

- PMD-0531
- PMD-221
- PMD-371
- PMD-421
- PMD-581
- PMD-641
- PMD-643
- PMD-1561
- PMD-1563
- PMD-2571
- PMD-2573
- PMD-4033
- PMD-7533
- PMD-15013A-E3
- PMD-22013A-E3
- PMD-37013A-E3



Characteristics

High performance and energy saving

Compared to the conventional products, the pump efficiency increased by 35%. This type became smaller, lighter, 5-dB quieter and 50% reduction in vibration.

Long-life and no liquid leakage

There is no liquid leakage due to no shaft seal part. As made of resin, this type is appropriate for transporting highly-corrosive special liquid.

Complete no liquid leakage

This type is seal-less pumps based on the magnet coupling system. The pump section will never have liquid leakage, corrosion, dirt around the pump and troublesome mechanical seal replacement.

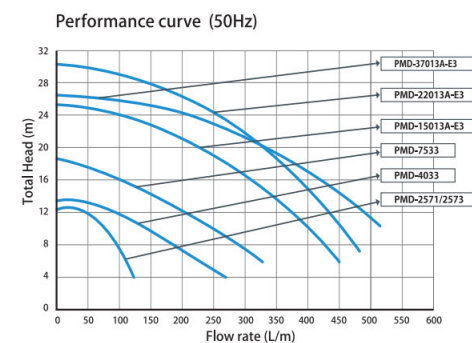
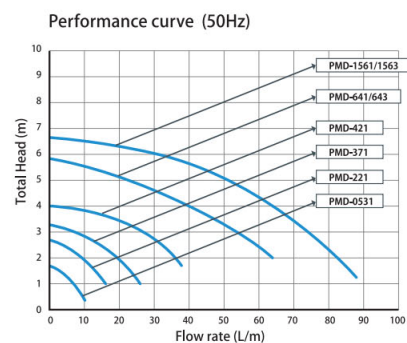
Application

- Circulation of sea water, culture tank and water tank, etc.
- Drain chemical liquid, transfer of chemical liquid, etc.
- Waste water treatment equipment, Aquarium equipment, PCB equipment, Solar heating system, Filter, Bubble bath, Etching equipment, Printing equipment, Chillers, Cooling of NC machine, Ice maker, etc.

Caution

- Chemical resistance must be verified before using the products by checking whether an intended purpose can be achieved with a preliminary test, etc.
- In order to use cold water, apply lagging materials and/or heat-insulating materials as measure against dew condensation if necessary.

Performance Curve



Excellent characteristics

Front-casing

- Hose-connection and screw-connection type.
- Integral molding by polypropylene mixed with filler to increase mechanical strength.
- Simple and compact connection to piping.
- Straight screw according to diameter as standard.

Impeller

- Material is PP and permanent magnet is contained inside.
- PTFE bearing is inserted between impeller is open or closed or semi-closed type, depending on performance characteristics.

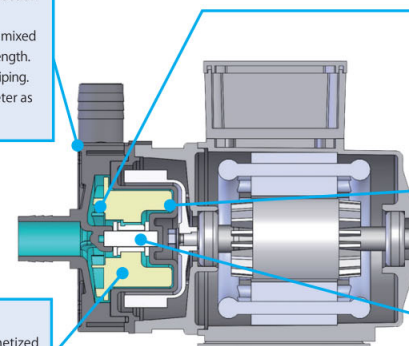
Back casing

- Integral molding by polypropylene or PPE as well as front-casing.

Drive magnet

- Made of permanent magnet magnetized from 6 poles to 10 poles. Impeller is rotated by magnet form outside of back casing.

Bearing



Corrosion resistance Table

Fluid	Criterion
Sodium hypochlorite	Up to 5 ppm of concentration
Caustic soda	Up to 5 % of concentration
Hydrochloric acid	Up to 30 % of concentration
Sulfuric acid	Up to 10 % of concentration
Citric acid	Up to 15 % of concentration

■ The above corrosion resistance table shows the standards when a fluid temperature is normal (0–40°C).

