

**SECTION .....**

\* NOTE TO SPECIFIER \* [Architect or engineer will give you information]

**ROLLER WINDOW SHADES  
EXTERNAL VENETIAN BLINDS  
SOMFY J4 1TN MOTOR**

\* NOTE TO SPECIFIER \* J4 1TN is a range of motors, only take the appropriate reference within this range for your project specification.]

**Disclaimer for advice given to architects and engineers**

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Part 1 – General

**1.01 Sections Includes:**

- A. Electrically operated External Venetian Blinds
- B. Local group and master control system for shade operation.
- C. Whole Building Shade Management System: Automated Solar Tracking Control System Computer Shade Control System

\* NOTE TO SPECIFIER \* [Delete items above not required for project]

**1.02 Related sections:**

\* NOTE TO SPECIFIER \* [section information is given by the architect/engineering]

- A. Section [08 81 00 – GLAZING]
- B. Section [12 24 13 - ROLLER WINDOW SHADES]
- C. Section [26 09 23.00 40 – LIGHTING CONTROL DEVICES]
- D. Section [26 60 13.00 40 – LOW VOLTAGE MOTORS]

**1.03 Description:**

A. Work included:

\* NOTE TO SPECIFIER \* [EXAMPLE: ]

Provide motorized shade operation systems designed for lifting shades of type, size, weight, construction, use, and operation frequency indicated. Provide operation systems of size and capacity and with features, characteristics, and accessories suitable for Project conditions and recommended by motors manufacturer.

B. Power:

\* NOTE TO SPECIFIER \* [EXAMPLE / Torque information to be adapted according to the motor specified: ]

The selected motor with needed X Nm Torque should provide not less than 20% safety factor and should be approved by the Manufacturer of the Motor.

Every motor should have a label showing its Torque in Nm, Speed in RPM, Voltage, Frequency, Watt Consumption, Electrical Insulation Class, Protection Index, Thermal Overload Protection Duty Cycle, No Interference Symbol and Country of Origin.

**1.04 Related work:**

Coordinate the work with that of other Trade Contractors to ensure proper execution of the work of both trades. Examine Contract Documents for requirements that directly affect or are affected by Work of this Section.

**1.05 Submittals:**

A. General:

The specified motor should be able to deal with the applications as External Venetian Blinds.

\* NOTE TO SPECIFIER \* [Delete items above not required for project]

B. Product Official Technical Data sheets:

\* NOTE TO SPECIFIER \* [ Please contact Somfy for official documentation ]

C. System components:



\* NOTE TO SPECIFIER \* [ Connect to the Customer Service Department in your country for details and please put the text according to the system that you will use with J4 1TN]

## V1

## D. System Dimensions:

Shade min. width =..... mm

\* NOTE TO SPECIFIER \* [ To be adapted according to the end product chosen – To be worked with the manufacturer according to the accessories used ]

## E. Shop Drawings:

\* NOTE TO SPECIFIER \* [ In case relevant, please provide the following elements ]

Plans, elevations, sections, product details, installation details, operational clearances, wiring diagrams and relationship to adjacent work

## F. Window System:

\* NOTE TO SPECIFIER \* [ Pay special attention to the following information to fill this part ]

Check that height and weight can be handled by the motor with the different applications.

Check the potential limitations linked to the end product.

Verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operable glazed units' operation hardware throughout the entire operating range. Notify Architect of discrepancies. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

## G. Installation and Operating instructions manuals

\* NOTE TO SPECIFIER \* [ Please contact Somfy for official documentation ]

## H. Sample and Mock up:

If required by the architect, a sample or a mock up can be provided. The External Venetian Blind mock up has for objective to evaluate mounting, appearance, accessories and functioning.

\* NOTE TO SPECIFIER \* [ A mock up is not mandatory. Add this part only if required by the architect. The way this part is written is just an example, please add any relevant information. ]

## I. Manufacturer Certificate:

For each type of product indicated. Include manufacturer's specifications and installation instructions, styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions.

## 1.06 Quality Insurance :

A. Products shall be manufactured to meet or exceed all SOMFY quality standards as stipulated in the Quality Control Manual, issued by SOMFY.

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

C. Installation shall conform to Local / National Building Codes or any applicable local standard

D. Sample or Mock up may be provided and installed upon Architect's request

E. Electrical Components and Accessories: Listed as defined by a testing agency (i.e. SASO) acceptable to authorities having jurisdiction, and marked for intended use.

