

## Ducati 416171064

# Ducati Permanent Capacitor 6.3 MF 450V for Washing Machine - Model 416171064

## 1. INTRODUCTION

This instruction manual provides essential information for the safe and correct handling, installation, and understanding of the Ducati Permanent Capacitor, model 416171064. This component is designed for use in washing machines and other compatible appliances to facilitate motor starting and continuous operation.

## 2. SAFETY INFORMATION

**WARNING:** Electrical components can be dangerous. Improper installation or handling can result in electric shock, injury, or damage to the appliance. Always observe the following safety precautions:

- **Professional Installation Recommended:** Installation should only be performed by a qualified technician or electrician.
- **Disconnect Power:** Always ensure the appliance is completely disconnected from the main power supply before attempting any installation, repair, or maintenance.
- **Discharge Capacitor:** Capacitors can store electrical charge even after power is disconnected. Always discharge the capacitor safely before handling. Consult a professional if unsure.
- **Wear Protective Gear:** Use insulated tools and wear appropriate personal protective equipment (PPE), such as safety glasses and insulated gloves.
- **Verify Compatibility:** Ensure this capacitor is the correct replacement part for your specific appliance model. Refer to the compatibility section of this manual.

## 3. PRODUCT OVERVIEW

The Ducati Permanent Capacitor (Model 416171064) is a critical electrical component used in various household appliances, particularly washing machines. Its primary function is to provide the necessary phase shift for the motor's auxiliary winding, enabling efficient starting and continuous operation. This capacitor is a sealed unit, designed for reliability and long service life under specified operating conditions.



*Image showing the Ducati Permanent Capacitor, model 416171064. The capacitor is cylindrical with two terminals, designed for motor starting applications in washing machines.*

## 4. SPECIFICATIONS

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**Model:** 416171064

**Manufacturer:** Ducati

**Capacity:** 6.3  $\mu\text{F}$  (Microfarads)

**Voltage Rating:** 400/450 V (Volts)

**Technology:** Permanent (Starting) Capacitor

**Housing Shape:** Radial (Upright)

**Length:** 55 mm

**Diameter:** 32 mm

**ROHS Compliant:** Yes

## 5. SETUP AND INSTALLATION

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Installation of this capacitor requires electrical knowledge and should be performed by a qualified

technician. The following steps are general guidelines and do not replace specific instructions for your appliance model.

1. **Power Disconnection:** Ensure the appliance is unplugged from the wall outlet.
2. **Access the Capacitor:** Locate and access the existing capacitor within the appliance, typically near the motor. This may involve removing panels or covers.
3. **Discharge Old Capacitor:** Safely discharge the old capacitor using an appropriate tool (e.g., a resistor with insulated leads).
4. **Note Wiring:** Carefully note or photograph the wiring connections to the old capacitor before disconnecting.
5. **Remove Old Capacitor:** Disconnect the wires and remove the old capacitor from its mounting.
6. **Install New Capacitor:** Mount the new Ducati capacitor in the same location and connect the wires exactly as they were on the old capacitor. Ensure connections are secure.
7. **Reassemble:** Replace any removed panels or covers.
8. **Test:** Plug the appliance back into the power supply and test its function. Observe for any unusual noises or operation.

If you are unsure about any step, consult a professional appliance repair technician.

## 6. OPERATING PRINCIPLE

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The permanent capacitor, also known as a run capacitor, is connected in series with the auxiliary winding of an AC induction motor. Its function is to create a phase shift between the current in the main winding and the auxiliary winding. This phase shift generates a rotating magnetic field, which is essential for the motor to start and run efficiently. Unlike start capacitors, permanent capacitors remain in the circuit during the entire operation of the motor, contributing to its overall performance and power factor correction.

## 7. MAINTENANCE

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The Ducati Permanent Capacitor is a sealed, maintenance-free component. No user-serviceable parts are inside. Regular inspection of the capacitor for signs of physical damage, bulging, or leakage is recommended during any appliance servicing. If any such signs are observed, the capacitor should be replaced by a qualified technician.

## 8. TROUBLESHOOTING

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A faulty capacitor can lead to various issues in an appliance. If your washing machine or compatible appliance exhibits the following symptoms, the capacitor may need replacement:

- **Motor Fails to Start:** The motor hums but does not spin, or struggles to start.
- **Slow or Weak Motor Performance:** The motor runs slower than usual or lacks power.
- **Overheating Motor:** The motor becomes excessively hot during operation.
- **Unusual Noises:** Clicking or buzzing sounds from the motor area.
- **Visible Damage:** The capacitor itself appears swollen, leaking, or burnt.

If you suspect a capacitor failure, it is recommended to have it diagnosed and replaced by a qualified technician.

## 9. COMPATIBILITY

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This Ducati Permanent Capacitor (Model 416171064) is compatible with various washing machines and appliances from the following brands and models. Always verify the exact model number of your appliance before purchasing and installing.

### Compatible Brands:

- DUCATI
- FAR
- SCHOLTES
- INDESIT
- ARISTON
- PHILCO
- SAUTER
- BEST AIRLUX
- HOTPOINT
- AIRLUX
- BROAN

### Example Compatible Models:

- **DUCATI:** C3656, SHG88XF1, S 54 K SP, SD 560 D, S 92 C EL, S 95 C EL, SCD 600, SCD 600 EL, S 90 C SK, SCD 600 SK, AFG5001W, 94264067100
- **FAR:** F7450
- **SCHOLTES:** F370, HTL 76 AN - F022168, HTL 76 IX - F022170, HTL 76 WH - F022169
- **INDESIT:** TA 5 (FR) - F031582, T 5 - F032244, T 5 (TK) - F031581, T 5 FNF (TK) - F031697, EL96RLX/1, LS312DE, LS312FI, LS312FR, LS312IE, LS312IT, LS312KW, LS312NL, LS312ZA, LS612FI, LS612GB - CCLS612GB, LS612IT, MLS612IT
- **ARISTON:** MBA 4832 NF (FR) - F031117, MTB 4712 NF (FR) - F030985, MBA 4831 NF (FR) - F031116, MTB 4711 NF (FR) - F030984, MTB 4011 NF (TK) - F027283, MTB 4053 NF (TK) - F027285, MTB 4058 NF (TK) - F027284, MTB 4059 NF (TK) - F027614, MTB 4511 NF (FR) - F030243, MTB 4511 NF (GR) - F029349, MTB 4511 NF (TK) - F027286, MTB 4511 TK - F027282, MTB 4557 NF (TK) - F027615, MTB 4558 NF (TK) - F027287, MTB 4559 NF (TK) - F027616, MBA 4533 NF - F029855, MBA 45D2 NFE T - F030344, MBA 4531 NF - F029854, MBA 4531 NF T - F030345, MBA 4531 NFE - F029938, BDCM45FFIX, EL92RLX - 04756, MTB4057TK
- **PHILCO:** CDN600
- **SAUTER:** SHD781XF11
- **BEST AIRLUX:** KASC181 - 67600546
- **HOTPOINT:** MT4053NFTK
- **AIRLUX:** AHR97IX
- **BROAN:** HG65I

For a comprehensive list or to confirm compatibility, please contact the seller or manufacturer with your appliance's full model number.

## 10. WARRANTY AND SUPPORT

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Specific warranty information for this component may vary depending on the point of purchase and regional

regulations. Please retain your proof of purchase for any warranty claims.

For technical support, compatibility inquiries, or warranty service, please contact the retailer from whom you purchased this product or refer to the official Ducati website for customer service contact information.

*Note: Information regarding spare parts availability is not provided in the product data.*