Chain Window Opener

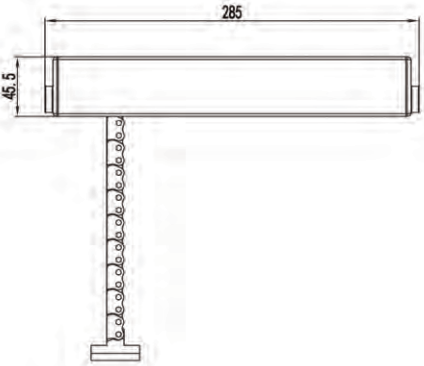
Application Range

- Can be used in hanging, middle hanging window, can operate tall window, row window;
- Window system for wooden, PVC and aluminium alloy materials



Installation diagram

Product Size



Note: The dimensions in the picture are the overall dimensions of the chain box window opener with a stroke of 300

Matters Need Attention

- This product can not be installed outside the rain water
- Do not put your hand between the window frame and the window fan when the window is running, to prevent the danger of clamping

Technical Specifications						
Item No.	S-LSY01	S-LSY04	S-LSY03-01	S-LSY03-02	S-LSY03-03	S-LSY02
Product Name	Hand chain window opener	Hand Joystick	Straight couplings and Accessories	Corner unions and Accessories	Tee and Accessories	Transmission Rod
Open Means	Manually open					
Storke	300mm/400mm/500mm/600mm/700mm/800mm/900mm/1000mm can be customized					
Number of Open Windows	≤3					
Opening Speed	Manually adjustable					



Hand Curved Arm Window Opener



600N
Pull Force

600N
Thrust Force

2000N
Static Locking Force

Product Features

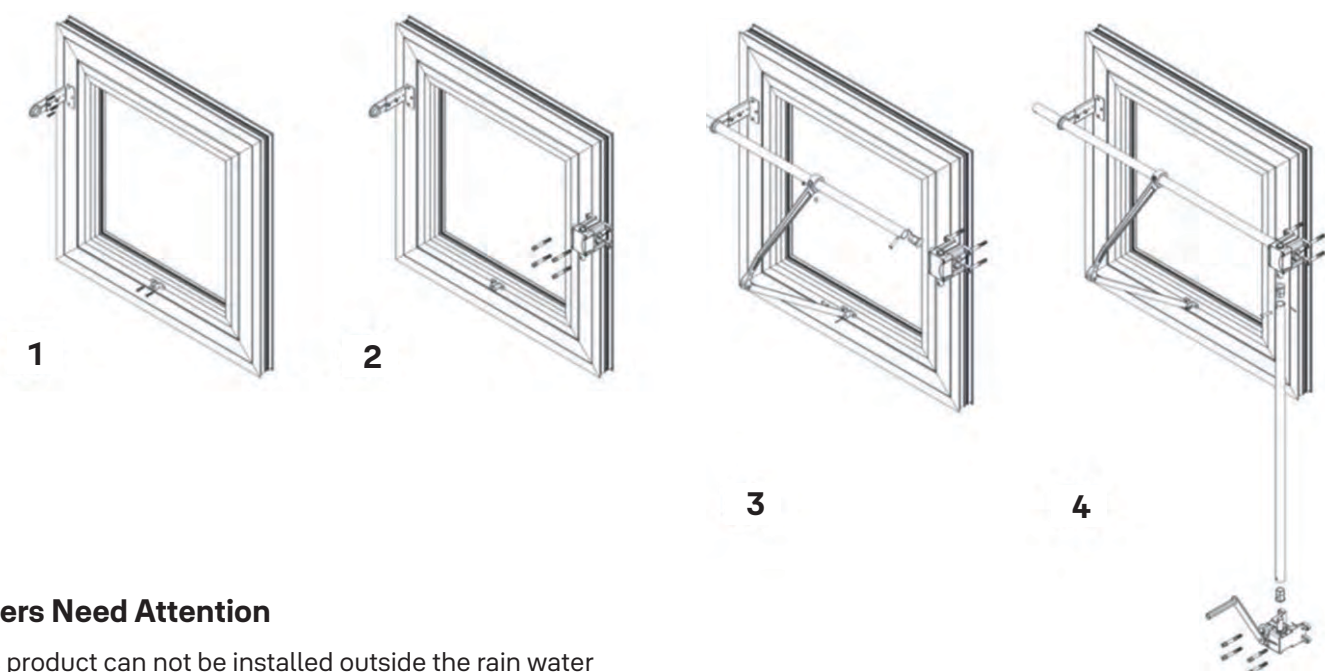
- Simple appearance, economical and practical
- Unique mechanical structure, easy to open;
- Adjust air volume according to demand;
- Smooth and powerful output;
- A variety of brackets are available to meet different installation needs

Hand Curved Arm Window Opener

Application Range

- Can be used in hanging, middle hanging window, can operate tall window, row window;
- Window system for wooden, PVC and aluminium alloy materials

Installation Instruction



Matters Need Attention

- This product can not be installed outside the rain water
- Do not put your hand between the window frame and the window fan when the window is running, to prevent the danger of clamping

Technical Specifications						
Item No.	S-SYQB01/02	S-SYQB03	S-SYQB04	S-SYQB05	S-SYQB06	S-SYQB08
Product Name	Upper Main Unit	Lower Main Unit	Hand Crank (Handle)	Crank arm, Flat rod (round rod)	Adjustable Bracket	Round Tube
Open Means	Manual Window Opening					
Storke	Flat rod: 450mm/570mm/700mm; round rod: 420mm/550mm/670mm can be customized					
Number of Open Windows	≤3					
Opening Speed	Manually adjustable					



Sensor

Wind & Rain Sensor - D-KZ10



Product Features

- The outer casing contains anti-ultraviolet materials, in line with the standard for outdoor use;
- High precision wind and rain intensity adjustment, with quick response;
- 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.

