



CATALOG

YEAR 2025



FLUORINE-LINED MAGNETIC PUMP

MODEL : QB SERIES

HIGH EFFICIENCY
MOTOR IE3/IE4
Premium Quality



A NEW LEVEL OF PUMP PERFORMANCE
Expanded field of application owing
to improved corrosion resistance.



CHEMICAL
INDUSTRY



POLLUTION
PROCESS



SEMICONDUCTOR



AUTO-PART
INDUSTRY

With Innovative Pump Head Flow Channel Design;
Especially Suitable For Harsh Operating
Conditions Such As Strong Corrosion,
High Temperature, And High Pressure In Semiconductor,
New Energy, Etc.,



Series Model

50Hz 60Hz

Main Material	Model	Maximum Flow (L/min)								Maximum Head (m)				Reference S.G Range
		200	400	600	800	1000	1200	1400	1600	20	40	60	80	
CFRTE/PEA	QB40-25-2	191	191							27	27			<1.2
	QB40-25-3	215	221							33	34			
	QB40-25-5	228	231							38	41			
	QB40-25-7.5	271	270							51	52			
	QB40-25-10	300	300							31	32			
	QB50-40-5	516	533							31	32			
	QB50-40-7.5	558	551							37	38			
	QB50-40-10	560	616							39	50			
	QB65-50-5	800	778							30	31			
	QB65-50-7.5	878	873							30	31			
	QB65-50-10	975	1006							36	39			
	QB80-65-10	1406	1416							31	31			
	QB80-65-15	1583	1573							38	39			

- Medium Temperature: -20°C to +150°C, Medium Specific Gravity: 1 - 2, Working Environment Temperature: -5°C to +50°C, Maximum Use Altitude: 2000M, Maximum Working Pressure: 7Bar.
- Test Basis: The above performance data corresponds to the transport of clean water at 25°C at normal speed. The performance error is ±5%. The performance of the pump varies with the specific gravity and temperature of the fluid medium being transported.
- Note: It is recommended that the actual operating conditions be within ±20% of the rated flow rate and rated head. If it exceeds ±20%, cavitation will easily occur and the pump will be easily damaged. The above-mentioned factory measured data are for reference only, as they are affected by the viscosity of the liquid and the actual use of the customer. The final performance parameters of the pump should be based on the actual measured data at the site where the equipment is used.

QB 2HP-15HP

Corrosion Resistant Fluorine-Lined Magnetic Pump

Product Features

The new generation of CHEMTAI fluorine-lined magnetic pump has greatly improved comprehensive performance; equipped with large brand power frequency or permanent magnet motors, with innovative pump head flow channel design; especially suitable for harsh operating conditions such as strong corrosion, high temperature, and high pressure in semiconductor, new energy, etc.. this fluorine-lined magnetic pump has higher safety; no demagnetization, corrosion resistance, zero leakage, small vibration, and low noise.



Model Description

QB 40 - 25 - 2 - E - 5 - V38 - A - A - A - S

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

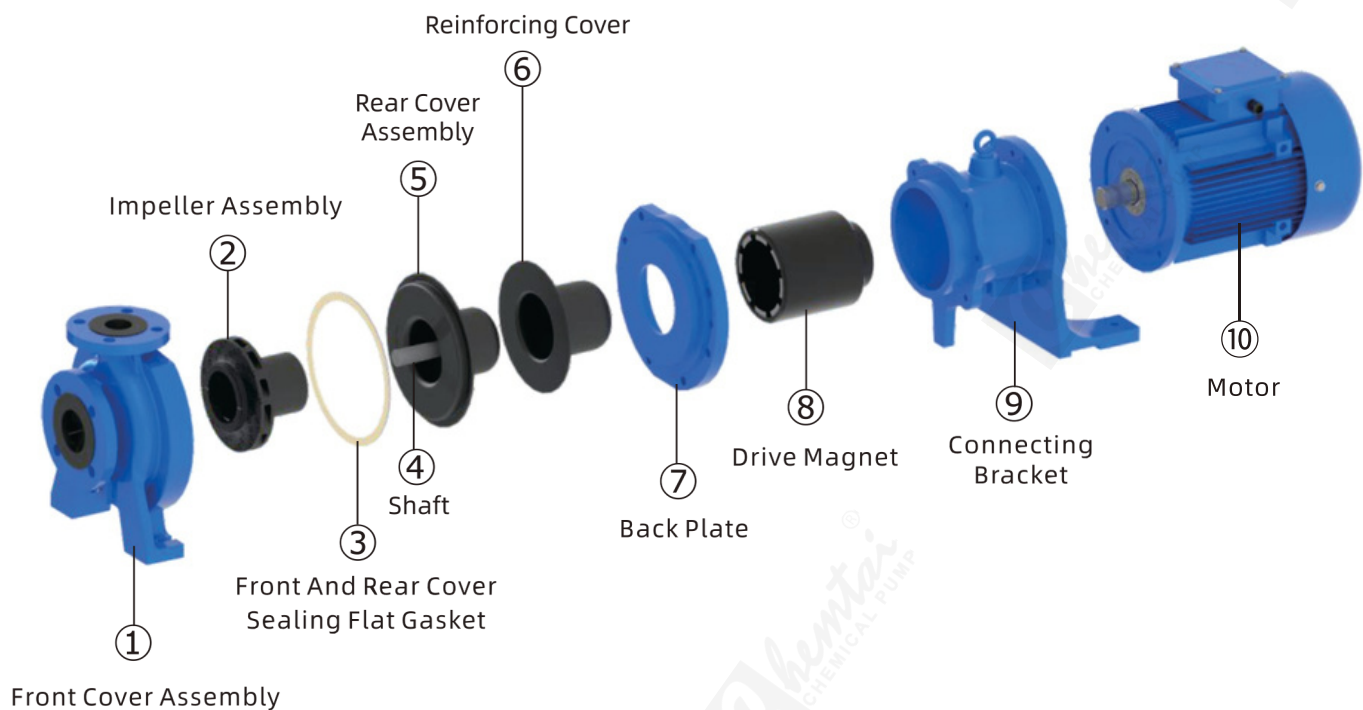
- ① Model No.: QB
- ② Inlet Diameter: 40mm; 50mm; 65mm; 80mm
- ③ Outlet Diameter: 25mm; 40mm; 50mm; 65mm
- ④ Power: 2HP; 3HP; 5HP; 7.5HP; 10HP; 15HP
- ⑤ Material of Wet Parts: E - CFRETFE; P - PFA
- ⑥ Frequency: 5 - 50Hz; 6 - 60Hz
- ⑦ Voltage: V38 - 30/380V; V41 - 30/415V; V44 - 30/440V; V48 - 30/480V; V66 - 30/660V; V32 - 30/220V
- ⑧ Specific Gravity Of Liquid: A - 1.0 - 1.2; B - 1.3; C - 1.4; D - 1.5; E - 1.6; F - 1.7; G - 1.8; H - 1.9; I - 2.0
- ⑨ Motor Requirements: A-IE3 Normal Motor; B-IE4 Normal Motor; C-IE5 Normal Motor; D-Variable Frequency Motor; E-IE3, BT4 Ex-Proof Motor; F-IE4, BT4 Ex-Proof Motor; G-IE5, BT4 Ex-Proof Motor; H-IE3, CT4 Ex-Proof Motor; I-IE4, CT4 Ex-Proof Motor; J-IE5, CT4 Ex-Proof Motor; K-Permanent Magnet Variable Frequency Motor; L-BT4 Ex-Proof Variable Frequency Motor; M-CT4 Ex-Proof Variable Frequency Motor
- ⑩ Motor Protection Level: A - IP55; B - IP56; C - Ip65
- ⑪ S-Standard; N-Nonstandard

