

DC 液体泵空 / DC Liquid Pump

DPE-100 / DPE-400 / 型号 DPE-400BL / DPE-800

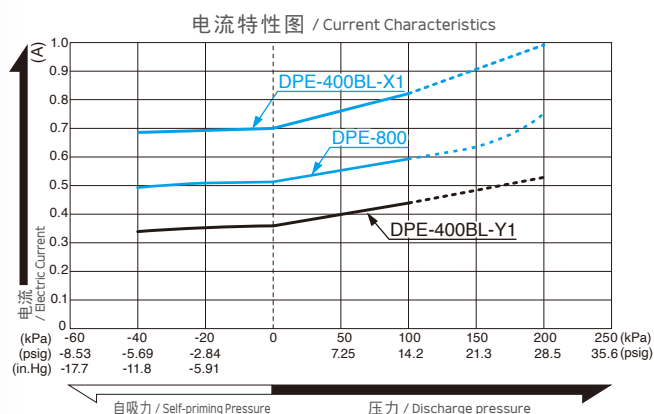
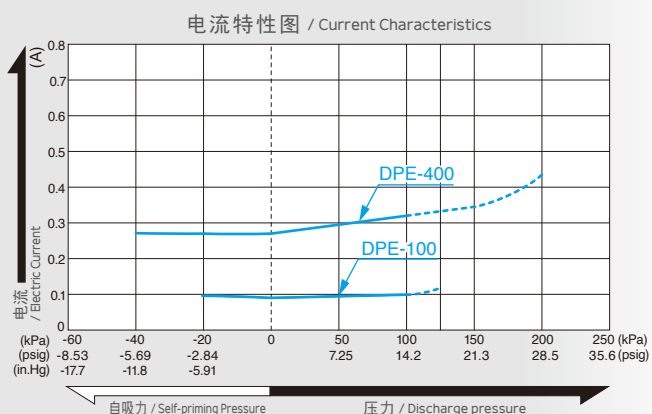
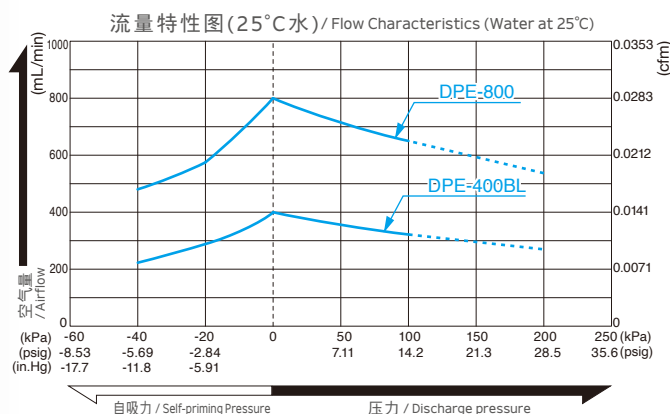
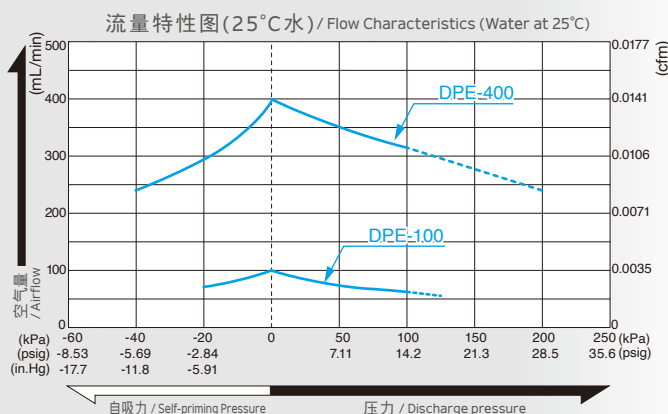
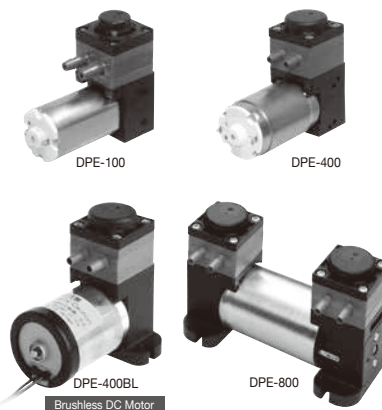


