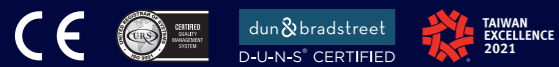




Seless Magnetic Drive Pump



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pumpvalve.asia

Sealless Magnetic Drive Pump



Brand Story

Taiwan is located in the west of the Pacific Ocean and is surrounded by the sea. It is in the center of the major sea and air transportation in the Asia-Pacific region. It has advantages in the fields of manufacturing, semiconductors and optoelectronics and it gives full play to the value of "Smart Taiwan". "Made in Taiwan" has been a guarantee of quality.

Environmental protection and user safety are always been the main focus of PTCXPUMP product development. The chemical pump structure is designed in the form of sealless magnetic drive and the sealless design is to solve the leakage caused by mechanical seals and VOCs problem.

PTCXPUMP is a professional sealless magnetic drive pump manufacturer in Taiwan. It exhibits more than 30 years of experience in chemical fluid transfer solutions and we completed related research and development and started mass production in 2014. The product materials, providing engineering plastics GFR-PP and CFR-ETFE, are available for selection. Pumps have been used in various range of chemical fluid, such as hydrochloric acid, sulfuric acid, hydrofluoric acid, toluene, ethanol and other high corrosion or flammable chemical fluids.

Products of PTCXPUMP, with sealless leakage free feature, come with high-standard production processes and material selection. We follow standardization of internal work processes and enhance the reliability of product competitiveness and quality. Our products are widely used in petrochemical, fine chemical, energy, semiconductor, optoelectronic, electronic, environmental protection and other industries.

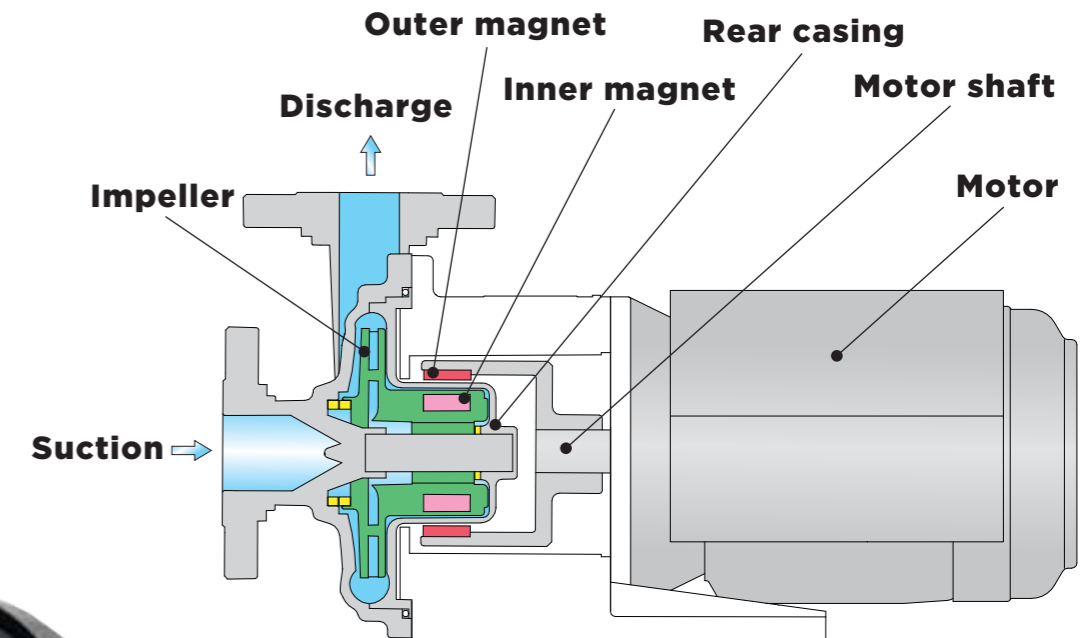
Innovative Design Reliable Product Superior Operating Efficiency

PTCXPUMP series provides engineering plastics material for GFR-PP and CFR-ETFE, corrosion resistant characteristics and sealless structure design. Our products exhibit no leakage problem and have been widely used to transfer chemical liquid, such as corrosive, toxic, flammable or explosive dangerous chemicals.

The product components include variety of innovative designs to improve stability and reduce operating vibration of the one-piece shaft supporter. The adjustable and universal flange design are to avoid leakage. Patented design of the flow channel circulation through the bearing system is to release heat to prevent temperature rise from the mechanical heat generated by rotation. The rear casing provides an anti-vortex design structure to avoid leakage by impurities abrasion surface of the rear casing.



How Magnetic Drive Pumps Work?



