



CL

Chiller Pump 50Hz



Stock code:300145



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Pumping Water Pumping Honor



Company profile

Nanfang Pump Industry Co., Ltd (CNP), as a subsidiary of Nanfang Zhongjin Environment Co., Ltd., was founded in 1991, and listed on Shenzhen Stock Exchange on December 9, 2010 with stock code 300145.

In 2019, CNP's annual output exceeded 900,000 units/set with nearly 3 billion sales revenue, continuing to maintain high growth.

As a national enterprise technology center, CNP has flagship ultra-high efficient product - new generation CDM (F) light vertical multistage centrifugal pump, $MEI \geq 0.7$. Same series high temperature pump products are developed in 2019 to satisfy high temperature applications. All light stainless steel pump product series grow stably. Advanced frequency conversion water supply equipment has been innovated to the 6th generation. Fire pump and diesel engine have obtained UL certification. TD in-line pump, NIS/NISO end suction pump, NSC split casing pump, WQ sewage pump, PQ stainless steel fountain submersible pump, BP silent tube pump, pool pump, non-blocking self-priming sewage pump, metering pump, oil pump and other pump products, can meet various application needs of different fields.

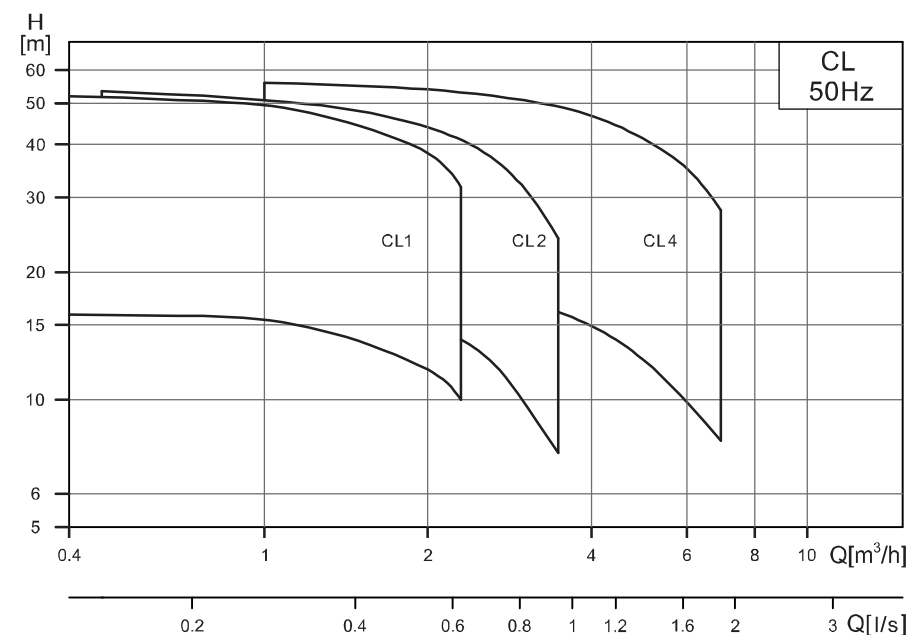
CNP has a complete sales network both in domestic and overseas market, exporting to over 60 countries and regions, maintaining long-term and strong relationship with our clients. CNP pumps have been widely applied in various fields like water treatment, water supply and drainage, HVAC, industrial application, seawater desalination, energy and power etc.

CNP, a green water expert beside you.

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Performance range



Performance scope

Description \ Model	CL		
Rated flow [m³/h]	1	2	4
Flow range [l/s]	0.28	0.56	1.1
Flow range [m³/h]	0.4~2.4	0.5~3.5	1~7
Flow range [l/s]	0.11~0.67	0.14~0.97	0.28~1.9
Max. pressure [bar]	5.2	5.3	5.6
Power [kW]	0.25~0.55	0.37~0.75	0.37~1.1
Temp.[°C]	-15~+70		
Max. efficiency [%]	40.5	46	54
Pipeline	G1	G1	Inlet G1 _{1/4} /Outlet G1

Introduction

CL series chiller pump is non-self-priming light horizontal multistage centrifugal pump with long shaft motor, compact structure, small size, axial inlet and radial outlet. It is mainly designed for insufficient water inflow condition and can effectively solve mechanical seal failures caused by dry grinding. It's energy saving, environmental friendly, with beautiful appearance, light weight, low noise, convenient installation and maintenance, and high reliability.

