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› Kamoer KCPA300 Peristaltic Pump User Manual

Kamoer KCPA300

Kamoer KCPA300 Peristaltic Pump User Manual

Model: KCPA300

1. PRODUCT OVERVIEW

The Kamoer KCPA300 is a 24V DC peristaltic pump designed for precise liquid dosing and transfer applications. It features an adjustable flow rate ranging from 120 to 300 ml/min and utilizes a durable Norprene tube (4mm ID x 7.2mm OD) for chemical resistance and extended lifespan. This pump is characterized by its simple structure, ease of tube replacement, and moderate pulse, making it suitable for various laboratory and industrial uses.



Adjustable flow $\leq 300\text{ml/min}$

Chemical stable

Brush motor



Figure 1: Kamoer KCPA300 Peristaltic Pump highlighting adjustable flow and brush motor.

Key Features:

- **Voltage:** 24V DC
- **Flow Rate:** Adjustable from 120 ml/min to 300 ml/min
- **Tube Material:** Norprene (4mm ID x 7.2mm OD) with good UV and chemical resistance, lifespan over 1000 hours.
- **Control Method:** Manual knob for speed adjustment.
- **Repeatability:** 2%
- **Motor:** DC brush motor
- **Noise Level:** Less than 68dB
- **Pump Body Material:** Engineering plastics (ABS plastics)

Typical Applications:

- Pumping hydraulic oil

- Laboratory liquid transfer
- Reagent dispensing
- Slurry recovery filtration
- Filling applications

2. SAFETY INFORMATION

WARNING: Read all safety warnings and instructions before using this product. Failure to follow the warnings and instructions may result in electric shock, fire, or serious injury.

- Ensure the power supply matches the pump's voltage (24V DC).
- Do not operate the pump with damaged tubing or power cords.
- Avoid pumping flammable or corrosive liquids without proper safety precautions and material compatibility verification.
- Keep the pump away from water or excessive moisture to prevent electric shock.
- Do not disassemble the pump beyond what is described in this manual. Refer servicing to qualified personnel.
- Always disconnect power before performing any maintenance or tube changes.
- Ensure proper ventilation when operating the pump.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package. If any items are missing or damaged, contact your supplier.



Figure 2: Contents of the Kamoer KCPA300 package.

- Kamoer KCPA300 Peristaltic Pump Unit
- US Power Adapter (24V DC)
- Norprene Tubing (4mm ID x 7.2mm OD)
- Cable Ties (x2)
- Certificate of Qualification

4. SETUP INSTRUCTIONS

1. **Placement:** Place the pump on a stable, level surface. Ensure adequate space around the pump for ventilation and tubing connections.
2. **Tubing Installation:**
 - If the tubing is not pre-installed, carefully open the pump head cover.
 - Insert the Norprene tube into the pump head, ensuring it is properly seated around the rollers.

- Close the pump head cover securely.
- Connect the inlet and outlet ends of the tubing to your liquid source and destination, respectively. Ensure connections are secure to prevent leaks.



Figure 3: Pump head detail, illustrating the gear structure and tubing path for easy replacement.

3. **Power Connection:** Connect the US power adapter to the pump's power input port (DC 24V). Then, plug the power adapter into a suitable electrical outlet.

5. OPERATING INSTRUCTIONS

1. **Power On:** Once connected to power, the pump will be ready for operation. The red indicator light may illuminate.
2. **Adjusting Flow Rate:**
 - Locate the speed adjustment knob on the front panel (labeled MIN to MAX).
 - Rotate the knob clockwise to increase the flow rate and counter-clockwise to decrease it.
 - The flow rate can be adjusted while the pump is running.



Adjustable flow:
120ml/min~300ml/min(<400rpm)

Figure 4: Manual adjustment of the pump's flow rate using the control knob.

3. **Direction of Flow:** This pump supports speed adjustment but does not support forward and reverse operation. The flow direction is fixed.
4. **Power Off:** Disconnect the power adapter from the electrical outlet to turn off the pump.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your Kamoer KCPA300 pump.

6.1. Tubing Replacement

The Norprene tubing has a lifespan of over 1000 hours under normal conditions. Replace the tubing if you observe signs of wear, cracking, or reduced performance.

1. **Disconnect Power:** Always unplug the pump from the power source before performing any maintenance.
2. **Open Pump Head:** Carefully open the pump head cover. The KHS pump head features a gear structure (POM) designed for easy tubing replacement.

- 3. **Remove Old Tubing:** Gently pull the old tubing out from around the rollers.
- 4. **Install New Tubing:** Insert the new Norprene tubing, ensuring it is correctly seated within the pump head mechanism.
- 5. **Close Pump Head:** Securely close the pump head cover. Ensure the clips are properly engaged.

6.2. Cleaning

- Wipe the exterior of the pump with a soft, damp cloth. Do not use abrasive cleaners or immerse the pump in water.
- If the pump head or rollers become dirty, clean them carefully with a mild detergent and water, ensuring all parts are dry before reassembly and operation.

