Cat.No. **Lk049**

DC-MOTOR-DRIVEN DIAPHRAGM SYSTEM

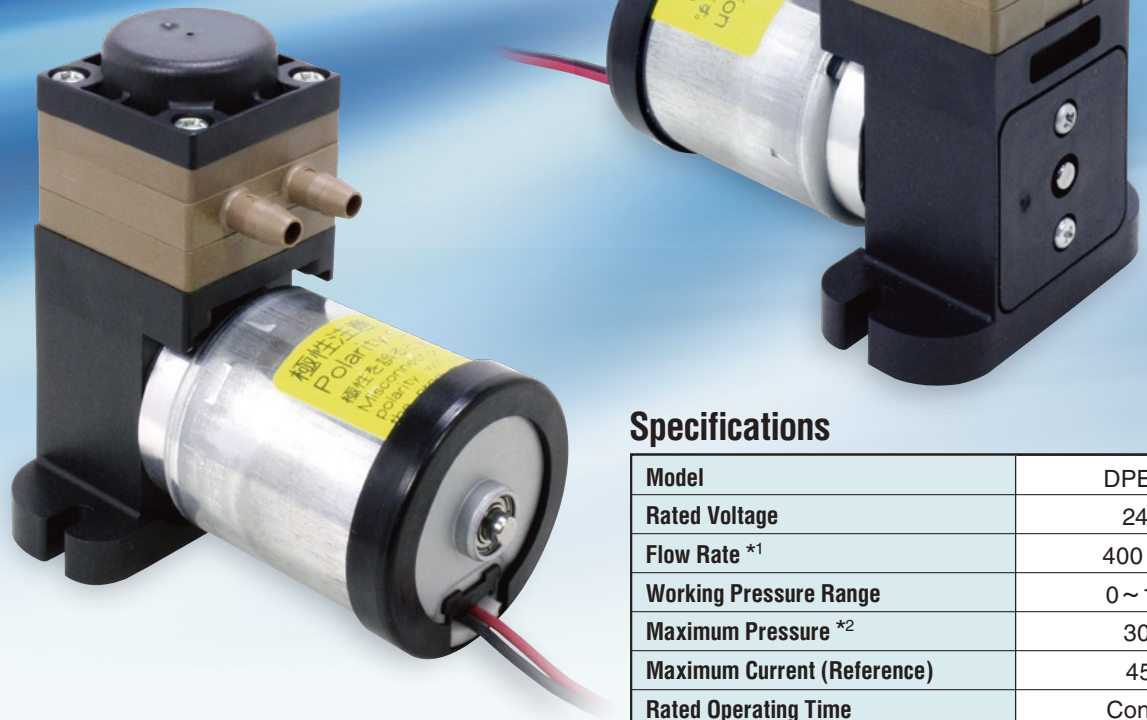
JQA-2160 Linear Products Division
JQA-EM4057 Headquarters Research Center
ISO 9001 ISO 14001

Small Diaphragm Liquid Pump

Model DPE-400BL

New

- Combination of our latest pump technology and brushless motor achieves 5,000 hours lifetime.
- Pulsation absorption system.
- Build material options for different liquids.
- Self-priming.
- 12 V DC brushless motor option.



Specifications

Model	DPE-400BL
Rated Voltage	24 V DC
Flow Rate *1	400 mL/min
Working Pressure Range	0～100 kPa
Maximum Pressure *2	300 kPa
Maximum Current (Reference)	450 mA
Rated Operating Time	Continuous
Life Expectancy (MTTF) *3	5,000 hours
Self-priming Pressure *1	40 kPa
Inlet & Outlet	5.4 mm O.D.
Insulation Classification	A or its equivalent (JETL)
Gross Weight	230 g
Motor	DC Brushless Motor

*1 At low temperature, the performance may reduce.
*2 Pumps may not re-start against high backpressure.
*3 Life expectancy is based on the following conditions:
Rated voltage: 24 V DC
Atmospheric pressure: 0 kPa
Fluid: water at 25°C

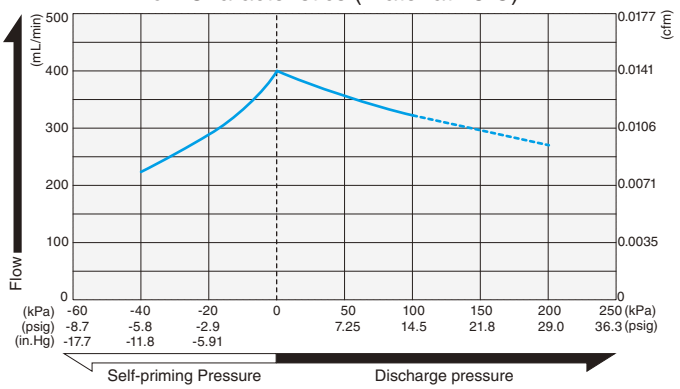
NITTO
NITTO KOHKI CO., LTD.

