



Highlights

- Low electromagnetic interference
- Optional corrosion-resistant material
- Long service life under max load
- Modular pneumatic connection options
- Low noise level and vibration
- Driven by BLDC motor
- Industrial-grade reliability
- Good air tightness
- Multiple self-protection
- Compact size

Applications

- Gas sampling
- Medical equipment
- Analytical instruments
- Pneumatic automation

12K_{hours}
lifetime test



PERFORMANCE DATA

Model	Voltage (V DC)	Max. Load Current (mA)	Max. Peak Flow rate (L/min)	Max. Average Flow rate (L/min)	Max. Vacuum (-kPa)	Max. Pressure (kPa)	
Material Option A	Diaphragm:EPDM Valves:EPDM Pump Head: Fiber reinforced PA6						
D35S	24V	≤250mA	≥3.0	≥1.8	≥30	≥40	
	12V	≤350mA	≥2.0	≥1.6	≥30	≥40	
D35L	24V	≤280mA	≥4.0	≥2.4	≥35	≥58	
	12V	≤380mA	≥3.6	≥2.2	≥35	≥58	
D35H	24V	≤500mA	≥7.0	≥4.1	≥55	≥135	
	12V	≤1000mA	≥7.0	≥4.0	≥55	≥130	
Material Option B	Diaphragm:FKM Valves:FKM Pump Head: Fiber reinforced PA6						
D35L	24	≤300mA	≥3.4	≥2	≥34	≥53	
D35H							

CONFIGURATION OPTIONS

Material Options

Pump Head Fiber reinforced PA6

Diaphragm EPDM FKM

Valves EPDM FKM

Motor BLDC

Connector Options

Type A PA hose connector/Type B PP hose connector/Type C stainless steel hose connector
PC6 push-in quick connector/PC8 push-in quick connector /Rc1/8 inside thread

