



# MD Series Acid & Alkali Resistant Magnetic Drive Pump

Strong Corrosive Resistance, High Performance, High  
Cost-effective, Customization



MD258 Series (Splitted Type)



MD258 Series (Integrated Type)

**BTS**  
ENGINEERING

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# High performance suitable for transferring strong corrosive liquids Small size magnetic drive pump

High efficiency, small vibration, low noise, long service life.

A wide range of models and options  
It can transfer most chemical liquids including strong acid and alkali.

MD258 Series (Splitted Type)



## Series Model

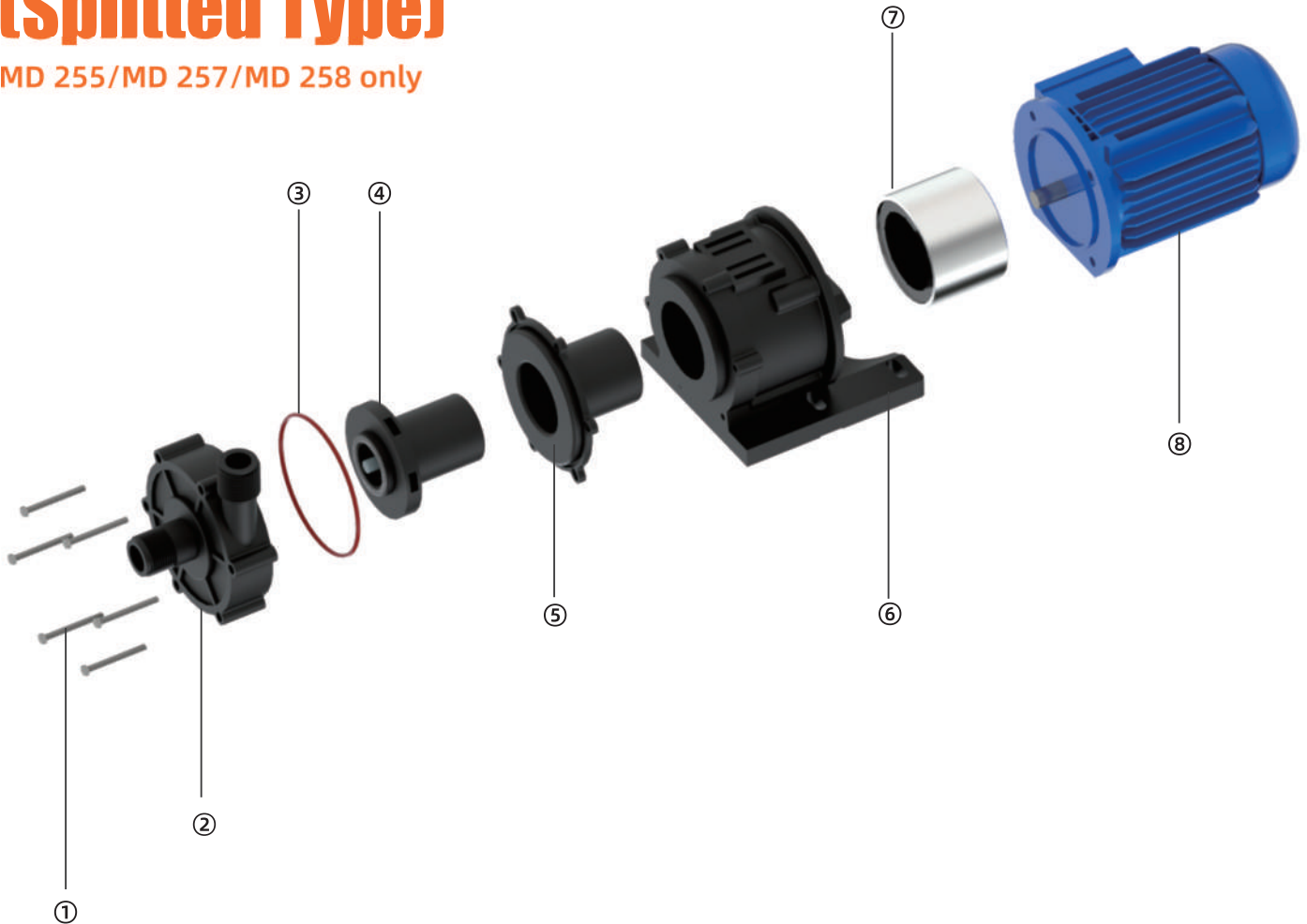
50Hz 60Hz

Main Material	Model	Max.Flow (L/min)						Max.Head (m)						Parameters Apply To Specific Gravity Range	
		20	40	60	80	100	120	2	4	6	8	10	12		14
PPH	MD-200	6.7						2							<1.2
	MD-201	15						2.1							
	MD-202	25						3.3							
PVDF/CFRETFE/PPH	MD-203	33						4							
	MD-203H	15						9							
	MD-204	36						4.5							
	MD-204H	16						10							
	MD-255	63						6.5							
	MD-257	70						8							
MD-258	95						11								

- Medium Temperature: 0°C~+100°C, Medium Specific Gravity: 1-1.2, Working Environment Temperature: -5°C~+50°C, Maximum Altitude: 2000m, Maximum Working Pressure: 2Bar.
- Test Basis: The above performance data corresponds to the transportation of clean water at normal speed at 25°C. The performance error is ±5%. The performance of the pump varies with the specific gravity and temperature of the conveying fluid medium.
- The above factory measured data is for reference only. Due to the differences in many factors such as the viscosity of the liquid, pipeline layout, flow meter type, etc. during actual use by customers, the final performance parameters of the pump should be based on the measured data at the equipment use site.

