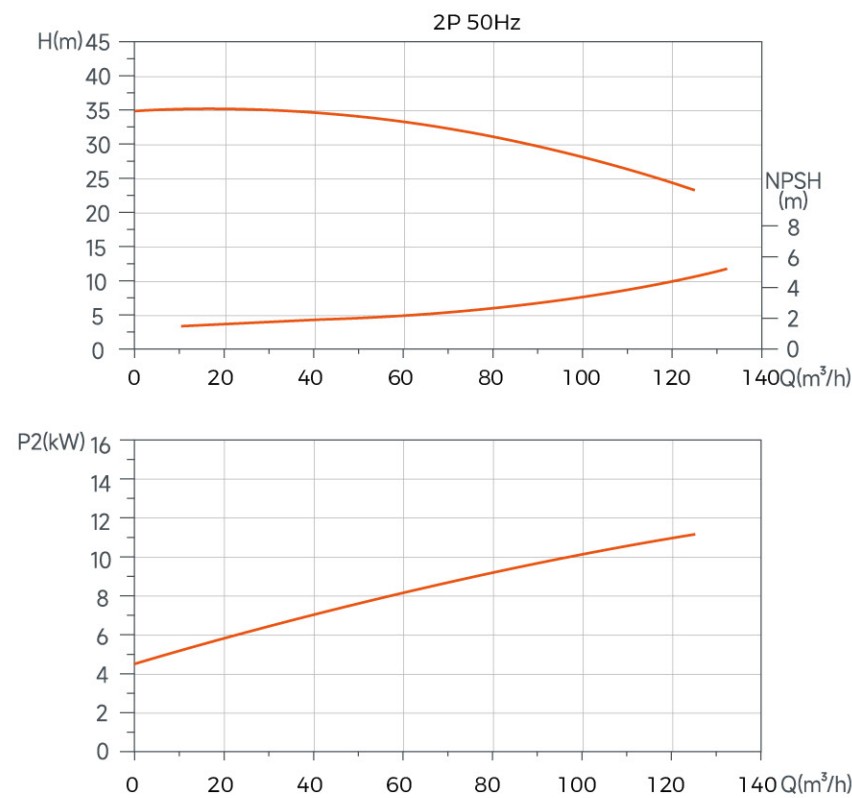
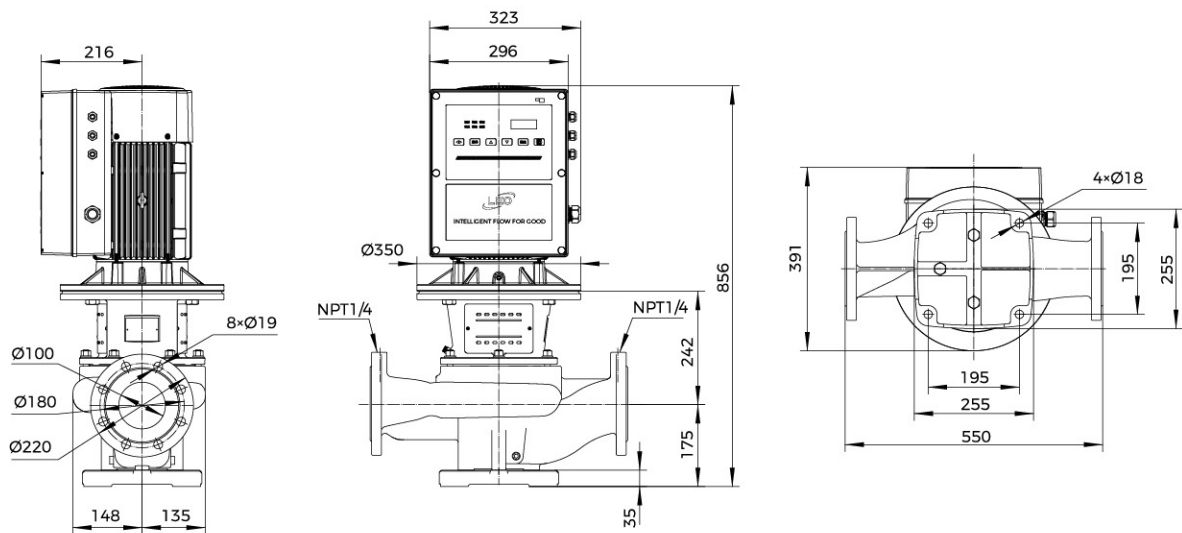


Hydraulic Performance Curves



Model	Power	Rated Flow	Rated Head	Pump Efficiency	Max. Head	Max. Flow
	kW	m³/h	m	%	m	m³/h
PM5-LPP100-28-11/2	11	100	28	74.0	35	125

Dimension



Product Description

- PM5-EMH series permanent magnet intelligent horizontal multi-stage pumps are equipped with permanent magnet motor, intelligent frequency conversion control, pressure tank, pressure sensor and five-way check valve. The constant pressure intelligent control can be realized through the pressure sensor, which has the features of high efficiency and energy saving, anti-corrosion and rust prevention, compact and intelligent, easy to use and maintain, durable and reliable.

Applications

- Mainly used for family life water supply, equipment supporting, pipeline pressurization, garden watering, vegetable greenhouse watering, water supply and drainage of aquaculture, industrial and mining, enterprises and high-rise buildings, central air-conditioning and centralized heating circulation system and other occasions.

Motor

- High-efficiency permanent magnet synchronous motor, is more efficient than IE5 motor
- Enclosures class: IPX5
- Insulation class: F

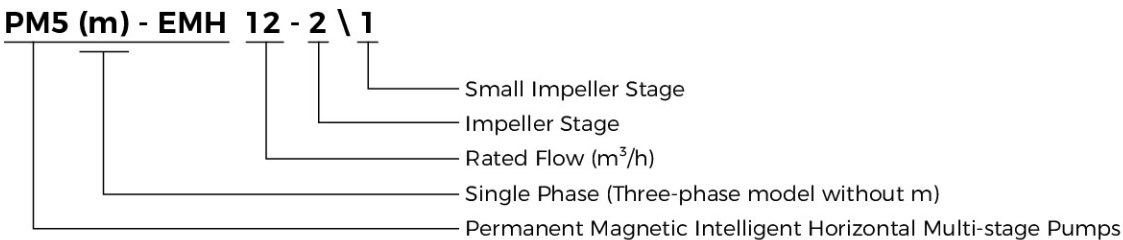
Frequency conversion controller

- Input power: Single-phase 220-240V
Three-phase 380-480V
- Input frequency: 50Hz/60Hz
- Enclosures class: IP55

Operating Conditions

- Clean, thin, non-aggressive, non-flammable, explosive and gas-free liquid that does not contain solid particles (particle sizes≤0.2mm) and fibers, and the liquid cannot react chemically to the pump material.
 - Max.Liquid:temperature:0°C ~ +60°C
 - Max. ambient temperature:+40°C
 - Max. working pressure: 10bar
 - Liquid PH Value: 6.5-8.5
- Note: Please contact the manufacturer for technical confirmation when using beyond the range of application conditions.

