

CHM 50Hz

Light Horizontal Multistage Centrifugal Pump



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 CNP

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 CNP

Company Profile



Founded in 1991, Nanfang Pump Industry Co., Ltd. (hereinafter referred to as CNP) has been listed on the Shenzhen Stock Exchange on 9th December 2010; Stock name: CNP; Stock code: 300145.

As the first enterprise specializing in the research and large-scale production of stainless steel stamping welded centrifugal pump in China, CNP is currently the professional manufacturer with the highest volume of production and marketing in that industry. It ranks first in the country in terms of product scope, sales volume, and production quality. The company has set up a complete network of marketing services to meet the requirements of overseas markets as well as domestic needs. The products have seen a wide range of application in the area of pressurization, industry, living water, cycling of air-conditioning water, heat supply, fire extinguishing system, pumping of underground water, treatment of sewage and waste water, chemical industry and desalination of sea water etc.

CNP has now entered into the fast track of development and has taken a major step forward in forging China Strong Pump Enterprise and World's famous brand in the Pump Industry. In order to better meet the client's needs and requirements for expansion, it has set up a wide network of selling and service, as well as offices and service centers in major cities in China, which are aimed at providing timely and effective services for our clients. Meanwhile, our company has successfully penetrated into the world market by forging a good business relationship with more than 50 countries and regions in the Europe, Northern American, and Southeast Asia etc.

Content

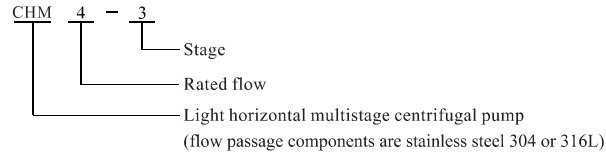
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● Definition of model



● Convey liquid

- Thin, clean, non-flammable and non-explosive liquid without grain or fiber.
- Pump can convey mineral water, softened water, pure water,
- In case density of the liquid conveyed by the pump is higher than that of water, it is necessary to use corresponding motor of higher output power.
- The application of the pump is decided by many factors. The most important factors are chlorinity, PH value, temperature, solvent, oil content etc.

● Applications

- CHM series pump is mainly used in industry.
- Air Conditioning System
- Cooling System
- Water Treatment(Water Purification)
- Aquaculture
- Fertilization/Measuring system
- Environmental Application
- Other specific Applications

● Motor

- TEFC motor 2-pole
- Protection class: IP 55
- Insulation class: F
- Standard voltage: 50Hz: 1×220-240V
3×220-240V/380V-415V
- Max. power of monophase motor: 2.4kW

● Operation conditions

- Liquid temperature:
Normal temperature type: -15°C~+70°C
Hot water type: -15°C~+105°C
- Ambient temperature: +40°C
- Max.operation pressure: 10 bar
- Max.inlet pressure is limited by Max.operation pressure

● Curve conditions

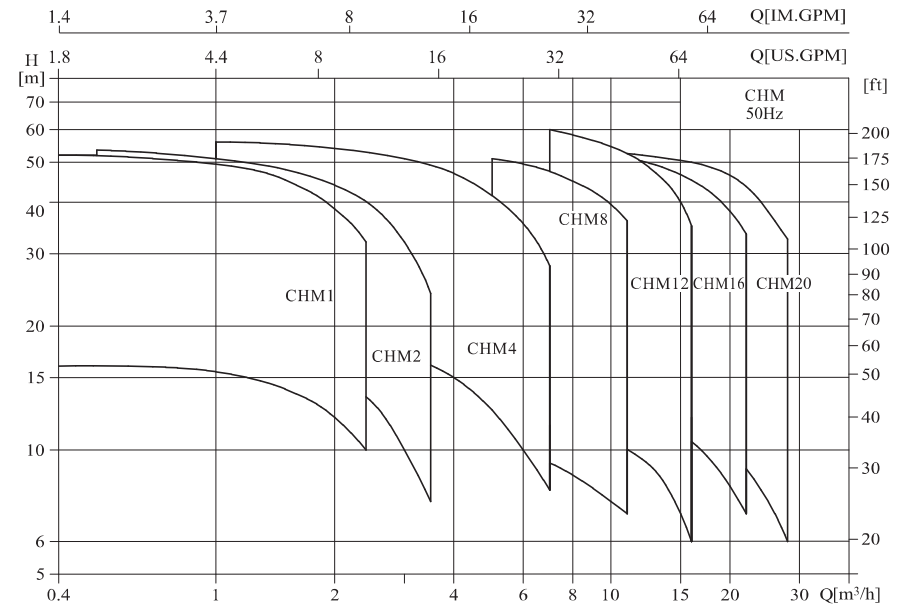
Following conditions are suitable for the performance curves shown below:

- All curves are based on the measured values of constant motor speed 2850r/min (if motor power is 0.25kW)and 2900 r/min (other motor power).
- Curve tolerance in conformity to ISO9906:2012 Grade 3B.
- Measurement is done with 20°C air-free water, kinematic viscosity of 1mm²/s.
- The operation of pump shall refer to the performance region described by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

● Pump

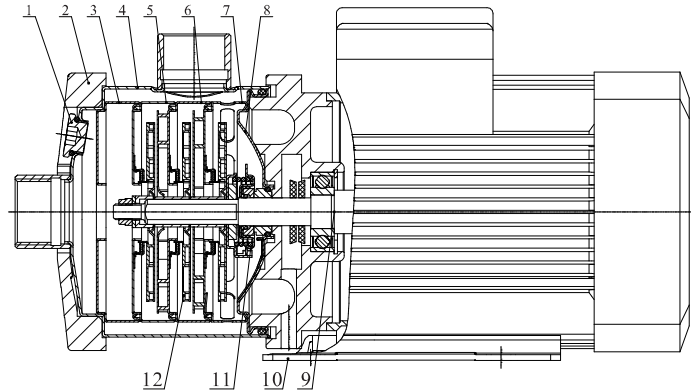
- Horizontal multistage non-self-priming centrifugal pump, attached with long shaft electric motor.
- Compact structure renders small size of pump, axial inlet and radial outlet.

● Performance scope

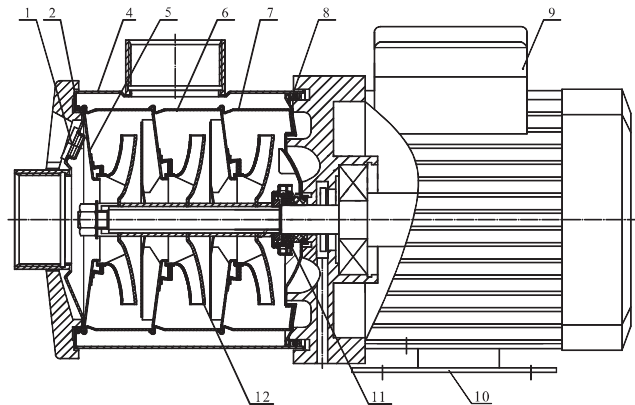


● Section Drawing

CHM1,2,4



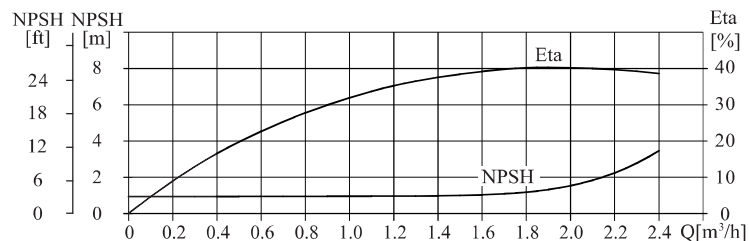
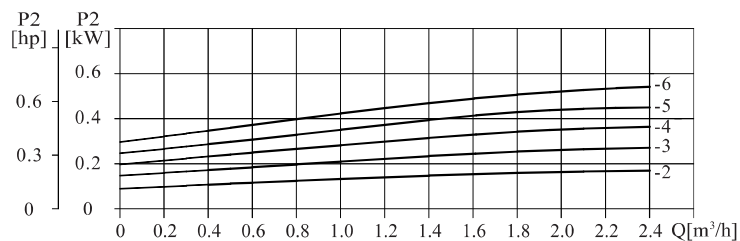
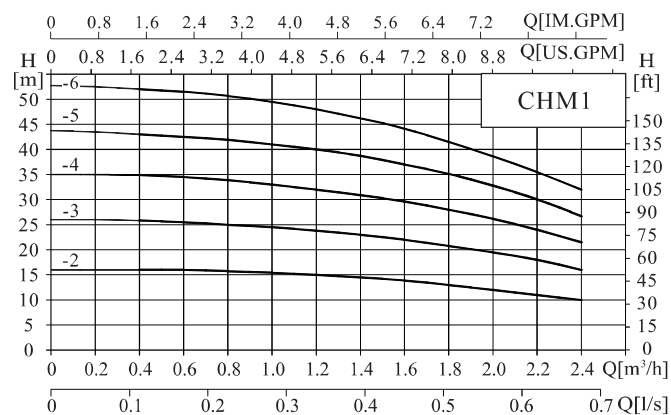
CHM8,12,16,20



