

Product Manual

Kamoer Fluid Tech (Shanghai) Co.,Ltd.

Version: A /2

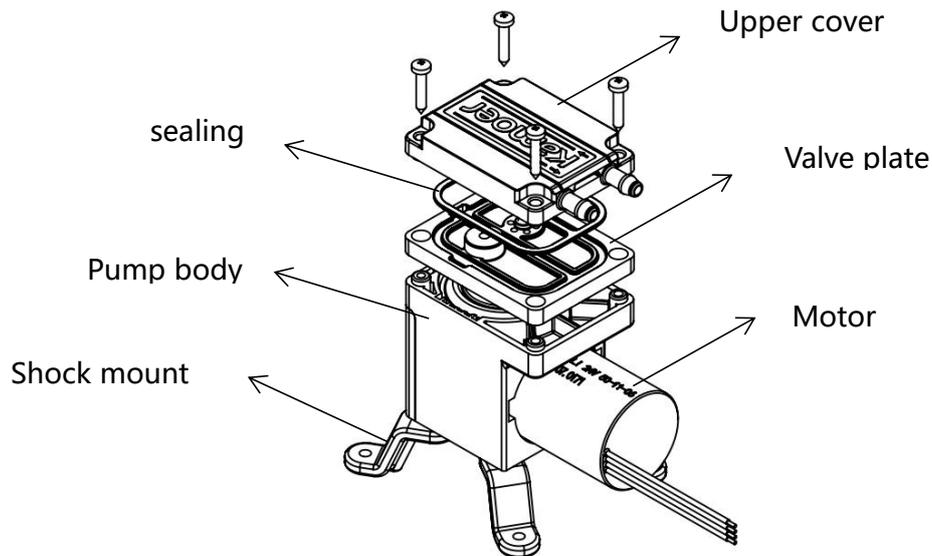
Product name	Mini Diaphragm Air Pump
Model	HLVP6
Release Date	2020.04.10
Manufacturer	Kamoer Fluid Tech (Shanghai) Co.,Ltd.

A. Product Overview

1. Product Images



2. Product structure



3. Model definition

HVLP6	N	B	12
Model	Output pressure	Motor type	Voltage

3.1 Eccentric amount

N: Normal type

P: Enhanced type



3.2 Motor type

B: brushless motor

3.3 Voltage

12:12VDC, 24: 24V DC

4. Feature & Applications

4.1 Features

- HLVP6 Available in 24V and 12V voltages
- The appearance of the product is personally checked by the design master, which is beautiful and generous.
- Comes with vibration-absorbing design, with 4 rubber vibration-absorbing machine feet, effectively reducing product vibration
- Large cavity design, larger output flow
- The product has a unique noise reduction structure design, which can effectively reduce the output noise
- Brushless motor, with better performance and life performance
- High-quality engineering plastics and rubber materials, showing good product stability

4.2 Applications

- Industrial automation: such as used as an air source for suction cups
- Medical equipment: such as used as a gas source for constant pressure adsorption equipment
- Inkjet printer: such as the air source output for nozzle protection
- Environmental engineering: such as used as an air source for air transmission

4.3 Known Risk Notification

- The medium will be in contact with the pump head and the rubber, so it is necessary to check the chemical compatibility or conduct an immersion test when selecting the model
- The working environment of the product should not exceed 40°C, and the humidity should not exceed 70% (no condensation). The harsh working environment will cause premature damage to the product
- Frequent start and stop, overpressure or underpressure and other unreasonable working conditions will lead to premature damage of the pump
- High overloading may result in premature failure of the product
- Dust, oil and other pollutants in the medium will contaminate the pump parts, which will lead to