Small Diaphragm Liquid Pump

Model **DPE-400BL**

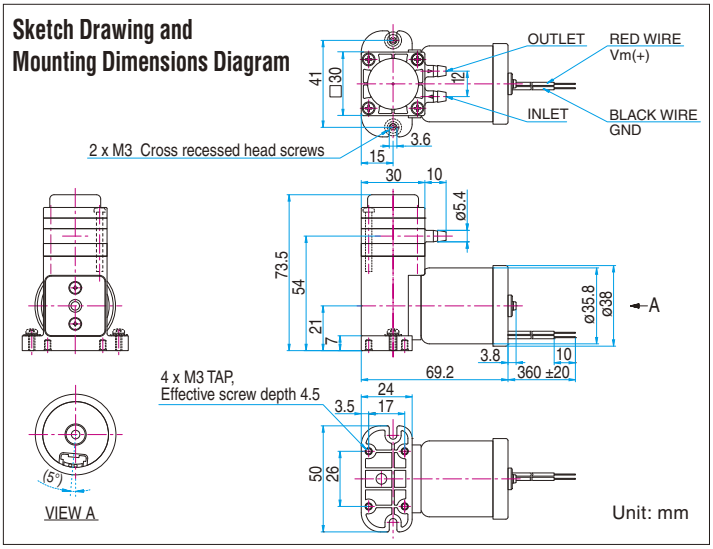
Liquid Pump

Flow Characteristics



The flow characteristics shown are for reference only and not guaranteed.

Sketch Drawing and Mounting Dimensions Diagram



Advanced Design DPE Pump with Pulse Absorption

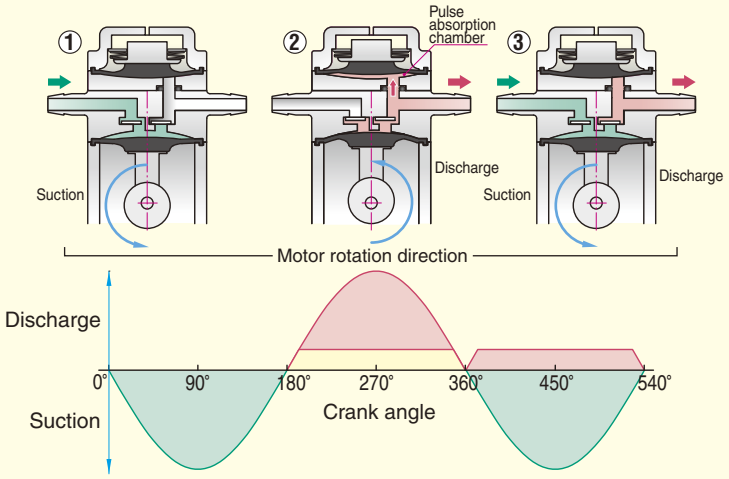
Provides pulse attenuation which helps to create steady state flow, reduced noise and vibration throughout the fluid circuit, and enhances life of the pump and other circuit components. It's designed in. . . No need for additional installation cost or space with pulsation dampers.

① Suction

② Discharge. Partial fluid delivery to pulse absorption chamber, not directly forced to outlet port.

③ Cyclical suction drawn into pump is synchronized with the discharge.

Pulses are attenuated through the process of ② and ③.



Build Materials and Applicable Fluid

Model	Cylinder Head	Head Cover	Diaphragm	Valve	O-ring	Acceptable Fluids	Unacceptable Fluids
DPE-400BL-2E	PA Polyamide		PTFE Polytetrafluoroethylene	EPDM Ethylene-propylene rubberr		Ammonia water, Citric acid, Sodium hydroxide, Ethanol, Potassium hydroxide	Mineral oil, Trichloroethylene, Benzaldehyde, Carbon tetrachloride, Toluene
DPE-400BL-2G				FKM Fuluoro rubber		Ethanol, Mineral oil, Ethylene glycol, Sodium carbonate	Chlorosulfonic acid, Formalin, Glacial acetic acid, Methyl ethyl ketone
DPE-400BL-7G	PPS Polyphenylene sulfide					Ethanol, Carbon tetrachloride, Trichloroethylene, Xylene, Silicone oil	Acetone, Chlorosulfonic acid, Formalin, Ammonia water, Glacial acetic acid
DPE-400BL-7P				FFKM Perfluoroelastomer		Ethanol, Glacial acetic acid, Methyl ethyl ketone, Chloroform, Benzene	Chlorosulfonic acid, Chlorofluorocarbon R-112, Fluorine oil, Chlorofluorocarbon R-113

The chemicals shown are for reference only. Please confirm suitability of materials in each application.

General Conditions

Ambient Operating Temperature	5 ~ 40℃
Ambient Operating Humidity	30 ~ 85%
Fluid Operating Temperature	5 ~ 50℃

Note:
- Please check with us if you need to use 12 V DC power supply.
- The pump can be used for both liquids and gases.

Diaphragm Liquid Pump Series

DPE-100
Flow Rate: 100 mL/min
Self-priming Pressure: 20 kPa

DPE-400
Flow Rate: 400 mL/min
Self-priming Pressure: 40 kPa

DPE-800
Flow Rate: 800 mL/min
(Parallel Connection)
Self-priming Pressure: 40 kPa

★Specifications and designs are subject to change at any time without notice.

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