Acogedor Acogedorfwdr30mkc7

Acogedor 400W AC 220V Motor Speed Controller Instruction Manual

Model: Acogedorfwdr30mkc7

1. Product Overview

The Acogedor 400W AC 220V Motor Speed Controller is designed for precise speed regulation of AC motors. It features a wide speed control range and is built with durable electronic components for reliable performance in various industrial applications.

- Suitable for AC220V 50/60HZ motors.
- Speed regulation range: 90-1400r/min (50HZ) and 90-1700r/min (60HZ).
- Ideal for packaging, printing, food processing, electronics, instrumentation, medical equipment, and clothing industry production lines.
- Constructed with electronic circuits and integrated components for enhanced durability.
- Compact size, high precision, wide speed controlling range, and extended service life.

2. Product Components

Familiarize yourself with the main components of the motor speed controller:

Figure 2.1: Front Panel Layout. This image displays the front panel of the speed controller, highlighting the power indicator, speed control knob, switch button, and mounting holes.

Figure 2.2: Controller with 6-Pin Connector. This image shows the speed controller along with its detachable 6-pin connector, which is used for motor wiring.

Figure 2.3: Rear Panel Wiring Terminals. The rear panel features terminals for power input (AC220V), ground (FG), and motor direction control (COM, CW, CCW).

Figure 2.4: Internal Wiring Diagram. This diagram illustrates the internal connections for the speed control unit and the motor, showing main, capacitor, feedback, and ground lines.

3. Specifications

Feature	Specification
Power Supply	AC 220V, 50/60Hz
Rated Power	400W
Speed Regulation Range (50Hz)	90-1400 r/min
Speed Regulation Range (60Hz)	90-1700 r/min
Environmental Temperature	-10°C to +50°C
Relative Humidity	<90%
Product Dimensions	3.94 x 1.97 x 1.97 inches
Item Weight	9.9 ounces

Model Number	Acogedorfwdr30mkc7

4. Installation and Wiring

Proper installation and wiring are crucial for safe and effective operation. Always ensure the power is off before making any connections.

4.1 Wiring Diagram

Figure 4.1: Product Wiring Diagram. This diagram shows the connections between the speed controller, electric motor, and power supply. The main line, capacitor lines, feedback lines, and ground wire are indicated.

The controller has 6 wires for connection:

- **Red wire:** Main motor power wire.
- **Green and White wires:** Capacitor secondary wires.
- **Two Blue wires:** Speed control feedback wires.
- **Yellow wire:** Ground wire.

4.2 Connection Procedure

1. **Power Off:** Ensure the power supply is completely disconnected before beginning any wiring.
2. **Connect Wires:** Connect the motor and power supply to the controller according to the wiring diagram (Figure 4.1). Verify all connections are secure and correct.
3. **Mount Controller:** Securely fix the controller in its intended location using the mounting holes.
4. **Set Speed to Zero:** Before applying power, turn the speed control knob to the lowest position ("0") to prevent sudden high current and potential damage upon startup.

4.3 Motor Direction Control

The motor's running direction can be changed by adjusting the jumper lines on the back of the controller. **Always ensure the motor has completely stopped before changing direction.**