Product Specifications

Model	Inlet & Outlet (mm)	Maximum Flow				Maximum Flow (m)		Reference S.G Range	Power		Weight (KG)
		50Hz		60Hz		50Hz	60Hz		HP	KW	
		(L/min)	(m³/h)	(L/min)	(m³/h)						
QB40-25-2	40/25	191	11.5	191	11.5	27	27	<1.2	2	1.5	53.2
QB40-25-3	40/25	215	12.9	221	13.3	33	34	<1.2	3	2.2	56.1
QB40-25-5	40/25	228	13.7	231	13.9	38	41	<1.2	5	4	98.8
QB40-25-7.5	40/25	271	16.3	270	16.2	51	52	<1.2	7.5	5.5	114
QB40-25-10	40/25	300	18	300	18	69	70	<1.2	10	7.5	119.8
QB50-40-5	50/40	516	31	533	32	31	32	<1.2	5	4	93.8
QB50-40-7.5	50/40	558	33.5	551	33.1	37	38	<1.2	7.5	5.5	111
QB50-40-10	50/40	560	33.6	616	37	39	50	<1.2	10	7.5	114.8
QB65-50-5	65/50	800	48	778	46.7	26	26	<1.2	5	4	95.2
QB65-50-7.5	65/50	871	52.3	873	52.4	30	31	<1.2	7.5	5.5	113.5
QB65-50-10	65/50	975	58.5	1006	60.4	36	39	<1.2	10	7.5	116.2
QB80-65-10	80/65	1406	84.4	1416	85	31	31	<1.2	10	7.5	119.6
QB80-65-15	80/65	1583	95	1573	94.4	38	39	<1.2	15	11	140

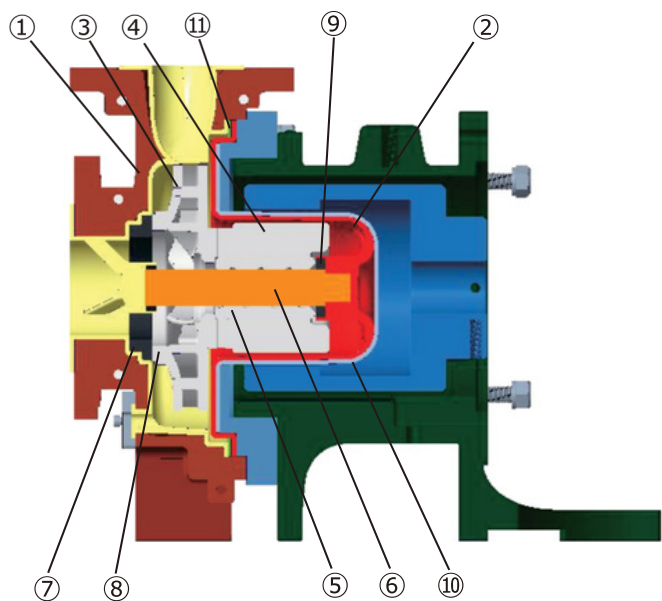
- Medium Temperature: -20°C to +150°C, Medium Specific Gravity: 1 - 2, Working Environment Temperature: -5°C to +50°C, Maximum Use Altitude: 2000M, Maximum Working Pressure: 7Bar.
- Test Basis: The above performance data corresponds to the transport of clean water at 25°C at normal speed. The performance error is ±5%. The performance of the pump varies with the specific gravity and temperature of the fluid medium being transported.
- Note: It is recommended that the actual operating conditions be within ±20% of the rated flow rate and rated head. If it exceeds ±20%, cavitation will easily occur and the pump will be easily damaged. The above-mentioned factory measured data are for reference only, as they are affected by the viscosity of the liquid and the actual use of the customer. The final performance parameters of the pump should be based on the actual measured data at the site where the equipment is used.