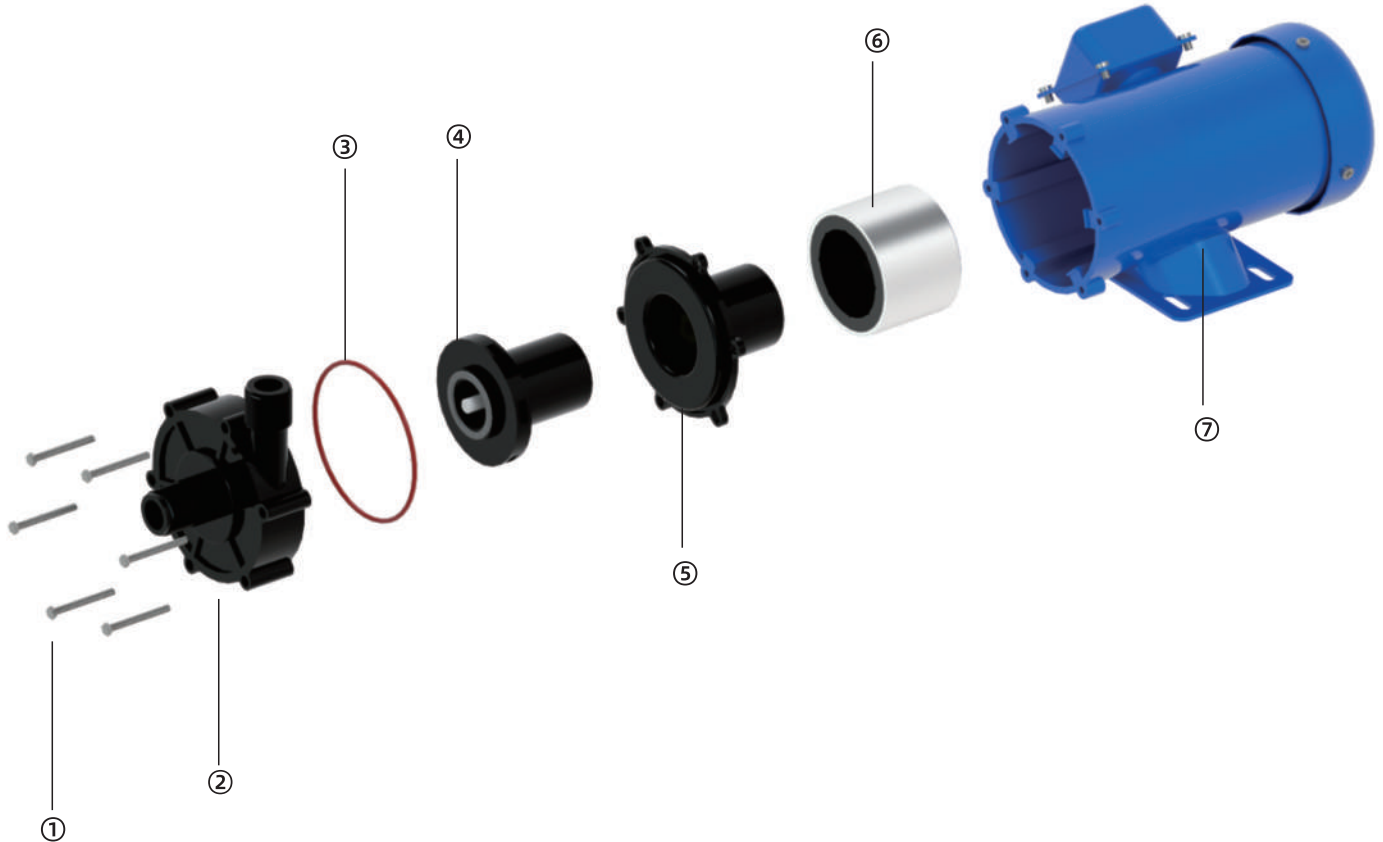
# MD Series Exploded View (Splitted Type)

MD 255/MD 257/MD 258 only



①	Holding Screw	SUS304/SUS316/TI;
②	Front Cover	It can choose hose connection type or thread connection type according to different needs. And based on the threaded connection type, it can also be flexibly changed to the connection type of union or flange according to the demand.
③	Front & Rear Covers Seal O-Ring	FKM is suitable for acid liquids and solvents, EPDM is suitable for alkali and weak acid liquids, optional FPM is suitable for any strong acid and alkali liquids and solvents;
④	Impeller Assembly	The magnet is built into the magnetic capsule and integrated with the impeller for injection molding. And the pump shaft material is Ceramic / SSiC / Ti material, wherein the rotary design of the impeller is open type, closed type, semi - open type. Open/closed/semi - open impeller can be selected according to the characteristics of the conveyed medium;
⑤	Rear Cover Assembly	The rear cover materials are PPH/PVDF/CFRETFE, and Ceramic / SSiC /PTFE thrust ring are embedded at the bottom to support the pump shaft;
⑥	Frame	PP glass fiber integrated injection molding, corrosion resistance, higher support strength, to prevent the fixed seat from being corroded by chemicals;
⑦	Drive Magnet	The drive magnet is a strong magnetic magnet, which has magnetizations of 6 pole and 8 pole respectively. After the motor is started, the magnetic field is generated, and the magnetic capsule drives the impeller to rotate through the magnetic field penetrating the rear cover;
⑧	Motor	-

