



YAOXING
ALUMINUM

High-End Intelligent Lifting & Folding Window & Door Solution Brochure



Lift with Ease, Fold with Style.
Your Ideal Smart Window & Door Solution.



Borne for Customized Smart Home Solutions

Half a century ago, humanity accomplished the moon landing; today, China ushers in a new era of smart electric doors and windows.

Specialized in Vertically Windows & Doors

Originating from American-Style vertical lifting windows, this category has over a century of application history in Europe and America. After entering China's localized home market, it has evolved from complexity to simplicity, and from standardization to diversified functional design while retaining its core advantages—now standing as a synonym for high-quality, high-style living.

YaoXing Aluminum - Engineered for Excellence

Since 1993, Yaoxing Aluminum has been a pioneer in the aluminum extrusion industry. With a strategic focus on window and door systems since 2000, we have built a nationwide manufacturing network across China's major industrial zones.

We are not just a supplier; we are a full-chain manufacturer. We master the entire process, from extrusion to surface finishing, to ensure our profiles deliver unmatched structural integrity. Our core technologies in balance transmission and intelligent control make our Smart Electric Lifting Windows and Folding Windows the most stable and efficient solutions on the market.

Trust Yaoxing for the ultimate combination of high performance and exceptional value.



发明专利证

称：一种用于电动提拉门窗的驱动装置

号：ZL 2021 1 1311177.X

2023年09月09日



Certified With Multiple National Patents Covering Invention, Utility Model And Design Categories



ITEM/RECORD

Electric Vertical Lifting Window

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Electric Vertical Lifting Window

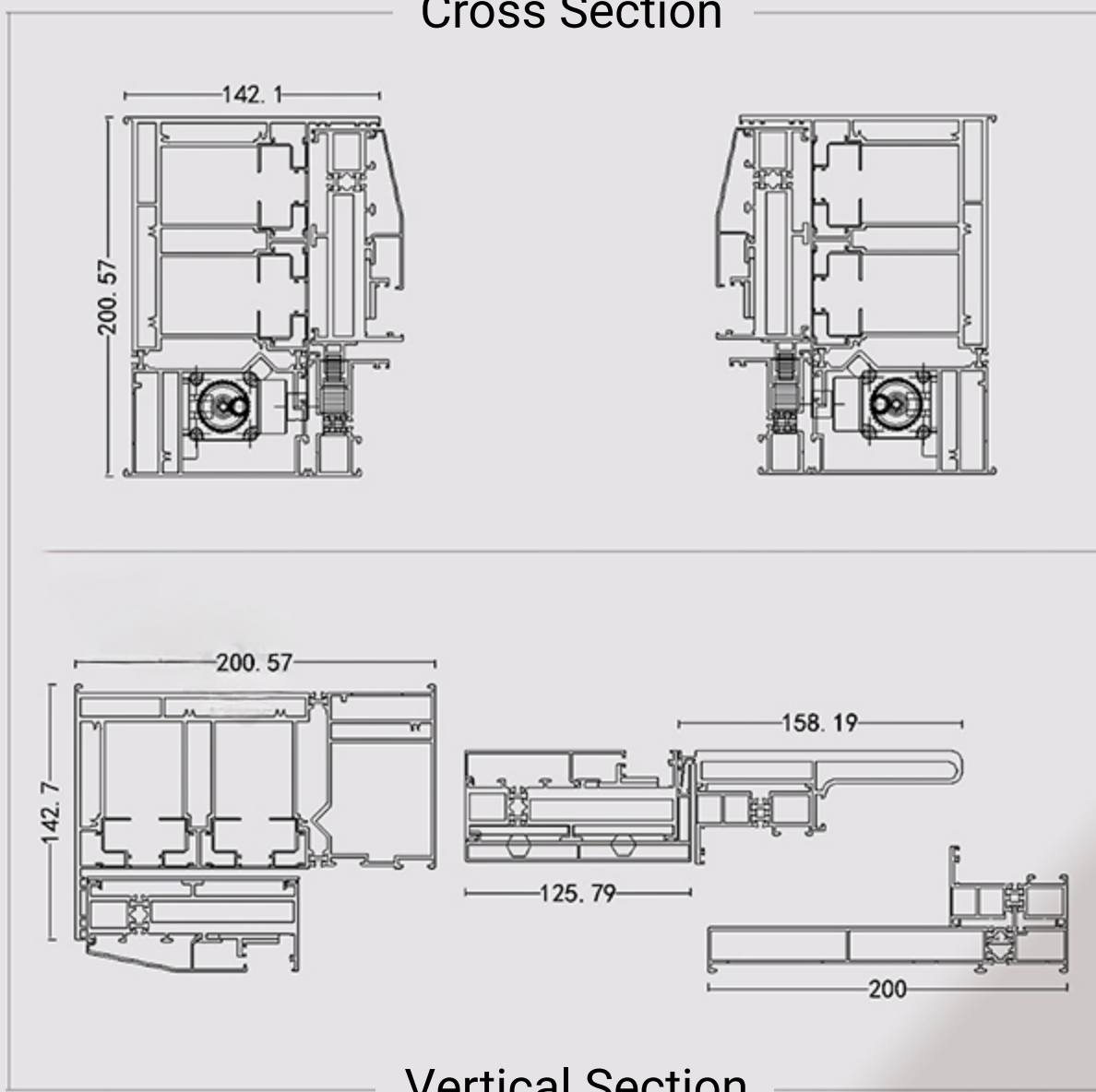


200 Panoramic Series

Heavy-Duty Ultra-Slim Electric Vertical Lifting Window

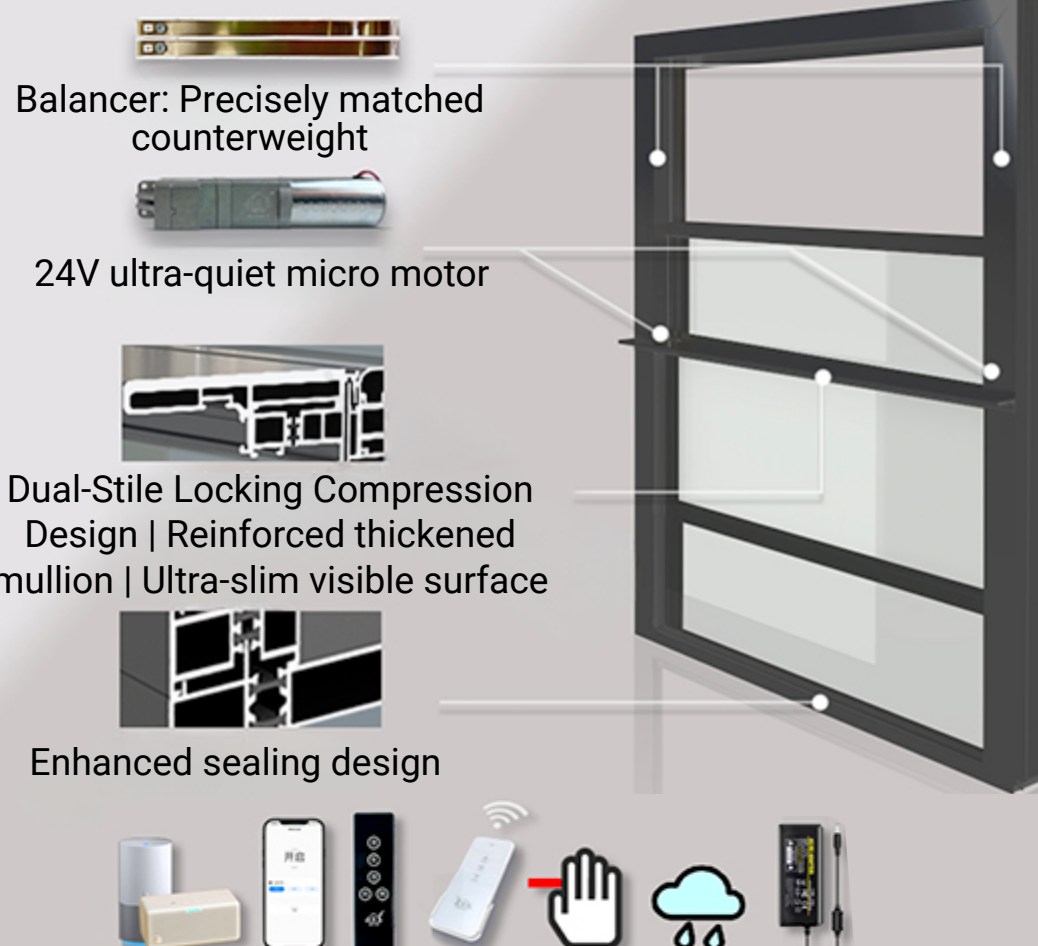
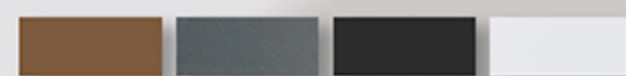
- ✔ Supports 6m-wide Extra-large H-shaped Window Design
- ✔ Window-screen Integrated Option Available
- ✔ Triple Protection, Child Lock & Multiple Smart Control Functions
- ✔ Enhanced Design For Wind Pressure Resistance, Airtightness & Waterproofing

Cross Section

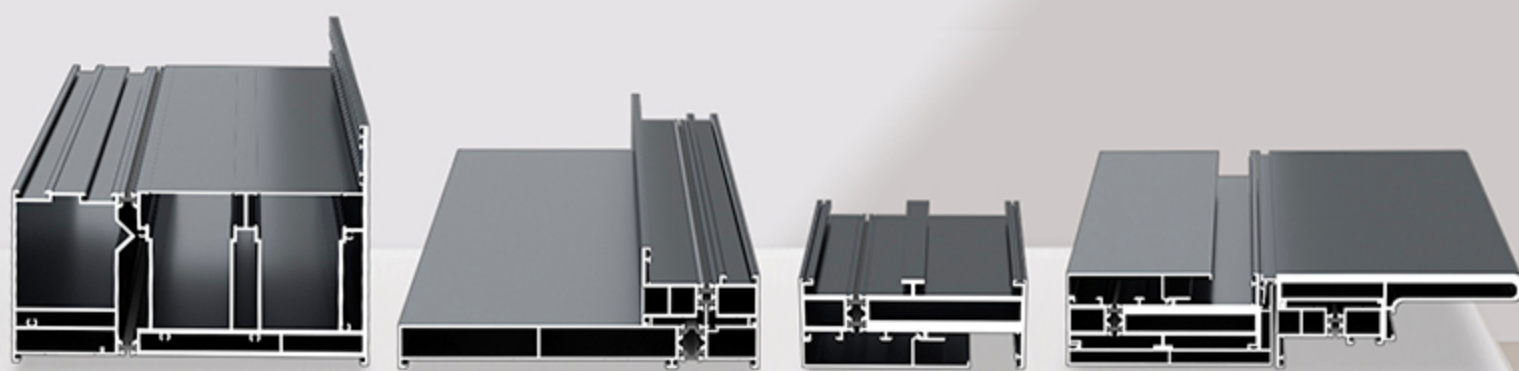


Vertical Section

Four Common Colors (Color Customization Available)



Supported Controls: Voice, mobile APP, anti-pinch, rain sensor, backup power, etc.



Opening Mode	Electric Vertical Lifting
Lifting Component	Patented Balancer
Wall Thickness	2.0-3.0mm / 6.0mm (Handle)
Profile Section Width	200mm
Recommended Width Within	6m



200 Panoramic Series

Heavy-Duty Ultra-Slim Electric Vertical Lifting Window

Full Core Technology Patents Owned

Material

- 6063-T5 Primary Aluminum Material
- Fluorocarbon Spraying Available for Surface
- Seamless Welding Option
- Transmission Components Hardened for Load-Bearing Assurance

Structure

- Thermal Insulation & Soundproofing (Broken Bridge Design)
- Stile Locking, Compression & Reinforced Sealing Design
- Upgraded Drainage Design for Better Airtightness & Waterproofing
- Integrated Wide H-Profile Ultra-Slim Visible Frame Design
- Patented Ultra-Long Span Drive Structure with Synchronized Dual-Side Actuation

Safety

- Integrated Frame-Wrapped Sash Structure with Anti-Fall Design
- Counterbalance Precisely Matched to Sash Weight for Fall Prevention
- Reinforced Handrail with 6.0mm Thickened Wall for Sleek Look & Durability
- Reinforced Handrail Directly Fixed to Frame and Lower Sash for Improved Safe

Technology

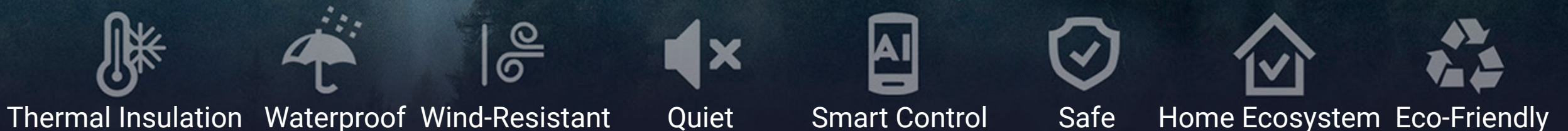
- Patented 24V Ultra-Quiet Motor (Stops on Obstacle Contact)
- Patented Balancer (Free Hovering)
- Triple Safety Protection
- Self-Programmed Controller (Smart Control)
- Exclusive Dual-Side Balance Auto-Calibration Technology

Operation

- Gear-Rack Engagement for Synchronized Dual-Side Lifting
- Sash Equipped with Balancer (4-Corner Positioning)
- Smooth Operation with Minimal Motor Drive

Maintenance

- Dual-Side Micro Motor: Replaceable by Opening Cover; Sash Remains Hovering After Single Disassembly
- No Additional Protection Measures Needed
- Easy & Convenient Maintenance