A sealless magnetic drive pump is a conventional centrifugal pump of which function relies on the attracted inner and outer magnet. The outer magnet is connected with motor shaft and inner magnet is assembled with impeller. When the motor shaft rotates the magnetic attraction forces inner magnet to rotate and lead to the impeller to pump the chemical liquid.

Why PTCXPUMP?

Professional Technical Consultant

We provide professional pump selection and design consultation for efficient pre-sales and after-sales service.

Innovative Product Technology

Excellent and professional technical research development team and the possession of a number of patents are the unique characteristics of our products.

Excellent Quality and Guarantee







We have strict quality control over our products and we believe that quality is everything. Each individual pump is manufactured following test procedures of quality inspections before being shipped.

Customer and Service First

Serving customers is our first and foremost priority. Our product development, based on the concept of user-centric scenario, is to fulfill the needs from our customers.

Application Industry

PTCXPUMP series is commonly used for chemical circulation, filtration, cleaning, etching and various surface treatment and water treatment. Sealless structure design avoids chemicals leakage and protects the environment and pump operators from dangerous chemicals.

-  **Chemical**
-  **Semiconductor**
-  **Pharmaceutical**
-  **Environmental**
-  **Electronics**
-  **Energy**

Simple Design Easy Maintenance



Front Casing

Adjustable flange and **universal design** for ANSI, JIS and DIN specifics are for easy pipeline connection.



Shaft Supporter

One-piece shaft supporter injection is to reduce operational vibration which may cause fall-offs.



Anti-Vortex

Anti-vortex design for rear casing is to prevent abrasion rear casing surface caused by impurity substances.



Outer Magnet

Outer magnet surface with **anti-corrosion coating** is to avoid corrosion caused by external environmental influences.



Impeller

One-piece design of impeller with inner magnet increases stability in operation.



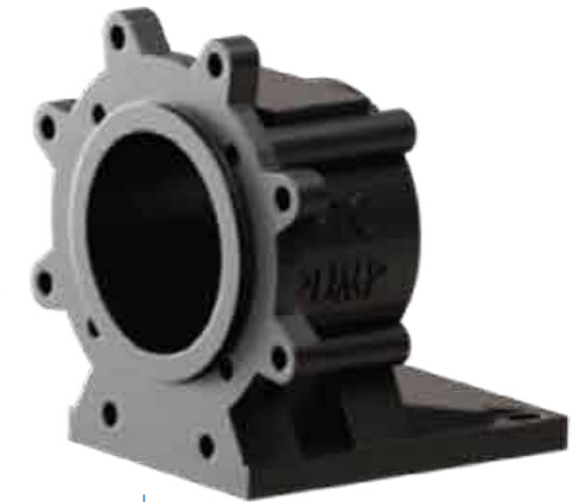
Shaft

The two-point support design increases pump durability and reduces operating vibration.



Rear Casing

Special structure design without extra metal support is to provide better pressure resistance and durability.



Baseplate

Patented design of polypropylene material baseplate provides excellent corrosion resistance and is light weighted. The installation of motor is designed for standard IEC motor frames, closed coupled design no shaft alignment required.



Material

Material GFR-PP and CFR-ETFE, made with the **best raw materials**, are available for selection to ensure exceptional corrosion resistance.



Bearing

The **patented design** of the flow channel circulation allows chemical to quickly pass through with the dissipation heat and to prevent chemical crystallization.

Model Description

PTC - **401** - **P** - **TA** - **V** - **100** - **2** - **F** - **M**

1
 2
 3
 4
 5
 6
 7
 8

1 Pump Model

Refer to specification

2 Main Material

P: GFR-PP
E: CFR-ETFE

3 Parts Description

Shaft	Bearing	Wear Ring	Thrust Ring
SS: SiC	SiC	SiC	SiC
TA: Ceramic	PTFE	PTFE	Ceramic
CA: Ceramic	Carbon	PTFE	Ceramic
IA: Ceramic	Ceramic	PTFE	Ceramic
AA: Ceramic	Ceramic	Ceramic	Ceramic