● Material

NO.	Name	Material	AISI/ASTM
1	Plug	Stainless steel	SS-304N2-33
2	Clamp plate	Die-casting aluminum	ASTM383.1
3	Diffuser casing	Stainless steel	AISI304
4	Inlet and outlet chamber	Stainless steel	AISI304
5	Inducer	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Discharge diffuser	Stainless steel	AISI304
8	Seal seat	Stainless steel	AISI304
9	Motor		
10	Base plate	Steel plate	AISI1015
11	Mechanical seal	Graphite/SiC	
12	Impeller	Stainless steel	AISI304

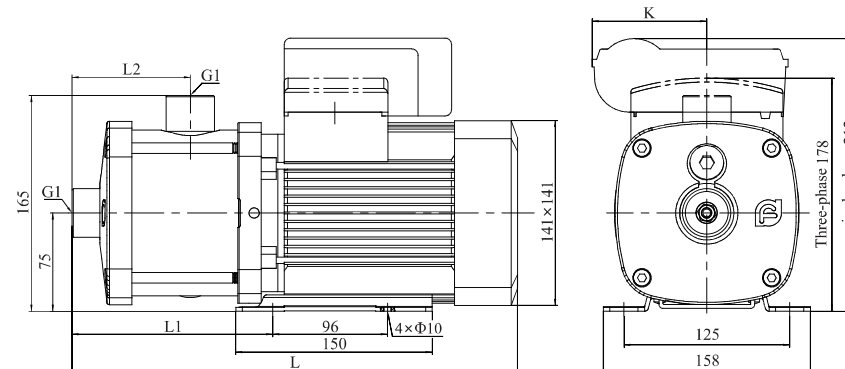
● Performance curve



● Performance table

Model	Motor (kW)	Q (m³/h)	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4
CHM1-2	0.25	H (m)	16	16	15.5	15.5	15	14.5	13.5	13	12	11	10
CHM1-3	0.37		25.5	25.5	25	24.5	24	23	22	20.5	19.5	18	16
CHM1-4	0.37		34.8	34.5	33.8	33	32	31	29.5	28	26	24	21.5
CHM1-5	0.45		43	42.5	42	41	40	38.5	37	35	32.5	30	27
CHM1-6	0.55		52	51.5	50.5	49.5	48	46.5	44	41.5	38.5	35.5	32

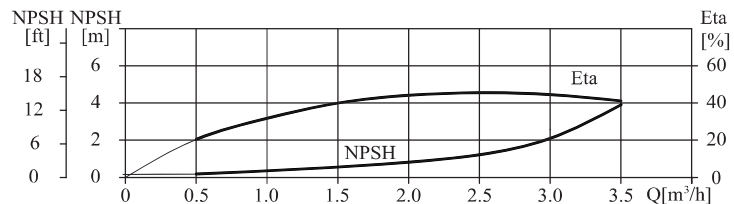
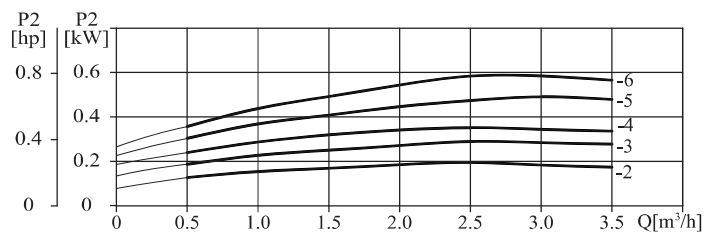
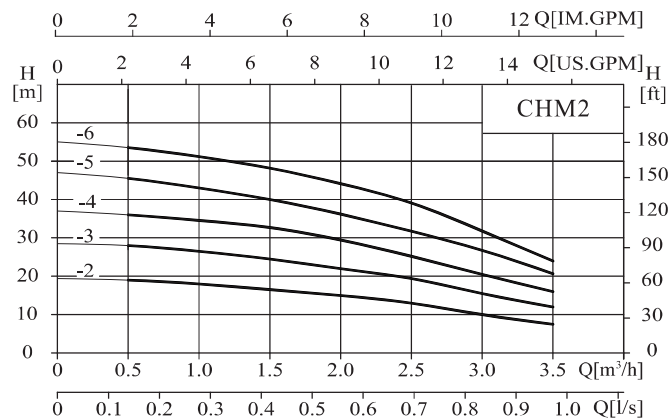
● Installation sketch



