

# Product Manual

Kamoer Fluid Tech(Shanghai) Co., Ltd.

Version : A/1

Product name	Micro peristaltic pump
Product model	KK300-D
Execution date	2023.06.12
Company name	Kamoer Fluid Tech (Shanghai) Co.,Ltd.

## A、 Product Overview

### 1. Product picture

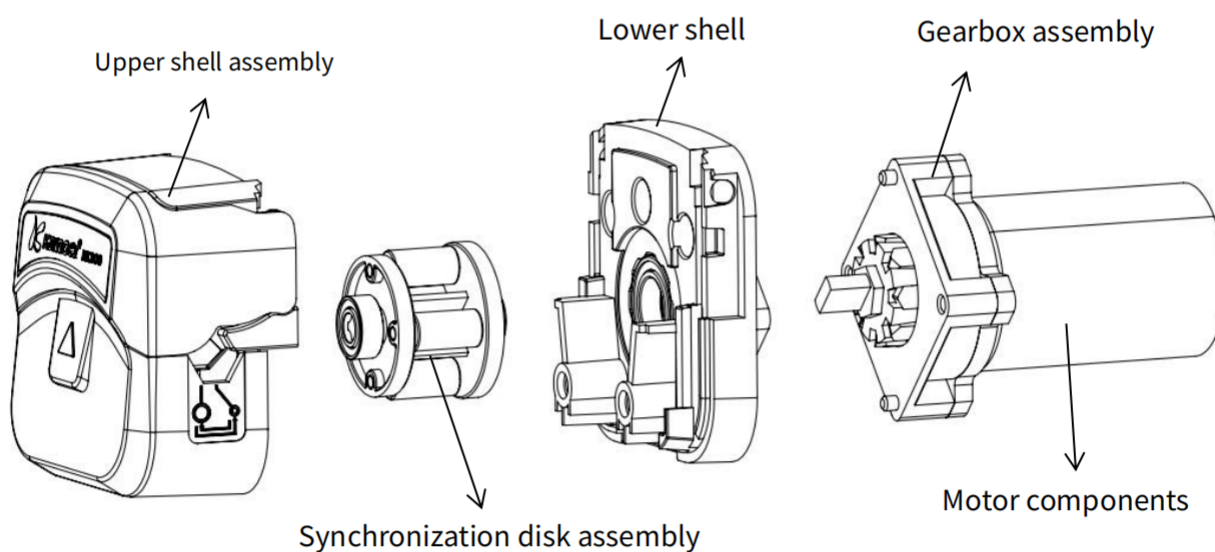


KK300-D



KK300-2D

### 2. Product assembly drawing



### 3. Model definition

KK300	/	D.	12	T1.0
Model	Gearbox	Motor type	Voltage level	Suitable tube type



## 3.1 Gearbox



/: Level 1 deceleration



2: Level 2 deceleration

## 3.2 Motor type

D: DC brushed motor

## 3.3 Voltage level

12: 12V    24: 24V

## 3.4 Applicable tube type

T1.0: 1.0 wall thickness pump tubing

## 3.5 Product material

Pump body model	Pump cover/base	Output chainring	Gear/Bracket	Rotor	Sync disk
KK300	Polymer Modified Materials	POM	PTE	PET	Polymer Modified Materials

# 4. Performance characteristics, typical applications

## 4.1 Performance characteristics

■ KK300 -D is a DC brush motor driven peristaltic pump with exquisite appearance and high cost performance

■ One-stage deceleration and two-stage deceleration are optional

■ The pump tube is imported BPT (B) tube, the size of the pump tube is (06#, 10#, 22#) peristaltic pump tube

■ 4- rotor transmission with moderate pulse

■ The installation method is fixed through the board

■ Easy to operate, quick replacement of pump tubing

■ Suitable for wall thickness 1.0mm pump tubing

## 4.2 Typical applications

■ Food and drink

■ Medical diagnosis

■ Analytical Instruments



- Inkjet ink
- Washing cleaning
- Environmental Instruments
- Experimental research
- Industrial machinery
- White goods
- Biochemical analysis

## 5. Product Certification, Intellectual Property

CN218347811U



■ Hoses are resistant to liquid media. Need to check chemical compatibility or conduct immersion tests, improper hose selection may cause hose damage quickly.