QB Series Exploded View



Material Description

	Name	Material
①	Front Cover Assembly	FE+CFRETFE (PFA)
②	Rear Cover	CFRETFE (PFA)
③	Impeller	CFRETFE (PFA)
④	Drive Magnet	CFRETFE (PFA)
⑤	Bearing	SSIC
⑥	Shaft	SSIC
⑦	Front Thrust Ring	SSIC
⑧	Impeller Wear Ring	SSIC
⑨	Rear Thrust Ring	PTFE
⑩	Reinforcing Cover	PPS
⑪	Front And Rear Cover Sealing Flat Gasket	PTFE



QB40-25-2/QB40-25-3/QB40-25-5/QB40-25-7.5/QB40-25-10

QB50-40-5/QB50-40-7.5/QB50-40-10

QB65-50-5/QB65-50-7.5/QB65-50-10/QB80-65-10/QB80-65-15

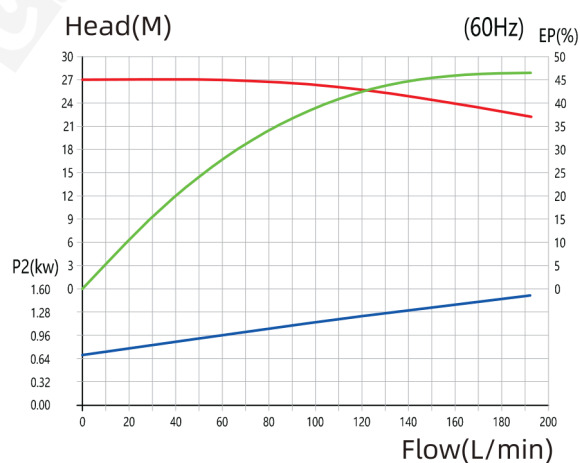
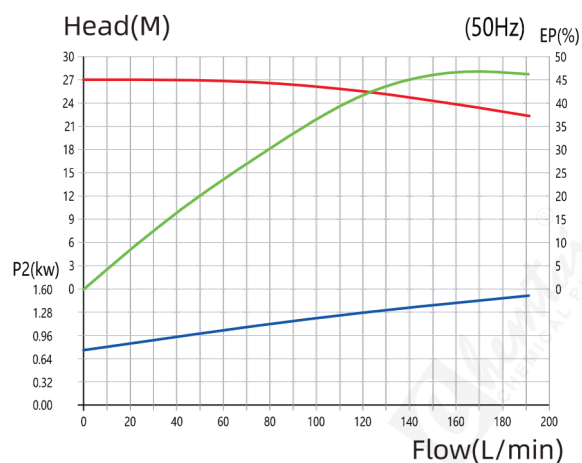
● Maximum Flow: 191-1583L/min

● Maximum Head: 26-70m

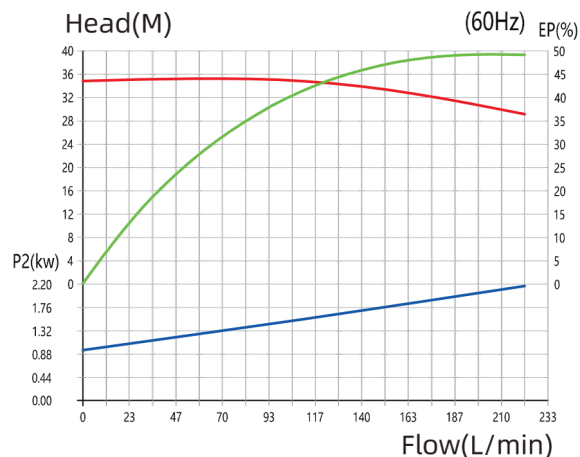
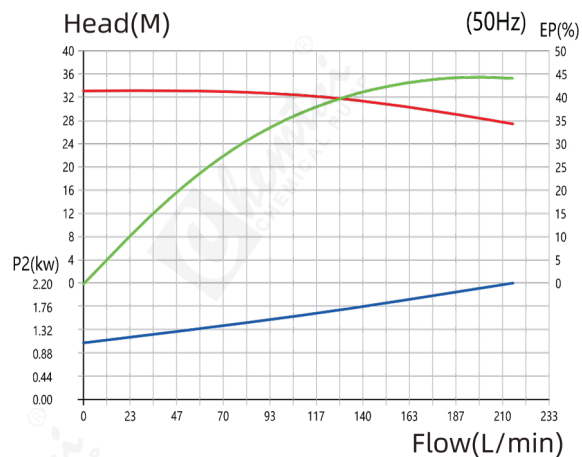


Performance Curve

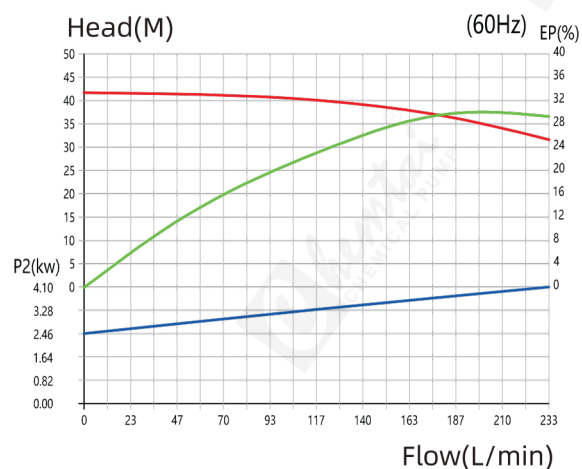
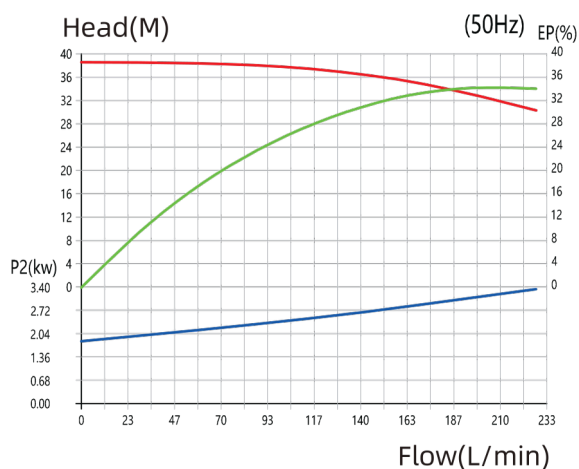
QB40-25-2



