

OK63ZYT125-230A

63 mm Brushed DC Motor · 24 VDC · 125 W

Product type	Permanent-magnet brushed DC motor
Intended use	Low-voltage DC drive applications requiring high-speed rotation and compact cylindrical construction.
Document basis	Prepared from the supplied product specifications and dimensional drawing.

1. Electrical Specifications

Parameter	Specification
Manufacturer Part Number	OK63ZYT125-230A
Motor Type	Brushed DC Motor
Rated Voltage	24 VDC
Rated Speed	3000 RPM
No-Load Speed	3500 RPM
Rated Current	7.5 A
No-Load Current	0.45 A
Rated Torque	0.4 N·m (40 N·cm)
Rated Power	125 W
Rotation Direction	CCW with red lead positive and black lead negative, as indicated in the supplied drawing

2. Physical Specifications

Parameter	Specification
Frame / Body Diameter	Ø63 mm
Body Length	125 mm
Output Shaft Diameter	Ø8 mm
Output Shaft Length	25 mm
Lead Wires	2 wires: red (+), black (–)
Lead Length	300 mm
Approximate Weight	1.3 kg

Parameter	Specification
Insulation Class	Class B
Operating Temperature	−10 °C to +50 °C

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3. Wiring and Electrical Connection

This motor has two DC power leads. Disconnect the power supply before wiring or servicing.

Lead Color	Connection	Notes
Red	Positive (+24 VDC)	Connect to the positive terminal of a regulated 24 VDC supply.
Black	Negative (0 V / –)	Connect to the negative terminal of the supply.

Rotation note: The supplied drawing indicates CCW rotation with red positive and black negative. For a typical brushed DC motor, reversing polarity reverses the rotation direction. Verify the direction on your actual unit before connecting it to a mechanism.

4. Installation

- Mount the motor securely using a rigid bracket or mounting surface compatible with the motor's end-face mounting pattern shown in the dimensional drawing.
- Keep the motor shaft aligned with the driven component. Avoid radial or axial loads beyond the motor's design limits.
- Use a suitable coupling, pulley, or gear. Do not strike, bend, or apply excessive force to the output shaft during installation.
- Provide adequate ventilation and keep the motor clear of dust, moisture, conductive debris, and sources of excessive heat.
- Route the lead wires away from rotating parts, sharp edges, and hot surfaces. Add strain relief so the wire connections are not pulled or twisted.

5. Operation

- Use a regulated 24 VDC power supply with sufficient current capacity for startup and load conditions.
- Start with the motor unloaded where practical, then increase the mechanical load gradually.
- Do not keep the motor stalled or mechanically blocked. Excessive current and heat can damage the winding, brushes, commutator, or connected power supply.
- Monitor motor temperature, noise, vibration, and current during initial operation. Stop the system if abnormal heating, smell, noise, or vibration occurs.

6. Safety Precautions

- This is a 24 VDC motor. Do not connect it directly to AC mains.
- Disconnect power before installation, wiring changes, cleaning, or maintenance.
- Protect exposed rotating shafts and couplings with suitable guards. Keep hands, hair, clothing, and tools away from moving parts.
- Use appropriate overcurrent protection and wiring rated for the operating current. Prevent short circuits between the red and black leads.
- Do not operate outside the specified ambient temperature range of –10 °C to +50 °C unless the manufacturer confirms suitability.

7. Maintenance and Troubleshooting

Symptom	Possible Cause	Recommended Check
Motor does not run	No supply, incorrect wiring, blocked shaft	Check 24 VDC supply, lead polarity, wiring continuity, and free shaft movement.

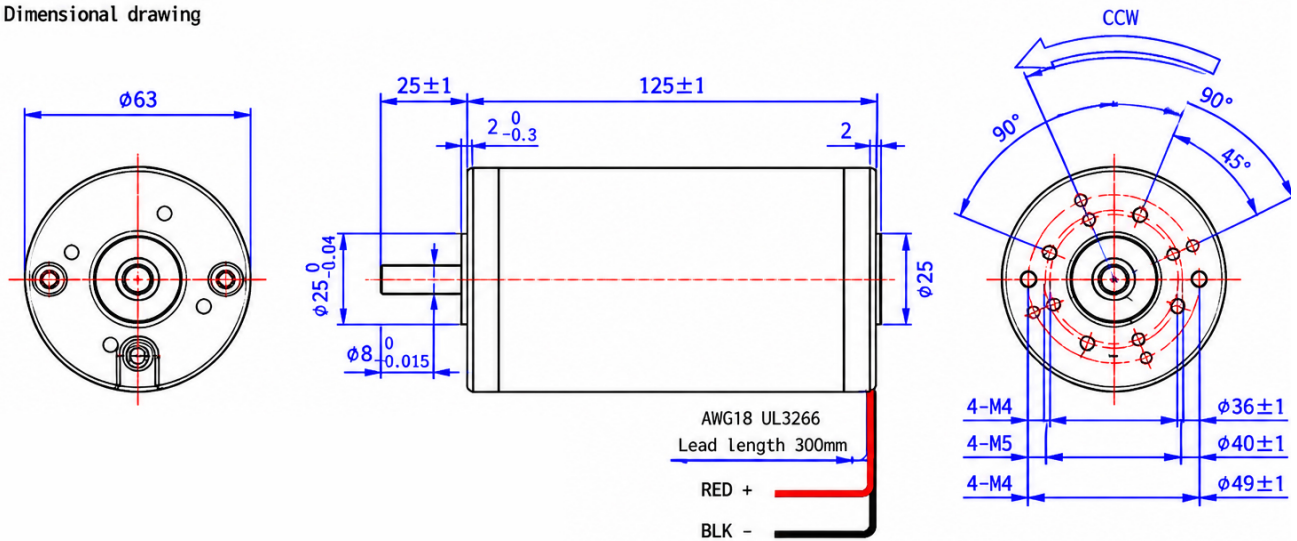
Symptom	Possible Cause	Recommended Check
Low speed / weak output	Excessive load, low supply voltage, high friction	Check supply voltage under load, reduce load, and inspect alignment.
Overheating / high current	Overload, stall, poor ventilation	Disconnect power, remove the obstruction, check load and ventilation before restarting.
Excessive noise / vibration	Misalignment, loose mounting, worn components	Check mounting security, shaft alignment, and driven equipment.

Routine maintenance: keep the motor and surrounding area clean, inspect mounting hardware and wiring periodically, and check the driven mechanism for binding. Do not disassemble the motor unless qualified to do so.

8. Dimensional Drawing

Use the drawing below as a reference for shaft dimensions, body size, lead routing, and available mounting-hole patterns. Dimensions are in millimeters unless otherwise noted.

Dimensional drawing



Key dimensional references

Body diameter	$\phi 63$ mm	Body length	125 mm
Shaft diameter	$\phi 8$ mm	Shaft protrusion	25 mm
Lead length	300 mm	Mounting details	Refer to drawing

Disclaimer: This manual is a practical guide based on the specifications supplied for this product. Actual performance may vary with load, power supply, temperature, and installation. The user is responsible for validating the motor in the final application.