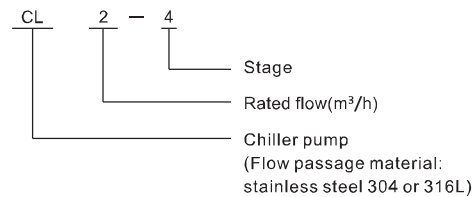
Motor

TEFC, 2-pole motor
Protection class: IP55
Insulation class: F
Standard power : 50Hz : 1×220V
3×220/380V

Working condition

Thin, clean, non-flammable, non-explosive, solid free, fiber free, physically and chemically water-like liquid.
Liquid temperature: -15°C to 70°C
Ambient temperature: up to 40°C
Max. Working pressure: 10 bar
Maximum inlet pressure is limited by maximum working pressure.

Model definition



Application

HVAC system
Cooling system
Industrial cleaning
Water purification
Aquaculture
Fertilization / metering system
Environmental application
Many other specific uses

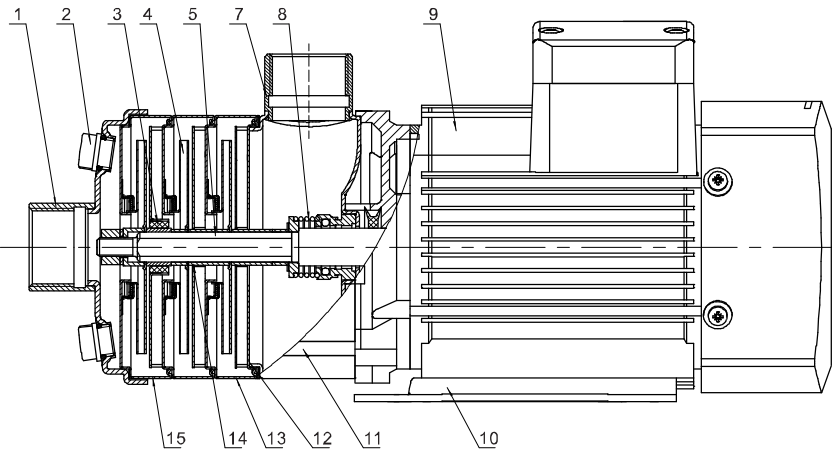
Curve conditions

Following conditions are suitable for performance curves below.

- 1、All curves are based on measured values of motor : 0.25kW, constant speed 2850rpm; other power, constant speed 2900rpm.
- 2、Curve tolerance in conformity with ISO9906:2012, Grade 3B.
- 3、Measurement is done with 20°C air-free water, kinematic viscosity of 1mm²/s.

4、Pump operation shall refer to the performance range indicated by the thickened curve to prevent overheating by too small flow rate or motor overloading by too large flow rate.