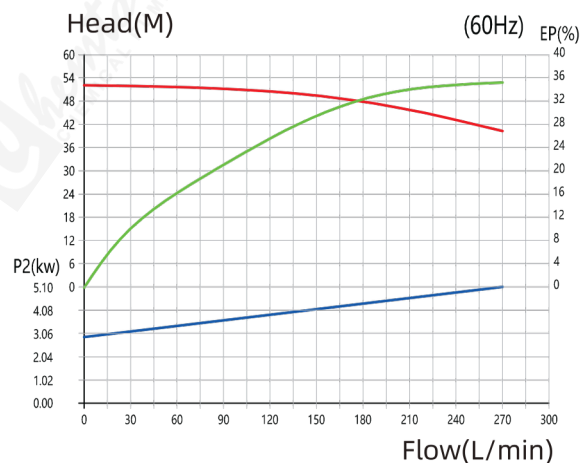
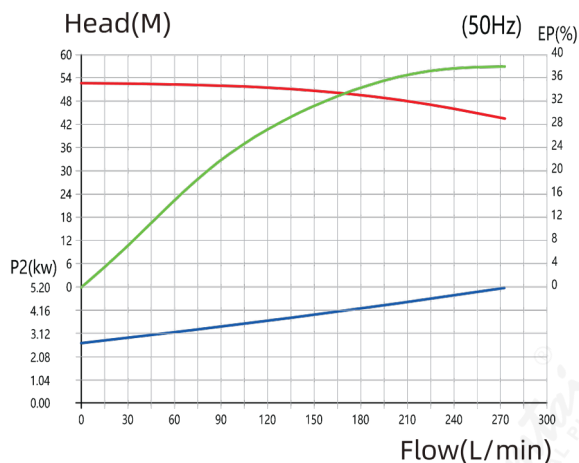
QB40-25-3



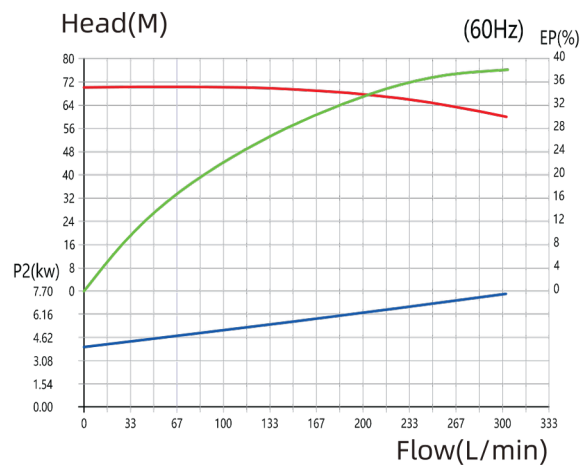
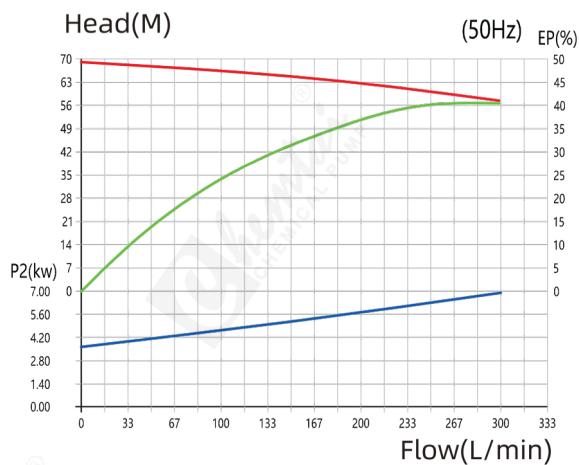
QB40-25-5



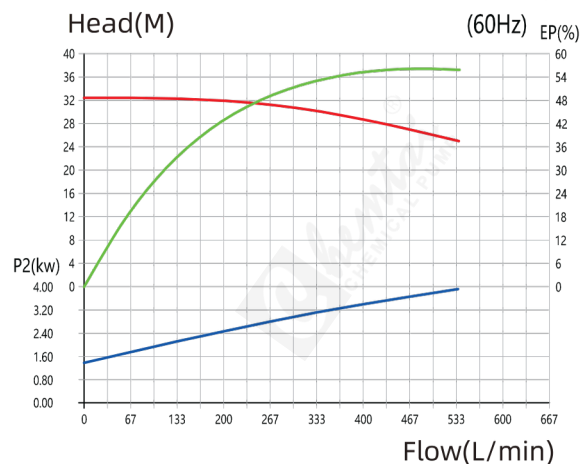
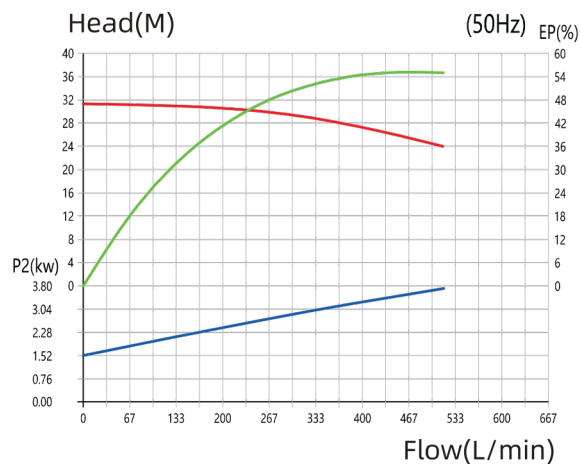
QB40-25-7.5



