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uxcell a19082100ux0933

# uxcell Synchronous Motor (2.5-3RPM) Instruction Manual

Model: a19082100ux0933

## 1. PRODUCT OVERVIEW

This manual provides detailed instructions for the uxcell AC 100-127V Synchronous Motor, designed for various applications requiring stable, low-speed rotation. This motor operates at 2.5-3 Revolutions Per Minute (RPM) with a power consumption of 4W and supports both Clockwise (CW) and Counter-Clockwise (CCW) rotation. Its compact size and robust design make it suitable for a range of electrical apparatus and DIY projects.

Typical applications include: heater machines, electric fans, Christmas tree rotators, air conditioners, arts & crafts lighting, and popcorn machines.

## 2. SPECIFICATIONS

Feature	Value
Brand	uxcell
Model Number	a19082100ux0933
Rated Voltage	AC 100-127V
Rated Speed	2.5-3 RPM
Rated Frequency	50-60Hz
Power	4W
Direction of Rotation	CW/CCW (Clockwise/Counter-Clockwise)
Torque	8 kgf.cm
Body Diameter	50mm / 1.96 inch

Feature	Value
Body Height	20mm / 0.78 inch
Total Length	65mm / 2.55 inch
Mounting Hole Diameter	4.5mm / 0.17 inch
Shaft Diameter	7mm / 0.28 inch
Shaft Length	15mm / 0.59 inch
Wire Length	40cm / 15.7 inch
Material	Metal
Item Weight	3.8 ounces

### 3. SAFETY INFORMATION

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Before installation or operation, please read and understand all safety warnings. Failure to do so may result in electric shock, fire, or serious injury.

- **Disconnect Power:** Always ensure the power supply is disconnected before performing any installation, maintenance, or troubleshooting.
- **Qualified Personnel:** Installation and wiring should only be performed by qualified personnel familiar with electrical systems.
- **Proper Voltage:** Ensure the supply voltage matches the motor's rated voltage (AC 100-127V).
- **Secure Mounting:** Mount the motor securely to prevent vibration and ensure stable operation.
- **Avoid Overload:** Do not exceed the motor's rated torque (8 kgf.cm) or power (4W) to prevent damage.
- **Environmental Conditions:** Operate the motor within appropriate temperature and humidity ranges. Avoid exposure to excessive dust or moisture.

### 4. INSTALLATION AND SETUP

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Follow these steps for proper installation of your synchronous motor:

1. **Prepare Mounting Surface:** Identify a stable and flat surface for mounting the motor. Ensure there is adequate space for the motor body and shaft.
2. **Mount the Motor:** Use appropriate screws or bolts to secure the motor through its mounting holes. Ensure the motor is firmly attached to prevent movement during operation. Refer to the product dimensions for precise fitting.



Image 1: Top view of the uxcell synchronous motor, showing the mounting holes and the label with specifications.

- 3. Connect Wiring:** The motor comes with two wires (40cm/15.7 inch length). Connect these wires to your AC 100-127V power supply. This motor supports both CW and CCW rotation, which is determined by the internal design and not by wiring polarity for AC motors.

