

SPECIFIER NOTE:

The purpose of this guide specification is to assist the specifier in correctly specifying roller window shades and their installation. The specifier needs to edit the guide specifications to fit the needs of specific projects. Contact Crestron to assist in appropriate product selections and for detailing assistance. Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. Red text in brackets indicates a selection needs to be made



SECTION 12 24 13

ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Manually operated roller shades.
- B. Motor operated roller shades

1.2 SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.
- B. Shop Drawings: Show fabrication and installation details for roller shades, including fabric.
 - 1. Motor-Operated Shades: Include details of installation [and diagrams for power, signal, and control wiring.]
- C. Samples: For each exposed product and for each color and texture to be utilized
- D. Operation and Maintenance Data: For roller shades.

1.3 QUALITY ASSURANCE

- A. Crestron Shading Systems require installation by a trained and certified specialist, either a trained Crestron Dealer or an authorized shading systems service provider.

1.4 FIELD CONDITIONS

- A. Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.5 WARRANTY

- A. Manufacturer Warranty: Crestron Warrants Digital QMTDC Motors against defects in material or workmanship under normal use for the lifetime of the motor.
- B. Mounting Hardware Warranty: Crestron warrants mounting hardware against defects in material or workmanship under normal use for a period of 5 years.

SPECIFER NOTE:

Shade Fabrics are warranted by the fabric manufacturer and passed through by Crestron to the end user. Warranty periods vary by manufacturer. Confirm desired warranty period is offered by fabric manufacturer.

- C. Fabric Warranty: Shade fabric warranted against defects in material or workmanship for a for a period of [5] [10] years.

PART 2 - PRODUCTS

2.1 ROLLER SHADE BASIS OF DESIGN

- A. Roller Shades by Crestron Electronics Inc. Rockleigh, NJ 800-237-2041 www.crestron.com

2.2 MANUALLY OPERATED SHADES

- A. Chain-and-Clutch Operating Mechanisms: With metal beaded chain and clutch that stops shade movement when chain is released. Chain has adjustable limit stops and spring-loaded jamb/sill mounted chain retainer.
- B. Rollers: aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of fabric indicated without deflection.
 - 1. QMT3 Series: 1.625-inch diameter tube
 - 2. QMT5 Series: 2.5-inch diameter tube
- C. Mounting Hardware: Brackets, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location.

SPECIFER NOTE:

ARCH3 and ARCH5 brackets for surface mounted on wall or ceiling or recessed mounted in a pocket or window jamb. DÉCOR3 and DÉCOR5 brackets are for wall ceiling and jamb mounting where the shade is exposed

- 1. Bracket:
 - a. [CSA- ARCH3 – BRKT QMT3 Series Architectural Shade Hardware]
 - b. [CSA- ARCH5 – BRKT QMT5 Series Architectural Shade Hardware]
 - c. [CSA- DÉCOR3 – BRKT QMT3 Series Decor Shade Hardware]
 - d. [CSA- DÉCOR5 – BRKT QMT5 Series Decor Shade Hardware]

2.3 MOTOR-OPERATED SHADES

- A. Motorized Operating System: Provide factory-assembled, shade-operator, complete with electric motor, operating parts, and accessories required. Coordinate operator wiring requirements and electrical characteristics with building electrical system.
- B. Rollers: Metal tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of fabric indicated without deflection.

SPECIFER NOTE:

The 2.75 inch diameter roller should be selected for wider width shades and also shades that use heavier fabrics.

1. [QMT3 Series: 1.625-inch diameter aluminum tube]
2. [QMT5 Series: [2.5-inch diameter aluminum tube] [2.75-inch diameter steel tube]]

C. Motor

SPECIFER NOTE:

CSM-QMTDC-163-1-CN and QMTDC-163-1-EX are for shades 17.5 inches to 96 inches wide and a maximum of 96 inches in height. The QMTDC-163 motor can be used with the QMT3 Series Architectural or QMT3 Series Décor Mounting Hardware.

CSM-QMTDC-250-4-CN and CSM-QMTDC-250-4-EX is for shades 18 inches to 150 inches wide and a maximum height of 20 feet. The QMTDC-250 motor can be used with QMT5 Series Architectural or QMT5 Series Décor Mounting Hardware.

CSM-QMTDC-275-4-CN and CSM-QMTDC-275-4-EX is for shades 21 inches to 180 inches wide and a maximum height of 20 feet. The QMTDC-275 can be used with QMT5 Series Architectural Mounting Hardware.