Thermal Insulation

Waterproof

Wind-Resistant

Quiet

Smart Control

Safe

Home Ecosystem

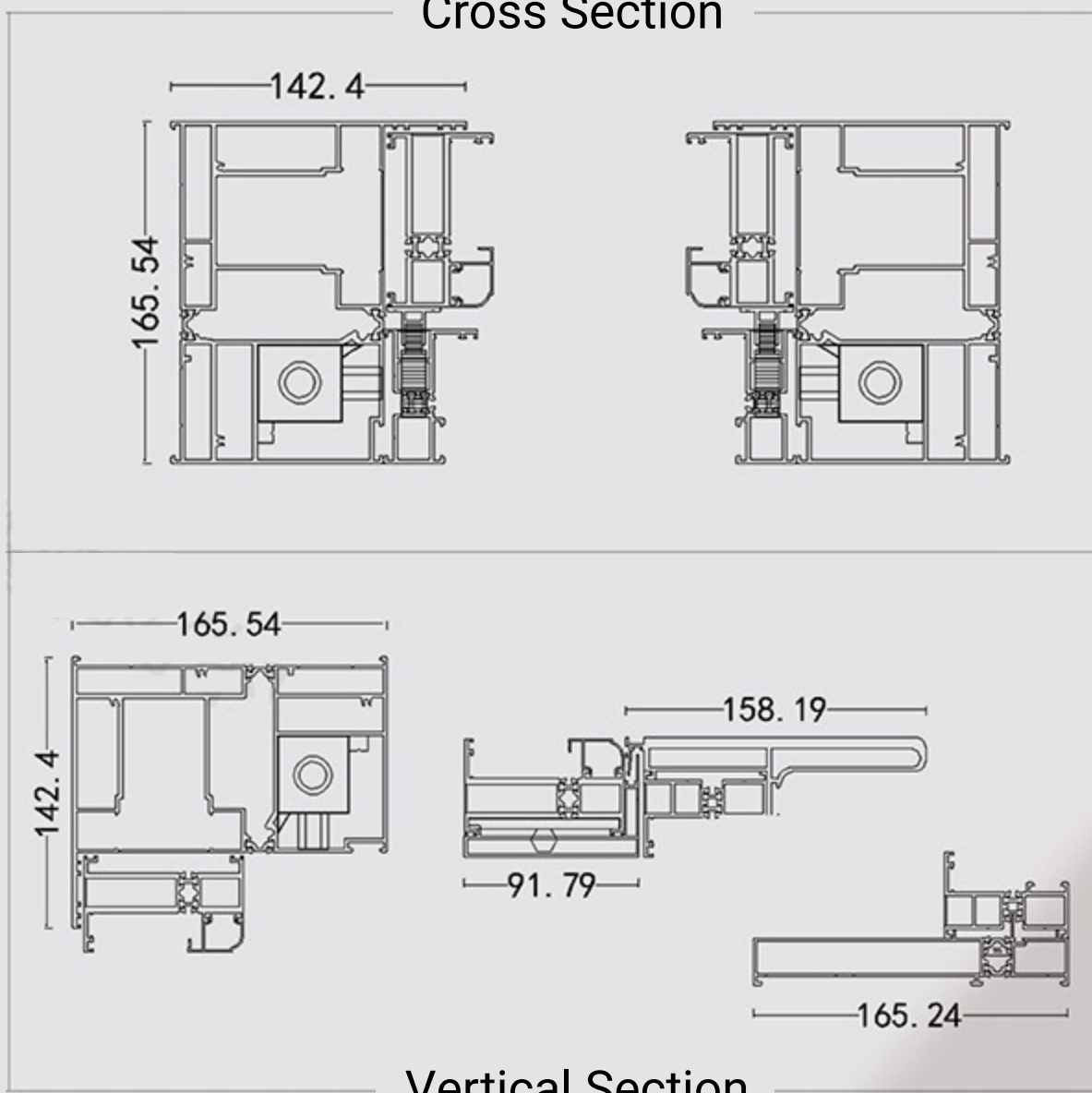
Eco-Friendly

168 Panoramic Series

Heavy-Duty Ultra-Slim Electric Vertical Lifting Window

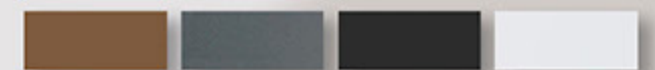
- ✔ Supports 5m-Wide Design
- ✔ Window-Screen Integrated Option Available
- ✔ Triple Protection, Child Lock & Multiple Smart Control Functions
- ✔ Enhanced Design For Wind Pressure Resistance, Airtightness & Waterproofing

Cross Section



Vertical Section

Four Common Colors (Color Customization Available)



Balancer: Precisely matched counterweight

24V ultra-quiet micro motor

Dual-Style Locking Compression Design | Reinforced thickened mullion | Ultra-slim visible surface

Enhanced sealing design



Supported Controls

Voice, mobile APP, anti-pinch, rain sensor, backup power, etc.



Opening Mode	Electric Vertical Lifting
Lifting Component	Patented Balancer
Wall Thickness	2.0-3.0mm / 6.0mm (Handle)
Profile Section Width	168mm
Recommended Width Within	5m



168 Panoramic Series

Heavy-Duty Ultra-Slim Electric Vertical Lifting Window Full Core Technology Patents Owned

Material

- 6063-T5 Primary Aluminum Material
- Fluorocarbon Spraying Available for Surface
- Seamless Welding Option
- Transmission Components Hardened for Load-Bearing Assurance

Structure

- Thermal Insulation & Soundproofing (Broken Bridge Design)
- Stile Locking, Compression & Reinforced Sealing Design
- Upgraded Drainage Design for Better Airtightness & Waterproofing
- Integrated Wide H-Profile Ultra-Slim Visible Frame Design
- Patented Ultra-Long Span Drive Structure with Synchronized Dual-Side Actuation

Safety

- Integrated Frame-Wrapped Sash Structure with Anti-Fall Design
- Counterbalance Precisely Matched to Sash Weight for Fall Prevention
- Reinforced Handrail with 6.0mm Thickened Wall for Sleek Look & Durability
- Reinforced Handrail Directly Fixed to Frame and Lower Sash for Improved Safe

Technology

- Patented 24V Ultra-Quiet Motor (Stops on Obstacle Contact)
- Patented Balancer (Free Hovering)
- Triple Safety Protection Functions
- Self-Programmed Controller (Smart Control)
- Exclusive Dual-Side Horizontal Auto-Calibration Technology

Operation

- Gear-Rack Engagement for Synchronized Dual-Side Lifting
- Sash Equipped with Balancer (4-Corner Positioning)
- Smooth Operation with Minimal Motor Drive

Maintenance

- Dual-Side Micro Motor: Replaceable by Opening Cover;
- Sash Remains Hovering After Single Disassembly
- No Additional Protection Measures Needed
- Easy & Convenient Maintenance



Thermal Insulation



Waterproof



Wind-Resistant



Quiet



Smart Control



Safe



Home Ecosystem



Eco-Friendly

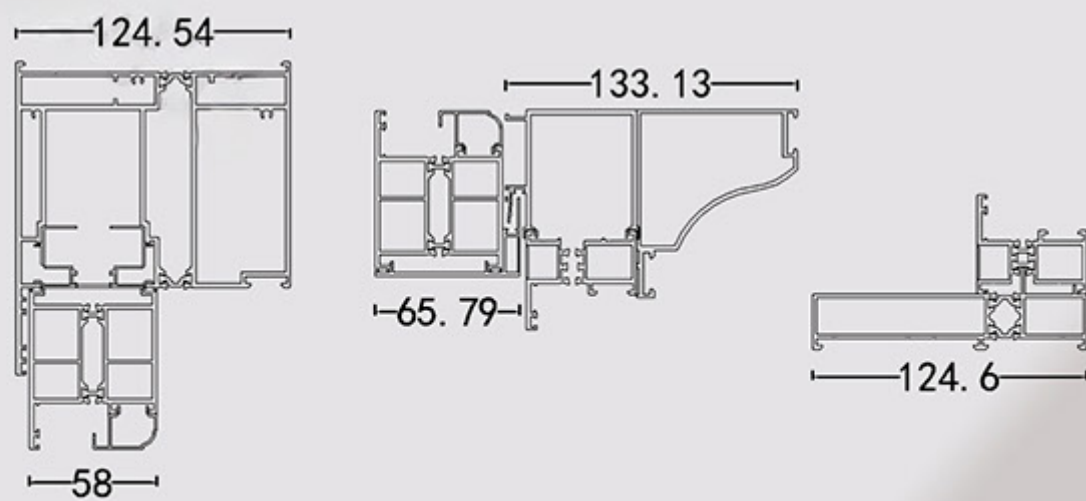
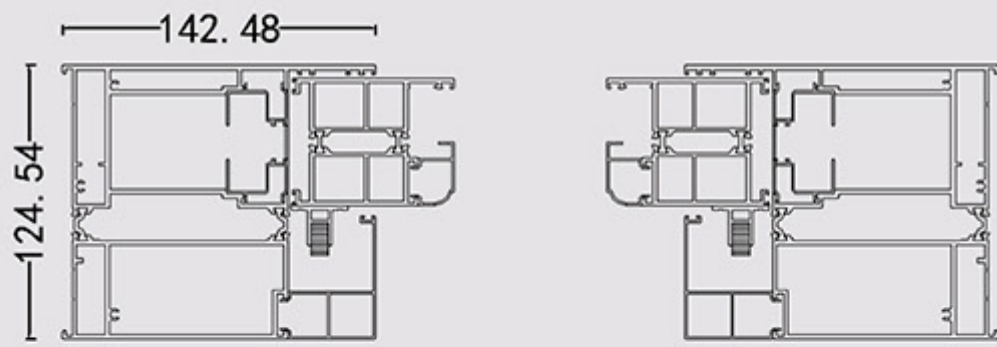


128 Panoramic Series

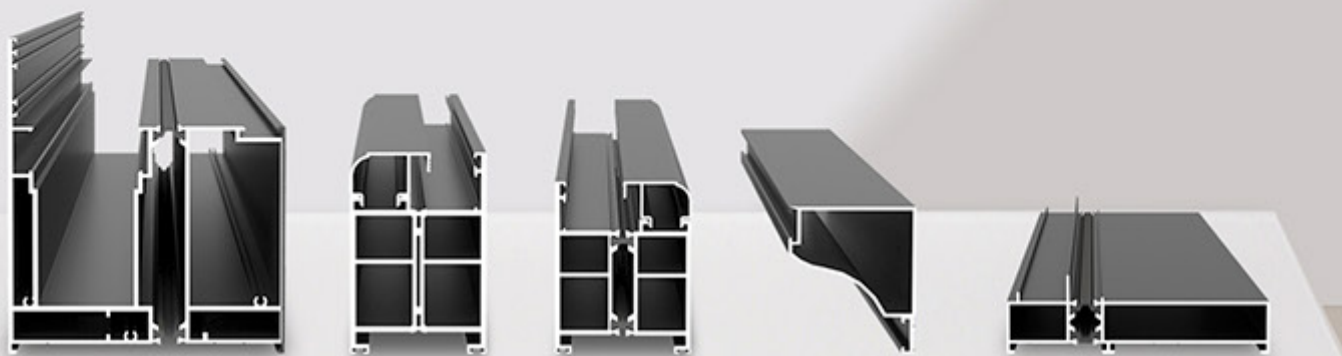
Intelligent Electric Vertical Lifting Window

- ✓ Window-screen Integrated Option Available
- ✓ Triple Protection, Child Lock & Multiple Smart Control Functions
- ✓ Enhanced Airtightness & Waterproofing Design

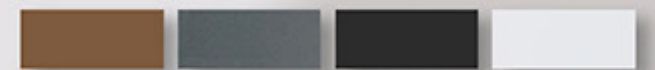
Cross Section



Vertical Section



Four Common Colors
(Color Customization Available)



Balancer: Precisely matched to window weight



24V ultra-quiet micro motor



Dual-Stile Locking Sealing Design



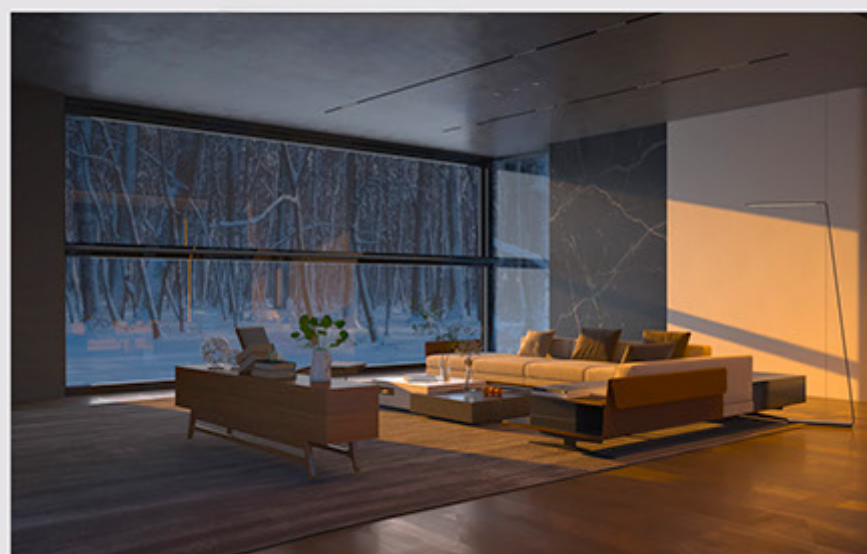
Reinforced Water Deflection Design



Supported Controls

Voice, mobile APP, anti-pinch, rain sensor, backup power, etc.

Opening Mode	Electric Vertical Lifting
Lifting Component	Patented Balancer
Wall Thickness	2.0mm
Profile Section Width	125mm
Recommended Width Within	3.8m

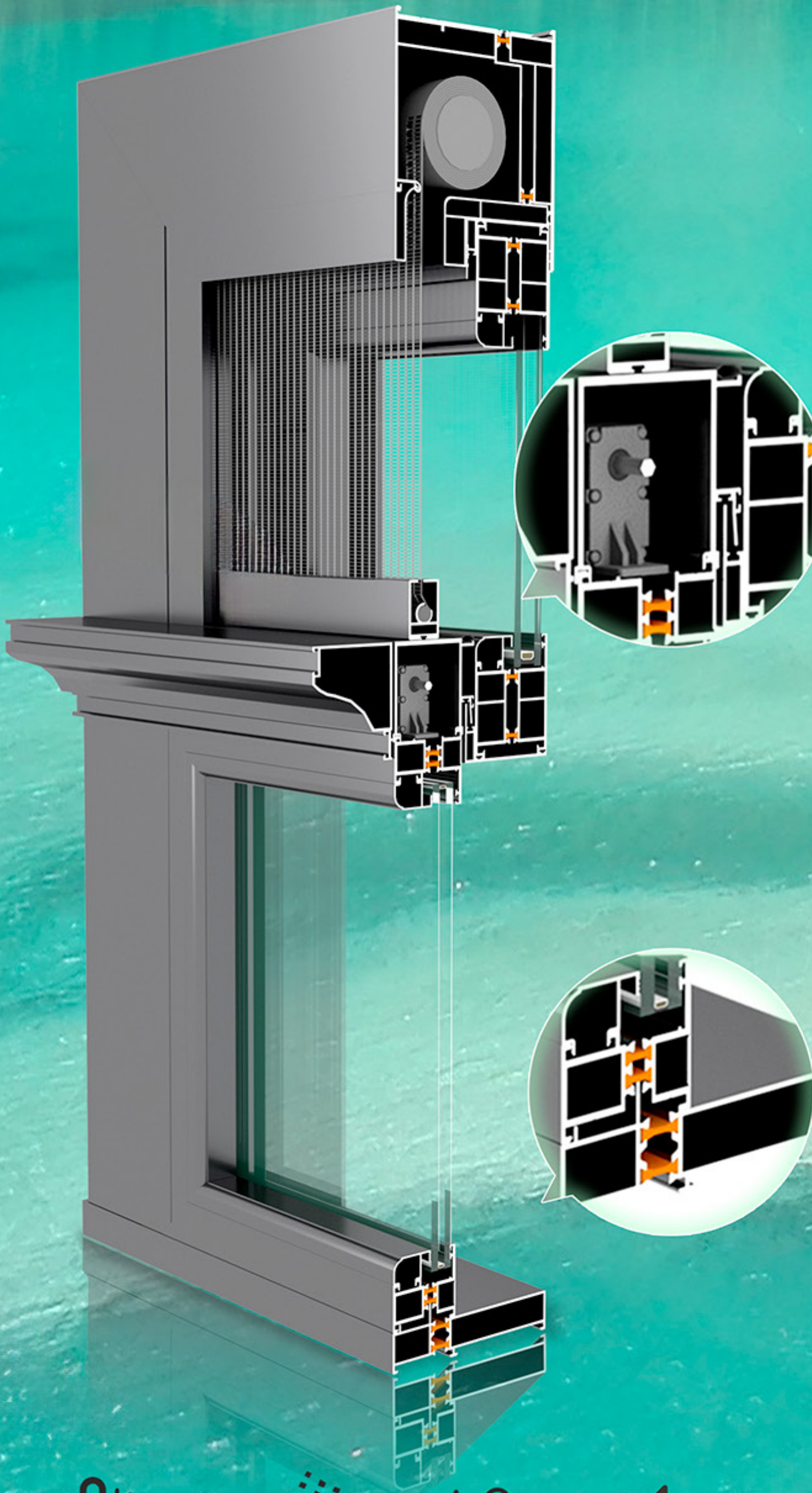


128 Panoramic Series

Intelligent Electric Vertical Lifting Window

Passed Three Inspections

Full Core Technology Patents Owned



Material

- 6063-T5 Primary Aluminum Material
- Fluorocarbon Spraying Available for Surface
- Seamless Welding Option
- Transmission Components High-Frequency Hardened for Load-Bearing Assurance

