

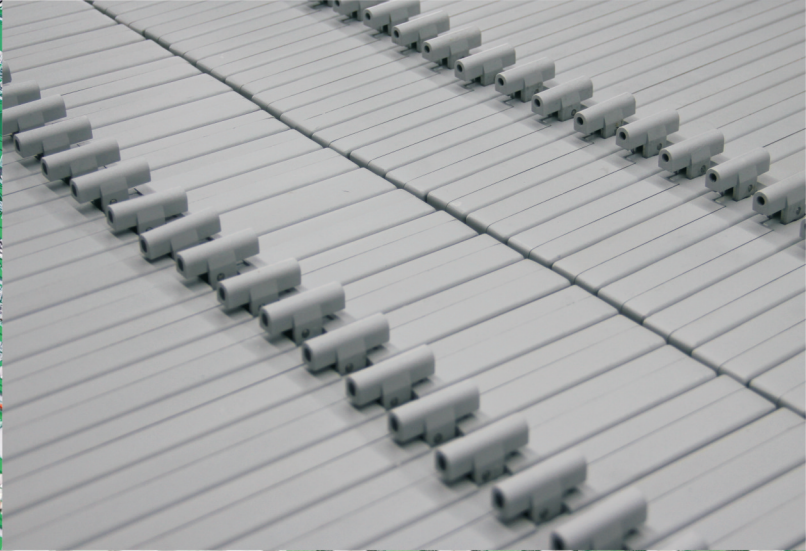
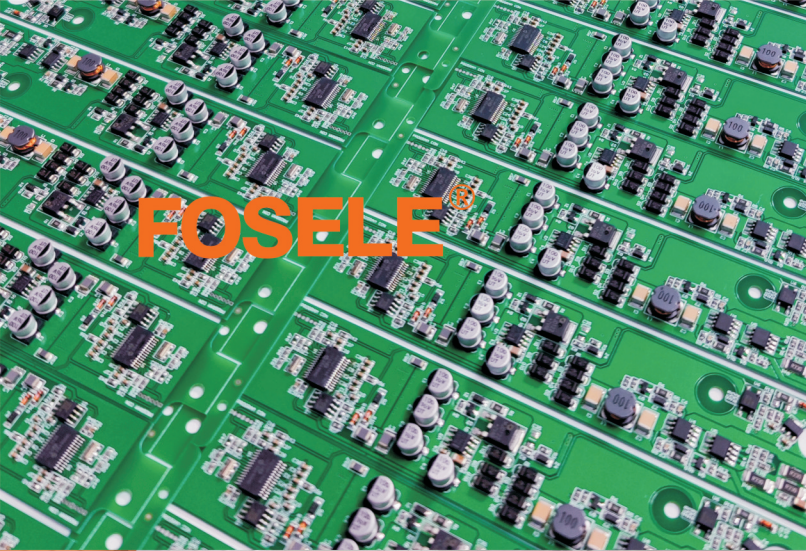


FOSELE[®]

上海福丝机电设备有限公司

SHANGHAI FOSELE MECHANICAL & ELECTRICAL EQUIPMENT CO., LTD.

WWW.FOSELE.COM



FOSELE



COMPANY INTRODUCTION

上海福丝机电设备有限公司是一家集电动排烟排热窗控系统设计、研发、制造、安装服务及售后服务为一体的专业公司。本着诚信、专业的理念，以高质量服务于建筑市场。



Shanghai FOSELE Mechanical & Electrical Equipment Co., Ltd. is a licensed company, as a honest and dependable contractor and manufacturer, working in the field of the ventilation system, which integrates controls, especially for heat and smoke exhausting. Our company carries on the RD&D, manufacture, supply, installation, and after-sales services of smoke and exhaust heat ventilation system with high quality.



自然通风-创造舒适的环境

Natural ventilation •Bring about a Comfortable Environment

无论是办公室还是住宅，人们对舒适的室内环境都有明确的需求。然而，许多现代建筑物外墙和封闭的玻璃幕墙阻碍了自然通风换气。众多的电气设备也提高了室内的温度，这些都不利于人们的舒适和健康。

People have a clear requirement for the comfortable indoor environment whether in office buildings or residences. However, in the case of most modern buildings the building envelope, especially the closed glass curtain wall, and the structure inside buildings impedes the natural ventilation and air exchange to a building. In addition, the electric appliances in the building also increase the indoor temperature. These together with some disadvantage conditions are harmful to health of people in the building.

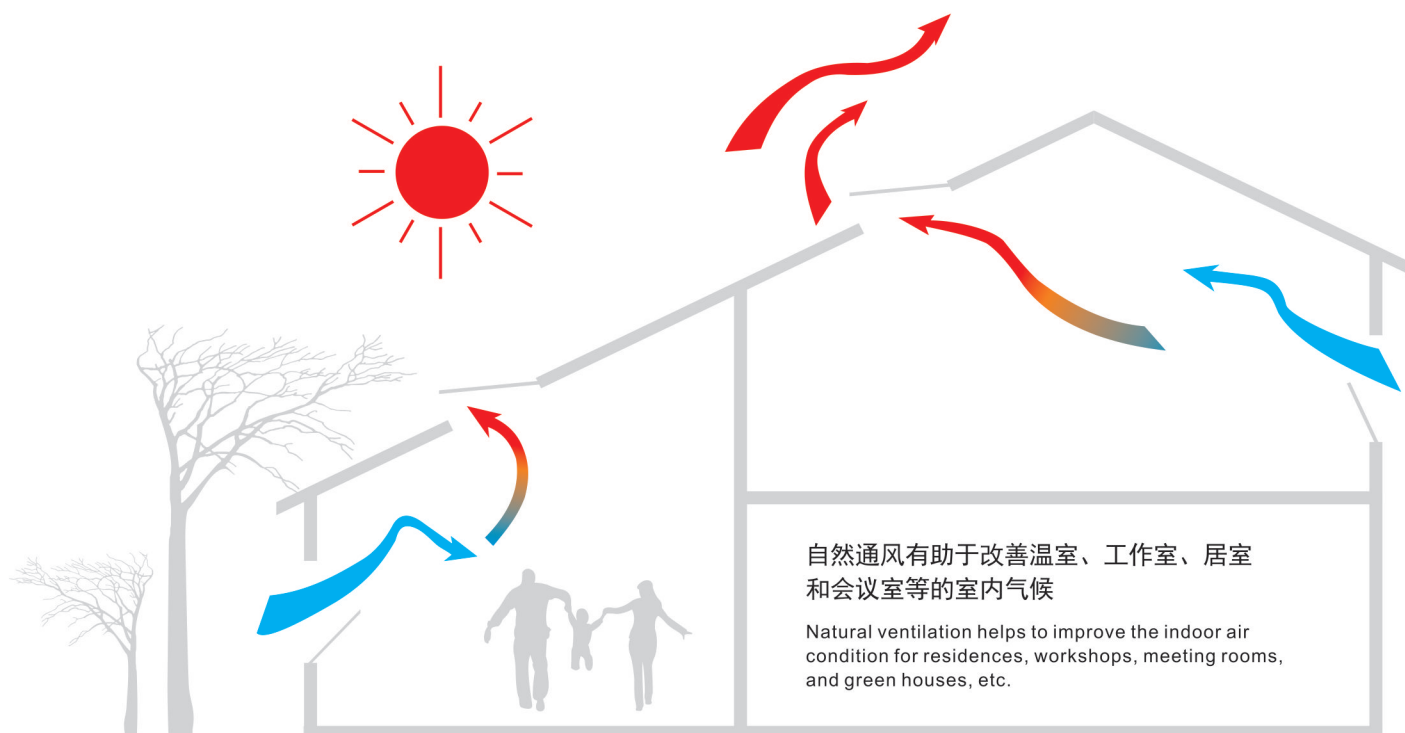
自然通风的原理，是通过室外自然风或室内外温度不同导致的压差，让建筑物自然通风换气。许多国家规定在办公室和住宅等建筑中必须尽可能采用自然通风。