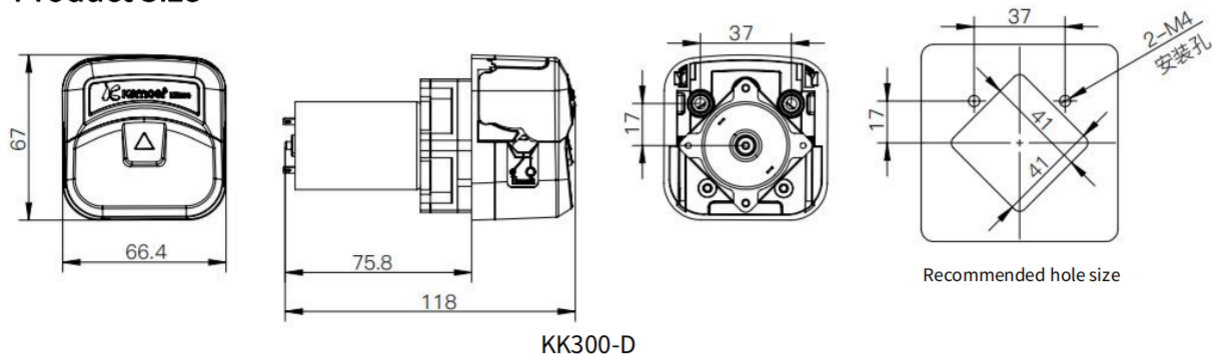
■ The working environment of the product should not exceed 45°C, and the humidity should not exceed 70% (no condensation). The harsh working environment will cause premature damage to the product.

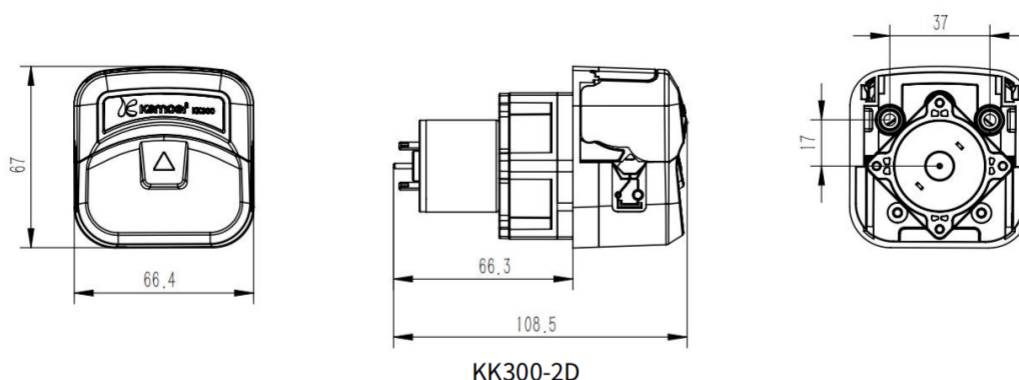
■ Fluid leakage accidents due to hose ruptures depend on the fluid medium and your specific application conditions.

- High overloading may result in premature failure of the product.