premature damage of the pump

5. Product certification & patent certificate

CN210152870U



CN210152876U



ROHS certification



CE certification



B. Product specification

1. Technical Parameters

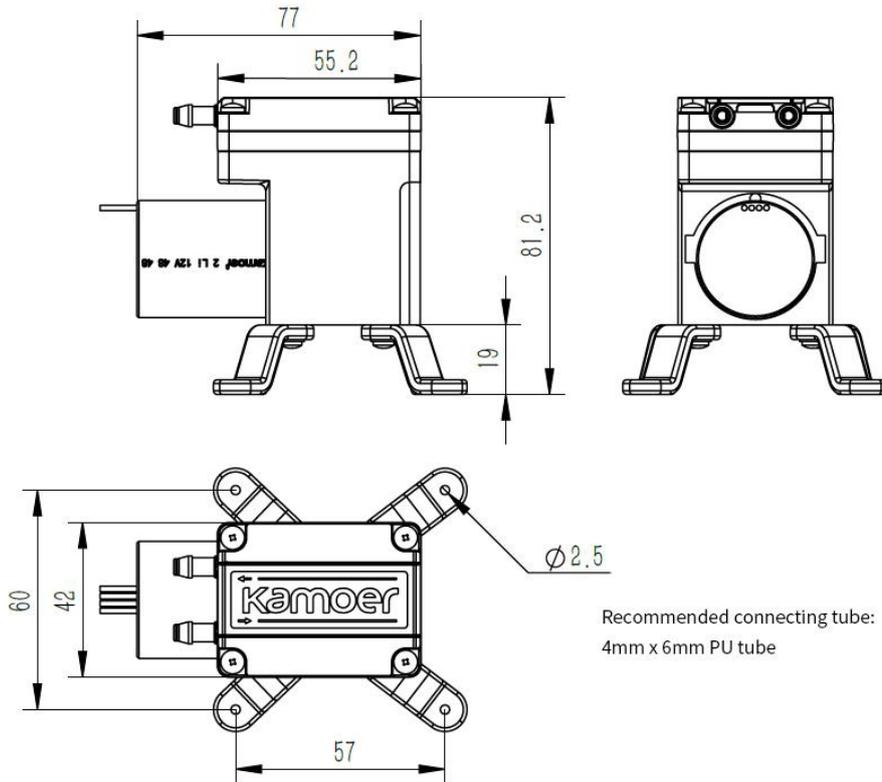
Project		HLVP6 (N series)	HLVP6 (P series)
Basic parameters	Flow (gas)	6L/min	8L/min
	Negative pressure	0.05Mpa	0.06Mpa
	Positive pressure	0.07Mpa	0.08Mpa
	Power	5W	8W
	Noise	≤60dB	≤62dB
	Control method	PWM speed regulation work, fixed speed work	
	Weight	About 230g	
	Rated voltage	12V/24V	
	Motor type	DC brushless motor	
	Product life	10000h	8000h