# MD Series Exploded View (Integrated Type)



①	Holding Screw	SUS304/SUS316/TI;
②	Front Cover	The front cover adopts double convex ridge sealing structure design. It can choose hose connection type or thread connection type according to different needs. And based on the threaded connection type, it can also be flexibly changed to the connection type of union or flange according to the demand.
③	Front & Rear Covers Seal O-Ring	FKM is suitable for acid liquids and solvents, EPDM is suitable for alkali and weak acid liquids, optional FFKM is suitable for any strong acid and alkali liquids and solvents.
④	Impeller Assembly	The magnet is built into the magnetic capsule and integrated with the impeller for injection molding. And the pump shaft material is Ceramic /SSIC/Ti material, wherein the rotary design of the pump shaft and the magnetic capsule injection together. Open/closed/semi-open impeller can be selected according to the characteristics of the conveying medium.
⑤	Rear Cover Assembly	The rear cover material is PPH/PVDF/CFRETFE, and Ceramic/SSIC/PTFE thrust ring are embedded at the bottom to support the pump shaft.
⑥	Drive Magnet	The drive magnet is a strong magnetic magnet, which has magnetizations of 6 pole and 8 pole respectively. The coupling torque between the drive magnet and the magnetic capsule drives the impeller to rotate through the magnetic field penetrating the rear cover.
⑦	Motor	-

# I MD 6W-260W

## Small Acid & Alkali Resistant Magnetic Pump

### Product Feature

- **High Efficiency And Zero Leakage:** The innovative shaft seal-free structure and fully sealed design ensure that the pump does not leak under high temperature and high pressure conditions;
- **Small And Sturdy Structure:** Simple assembly, convenient disassembly, inspection and maintenance, the front and rear covers of the pump are both designed with reinforced ribs;
- **Excellent Corrosion Resistance:** The pump body, wear-resistant parts and seals are made of carefully selected materials and can transport most strong acid and alkali solutions.



MD258 Series (Splitted Type)

MD258 Series (Integrated Type)

### Model Description

MD - F - 25 - 8 - S - A - V - 5 - V38 - A - Y - B - S  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

- ① Model No.: MD
- ② Pump Material: F-PPH; P-PVDF; E-CFRETFE;
- ③ Inlet And Outlet Caliber: 20-3/4"; 25-1"
- ④ Power: 0-6W; 1-10W; 2-20W; 3-45W; 4-65W; 5-120W; 7-180W; 8-260W
- ⑤ Inlet And Outlet Form: S-Screw; H-Intubation; U-Union; F-Flange
- ⑥ Pump Shaft Material: A-Ceramic; S-SSIC Silicon Carbide; T-Titanium Material
- ⑦ Sealing Material: E-EPDM; V-FKM; F-FFKM
- ⑧ Frequency: 5-50Hz; 6-60Hz
- ⑨ Voltage: V38-3Ø/380V; V41-3Ø/415V; V44-3Ø/440V; V48-3Ø/480V; V66-3Ø/660V; V32-3Ø/220V; V22-1Ø/220V
- ⑩ Specific Gravity Of Liquid: A-1.0-1.2; B-1.3; C-1.4; D-1.5
- ⑪ Split-Type
- ⑫ Motor Protection Level: A-IP54; B-IP55; C-IP56; D-IP65
- ⑬ S-Standard; N-Non-Standard

### Specification Sheet

Model	Hose Interface		Threaded Interface		Max. Flow				Max. Head (m)		Reference Specific Gravity Range	Motor		Weight (kg)
	Import (mm)	Export (mm)	Import	Export	50Hz		60Hz		50Hz	60Hz		Power (W)	Voltage (V)	
					(L/min)	(m <sup>3</sup> /h)	(L/min)	(m <sup>3</sup> /h)						
MD-200	14	14	/	/	6.7	0.4	11.7	0.7	2	2.1	<1.2	6	220	0.84
MD-201	16	16	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	15	0.9	16.7	1	2.1	2.4	<1.2	10	220	1.45
MD-202	18	18	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	25	1.5	31	1.9	3.3	4.3	<1.2	20	220	1.88
MD-203	20	20	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	33	2.0	33	2.0	4.0	5.0	<1.2	45	220	4
MD-203H	20	20	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	15	0.91	16	0.96	9	10	<1.2	45	220	4
MD-204	20	20	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	36	2.2	40	2.4	4.5	6.1	<1.2	65	220	4.2
MD-204H	20	20	G <sup>3</sup> / <sub>4</sub>	G <sup>3</sup> / <sub>4</sub>	16	0.96	16	0.96	10	11	<1.2	65	220	4.2
MD-255	26	26	G1	G1	63	3.8	58	3.5	6.5	6.4	<1.2	120	220/380	6.9
MD-257	26	26	G1	G1	70	4.2	65	3.9	8.0	7.0	<1.2	180	220/380	8.5
MD-258	26	26	G1	G1	95	5.7	100	6.0	11.0	13.0	<1.2	260	220/380	9

● Medium Temperature: 0°C~+100°C, Medium Specific Gravity: 1-1.2, Working Environment Temperature: -5°C~+50°C, Maximum Altitude: 2000m, Maximum Working Pressure: 2Bar.  
 ● Test Basis: The above performance data corresponds to the transportation of clean water at normal speed at 25°C. The performance error is ±5%. The performance of the pump varies with the specific gravity and temperature of the conveying fluid medium.  
 ● The above factory measured data is for reference only. Due to the differences in many factors such as the viscosity of the liquid, pipeline layout, flow meter type, etc. during actual use by customers, the final performance parameters of the pump should be based on the measured data at the equipment use site.