无碳刷马达 / Brushless DC Motor

有刷马达 / Brush DC Motor

12 V / 24 V DC

流量和电流 / Flow & Electric Current



规格 / Specifications

型号 / Model	DPE-100	DPE-400	DPE-400BL-X1	DPE-400BL-Y1	DPE-800
额定电压 / Rated Voltage	24 V DC		12 V DC	24 V DC	
流量 / Flow Rate *1	100 mL/min 0.0035 cfm		400 mL/min 0.0141 cfm		800 mL/min 0.0283 cfm
使用压力范围 / Working Pressure Range	0 ~ 100 kPa (0 ~ 1 kgf/cm ²) 0 ~ 1 bar 0 ~ 14.2 psig				
最高压力 *2 / Maximum Pressure	300 kPa (3 kgf/cm ²) 3 bar 42.7 psig				
最大电流 / Maximum Current	100 mA	345 mA	900 mA	450 mA	600 mA
额定时间 / Duty Cycle	连续 / Continuous				
耐用时间 (MTTF) / Rated Performance (MTTF)	500 小时 / hours		6,000 小时 / hours		600 小时 / hours
自吸力 *1 / Self-priming Pressure	20 kPa (150 mmHg) 0.2 bar 2.84 psig		40 kPa (300 mmHg) 0.4 bar 5.69 psig		
吸入口尺寸 / Inlet	φ4.7 mm (外径) 直管接头 / 4.7 mm O.D. straight barb		φ5.4 mm (外径) 直管接头 / 5.4 mm O.D. straight barb		
吐出口尺寸 / Outlet	φ4.7 mm (外径) 直管接头 / 4.7 mm O.D. straight barb		φ5.4 mm (外径) 直管接头 / 5.4 mm O.D. straight barb		
线圈绝缘等级 / Coil Insulation Class	相当于 E 类 / Class E equivalent	相当于 F 类 / Class F equivalent	相当于 A 类 / Class A equivalent		相当于 E 类 / Class E equivalent
安装尺寸 / Mounting Dimensions	9.5 (L) x 17 (W) mm 3/8" (L) x 43/64" (W)	19 (L) x 26 (W) mm 3/4" (L) x 1 - 1/32" (W)	41 (W) mm 1 - 39/64" (W)		74.5 (L) x 41 (W) mm 2 - 15/16" (L) x 1 - 39/64" (W)
本体重量 / Weight	67 g 0.148 Lbs	187 g 0.412 Lbs	230 g 0.507 Lbs		350 g 0.771 Lbs
马达 / Motor	有刷马达 / Brush DC Motor		无碳刷马达 / Brushless DC Motor		有刷马达 / Brush DC Motor

*1: 若止回阀因液体温度低而硬化, 自吸性能和流量将降低。/ When the check valve is hardened due to low liquid temperature, self-priming performance and flow rate will go down.

*2: 流路关闭时无法重新启动泵。/ Restarting pumps with flow passage closed is impossible.

*3: 两个泵压头之间的管路必须并联。两个泵压头之间的管路不可串联。否则, 会引起压力急剧上升, 导致零部件损坏、液体飞溅甚至起火。
/ Tubing between two pumping heads must be done in parallel. Tubing in series between the two pumping heads should not be made. This may cause extreme pressure hike that will result in broken parts, liquid splash or possible ignition.

使用条件 / Condition of use

使用条件 / Conditions of Use	压电泵 / BIMOR PUMP
使用环境温度 / Ambient temperature	5~40°C*1
使用环境湿度 / Ambient humidity	35~85%*2
使用流体温度 / Fluid temperature	5~50°C

*1) 不结冰 / No freezing *2) 不结露 / No condensation

用途例 / Application Examples

- 液体分析仪 (例如, 医疗、食品、水处理和环境)。
/Liquid analytical instruments e.g. medical, food, water treatment & environmental.
- 过滤、取样、灭菌器和洗涤剂中的液体输送。
/Liquid transport within filtration, sampling, sterilizers and washers.
- 工业喷墨打印机中的墨水输送。
/Ink transport within industrial ink-jet printers.