Structure

- Integrated window structure (simple & excellent stability)
- Stile Locking, Compression & Reinforced Sealing Design
- Upgraded air & water sealing design (better waterproofing & wind resistance)
- Thermal Insulation & Soundproofing (Broken Bridge Design)

Safety

- Integrated frame-wrapped sash structure with anti-fall design
- Counterbalance precisely matched to sash weight for fall-free operation
- Reinforced handrail directly fixed to frame and lower sash for enhanced safety

Technology

- Patented 24V ultra-quiet motor (stops on obstacle contact)
- Patented balancer (free hovering)
- Triple anti-pinch safety protection
- Self-programmed controller (smart control)

Operation

- Gear-rack engagement for synchronized dual-side lifting
- Sash equipped with balancer (4-corner positioning)
- Smooth operation with minimal motor drive

Maintenance

- Central-mounted micro motor: sash remains hovering after single disassembly
- No additional protection measures needed
- Easy & convenient maintenance



Thermal Insulation



Waterproof



Wind-Resistant



Quiet



Smart Control



Safe



Home Ecosystem



Eco-Friendly

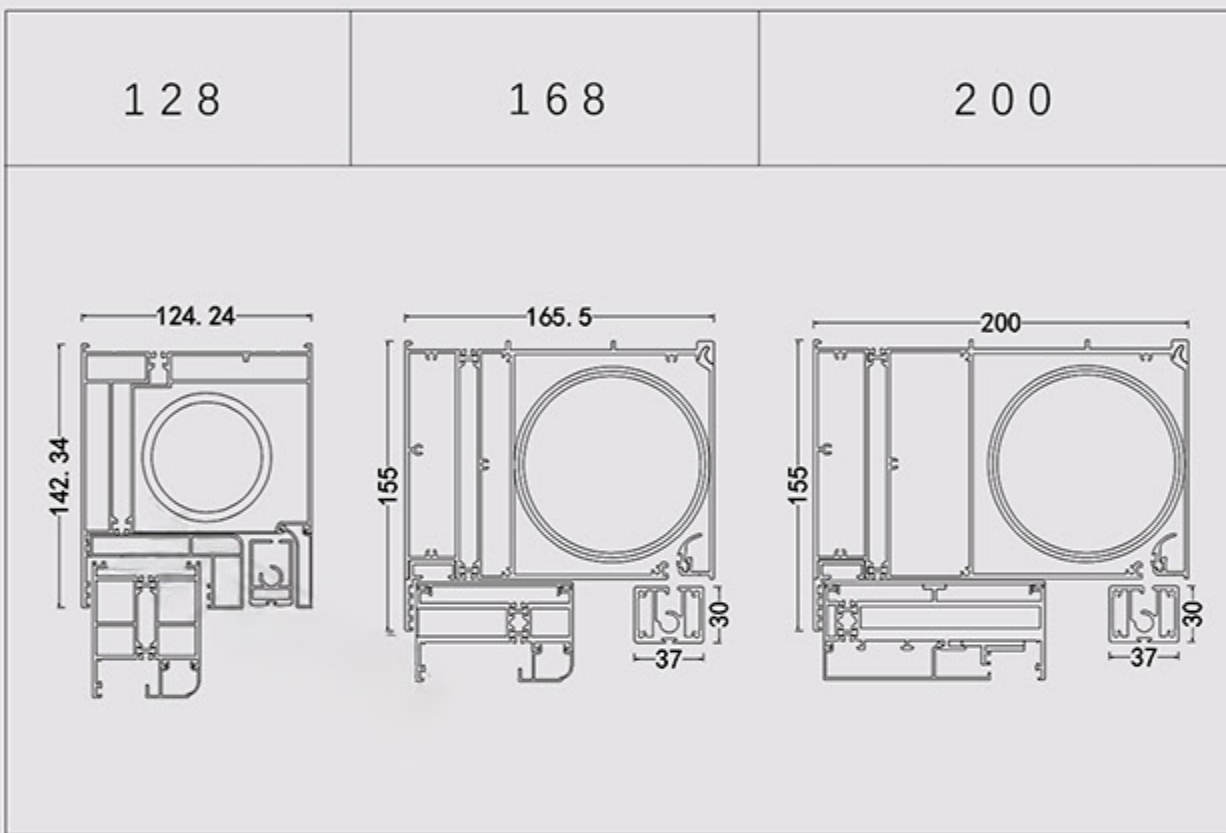
Optional

Optional: Sun-Shading And Heat-Insulating Window Screens

128
 Panoramic Series

168
 Panoramic Series

200
 Panoramic Series



Integrated Screen & Window Design
 Sun Shading, Heat Insulation & Mosquito Prevention
 Maintains Optimal Indoor Ventilation
 Flame-Retardant, Tear-Resistant & Shape-Stable

Integrated frame-wrapped sash structure with anti-fall design
 Counterbalance precisely matched to sash weight for fall-free operation
 Reinforced handrail directly fixed to frame and lower sash for enhanced safety



100% Full-Shade Polyester Fiber Fabric



5% Open-Rate Colored Fiberglass Fabric



5% Open-Rate Fiberglass Fabric



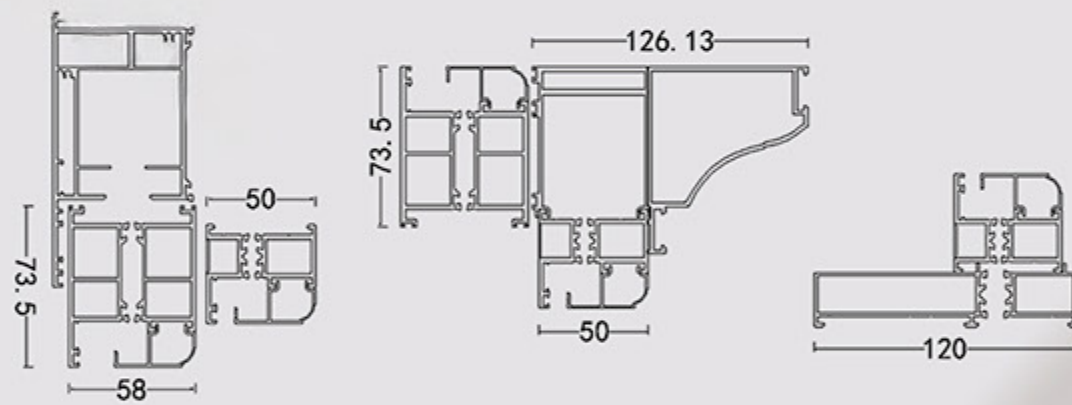
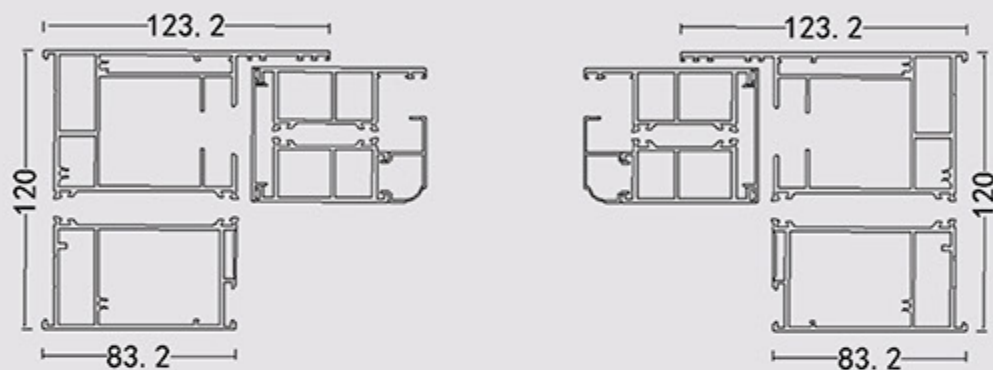


120 Panoramic Series

Intelligent Electric Vertical Lifting Window

- ✓ Smart Anti-Pinch Device
- ✓ Smart Control (Wall Control/Remote Control/App)
- ✓ Upper Sash Movable | Hover At Any Height

Cross Section



Vertical Section

Four Common Colors
(Color Customization Available)



Balancer: Precisely matched to window weight

Wool strip

24V ultra-quiet micro motor

Rubber strip



Supported Controls

Voice, mobile APP, anti-pinch, rain sensor, backup power, etc.



Opening Mode	Patented Balancer
Lifting Component	Patented Balancer
Wall Thickness	2.0mm
Profile Section Width	120mm
Recommended Width Within	3m



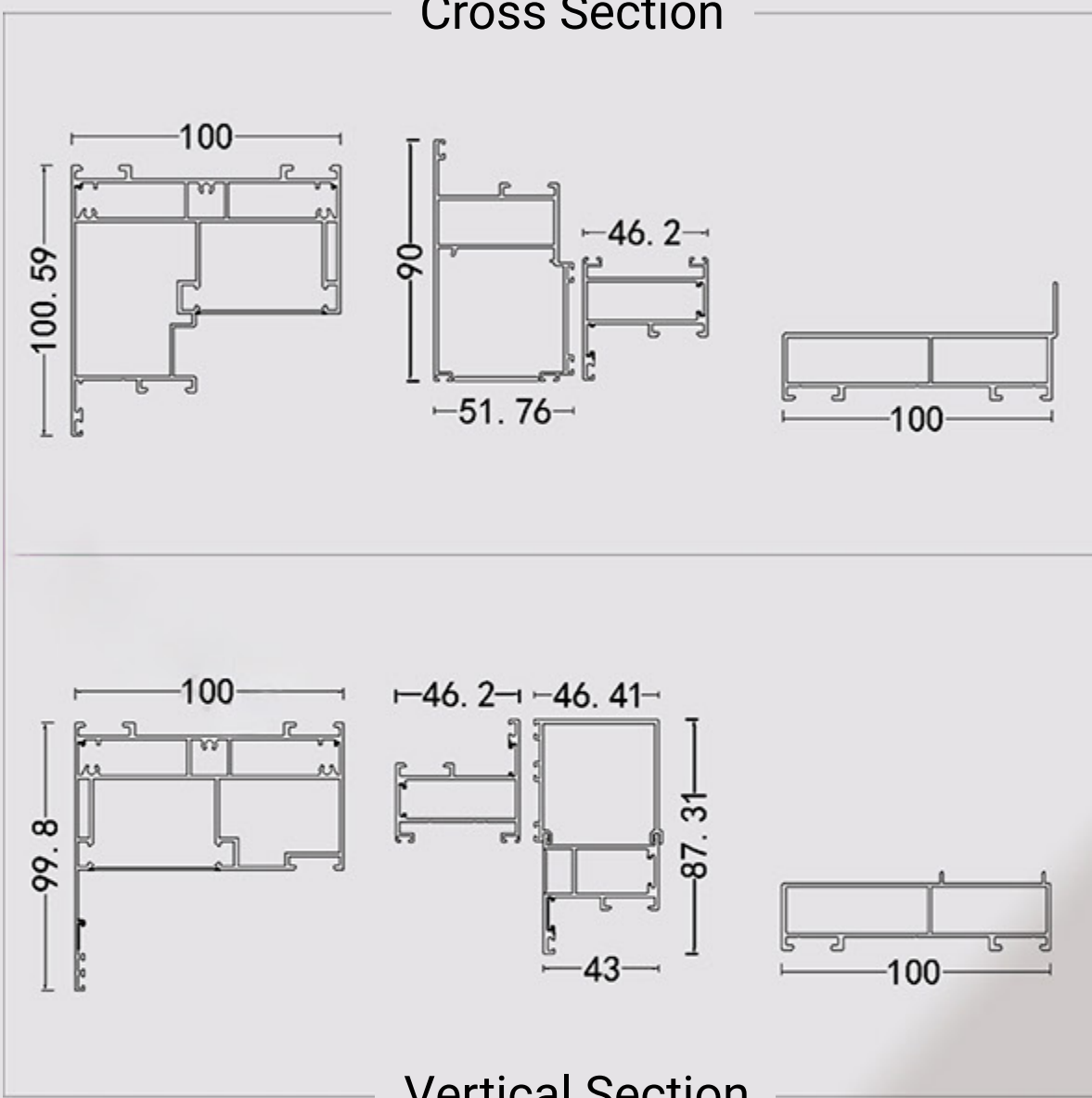


101 Compact & Elegant Series

Intelligent Electric Vertical Lifting Window

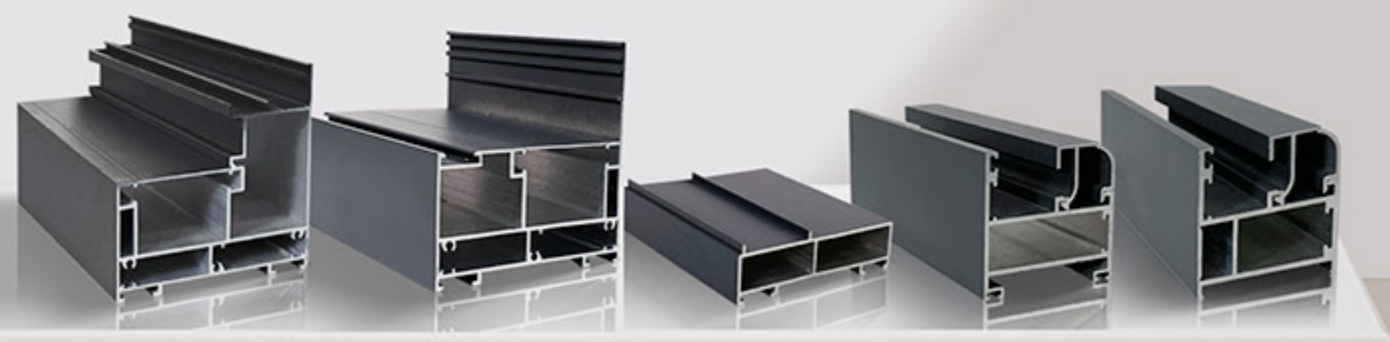
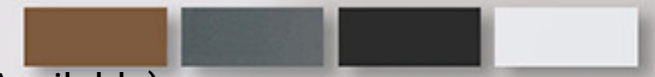
- ✓ Single Sash Movable
- ✓ Bottom-Frame-Free Option Available
- ✓ Hover At Any Height
- ✓ Smart Control (Wall Control/Remote Control/App, Etc.)