All of Crestron's motors are Brushless Direct Current (BLDC) motors

Depending on field conditions wireless motors may be more appropriate for retrofit conditions so that wires are not exposed. Select either a Wired Motor or a Wireless Motor and remove the other options. Where more than one type of motor is required coordinate locations and identify on Drawings.

1. Wired BLDC Motors - 24 Volt - Low voltage power:
 - a. [CSM-QMTDC -163-1-CN: Digital QMT Shade Motor for QMT3 Series 0.75 Nm, CRESNET]
 - b. [CSM-QMTDC - 250-4-CN: Digital QMT Shade Motor for QMT5 Series 4Nm, CRESNET]
 - c. [CSM-QMTDC - 275-4-CN: Digital QMT Shade Motor for QMT5 Series, 4 Nm, CRESNET]
2. Wireless BLDC Motors - 24 Volt - Low voltage power:
 - a. [CSM-QMTDC - 163-1-EX: Digital QMT Shade Motor for QMT3 Series 0.75 Nm, INFINET EX]
 - b. [CSM-QMTDC - 250-4-EX: Digital QMT Shade Motor for QMT5 Series 4Nm, INFINET EX]
 - c. [CSM-QMTDC - 275-4-EX: Digital QMT Shade Motor for QMT5 Series 4Nm, INFINET EX]
3. Motor features include
 - a. Obstacle Detection
 - b. Variable Rotation Speed

D. Power Supply

SPECIFER NOTE:

Select Multiple Motor Power Supply when using any of the Wired Motors, and Dedicated Power Supply option when using a Wireless Motor.

1. [Multiple Motor Power Supply: CSA-PWS-10S-HUB-ENET: 10 Motor Power Supply with Ethernet to CRESNET Bridge and CRESNET Hub]
2. [Dedicated Power Supply: CSA-PWS40 Power Pack for Crestron Shade or Drapery Motors]

E. Control Cable

SPECIFER NOTE:

Control cables are only required for the Wired Motors and should be deleted for wireless motor shades. Select the cable based on Plenum/Non-Plenum applications. Both non-plenum rated cables have a maximum run of 500 feet. The plenum rated Cable has a maximum run of 130 feet.

1. [CRESNET-NP Series Control Cable, Non-Plenum]
2. [CRESNET-HP-NP Series High Power Control Cable, Non-Plenum]
3. [CRESNET-P Series Control Cable, Plenum-Rated.]

F. Processor

1. Crestron Control System

G. Control Interface

SPECIFER NOTE:

Crestron Shades are controlled by the processor which is connected to the control interface. The following are just some of the options that can be used based on the specific needs of the project.

1. [Remote Control]
2. [Keyed Control Station]
3. [Individual Switch Control Station]
4. [Group Control Station]
5. [Sun Sensor]
6. [Timer]
7. [Touch Screen]

H. Mounting Hardware: Brackets, corrosion resistant and compatible with roller assembly, operating mechanism, installation accessories, and mounting location.

1. Bracket:

SPECIFER NOTE:

ARCH3 and ARCH5 brackets for surface mounted on wall or ceiling or recessed mounted in a pocket or window jamb. DÉCOR3 and DÉCOR5 brackets are for wall ceiling and jamb mounting where the shade is exposed. The DUAL option will allow for 2 rollers to be mounted into the racket.

Other Bracket options are available – Contact Crestron for assistance in selecting the correct bracket, and Coupler

- a. [CSA- ARCH3 – BRKT QMT3 Series Architectural Shade Hardware]
 - b. [CSA- ARCH5 – BRKT QMT5 Series Architectural Shade Hardware]
 - c. [CSA- ARCH3 – BRKT DUAL QMT3 Series Architectural Shade Hardware]
 - d. [CSA- ARCH5 – BRKT DUAL QMT3 Series Architectural Shade Hardware]
 - e. [CSA- DÉCOR3 – BRKT QMT3 Series Decor Shade Hardware]
 - f. [CSA- DÉCOR5 – BRKT QMT5 Series Decor Shade Hardware]
2. Roller-Coupling Assemblies:
 - a. CSA-ARCH5-BRKT-CPLR
 - b. CSA-ARCH5 BRKT DUAL-CPLR
 - c. CSA-ARCH5-BRKT-CPLR-ANG
 - d. CSA-DECOR5-BRKT-CPLR

2.4 FABRIC

SPECIFER NOTE:

Refer to Website or Crestron Representative for assistance. Color listed below is a representative sample of the information to include in the project specific document.

- A. Fabric Material:
 - 1. Fabric Resource
 - a. Color: [List selected color and pattern]
 - 2. Hartmann & Forbes Artisanal Shading Textiles
 - a. Color: [List selected color and pattern]

SPECIFER NOTE:

SELECT the desired Hem Bar Aesthetic for each type of shade. Not all fabrics are capable of incorporating a Sealed Pocket Hem Bar. Confirm availability.