Part name and material

Material of water contact part

Part name	Classification	2
Casing		PP(with glass)
Impeller		PP(with glass)
Pump shaft		Alumina ceramics
Thrust block		Alumina ceramics
Pump bearing		PTFE
O-ring		FKM

Specification

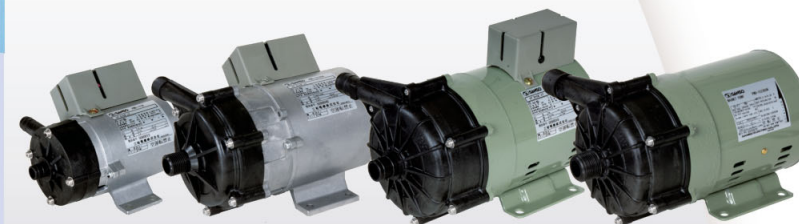
TYPE I

Model	Motor				Diameter		50Hz		60Hz	
	Rated output W(50Hz/60Hz)	Phase Φ	Rated voltage V	Frequency Hz	Hose mm	Screw inch	Total head m	Rated flow rate L/min	Total head m	Rated flow rate L/min
PMD-0531	18	Single	220	50	14	—	1 · 0.7	6 · 8	—	—
	10/15	Single	220, 220-240	50/60	14	—	2 · 1	6 · 13	3 · 2	6 · 13
PMD-221	10/15	Single	220, 220-240	50/60	—	G3/4	2 · 1	6 · 13	3 · 2	6 · 13
	10/15	Single	110	50/60	14	—	2 · 1	6 · 13	3 · 2	6 · 13
PMD-371	15/20	Single	220, 220-240	50/60	17	—	2 · 1.5	18 · 22	3 · 2	19 · 26
	15/20	Single	220, 220-240	50/60	—	G3/4	2 · 1.5	18 · 22	3 · 2	19 · 26
	15/20	Single	110	50/60	17	—	2 · 1.5	18 · 22	3 · 2	19 · 26
	15/20	Single	110	50/60	—	G3/4	2 · 1.5	18 · 22	3 · 2	19 · 26
PMD-421	35/45	Single	220, 220-240	50/60	20	—	3 · 2	21 · 30	4 · 3	26 · 35
	35/45	Single	220, 220-240	50/60	—	G3/4	3 · 2	21 · 30	4 · 3	26 · 35
	35/45	Single	110	50/60	—	G3/4	3 · 2	21 · 30	4 · 3	26 · 35
PMD-581	40/60	Single	220, 220-240	50/60	20	—	4 · 3	23 · 35	6 · 5	23 · 35
	40/60	Single	220, 220-240	50/60	—	G3/4	4 · 3	23 · 35	6 · 5	23 · 35
PMD-641	65/100	Single	110(220)	50/60	26	—	5 · 3	23 · 50	7 · 5	25 · 50
	65/100	Single	110(220)	50/60	—	G1	5 · 3	23 · 50	7 · 5	25 · 50
	65/100	Single	220, 220-240	50/60	26.5	—	5 · 3	23 · 50	7 · 5	25 · 50
	65/100	Single	220-240	50/60	—	G1	5 · 3	23 · 50	7 · 5	25 · 50
PMD-643	65/100	Three	380·400·415	50/60	—	G1	4 · 3	34 · 46	6 · 5	35 · 48
	65/100	Three	220(380)	50/60	26	—	5 · 3	23 · 50	7 · 5	25 · 50
	65/100	Three	220(380)	50/60	—	G1	5 · 3	23 · 50	7 · 5	25 · 50
PMD-1561	120/160	Single	110(220)	50/60	26	—	5.5 · 4	40 · 60	8 · 6	40 · 63
	120/160	Single	110(220)	50/60	—	G1	5.5 · 4	40 · 60	8 · 6	40 · 63
	120/160	Single	220, 220-240	50/60	26.5	—	5.5 · 4	40 · 60	8 · 6	40 · 63
	120/160	Single	220-240	50/60	—	G1	5.5 · 4	40 · 60	8 · 6	40 · 63
PMD-1563	120/160	Three	380·400·415	50/60	—	G1	5 · 4	42 · 56	7 · 5	50 · 72
	120/160	Three	220(380)	50/60	26	—	5.5 · 4	45 · 64	8 · 6	45 · 70
	120/160	Three	220(380)	50/60	—	G1	5.5 · 4	45 · 64	8 · 6	45 · 70
PMD-2571	250	Single	220, 220-240	50	26.5	—	10 · 8	50 · 75	—	—
	250	Single	220-240	50	—	G1	10 · 8	50 · 75	—	—
	250	Single	110(220)	60	26.5	—	—	—	10 · 8	55 · 80
	250	Single	110(220)	60	—	G1	—	—	10 · 8	55 · 80
	250	Single	220	60	26.5	—	—	—	10 · 8	45 · 70
PMD-2573	250	Three	380·400·415	50	26.5	—	10 · 8	70 · 95	—	—
	250	Three	380·400·415	50	—	G1	10 · 8	70 · 95	—	—
	250	Three	220(380)	50	26.5	—	10 · 8	70 · 95	—	—
	250	Three	220(380)	50	—	G1	10 · 8	70 · 95	—	—
PMD-4033	400	Three	380, 380-415	50	—	G1 1/2	10 · 6	130 · 230	—	—
	400	Three	380	50	—	G1 1/2	10 · 6	120 · 200	—	—
	400	Three	380-415	60	—	G1 1/2	—	—	10 · 6	140 · 240
PMD-7533	750	Three	380, 380-415	50	—	G1 1/2	15 · 12	130 · 210	—	—
	750	Three	380	50	—	G1 1/2	14 · 10	135 · 230	—	—
	750	Three	380-415	60	—	G1 1/2	—	—	15 · 12	155 · 225