Cross Section



Vertical Section

Four Common Colors (Color Customization Available)



Opening Mode	Electric Vertical Lifting
Lifting Component	Patented Balancer
Wall Thickness	1.4-1.6mm
Profile Section Width	100mm
Recommended Area	7.5 m ²



Manual Vertical Lifting Window



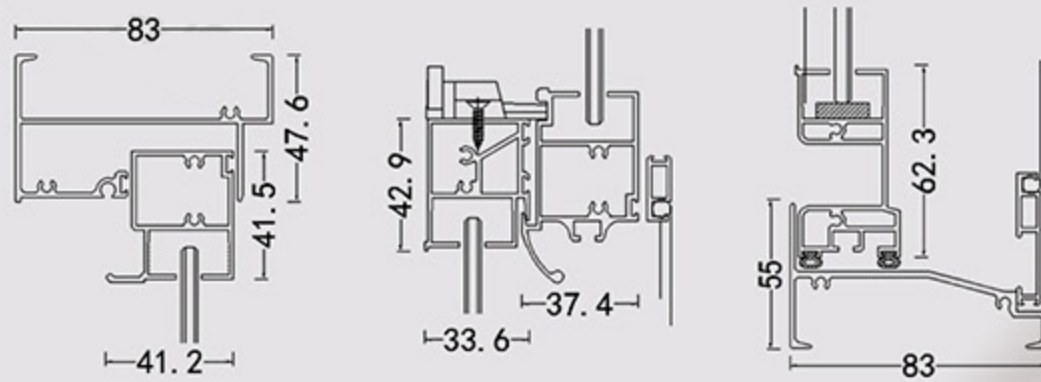


83 Series

Manual Vertical Double-Lifting Window

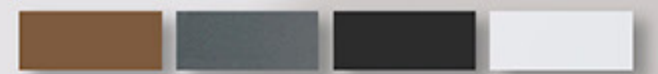
- Hover at Any Height
- Double-Sash Movable & Reversible

Cross Section



Vertical Section

Four Common Colors
(Color Customization Available)



Balancer



Crescent Lock



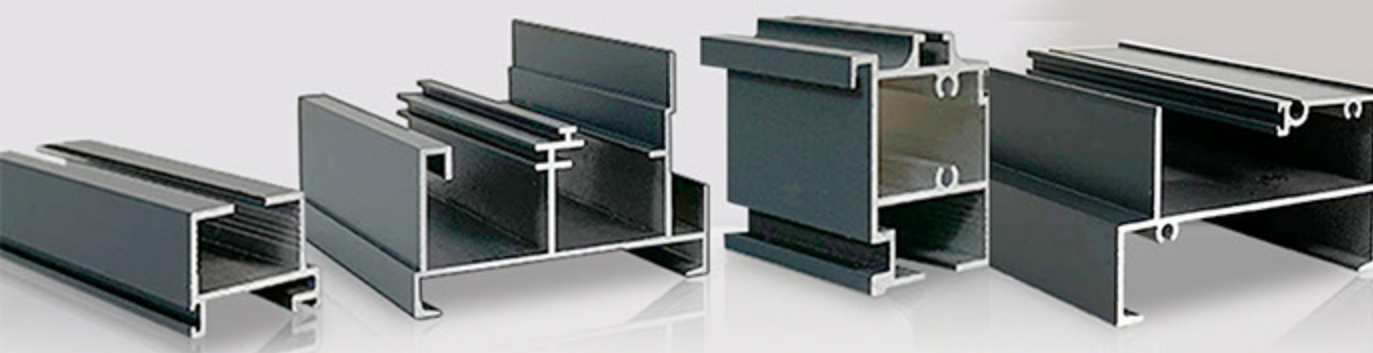
Reversible Lock



Wool Strip



Rubber Strip



Opening Mode	Double-Sash Lifting (Reversible)
Lifting Component	Patented Balancer
Wall Thickness	1.5mm
Profile Section Width	83mm
Recommended Area	2.5 m ²



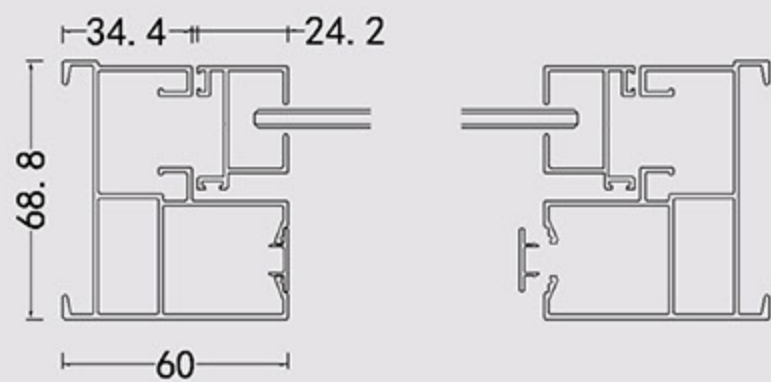


70 Series

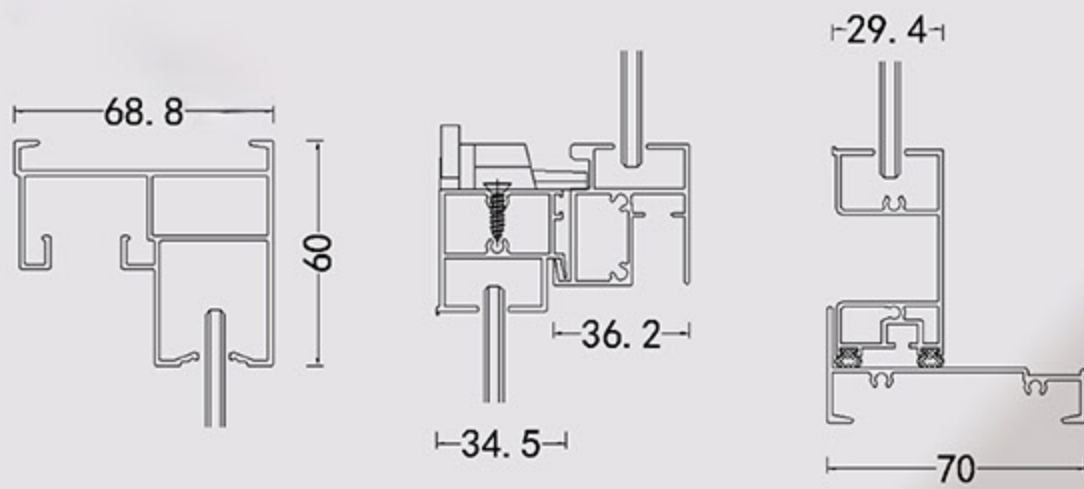
Manual Vertical Lifting Window

- Hover at Any Height
- Double-Sash Movable & Reversible

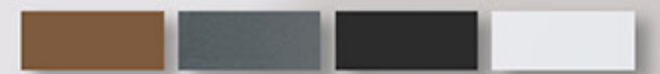
Cross Section



Vertical Section



Four Common Colors
(Color Customization Available)



Balancer



Crescent Lock



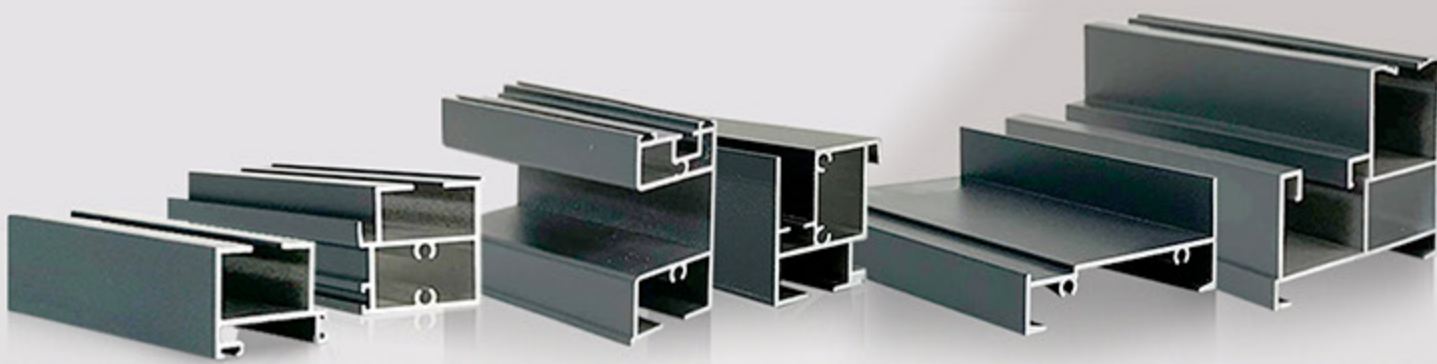
Reversible Lock



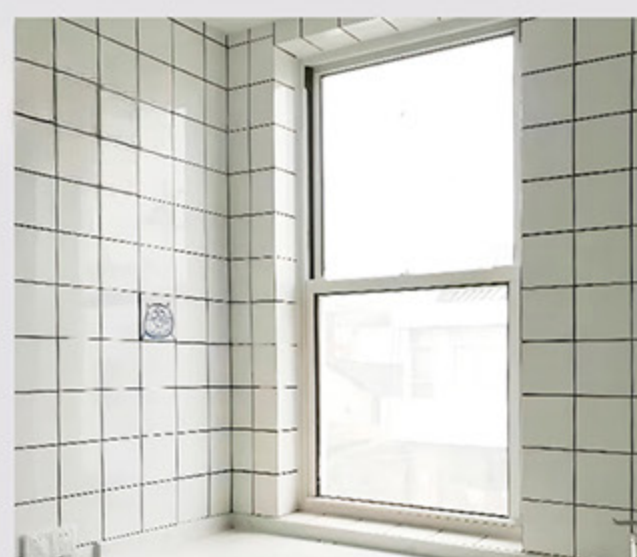
Wool Strip



Rubber Strip



Opening Mode	Top-lift / Bottom-single lift (reversible)
Lifting Component	Patented Balancer
Wall Thickness	1.4-1.6mm
Profile Section Width	70mm
Recommended Area	Light-duty: 4 m ² / Heavy-duty: 7 m ²



Electric Vertical Folding Window



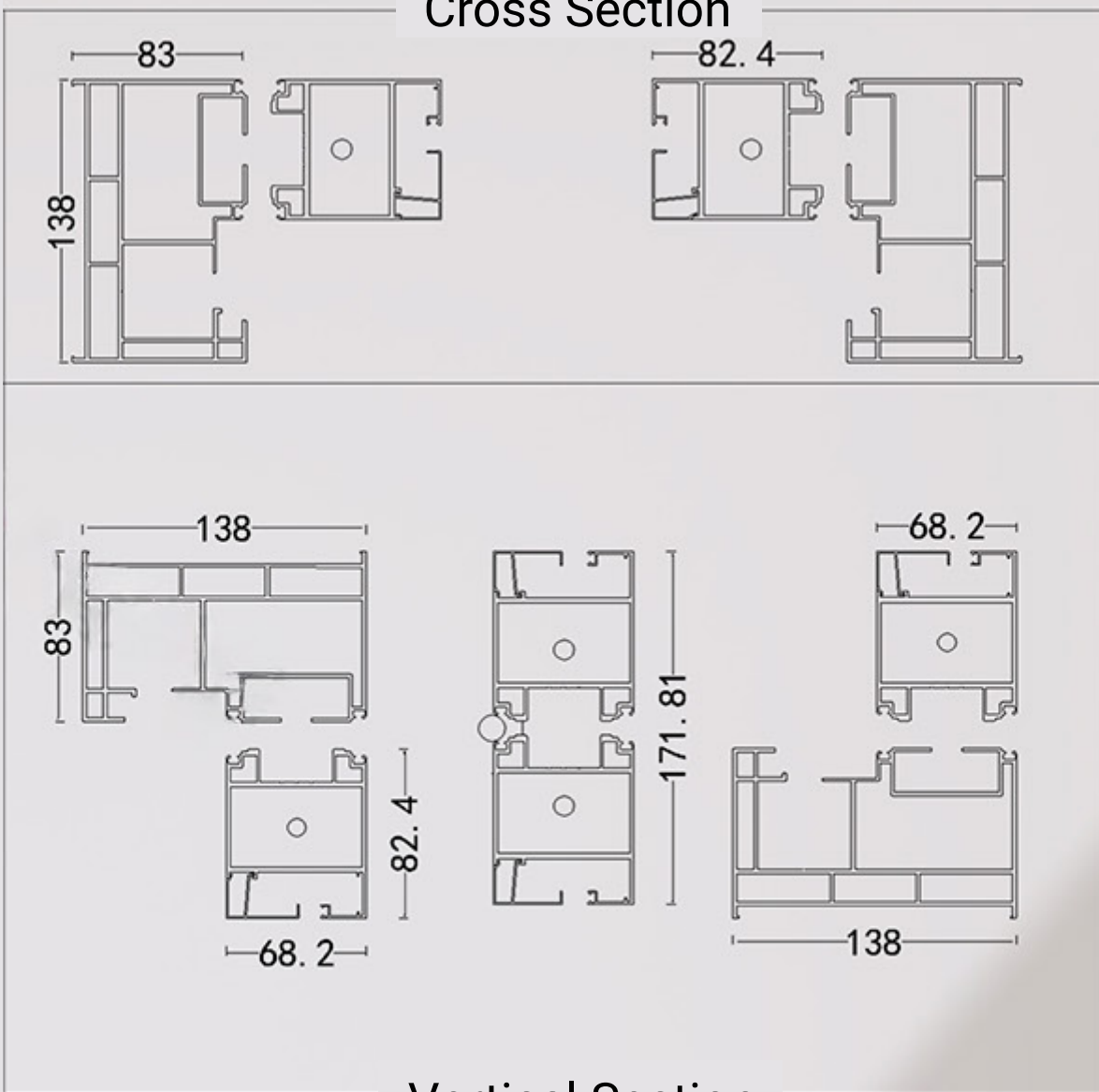


138 Cloud Veranda Series

Intelligent Electric Vertical Folding Window

- Bottom-Frame-Free Option Available
- Fully Automatic Locking
- Hover At Any Height

