Coupled Motorized Roller Shade Systems – ULTRA ST50 DC 1

Part 1 – General

1.01 Summary:

Scope of work is to provide roller 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 roller shade systems:

A. To ensure control of responsibility for satisfactory performance and installation of the motorized roller 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. Window 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. ST50 tubular motors shall be asynchronous 120V/60Hz AC rated at 0.95A developing 6 NM torque at 24rpm capable of lifting 50 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 radio control and electronic limit switches. Limit switches shall be easily adjustable in either direction by means of compatible control device. Motor shall have built-in electronic control board for operation of 433 MHz RF remote control or via dry contact direct input. Alternate motor control configurations can include dry contact closure, RS485, and a non-radio hardwire solution. Consult factory for power and control variations.

B. Tube shall be 50mm extruded aluminum.

C. Motor bracket shall be either drop-in with slide bearing for adjustability, or fixed, flush-mount for motor head to snap in. Snap-in component shall be made of cast aluminum. Drop-in bracket shall be made of powder-coated steel and allow for adjustment for ease of installation. Idler bracket shall be drop-in, powder-coated steel with adjustable slide bearing for ease of installation.

D. Coupler bracket shall feature pass through ball bearing slide with adjustability, or non-adjustable variation. Bracket shall be made of powder-coated steel.

E. Idler insert shall match the tube shape internally and is provided with a round steel, retractable spring-loaded shaft for mounting in the bracket. Inserts are made from injection molded plastic.

F. Coupler Assembly shall match the tube shape internally and is provided with a round steel, retractable spring-loaded shaft for mounting in the bracket and radially adjustable fixed coupler pin for easy rotational adjustment. Inserts are made from injection molded plastic.

G. Double-sided tube tape is used and for fabric attachment.

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

I. Bottom Bar shall be extruded aluminum and inserts into pocket in shade fabric to ensure uniform weight distribution and operation.

J. Fascia Panel and Backplate shall be extruded aluminum either 4”, 5”, or 7” in height to enclose motor and roller and give a finished look to the assembly.

K. Fascia Bracket Set shall be made of stamped steel either 4”, 5”, or 7” in height and allow for mounting of shade system with fascia panel either inside, outside, or to the ceiling. A self-lubricated bearing will be attached on the idler side bracket.

L. Side Channels and Sill Channels shall be made of extruded aluminum and prevent light from entering along the edges of the shade for blackout situations. Pile Inserts fit into side channels to further enhance light blocking and reduce wear on shade fabric.

M. Shade Pocket and Pocket Enclosure shall be made of extruded aluminum for optional mounting in recessed ceiling pocket.

N. 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 or wall-switch. Systems can be controlled individually or as a group. Motors can

be integrated into building automation system utilizing wireless RS232 Interface (SmartConnect) or via dry contact input.

B. Alternate motor control configurations can include dry contact closure, RS485, or low-voltage direct wire. Consult factory for power and control variations.

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. Non-radio hardwire motor variation will require four conductor to the primary switch or control device. 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. Roller 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.