Identification Codes



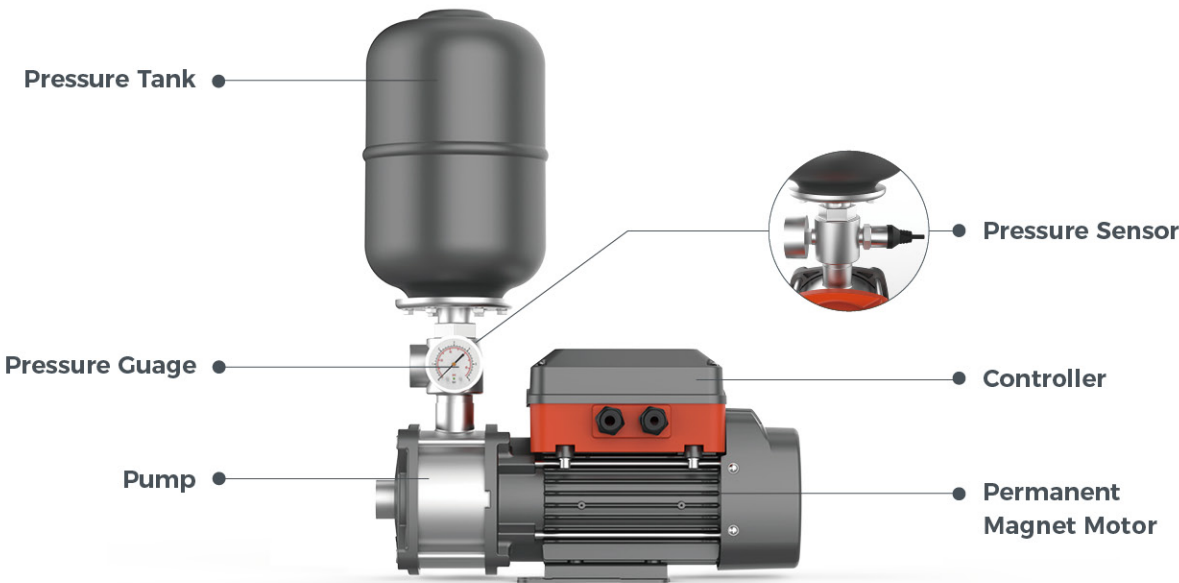
PM5-EMH

High Efficiency Intelligent
Horizontal Multistage Pump

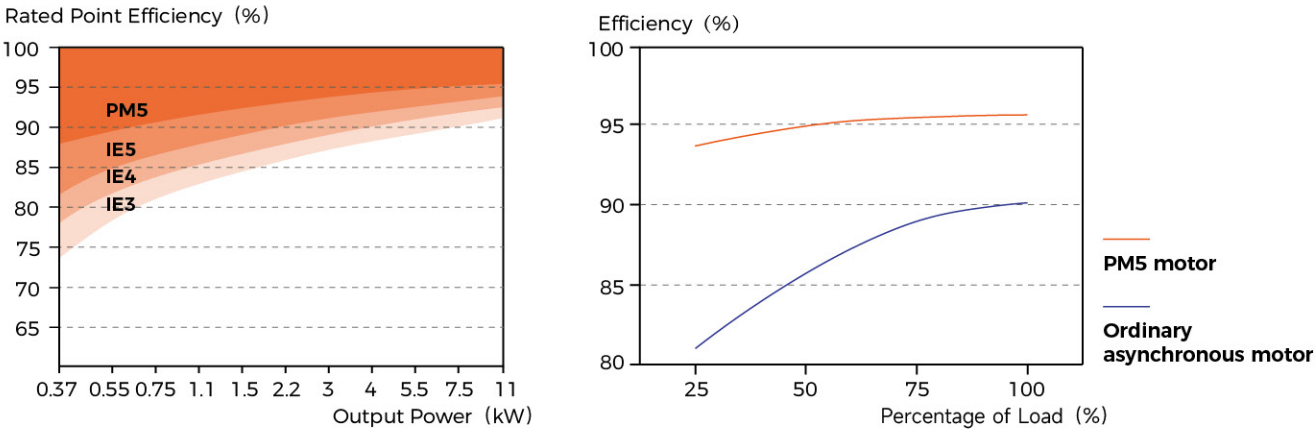


Features

1 Pumps, permanent magnet motors, and VFD are integrated as a single unit, avoiding post-assembly and improving operational efficiency and reliability.

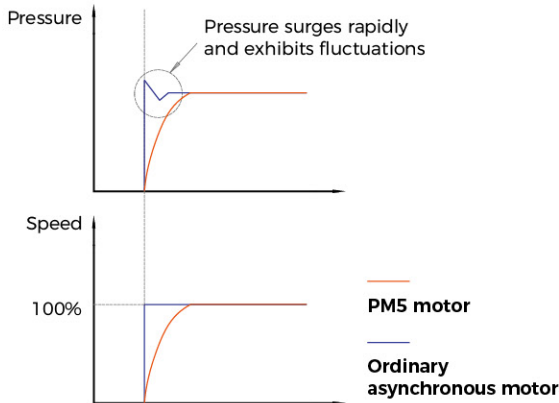


2 Ultra IE5 energy efficient permanent magnet motor not only saves energy efficiently but also reduces operating costs.



The energy efficiency of PM5 permanent magnet motors far exceeds that of IE5. Especially under low load conditions, PM5 permanent magnet motors have higher efficiency than ordinary asynchronous motors, thus saving more power and reducing operating costs.

3 Soft start-stop technology enhances water usage comfort and reduces the risk of water hammer.



- The speed of an ordinary asynchronous motor increases (decreases) rapidly to 100% at the moment of starting and stopping, resulting in a sharp rise and fluctuation of pressure in a short time, which poses a risk of water hammer and affects the comfort of use.
- The PM5 motor adopts soft start-stop technology, in which the variable frequency drive gradually accelerates (reduces) the speed of the pump, so that the pressure rises (falls) flexibly, thus improving water usage comfort and reducing the risk of water hammer.

4 Intelligent variable frequency control (Requiring the configuration of a pressure sensor)

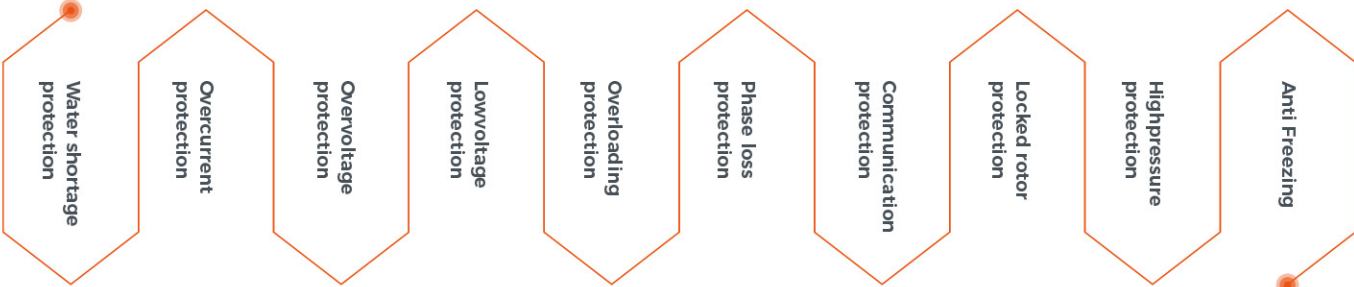
Demand pressure can be set on the control panel. Automatic frequency conversion to maintain constant pressure output during pump operation.