# MD-200/201/202/203/204 255/257/258

● Max. Flow: 6.7/11.7-95/100L/min

● Max. Head: 2.0/2.1-11/13m

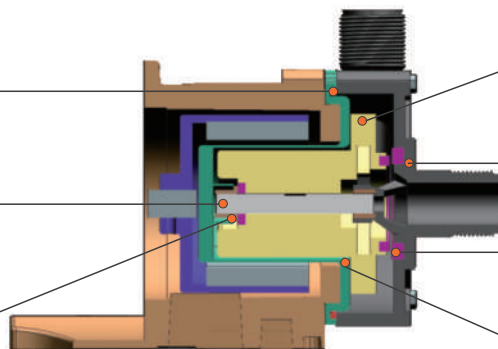


## Structure Drawing And Material

Front & Rear Covers  
Seal O-ring:  
EPDM/FKM/FFKM

Shaft:  
Ceramic/SSIC/Ti

Bearing:  
Ceramic/SSIC/PTFE



Impeller Assembly:  
PPH/PVDF/ETFE

Front Cover:  
PPH/PVDF/CFRETFE

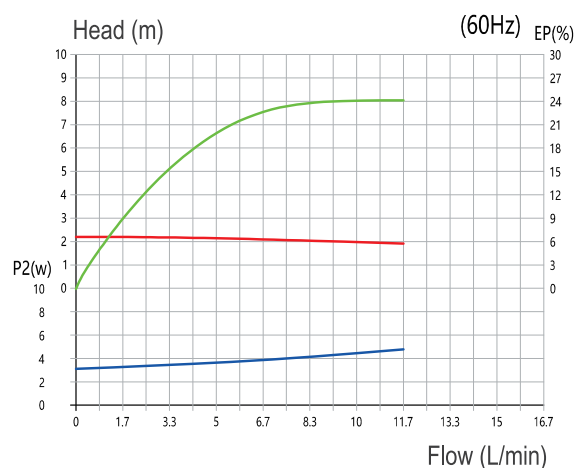
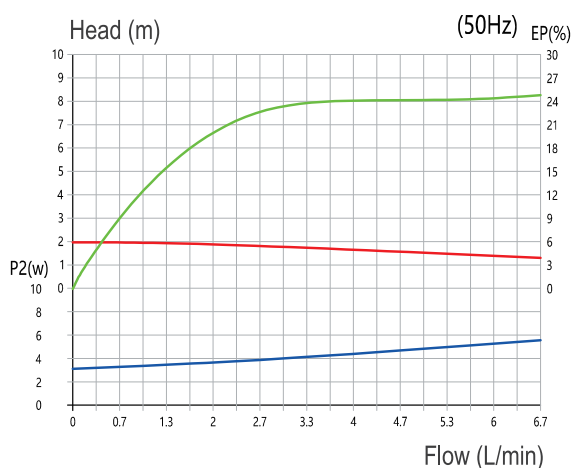
Front Cover Thrust Ring:  
Ceramic/SSIC

Rear Cover Assembly:  
PPH/PVDF/CFRETFE

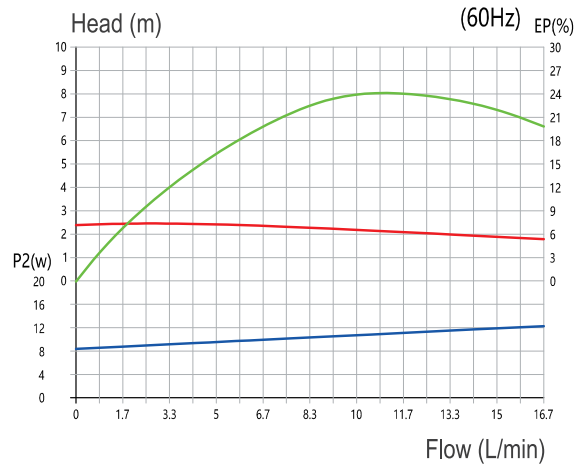
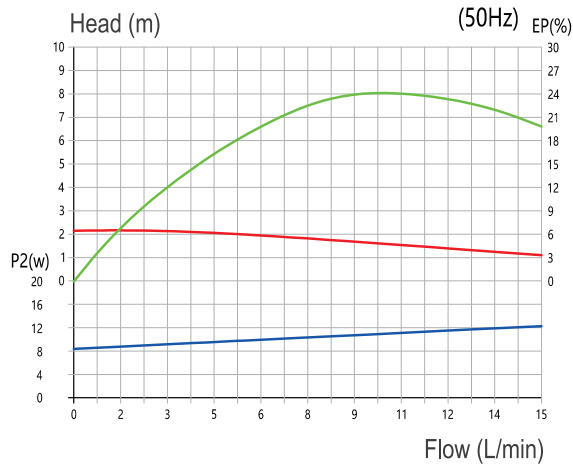
## Performance Curve