2. Product material

Model	Head	Body	Diaphragm	Valve plate	Eccentric
HLVP6	PA	PA	EPDM	EPDM	Brass



3. Dimensions



4. Motor Control

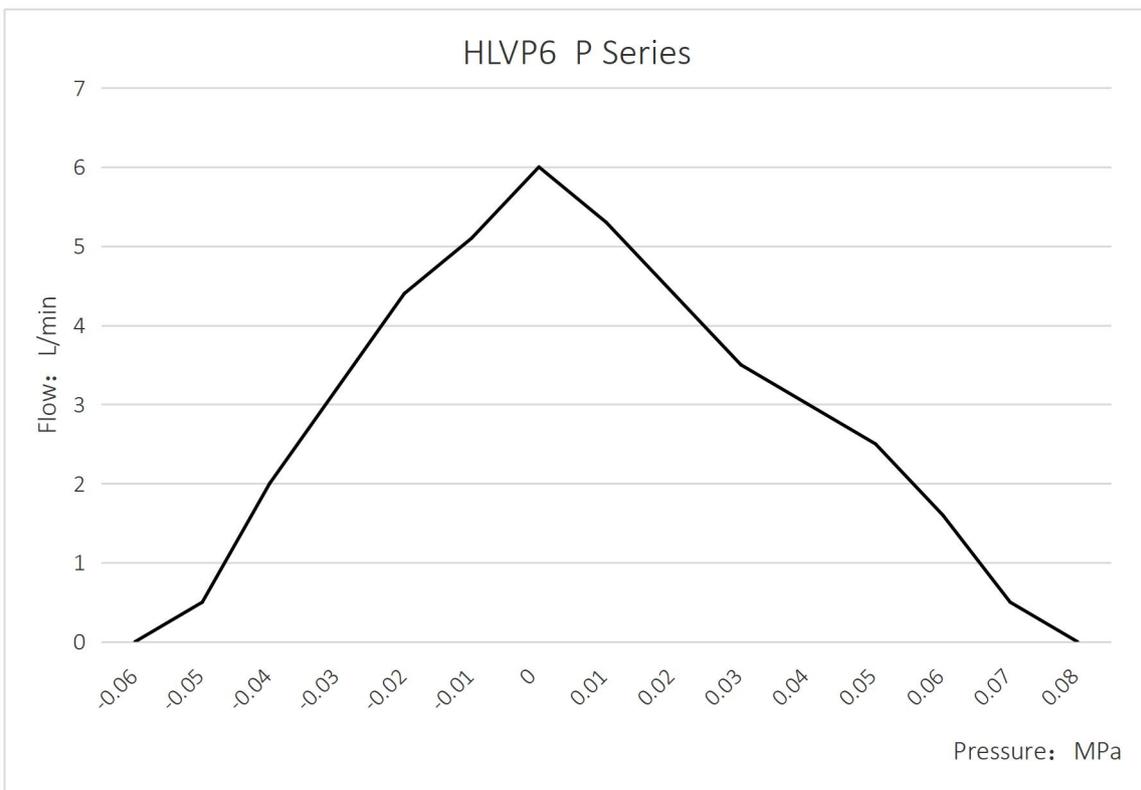
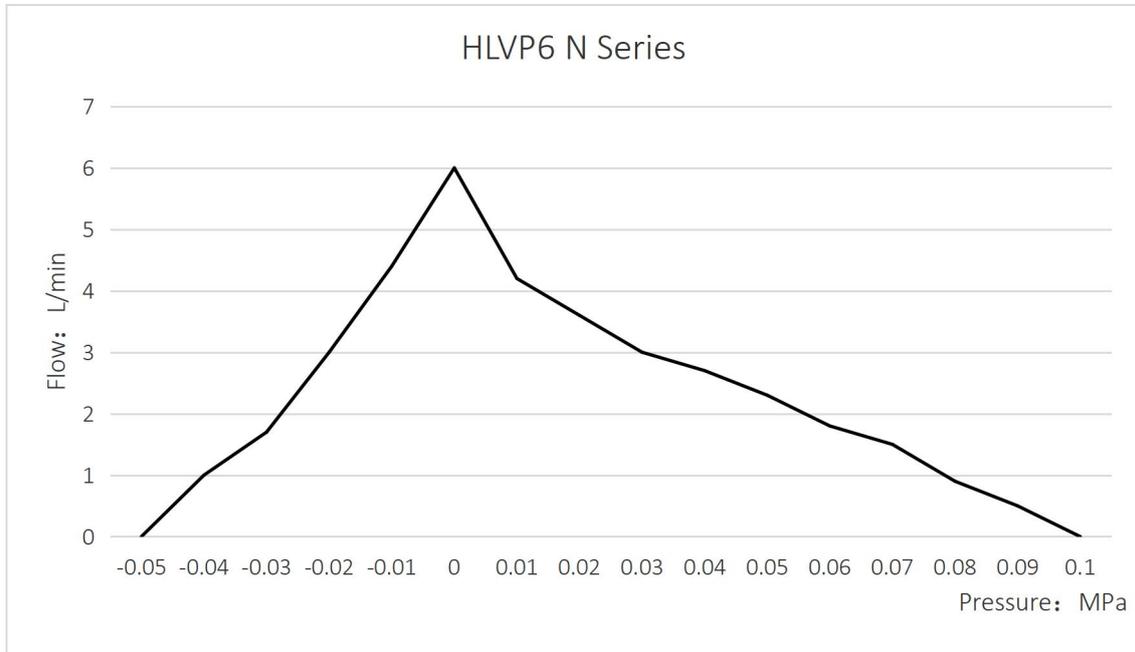
Red	Yellow	Blue	Black
Vcc	FG	PWM	GND
Positive electrode	Speed feedback	Speed regulation	Negative electrode

- PWM and 0-5V two speed regulation methods
- PWM speed regulation: 10KHZ ~ 30KHZ, amplitude: 5V
- Control ratio 0-10% does not turn, 11%-100% speed range
- Analog voltage speed regulation: voltage 0-5V, 0-0.5V motor does not rotate, 0.6-4.5V speed regulation range
 - The speed feedback of the yellow line is connected to the oscilloscope probe or the host computer. $1 \text{ pulse/rev Speed (rev/min)} = \text{FG signal} * 60$
 - Full speed operation: connect the positive pole to the red and blue wires; connect the negative pole to the black wire