\* NOTE TO SPECIFIER \* [ Part E is only required for Saudi Arabia ]

## 1.07 Standards (CE /UR) :

\* NOTE TO SPECIFIER \* [ No need to put all the standards on this section, only select or add the ones which are required on your market, please make a local check ]

## A. European conformity:

a. CE conformity (Range 230V/50Hz) :

J4 1TN motor range is in conformity with the following European directives:

- o Low voltage directive 2006/95/EC dated 2006/12/12
- o Electromagnetic compatibility 2004/108/EC dated 2004/12/15

The following reference standards were applied to assess the conformity with respect of the above-mentioned European Directives:

\* NOTE TO SPECIFIER \* [ Please select references according to the right motor torque ]

- o EN 60335-2-97 : 2006 - Household and similar electrical appliances - Safety -- Part 2-97 : Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment
- o EN 55014-2 :1997 + A1 : 2001 + A2 : 2008 - Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus -- Part 2: Immunity - Product family standard
- o EN 55014-1 : 2006 - Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus -- Part 1: Emission

A condition is that it is used in the manner for which it is intended and in accordance with the specifications and instructions of the assembler. It is also required to conform with the existing standards.

**b. ROHS compliance:**

- o J4 1TN complies with RoHS Directive, 2002/95/EC: Restriction of the use of certain hazardous substances in electrical and electronic equipment

**1.08 Delivery, storage and Handling:**

- A. Product (motors) shall be delivered to the shading system manufacturer (OEM) in original packaging, for integration in end products.
- B. The shading System shall be delivered to the project site in manufacturer's packaging; the end-product manufacturer has to provide a packaging which secures the quality of the shading system.  
\* NOTE TO SPECIFIER \* [ Please refer to local customer service department]
- C. The shading system shall be handled and stored to prevent damage to materials, finishes and operating mechanisms.
- D. The shading system shall be stored under normal room temperature range **(-30°C to +80°C)**  
\* NOTE TO SPECIFIER \* [ Please refer to local customer service department]
- E. Before installation, check if the end product is compatible with the associated equipment and accessories.
- F. Product must be installed by a professional motorization and home automation installer.

**1.09 Warranty standards:**

- A. Motors are warranted by SOMFY to be free from defects and workmanship for a period of 5 years.
- B. Any use outside the sphere of application specified by Somfy is not approved. Such use, or any failure to comply with the instructions will invalidate the warranty, and Somfy refuses to accept liability.

\* NOTE TO SPECIFIER \* [ If spare parts are required add the following paragraph ]

Spare Parts: Provide spare parts, special tools and replacement components recommended by the manufacturer to be delivered and stored at the site for ready access. These are items which can reasonably be anticipated to require early or routine replacement during the first two years of operation of the facilities.

a. Quantity of spares for each item shall be 2 percent, or where items are in small numbers, a minimum of 2 and as acceptable to the Engineer.

Critical Spare Parts: Provide the necessary critical spare parts for systems for one failure event. These critical spare parts are defined as spares which if not immediately available could significantly delay the reinstatement of a critical system and therefore stop the facility from operating normally. The items and quantities shall be proposed by the system suppliers on the basis of their knowledge and understanding of the systems and the following guidelines:

a. Criticality of the component to the continued safe and normal operation of the system and severity of any potential disruption.

b. The EWL (Estimated Working Life).

c. Anticipated frequency of failure.

e. A list of alternative parts in case of the non-availability or discontinuity of the original spare parts.

**Part 2 – Products****2.01 Manufacturer:****A. Manufacturer:**

**J4 1TN** motors are manufactured by:

SOMFY SAS - 50 rue du Nouveau Monde - 74300 CLUSES - FRANCE

Tel: 0033 450 967 060 - <http://www.somfy.com>

**B. System:**

**J4 1TN**

\* NOTE TO SPECIFIER \* [ If more than the motor and/or controls are specified, please mention the other products specified]

**C. Alternates:**

Equal approved by architect/engineer.

**2.02 Motor Unit:****A. Functionalities / benefits**

\* NOTE TO SPECIFIER \* [ Please indicates the specific arguments relative to the project]

- o The easiest and less expansive External Venetian Blind actuator in the Somfy range
- o Safety stop (snow between slats, etc...) via a mushroom
- o The shortest motor available on the market
- o Easy integration and fast connection (plug and play) with Hirschmann plugs
- o No end limits settings

**B. Geared Motor:**

Torque = **6/10/18 Nm**

Speed = **24 rpm**

Running time = **6 mn**

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified – Refer to Datasheets that can be downloaded from SOMFY Products & Surveys database ]

Motor is equipped with a thermal protection

**C. Power Supply:**

**230V / 50Hz**, current draw from **0.4 A to 0.7 A** for a power from **95 W to 155 W**.

**J4 1TN** motor range is class **1 (3 wires + earth, 0.75 mm<sup>2</sup> section)**.

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified – Refer to Datasheets that can be downloaded from SOMFY Products & Surveys database ]

**D. Limit Switch:**

No mechanical settings:

- Bottom end-limit already set in factory
- Upper end-limit setting with a mushroom (accessory for height adjustment)

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified – Refer to Datasheets that can be downloaded from SOMFY Products & Surveys database ]