■ Head&Flow ■ Efficiency ■ Shaft Power

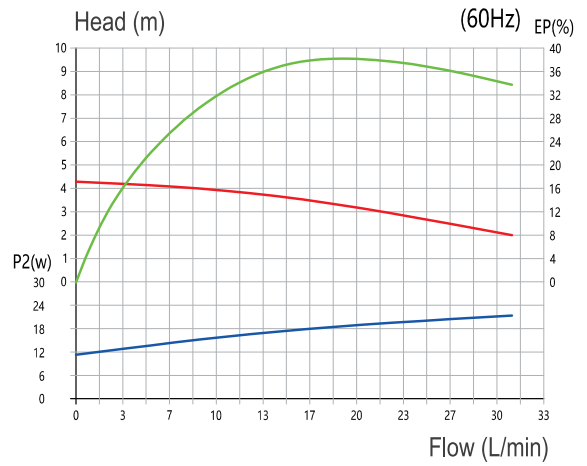
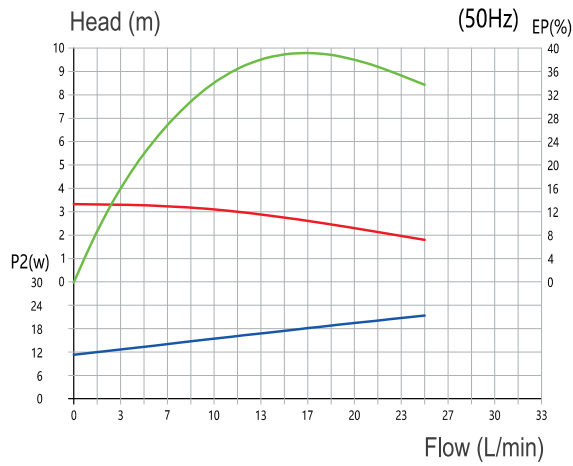
### MD-200



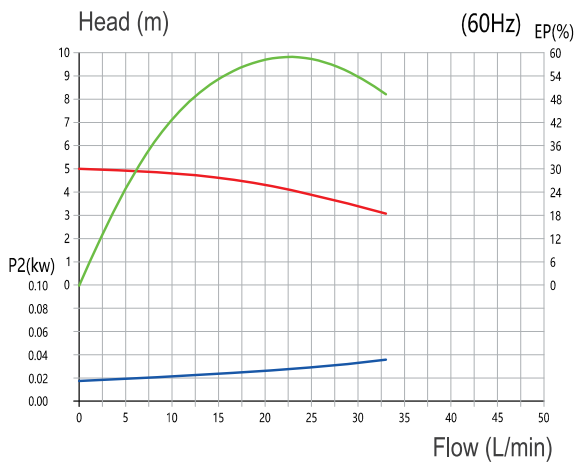
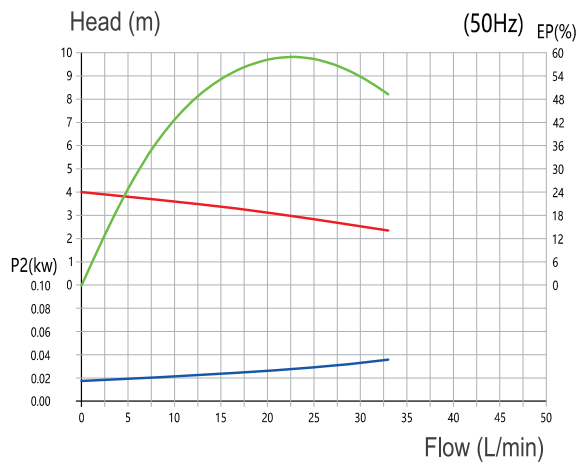
## MD-201



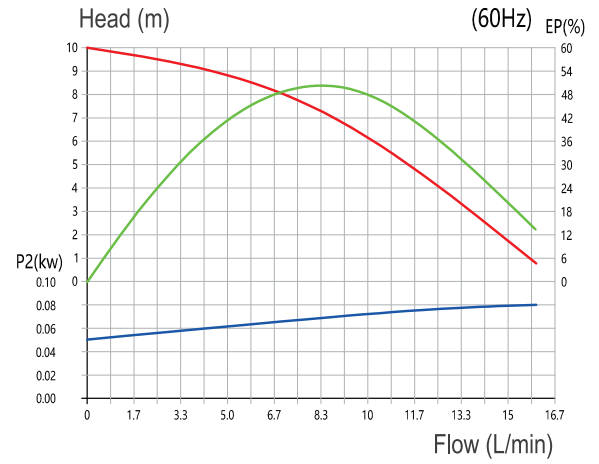
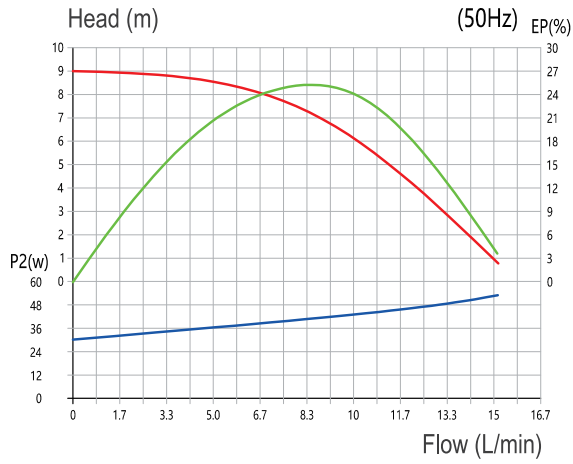
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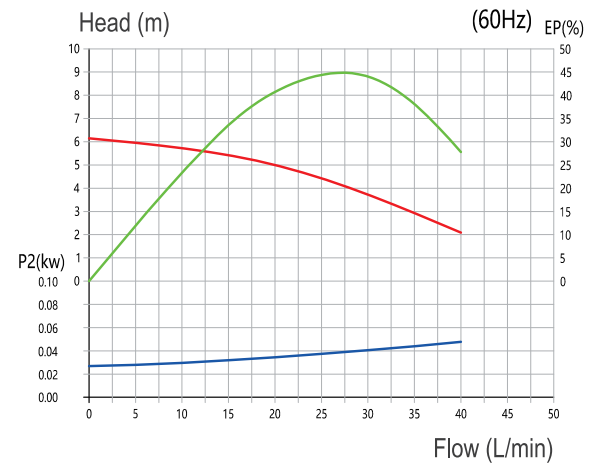
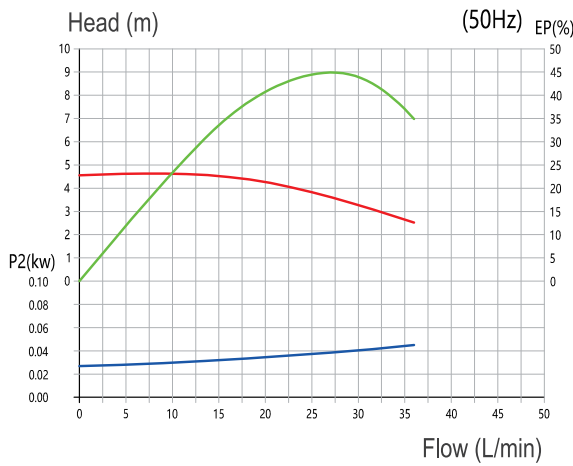
## MD-203