4 O-Ring Material

V: FKM
E: EPDM
A: AFLAS
S: Special

5 Impeller Diameter

Unit:mm

6 Suction/Discharge Size

1: 25x25
2: 40x40
3: 50x40
4: 65x50
5: 50x50

7 Connection Type

T: Thread
F: Flange
U: Union

8 Motor Frame

L: IEC.71
M: IEC.80
N: IEC.90S/L
P: IEC.112M
Q: IEC.132S/M

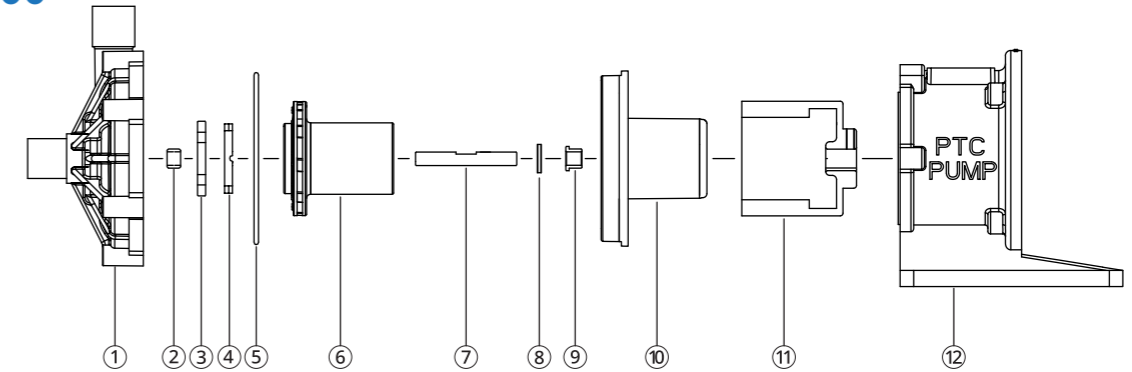
Specification

Model	Suction/Discharge (mm)		Standard Performance (L/min-m)		Max. Capacity (L/min)		Motor output (kw)
	Suction	Discharge	50Hz	60Hz	50Hz	60Hz	
PTC-100	25	25	70-6.9	70-10.6	110	110	0.25/0.37
PTC-250	25	25	50-10.7	50-15.3	140	150	0.37
PTC-251	25	25	90-14.9	90-20.3	150	160	0.75
PTC-400	40	40	100-10.6	100-11	260	260	0.37
PTC-401	40	40	150-16	150-16.5	320	330	0.75
PTC-402	50	40	200-21.7	200-22.8	415	470	1.5
PTC-403	50	40	250-23.9	250-30	490	520	2.2
PTC-405	50	40	250-27.8	250-42	549	545	3.7
PTC-605	65	50	500-25.5	500-26.5	900	900	3.7
PTC-675	65	50	530-27	530-40	1007	1006	5.5/7.5

*All models are available in flange or PT thread type
*PTC-402,403,405 optional for 50x50mm suction and discharge size

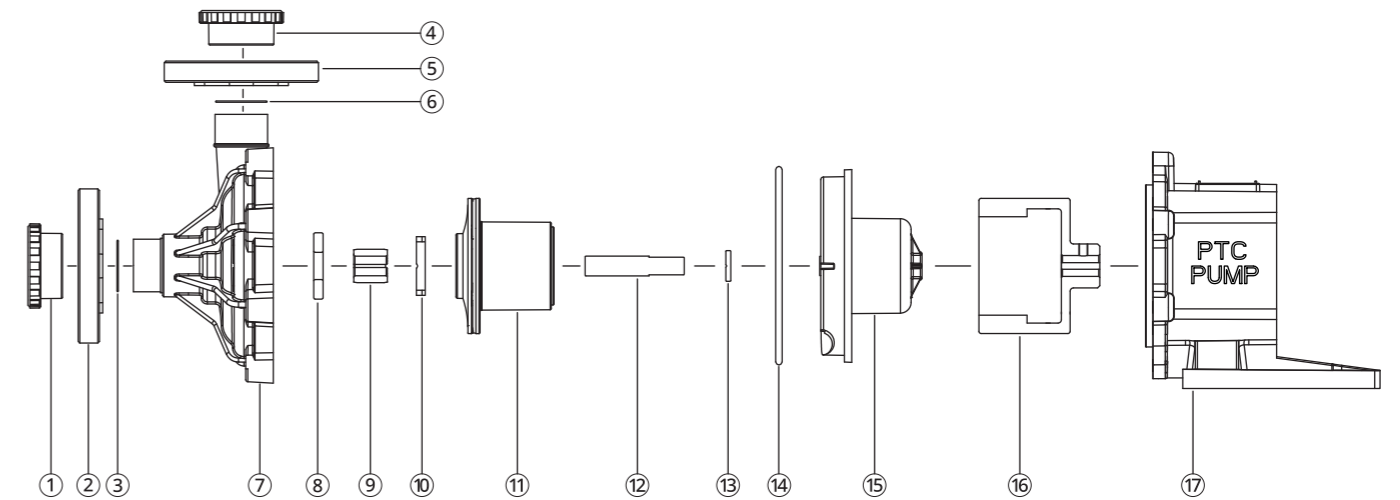
Construction and Material

PTC-100



No.	Parts Name	Material	No.	Parts Name	Material
①	Front casing	GFR-PP/CFR-ETFE	⑦	Shaft	Ceramic/SiC
②	Front bearing	SiC/PTFE/Carbon/Ceramic	⑧	Rear thrust ring	Ceramic/SiC
③	Front thrust ring	Ceramic/SiC	⑨	Rear bearing	SiC/PTFE/Carbon/Ceramic
④	Front wear ring	PTFE/SiC/Ceramic	⑩	Rear casing	GFR-PP/CFR-ETFE
⑤	O-ring	FKM/EPDM/AFLAS/Special	⑪	Outer magnet	Cast iron
⑥	Impeller+Magnet	GFR-PP/CFR-ETFE	⑫	Baseplate	GFR-PP