Sectional drawing

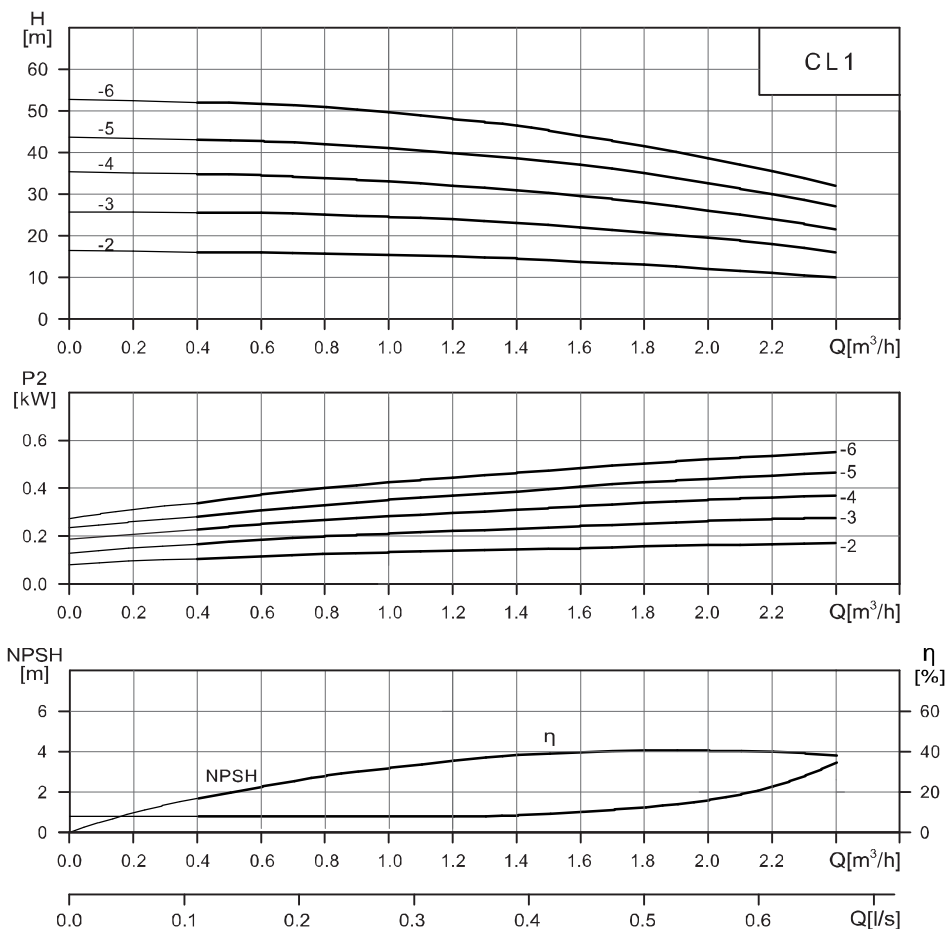


Material

No	Name	Material	AISI/ASTM
1	Inlet chamber	Stainless steel	AISI304
2	Nut	Stainless steel	AISI304
3	Bearing	Silicon carbide	
4	Impeller	Stainless steel	AISI304
5	Shaft	Stainless steel	AISI304
7	Outlet chamber	Stainless steel	AISI304
8	Mechanical seal		
9	Motor		
10	Base plate	Steel plate	AISI1015
11	Stay bolt	45	
12	Last stage diffuser	Stainless steel	AISI304
13	Diffuser	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Supporting diffuser	Stainless steel	AISI304

Note: Other materials can be customized according to clients' needs.