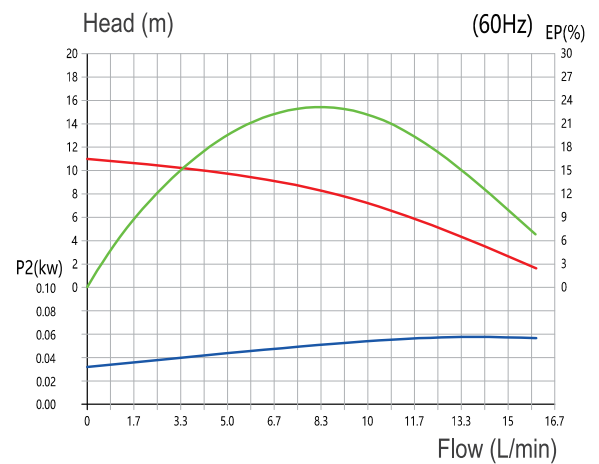
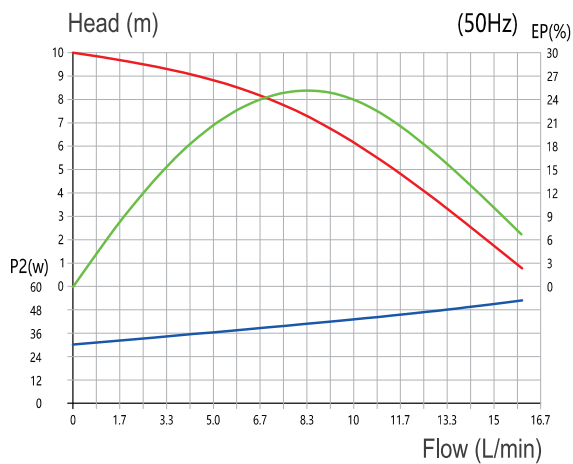
## MD-203H



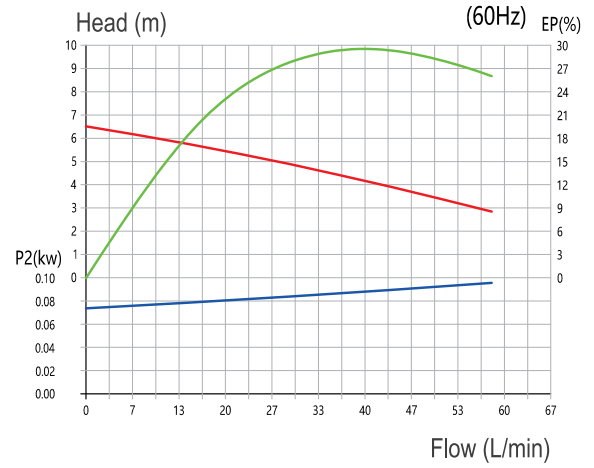
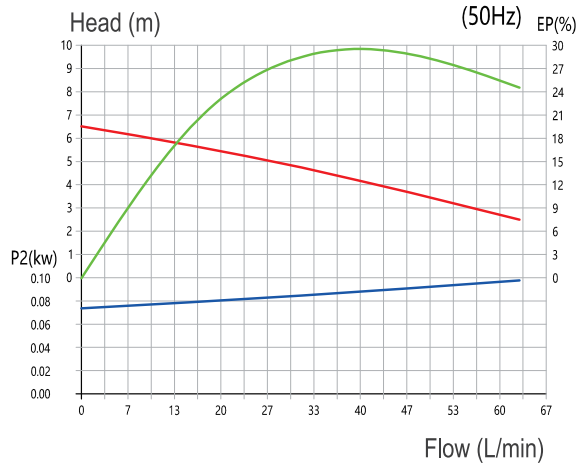
## MD-204



