Motorized Exterior Screen Systems – SKYCO SKY5F System

Part 1 – General

1.01 Summary:

Scope of work is to provide exterior shades that are operated by BTX / SKYCO motorized lift system along with accessories, attachment hardware, and equipment necessary to complete satisfactory installation.

1.02 Turnkey responsibility for motorized exterior shade systems:

A. To ensure control of responsibility for satisfactory performance and installation of the motorized exterior shade 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. Shade pockets recessed into ceiling
2. Power wiring
3. Wire conduits as required
4. Duplex outlets and J-boxes

1.03 Submittals

A. Manufacturing literature to describe assembly, materials, installation instructions, and specific data. Include any pertinent wiring diagrams.

B. Shop drawings are to include, but are not limited to, all components, fasteners, and installation methods.

C. Shading systems are custom-built based on measurements taken in the field.

1.04 Quality Assurance:

A. Manufacturer's Qualification

1. BTX / SKYCO is the original manufacturer of a unique line of motorized headrail systems, electronic shading devices and controls.

B. A qualified installer or sub-contractor shall perform installation.

C. Installation shall conform to Local and National Building Code and any applicable local standards.

D. Sample system may be provided upon Architect's request and BTX / SKYCO authorization.

1.05 Delivery, Storage, and Handling

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.

1.06 Warranty

A. BTX / SKYCO shall provide five (5) year warranty from the date of shipment on all shade motors. All operating control and electronic accessory components shall carry a one (1) year limited warranty against defects in materials and workmanship.

Part 2 – Products

2.01 Manufacturer:

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

B. Skyco Shading Systems
3411 W Fordham Ave
Santa Ana, CA 92704
(800) 777-5926

2.02 Components:

A. Motorized tubular motors shall be asynchronous 120V/60Hz AC developing 35 NM torque at 20rpm capable of lifting 150 lbs. Motors shall have a fully encapsulated shock resistant motor coil and be moisture resistant and fire resistant. All motors are UL recognized and equipped with a mechanical brake. Motors shall have a thermal protector for automatic switch-off to prevent overheating. Motor includes internal electronic limit switches. Limit switches shall be easily adjustable in either direction by means of wireless control device. Motor shall have built-in electronic control board for operation of 433 MHz RF remote control or via dry contact direct input. Motor shall feature obstacle detection and automatic adjustment to prevent damage to motor and shading assembly.

B. Tube shall be 80mm rolled steel and will feature spline channel for fabric attachment.

C. Motor end cap shall be fixed, flush-mount for motor head to snap in. Snap-in component shall be made of cast aluminum. Idler end cap shall be drop-in powder-coated steel with slotted slide bearing for ease of installation. End cap set shall be made of stamped steel 5” in height will be securely fastened to the upper and lower cassette profiles, forming the shading headbox assembly.

D. Idler insert shall match the tube shape internally. Inserts are made from injection molded plastic.

E. Welded pocket with internal spline is used and for fabric attachment.

F. Adaptor Set allows the motor to drive the tube and shall be manufactured from injection molded plastic.

G. Bottom Bar shall be extruded aluminum and will feature spline channel for fabric attachment by welded pocket with internal spline. Bottom bar will have a ballast channel for steel ballasts to be inserted and distributed throughout bottom bar to ensure uniform weight distribution and operation.

H. Bottom bar end caps shall match bottom bar profile shape for secure attachment. End caps will allow successful insertion to zipper track profile if track option is requested. Bottom bar end caps will be plastic injection molded.

I. Headbox brackets will be available to mount headbox to mounting surface for applicable applications. Headbox mounting bracket will be made of powder coated steel and will feature a hook end for weight support and a counter-sunk set screw for securing the headbox.

J. Zipper Tracks shall be made of two-piece extruded aluminum. Storm Zipper track variation will be available for larger profile track requirements. Zipper Track components will be locked in place with plastic injection molded end caps fixed to the ends of the track. Tracks are universally designed for surface or recess mount.

K. Headbox assembly will be made of a two-piece cassette system, upper and lower cassette profiles. The entire headbox assembly will measure 5” in dimension and will be fixed with screw mounted end caps.

L. Fabric shall be specified by designer/decorator/end-user. Please refer to BTX / SKYCO sample cards for specifics on color selection, parameters/guidelines and attributes.

2.03 Controls:

A. The switching device to activate the system shall be either an RF remote control wall-switch, or via dry contact input. Systems can be controlled individually or as a group. Motors can be integrated into building automation system utilizing BTX / SKYCO wireless RS232 Interface (SmartConnect) or via dry contact input.

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 AC three conductor to the primary switch (hardwire switch, radio, or 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 owner.

3.02 Installation:

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

3.03 Maintenance:

A. Exterior shade system components should not require routine maintenance under normal operating conditions.

B. For fabric care refer to fabric manufacturer's care and use directions.