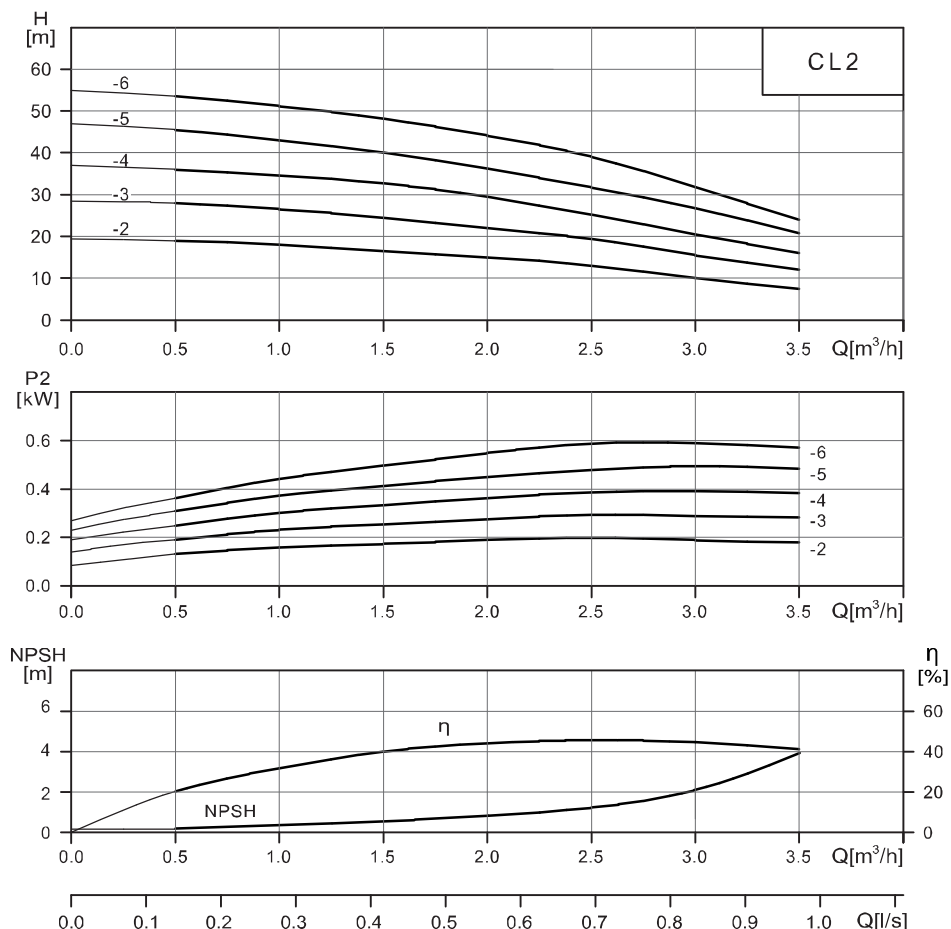
CL1 Performance curves



CL1 Performance table

Model	Motor		Q(m³/h)	0.4	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4
	kW	HP												
CL1-2	0.25	0.33	H(m)	16	16	15.5	15.5	15	14.5	13.5	13	12	11	10
CL1-3	0.37	0.5		25.5	25.5	25	24.5	24	23	22	20.5	19.5	18	16
CL1-4	0.37	0.5		34.8	34.5	33.8	33	32	31	29.5	28	26	24	21.5
CL1-5	0.45	0.6		43	42.5	42	41	40	38.5	37	35	32.5	30	27
CL1-6	0.55	0.75		52	51.5	50.5	49.5	48	46.5	44	41.5	38.5	35.5	32