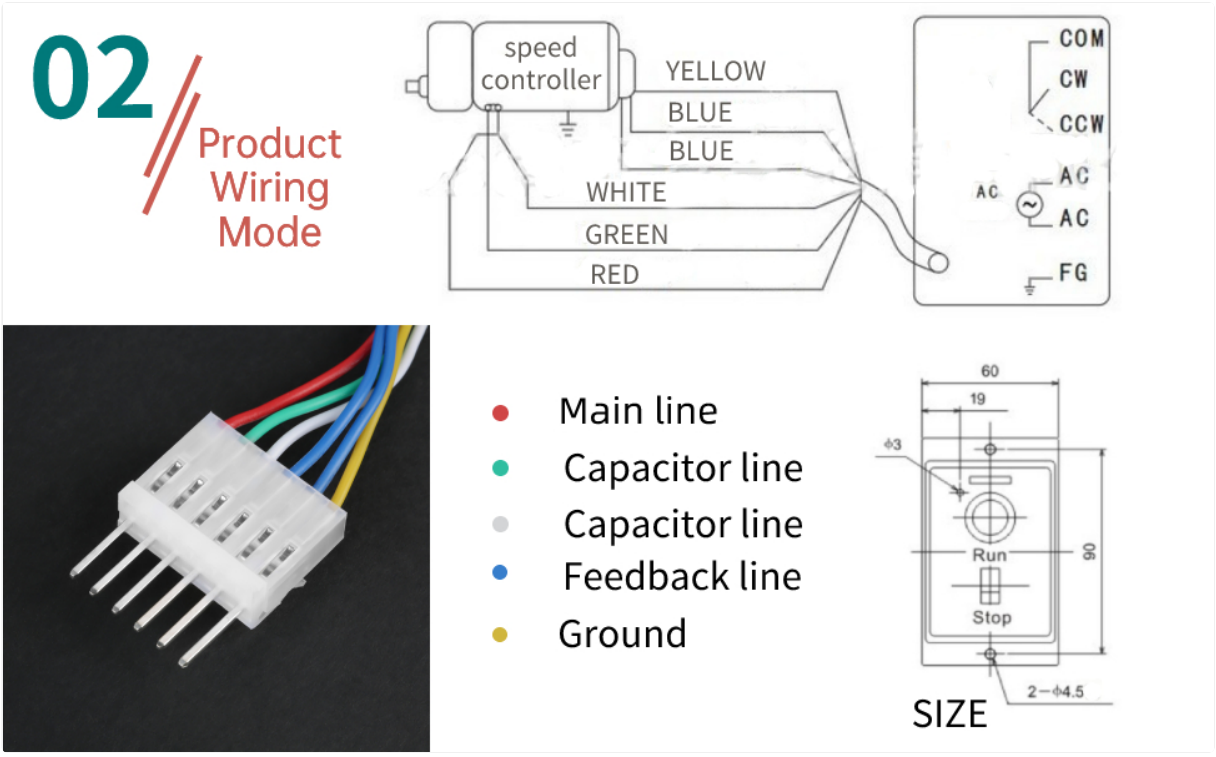

Figure 4.2: Motor Direction Jumper Settings. This image illustrates how to configure the COM, CW, and CCW terminals for clockwise (forward) and counter-clockwise (reverse) motor rotation.

- To rotate the motor **clockwise (forward)**: Short-circuit the COM and CW terminals.
- To rotate the motor **counter-clockwise (reverse)**: Short-circuit the COM and CCW terminals.

Warning: Do not change the direction until the motor has stopped running completely to prevent damage to the motor or controller.

4.4 Installation Video Guide

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Video 4.1: Acogedor 400W AC 220V Motor Speed Controller Overview. This video provides a visual guide to the product and its basic functionality, demonstrating key features and potential applications.

5. Operation

1. **Power On:** After ensuring all connections are correct and the speed knob is at "0", turn on the main power supply.
2. **Adjust Speed:** Slowly rotate the speed control knob clockwise to increase the motor speed to the desired position. Rotate counter-clockwise to decrease speed.
3. **Fine-Tuning:** If the motor's torque or speed does not meet requirements, adjust the fine-tuning potentiometer located on the side of the controller. This potentiometer allows for precise calibration of the speed setting.
4. **Stop Motor:** To stop the motor, use the switch button on the front panel. This switch controls the motor's action but does not interrupt the main power supply.
5. **Power Off:** When the controller is not needed for an extended period, turn off the main power supply.

6. Safety Information and Precautions

- Always disconnect power before performing any wiring, maintenance, or inspection.
- Ensure all wiring is correct and secure to prevent electrical hazards. Do not modify the wiring arbitrarily.

- Set the speed knob to "0" before powering on to avoid sudden high current surges.
- Do not change the motor direction while the motor is running. Wait for it to stop completely.
- This product uses generator feedback voltage control. Ensure the motor is compatible with this control method.
- The action switch only controls motor operation; it does not cut off power. Always turn off the main power supply for complete disconnection.
- Operate the controller within the specified environmental temperature and humidity ranges.
- If the "VOID IF SEAL IS BROKEN" sticker is damaged, the warranty may be void.

7. Maintenance and Troubleshooting

7.1 Maintenance

The Acogedor Motor Speed Controller is designed for durability with integrated components. Regular maintenance is generally limited to:

- Keeping the unit clean and free from dust and debris.
- Periodically checking all electrical connections for tightness and signs of wear.
- Ensuring adequate ventilation around the controller to prevent overheating.

7.2 Troubleshooting

- **Motor not starting:**
  - Check if the main power supply is on.
  - Verify all wiring connections are correct and secure according to the diagram.
  - Ensure the speed control knob is not at "0" and the switch button is in the "RUN" position.
- **Incorrect speed or torque:**
  - Adjust the fine-tuning potentiometer on the side of the controller.
  - Confirm the motor is compatible with the controller's specifications (AC220V, 400W).
- **Motor direction issue:**
  - Check the jumper settings for COM, CW, and CCW terminals on the back of the controller.
  - Ensure the motor was fully stopped before attempting to change direction.
- **Controller not responding:**
  - Turn off power, wait a few minutes, then restart.
  - Inspect for any visible damage or burnt components. If found, discontinue use and contact support.

8. Warranty and Support

For warranty information or technical support, please refer to the documentation included with your purchase or contact Acogedor customer service. Keep your purchase receipt for warranty claims.

Note: Any unauthorized tampering or removal of the "VOID IF SEAL IS BROKEN" sticker may void the product warranty.