5 Intelligent sleep and wake-up

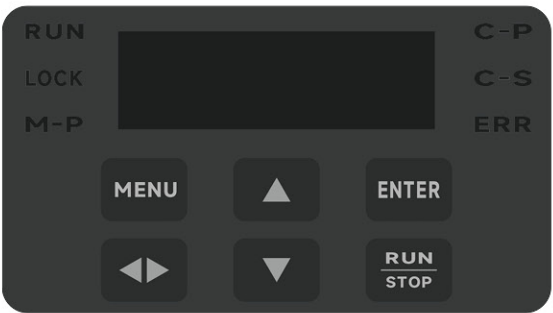
When the outlet valve is closed, the controller can detect the rate change of the outlet pressure through the FM so that the pump automatically enters the sleep state of shutdown.

Re-opening the valve, the pump starts running again when the pressure drops to a certain value.

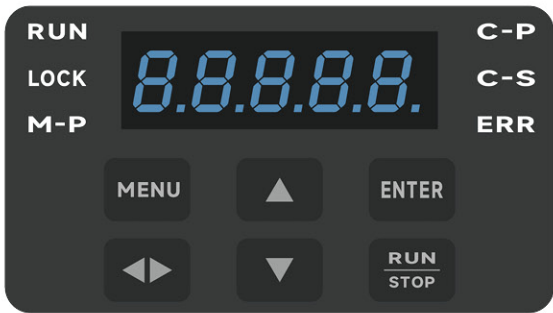
6 Multi-functional protection safeguards both the pump and the entire system. Immediate shutdown upon failure prevents the escalation of damage.



7 Mechanical buttons and digital display for convenient operation and parameter viewing. Intelligent fault indication for easy troubleshooting and maintenance.



Power-off state

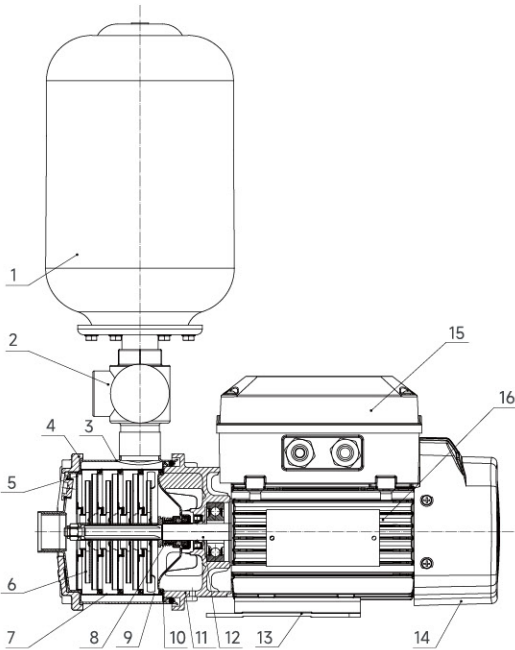


All lights on state

Guidelines to Performance Curves

- All curves are based on motor testing at 3300rpm at constant speed.
- Curve tolerances are in accordance with ISO 9906, Appendix A.
- The medium is water without air at 20°C with a kinematic viscosity of 1mm²/s.
- The pumps are used in accordance with the performance range of the bolded curves to prevent overheating due to too little flow or overloading of the motor due to too much flow, etc.

Material Table

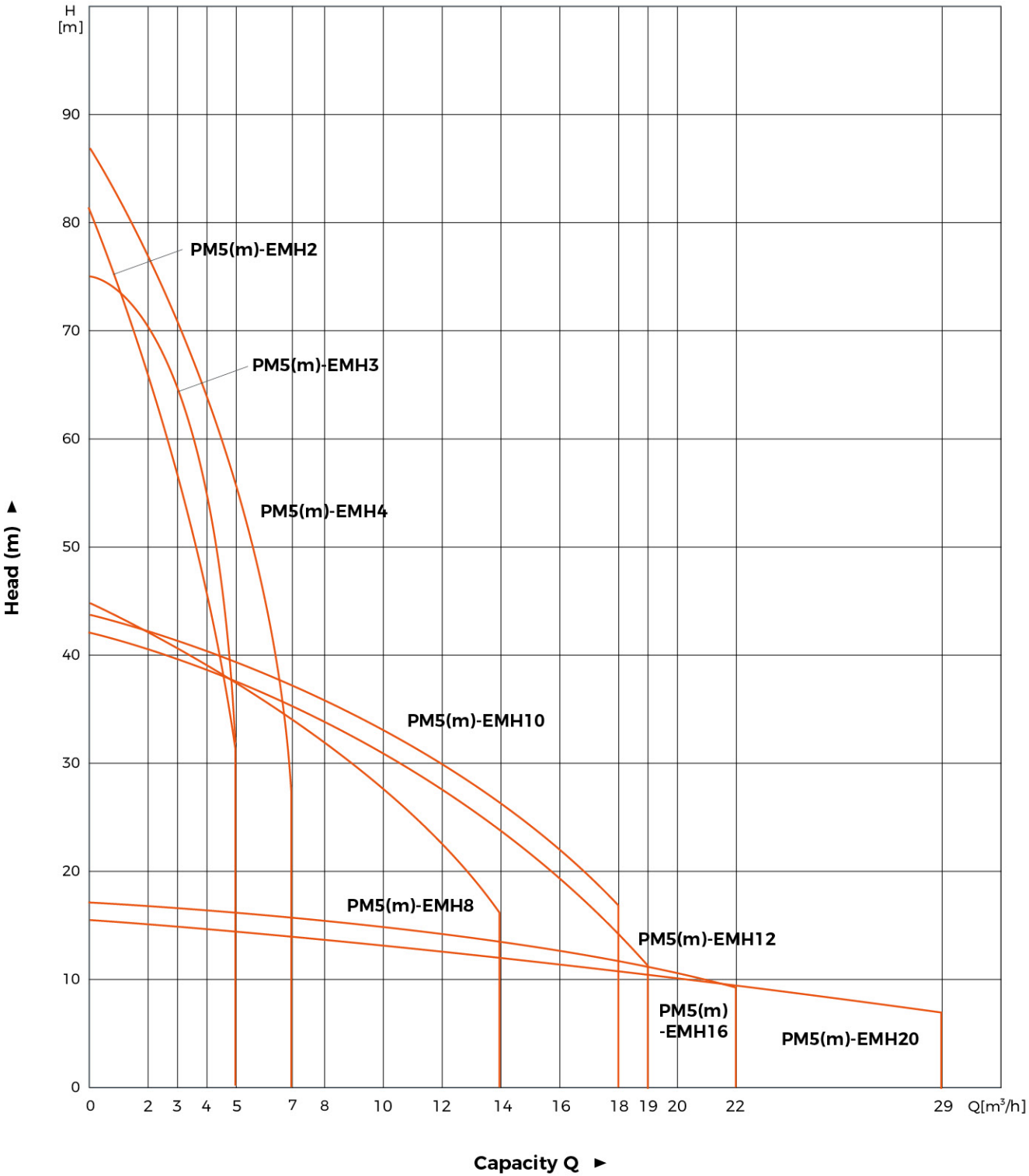


No.	Part	Material
1	Pressure tank	
2	Five-way check valve	AISI304
3	Pump	AISI304
4	Pump cover	ZL102
5	Primary diffuser	AISI304
6	Impeller	AISI304
7	Medium diffuser	AISI304
8	Mechanical seal	SIC/Carbon
9	Final diffuser	AISI304
10	Seal base	AISI304
11	Bracket	ZL102
12	Rotor	
13	Base	Q235
14	Fan cover	PP
15	Controller	
16	Motor	