Application Range

- It can be used in conjunction with Controller and Fire Control Device
- Triggered by wind speed, rainfall and light intensity.

Technical Specifications	
Item No.	D-KZ10
Outerline Size	120mm×152mm×46mm
Panel Material	High-grade plastic
Colour	Beige
Working Voltage	12V±15%
Ambient Temperature	-40℃~60℃
Wind Speed	Configurable
Rainfall	Configurable
Illumination	Configurable
Delay Protection Time	15min
Installation Method	Outdoor surface installation
Response time	Wind sense 3s, light sense 2min, rain sense 25s
Induction Strength	Wind feeling 10KM/H~50KM/H, light feeling 0.2~10Klux, rain feeling 1~100mm/H

Smoke Sensor - D-KZ08



Product Features

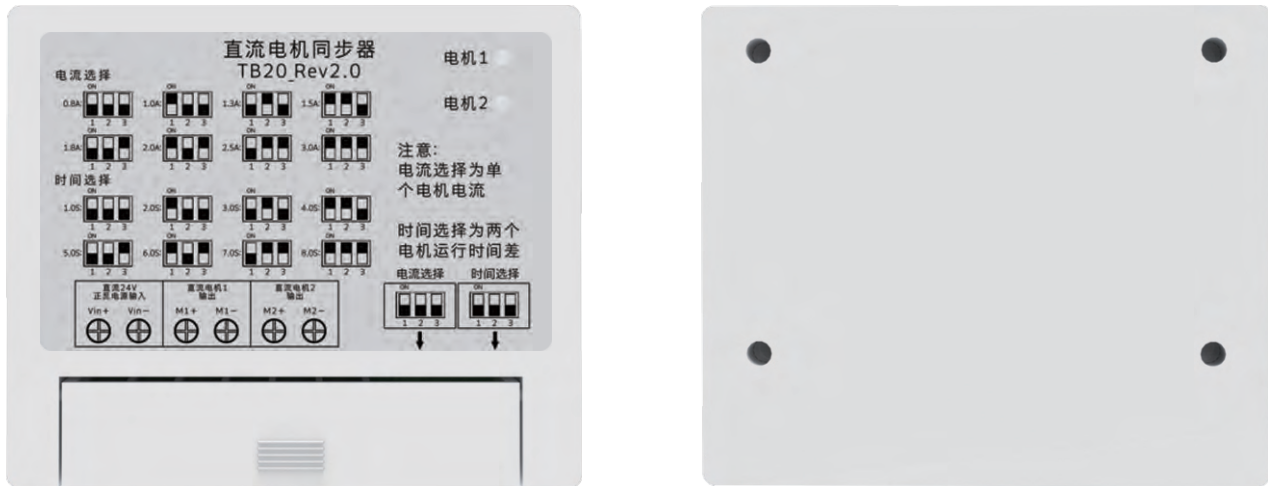
- Manual testing
- Automatic reset
- Using special microprocessor controller
- Dustproof, mothproof, white light interference resistant
- Using SMT manufacturing process, with high stabillity
- GB4715-1993; Performance Standards
- Smoke sensitivity comply with the UL 217 stander

Application Range

- It can be used in conjunction with Controller and Fire Control Device
- Triggered by fire smoke

Technical Specifications	
Item No.	D-KZ08
Outerline Size	Ø103x53
Panel Material	High-grade plastic
Colour	White
Working Voltage	12V±15%
Ambient Temperature	-40℃~60℃
Detection Area	25~40m²
Reset	Automatic
Implementation Standards	GB4715-1993\UL217 standard
Acousto Optic Indication	Light indication
Concentration Alarm	0.65~15.5%FT
Signal Output	Normally open and closed
Installation Method	Ceiling

Synchronizer - D-ZLTB-2



D-ZLTB-2

Technical Specifications

Item No.	D-ZLTB-2
Outerline Size	112mm×69mm×39mm
Panel Material	High-grade plastic
Colour	White
Working Voltage	24V±15%
Ambient Temperature	-20°C~75°C
Acousto Optic Indication	light indication
Installation Method	Surface mounted
Protection Current	Adjustable
Protection Time	Adjustable

Product Features

- Where the window location are too high or too far, out of reach, such as: high building window;
- Where the window are too heavy, not convenient to open or close hand;
- Where the boors have pre protection and smoke exhausting windows with ventilation requirements for pre protection;
- For the window with meteorogical open and close requirement, such as: warehous windows which need to be closed automatically
- For the windows on rooms with constant temperature requirement, such as: vegetable or flowers greenhouse windows;
- For the windows on rooms, with strict requirement for indoor air quality index, need timely ventilation and aeraton;
- For automatic control stories close and sealing requirement, such as: skylight which need tight close for rainproof purpose;
- For automatic control stories, and intelligent control home appliances;
- Specipc applicatons including: families, large stadiums, waiting lounges, shopping malls, hotels, schools, hospitals, public entertainment places, workshops, warehouses, of pce buildings, nursing homes, etc.

Application Range

- It can be used with chain window opener and liner spindle window opener
- Ensure the synchronous operation of two window opener.





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