

ACROTOR RECS-240P

ACROTOR RECS-240P Intelligent Electronic Centrifugal Switch User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the ACROTOR RECS-240P Intelligent Electronic Centrifugal Switch. Please read this manual thoroughly before using the product and retain it for future reference. Proper understanding and adherence to these instructions will ensure optimal performance and longevity of the device.

2. PRODUCT OVERVIEW

The ACROTOR RECS-240P is an intelligent electronic centrifugal switch designed for use with oil pump motors and capacitor starters in applications such as air compressors. It functions as a single-phase motor starter centrifugal switch, managing the starting and running phases of the motor by controlling the capacitor circuit. This device is rated for 230VAC, 50/60Hz operation with a maximum current of 120A for 3 seconds.



Figure 2.1: Front view of the ACROTOR RECS-240P Intelligent Electronic Centrifugal Switch, clearly showing the product label with model number and specifications.

3. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product and associated equipment:

- **Electrical Hazard:** This device operates with high voltage (230VAC). Ensure power is disconnected before installation, inspection, or maintenance.
- **Qualified Personnel:** Installation and wiring should only be performed by a qualified electrician or trained personnel familiar with electrical systems and safety standards.
- **Proper Grounding:** Ensure all connected equipment is properly grounded according to local electrical codes.
- **Environmental Conditions:** Do not expose the device to moisture, extreme temperatures outside its specified range (0-70°C), or corrosive environments.
- **Overload Protection:** Ensure appropriate circuit breakers or fuses are installed upstream to protect against overcurrent conditions.
- **Secure Connections:** All electrical connections must be tight and secure to prevent arcing or overheating.

4. SETUP AND INSTALLATION

The RECS-240P is designed for integration into existing motor control circuits. Due to the specialized nature of this component and the high voltages involved, professional installation is strongly recommended.

4.1 Pre-Installation Checks

- Verify that the motor's power requirements (2000-4300W) and voltage (230VAC, 50/60Hz) are compatible with the RECS-240P.
- Ensure the installation environment is within the specified temperature range (0-70°C) and free from excessive dust or moisture.
- Disconnect all power to the motor and associated circuits before beginning installation.

4.2 Wiring Instructions

The RECS-240P features multiple colored wires for connection. While specific wiring diagrams depend on the motor and capacitor configuration, the general function of the wires is as follows:

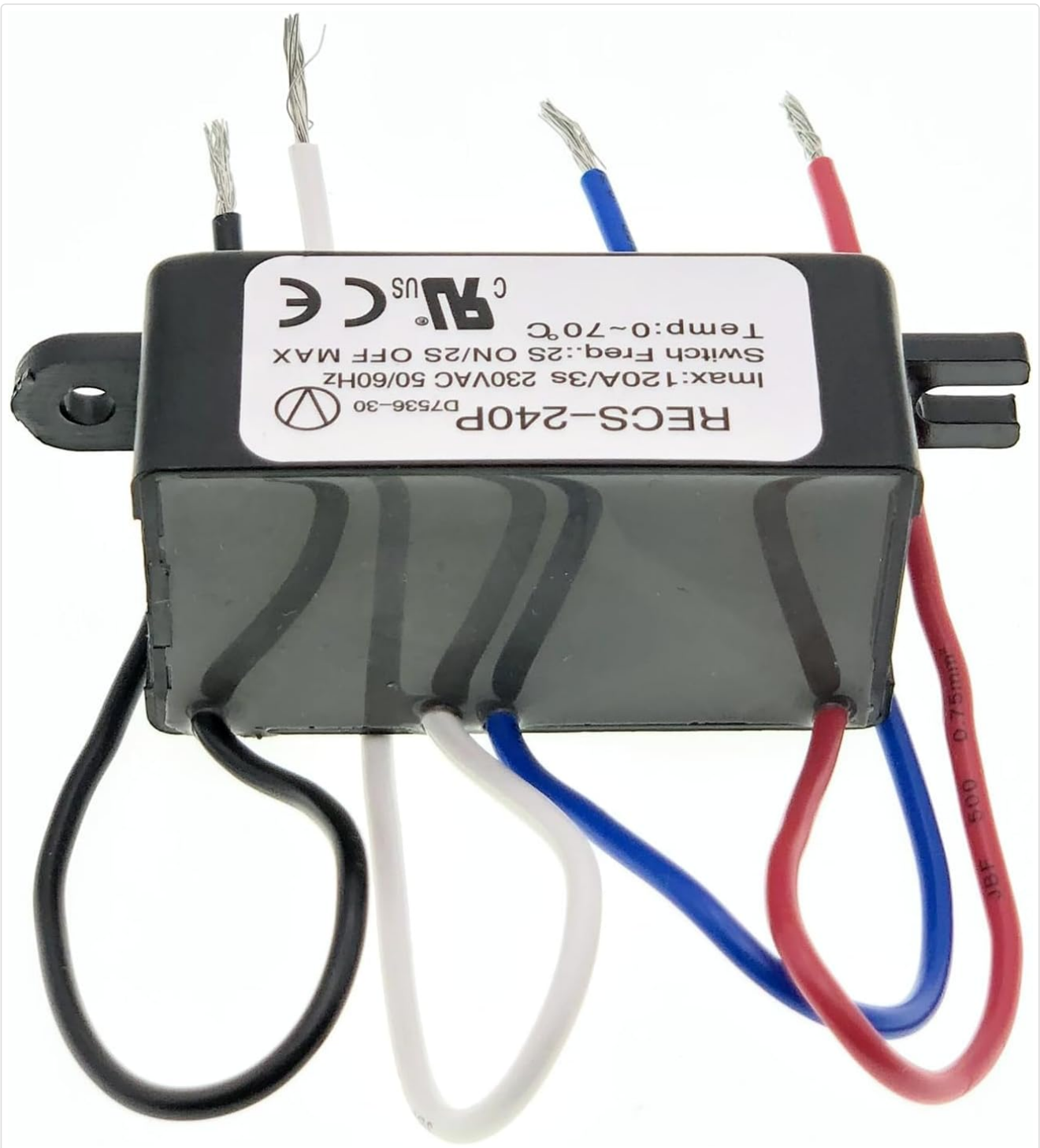


Figure 4.1: Top view of the RECS-240P, showing the four colored wires extending from the unit.

- **Red Wire:** Typically connects to the main power input or a specific motor winding.

- **Black Wire:** Often serves as a common or neutral connection, or another main power input.
- **White Wire:** Commonly used for capacitor connection or a specific auxiliary winding.
- **Blue Wire:** Often used for capacitor connection or another auxiliary winding.

Important: Refer to the specific wiring diagram provided with your motor and capacitor starter for precise connection points. If no diagram is available, consult a qualified electrician to ensure correct and safe installation.



Figure 4.2: Angled view of the RECS-240P, illustrating the wire connections and overall compact design.

4.3 Post-Installation Checks

- Double-check all wiring connections for tightness and correctness.
- Ensure the device is securely mounted and not subject to excessive vibration.
- Restore power and observe the motor's starting and running behavior.

5. OPERATING INSTRUCTIONS

The ACROTOR RECS-240P is an intelligent electronic switch designed for automatic operation. Once correctly installed and wired, it will automatically manage the motor's starting sequence.

- Upon power application to the motor, the RECS-240P engages the starting capacitor circuit to provide the necessary torque for motor startup.
- Once the motor reaches a predetermined speed (typically 75-80% of synchronous speed), the RECS-240P automatically disengages the starting capacitor circuit, allowing the motor to run on its main windings.
- The switch frequency is rated at 2 seconds ON / 2 seconds OFF maximum, indicating its rapid response capability during motor startup cycles.

No user intervention is required for the operation of the centrifugal switch itself after proper installation.

6. MAINTENANCE

The RECS-240P is designed for minimal maintenance. Regular inspection is recommended to ensure continued reliable operation.

- **Visual Inspection:** Periodically inspect the device and its wiring for any signs of physical damage, discoloration, loose connections, or excessive dust accumulation.
- **Cleaning:** If necessary, gently clean the exterior of the device with a dry, soft cloth. Do not use liquid cleaners or solvents. Ensure power is disconnected before cleaning.
- **Environmental Check:** Confirm that the operating environment remains within the specified temperature and humidity limits.

If any issues are observed during maintenance, refer to the Troubleshooting section or contact customer support.

7. TROUBLESHOOTING

If the motor is not starting or operating correctly, consider the following troubleshooting steps:

- **Motor Fails to Start:**
 - Check if power is supplied to the motor circuit.
 - Verify all wiring connections to the RECS-240P and the motor are secure and correct.
 - Inspect the starting capacitor for damage or failure.
 - Ensure the motor itself is not seized or overloaded.
- **Motor Starts but Does Not Reach Full Speed or Overheats:**
 - This could indicate the centrifugal switch is not disengaging the starting capacitor circuit.
 - Check for proper voltage supply.
 - Ensure the motor's load is within its rated capacity.
- **Device Appears Damaged:**
 - If there are visible signs of burning, melting, or physical damage, the unit may need replacement.

For complex issues or if troubleshooting steps do not resolve the problem, consult a qualified technician or contact customer support.

8. SPECIFICATIONS

Parameter	Value
Model Number	RECS-240P
Suitable Motor Power	2000-4300W
Maximum Current (Imax)	120A/3s
Operating Voltage	230VAC
Frequency	50/60Hz

Switch Frequency	2S ON / 2S OFF MAX
Operating Temperature	0-70°C
Item Weight	3.52 ounces
Product Dimensions	2.16 x 1.18 x 0.87 inches
Material	Copper

9. WARRANTY AND SUPPORT

ACROTOR offers an unlimited return and refund service for 365 days from the date of purchase. If you encounter any issues or have questions regarding the RECS-240P Intelligent Electronic Centrifugal Switch, please do not hesitate to contact our customer support team.

We are committed to providing timely assistance and will reply to your queries within 12 hours on working days.

For support, please refer to the contact information provided with your purchase or visit the ACROTOR official website.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