● Size and weight

Motor	Model	Size(mm)				weight (kg)
		L	L1	L2	K	
Three-phase/ single-phase	CHM1-2	322	131	72	/90	10
	CHM1-3	322	131	72	/90	10
	CHM1-4	340	149	90	/90	11
	CHM1-5	358	167	108	/90	11
	CHM1-6	376	185	126	/90	12

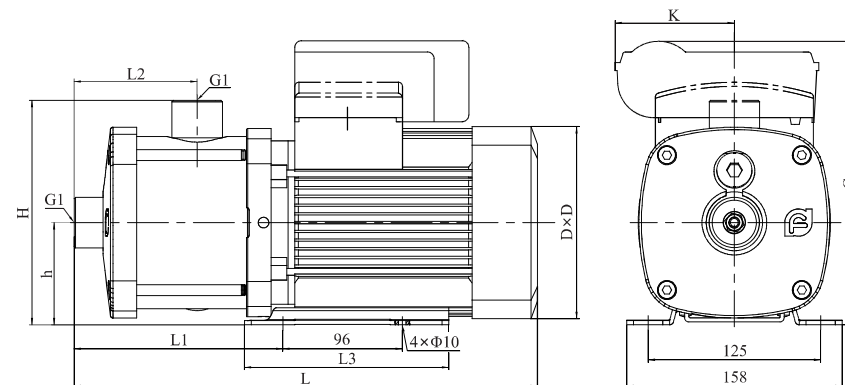
● Performance curve



● Performance table

Model	Motor (kW)	Q (m³/h)	0.5	1.0	1.5	2.0	2.5	3.0	3.5
CHM2-2	0.37	H (m)	19	18	16.5	15	13	10	7.5
CHM2-3	0.37		28	26.5	24.5	22	19	15.5	12
CHM2-4	0.55		36	34.5	33	29	25	20.5	16
CHM2-5	0.55		45.5	43	40	36	31.5	26.5	20.5
CHM2-6	0.75		53.5	51	48	44	39	32	24