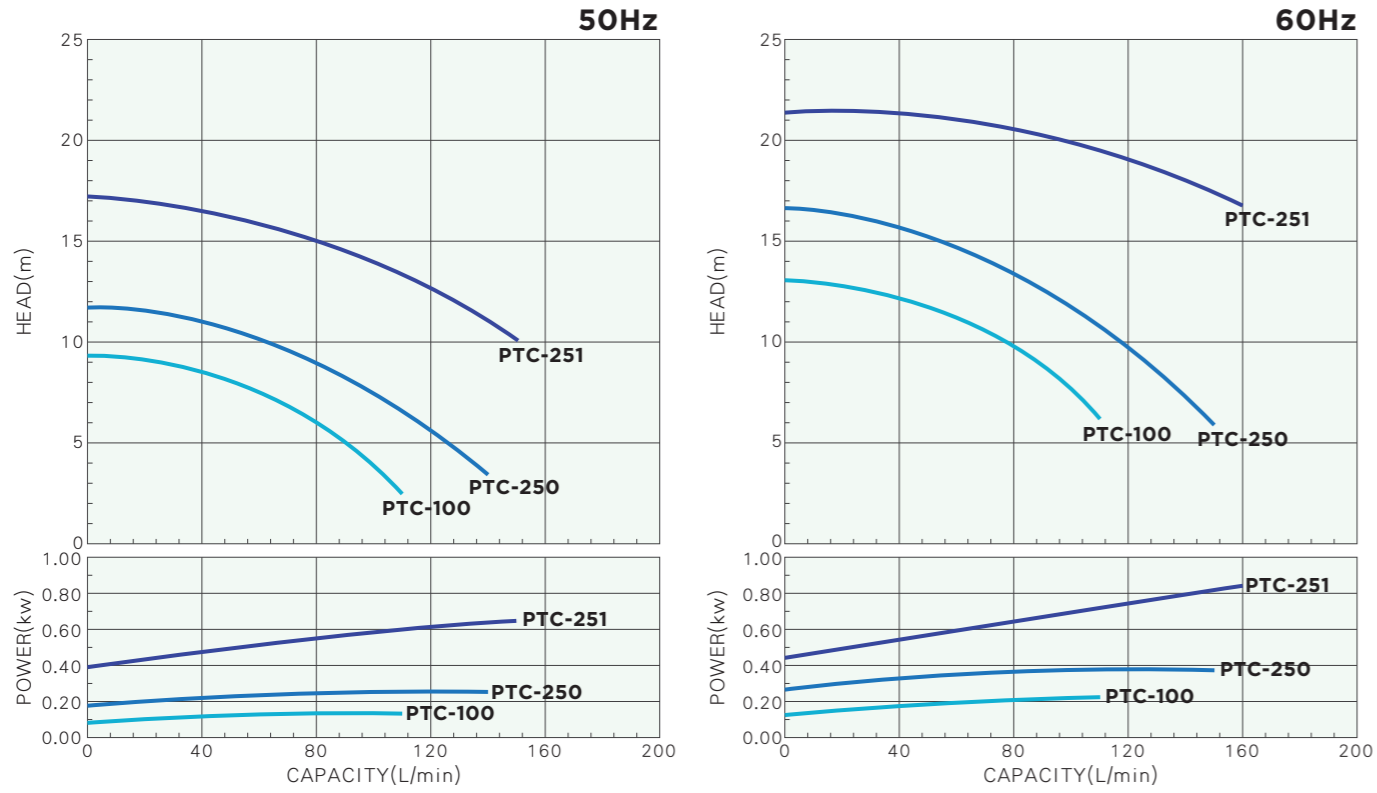
PTC-250, 251, 401, 402, 403 405, 605, 675



No.	Parts Name	Material	No.	Parts Name	Material
①	Inlet flange fasten screw	GFR-PP/CFR-ETFE	⑩	Front wear ring	PTFE/SiC/Ceramic
②	Inlet flange	GFR-PP	⑪	Impeller+Magnet	GFR-PP/CFR-ETFE
③	Inlet O-ring	FKM/EPDM/AFLAS/Special	⑫	Shaft	Ceramic/SiC
④	Outlet flange fasten screw	GFR-PP/CFR-ETFE	⑬	Rear thrust ring	Ceramic/SiC
⑤	Outlet flange	GFR-PP	⑭	O-ring	FKM/EPDM/AFLAS/Special
⑥	Outlet O-ring	FKM/EPDM/AFLAS/Special	⑮	Rear casing	GFR-PP/CFR-ETFE
⑦	Front casing	GFR-PP/CFR-ETFE	⑯	Outer magnet	Cast iron
⑧	Front thrust ring	Ceramic/SiC	⑰	Baseplate	GFR-PP
⑨	Bearing	SiC/PTFE/Carbon/Ceramic			

