Packard TOC7.5

Packard 370 Volt Oval Run Capacitor 7.5 MFD

Model: TOC7.5

1. Product Overview

The Packard 370 Volt Oval Run Capacitor 7.5 MFD (Model TOC7.5) is an essential electrical component designed for use in various motor applications, primarily air conditioning units and other HVAC systems. This capacitor helps to start and continuously run electric motors by providing a phase shift to the motor's auxiliary winding, ensuring efficient and reliable operation. It is an oval-shaped capacitor with a capacitance of 7.5 microfarads (MFD) and is rated for 370 Volts AC.

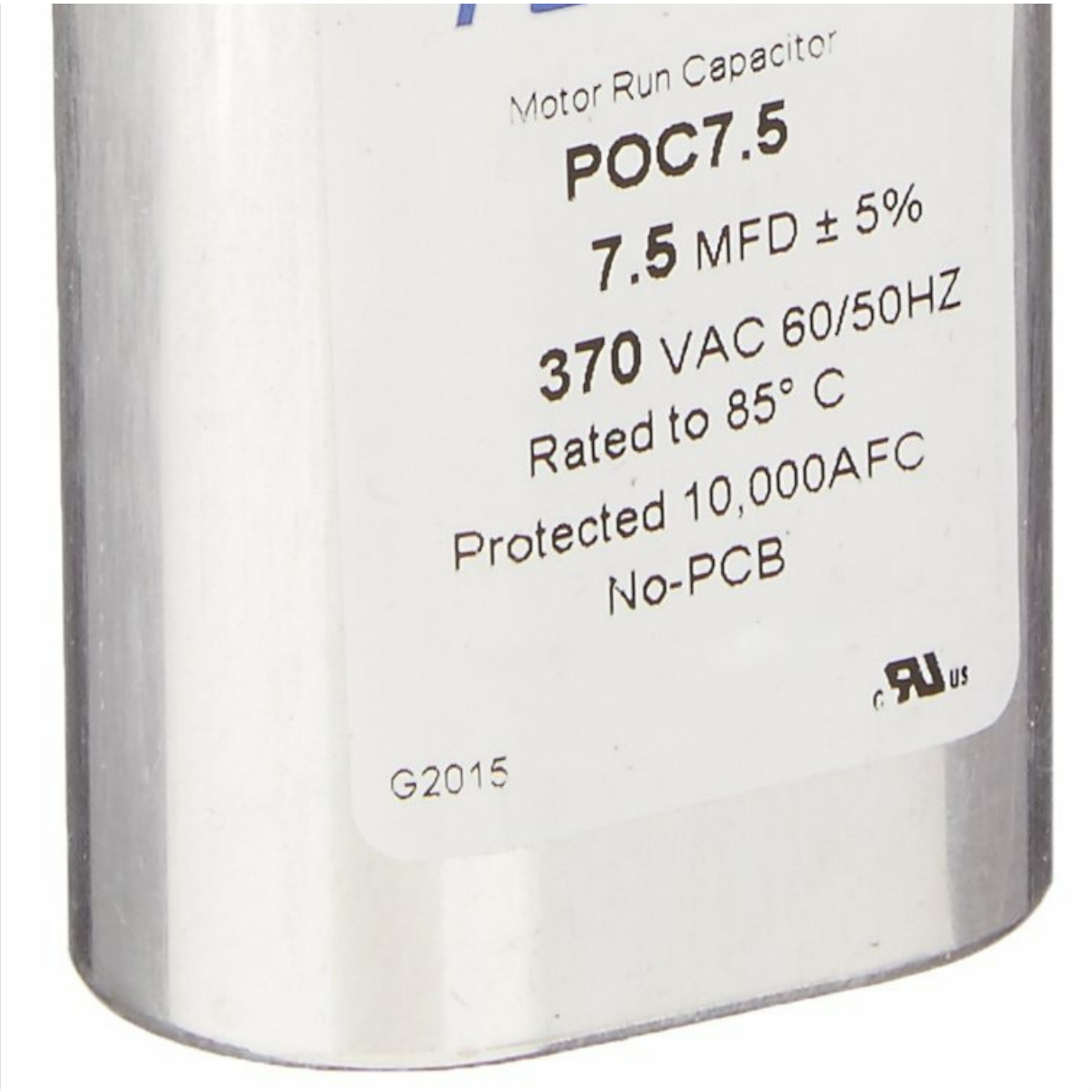

Image 1.1: The Packard 370 Volt Oval Run Capacitor 7.5 MFD. This image displays the silver oval-shaped capacitor with two sets of spade terminals on top. The product label is visible, showing 'Packard', 'Motor Run Capacitor', 'POC7.5', '7.5 MFD ± 5%', '370 VAC 60/50HZ', 'Rated to 85° C', 'Protected 10,000AFC', and 'No-PCB'.

2. Safety Information

WARNING: Electrical shock hazard. Capacitors can store a high voltage charge even after power is disconnected. Always discharge the capacitor before handling.