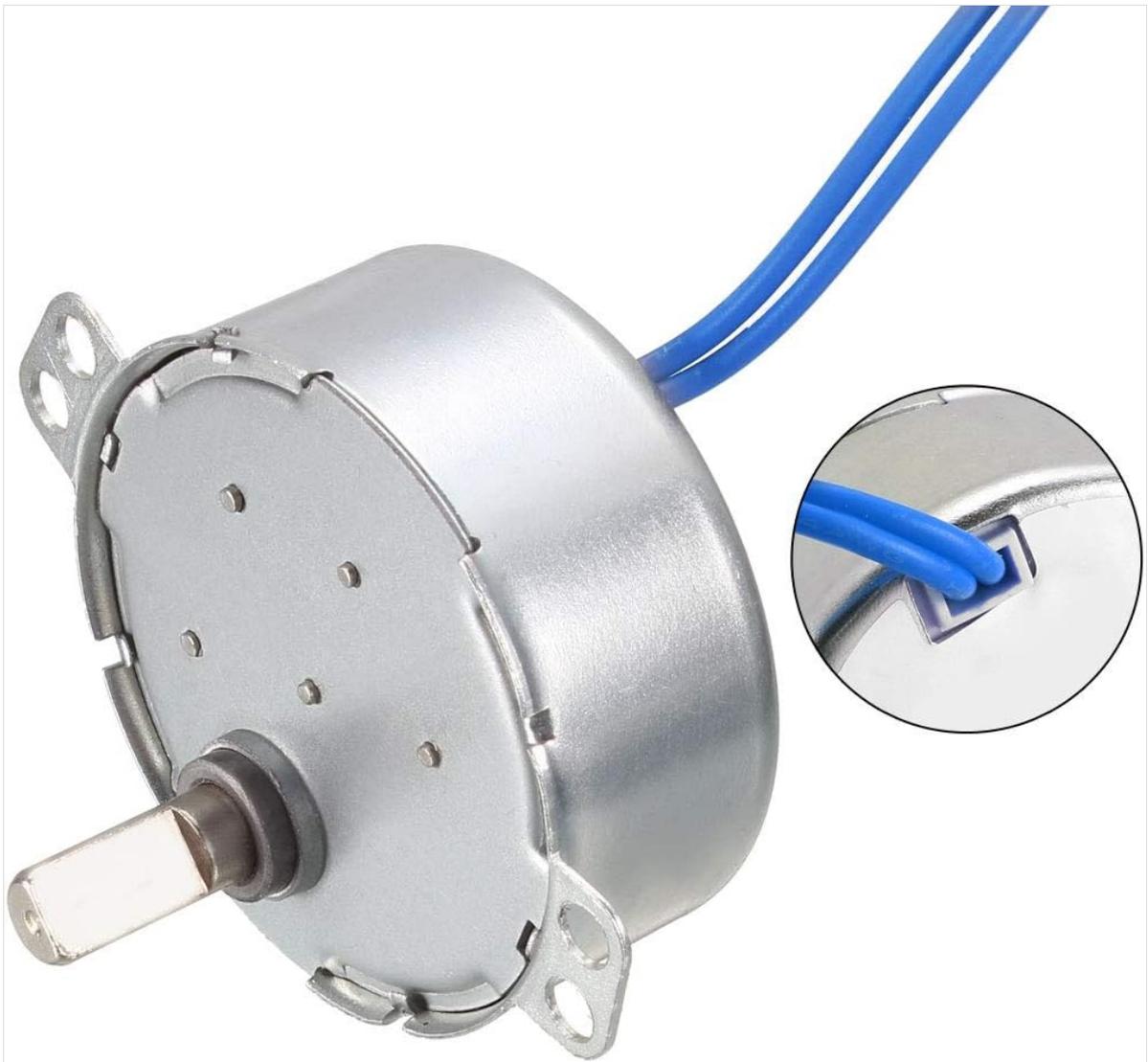


Image 2: Rear view of the uxcell synchronous motor, highlighting the wiring connection point.

- 4. Attach Load to Shaft:** Securely attach the intended load (e.g., turntable, fan blade) to the D-shaped shaft. Ensure the load is balanced and does not cause excessive strain on the motor. The shaft dimensions are 7mm/0.28 inch diameter and 15mm/0.59 inch length.



Image 3: Detailed diagram showing the dimensions of the ucell synchronous motor, including body diameter, height, and shaft measurements.

5. **Test Operation:** After installation, apply power and observe the motor's operation. Ensure smooth rotation and verify that the connected load functions as expected.

## 5. OPERATING INSTRUCTIONS

The ucell synchronous motor is designed for continuous and stable operation at its rated speed of 2.5-3 RPM. Key operational characteristics include:

- **Constant Speed:** At the rated frequency (50-60Hz), the motor speed remains stable and is not affected by voltage fluctuations within the specified range.
- **Bidirectional Rotation (CW/CCW):** This motor is designed to rotate in both clockwise and counter-clockwise directions. The direction of rotation is typically determined by the initial startup phase and can alternate.
- **Overload Protection:** The motor coil is designed to withstand overload or stalled conditions without immediate damage, providing a degree of protection for the motor. However, prolonged overload should be avoided.
- **Low Noise:** The motor operates with low noise levels, making it suitable for applications where quiet operation is desired.

Simply apply the specified AC voltage (100-127V) to the motor's leads to initiate operation. Disconnect power to stop the motor.

## 6. MAINTENANCE

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To ensure the longevity and optimal performance of your uxcell synchronous motor, follow these maintenance guidelines:

- **Regular Inspection:** Periodically inspect the motor for any signs of wear, damage, or loose connections. Check the shaft for any obstructions.
- **Cleaning:** Keep the motor free from dust, dirt, and debris. Use a soft, dry cloth to wipe the exterior. Avoid using liquids or abrasive cleaners.
- **Ventilation:** Ensure the motor has adequate ventilation to prevent overheating. Do not block any vents if present.
- **Lubrication:** This motor is typically maintenance-free and does not require external lubrication. Do not attempt to lubricate internal components unless specifically instructed by the manufacturer.
- **Wiring Integrity:** Check the wiring for fraying, cuts, or loose terminals. Repair or replace damaged wiring immediately.

## 7. TROUBLESHOOTING

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If you encounter issues with your synchronous motor, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Motor does not start or rotate.	No power supply; Incorrect voltage; Loose wiring; Motor stalled due to excessive load or obstruction.	Verify power supply is connected and active. Check if voltage matches 100-127V AC. Inspect all wiring connections for security. Remove any obstructions or reduce the load on the motor shaft.
Motor runs slowly or inconsistently.	Under-voltage; Excessive load; Internal damage.	Ensure stable 100-127V AC power. Reduce the load on the motor. If the problem persists, the motor may be damaged and require replacement.
Motor makes unusual noise or vibrates excessively.	Loose mounting; Unbalanced load; Internal component issue.	Tighten mounting screws. Ensure the load attached to the shaft is balanced. If noise persists, the motor may have internal damage.
Motor overheats.	Prolonged overload; Insufficient ventilation.	Reduce the operating load. Ensure the motor has adequate airflow and is not enclosed in a confined space without ventilation.

If troubleshooting steps do not resolve the issue, contact uxcell customer support for further assistance.

## 8. WARRANTY AND SUPPORT

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For warranty information and customer support regarding your uxcell Synchronous Motor, please refer to the purchase documentation or contact uxcell directly through their official website or the retailer where the product was purchased.

When contacting support, please provide the following information:

- Product Model Number: **a19082100ux0933**
- Date of Purchase
- Description of the issue

For more information about uxcell products, visit the [uxcell Store on Amazon](#).