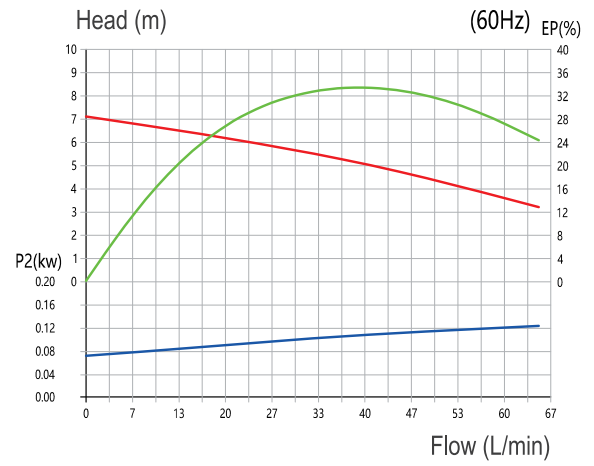
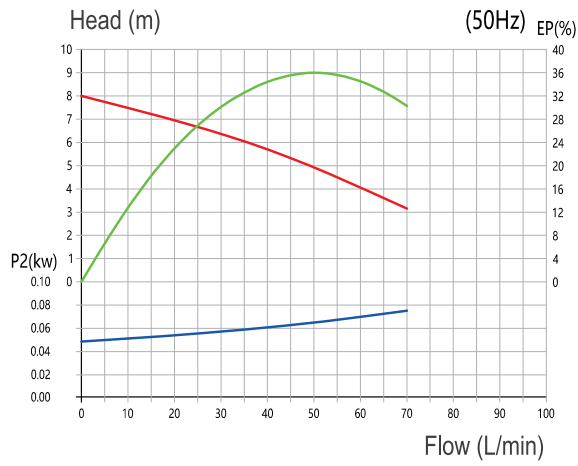
## MD-204H



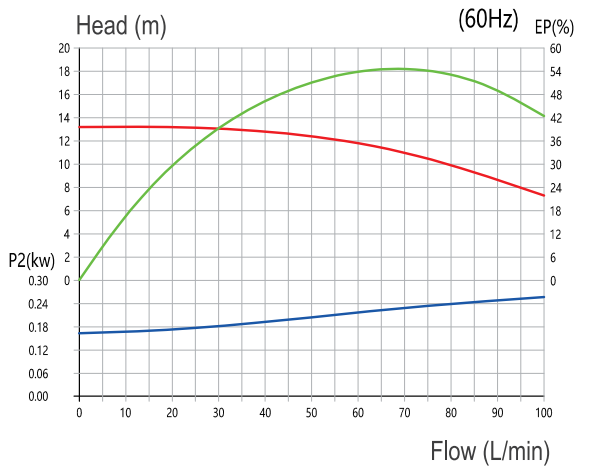
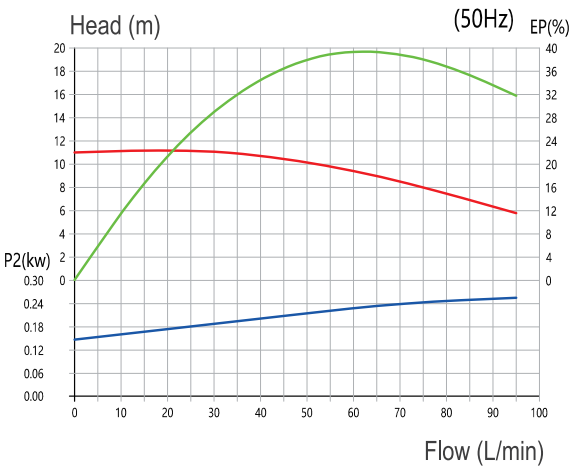
## MD-255



## MD-257



## MD-258

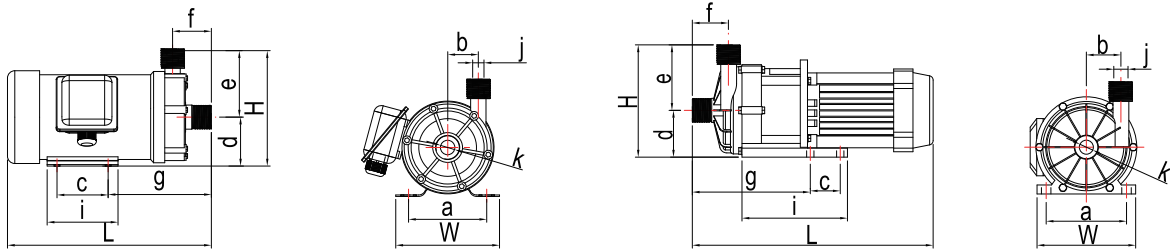




MD258 Series (Integrated Type)

MD258 Series (Splitted Type)