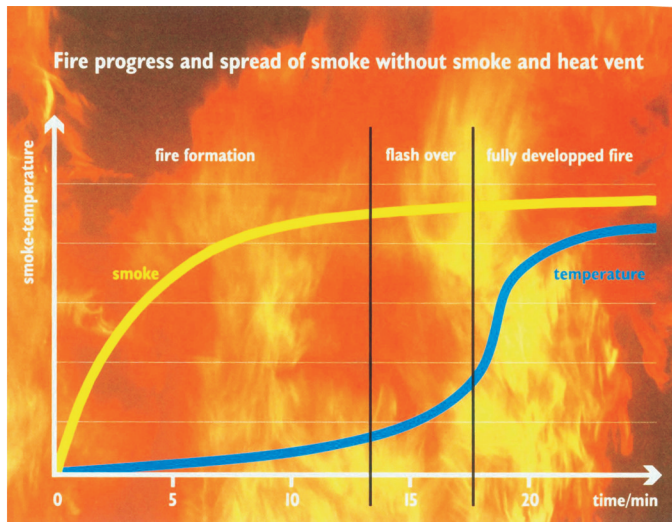
Outdoor natural wind and the air pressure difference due to the temperature difference between outdoor and indoor can produce ventilation through buildings naturally. It is regulated in many countries that natural ventilation system be adopted as the first consideration for office buildings and residences.

FOSELE自然通风控制产品，集成风雨智能感应和温度控制设备，支持楼宇系统联动控制，具备时间控制和顺序控制等功能，通过合理的使用改善室内空气质量，减少空调等设备的使用，从而达到节能环保的效果，创造绿色舒适的室内环境。

Natural ventilation system of FOSELE integrates the rain/wind sensor and temperature controls, The system has the function of time and sequence control, and can also join to the BMS system. Natural ventilation system can be used to save energy and money by reducing the use of air conditioning equipment, and improve IAQ (indoor air quality). The natural ventilation system of FOSELE will create a green comfortable indoor environment.

- 舒适健康的室内环境
 - 低成本运行，低能耗
 - 低碳环保，贴近自然
- Comfortable and healthful indoor environment
 - Low cost operation, low energy consumption
 - Low carbon, close to nature





火灾的形成 Fire formation

形成火灾的三个要素

1. 可燃物质
2. 火源
3. 氧气

For combustion to occur, three things must be present:

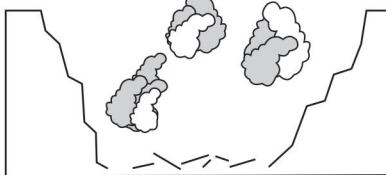
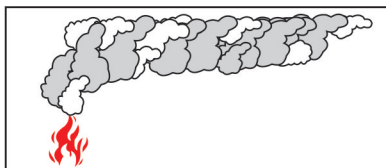
1. A flammable substance
2. An ignition source of sufficient energy
3. Oxygen

火势发展和烟的扩散

Fire progress and the spread of smoke

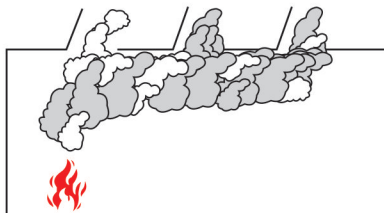
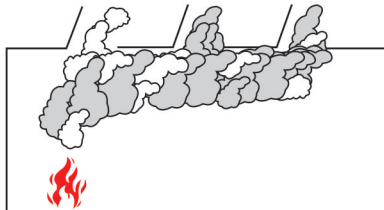
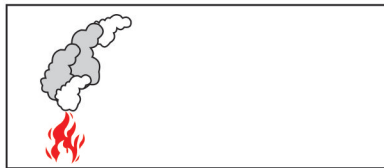
无排烟系统

Spread of smoke without smoke and heat vent



带排烟系统

Spread of smoke with smoke and heat vent



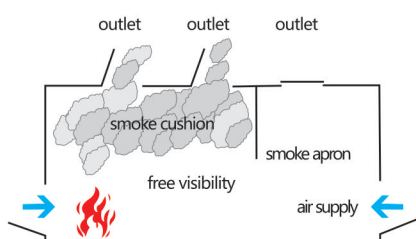
绝大部分的烟雾由于热量的作用在室内快速上升，并很快就充满了整个建筑物。由于烟雾本身的高扩散性。自然排烟通风系统的灵敏性和高速反应性就尤为关键。

Driven by heat the overwhelming majority of smoke rises in the room and is soon full of the building. Due to the property of fast diffusing of smoke, quickness and sensitivity in response is especially the key to the natural smoke and exhaust heat ventilation system.