Cross Section



Vertical Section

Four Common Colors
(Color Customization Available)



Transmission rod



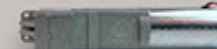
Balancer: Precisely matched to window weight



Handle



24V ultra-quiet micro motor



Rubber strip



Opening Mode	Electric top-folding
Lifting Component	Patented Balancer
Wall Thickness	2.0-3.0mm
Profile Section Width	138mm
Recommended Area	12 m ²



138 Cloud Veranda Series

Intelligent Electric Vertical Folding Window

Passed Three Inspections

Full Core Technology Patents Owned

Material

- 6063-T5 Primary Aluminum Material
- Fluorocarbon Spraying Available for Surface
- Seamless Welding Option
- Transmission Components High-Frequency Hardened for Load-Bearing Assurance

Structure

- Integrated window structure (simple & excellent stability)
- Balancer precisely matched to window sash (no fall risk)

Technology

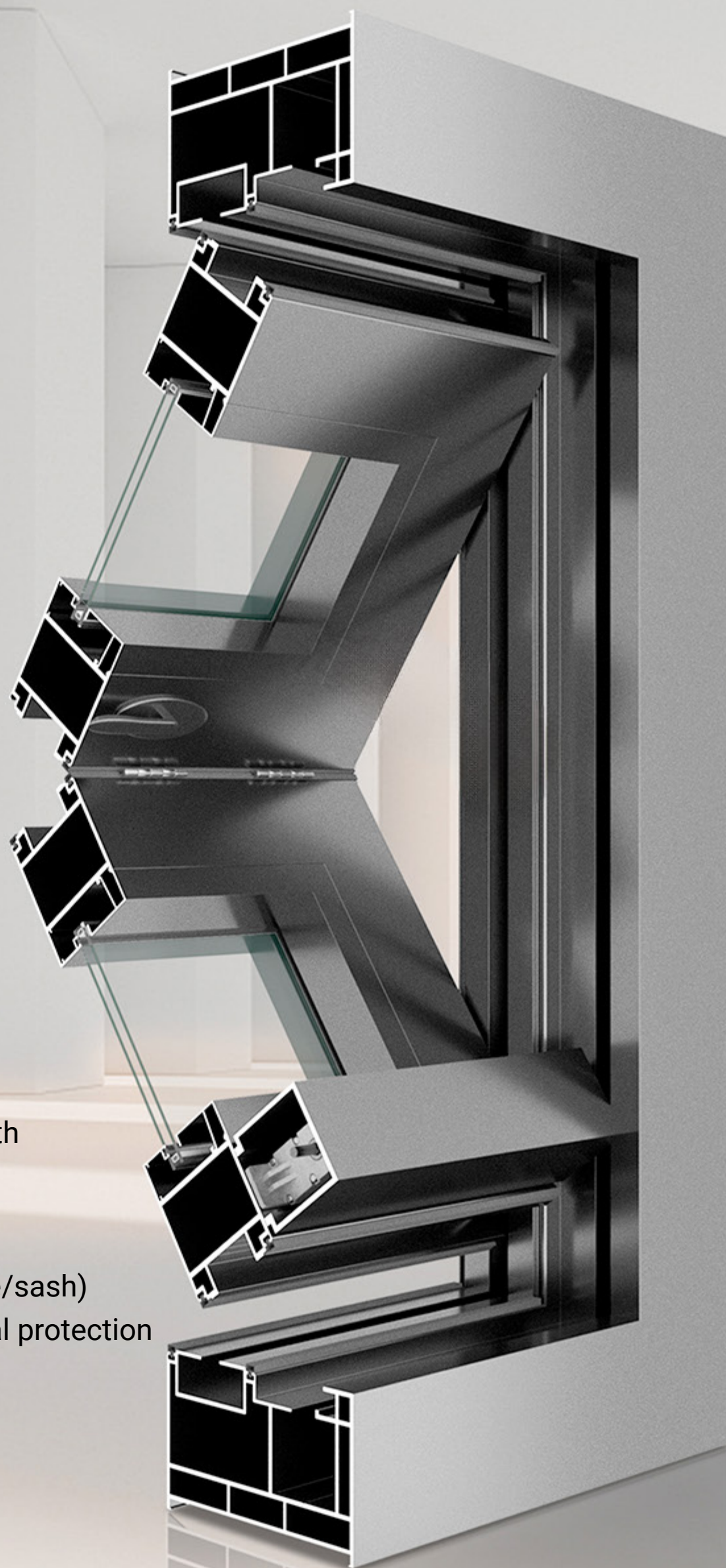
- Fully automatic opening & locking (hands-free operation)
- Patented balancer (free hovering)
- Patented 24V ultra-quiet motor (stops on obstacle contact)
- Self-programmed controller (smart control)

Operation

- Physical structure enables smooth opening after one-click automatic unlocking
- Gear-rack engagement for synchronized dual-side lifting
- Sash equipped with balancer (4-corner positioning) for smooth operation with minimal motor drive

Maintenance

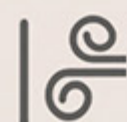
- Central-mounted micro motor (no need to disassemble frame/sash)
- Sash remains hovering after motor disassembly; no additional protection needed; easy & convenient maintenance



Thermal Insulation



Waterproof



Wind-Resistant



Quiet



Smart Control



Safe



Home Ecosystem



Eco-Friendly

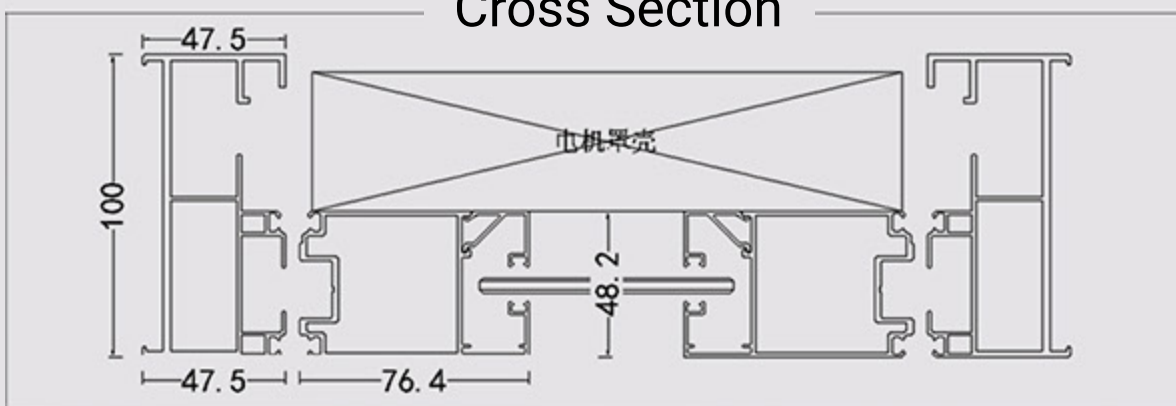


100 Series

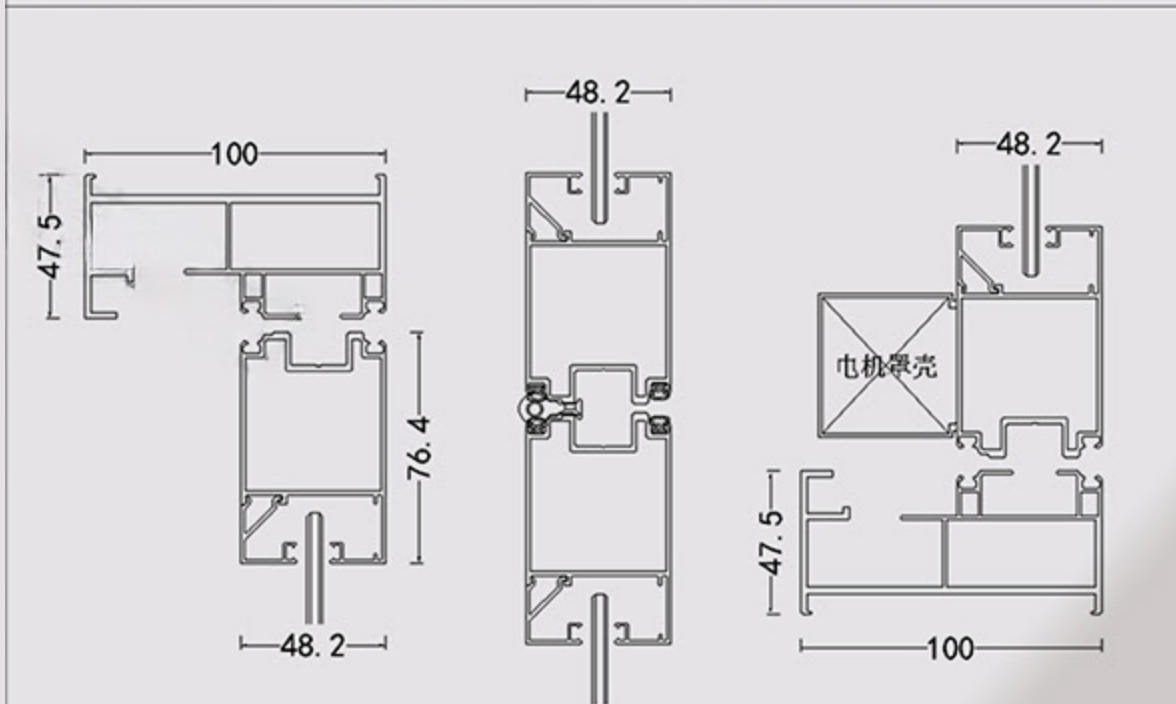
Integrated Electric & Manual Vertical Folding Window

- ✓ Hover At Any Height
- ✓ Manual & Electric Integration
- ✓ Fully Automatic Locking
- ✓ Bottom-Frame-Free Option Available

Cross Section



Vertical Section



Four Common Colors (Color Customization Available)



Transmission rod



Handle



Balancer: Precisely matched to window weight



24V ultra-quiet micro motor



Rubber strip



Opening Mode	Electric top-folding
Lifting Component	Patented Balancer
Wall Thickness	1.5-3.0mm
Profile Section Width	100mm
Recommended Area	8 m ²



100 Series

Integrated Electric & Manual Vertical Folding Window

Passed Three Inspections

Full Core Technology Patents Owned

Material

- 6063-T5 Primary Aluminum Material
- Fluorocarbon Spraying Available for Surface
- Seamless Welding Option
- Transmission Components High-Frequency Hardened for Load-Bearing Assurance

Structure

- Integrated window structure (simple & excellent stability)
- Balancer precisely matched to window sash (no fall risk)

Technology

- Fully automatic opening & locking (hands-free operation)
- Patented balancer (free hovering)
- Patented 24V ultra-quiet motor (stops on obstacle contact)
- Self-programmed controller (smart control)

Operation

- Physical structure enables smooth opening after one-click automatic unlocking
- Gear-rack engagement for synchronized dual-side lifting
- Sash equipped with balancer (4-corner positioning) for smooth operation with minimal motor drive

Maintenance

- Central-mounted micro motor (no need to disassemble frame/sash)
- Sash remains hovering after motor disassembly; no additional protection needed; easy & convenient maintenance