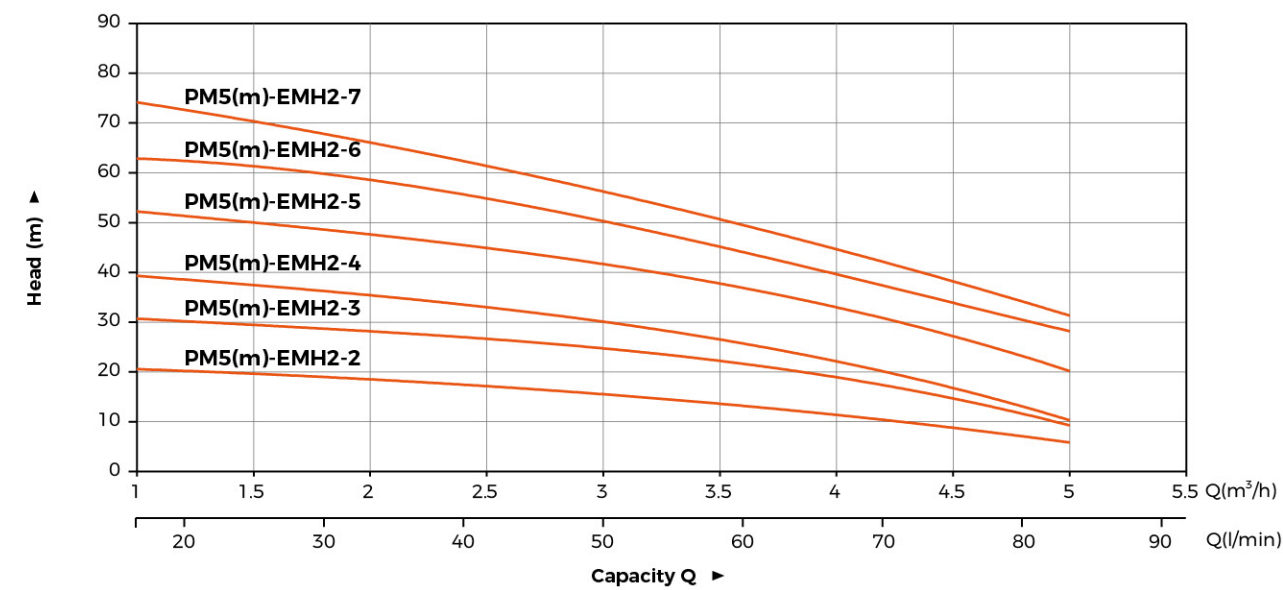
Technical Parameters

Model	PM5(m)-EMH2	PM5(m)-EMH3	PM5(m)-EMH4	PM5(m)-EMH8	PM5(m)-EMH10	PM5(m)-EMH12	PM5(m)-EMH16	PM5(m)-EMH20
Description								
Rated flow(m³/h)	2	3	4	8	10	12	16	20
Flow range(m³/h)	0-5	0-5	0-8	0-14	0-18	0-19	0-22	0-29
Max.pressure(bar)	8	8	7.5	4	4	3.5	1.5	1.5
Motor power(kW)	0.37-1.3	0.55-1.3	0.55-1.5	0.75-1.5	1.1-2.2	1.1-2.2	1.1	1.5
Temperature range(°C)	0°C~ +60°C							
Inlet & outlet diameter	G1/G1	G1/G1	G1¼/G1	G1½	G1½	G1½	G2	G2

Scope of Performance



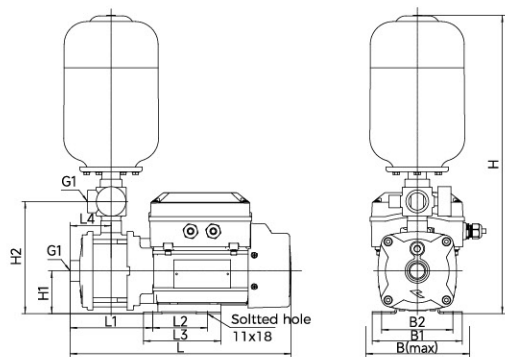
Performance Curves



Technical Data

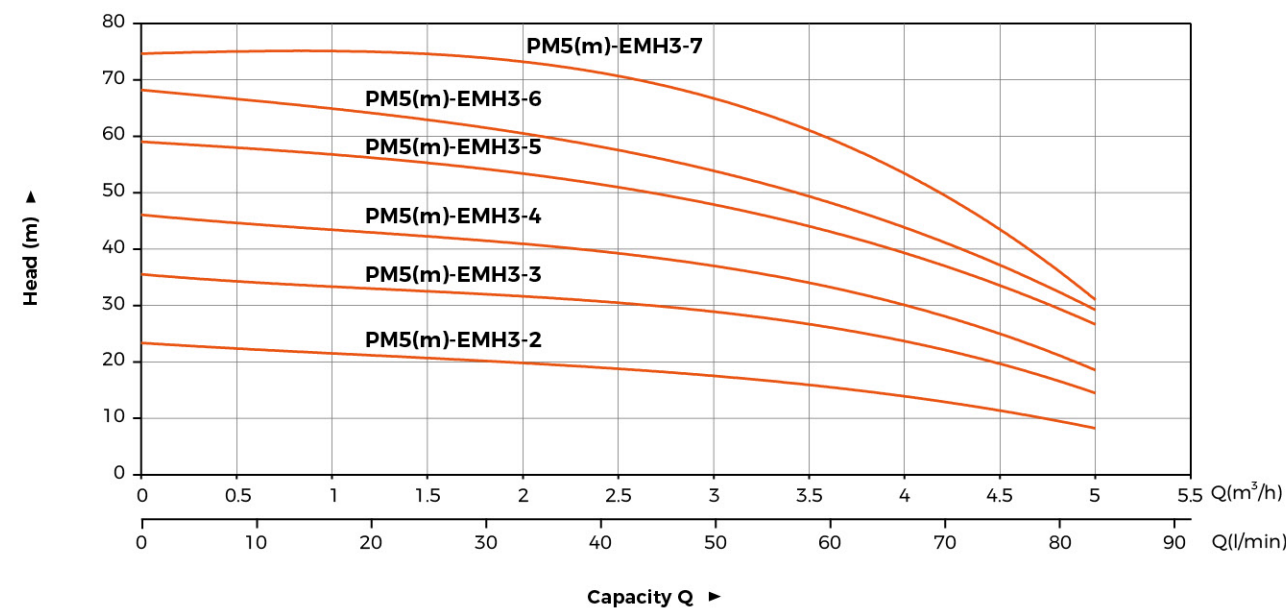
Model	Power(kW)	Q(m³/h)	0	1	1.5	2	2.5	3	3.5	4	4.5	5
PM5(m)-EMH2-2	0.37	H (m)	22	20.5	19.5	18.5	17.5	15.5	13.5	11.5	8.5	6
PM5(m)-EMH2-3	0.55		34	31	29.5	28.5	26	24	21	18	14	10
PM5(m)-EMH2-4	0.75		43	39.5	37	35.5	33	30.5	26.5	22	16.5	10.5
PM5(m)-EMH2-5	0.95		57	52	50	47.5	45.5	41.5	37.5	33.5	26.5	20.5
PM5(m)-EMH2-6	1.1		62	61.5	61.3	59	56	51	44	39	34	28.5
PM5(m)-EMH2-7	1.3		80.7	73.6	70.2	66	62.1	56.7	50.2	45	37	32