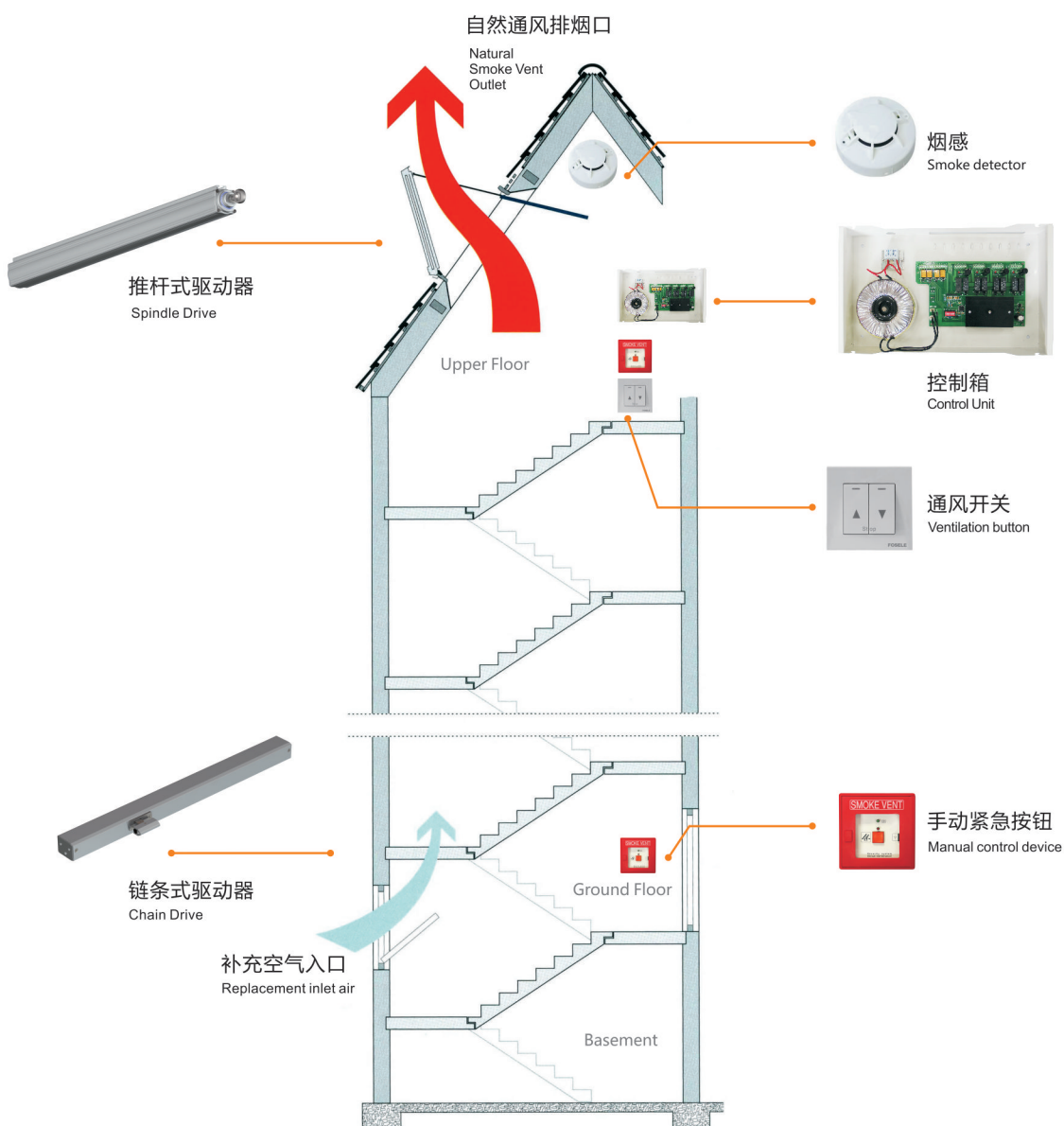
排烟排热系统的应用

在火灾的燃烧阶段，会产生大量的烟，热和有毒的可燃气体。由于它们的物理属性，这些燃烧产物会上升并聚集在房间的天花下，形成一层烟与可燃气体的混合物。这个烟气层迅速变厚并将很快充满整个房间。这时，系统的电气驱动器立刻自动在极短的时间内打开安装在建筑物屋顶和/或者外墙上方的通风口挡板，于是上升的、尚在形成阶段的烟、热和可燃气体的混合物烟气就会通过这些开启的风口迅速排出房间，避免了烟气在室内的大量扩散，从而避免了对人和建筑物的危害。建筑物下部附加的风口。加强了热烟雾的上升效应。这样，生成的烟气就被限制在房间中的一小部分区域局部的火势蔓延就可以被延缓甚至阻止了。



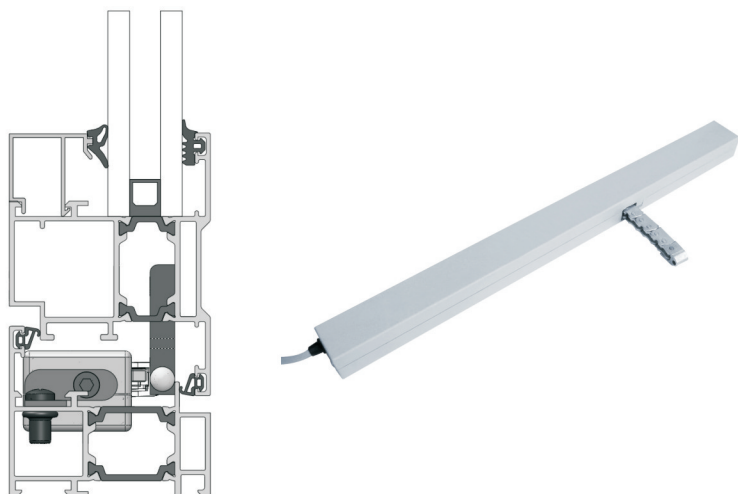
Mode of operation of natural smoke vents

In a fire, predominantly smoke, heat and hot combustible gases develop during the combustion process. Due to their physical properties, these combustion products rise to the top of the room by thermal uplift and form a layer of mixed smoke and combustible gases under the ceiling. This smoke gas layer rapidly thickens as the duration of the fire increases and the entire room is filled within a very short time. The smoke and heat ventilation flaps in the roof and/or in the upper area of the outer wall of the room will be opened automatically within a very short time with the aid of electric motor driven actuators. The rising combustion products such as smoke, heat and combustible gases can, already during the fire formation phase, escape outdoors through these openings before they can spread in the building and cause further damage. By adding additional openings in the lower area of the room, this additional supply of air will intensify the thermal uplift effect. The smoke build-up is thereby restricted to a small part of the room. Further spreading of a localised fire will thereby be delayed or even prevented.



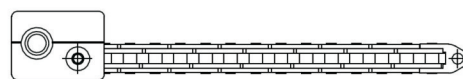
产品特点

- 小巧的外形设计，适合隐藏式安装
- 多种行程可供选择（0-400mm），最多3个机器同步运行
- 过载保护功能
- 可与多点锁驱动器联动使用
- 铝合金外壳，表面粉末喷涂
- 高品质合金钢链条，表面防腐处理，亦可提供不锈钢链条
- 特殊的结构可提供特殊的侧弯链条，直链条亦能提供极佳的支撑刚性
- 大于10000次往复开启的设计使用寿命
- 可由HMI人机界面控制，并可输出状态信息

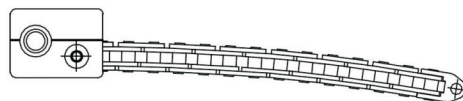


Product Features

- Compact design, fit for concealed installation
- 0-400mm stroke length can be optioned, with up to 3 chain actuators synchronization operation
- Overload cut-off
- Can be used under linking up with multiple-lock actuators.
- Aluminum housing, surface with powder coating
- The chain is made from high quality alloy steel, of which the surface is of anti-corrosive treated. Stainless steel chain can be also provided
- Special lateral bending chains can be provided for some particular profiles
- Straight chains are available with excellent support rigidity
- Over 10000 double strokes lifetime
- Can be controlled by HMI and the status information can be output



标准型 C200/S



上侧弯型 C200/U



下侧弯型 C200/D

技术参数 Technical Data

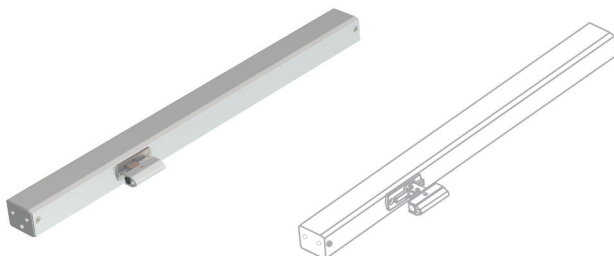
型号 Type	C200
电源 Rated Voltage	24VDC
功率 Rated Power	14.4VA
推力 Push Force	200N (侧弯链条为150N) 200N (for lateral bending chain, 150N)
推程 Stroke	0-400mm
工作温度范围 Working Temperature	-5°C~75°C