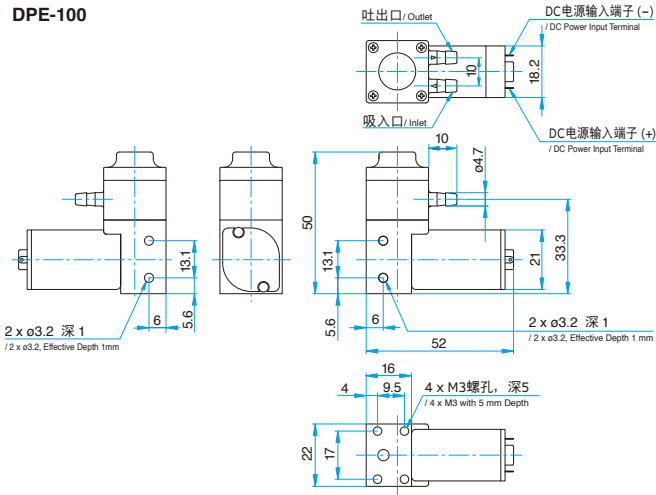
接液部材质和适用流体 / Material of wetted parts and applicable fluids

型号/Model	接液部材质 / Material of wetted parts				适用化学液体示例* /Example of suitable chemical liquid*	不合适的化学液体示例 /Example of unsuitable chemical liquid
	缸盖/Cylinder Head	缸盖罩/Head Cover	隔膜/Diaphragm	阀/Valve		
DPE-100-2E DPE-400-2E DPE-400BL-2E DPE-800-2E	PA 聚酰胺(尼龙) /Polyamide(Nylon)		PTFE 聚四氟乙烯 /Polytetrafluoroethylene	EPDM 乙丙橡胶 /Ethylene-propylene rubber	苛性苏打、柠檬酸、氨水、苛性钾、乙醇 /Caustic soda, Citric acid Ammonia water, Caustic potash, Ethanol	矿物油、三氯乙烯、苯甲醛、四氯化碳、甲苯 /Mineral oil, Trichloroethylene, Benzaldehyde, Carbon tetrachloride, Toluene
DPE-100-2G DPE-400-2G DPE-400BL-2G DPE-800-2G				FKM 氟橡胶 /Fluoro rubber	乙醇、乙二醇、碳酸钠、矿物油 /Ethanol, Ethylene glycol Sodium carbonate, mineral oil	氯磺酸、甲磺水、冰醋酸、甲基乙基酮 /Chlorosulfonic acid, Folmalin, Glacial acetic acid, Methyl ethyl ketone
DPE-100-7G DPE-400-7G DPE-400BL-7G DPE-800-7G	PPS 聚苯硫醚 /Polyphenylene sulfide			FFKM 全氟橡胶 /Perfluoroelastomer	二甲苯、四氯化碳、三氯乙烯、硅油 /Xylene, Carbon tetrachloride Trichloroethylene, Silicon oils, Ethanol	丙酮、氯磺酸、甲磺水、氨水、冰醋酸 /Acetone, Chlorosulfonic acid, Formalin, Ammonia water, Glacial acetic acid
DPE-100-7P DPE-400-7P DPE-400BL-7P DPE-800-7P					乙醇、三氯甲烷、苯、冰醋酸、甲基乙基酮 /Ethanol, Chloroform, Benzene Glacial acetic acid, Methyl ethyl ketone	氯磺酸、氟油、CFC 112、CFC 113 /Chlorosulfonic acid, Fluorine oil, CFC 112, CFC 113