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH2-2	388	145	96	136	72	524	75	191	196	158	125
PM5(m)-EMH2-3	388	145	96	136	72	524	75	191	196	158	125
PM5(m)-EMH2-4	408	165	96	136	90	524	75	191	196	158	125
PM5(m)-EMH2-5	426	183	96	136	108	524	75	191	196	158	125
PM5(m)-EMH2-6	444	201	96	136	126	524	75	191	196	158	125
PM5(m)-EMH2-7	464	221	96	136	144	524	75	191	196	158	125

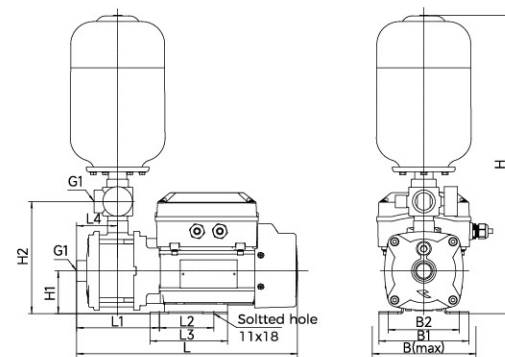
Performance Curves



Technical Data

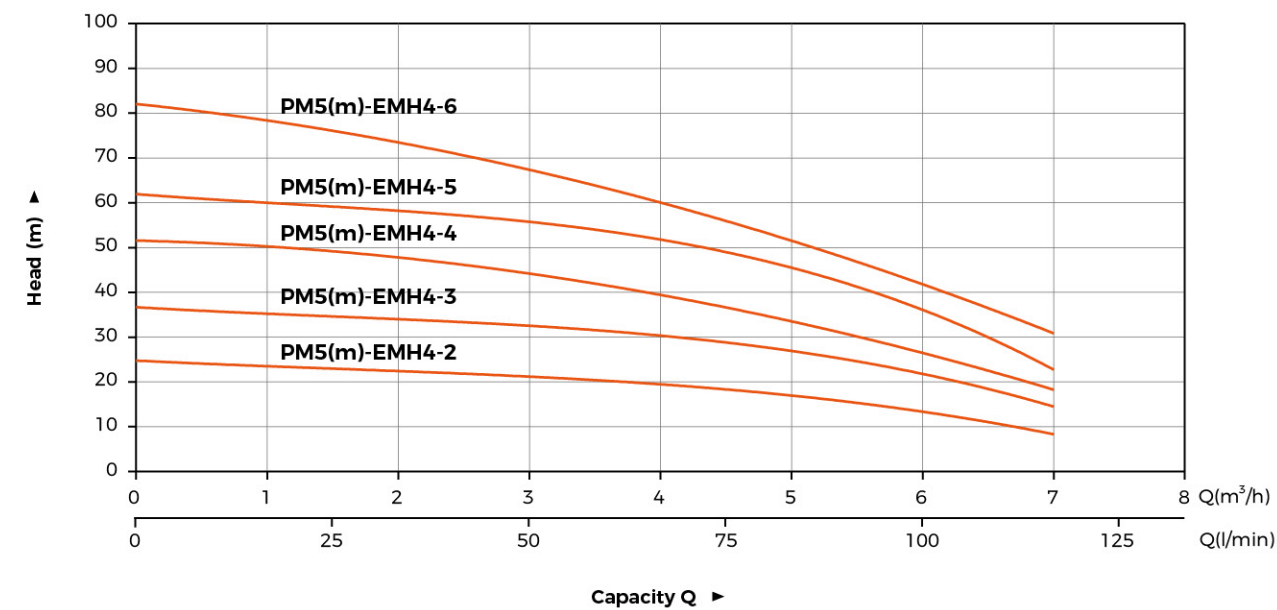
Model	Power(kW)	Q(m³/h)	0	1	1.5	2	2.5	3	3.5	4	4.5	5
PM5(m)-EMH3-2	0.55	H (m)	23.4	21.5	20.6	19.8	19.0	17.7	15.9	13.9	11.3	8.3
PM5(m)-EMH3-3	0.55		35.5	33.5	32.5	31.5	30.5	29	26.5	24	19.5	14.5
PM5(m)-EMH3-4	0.75		46.1	43.4	42.3	41	39.2	37	34.1	30	25.1	18.5
PM5(m)-EMH3-5	1.1		59	57	55	53.5	51	48	44	39	34	26.5
PM5(m)-EMH3-6	1.1		68.3	64.6	63.0	60.6	57.8	54.1	49.3	43	35.3	26.7
PM5(m)-EMH3-7	1.3		75	74.5	74	73.5	71.5	67	61.5	53	42	32

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH3-2	388	145	96	136	72	524	75	191	196	158	125
PM5(m)-EMH3-3	390	147	96	136	72	524	75	191	196	158	125
PM5(m)-EMH3-4	408	165	96	136	90	524	75	191	196	158	125
PM5(m)-EMH3-5	426	183	96	136	108	524	75	191	196	158	125
PM5(m)-EMH3-6	446	203	96	136	126	524	75	191	196	158	125
PM5(m)-EMH3-7	464	221	96	136	144	524	75	191	196	158	125