- Always disconnect power to the appliance or system before attempting any installation, maintenance, or troubleshooting.
- Use appropriate personal protective equipment (PPE), including insulated gloves and safety glasses.
- Never touch the terminals of a capacitor without first verifying it is fully discharged.
- If you are not comfortable working with electrical components, consult a qualified HVAC technician or electrician.
- Ensure proper wiring connections to prevent short circuits or damage to the system.
- Do not use this capacitor for applications exceeding its specified voltage or capacitance ratings.

3. Setup and Installation

This section outlines the general procedure for replacing a run capacitor. Specific wiring diagrams for your appliance should always be consulted.

1. **Disconnect Power:** Locate the circuit breaker or disconnect switch for the appliance (e.g., air conditioner unit) and turn off all power. Verify power is off using a voltage tester.
2. **Access Capacitor:** Open the access panel on your appliance to locate the existing run capacitor. Note its position and how it is mounted.
3. **Discharge Old Capacitor:** Using a screwdriver with an insulated handle, short the terminals of the old capacitor. Be cautious, as a spark may occur. Alternatively, use a resistor designed for capacitor discharge. Repeat for all terminals if it's a multi-terminal capacitor.
4. **Note Wiring:** Carefully observe and note the wiring connections to the old capacitor. It is highly recommended to take a photograph of the wiring before disconnecting any wires. Capacitors typically have terminals for HERM (compressor), FAN (fan motor), and C (common).
5. **Remove Old Capacitor:** Disconnect all wires from the old capacitor and remove it from its mounting bracket.
6. **Install New Capacitor:** Mount the new Packard TOC7.5 capacitor in the same location as the old one. Connect the wires to the corresponding terminals on the new capacitor, ensuring they match the connections noted in the previous step.
7. **Secure and Close:** Ensure all connections are secure. Close the access panel of the appliance.
8. **Restore Power:** Turn the power back on at the circuit breaker or disconnect switch.
9. **Test Operation:** Start the appliance and verify that the motor (compressor or fan) operates correctly.

4. Operating Principle

The Packard 370 Volt Oval Run Capacitor 7.5 MFD is a passive electrical component that does not require direct user operation. Its function is integral to the operation of single-phase AC induction motors. It works by storing electrical energy and releasing it to create a phase shift in the current supplied to the motor's start winding. This phase shift generates a rotating magnetic field, which is necessary to initiate and maintain the motor's rotation. Once the motor is running, the capacitor continues to provide the necessary phase shift to the auxiliary winding, ensuring continuous and efficient operation.

5. Maintenance

Run capacitors are generally sealed units and do not require routine maintenance. However, periodic visual inspection can help identify potential issues before they lead to system failure.

- **Visual Inspection:** During routine appliance maintenance (e.g., annual HVAC check-up), visually inspect the capacitor for any signs of damage. Look for bulging, swelling, leaks, or discoloration on the capacitor casing. These are indicators of a failing capacitor.
- **Cleanliness:** Ensure the area around the capacitor is free from dust, dirt, and debris, which can contribute to overheating.
- **Professional Check:** If you suspect a capacitor issue, it is recommended to have a qualified technician test the capacitor's capacitance using a multimeter with a capacitance function.

Note: Always disconnect power and discharge the capacitor before performing any inspection or testing.

6. Troubleshooting

A failing run capacitor can cause various symptoms in an appliance's motor. Here are common issues and their potential relation to the capacitor:

Symptom	Possible Cause (Capacitor Related)	Action
Motor hums but does not start	Failed or weak run capacitor.	Replace capacitor.
Motor starts slowly or struggles to reach full speed	Weak or degraded run capacitor.	Replace capacitor.
Motor overheats	Capacitor not providing sufficient phase shift, causing motor to draw excessive current.	Replace capacitor.
Appliance trips circuit breaker frequently	Short-circuited capacitor or motor drawing too much current due to capacitor failure.	Inspect and replace capacitor.
Visible bulging or leaking from capacitor	Internal failure of the capacitor.	Immediately replace capacitor.

If troubleshooting these issues does not resolve the problem, or if you are unsure about the cause, it is recommended to contact a qualified service technician.

7. Specifications

Attribute	Value
Brand	Packard
Model Number	TOC7.5 (also labeled POC7.5)
Capacitance	7.5 MFD (Microfarads) ± 5%
Voltage Rating	370 VAC
Frequency	60/50 HZ
Temperature Rating	Rated to 85° C
Protection	Protected 10,000AFC (Amps Fault Current)
PCB Content	No-PCB
Product Dimensions	1 x 3 x 4 inches
Item Weight	3.2 ounces
ASIN	B00164SNAS
Date First Available	March 17, 2008

8. Warranty Information

Specific warranty terms for the Packard 370 Volt Oval Run Capacitor 7.5 MFD are typically provided by the retailer or the manufacturer at the time of purchase. Please refer to your purchase documentation or contact

the seller directly for detailed warranty information and claims procedures.

9. Customer Support

For technical assistance, installation guidance, or troubleshooting beyond the scope of this manual, it is recommended to contact a qualified HVAC technician or electrician. For product-specific inquiries, you may also reach out to the manufacturer, Packard, through their official website or customer service channels.