TYPE II

Model	Motor				Diameter [®]	50Hz		60Hz	
	Rated output W(50Hz/60Hz)	Phase Φ	Rated voltage V	Frequency Hz		Total head m	Rated flow rate L/min	Total head m	Rated flow rate L/min
PMD-15013A-E3	1500	Three	380·400·415	50	JIS 10K·Flange 50A × 40A	20.5 · 9.5	120 · 355	—	—
PMD-22013A-E3	2200	Three	380·400·415	50	JIS 10K·Flange 50A × 40A	25 · 13.5	120 · 360	—	—
PMD-37013A-E3	3700	Three	380·400·415	50	JIS 10K·Flange 50A × 40A	19.2 · 14.8	250 · 360	—	—

- Conditions of liquids : ambient Temp : 0~60°C ■ Viscosity : below 30ml/s ■ Specific gravity : below 1.1
- (1) Slurry liquids reduce life of pump. (2) Allowable primary side pressure : Less than 100kpa. (3) Indoor use. (4) Shock pressure and abnormal pressure etc will damage the pump part. (5) Voltage can be adjusted to customer's requirement.
- ※ A phase flange, flange packing, and the mounting bolt doesn't come with the products.
- Please purchase the optional flange sets (sell separately), or, please find commercially available product (JIS 10K product).
- Please contact Sanso for any custom spec. power supply needed.



PMD-111

PMD-521

PMD-1521

PMD-1523

**PMD-111
PMD-121
PMD-521
PMD-1521
PMD-1523**

Characteristics

• No shaft seal part, no leakage

Since this type is small-sized but with high head water (high pressure), this pump economically generates sufficient discharge rate even against higher pipe resistance.

Caution

- In order to use cold water, apply lagging materials and/or heat-insulating materials as measure againsts dew condensation if necessary.
- [Deteriorated unfrozen-liquid] and [unfrozen liquid of viscosity increase at the low temperature] might damage the pump.

Part name and material

(Note 1) Material of water contact part

Part name	Classification	2
Casing		PPE (with glass)
Impeller		PPE (with glass)
Pump shaft		Alumina ceramics
Thrust block		Alumina ceramics
Pump bearing		Carbon
O-ring		EPDM

Specification

PMD - Hot water

Model	Motor				Diameter		50Hz		60Hz	
	Rated output W(50Hz/60Hz)	Phase Φ	Rated voltage V	Frequency Hz	Hose mm	Screw inch	Total head m	Rated flow rate L/min	Total head m	Rated flow rate L/min
PMD-111	10/15	Single	220	50/60	14	—	2.5(MAX)	16(MAX)	3.5(MAX)	19(MAX)
	10	Single	240	50	14	—	2.5(MAX)	16(MAX)	—	—
PMD-121	10/15	Single	220	50/60	14	—	4.2	13	5.5	15
PMD-521	40/50	Single	110, 220	50/60	—	G1/2	8.5	14	11	15
PMD-1521	85/150	Single	110/220, 220	50/60	20	G3/4	14.5	34.5	19.8	38
PMD-1523	100/150	Three	220/380	50/60	20	G3/4	14.5	34.5	19.8	38

- Ambient Temp : 0~40°C
- Liquid Temp : 0~90°C
- Some models can be used at -20°C.
- Contact us, in case of possible condensation, take measures.
- Slurry solutions will harm the life of pump. Max viscosity : 30ml/s
- Specific gravity : Less than 1.1
- Allowable primary side pressure : Less than 100kpa.
- Site : For indoor use
- Abnormal pressure and shock might damage the pump.
- Please contact Sanso for any custom spec. power supply needed.