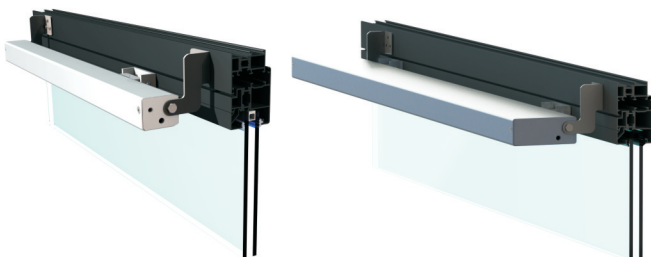
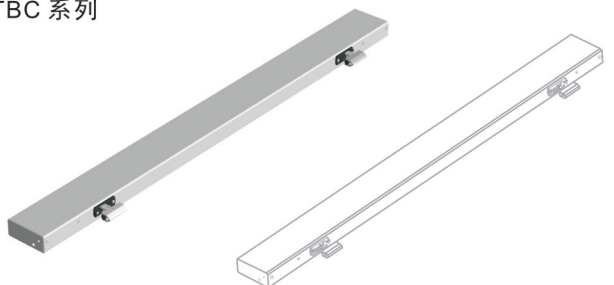
链式驱动器BC/TBC系列

CHAIN DRIVE BC/TBC Series

BC 系列



TBC 系列



产品特点

- 静音设计，外形美观大方
- 多种行程可供选择 (0-1500mm)，最多8个机器同步运行
- 过载保护功能
- 轻柔闭合功能
- 可与多点锁驱动器联动使用
- 阳极氧化的铝合金外壳
- 高品质合金钢链条，链条表面防腐处理，亦能提供不锈钢链条
- 加厚的双层链条结构能提供极佳的支撑刚性
- 大于10000次往复开启的设计使用寿命
- 可由HMI人机界面控制，并可输出状态信息

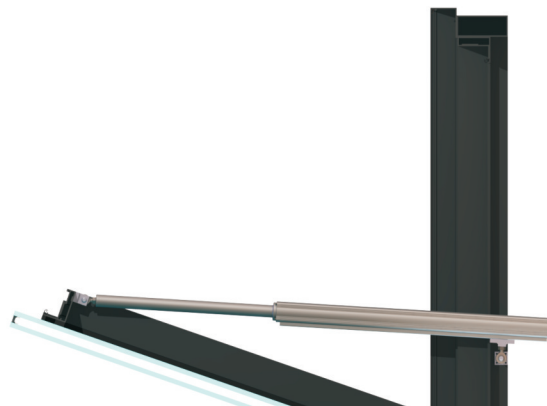
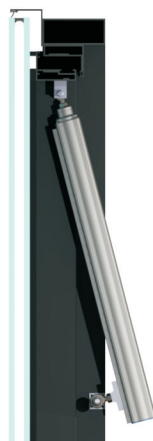
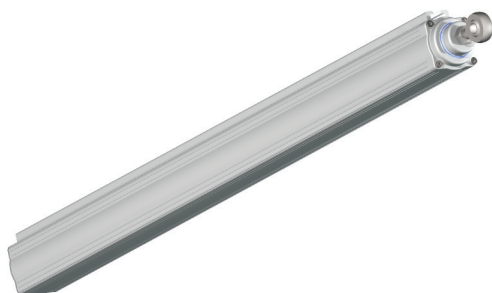
Product Features

- Mute design, beautiful appearance
- 0-1500mm stroke length can be optioned, with up to 8 chain actuators synchronization operation
- Overload cut-off
- Softly closing function
- Can be used under linking up with multiple-lock actuators
- Anodized aluminum housing
- The chain is made from high quality alloy steel, of which the surface is of anti-corrosive treated, Stainless steel chain can be also provided.
- Thickened dual layer structure of the chain can provide excellent support rigidity
- Over 10000 double strokes lifetime
- Can be controlled by HMI and the status information can be output

技术参数 Technical Data

型号 Type	BC600	TBC800	TBC1200
电源 Rated Voltage	24VDC		
功率 Rated Power	≤ 33.6VA	≤ 48VA	≤ 67.2VA
推力 Push Force	600N	400N × 2	600N × 2
拉力 Pull Force	600N	400N × 2	600N × 2
推程 Stroke	0-1500mm	0-1200mm	0-1400mm
工作温度范围 Working Temperature	-5°C~75°C		





产品特点

- 静音设计，高强结构
- 多种行程可供选择 (0-1200mm)，最多8个机器同步运行
- 过载保护功能
- 可与多点锁驱动器联动使用
- 阳极氧化的铝合金外壳
- 阳极氧化的铝合金推杆
- 大于10000次往复开启的设计使用寿命
- 可由HMI人机界面控制，并可输出状态信息

Product Features

- Mute design, high rigid structure
- 0-1200mm stroke length can be optioned, with up to 8 spindle actuators synchronization operation
- Overload cut-off
- Can be used under linking up with multiple-lock actuators
- Anodized aluminum housing
- Anodized aluminum push rod
- Over 10000 double strokes lifetime
- Can be controlled by HMI and the status information can be output

技术参数 Technical Data

型号 Type	BS800 / BS2000
电源 Rated Voltage	24VDC
功率 Rated Power	38.4VA / 43.2VA
推力 Push Force	800N / 2000N
拉力 Pull Force	800N / 2000N
推程 Stroke	0-1200mm
工作温度范围 Working Temperature	-5°C~75°C



多点锁驱动器 L500

Linear Lock Actuator L500

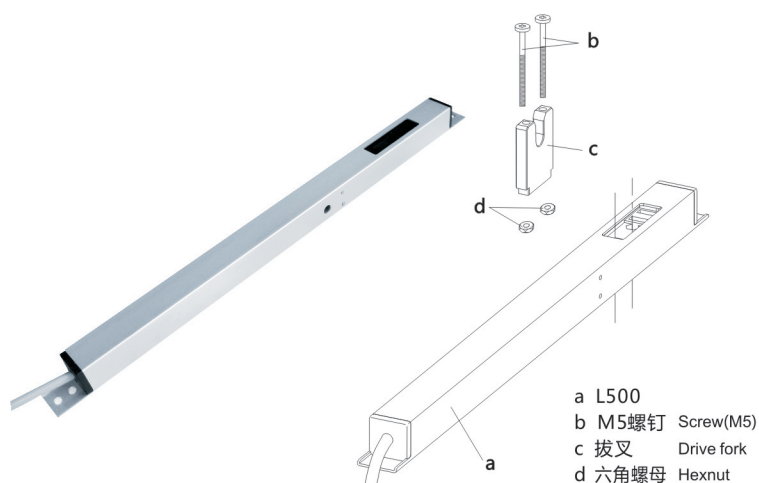
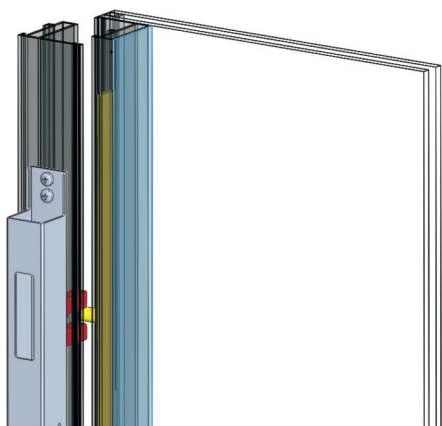