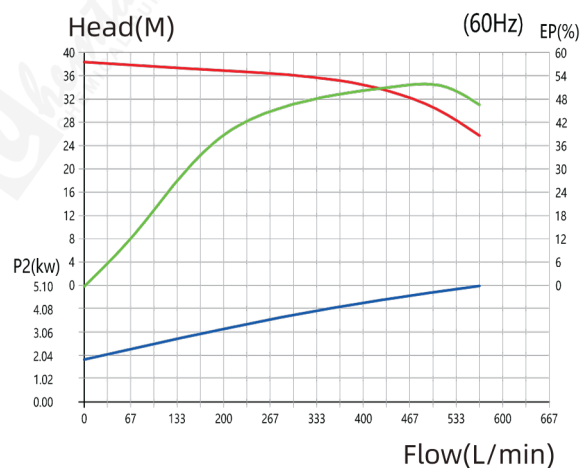
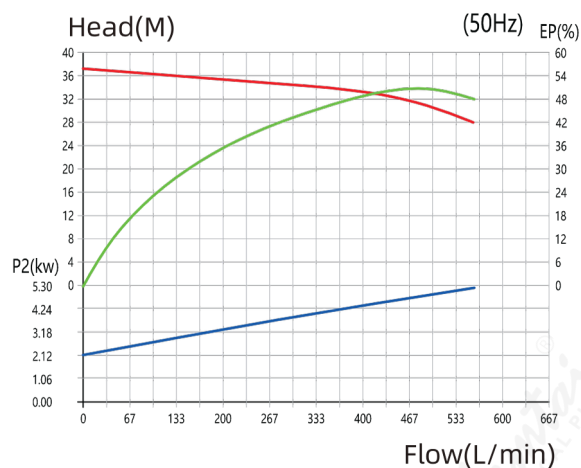
QB40-25-10



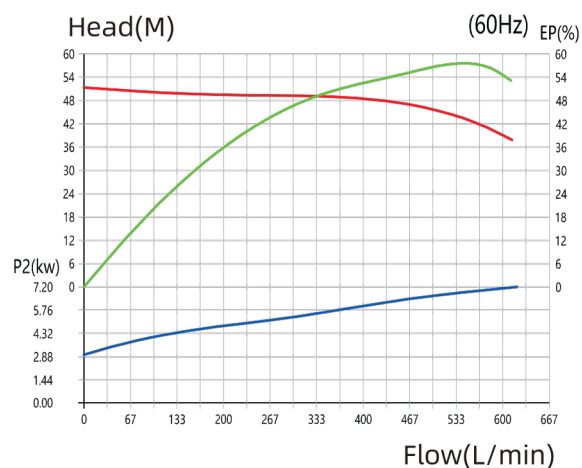
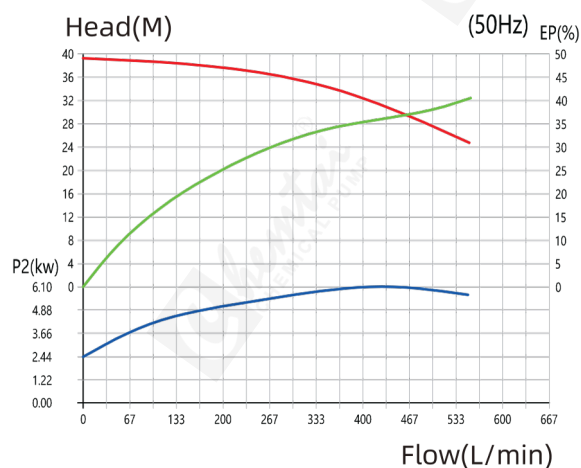
QB50-40-5



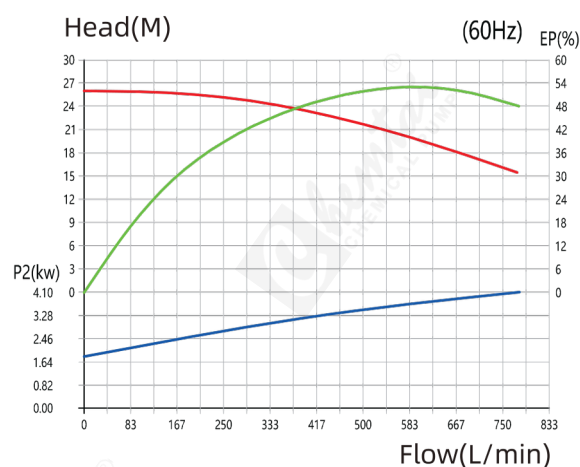
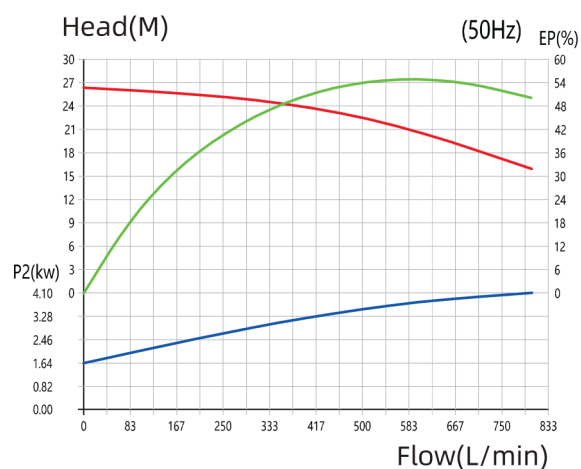
QB50-40-7.5