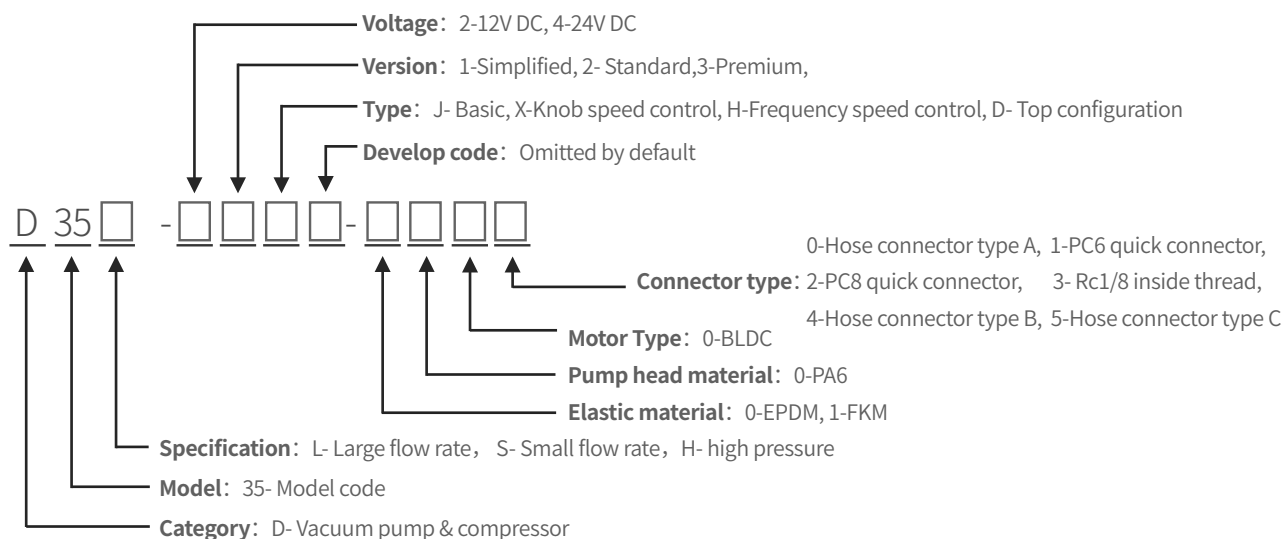
Function Options

Basic type Knob speed control Frequency speed control Top configuration

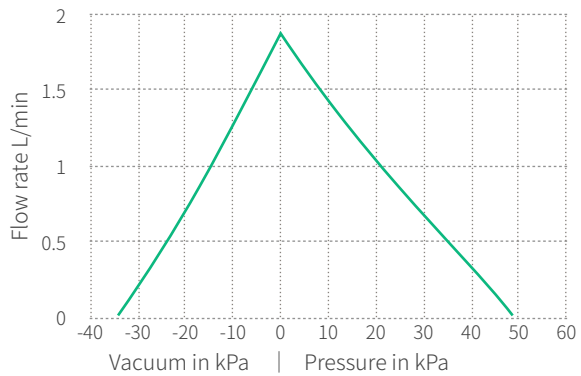
RELIABILITY DATA

Models	D35S D35L			D35H		
Versions	Simplified	Standard	Premium	Simplified	Standard	Premium
Fully Loaded Lifetime (hrs)	5000	8000	12000	1200	3500	/
Unloaded Lifetime (hrs)	8000	12000	18000	8000	12000	/
Motor Lifetime (hrs)	10000	15000	20000	10000	15000	/
Test conditions	In a clean and non-corrosive laboratory, the pump is fully loaded (the outlet is blocked, the inlet is directly connected to the atmosphere) or unloaded (the inlet and outlet are directly connected to the atmosphere), and runs continuously around the clock; ambient temperature: 5°C~33 °C, relative humidity: 50%-85%, fluctuates with the climate.					
Working Condition						
Operating temperature	Permissible ambient temperature is 0°C~50°C, it is not suitable to be exposed to the sun, and it should work in a clean and ventilated environmen					
Medium	Permissible temperature of the medium is 5°C~50°C, the transferring gas is allowed to be rich in water vapor, but cannot contain solid particles					
Wetted materials	EPDM, FKM as optional; fiber reinforced nylon, tolerance to alcohol, acid, alkali, etc. (except strong acid, concentrated acid, lipids, benzene, gasoline, etc.)					