产品特点

- 小巧美观，可隐藏安装
- 适用于标准多点锁系统的开锁与闭锁
- 过载保护功能
- 可与各种开窗器联动使用
- 阳极氧化的铝合金外壳
- 大于10000次往复开启的设计使用寿命
- 可由HMI人机界面控制，并可输出状态信息

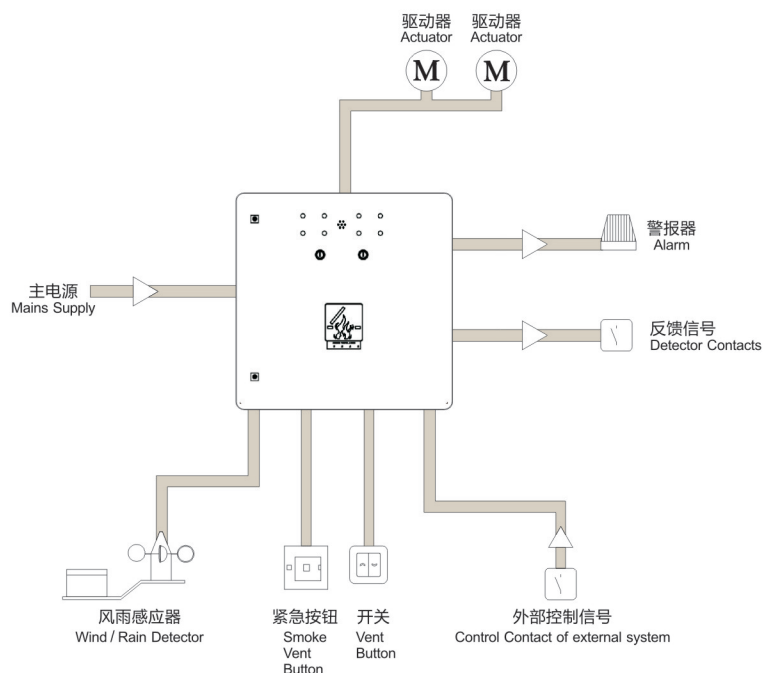
Product Features

- Compact appearance, invisible mounting in window frame
- Linear drive for locking and unlocking of standard lock-sliding fittings
- Overload cut-off
- Can be used under linking up with all kinds of FOSELE actuators
- Anodized aluminum housing
- Over 10000 double strokes lifetime
- Can be controlled by HMI and the status information can be output



技术参数 Technical Data

型号 Type	L500
电源 Rated Voltage	24VDC
功率 Rated Power	24VA
推力 Push Force	500N
拉力 Pull Force	500N
推程 Stroke	22mm
工作温度范围 Working Temperature	-5°C~75°C



产品特点

- 消防优先原则，消防联动功能
- 日常通风控制功能
- 智能化扩展功能
- 具备与楼宇控制系统相连的功能
- 故障自检功能并能指示故障部位
- 即插即用的模块化设计满足各种需求
- 加装蓄电池后可在紧急状况下72小时内提供备用电源
- 模块化的结构成就超低的维护成本

Product Features

- Fire protection priority, function with fire alarm linkage
- Daily ventilation and auto-control
- Intelligent extension for function plug-in modules
- Linkage with BMS (Building Management System)
- Line monitoring and failure indication
- Satisfied for all kinds of requirement with plug-in modules
- Emergency power supply for min. 72 hours with battery bank
- Low operation and maintenance costs due to modular design

技术参数 Technical Data

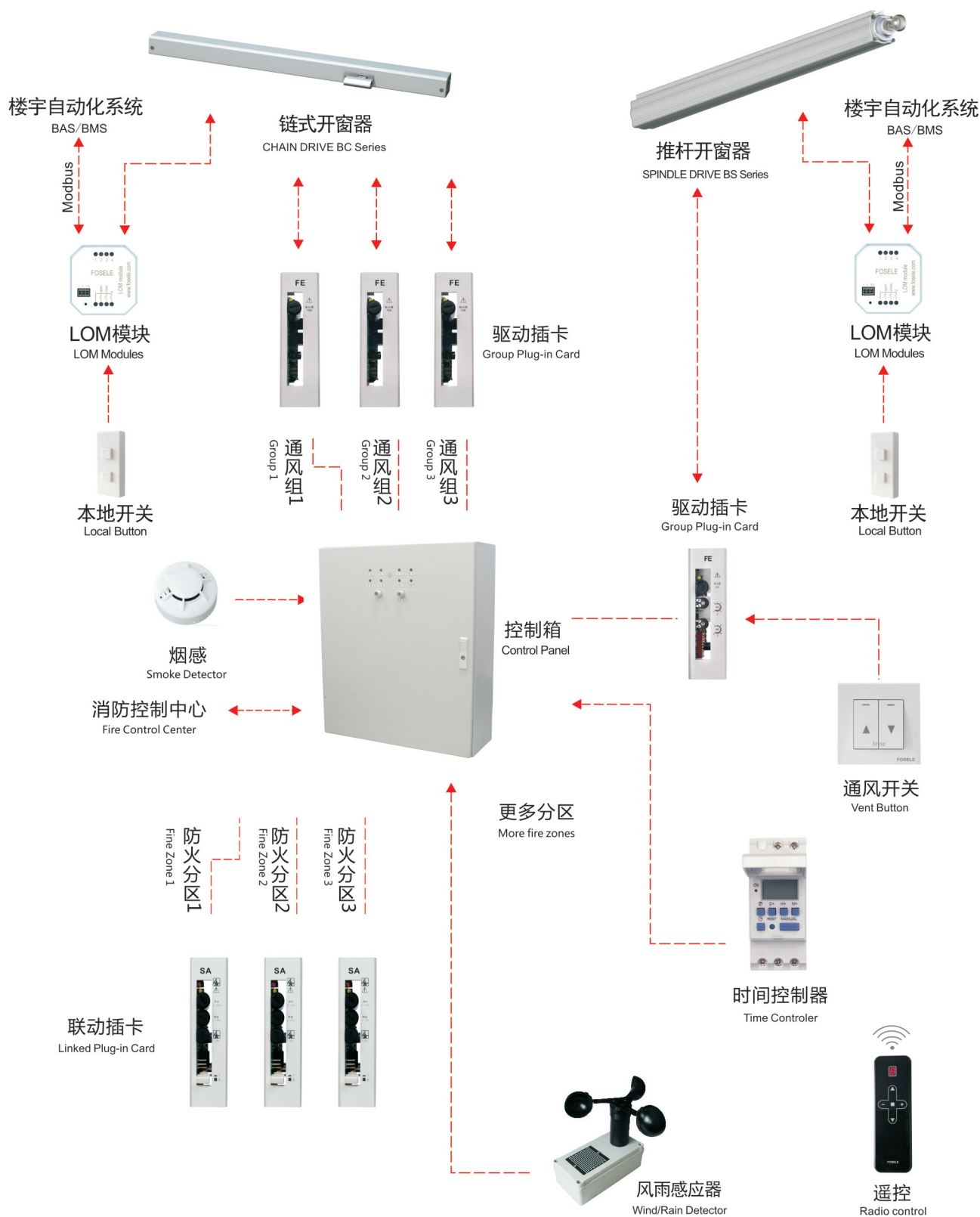
型号 Type	SCP-01	SCP-02
尺寸 mm × mm × mm Housing Dimensions	600×600×200	680×800×245
分组数 Groups	6,9,14	12,15,20