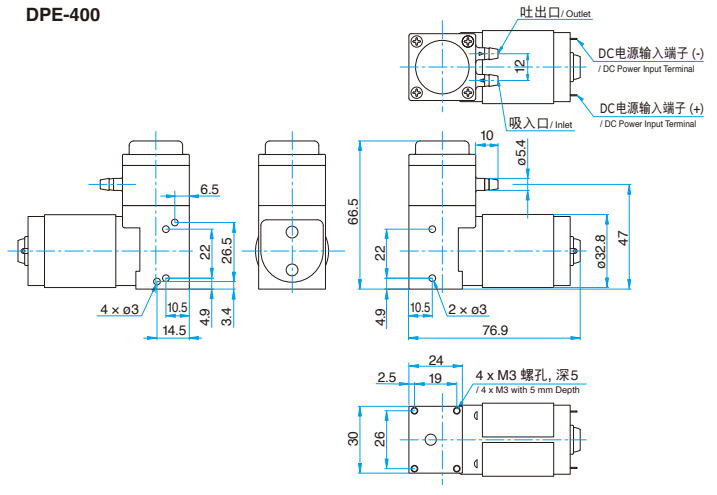
*本图表仅供参考。请在使用条件下确认后再使用。 / *This chart is for reference only. Please confirm the suitability under the operating conditions before use.

外形尺寸图 / External Dimensions (单位 / Unit : mm)

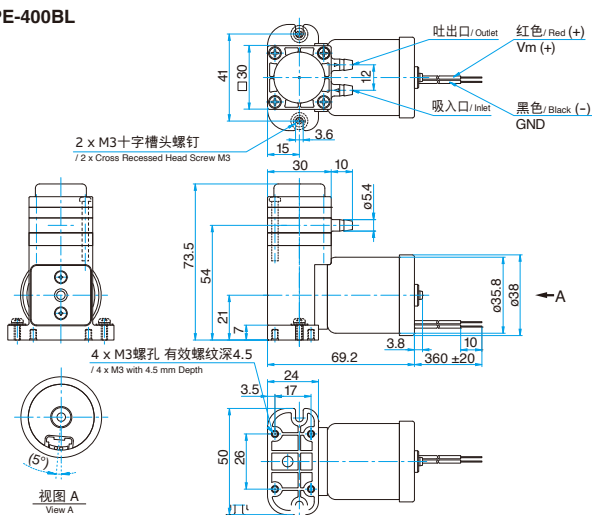
DPE-100



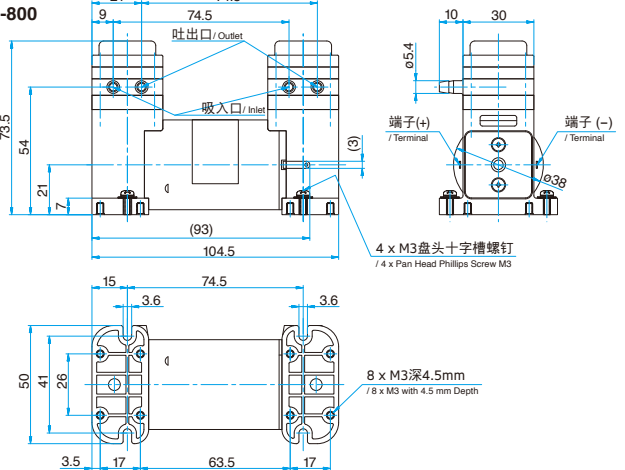
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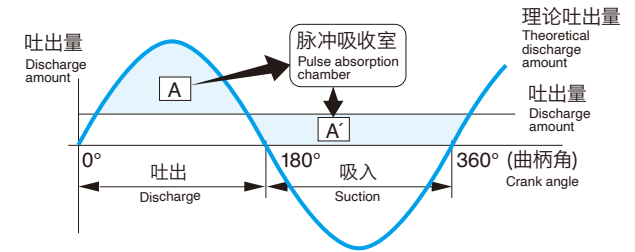
DPE-400BL



DPE-800



脉冲吸收机制 / Pulse Absorption Mechanism



- 脉动原因 (A) 进入吸收室并在吸气时被吐出 (A'), 实现降低脉动
/The cause of pulsation (A) is taken into the pulse absorption chamber and discharged at the time of suction (A') to reduce pulse.
- 脉动: 压力和流量变化引起的振动
/Pulsation: Vibration due to change in pressure and flow rate