ABB JA/M 2.24.1

User Manual: ABB Jalousie Actuator Module

Brand: ABB

Model: JA/M 2.24.1 (2CDG110004R0011)

1. Product Overview

The ABB JA/M 2.24.1 is a 2-channel Jalousie Actuator Module designed for controlling blinds, shutters, or similar sun protection devices. This module operates on 24VDC and is intended for integration into building automation systems, providing precise control over two independent channels. It is a robust and reliable component for modern smart building installations.



Figure 1: Front view of an ABB Jalousie Actuator Module. Please note that the image displays model JA/M 2.230.1 with 250V~ specifications, which is illustrative. The product covered by this manual is model JA/M 2.24.1, operating on 24VDC. Refer to the specifications section for accurate details of your specific model. The image shows the main body, terminal blocks for wiring, and labels for input/output connections.

2. Safety Instructions

WARNING: Installation and maintenance must only be performed by a qualified electrician in accordance with national wiring regulations and local authority requirements. Failure to follow these instructions can result in electric shock, fire, or serious injury.

- Always disconnect power before installing, servicing, or removing the device.
- Ensure proper grounding of the system.
- Do not expose the device to moisture, extreme temperatures, or corrosive environments.
- Verify all connections are secure and correct before applying power.
- This device is designed for indoor use only.

3. Setup and Installation

3.1 Mounting

The ABB JA/M 2.24.1 module is designed for DIN rail mounting (EN 60715). Ensure sufficient space for ventilation and wiring. Mount the module vertically in a control cabinet or distribution board.

1. Securely attach the DIN rail to a stable surface.
2. Hook the top edge of the module onto the DIN rail.
3. Press the bottom edge of the module firmly until it clicks into place on the DIN rail.

3.2 Wiring

Refer to the wiring diagram on the device and in this manual for correct connections. The module features two independent channels (Channel A and Channel B) for controlling two separate blind/shutter motors. Each channel requires Line (L), Neutral (N), and Earth (PE) connections for the motor power, and control signals from the bus system.

- **Power Supply (24VDC):** Connect the 24VDC power supply to the designated terminals.
- **Bus Connection:** Connect the ABB i-bus® (KNX) communication line to the bus terminals. Ensure correct polarity.
- **Motor Connections:** For each channel, connect the motor's 'Up' and 'Down' control wires to the corresponding output terminals (e.g., 1 and 2 for Channel A, 5 and 6 for Channel B). Connect the motor's neutral and earth wires to the respective N and PE terminals.
- **Terminal Torque:** Ensure all screw terminals are tightened to the recommended torque (typically 0.5 Nm) to prevent loose connections.

Note: The specific terminal numbering and layout are visible on the device itself (refer to Figure 1 for an illustrative example). Always follow the markings on your specific JA/M 2.24.1 module.

4. Operating Instructions

The ABB JA/M 2.24.1 module is controlled via the ABB i-bus® (KNX) system. Operation is typically managed through a central control unit, wall switches, or a building management system that sends commands over the bus.

4.1 Basic Functions

- **Up/Down Movement:** Commands sent via the bus system initiate the upward or downward movement of the connected blinds/shutters.
- **Stop Function:** A stop command halts the movement at any desired position.

- **Positioning:** Advanced systems can send commands for precise positioning (e.g., 50% open).
- **Slat Adjustment:** If supported by the motor and system, slat adjustment commands can be sent for venetian blinds.

4.2 Configuration and Commissioning

Initial configuration and commissioning of the module are performed using ETS (Engineering Tool Software) by a certified KNX installer. This process involves assigning physical addresses, setting parameters for motor travel times, end positions, and linking the module to control elements within the KNX system.

For detailed configuration, refer to the specific ETS application manual for the JA/M 2.24.1 module, available from ABB.

5. Maintenance

The ABB JA/M 2.24.1 module is designed for maintenance-free operation. No user-serviceable parts are inside. Regular maintenance is generally not required beyond ensuring proper environmental conditions.

- **Cleaning:** If necessary, gently wipe the exterior of the module with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure power is disconnected before cleaning.
- **Inspection:** Periodically inspect the wiring connections for any signs of loosening or damage. Address any issues promptly.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent damage.

6. Troubleshooting

If the module is not functioning as expected, consider the following troubleshooting steps:

1. **No Response from Module:**
    - Check the 24VDC power supply to the module.
    - Verify the KNX bus connection and polarity.
    - Check the status LED (if present) on the module. Refer to the product datasheet for LED indicator meanings.
    - Ensure the module has been correctly addressed and configured in ETS.
2. **Motor Not Moving / Incorrect Movement:**
    - Verify the motor wiring connections (Up, Down, Neutral, Earth).
    - Check if the motor itself is functional by testing it independently if possible.
    - Confirm that the motor travel times and end positions are correctly configured in ETS.
    - Ensure the correct type of motor (e.g., 24VDC) is connected and compatible with the module.
3. **Module Overheating:**
    - Ensure adequate ventilation around the module in the control cabinet.
    - Verify that the connected load (motor current) does not exceed the module's specifications.

If issues persist after following these steps, contact a qualified electrician or ABB technical support. Do not attempt to open or repair the module yourself.

7. Technical Specifications

Attribute	Value
Manufacturer	ABB
Model Number	JA/M 2.24.1
Product Dimensions (L x W x H)	8.5 x 57.5 x 9 cm
Weight	180 grams
Voltage	24 Volts DC
Number of Items	1
Batteries Included	No
Batteries Required	No
ASIN	B001BC3OHW
Date First Available on Amazon.com.be	12 August 2022

Specifications are subject to change without notice. Always refer to the latest product datasheet from ABB for the most accurate and up-to-date information.

8. Warranty and Support

Specific warranty details for the ABB JA/M 2.24.1 module are not provided in this document. For warranty information, technical support, and service, please refer to the official ABB website or contact your authorized ABB distributor.

ABB Official Website: www.abb.com

Always ensure you are consulting official ABB resources for support and warranty claims.

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