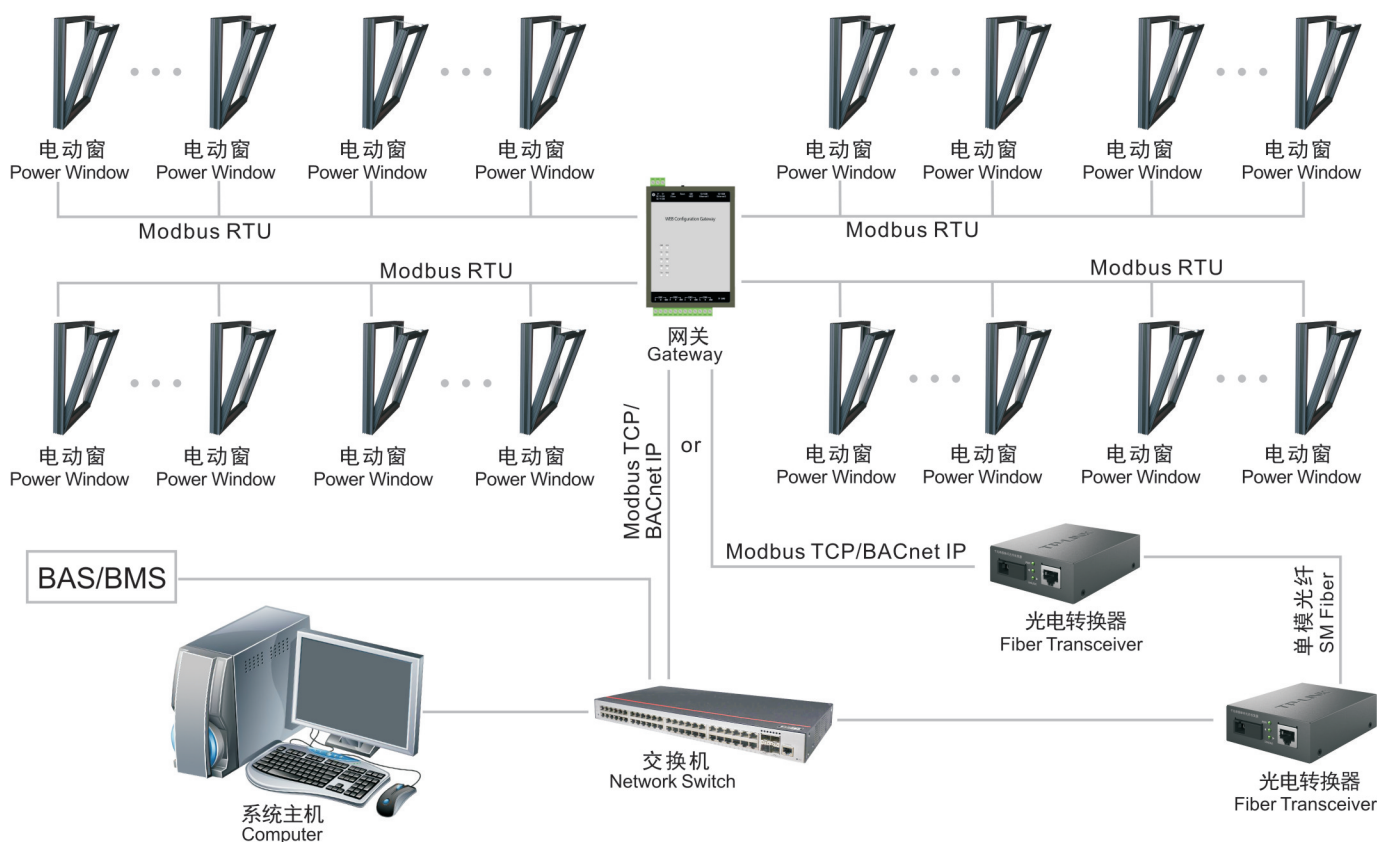
SCP系列可定制超大功率控制箱，并可定制多分组数，如20组或更多。

SCP series can be custom-produced according to orders, such as the big power capacity and the more groups to 20 or even more as well.

SCP控制箱+LOM模块，本地控制和集中控制的完美结合

SCP Control Panel + LOM Modules, the perfect combination of local and centralized control



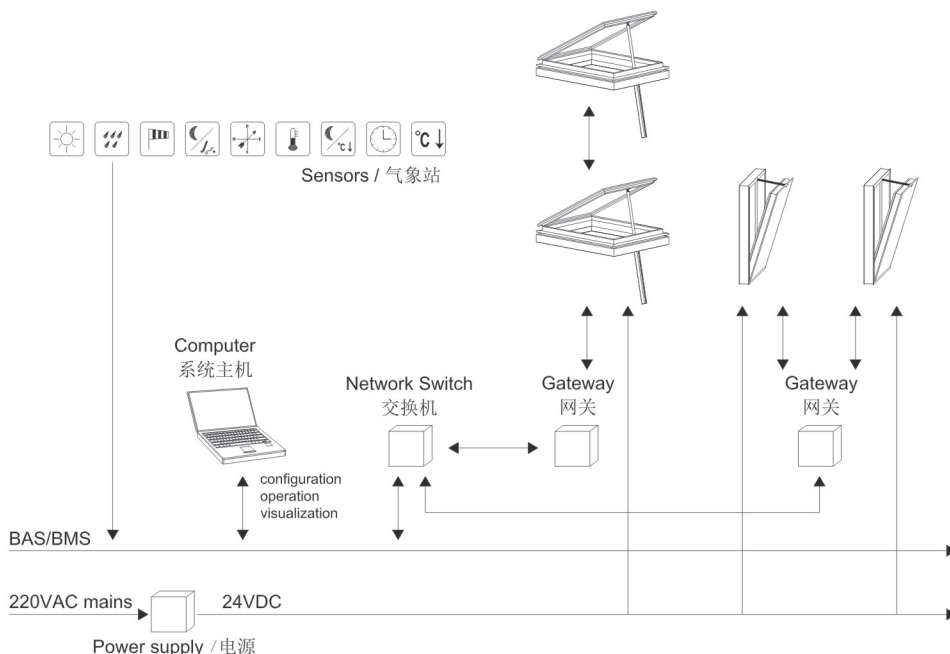


优点

- 使用通讯双绞线有效降低布线成本
- 可灵活的修改、变更和扩展运用
- 与其它楼宇智能化产品兼容
- 通过BMS系统集中直观有效的控制

Advantages

- Reduced line costs by twisted pair technique
- High flexibility in case of modification, extensions and change of use
- Compatibility with other Building intelligence products = increase of usefulness
- Central and transparent functional control possible by integrated Building Management System



