

**BTX Window Automation
Product Specifications
Drapery Systems**

Motorized Drapery Sofia™

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Part 1 – General

1.01 Summary:

- A. Scope
This specification covers the provision of motorized drapery tracks including all systems related support and installation hardware, controls and materials in accordance with the system manufacturer's specifications as specified in locations indicated on the architectural plans.

1.02 RELATED SECTIONS and DOCUMENTS:

- A. Related Sections
1. Section 06100 – Rough carpentry (blocking and support for window shades)
 2. Section 08520 – Aluminum windows
 3. Section 08920 – Glazed aluminum curtain walls
 4. Section 09250 – Gypsum drywalls
 5. Section 09510 – Acoustical ceilings
 6. Section 16000 – Electrical (connections to motor and control systems)
- B. RELATED DOCUMENTS
Drawings and general provisions of the contract, including general and supplementary conditions apply to this section.

1.03 Turnkey responsibility for motorized drapery systems:

- A. To ensure control of responsibility for satisfactory performance and installation of the motorized drapery systems, the design, engineering and installation shall be assigned to a single manufacturer and his authorized dealer/installer.
- B. The base building contractor (main contractor) shall provide and coordinate the following items with the window shade contractor/installer for all window shade systems:
1. Pockets recessed into ceiling
 2. Power wiring
 3. Wire conduits as required
 4. Duplex outlets and J-boxes

1.04 Submittals

- A. Product data: Manufacturer's descriptive product data sheets including performance data, installation instructions, motor and control installation, adjustment and operating instructions.
- B. Shop drawings:
1. Head, jamb and sill details and relevant dimensions of pockets and mounting requirements.
 2. Schematic layout of systems, wiring and control locations.
 3. System schedule reflecting room numbers and window locations/details.
 4. Complete wiring line diagrams for installation and connection by section 16000.

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- C. Samples
 - 1. Hardware samples for material selection and color selection of visible hardware.
- D. Test reports and certificates
 - 1. Provide certificates of proof of UL certification for line voltage motors and components.

1.05 Warranty

- A. Provide BTX standard limited warranty of five (5) years from date of shipment against defects in materials and workmanship of motors and hardware. Electronic and electrical controls are warranted against defects in materials and workmanship for one (1) year from date of shipment from the factory.

1.06 Delivery and storage

- A. Systems shall be delivered to the site in original manufacturer's containers.
- B. Containers shall be uniquely labeled to identify the corresponding window openings and locations.
- C. All materials shall be stored in a dry, secure place protected from weather, water and heat, surface contaminants, construction traffic and all other potential damage.

Part 2 – Products

2.01 Manufacturer:

- A. BTX Window Automation
10763 Sanden Dr.
Dallas, TX 75238
(800) 422-8839

2.02 Components:

- A. Motor shall be synchronous planetary drive with quick-connect coupling for instant attachment to headrail.
 - 1. The 30 watt motor shall be rated for an overall capacity of up to 70 lbs. drapery weight dependent on overall width.
 - 2. The 45 watt motor shall be rated for an overall capacity of up to 140 lbs. drapery weight dependent on overall width.
 - 3. The 60 watt motor shall be rated for an overall capacity of up to 170 lbs. drapery weight dependent on overall width.
 - 4. Tandem systems shall be rated for up to 140 lbs. at 30 watts and up to 240 lbs. at 45 watts dependent on overall width.

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For exact weight capacity, please see manufacturers width/weight capacity chart. Motors shall operate at constant speed regardless of load. Motors shall be either 110v/60Hz or 220v/50Hz and are UL/CUL recognized. Motors shall have shock resistant motor coils and are moisture resistant and fire resistant. Motors shall also have thermal protector for automatic switch off to prevent overheating. Each motor shall be provided with precision planetary gears and internal limit switches protected by security cover. The spring-loaded limit switches shall regulate the automatic switch off upon completion of each running cycle.

- B. Drive Assembly and Return Assembly shall be manufactured from injection molded plastic.
- C. Headrail shall be manufactured from extruded aluminum 1-5/16" in width, 1" in height with .071" wall thickness.
- D. Drive Belt shall be made of Dymetrol®¹ and circulates internally in the headrail to ensure smooth travel even if track is curved. Curves shall be factory made according to template or specification. Overall weight capacity decreases by 15% per curve.
- E. Carriers are wheel mounted, and provided with rotating grommet or stationary wheel carrier for pinch-pleat, ripplefold, or accordiafold as specified.
- F. Wall/Ceiling Brackets shall be made from formed steel with quick release and allow for mounting of system either to wall or ceiling.

2.03 Controls:

- A. BTX Switch shall be used for hardwired control and/or over-ride control;
 - 1. Mini-Rocker
 - 2. Standard Rocker
 - 3. Decorative-style
 - 4. Standard and Custom Switch Plates
- B. BTX UCM control program shall be used for either radio or infrared remote control and/or the ability for RS232 integration. Individual, sub-group, and master group control functions shall be functions that are configurable.
- C. The pluggable switching device to activate the system shall be a BTX MMC integrated control with both radio remote control and low voltage interface/switch controllability.
- D. Multiple systems shall be controlled either individually or by BTX group controllers or automatic controllers including sun sensors and programmable digital timers. Controls can be integrated with home automation, or building management systems.

¹ Dymetrol is a registered trademark of Dymetrol Company, Inc 724 Yorklyn Road, Suite 280 Hockessin, DE 19707-8732

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Part 3 – Execution

3.01 Inspection and Preparation:

- A. Qualified installer shall be responsible for window measurements prior to installation, installation conditions, and preparation of all mounting surfaces.
- B. The power supplied shall be 110v or 220v AC three conductor to the primary switch (hardwire switch, radio or IR receiver unit, or BTX automated controls). Wiring between primary switch and selected control units shall be in accordance with manufacturer's wiring schematics and specifications. All on site wiring shall be provided by the owner.

3.02 Installation:

- A. System installation shall be in accordance with BTX mounting instructions.

3.03 Maintenance:

- A. Traversing system components should not require routine maintenance under normal operating conditions.
- B. For fabric care refer to fabric manufacturer's care and use directions.