- 3. Shade Hem Bar
 - a. [Open Pocket Hem Bar]
 - b. [Open Pocket Hem Bar with end caps]
 - c. [Sealed Pocket Hem Bar]
 - d. [Exposed Blackout Hem Bar]
 - 1) Color: [White] [Black] [Gray] [Brown] [Almond]

SPECIFER NOTE:

Wool Pile is optional on Exposed Black out Hem Bars; remove or select the pile color.

- 2) [Wool Pile: [White] [Black]]

2.5 ACCESSORIES

SPECIFER NOTE:

Include only the accessory components that are appropriate for the specific project. If more than one type of installation is used, coordinate the related accessories.

Fascia may be used for both an inside mount and outside mount but is not needed if the shade is pocket mounted

Fascia is used with ARCH brackets only and should be deleted when DÉCOR brackets are used.

- 1. Fascia: Aluminum extrusion that conceals front and part of the bottom of roller and operating mechanism and attaches without exposed fasteners.
 - a. Shape: [Square] [Round]
 - b. Height: Based on Bracket Type
 - c. Color: [White] [Black] [Gray] [Brown] [Almond]

SPECIFER NOTE:

Top and Back Cover may be used for inside and outside mount but is not needed if the shade is pocket mounted

- 2. Top / Back Cover: Aluminum extrusion that conceals top and back of roller and operating mechanism.
 - a. Standard Color: [White] [Black] [Gray] [Brown] [Almond]

SPECIFER NOTE:

End caps may be used for outside mount but are not needed if the shade is inside or pocket mounted. Standard Colors are available for all motors, additional options are only available for DÉCOR motors

3. Endcap Covers: Plastic cap that conceals exposed endcaps.
 - a. Standard Color: [White] [Black] [Gray] [Brown] [Almond]
 - b. Additional Color Options (DÉCOR only): [Brushed Chrome] [Antique Bronze] [Nickel]

SPECIFER NOTE:

Pocket should be used for recessed installations and Pocket with Lip should be used when adjacent ceiling is acoustical ceiling panels. Dual Roll Series 5 shades require a different pocket for recessed applications select item 5 below and delete item 4.

4. Pocket [with lip]: Rectangular, one-piece aluminum extrusion for recessed single and dual roller Series 3 installations and recessed single roller Series 5 installations
 - a. [Pocket with lip at lower edge to support acoustical ceiling panel.]
 - b. [Pocket Flap]
 - c. [Pocket Flap with Tile Lip]
 - d. Color: [White] [Black] [Gray] [Brown] [Almond]
5. Pocket [with lip]: Bent sheet metal for recessed 5 Series Dual Roller installations.
 - a. [Provide pocket with lip at lower edge to support acoustical ceiling panel.]
 - b. [Pocket Flap]
 - c. [Pocket Flap with Tile Lip]
 - d. Color: [White] [Black]
6. Blackout Accessories
 - a. QMT U-Channel for jambs: [2-1/2] [1-1/2] inch width with top and bottom end caps [with wool pile]
 - b. QMT H-Channel for joining 2 shades: 5-inch-wide [with wool pile]
 - c. Sill Angle

2.6 ROLLER SHADE FABRICATION

- A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows:
 1. [Between Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/16 inch per side or 1/8-inch total. Length equal to head-to-sill or - floor dimension of opening in which shade is installed, plus or minus 1/8 inch.]
 2. [Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.]
- C. Shade Fabric and Textile Fabrication: Fabricate shades without battens or seams to extent possible, except as follows:
 1. Railroaded Materials: Railroad material where material roll width is less than the required width of fabric.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, [locations of connections to building electrical system,] and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 ROLLER SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.
- B. Electrical Connections: Connect motor-operated roller shades to Crestron power supply.

3.3 ADJUSTING

- A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.4 CLEANING AND PROTECTION

- A. Clean roller shade surfaces, after installation, according to manufacturer's written instructions.
- B. Protect shades after installation and prior to project Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired.

END OF SECTION

DISCLAIMER:

This Specification has been written as an aid to the professionally qualified Specifier and Design Professional. The use of this Guide requires the sole professional judgment and expertise of the qualified Specifier and Design Professional to adapt the information to the specific needs for the Building Owner and the Project, to coordinate with their Construction Document Process and to meet all applicable building codes, regulations and laws. CRESTRON EXPRESSLY DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OF THIS PRODUCT FOR THE PROJECT.