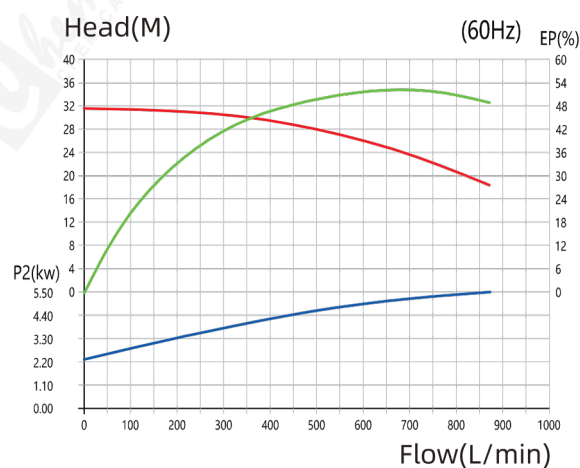
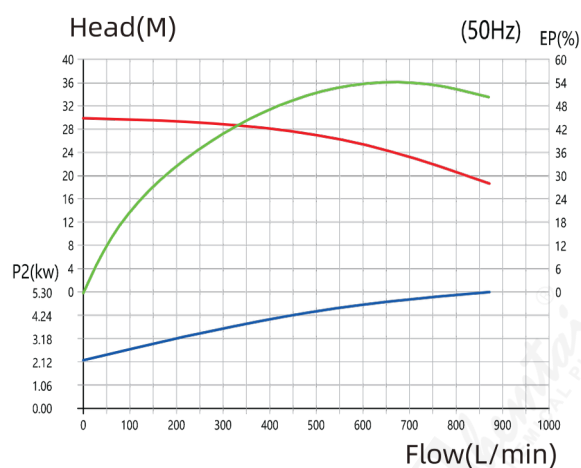
QB50-40-10



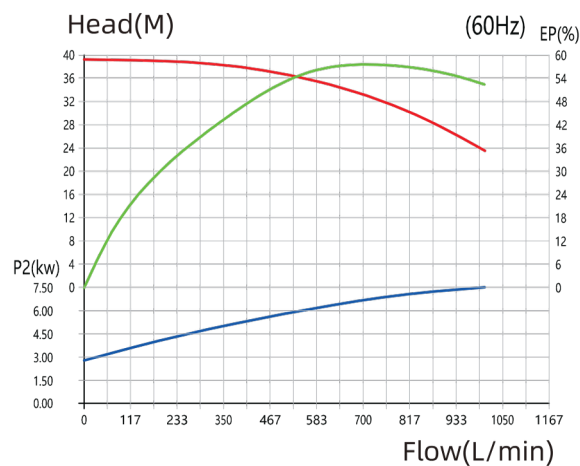
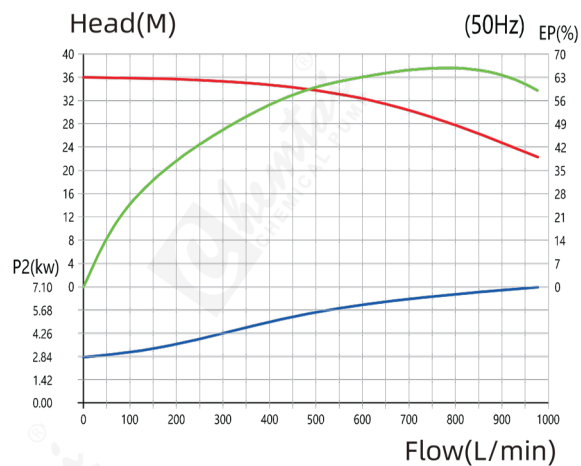
QB65-50-5



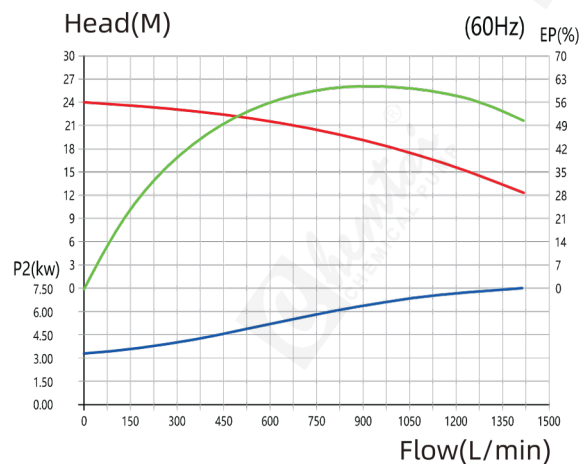
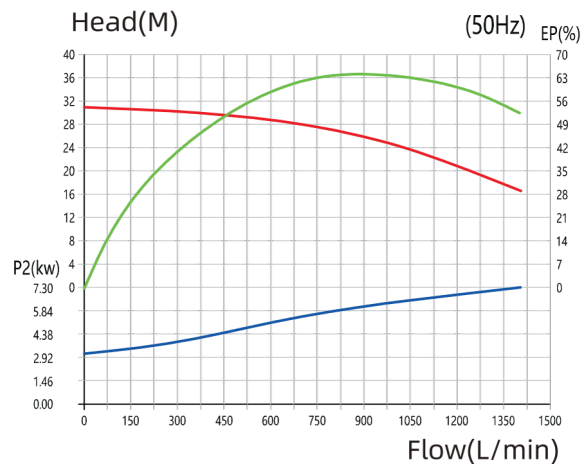
QB65-50-7.5



