

RE22P-2DK.3F.5R

RE22P-2DK.3F.5R Ziehl-abegg Centrifugal Fan User Manual

Model: RE22P-2DK.3F.5R | Brand: Ziehl-abegg

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Ziehl-abegg RE22P-2DK.3F.5R centrifugal fan. This fan is designed for cooling applications, particularly for servo motors, and is suitable for various industrial environments requiring ventilation and heat dissipation.

2. SAFETY INFORMATION

Always adhere to local and national safety regulations. Failure to follow these instructions may result in property damage, serious injury, or death.

- **Electrical Safety:** Ensure power is disconnected before installation, maintenance, or troubleshooting. Only qualified personnel should perform electrical connections.
- **Mechanical Safety:** Keep hands, tools, and loose clothing away from moving parts during operation. The fan blades can cause severe injury.
- **Environmental Conditions:** Do not operate the fan outside its specified operating temperature range (-20°C to +60°C) or in environments with excessive moisture or corrosive substances unless specifically designed for such conditions. The protection class is IP54.
- **Proper Handling:** Handle the fan with care to avoid damage to the housing, motor, or impeller.

3. PRODUCT OVERVIEW

The RE22P-2DK.3F.5R is a robust centrifugal fan featuring a durable metal construction and a ball bearing type for reliable performance. It is designed for efficient air movement in demanding industrial applications.



Captain Fan

Figure 3.1: Front view of the fan assembly, highlighting the impeller design.



Figure 3.2: Detail of the motor's specification plate, indicating electrical parameters.



Captain Fan

Figure 3.3: Side profile of the fan, illustrating its compact design.



Figure 3.4: Angled view, providing a better perspective of the fan's dimensions and mounting features.

4. SETUP AND INSTALLATION

Proper installation is crucial for the fan's performance and longevity. Ensure the mounting surface is stable and capable of supporting the fan's weight and operational vibrations.

4.1 Mounting

1. Identify suitable mounting points on the servo motor or cooling enclosure.
2. Secure the fan using appropriate fasteners (not included) through the designated mounting holes on the fan's frame. Ensure the fan is mounted securely to prevent vibration and noise.
3. Ensure adequate clearance around the fan for proper airflow and heat dissipation.

4.2 Electrical Connection

The RE22P-2DK.3F.5R fan operates on 400VAC, 3-phase power. Refer to the wiring diagram on the motor's terminal box for correct connections. Incorrect wiring can damage the fan or connected equipment.

- Verify the power supply voltage matches the fan's requirements (400VAC).
- Connect the three phase lines (L1, L2, L3) and ground (PE) to the corresponding terminals.

- Ensure all connections are tight and insulated to prevent short circuits.
- Install appropriate overcurrent protection devices as per local electrical codes.

5. OPERATING INSTRUCTIONS

Once installed and wired correctly, the fan is ready for operation. The fan is designed for continuous duty within its specified parameters.

- **Initial Start-up:** After installation, perform a visual inspection to ensure no obstructions are present near the fan blades.
- **Power On:** Apply power to the fan. The fan should start smoothly without excessive noise or vibration.
- **Monitoring:** During initial operation, monitor the fan for any unusual sounds, vibrations, or overheating.
- **Speed:** The fan operates at a maximum speed of 2320/2470 min⁻¹ depending on the frequency (50/60Hz).

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your Ziehl-abegg fan. Always disconnect power before performing any maintenance.

- **Cleaning:** Periodically inspect the fan blades and housing for dust, dirt, or debris accumulation. Clean with a soft brush or compressed air. Do not use harsh chemicals or abrasive materials.
- **Bearing Inspection:** The fan uses ball bearings, which are generally maintenance-free. However, listen for any unusual bearing noises (e.g., grinding, squealing) which may indicate wear.
- **Electrical Connections:** Annually check all electrical connections for tightness and signs of corrosion.
- **Vibration Check:** Periodically check for excessive vibration, which could indicate an imbalance or mounting issue.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with the fan.

Problem	Possible Cause	Solution
Fan does not start	No power supply Incorrect wiring Motor fault	Check power source and circuit breaker Verify wiring against diagram Contact qualified technician
Excessive noise or vibration	Loose mounting Debris in impeller Worn bearings	Tighten mounting bolts Clean impeller blades Contact qualified technician for inspection
Reduced airflow	Blocked intake/exhaust Dirty impeller	Clear obstructions Clean impeller blades
Overheating motor	Insufficient ventilation Overload Motor fault	Ensure proper airflow around motor Verify fan is used within specifications Contact qualified technician

8. SPECIFICATIONS

Detailed technical specifications for the Ziehl-abegg RE22P-2DK.3F.5R centrifugal fan.

Parameter	Value
Model	RE22P-2DK.3F.5R
Brand	Ziehl-abegg
Bearing Type	Ball
Country/Region of Manufacture	Germany
Fan Diameter	220mm
Maximum Fan Speed	2320/2470 min ⁻¹ (50/60Hz)
Material	Metal
Type	Motor fan (Centrifugal)
Color	Silver
Application	Servo Motor cooling
Frequency	50/60Hz
Power Input	0.49/0.61KW (50/60Hz)
Operating Temperature	-20°C to +60°C
Current	0.8A/1.1A (50/60Hz)
Protection Class	IP54
PsF min	470~620PA
Phase	3~
Voltage	400VAC
UPC	768681041636
Manufacturer	CY

9. SUPPORT AND CONTACT

For further specifications, product images, or technical assistance, please contact your supplier or the manufacturer. All units are fully tested to ensure quality and reliability.

While specific warranty details are not provided, the product is supplied as new and genuine. For any issues, please reach out to the point of purchase for support.