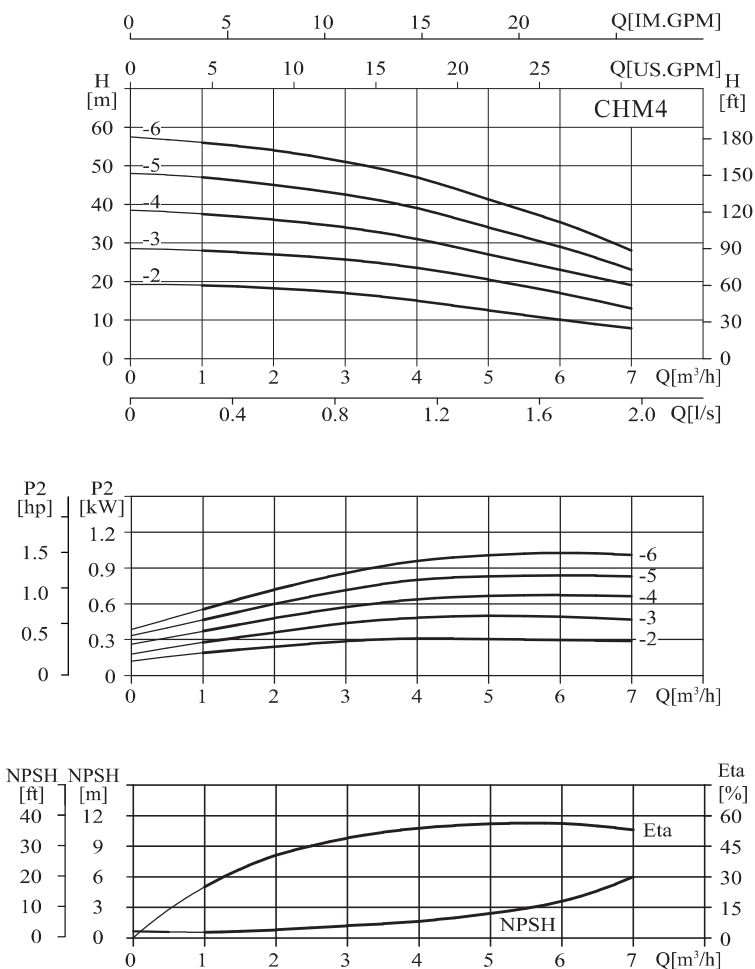
● Installation sketch



● Size and weight

Motor	Model	Size(mm)								weight (kg)	
		L	L1	L2	L3	h	H	D	G		K
Three-phase/ single-phase	CHM2-2	322	131	72	150	75	165	141	178/212	/90	10
	CHM2-3	322	131	72	150	75	165	141	178/212	/90	10
	CHM2-4	340	149	90	150	75	165	141	178/212	/90	11
	CHM2-5	358	167	108	150	75	165	141	178/212	/90	11
	CHM2-6	399	185	126	160	85	175	151/161	195/230	/90	14

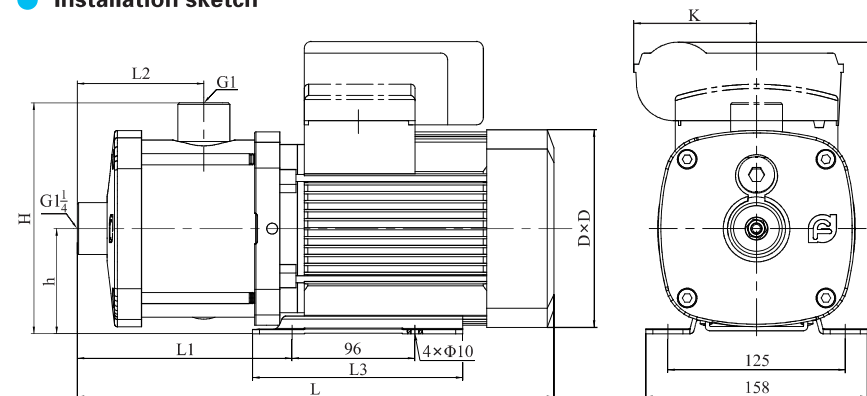
● Performance curve



● Performance table

Model	Motor (kW)	Q (m³/h)	1	2	3	4	5	6	7
CHM4-2	0.37	H (m)	19	18	17	15	12.5	10	8
CHM4-3	0.55		28	27	26	23.5	20.5	17	13
CHM4-4	0.75		37.5	36	34	31	27	23	19
CHM4-5	1.1		47	45	42.5	39	34	29	23
CHM4-6	1.1		56	54	51	47	41.5	35.5	28