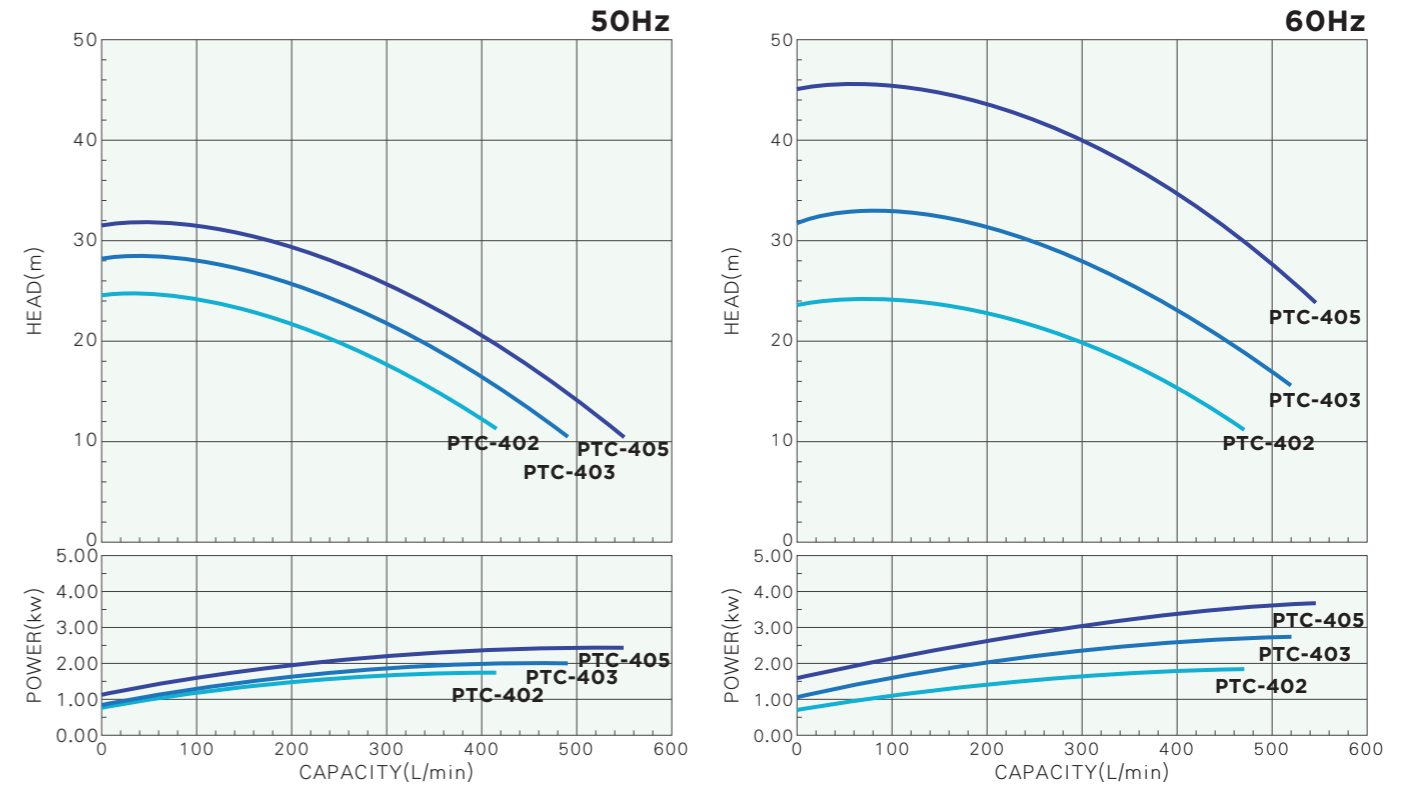
Performance Curve

PTC-100, 250, 251

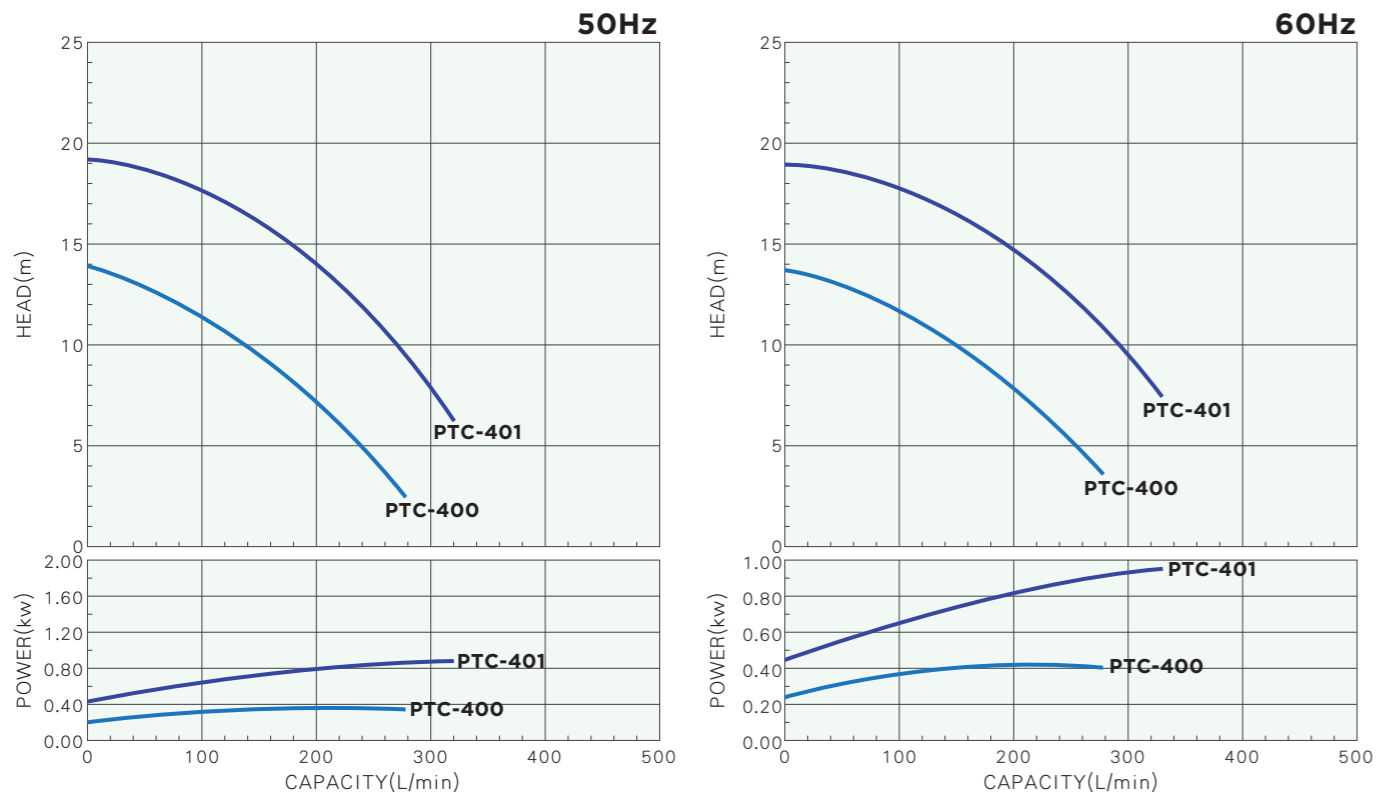


Performance Curve

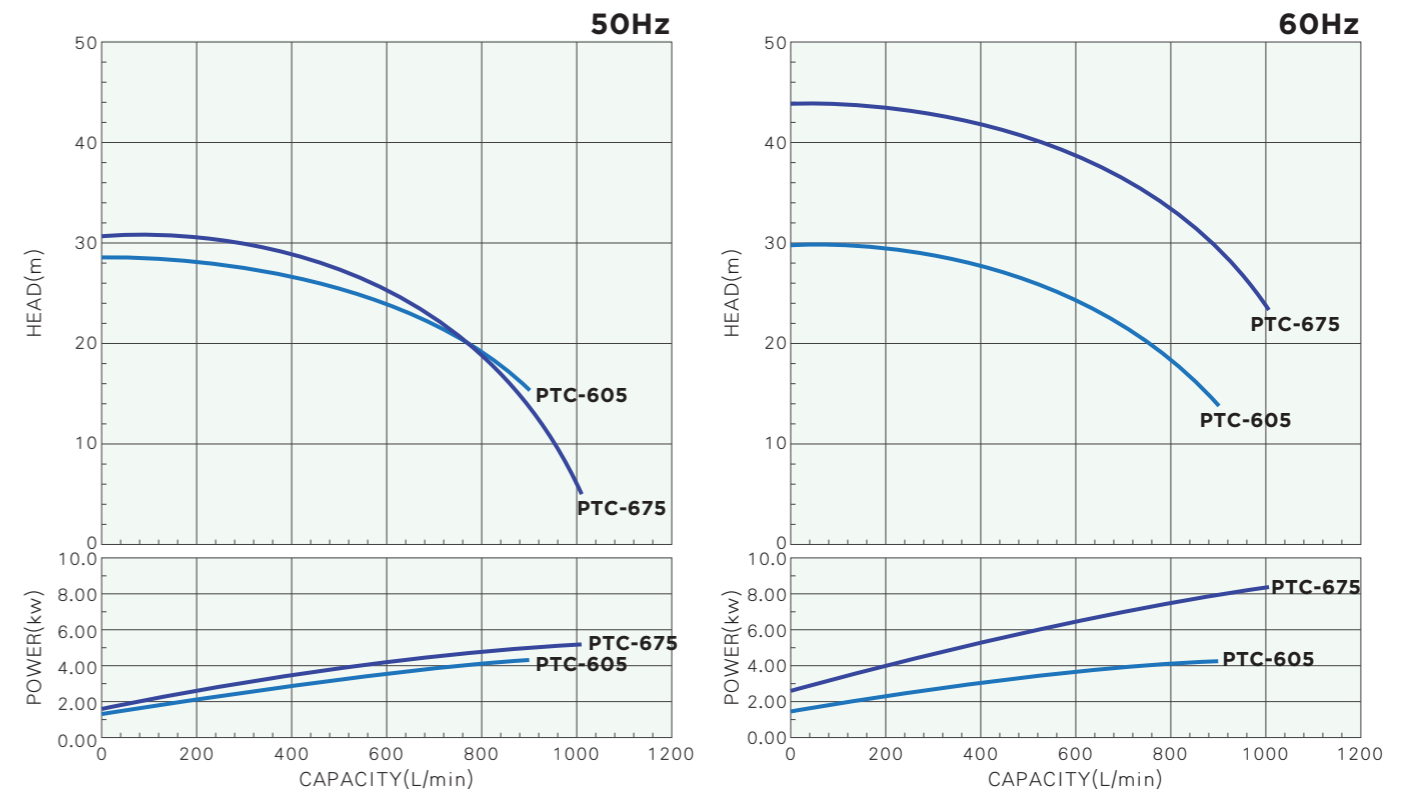