Thermal Insulation

Waterproof

Wind-Resistant

Quiet

Smart Control

Safe

Home Ecosystem

Eco-Friendly

Manual Vertical Folding Window

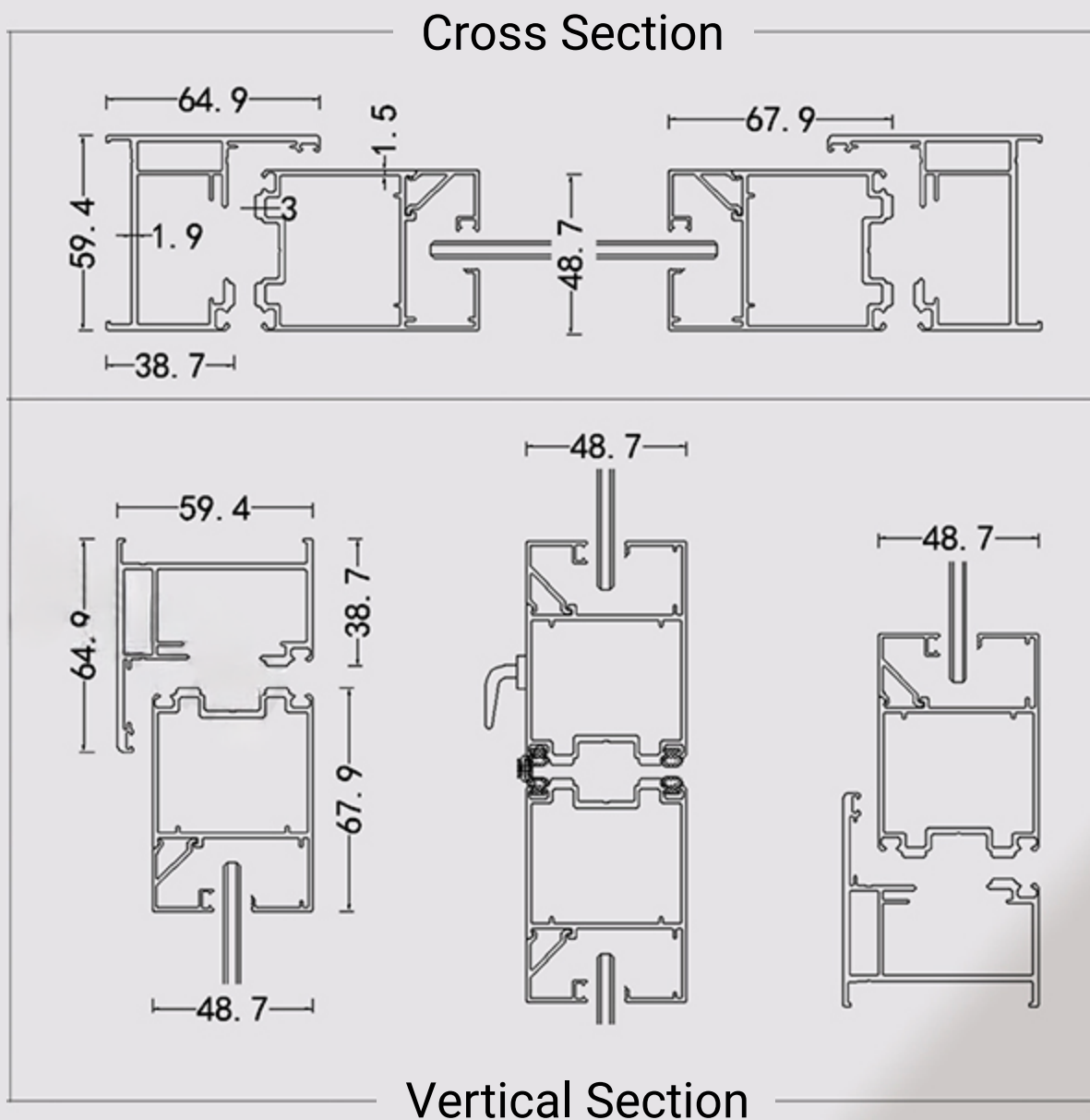




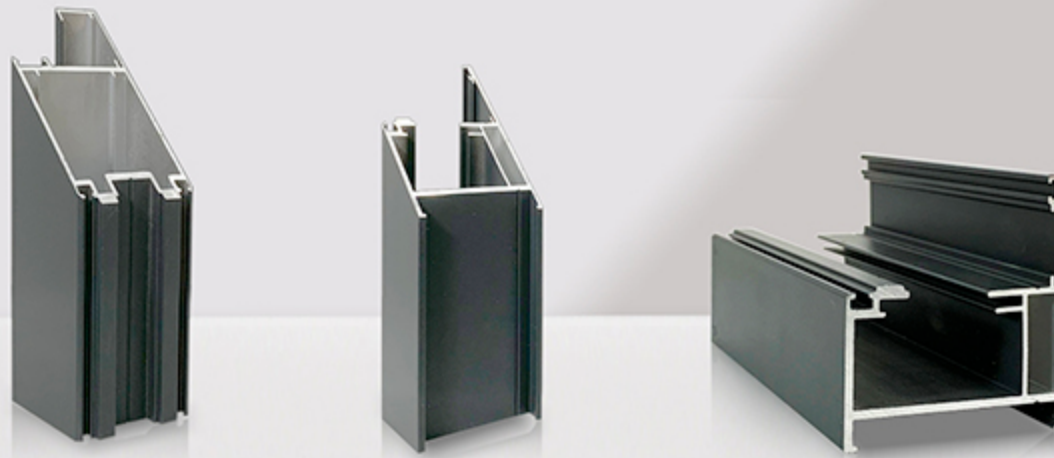
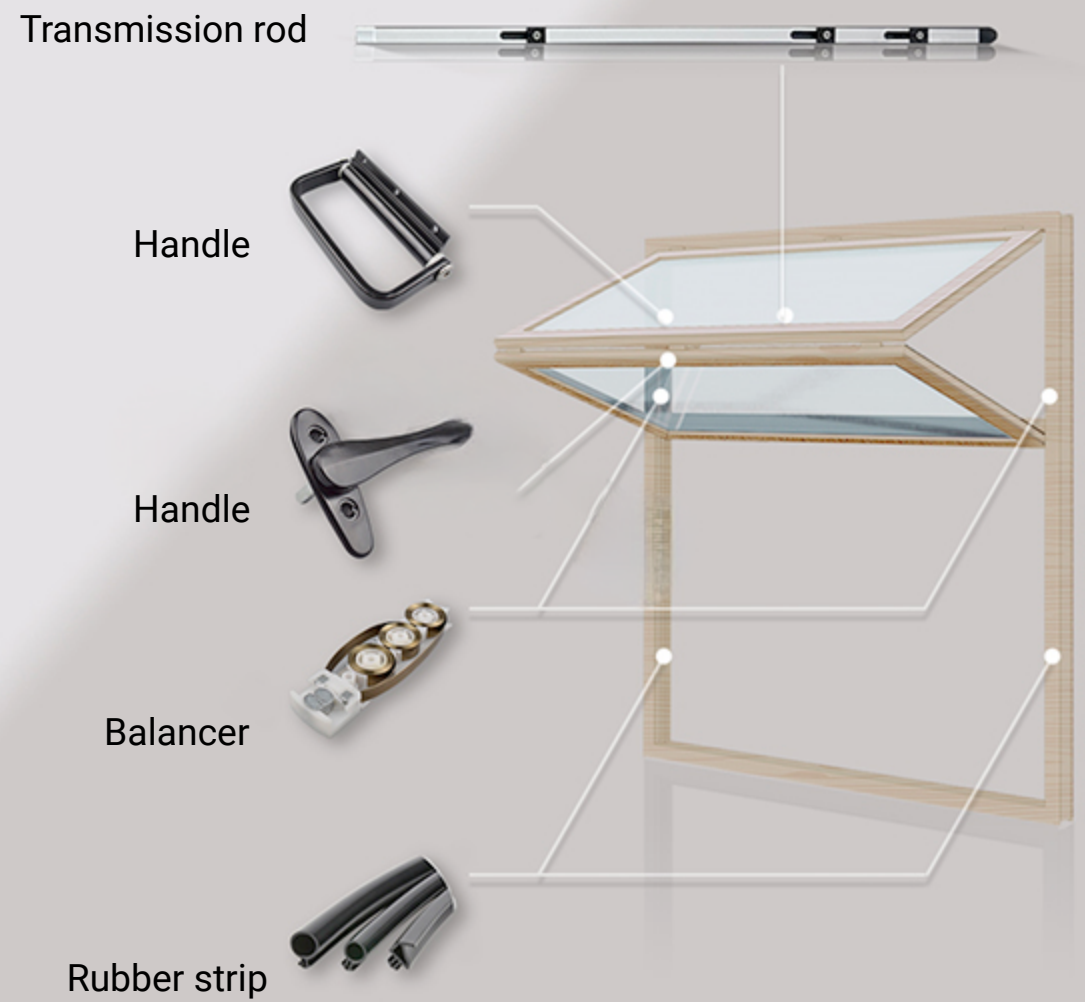
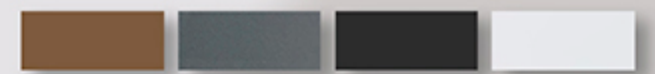
60 Series

Manual Vertical Folding Window

- ✓ Bottom-Frame-Free Option Available
- ✓ Hover At Any Height



Four Common Colors
(Color Customization Available)



Opening Mode	Top-folding (bottom-frame-free option available)
Lifting Component	Patented Balancer
Wall Thickness	2.0-3.0mm
Profile Section Width	60mm
Recommended Area	10 m ²

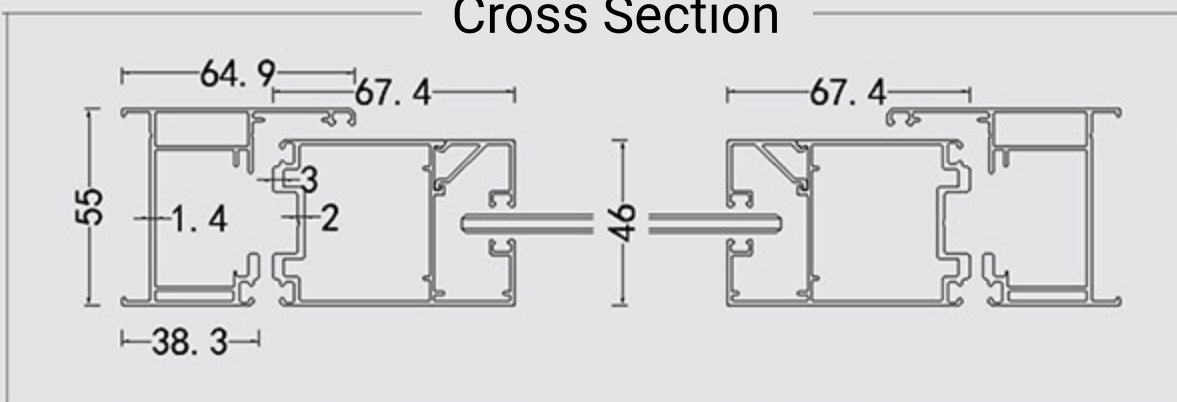




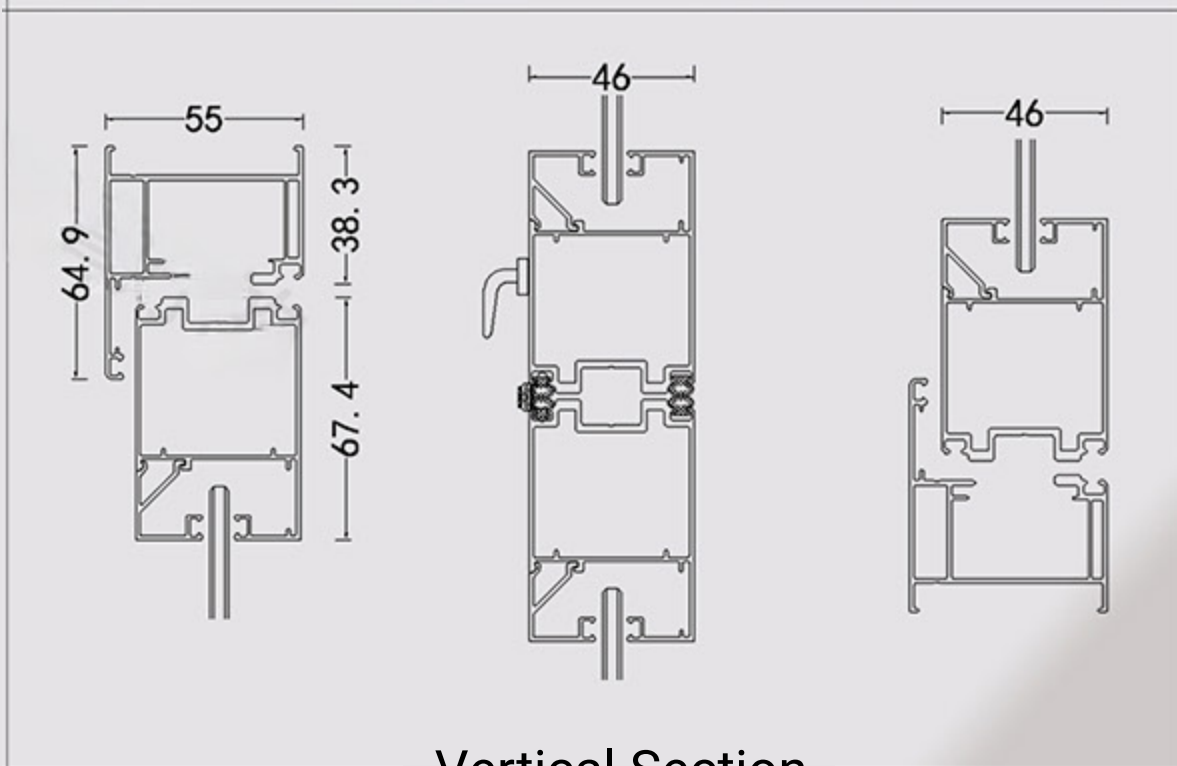
55 Series
Manual Vertical Folding Window

- ✓ Bottom-Frame-Free Option Available
- ✓ Hover At Any Height

Cross Section



Vertical Section



Four Common Colors
 (Color Customization Available)



Transmission rod



Pull handle



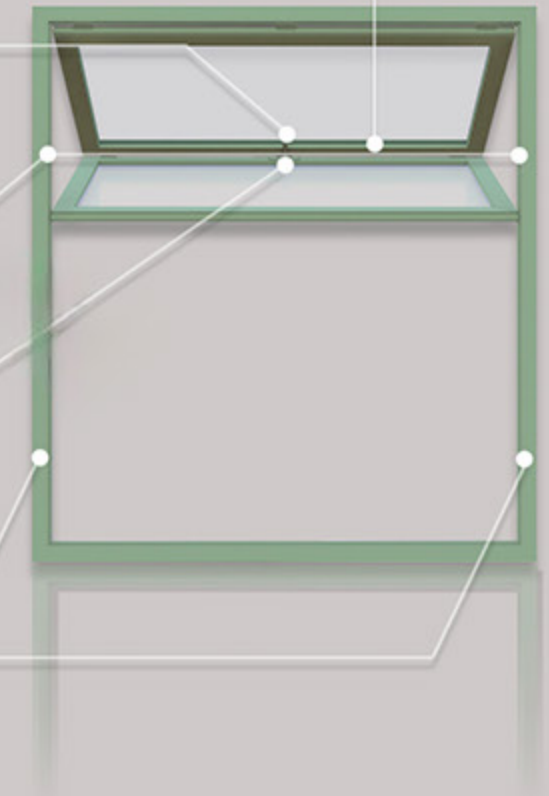
Balancer



Operating handle



Rubber strip



Opening Mode	Top-folding (bottom-frame-free option available)
Lifting Component	Patented Balancer
Wall Thickness	1.4-3.0mm
Profile Section Width	55mm
Recommended Area	7 m ²