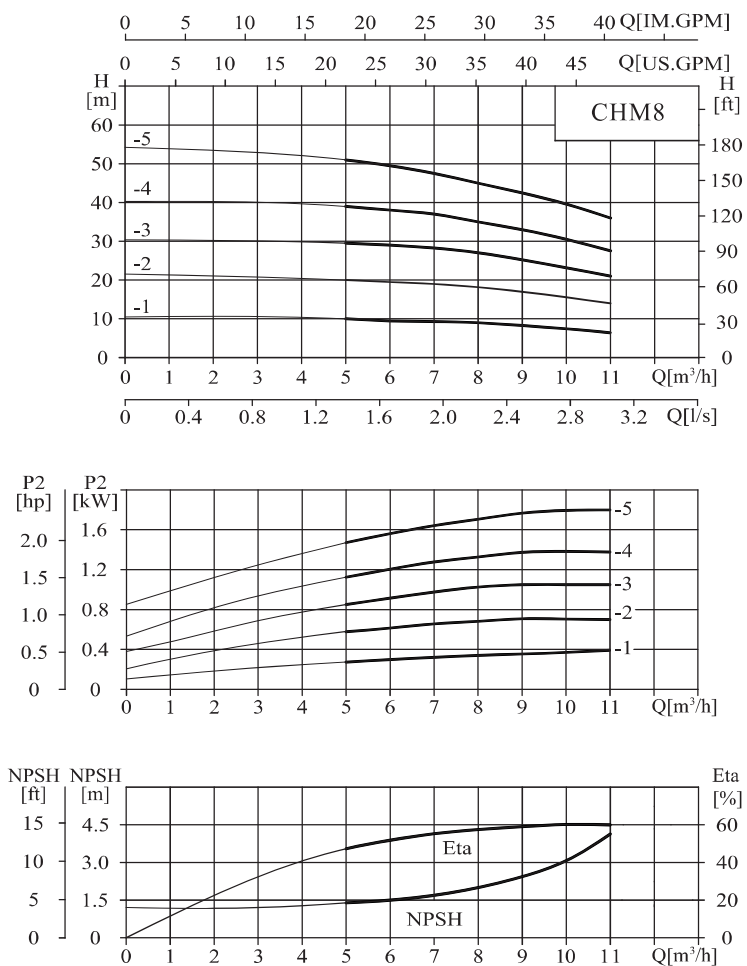
● Installation sketch



● Size and weight

Motor	Model	Size(mm)									weight (kg)
		L	L1	L2	L3	h	H	D	G	K	
Three-phase/ single-phase	CHM4-2	322	131	72	150	75	165	141	178/212	/90	10
	CHM4-3	376	185	126	150	75	165	141	178/212	/90	11
	CHM4-4	399	185	126	160	85	175	151/161	195/230	/90	14
	CHM4-5	426	212	153	160	85	175	151/161	195/230	/90	17
	CHM4-6	453	239	180	160	85	175	151/161	195/230	/90	18

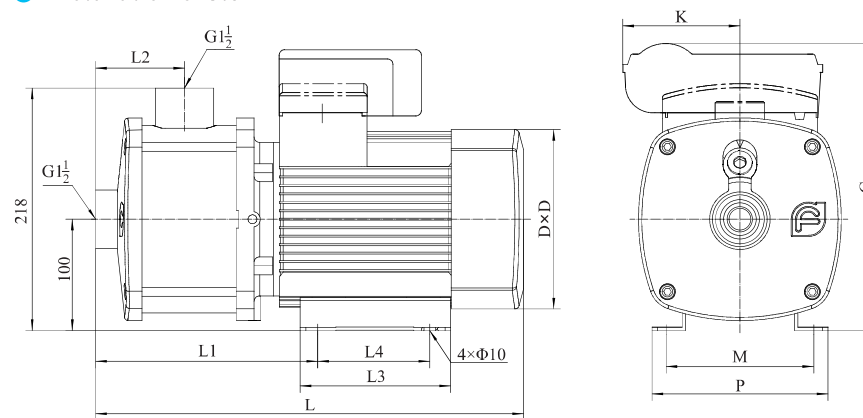
Performance curve



Performance table

Model	Motor (kW)	Q (m³/h)	5	6	7	8	9	10	11
CHM8-1	0.75	H (m)	10	9.5	9.3	9	8	7.5	7
CHM8-2	0.75		20	19.5	19	18	17	15.5	14
CHM8-3	1.1		29.5	29	28	27	25	23	21
CHM8-4	1.5		39	38	37	35	33	30.5	27.5
CHM8-5	2.2		51	49.5	47.5	45	42.5	39.5	36

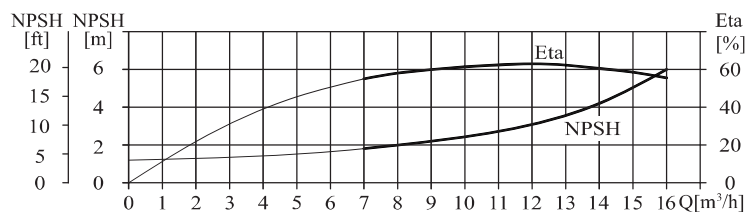
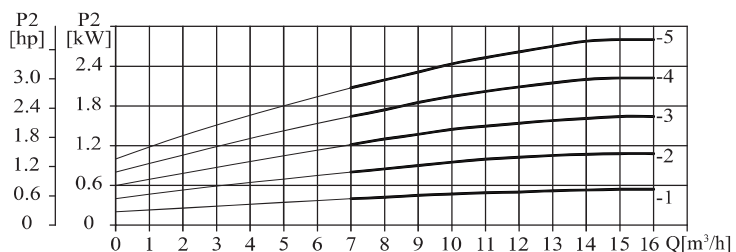
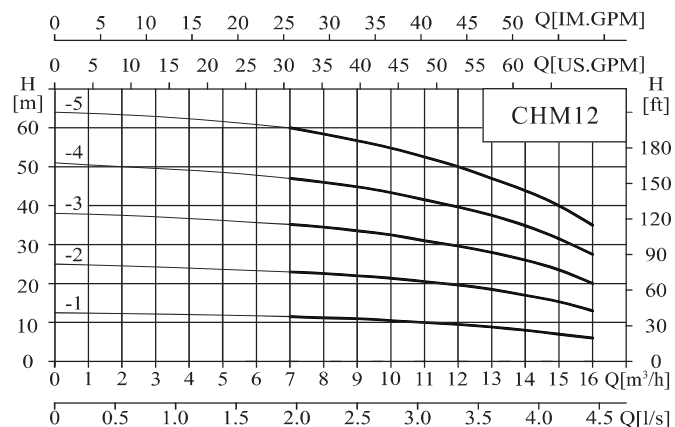
Installation sketch