**E. Accuracy**

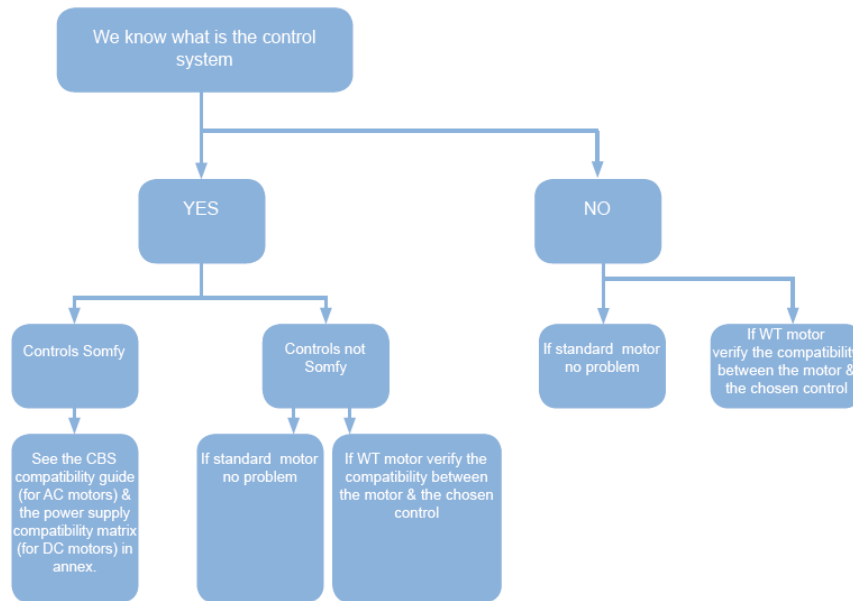
For the extreme positions, J4 1TN is in conformity with EN 14202 standard.

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified – Refer to Datasheets that can be downloaded from SOMFY Products & Surveys database ]

**F. Operating Mode:**

Motorized shades shall be controlled by centrally-controlled units or room management system, as required.

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified. See the diagram below for compatibility information]



**G. Motor Unit Fixing:**

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified – See example for asynchronous motors below. ]

The motor shall be asynchronous and concealed inside an extruded aluminum or steel headrail with internal or external clips to which the blind and the shaft adaptors are affixed. All motors shall be wired to a local junction box; which will then be wired to control units per manufacturer's published electrical details.

**H. Wires and cables:**

Power cord is supplied with free termination wires or specific plug.

**2.03 Control Accessories to be supplied:**

- A.** Local or Group Control:
- B.** Automatic Control:
- C.** Control operation mode:
- D.** Multi-Level Control:

\* NOTE TO SPECIFIER \* [ To be adapted according to the project and the motor selected for the project ]

**2.04 Brackets:**

\* NOTE TO SPECIFIER \* [ To be adapted according to the project and the end product specified for the project. The brackets have to be secured by the responsible assembler. Connect to the Customer Service Department in your country for details]

**2.05 Motor Installation and Settings:**

\* NOTE TO SPECIFIER \* [ To be adapted according to the motor specified – See example for asynchronous motors below. ]

Example:

The motor shall be asynchronous and concealed inside an extruded aluminum or steel headrail. All motors shall be wired to a local junction box; which will then be wired to control units per manufacturer's published electrical details. Every Wired Motor should be supplied with the adequate accessories, to fit exactly in the Selected Headrail without any tolerances. The Basic required Accessories are: shaft adaptors, cable, acoustic tapes, mushroom and internal or external headrail adapters.

Shaft adaptors: Made of steel, they are screwed on the motor shaft. Its role is to connect the motor shaft to the carrier product shaft and to variators.

Cable: It will be wired to the motor.

Acoustic tapes: Made of felt, it permits to reduce noise due to the contact between headrail adapters and motor.

Mushroom: Made of plastic, this component detects the up end limit of the carrier product.

Internal or external headrail adapters: It maintains the motor inside the headrail

**Part 3 – Execution**

**3.01 Examination**

- A. Refuse delivery of any damaged packaging.
- B. Ensure all parts specified in the purchase order have been delivered

**3.02 Installation:**

- A. Motors have to be installed, connected and set in accordance with SOMFY instructions and in compliance with federal, state or local regulation.
- B. Installation contractor is responsible for site measurements and suitability of mounting surface.
- C. Adequate clearance has to be provided to permit unencumbered operation of the entire system.

**3.03 Use:**

- A. This motor can only be used under normal utilization temperature: from **-10°C to +40°C** in normal use and from **-20°C to +70°C** in exceptional use (20% of the life time not continuously).

**3.04 Maintenance:**

- A. The installer has to inform his customers of the operating and maintenance conditions for the product.
- B. This motor should not require routine maintenance under normal utilization

----- END OF SECTION -----