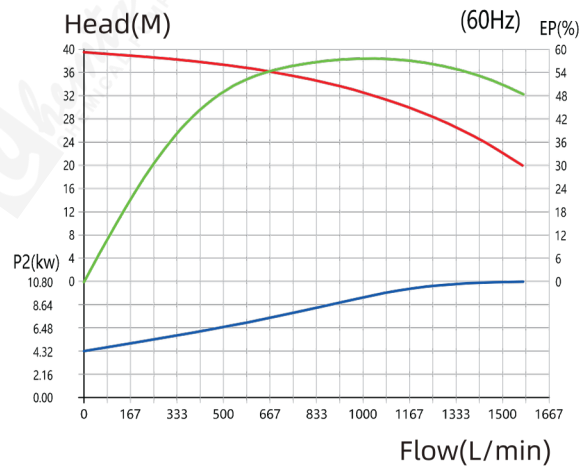
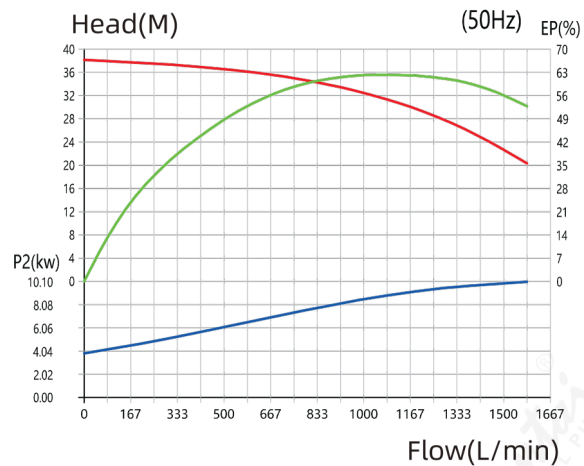
QB65-50-10



QB80-65-10



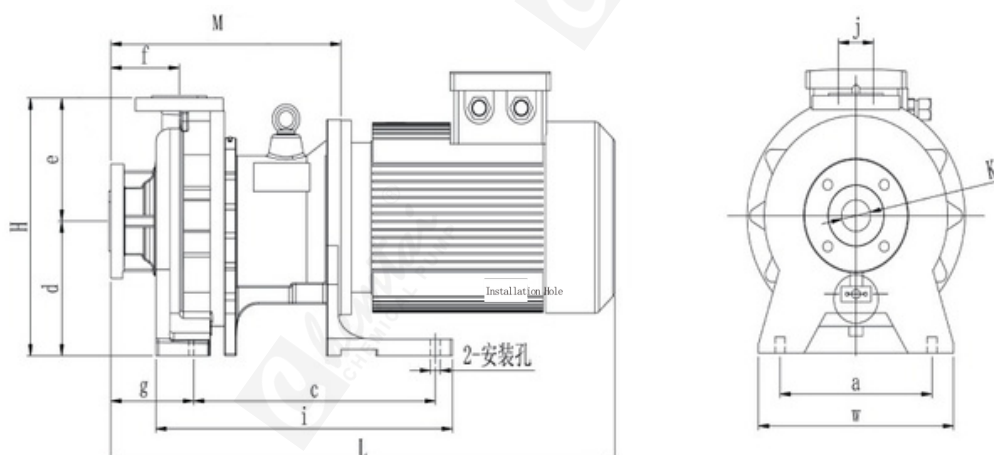
QB80-65-15



No Demagnetization, Corrosion Resistance,
Zero Leakage, Low Vibration And Low Noise.



Overall Dimensions

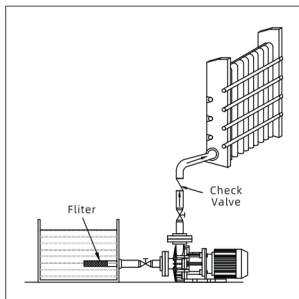


Model	Power	L	H	W	a	c	d	e	f	g	i	j	k	m	Lenth of The Motor	Install- ation Hole
QB-40-25	2HP	521.5	310	180	130	150	150	160	80	100	246	25	40	245.5	276	Ø15
	3HP	521.5	310	180	130	150	150	160	80	100	246	25	40	245.5	276	Ø15
QB-40-25	5HP	673	345	280	220	365	180	164	100	112	437	25	42	341	332	Ø14
	7.5HP	713	345	280	220	365	180	164	100	112	437	25	42	341	372	Ø14
	10HP	752	345	280	220	365	180	164	100	112	437	25	42	341	411	Ø14
QB-50-40	5HP	653	340	280	220	365	180	160	80	90	434	36	50	321	332	Ø14
	7.5HP	693	340	280	220	365	180	160	80	90	434	36	50	321	372	Ø14
	10HP	732	340	280	220	365	180	160	80	90	434	36	50	321	441	Ø14
QB-65-50	7.5HP	692.5	340	280	220	365	180	160	80	90	434	46	66	320.5	372	Ø14
	10HP	731.5	340	280	220	365	180	160	80	90	434	46	66	320.5	441	Ø14
QB-80-65	15HP	798	360	280	220	365	180	180	100	110	437	58	80	342	456	Ø14

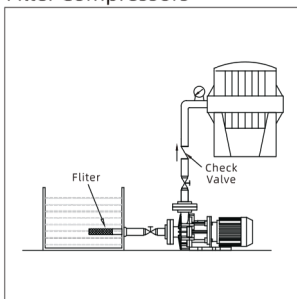
● Note: This is the overall dimensions of the PPH material.

Installation Diagram

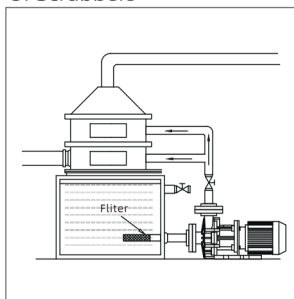
For Heat Exchangers



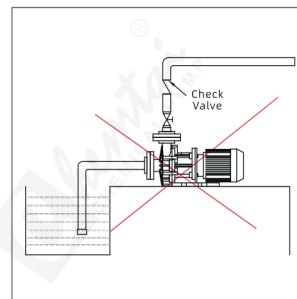
For Reaction Tanks Or
Filter Compressors



For Equipment Lines
Or Scrubbers



Warning Improper Use :



Safety Precautions

Safety Warning!