6.3. Inspection

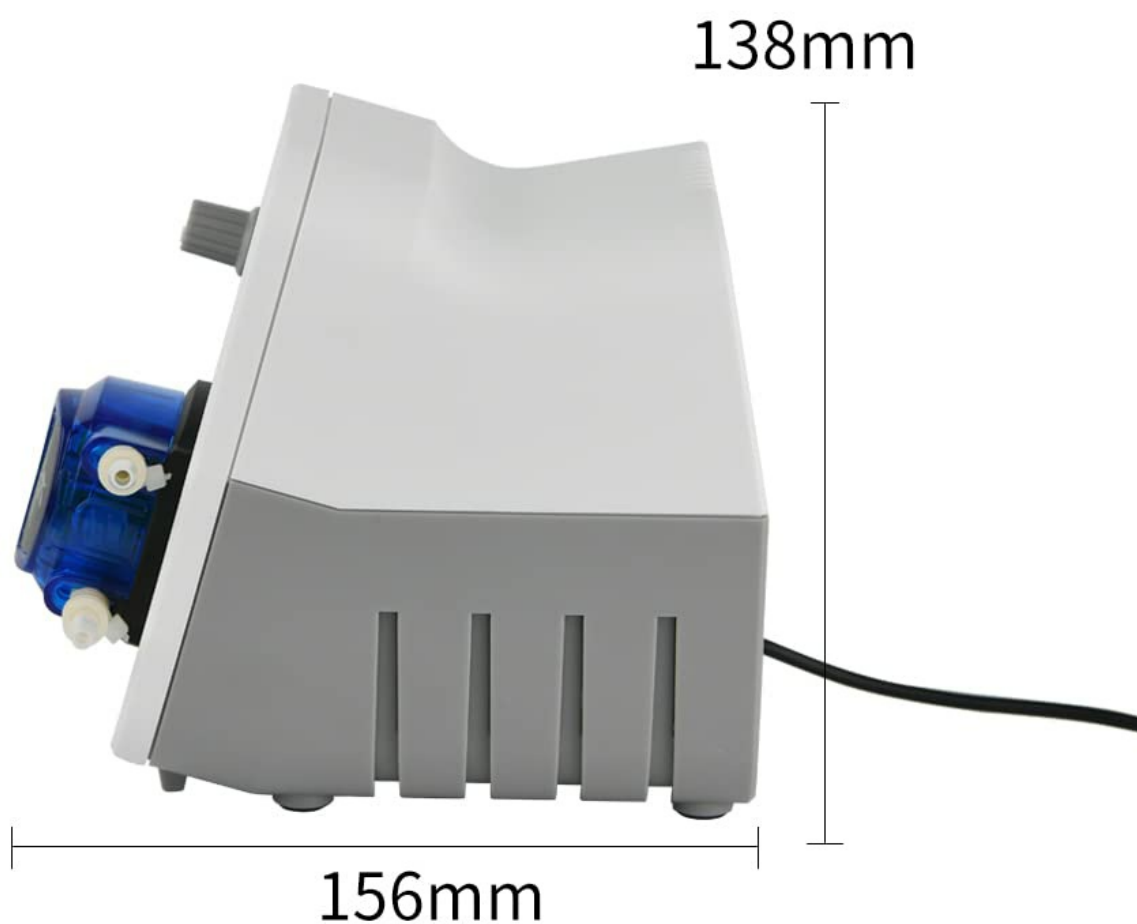
- Periodically inspect the power cord for any damage.
- Check the tubing for any signs of wear, kinks, or blockages.
- Ensure all connections are secure.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your Kamoer KCPA300 pump.

Problem	Possible Cause	Solution
Pump does not turn on.	No power supply; faulty power adapter; loose connection.	Check power outlet; ensure power adapter is securely connected to both pump and outlet; test with another power adapter if available.
No liquid flow or very low flow.	Tubing kinked or blocked; pump head not properly closed; worn-out tubing; speed knob set to minimum.	Inspect tubing for kinks or blockages; ensure pump head is securely closed; replace tubing if worn; adjust speed knob to a higher setting.
Liquid leak from pump head.	Tubing not properly seated; damaged tubing; pump head not securely closed or damaged clips.	Re-seat tubing correctly; replace damaged tubing; ensure pump head is closed securely and clips are intact. If clips are broken, contact support.
Excessive noise during operation.	Normal operation noise (brush motor); pump not on a stable surface; internal component issue.	Ensure pump is on a stable, vibration-dampening surface. Note that brush motors can produce audible noise. If noise is unusually loud or new, contact support.

8. TECHNICAL SPECIFICATIONS



Pump body: ABS plastics

Figure 5: Physical dimensions of the Kamoer KCPA300 pump.

Parameter	Value
Model Number	KCPA300
Brand	Kamoer
Voltage	24V DC
Current	1A
Power	<24W
Maximum Speed	400 rpm
Flow Rate	120-300 ml/min (Adjustable)
Repeatability	2%

Parameter	Value
Pump Tube Material	Norprene
Pump Tube Size	4mm ID x 7.2mm OD
Motor Type	DC Brush Motor
Noise Level	<68dB
Item Weight	0.45 Kilograms
Pump Body Material	Engineering plastics (ABS)
Color	Gray



Figure 6: Rear view of the pump, indicating DC 24V 1A power input.

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact your authorized Kamoer dealer or visit the official Kamoer website. Please have your model number (KCPA300) and purchase date available when contacting support.

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question