## Overall Dimensions

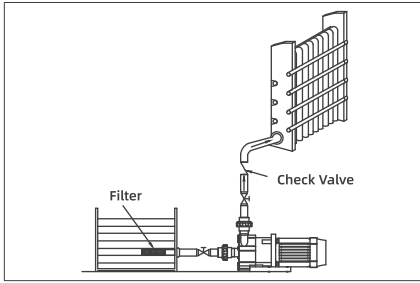


Model	L	H	W	a	b	c	d	e	f	l	g	j	k
MD-200	129	85	75	58	18	/	38	47	30	30	83	Ø10.0	Ø10.0
MD-201	193	98	85	70	24	48.5	45	53	38.5	64	100	Ø10.0	Ø13.0
MD-202	211	118	86	69.5	28	30	56	62	39.5	50	116	Ø12.0	Ø14.5
MD-203	247	130	121	101	31	40	60	70	46	64	142	Ø14.0	Ø15.5
MD-203H	224	130	121	101	38	40	60	70	38	64	126	Ø13.0	Ø14.0
MD-204	238	130	121	101	30	40	60	70	46	64	142	Ø14.0	Ø15.5
MD-204H	224	130	121	101	38	40	60	70	38	64	126	Ø13.0	Ø14.0
MD-255	270	153	141.5	107	42.5	70	64	89	50	96	140	Ø16.0	Ø20.0
MD-255 Series (Splitted Type)	342	158	135	105	42	40	70	88	50.5	147	154	Ø16.0	Ø20.0
MD-257	270	153	141.5	107	42.5	70	64	89.5	50	96	140	Ø16.0	Ø20.0
MD-257 Series (Splitted Type)	342	158	135	105	42	40	70.5	88	50.5	147	154	Ø16.0	Ø20.0
MD-258	326	171	156.5	110	45	70	75.5	95.	62.5	100	158	Ø20.0	Ø20.0
MD-258 Series (Splitted Type)	376	171	150	106	45	69	73	98	62	155	157	Ø20.0	Ø20.0

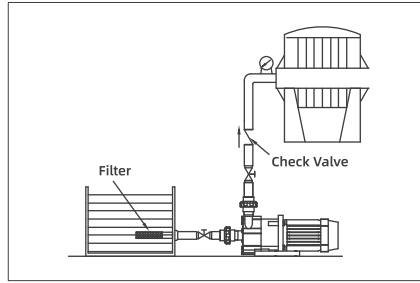
Note: This is the dimensions of PPH material.

## Installation Instruction

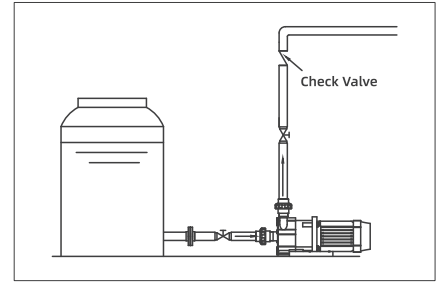
Used in Heat Exchangers



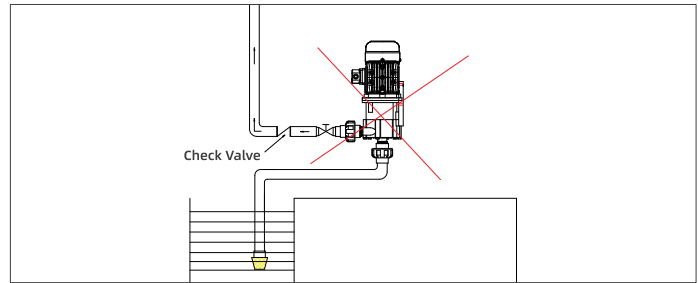
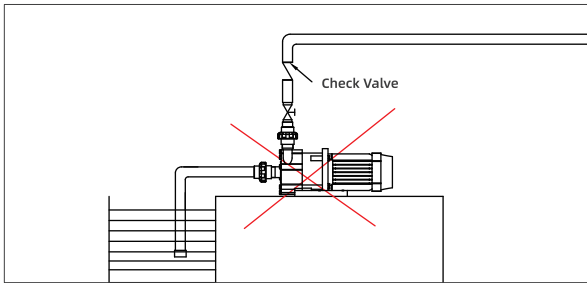
For Tank or Filter Compressor



Installed Outside The Tank



### Warning: Incorrect Use



## Precautions For Safe Operation

### Safety Warning

- ① Running without cutting off the power will cause electric shock!
- ② Do not start the pump without connecting the ground wire and leakage protector!
- ③ Electrician operation should be carried out by professional personnel!
- ④ When operating the pump, please wear protective equipment to prevent serious injury caused by chemical solution!
- ⑤ Operations related to toxic liquids may cause poisoning!
- ⑥ Use the pump in strict accordance with the instructions and scope of use!
- ⑦ During operation, the surface temperature of motor and pump is very high, do not touch directly!
- ⑧ It is forbidden to transform the pump without permission, otherwise serious accidents will be caused. If the pump is modified without permission or in accordance with the operating instructions, the company will not bear any loss caused by the user!
- ⑨ There is a strong magnet in the magnetic drive pump. Its strong magnetic field will cause obvious damage to the person wearing the electronic device (i.e. electronic pacemaker, etc.)

### Important Note!

- ① No dry running of the pump. The dry running of the pump can make the parts inside the pump heat up by friction, which will damage the pump. Pump operation with suction valve fully closed is also considered as idling.
- ② In the process of operation, when dangerous signals and abnormal conditions are found, the operation shall be terminated immediately, and it shall be started after the exception is eliminated.
- ③ The operation and use of the pump must be carried out by qualified operators.
- ④ The pump is only allowed to be used under the specified voltage, otherwise the pump will be damaged or fire will be caused.
- ⑤ The use place of the pump shall be equipped with protective measures to prevent liquid splashing or leakage.
- ⑥ Operations related to toxic liquids may cause poisoning, so it is necessary to ensure adequate ventilation at the operation site.
- ⑦ Do not scrape, damage, squeeze or stretch the cable with force. The use of damaged cables is likely to cause fire or electric shock.
- ⑧ The covered pump is easy to cause fire or mechanical failure due to internal heat accumulation during operation.
- ⑨ When a pump is under maintenance, pay attention to avoid other operators turning on the power supply switch due to mistakes. It is better to place a warning sign beside the power supply switch to inform that the pump is under maintenance.
- ⑩ The liquid from the pump may be highly toxic and harmful chemicals, which must be drained to a special container for storage.