Size and weight

Motor	Model	Size(mm)										weight (kg)
		L	L1	L2	L3	L4	D	G	K	P	M	
Three-phase/ single-phase	CHM8-1	366/368	172/190	78	140	96	151/161	210/246	/90	158	125	14
	CHM8-2	366/368	172/190	78	140	96	151/161	210/246	/90	158	125	14
	CHM8-3	396/418	202/222	108	140	96	151/161	210/246	/90	158	125	18
	CHM8-4	467/479	249/269	138	200	140	171/175	220/256	/90	200	160	23
	CHM8-5	497/509	279/299	168	200	140	171/175	220/256	/90	200	160	24

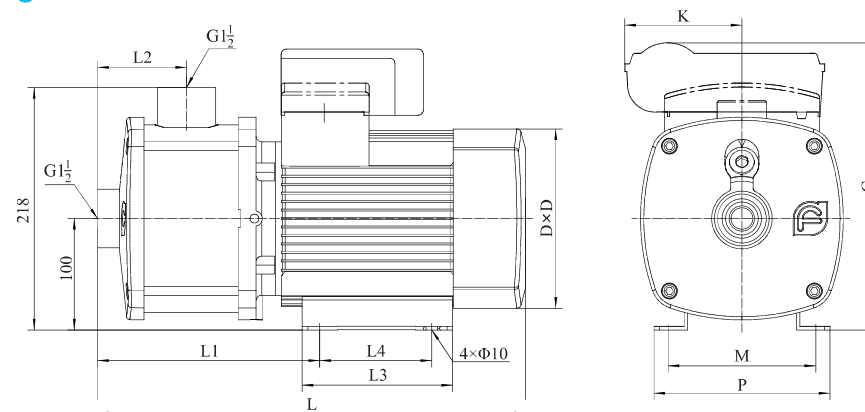
● Performance curve



● Performance table

Model	Motor (kW)	Q (m³/h)	7	8	9	10	11	12	13	14	15	16
CHM12-1	0.75	H (m)	11.5	11.2	11	10.5	10	9.5	9	8	7	6
CHM12-2	1.2		23	22.5	22	21.5	20.5	19.5	18.5	17	15.5	13
CHM12-3	1.8		35	34.5	33.5	32.5	31	29.5	28	26	23.5	20
CHM12-4	2.4		47	46	45	43.5	41.5	39.5	37.5	35	31.5	27.5
CHM12-5	3		60	58	56.5	55	52.5	50	47	44	40	35