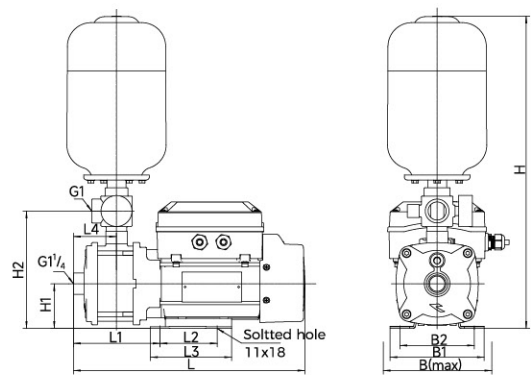
Performance Curves



Technical Data

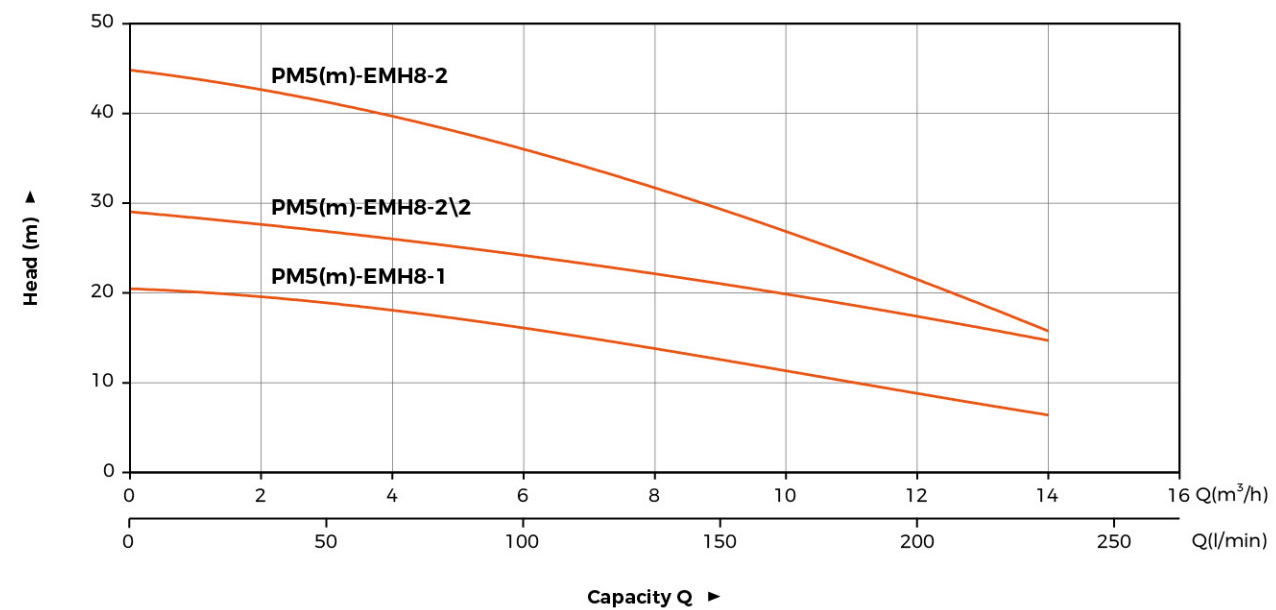
Model	Power(kW)	Q(m³/h)	0	1	2	3	4	5	6	7
PM5(m)-EMH4-2	0.55	H (m)	25	23	22.5	21.5	19.5	17	13	8.5
PM5(m)-EMH4-3	0.75		37	34.5	34	33.5	30	26.5	22	14.5
PM5(m)-EMH4-4	1.1		54.5	47	46	44	41	35	27.5	16.5
PM5(m)-EMH4-5	1.3		62	60	58	55.5	52.5	45.5	35.5	23
PM5(m)-EMH4-6	1.5		87	73	70	67.5	63	53.5	43.5	28

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH4-2	390	147	96	136	72	524	75	191	196	158	125
PM5(m)-EMH4-3	390	147	96	136	72	524	75	191	196	158	125
PM5(m)-EMH4-4	408	165	96	136	90	524	75	191	196	158	125
PM5(m)-EMH4-5	428	185	96	136	108	524	75	191	196	158	125
PM5(m)-EMH4-6	446	203	96	136	126	524	75	191	196	158	125

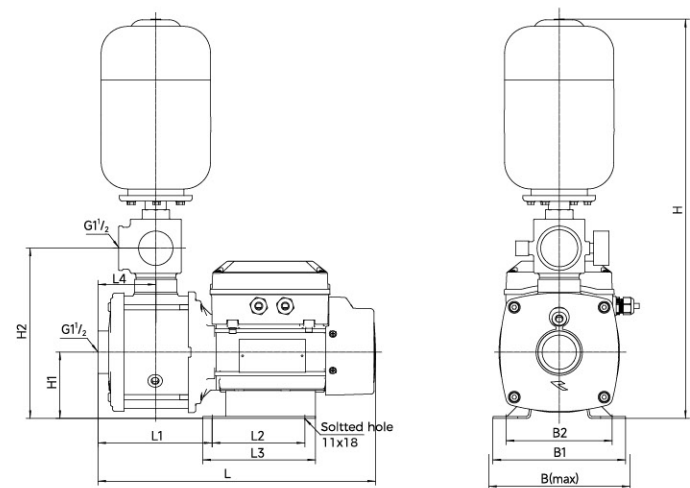
Performance Curves



Technical Data

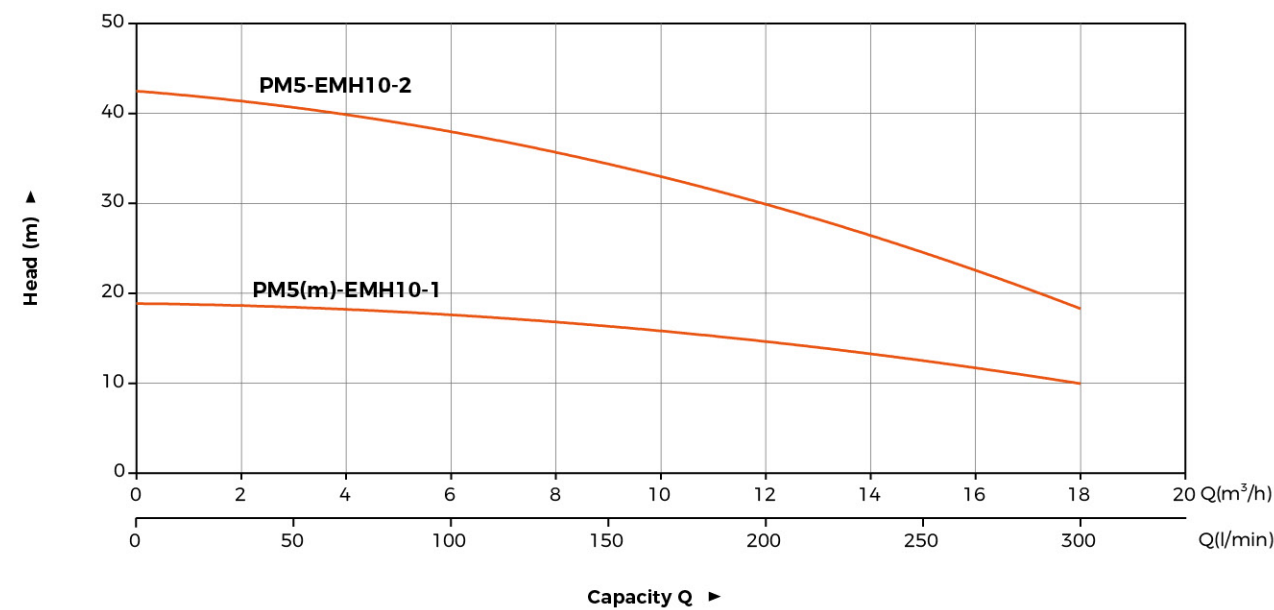
Model	Power(kW)	Q(m³/h)	0	2	4	6	8	10	12	14
PM5(m)-EMH8-1	0.75	H (m)	20.5	19.5	18.1	16.3	13.8	11.5	8.8	6.4
PM5(m)-EMH8-2\2	1.1		30.5	26	25	24.5	22.5	21	17.5	14
PM5(m)-EMH8-2	1.5		45	42.5	39	37	31.5	27	21	16