## B、Product specification

### 1. Product Size



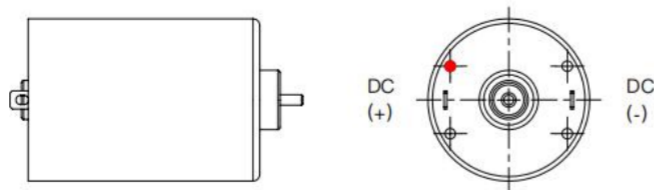


## 2. Technical Parameters

Item		Technical Parameters					
Basic parameters	Motor type	DC brushed motor					
	Flow range	14-290 ml/min					
	Noise	≤65 dB					
	Power	D: 10W			2D: 5W		
	Control method	Switch control					
	Weight	D: About 320g			2D: About 260g		
	Rated voltage	12V/24V					
	Pump tube life	B: 800h			S: 100h		
	Motor life	800h					
Pump flow	Reference flow rate (unit: ml/min)						
	Pump tube code	S06	S10	S22	B06	B10	B22
	ID×OD	2mm×4mm	3mm×5mm	4mm×6mm	2mm×4mm	3mm×5mm	4mm×6mm
	Pump tube material	Silicone tube			BPT		
	D12/current 0.8A	≥80ml/min	≥160ml/min	≥260ml/min	≥80ml/min	≥160ml/min	≥260ml/min
	D24/current 0.4A	≥90ml /min	≥180ml/min	≥290ml/min	≥90ml/min	≥180ml/min	≥290ml/min
	2D12/current 0. 4A	≥14ml/min	≥25ml/min	≥40ml/min	≥14ml/min	≥25ml/min	≥40ml/min
	2D24/current 0. 2A	≥14ml/min	≥25ml/min	≥40ml/min	≥14ml/min	≥25ml/min	≥40ml/min
Precautions	Remark	The above parameters are measured with pure water at room temperature and standard atmospheric pressure at 20°C without pressure. Actually, depending on the medium, the outlet pressure, the motor speed error, etc., there will be a certain error in the flow rate, and the data is only for reference; There is a certain error due to time changes, and the data is for reference only. In addition, it can be customized according to customer needs					
	Reference noise value	the ambient noise of 35 dB, the measured distance is less than 65 dB at a distance of 50 cm					



## 3. Motor control



Note: According to the motor wiring diagram, the positive pole of the power supply is connected to the positive pole, and the negative pole is connected to the negative pole.

## C. Adapter hose

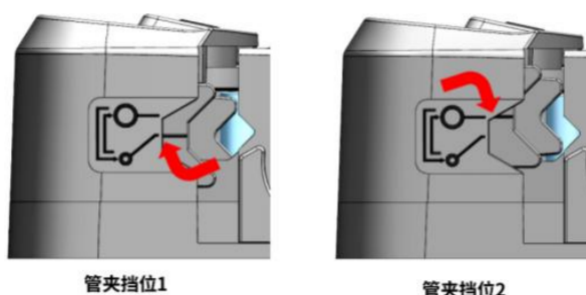
Pump tube material	Characteristic	Standards compliant	Tube number
BPT tube (B)	Resistance to common chemicals, acid and alkali and oxidation resistance life over 800h	RoHS FDA	06# 10# 22#
Silicone tube (S)	Low adsorption, good temperature resistance, good resistance to chemical corrosion, life over 100h	RoHS Comply with food grade certification (GB 4806.11-2016)	06# 10# 22#

\*The service life is measured under KK300-D model

## D. Tube clamp

### ◆ Tube clamp positioning

KK300-D can accommodate pump tubes with a wall thickness of 1.0mm and an inner diameter of 2.0mm to 4.0mm



Note: For the pump tube with an inner diameter of 2.0mm, gear 1 must be used to prevent the pump tube from running out;



For the pump tube with an inner diameter of 4.0mm, gear 2 must be used to prevent the flow rate from being reduced due to excessive clamping;

For the pump tube with an inner diameter of 3.0mm, any gear can be used, please refer to Note 1 and Note 2 to choose which gear according to the actual situation;





## ◆ Gear adaptation

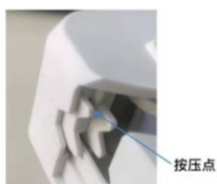
Aperture symbol Diameter	2.0mm	3.0mm	4.0mm
	Be applicable	Be applicable	
		Be applicable	Be applicable

## ◆ Tube clamp switching

Before switching the tube diameter, turn off the pump and open the flip cover until it is fully open;

Press the tube clamp to the root with your hands, keep the downward force to move the tube clamp to the second track, and release the force;

If the tube clamp does not slide to the second track, repeat the previous step to ensure that the tube clamp enters the second track smoothly.







first track second track



To change the small diameter to a large diameter, you need to repeat the previous operation in reverse

## E、Optional accessories

Name	Specifications		Function introduction
Anti-floating sinking head	Diameter 6mm Diameter 2.5mm		Place the inlet of the pump tube completely in the liquid to ensure that the peristaltic pump tube can fully absorb the liquid
Straight connector	3/32		2mm x 4mm hard tube or similar hose can be connected to the external
Straight connector	1/8		3mm x 5mm hard tube or similar hose can be connected to the external
Straight connector	5/32		4mm x 6mm hard tube or similar hose can be connected to the external

Special declaration: The company reserves the right to improve the appearance and technical specifications of the product without prior notice.