紧凑型控制器 VCP1604

Compact Control Unit VCP1604

产品特点

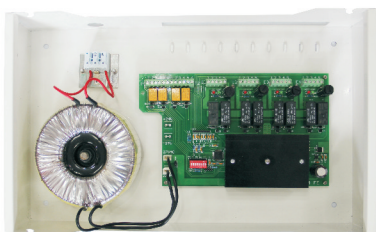
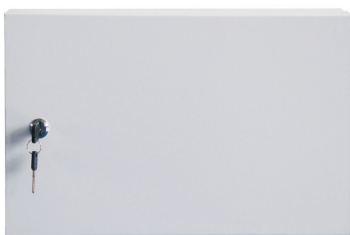
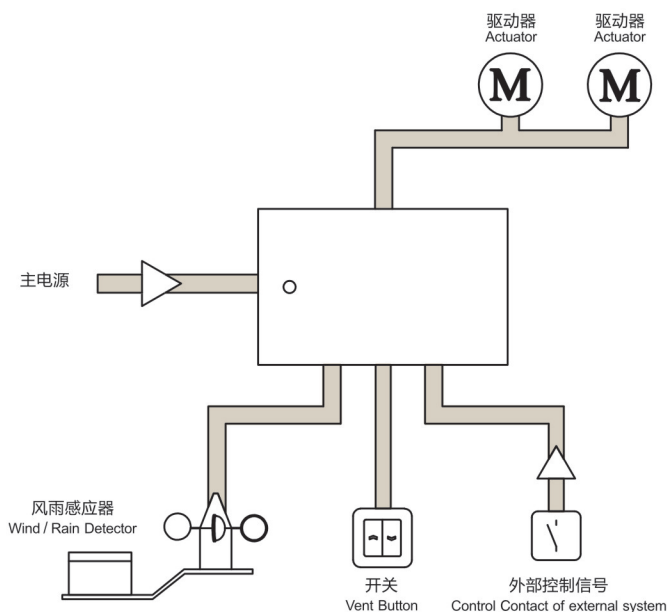
- 本地控制与中央控制的完美结合
- 外形简洁美观,
- 多种安装方式: (挂壁, 吊顶安装)
- 内部多级控制
- 外部信号控制 (风雨、温度、时间等)
- 可与楼宇控制系统相连

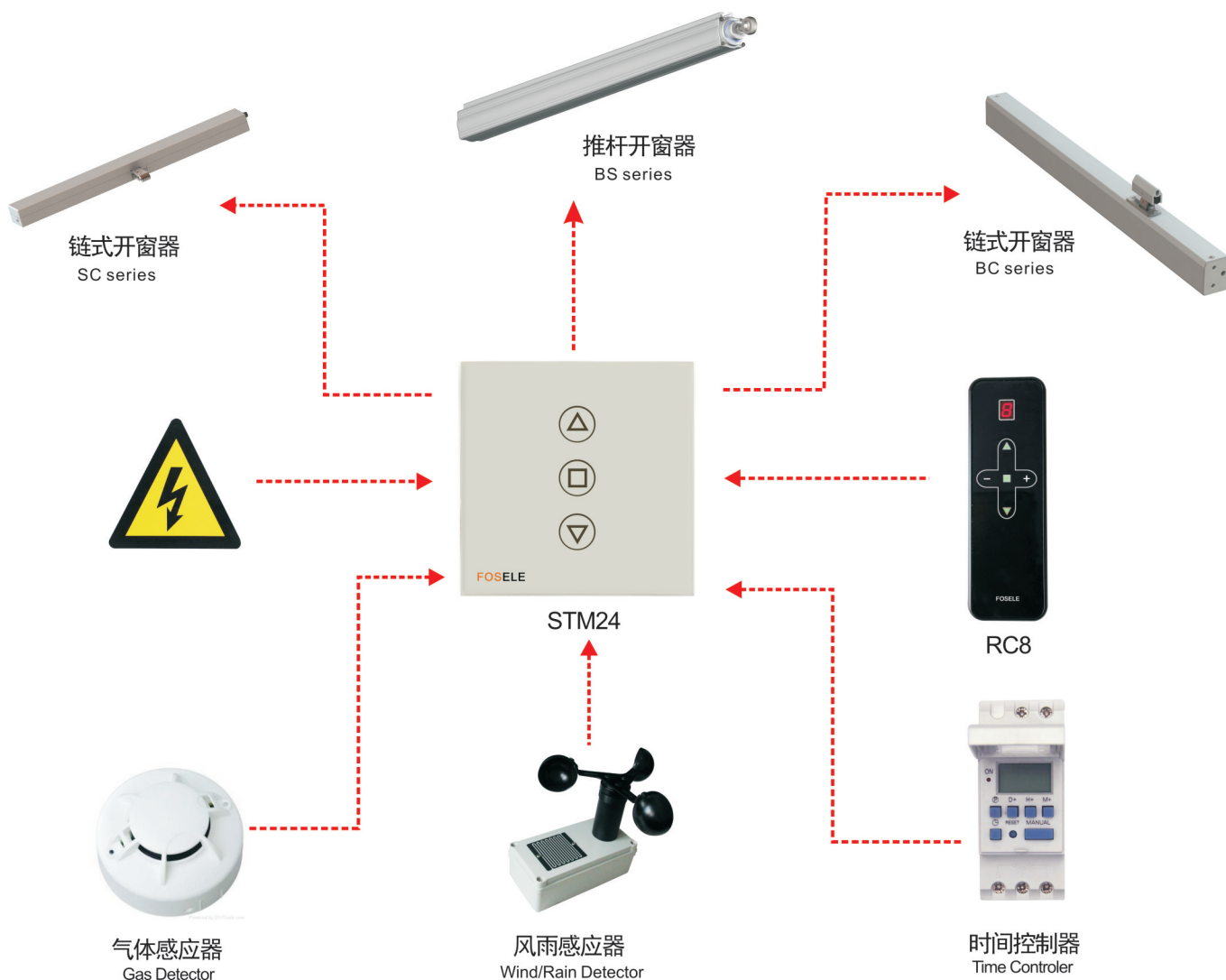
Product Features

- Perfect combination of local control and central control
- Concise and beautiful appearance
- Flexible installation: (wall installation, ceiling installation)
- Internal multi-priority control
- External signals control (Rain/wind, Temperature, and Time etc.)
- Linkage with BMS (Building Management System)

技术参数 Technical Data

型号 Type	VCP1604
输入 Input	220VAC
输出 Output	24VDC/16A
分组 Groups	4组, 每组最大电流8A 4 groups, up to 8A each group
控制 Control	3级控制 (高、中、低) priority controls in three levels (high, middle, low)





- ★触摸式控制面板
- ★遥控开启
- ★简单安装，86型底盒
- ★LED背光夜间指示
- ★4级控制等级
- ★过热保护功能

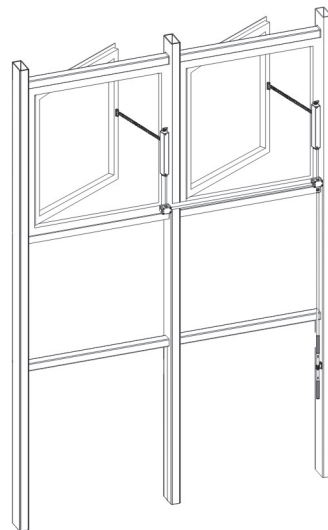
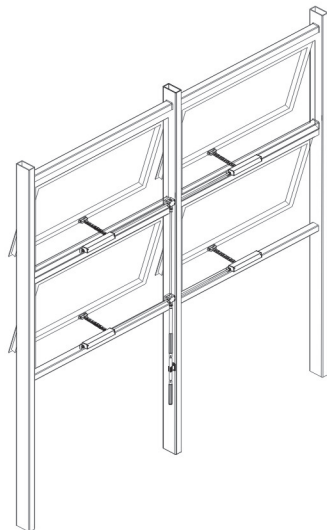
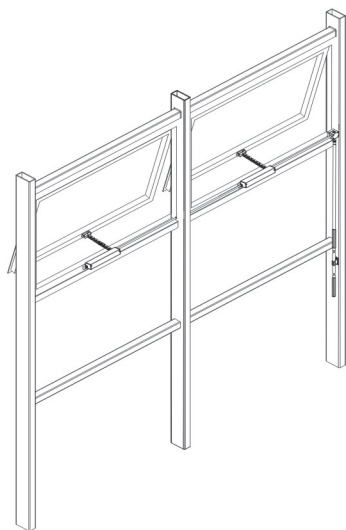
Touch Panel
Remote Control
Easy for Installation
LED night indicator
4 priority
Overtemperature protection