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH8-1	433	185.5	140	170	102.5	593	100	247	213	200	160
PM5(m)-EMH8-2\2	435	187.5	140	170	102.5	593	100	247	213	200	160
PM5(m)-EMH8-2	435	187.5	140	170	102.5	593	100	247	213	200	160

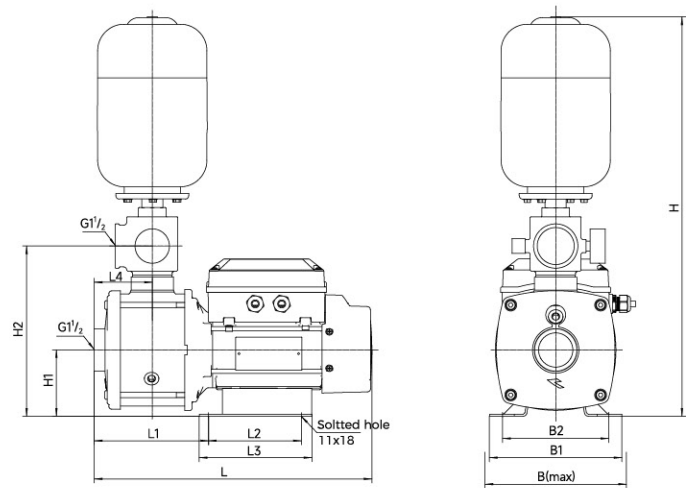
Performance Curves



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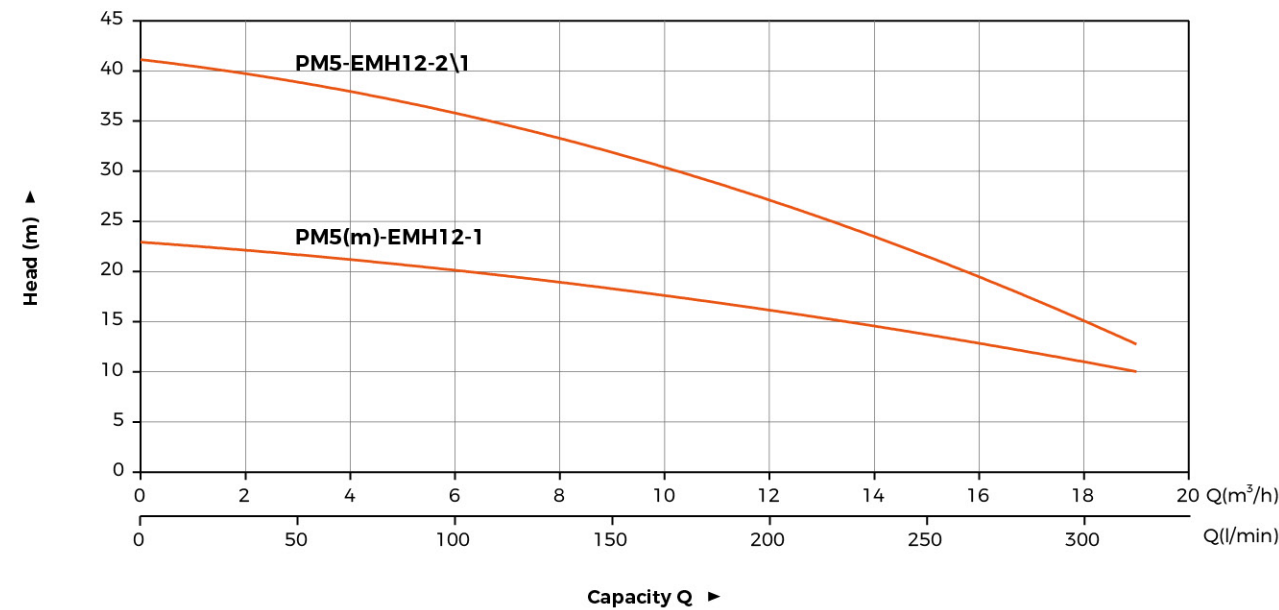
Model	Power(kW)	Q(m³/h)	0	2	4	6	8	10	12	14	16	18
PM5(m)-EMH10-1	1.1	H (m)	18.7	18.5	18.3	18	17	16	14.5	12.5	11.5	10.5
PM5-EMH10-2	2.2		44	40.5	38.5	37.5	35.5	33.5	31	27	22.5	17.5

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH10-1	433	185.5	140	170	102.5	593	100	247	213	200	160
PM5-EMH10-2	435	187.5	140	170	102.5	593	100	247	213	200	160

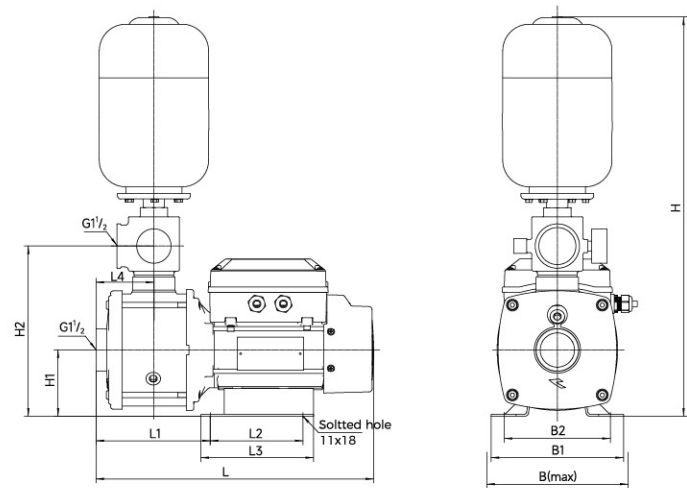
Performance Curves



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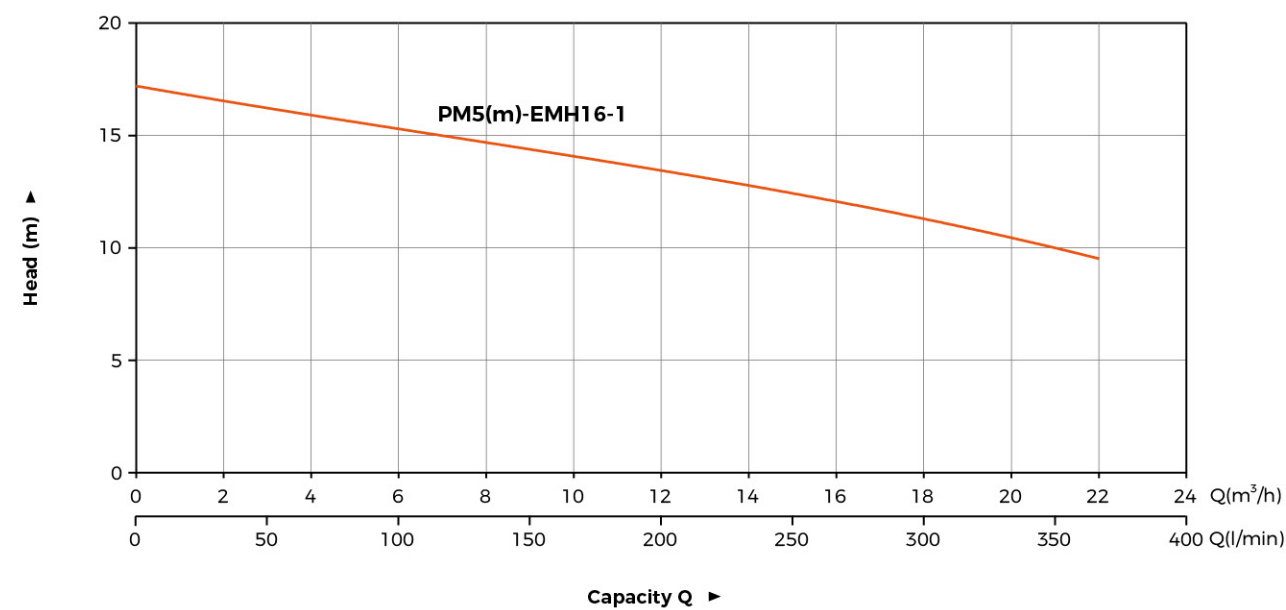
Model	Power(kW)	Q(m³/h)	0	2	4	6	8	10	12	14	16	19
PM5(m)-EMH12-1	1.1	H (m)	23	22	21	20.5	19	17.5	16	14.5	13	10
PM5-EMH12-2\1	2.2		42.4	40.1	35.8	34.9	33	30.8	28	24.2	20.5	11.4