PTC-402, 403, 405



PTC-400, 401



PTC-605, 675



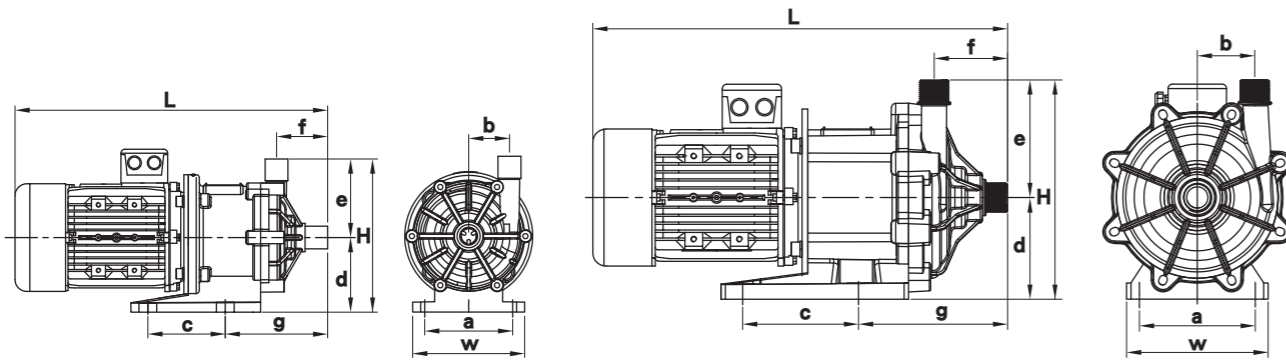
*The performance curve is for reference and preliminary selection only

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Dimensions

PTC-100

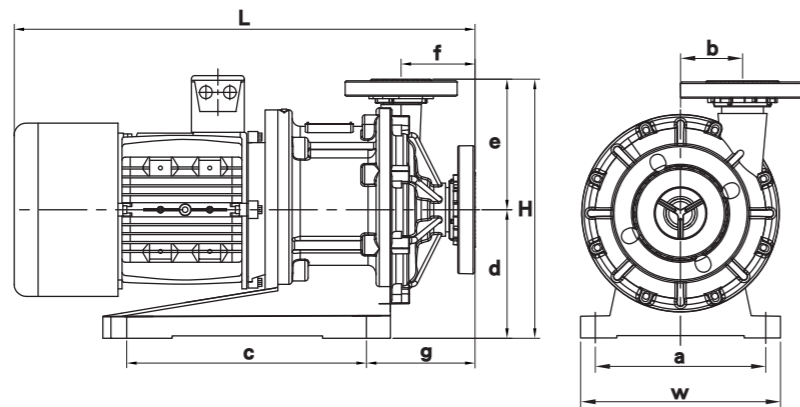
PTC-250, 251



(Unit:mm)