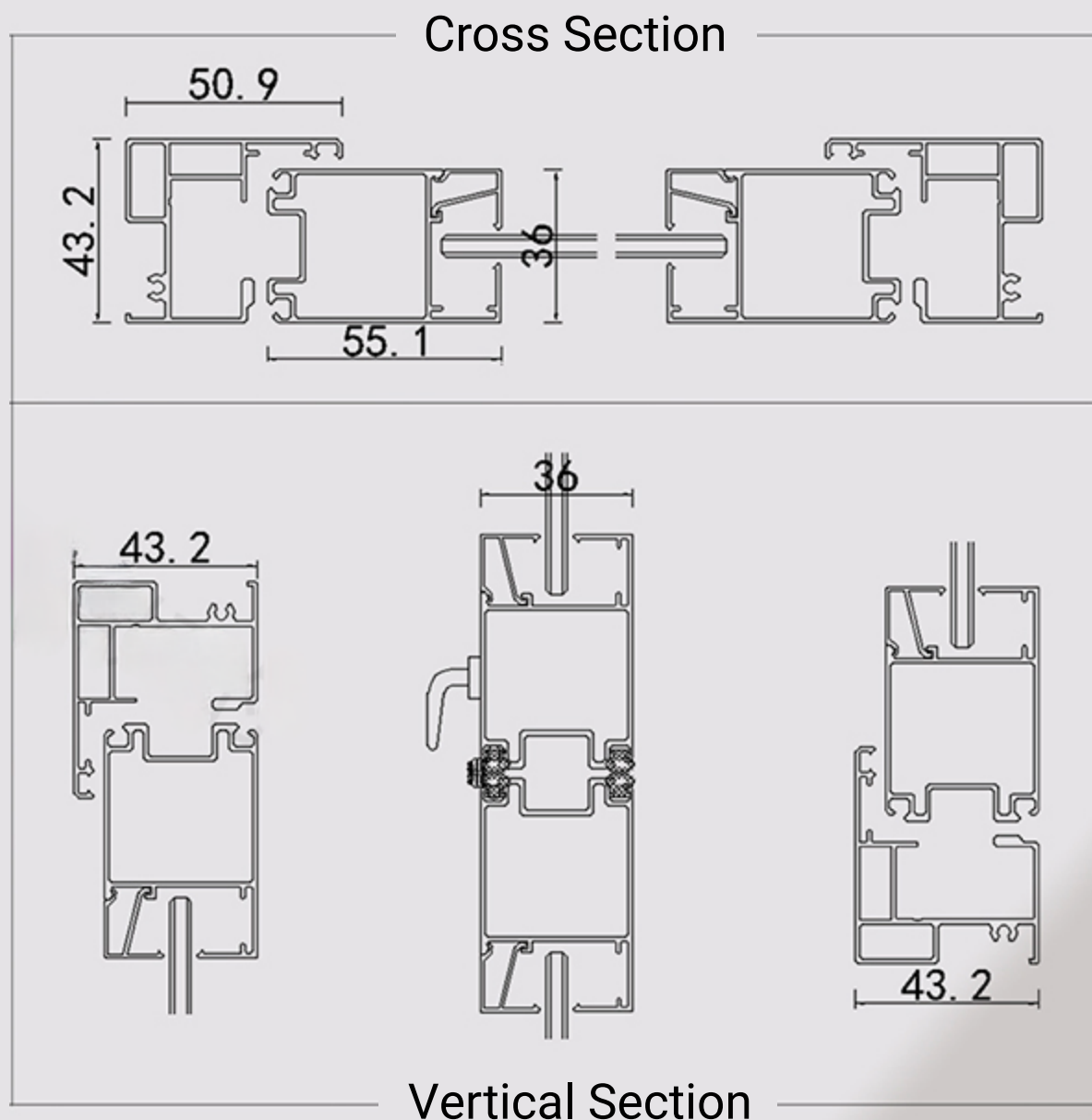




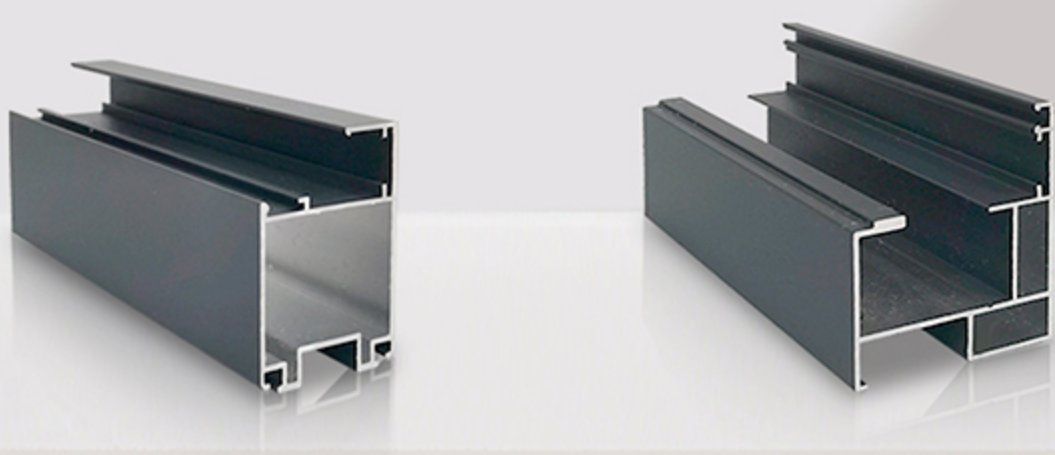
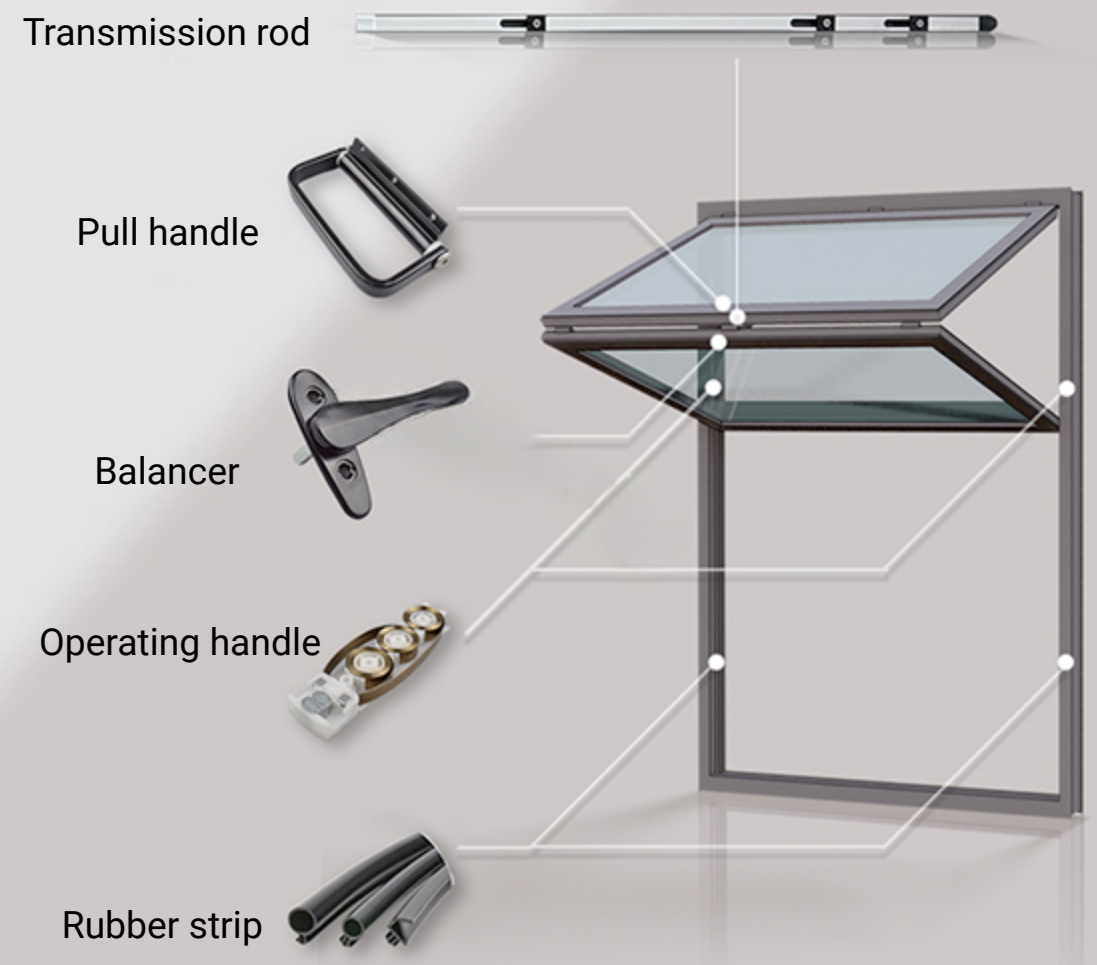
40 Series

Manual Vertical Folding Window

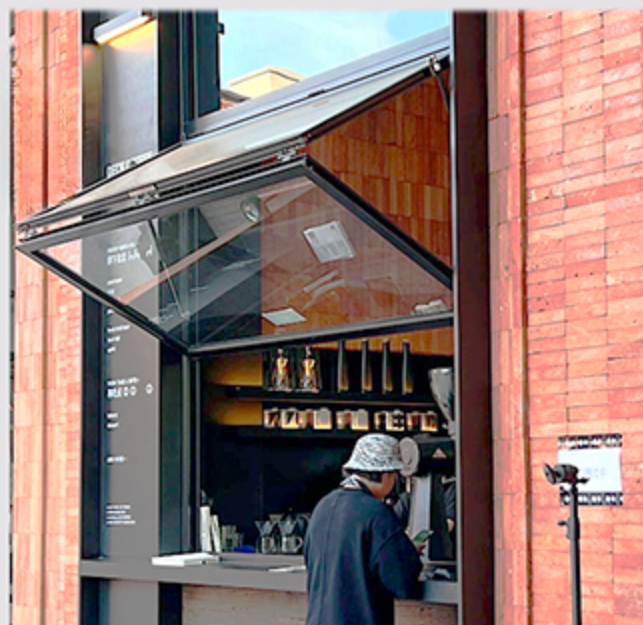
- ✓ Bottom-Frame-Free Option Available
- ✓ Hover At Any Height



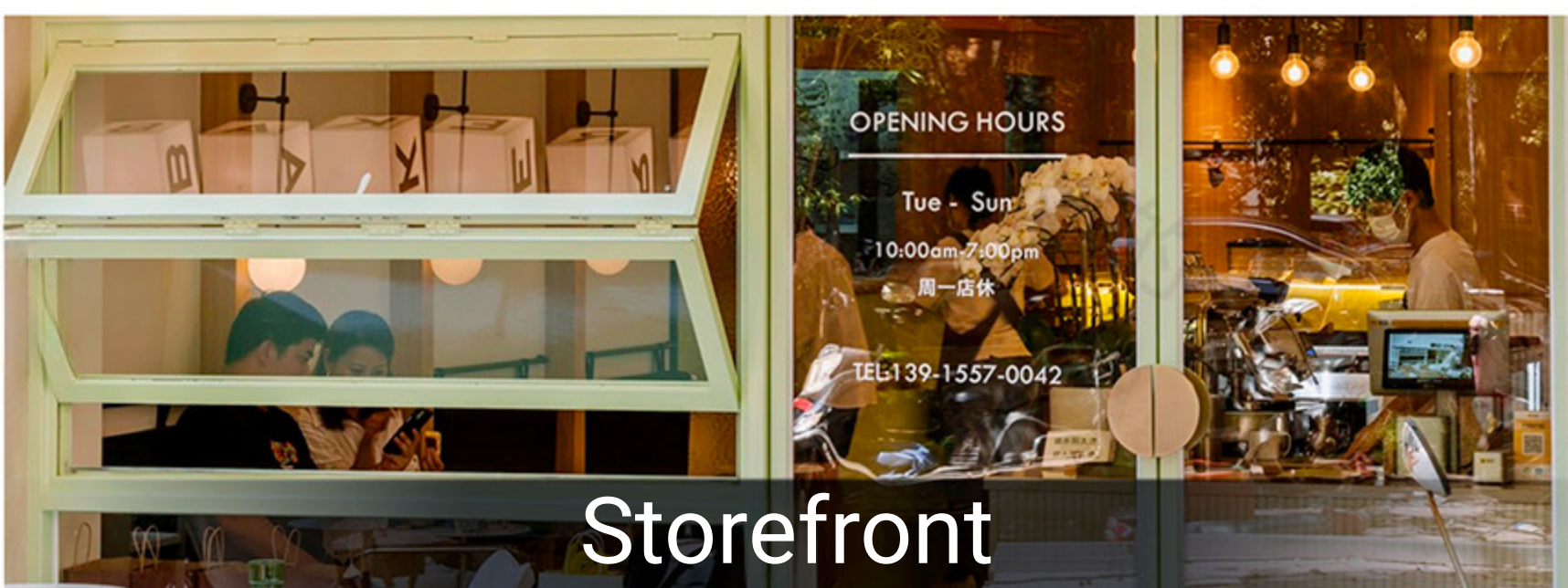
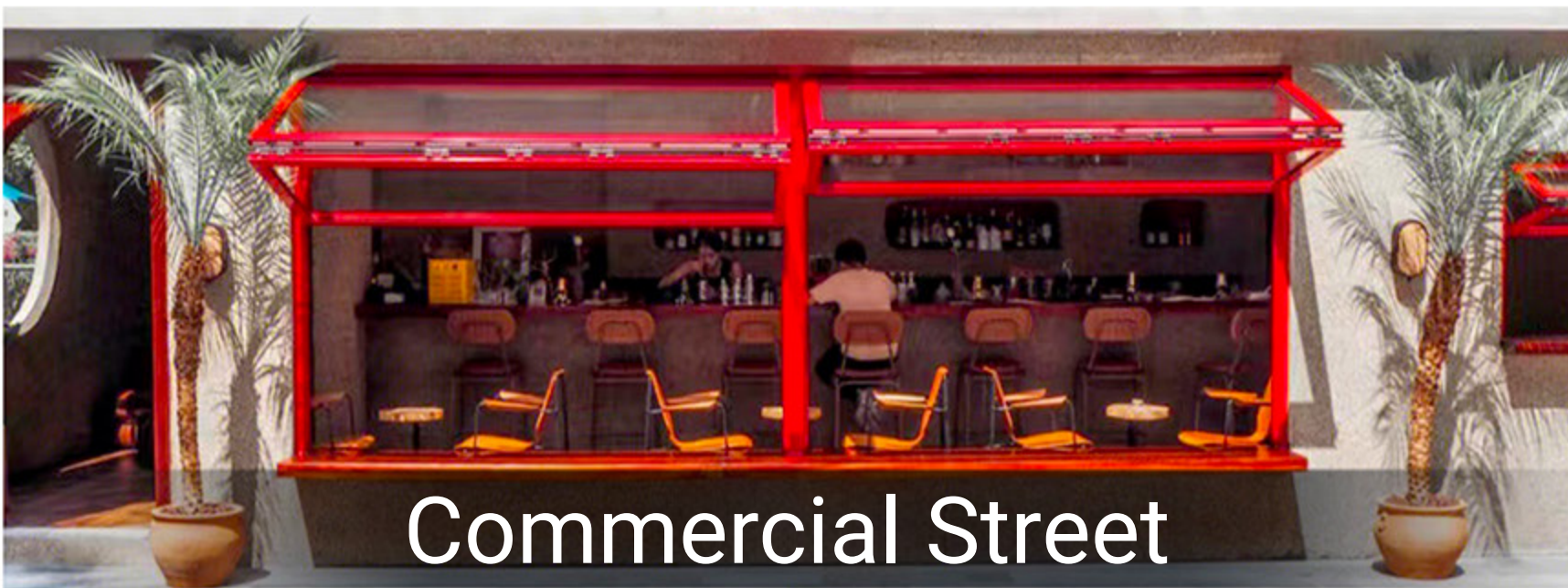
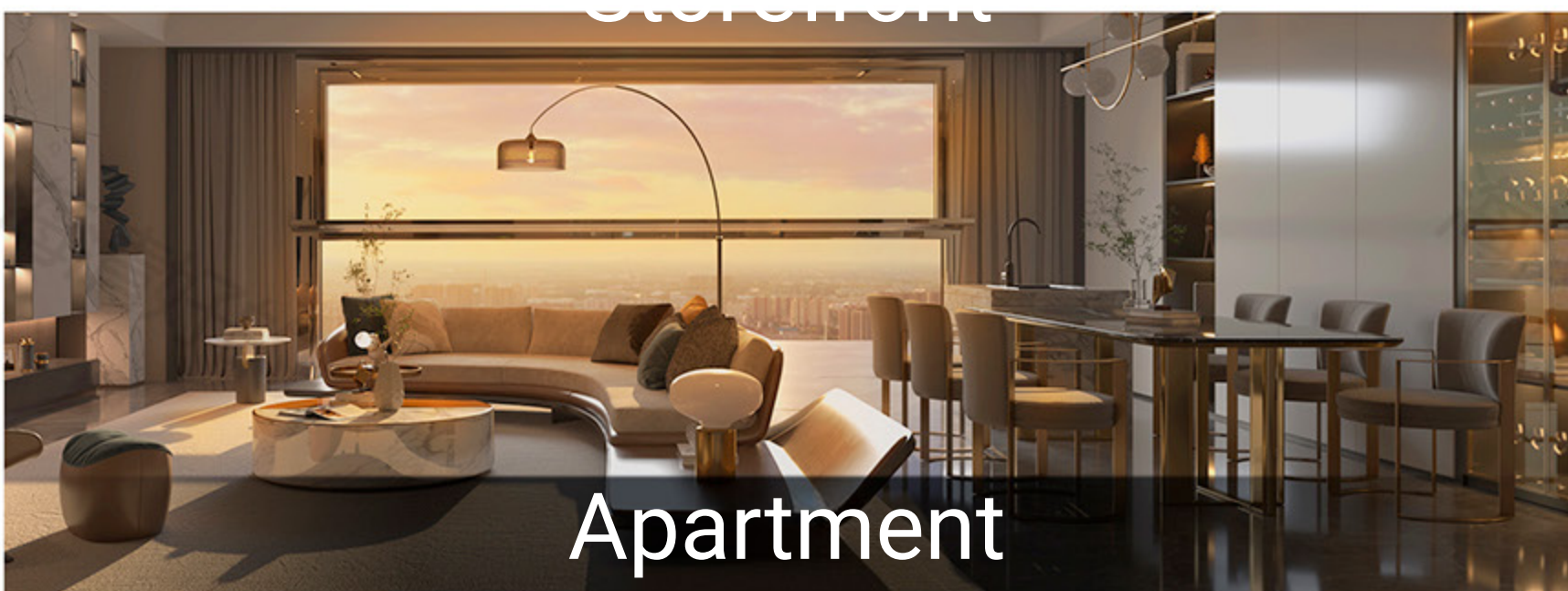
Four Common Colors (Color Customization Available)