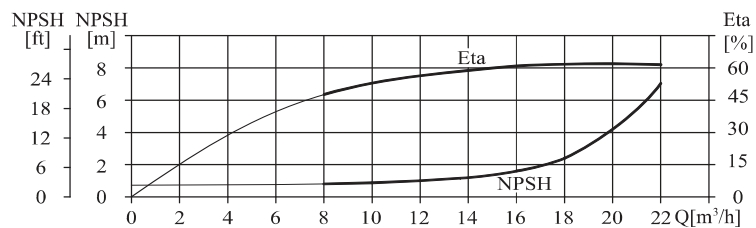
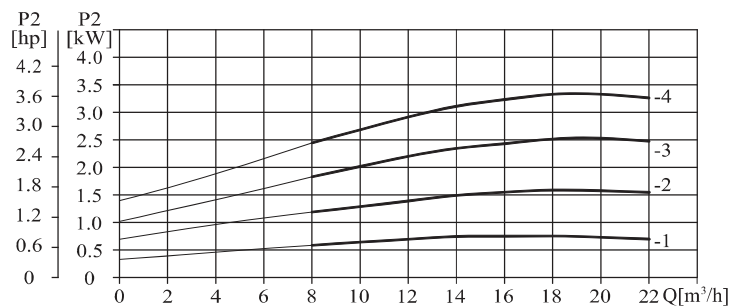
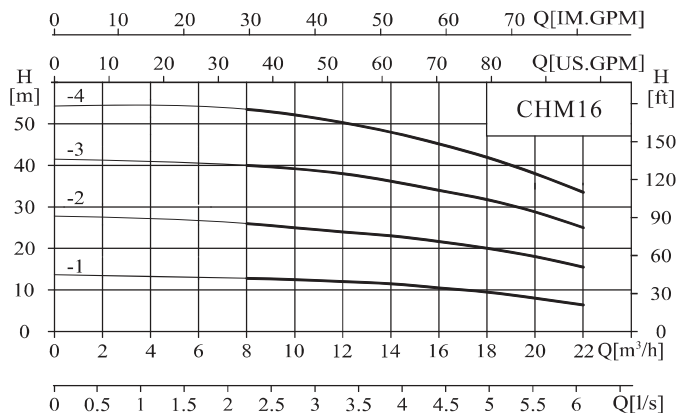
● Installation sketch



● Size and weight

Motor	Model	Size(mm)										weight (kg)
		L	L1	L2	L3	L4	D	G	K	P	M	
Three-phase/ single-phase	CHM12-1	366/368	172/190	78	140	96	151/161	210/246	/90	158	125	14
	CHM12-2	366/368	172/190	78	140	96	151/161	210/246	/90	158	125	18
	CHM12-3	437/449	219/239	108	200	140	171/175	220/256	/90	200	160	23
	CHM12-4	467/479	249/269	138	200	140	171/175	220/256	/90	200	160	24
	CHM12-5	548/	277/	168	180	140	196/	232/	/	200	160	31

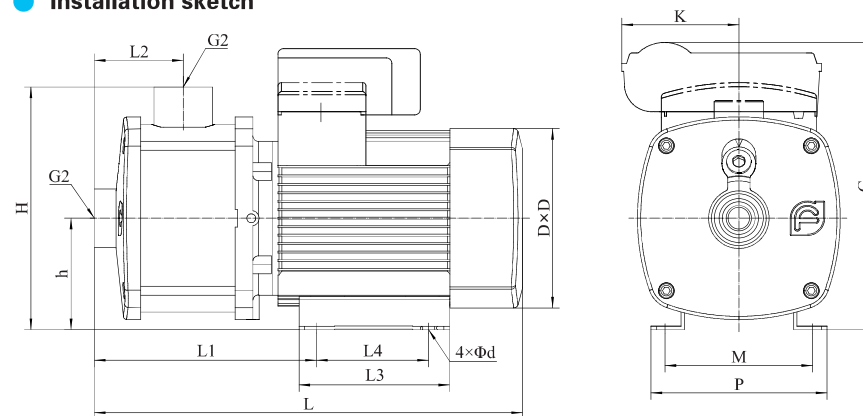
● Performance curve



● Performance table

Model	Motor (kW)	Q (m³/h)	8	10	12	14	16	18	20	22
CHM16-1	1.1	H (m)	12.8	12.5	12	11.5	10.5	9.5	8	7
CHM16-2	2.2		26	25	24	23	21.7	20	18	15.5
CHM16-3	3		40	39	38	36	34	31.5	29	25
CHM16-4	4		53.5	52	50	48	45	42	38	33.5

● Installation sketch



● Size and weight

Motor	Model	Size (mm)													weight (kg)
		L	L1	L2	L3	L4	h	H	d	D	G	K	P	M	
Three-phase/ single-phase	CHM16-1	379/401	187/207	93	140	96	100	218	10	151/161	210/246	/90	158	125	17
	CHM16-2	420/432	203/200	93	200	140	100	218	10	171/175	220/256	/90	200	160	22
	CHM16-3	516/	247/	138	180	140	100	218	10	196/	232/	/	200	160	30
	CHM16-4	572/	311/	183	180	140	112	230	12	214/	262/	/	230	190	37