智能触摸屏发射器通过电容式感应器件控制射频传送数据，遥控距离远，可穿隔双面加固混凝土。数据通过加密射频微波传送，不互相干扰、不串频；采用专业超高频元器件，发射性能优越，稳定性高，使用寿命长。

The intelligent touch screen transmitter controls the transmission of the radio frequency through the capacitive sensing device, Send data, remote control distance, can be separated by double side reinforced concrete. The data is transmitted through the encrypted RF microwave without interference and cross-frequency. The use of super high frequency components, excellent performance high stability, Long service life.

手动链式开窗器 MC300

Manual Chain Drive

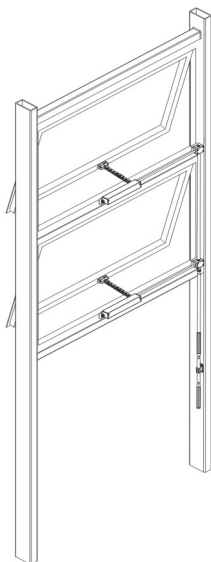
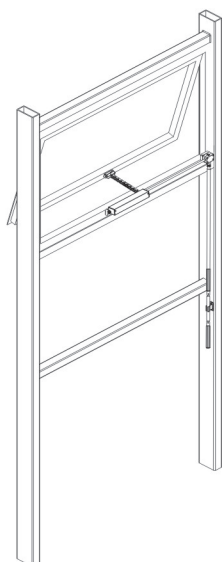
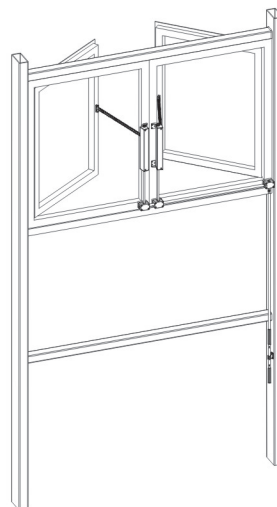
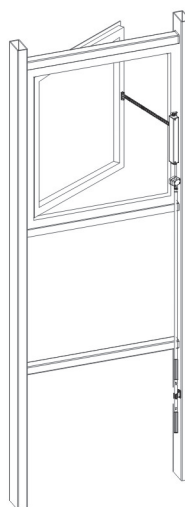


产品特点

- 结构简单，安装简便，易于维护
- 无需电力驱动，方便易用
- 适用各种窗型

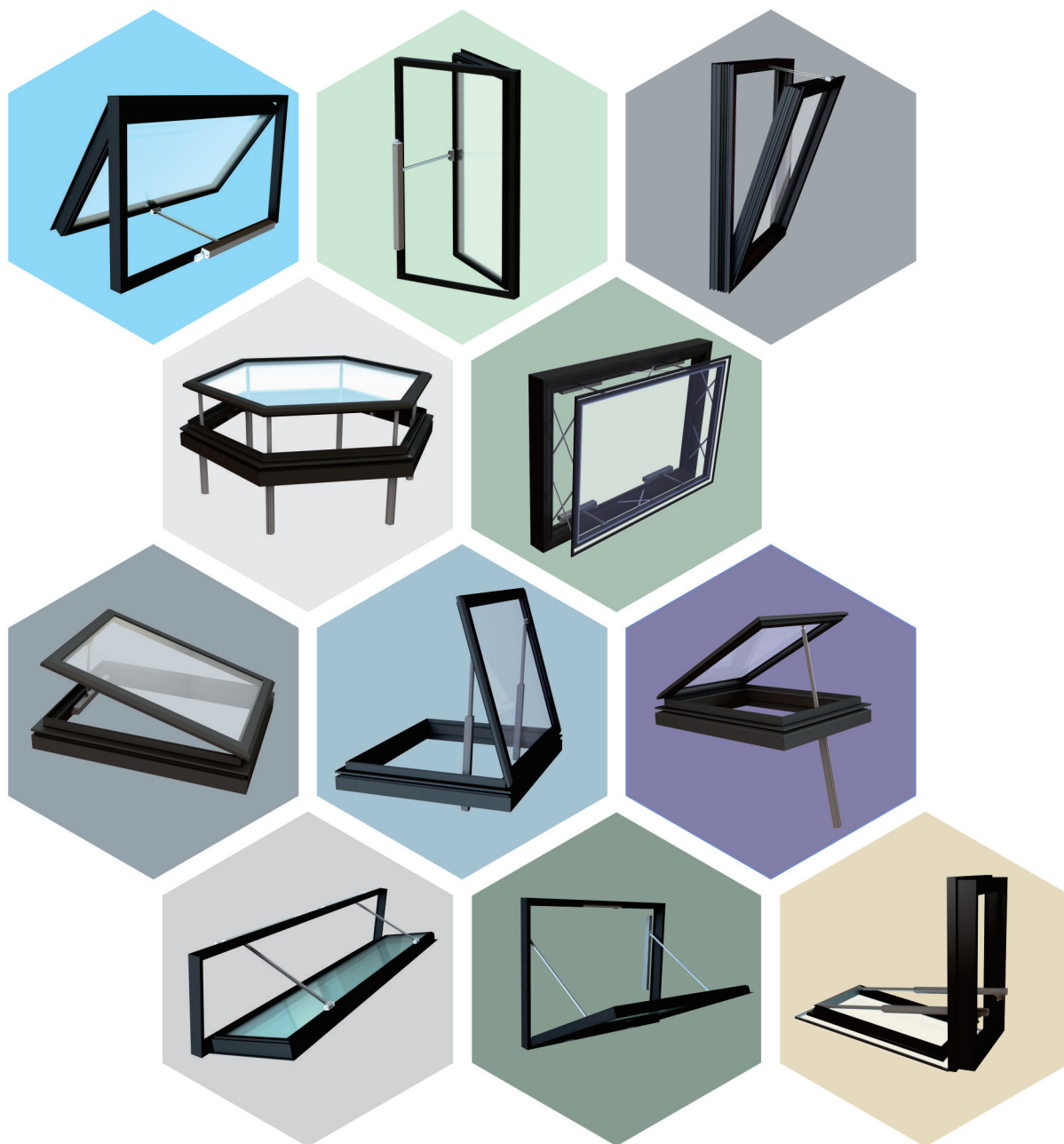
Product Features

- Simple structure, easy to install and maintain
- No power required, easy to operate
- Suitable for various window types



技术参数 Technical Data

型号 Type	MC300
操作方式 Operation Mode	手摇 Cranking
推拉力 Push/Pull Force	300N
行程 Stroke	0-1000mm



FOSELE[®]

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