Opening Mode	Top-folding (bottom-frame-free option available)
Lifting Component	Patented Balancer
Wall Thickness	1.2-2.0mm
Profile Section Width	43mm
Recommended Area	2.5 m ²



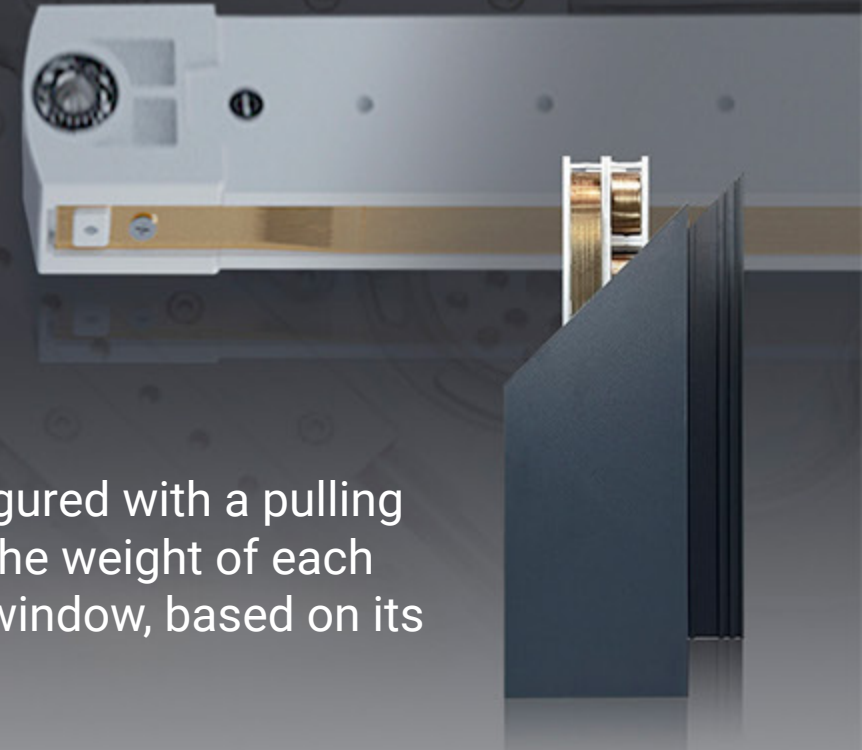
Installation Scenario




YAOXING
ALUMINUM

The Core Technology for Free Hovering **The Balancer**

Composed of multiple closely linked coil springs with independent counterweights.



Precisely configured with a pulling force equal to the weight of each custom lifting window, based on its dimensions.

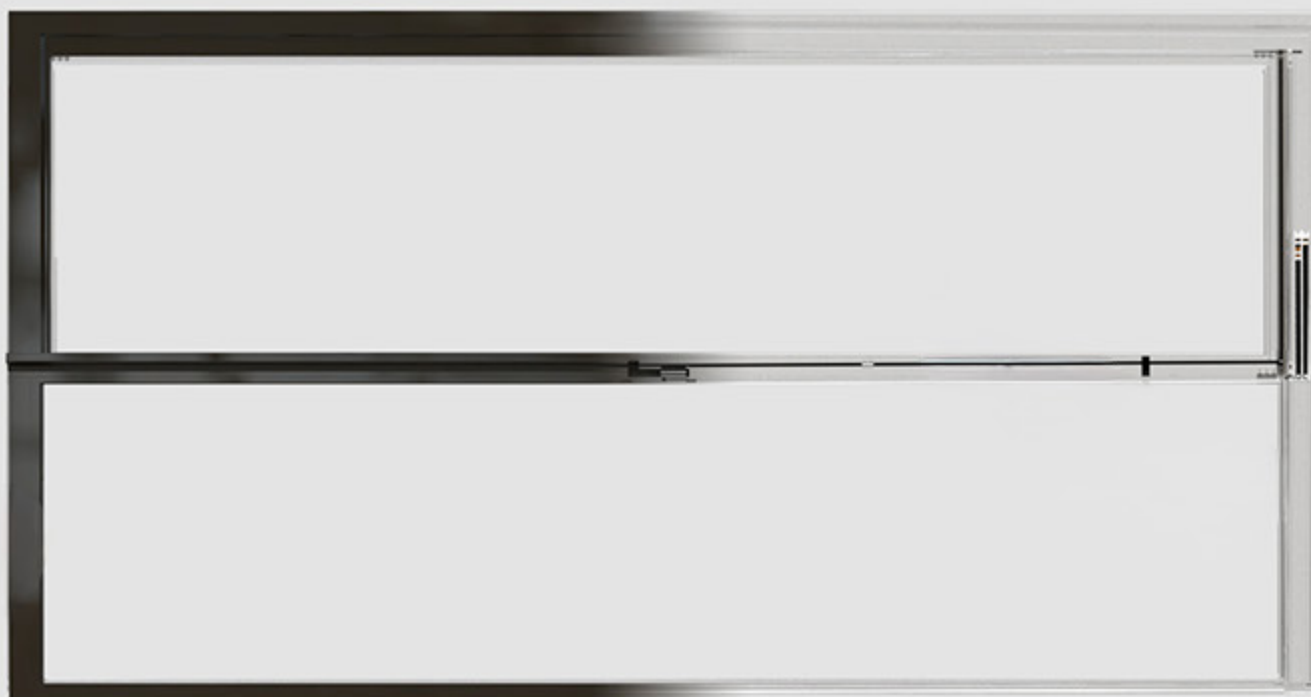
*Not all coil springs are called **balancers***

Working Principle

The pulling force of the coil spring is precisely matched with the counterweight, accurate to the unit digit. Behind each pair of configured balancers is a set of precision-calculated finished products. The window sash is equipped with the balancer, positioned at four corners, and operates smoothly with slight motor drive. The sash remains hovering even in **power outages or drive failures**.

Service Life

Tested by professional equipment, a single coil spring can maintain its stiffness for over **100,000 stretches**. If the window is lifted once daily, the theoretical fatigue life is **27 years**. Stiffness will slightly decrease beyond this period, but pulling force is still retained.



Note: All core components are protected by independent and complete patents. Counterfeiting will be prosecuted.

5th-Generation Polar Quiet Type Patent Electric Motor

24V

Safe Voltage

Complies with China's specified safe voltage standards.

20W

Low-Power Operation

Equivalent to the power of a phone charger for a single apple.

10dB

Ultra-Quiet Decibel

As quiet as the sound of breathing in a quiet room.

Designed Exclusively for Electric Vertically-Opening Windows

Independently developed internal gear set with high-precision processing and special design: the gear train is dedicated to electric vertical window opening, featuring high meshing quality, short stroke, low power consumption, smooth operation, and ultra-quiet performance. It adapts to various extreme environments and has passed multiple up grade tests for stability, meeting the standards of imported motors.



Ultra-Quiet Principle

Adopts imported high-strength material and special manufacturing process, with high-precision internal machining and special tooth profile design. It has excellent wear resistance, low internal friction, and minimal vibration—thus achieving the ideal quiet standard.

Motor Does Not Bear Load When Equipped with Balancer

Based on patented technology, the balancer is precisely matched with the counter weight, enabling the motor to operate stably with low voltage, low power, small current, and light load. The motor does not bear the load, greatly extending its service life; the window sash still remains hovering during power outages.

Synchronized Lifting on Both Sides of the Sash

The gears on both sides of the sash engage for vertical operation. If one side is blocked, the unique double-side horizontal self-adjustment technology ensures the sash always lifts synchronously, avoiding deformation.

Safe & Reliable, Stops on Obstacle Contact

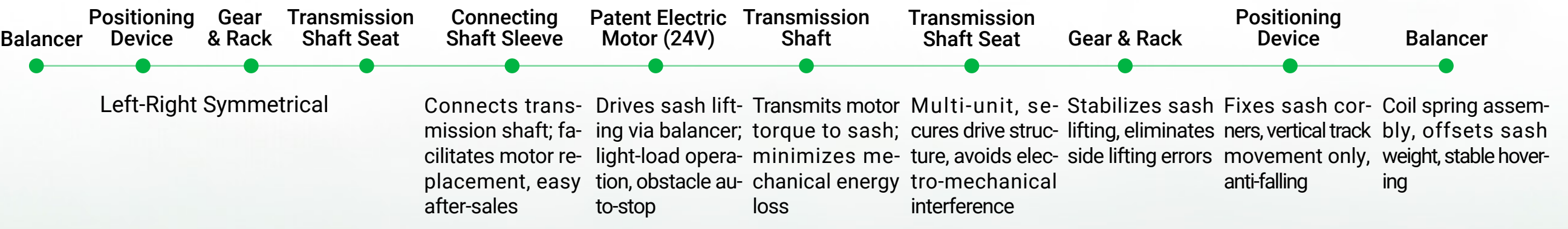
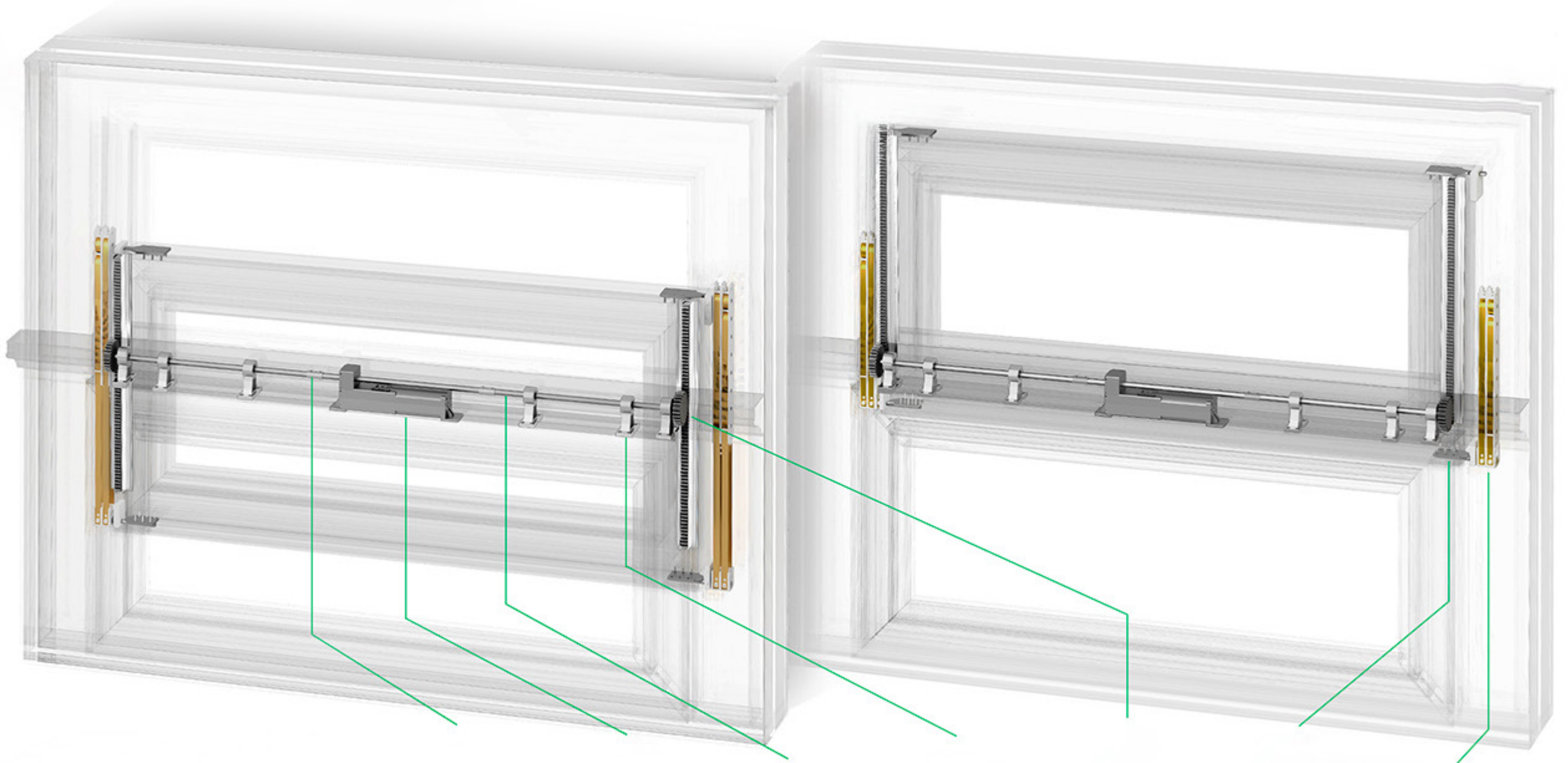
24V safe voltage for human body, low power, small current; stops immediately when encountering obstacles during operation. Equipped with anti-pinch device, providing multiple safety protections.

Easy Maintenance

The motor is designed with a central independent detachable structure, facilitating repair, replacement, and maintenance.

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That's all the transmission structures, that's it

Simple but not-so-simple, all about technology.