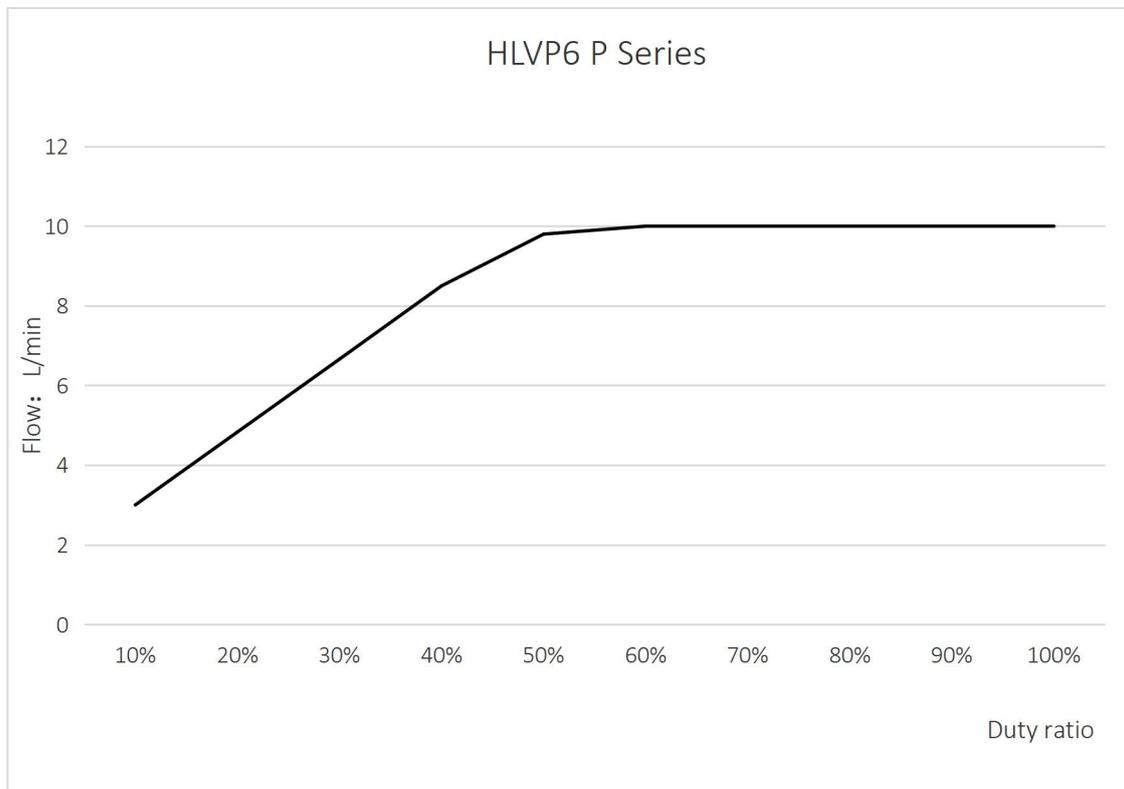
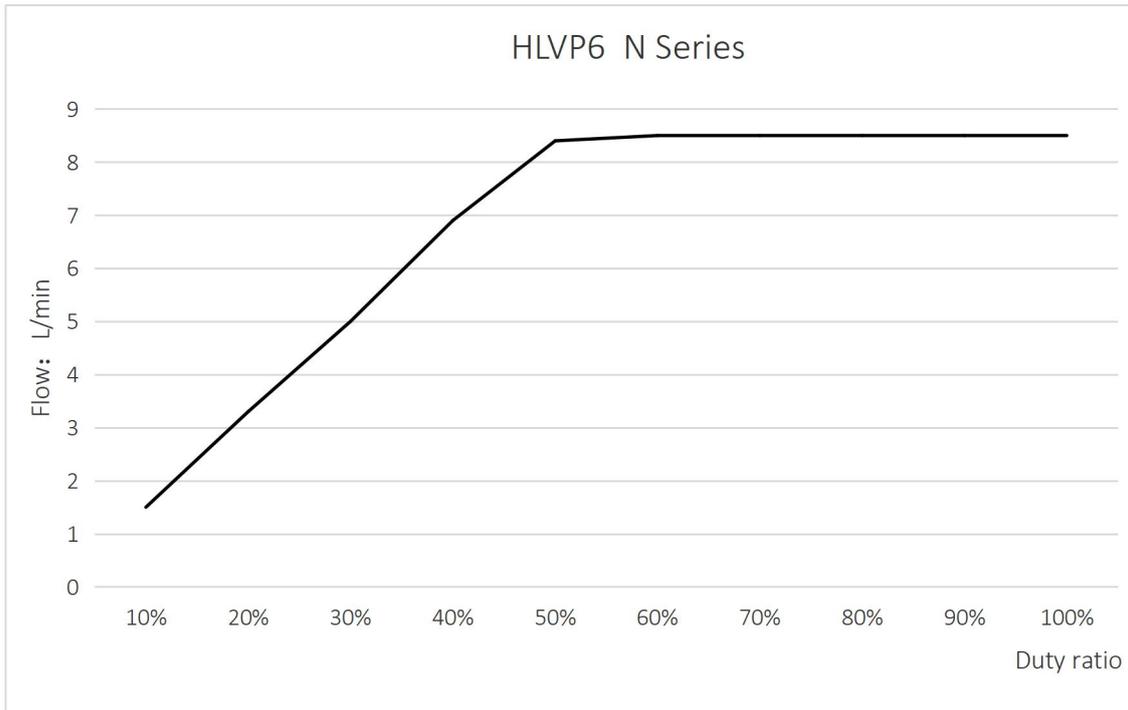


5. Flow curve

5.1 Flow and pressure curve



5.2 Flow and speed control curve



C. Optional accessories

Item	Specifications		Function
PU external connection tube	4mm×6mm		Suitable for gas transmission, economical
connection tube	4mm×6mm		Suitable for gas transmission, does not pollute the medium
Prefilter	ZFC-100 ZFC-200		Contaminants for dust in the filter media, prolonging service life
Silencer	/		Extended air pump life, small size