Model	w	H	L	a	b	c	d	e	f	g
PTC-100	140	195	(399.7)	110	51	98.5	95	100	65	130.2
PTC-250	160	248	(446)	130	65	130	115	133	83	156
PTC-251	160	248	(469)	131	65	131	115	133	83	168.5

PTC-400, 401, 402, 403, 405, 605, 675



(Unit:mm)

Model	w	H	L	a	b	c	d	e	f	g
PTC-400	140	227.5	(441)	110	54.2	98.5	96	131.5	86.6	157.6
PTC-401	160	257.5	(477)	131	72	131	115	142.5	105.2	188
PTC-402	260	280.5	(489)	206	81	203.5	117.5	163	91.5	156.5
PTC-403	260	280.5	(489)	206	81	203.5	117.5	163	91.5	156.5
PTC-405	258	324.5	(577)	220	81	300	161	163.5	92.5	136
PTC-605	258	332	(602)	220	80	300	161	171	98	161
PTC-675	370	391	(666)	320	80	290	220	171	98	183.75

*Dimension of (L) will differ depending on the brand and installation of the motor

Pump Dry Run Protector

It is important to ensure pump runs well and to avoid dry running. It is important to install a dry running protection device which main function is to monitor the current or power of the pump during operation. As soon as the operating current or use of electricity is beyond the setting range, the device will stop the pump immediately to prevent the motor from overload or dry running which is to avoid pump failure and costly production downtime.



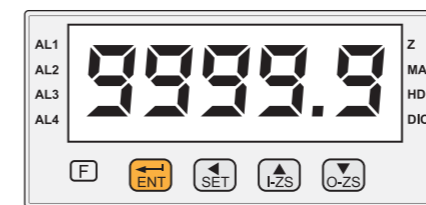
Features

- To provide current and power type for selection
- To protect pumps during abnormal operation
- To prevent motor from overloading or underloading
- To prevent pump from dry running
- Compact size for easy setup and install

Specification

- **Power supply:** AC/DC 100-240V DC12/24/30-90V
- **Sampling time:** 16 cycles/sec
- **Display range:** -19,999-99,999
- **Alarm delay time:** (0-99)sec
- **Accuracy:** Current type: $\pm 0.2\%F.S. \pm 1digi.$
Power type: $\pm 0.25\%F.S. \pm 1digi.$

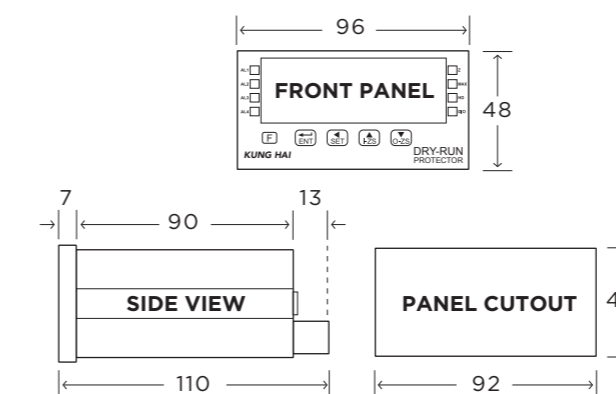
Key Function



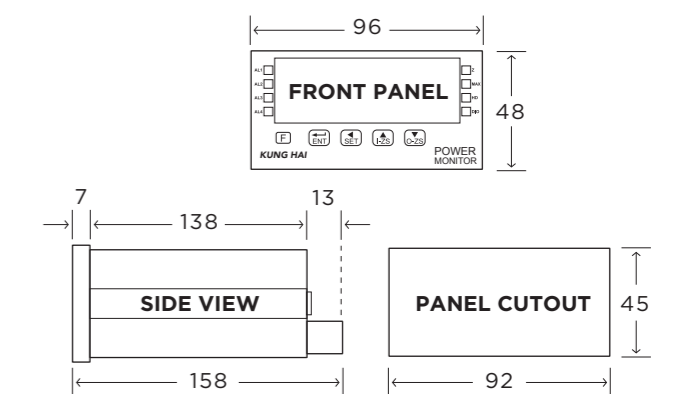
- AL1 Alarm 1 indicator
- AL2 Alarm 2 indicator
- AL3
- AL4
- Z
- MAX
- HD
- DIO
- [F] Reset key
- [ENT] Enter and save key
- [SET] Shift and alarm setting key
- [I-ZS] Up adjusting key
- [O-ZS] Down adjusting key

Dimensions

Current type



Power type



(Unit:mm)