1. Working without cutting off the power supply will cause electric shock!
2. It is forbidden to start the pump without connecting the ground wire and leakage protector!
3. Electrician operations should be performed by professionals!
4. When operating the pump, please wear protective equipment to prevent serious damage from chemical liquids!
5. When working with toxic liquids, it may cause poisoning!
6. Use the pump strictly in accordance with the instructions and scope of use of the pump!
7. When the pump is running, the surface temperature of the motor and pump will be very high, do not touch it directly!
8. It is forbidden to modify the pump without authorization, otherwise it will cause serious accidents. The company is not responsible for any losses caused by users who modify the pump without permission or not in accordance with the operating instructions!
9. Magnetic drive pumps contain strong magnets, and their strong magnetic fields will cause obvious harm to people wearing electronic devices such as electronic pacemakers!

Important Tips!

1. It is forbidden to dry-run the pump. The dry running will cause friction and heat in the pump parts, which will damage the pump. (When the suction valve is completely closed, the pump is considered to be running dry).
2. During operation, if dangerous signals and abnormal conditions are found, the operation must be stopped immediately and restarted after the abnormality is eliminated.
3. Qualified operators must be arranged to operate the pump.
4. The pump is only allowed to be used at the specified voltage. Violation of this operation will cause damage to the pump or fire.
5. The place where the pump is used should have protective measures to prevent liquid splashing or leakage.
6. When working with toxic liquids, it may cause poisoning. Ensure that the operation site is fully ventilated.
7. It is forbidden to scratch, damage, squeeze or stretch the cable with force. Using damaged cables can easily cause fire or electric shock.
8. The covered pump is prone to fire or mechanical failure due to internal heat accumulation during operation.
9. When someone is repairing the pump, be careful to avoid other operators turning on the power switch by mistake. It is best to place a warning sign next to the power switch to inform that someone is repairing the pump.
10. Some of the liquids flowing out of the pump are highly toxic and harmful chemical liquids, which must be directed to special containers for storage.

CORROSION RESISTANCE CHART

Chemical Solution Name	Concentration %	Temperature °C	Body Material			Seal Material			Rubber Material		
			FRPP	CPVC	PVDF / GFR/ETFE	Ceramic	Carbon	Sic	NBR	EPDM	VITON
H₂SO₄ Sulfuric acid	30	40	×	●	●	●	●	●	●	●	●
		60	×	●	●	●	●	●	●	●	●
		80	×	○	●	●	●	●	●	○	●
		95			●	●	●	●			●
	60	40	×	●	●	●	●	●		●	●
		60	×	●	●	●	●	●		●	●
		80	×	△	●	●	●	●		○	●
		95			●	●	●	●			●
	98	40	×	○	●	●	●	●			●
		60	×	△	○	●	●	●			●
		80			●	●	●	●			●
		95			●	●	●	●			●
HCL Hydrochloric acid	25	40	●	●	●	○	●	●		●	●
		60	○	○	●	●	●	●		●	●
		80			●	●	●	●		○	●
	35	40	●	●	●	●	●	●		○	○
		60	○	○	●	●	●	●			
		80			●	●	●	●			
CrO₃ Chromic acid	20	40	×	○	●	●	●	●			●
		60		△	●	●	●	●			●
		80			●	●	●	●			○
HNO₃ Nitric acid	30	40	○	○	●	●	○	●			●
		60	×	△	●	●	○	●			●
		80	×	×	●	●	○	●			●
	50	40	△	○	●	●	○	●			●
		60	×	△	●	●	○	●			●
		80			●	●	○	●			●
H₃PO₄ Phosphoric acid	10	40	●	●	●	●	●	●	●	●	●
		60	●	●	●	●	●	●	○	●	●
		80	○	○	●	●	●	●		○	●
	50	40	●	●	●	●	●	●		●	●
		60	●	○	●	●	●	●		○	●
		80	△	△	●	○	●	●		○	●
NaOCl Sodium Hypochlorite	10	40	○	●	●	●	○	●			●
		60	○	○	●	●	△	●			●
		80	△		●	●	×	●			●
CH₃COOH Acetic acid	20	40	●	●	●	●	●	●			×
		60	●	○	●	●	●	●			×
		80	○	△	●	●	●	●			×
HF Hydrofluoric	30	40	×	○	●	×	○	●		●	
		60	×	△	●	×	○	●		●	
		80	×	×	●	×	○	●		○	
HNO₃ + HCl Aqua regia	3:1	40	×	△	●	●	×	●	×		○
		60	×	×	●	○	×	●	×		○
		80	×	×	●	●	×	●	×		●
H₂O₂ Hydrogen Peroxide	20	40	●	●	●	●	×	●	×		●
		60	●	○	●	●	×	●	×		●
		80	○	○	●	●	×	●	×		●
NaOH Sodium Hydroxide	45	40	●	○	●	●	×	●	●	●	○
		60	○	△	○	●	×	●	●	●	△
		80	○	×	×	●	×	●	○	○	△
FeCl₃ Ferric chloride	40	40	●	●	●	●	●	●	●	●	●
		60	●	●	●	●	●	●	○	●	●
		80	●	●	●	●	●	●	●	●	●
Cu(CN)₂ Copper Cyanide		40	●	●	●	△	●	●	●		●
		60	●	●	●	△	●	●	●		●
ZnCl₂ Zinc Chloride		40	●	●	●	●	●	●	●		●
		60	●	●	●	●	●	●	●		●
NiSO₄ Nickel Sulfate		40	●	●	●	●	●	●	●		●
		60	●	●	●	●	●	●	●		●

● : Excellent ○ : Good △ : Not Good × : Bad



A new level of pump performance.

Expanded field of application owing
to improved corrosion resistance.