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH12-1	435	187.5	140	170	102.5	593	100	247	213	200	160
PM5-EMH12-2\1	435	187.5	140	170	102.5	593	100	247	213	200	160

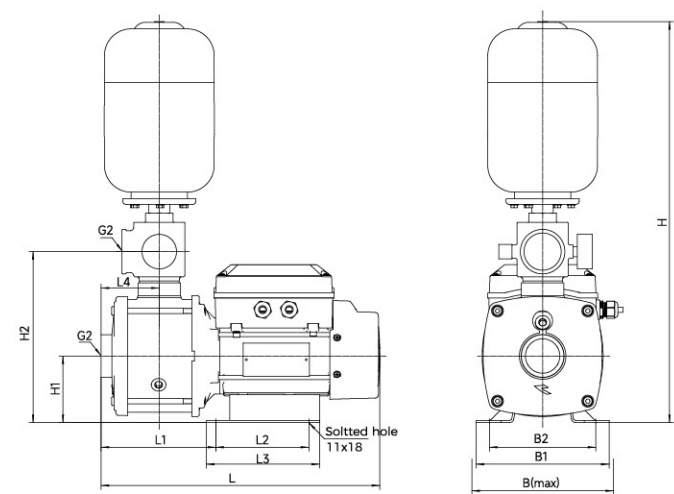
Performance Curves



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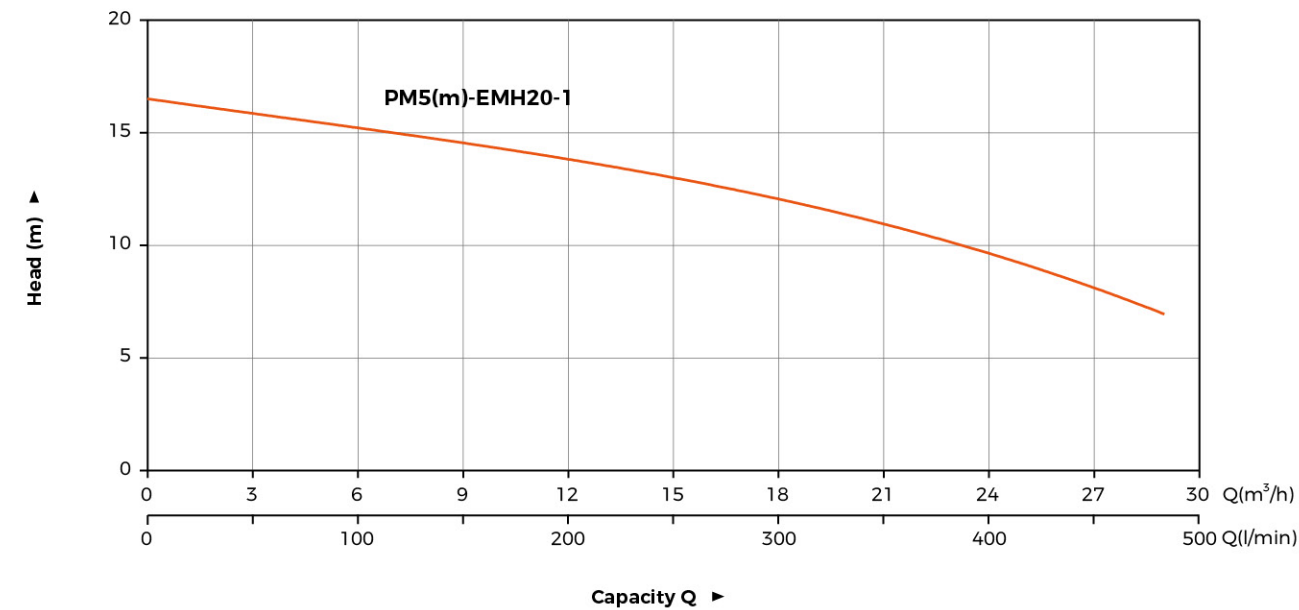
Model	Power(kW)	Q(m³/h)	0	3	6	9	12	16	18	20	22
PM5(m)-EMH16-1	1.1	H(m)	17.2	16.2	15.3	14.4	13.5	12.0	11.3	10.5	9.5

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH16-1	420	172.5	140	170	87.5	603	100	255	213	200	160

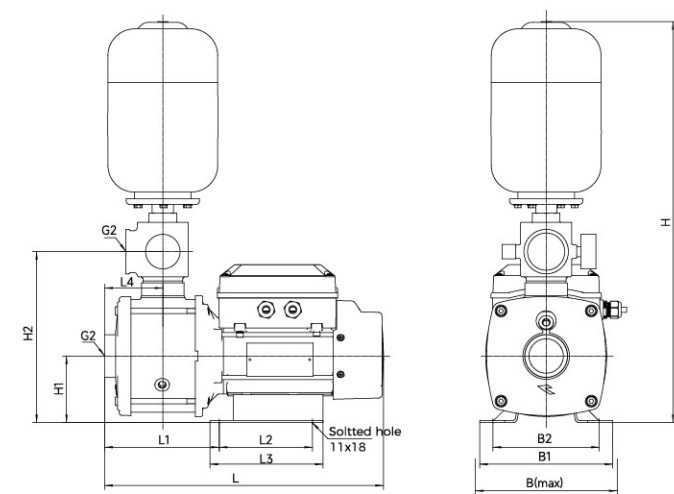
Performance Curves



Technical Data

Model	Power(kW)	Q(m³/h)	0	3	6	9	12	15	18	20	22	29
PM5(m)-EMH20-1	1.5	H(m)	16.5	16	15	14.5	14	13	12	11.5	9.5	7

Dimension



Model	L	L1	L2	L3	L4	H	H1	H2	B(max)	B1	B2
PM5(m)-EMH20-1	420	172.5	140	170	87.5	603	100	255	213	200	160