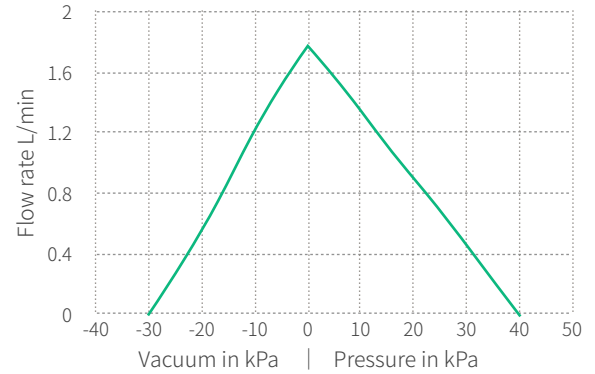
D35 MODEL KEY



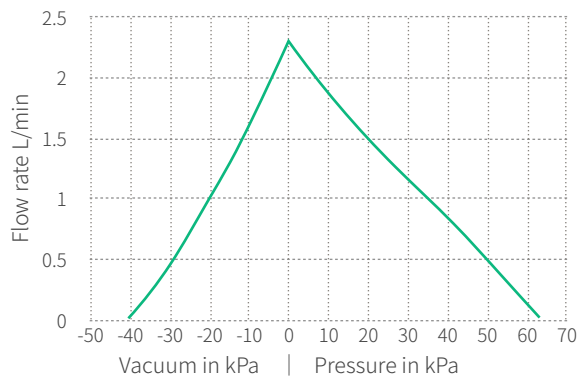
D35S-12V FLOW CURVES



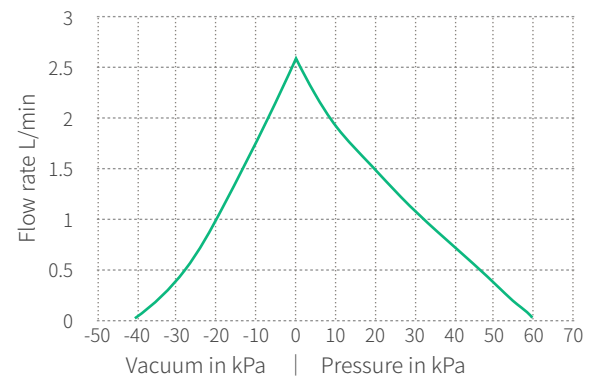
D35S-24V FLOW CURVES



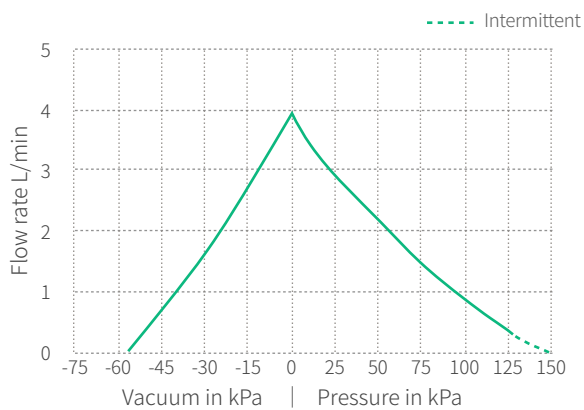
D35L-12V FLOW CURVES



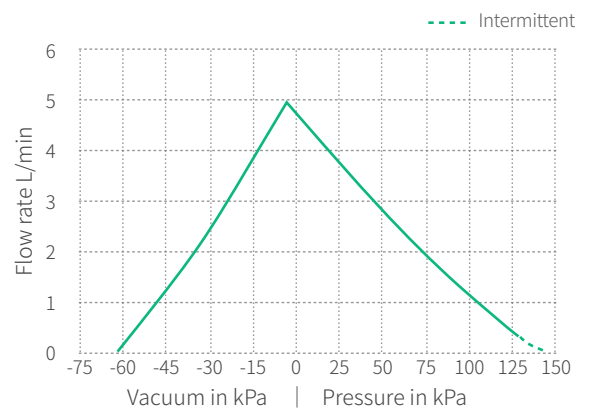
D35L-24V FLOW CURVES



D35H-12V FLOW CURVES



D35H-24V FLOW CURVES



Technical drawings of the pump assembly showing three views: front, side, and top.

Front View: Shows the pump housing with a top flange. Dimensions include a top flange width of ≈ 90 , a height of ≈ 81 , and a mounting hole diameter of $4 \times \phi 3$. The text indicates "4 shock absorbing feet can rotate" and "pump mounting hole".

Side View: Shows the pump's profile. Dimensions include a joint installation position, a height of ≈ 63 , and a base width of ≈ 90 . The text indicates "joint installation position" and "A".

Top View: Shows the pump's footprint. Dimensions include a width of ≈ 17 , a height of ≈ 48 , and a power line interface. The text indicates "inlet", "outlet", and "power line interface".

Reinforced Nylon Hose Connector (Inlet/Outlet): A detailed view of the connector showing dimensions: $\phi 1.7$, $\phi 1.2$, $\phi 0.2$, $\phi 1.4$, $\phi 1.3$, and $\phi 0.5$.

Direction A: A view of the pump assembly showing dimensions: $\phi 4 \times \phi 3$, 62.1 , 19.5 , 150 , $R10.5$, $R14.5$, and $4 \times \phi 2.4$. The text indicates "pump mounting hole", "4 shock absorbing feet can rotate", and "shock absorbing foot mounting hole".

Table:

Type of Connectors	K value	
No connector	40	
Push-in connector	6mm	≈ 57
	8mm	≈ 59
Stainless Steel Hose Connector	≈ 60	
Reinforced Nylon Hose Connector	≈ 60	

Note: Size of K is related to the pneumatic connectors and its installation dimensions, for reference only, the error may be a few millimeters.

Direction A

pump mounting hole

40 62.1 19.5

30 30

4x $\Phi 5.4$

R10.5

feet can rotate

shock absorbing foot

mounting hole 4x $\Phi 2.4$

48 17

inlet outlet

61.5 61

K

61

A

Reinforced Nylon Hose Connector (Inlet/Outlet)

14 0.5 3 0.5

$\Phi 1.2$ $\Phi 0.2$ $\Phi 1.7$ $\Phi 6.2$

working status indicator

speed regulation wire interface

power line interface

Size of K is related to the pneumatic connectors and its installation dimensions, for reference only, the error may be a few millimeters

Type of Connectors	K value	
No connector	91	
Push-in connector	6mm	≈ 105
	8mm	≈ 107
Stainless Steel Hose Connector		≈ 108
Reinforced Nylon Hose Connector		≈ 108

Reinforced Nylon Hose Connector(Inlet/Outlet)

Size of K is related to the pneumatic connectors and its installation dimensions, for reference only, the error may be a few millimeters

Type of Connectors	K value	
No connector	91	
Push-in connector	6mm	≈105
	8mm	≈107
Stainless Steel Hose Connector	≈108	
Reinforced Nylon Hose Connector	≈108	

ACCESSORIES		
Descriptions	Illustration	Function
Shock-isolation mounting feet		Reduce the impact of vibration on the equipment during the operation of the pump. This accessory comes with the pump*4
Filter		The 80-mesh filter protect both pumps and other upstream instrumentation and hydraulic circuits against particulate, crystals and fibers . It is recommended to replace it regularly. This accessory comes with the pump*1
Check valve		Enhance the cut-off capability of the gas circuit system to ensure one-way gas flow. This accessory can be purchased on demand
Flow stabilizer		Eliminate and reduce pulsation, make gas output smooth and stable, this accessory can be purchased on demand
Manul control valve		It can be used to manually adjust the gas flow rate, pressure and vacuum. This accessory can be purchased on demand
Power Adapter		220V AC to DC switching power supply, this accessory can be purchased on demand
Silencer		It is used to eliminate and reduce the airflow noise caused by pumping operation, this accessory can be purchased on demand



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