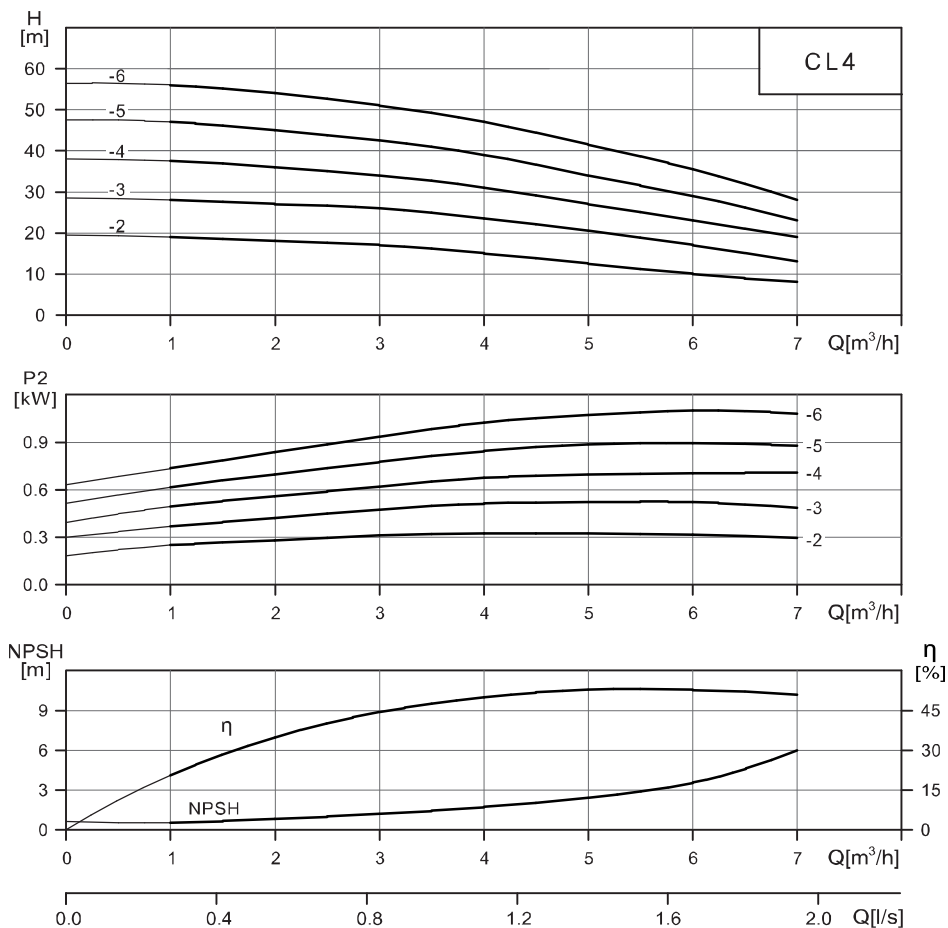
CL2 Performance curves



CL2 Performance table

Model	Motor(kW)		Q(m³/h)	0.5	1.0	1.5	2.0	2.5	3.0	3.5
	kW	HP								
CL2-2	0.37	0.5	H(m)	19	18	16.5	15	13	10	7.5
CL2-3	0.37	0.5		28	26.5	24.5	22	19	15.5	12
CL2-4	0.55	0.75		36	34.5	33	29	25	20.5	16
CL2-5	0.55	0.75		45.5	43	40	36	31.5	26.5	20.5
CL2-6	0.75	1		53.5	51	48	44	39	32	24

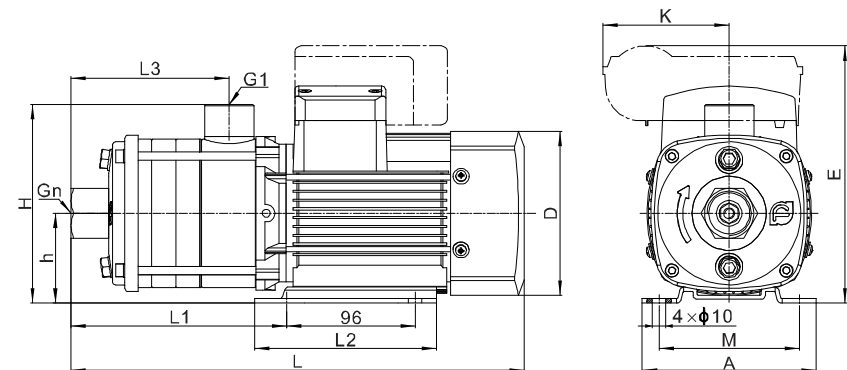
CL4 Performance curves



CL4 Performance table

Model	Motor		Q(m³/h)	1	2	3	4	5	6	7
	kW	HP								
CL4-2	0.37	0.5	H(m)	19	18	17	15	12.5	10	8
CL4-3	0.55	0.75		28	27	26	23.5	20.5	17	13
CL4-4	0.75	1		37.5	36	34	31	27	23	19
CL4-5	1.1	1.5		47	45	42.5	39	34	29	23
CL4-6	1.1	1.5		56	54	51	47	41.5	35.5	28

Installation sketch



CL1 Dimensions and weight

Motor	Model	L	L1	L2	L3	h	H	E	D	M	A	n	K	Weight(kg)
Three-phase/ Single-Phase	CL1-2	327	144	136	101	67	149	162/197	121	105	130	1	/53	7
	CL1-3	346	163	136	120	67	149	162/197	121	105	130	1	/53	7
	CL1-4	364	181	136	138	67	149	162/197	121	105	130	1	/53	8
	CL1-5	383	200	136	157	67	149	162/197	121	105	130	1	/53	9
	CL1-6	405	211	150	175	75	157	180/218	141	125	157	1	/62	10

CL2 Dimensions and weight

Motor	Model	L	L1	L2	L3	h	H	E	D	M	A	n	K	Weight(kg)
Three-phase/ Single-Phase	CL2-2	327	144	136	101	67	149	162/197	121	105	130	1	/53	7
	CL2-3	346	163	136	120	67	149	162/197	121	105	130	1	/53	8
	CL2-4	368	174	150	138	75	157	180/218	141	125	157	1	/62	10
	CL2-5	387	193	150	157	75	157	180/218	141	125	157	1	/62	10
	CL2-6	405	211	150	175	75	157	180/218	141	125	157	1	/62	11

CL4 Dimensions and weight

Motor	Model	L	L1	L2	L3	h	H	E	D	M	A	n	K	Weight(kg)
Three-phase/ Single-Phase	CL4-2	345	162	136	119	67	149	162/197	121	105	130	1 1/4	/53	8
	CL4-3	377	183	150	147	75	157	180/218	141	125	158	1 1/4	/62	10
	CL4-4	404	210	150	174	75	157	180/218	141	125	158	1 1/4	/62	11
	CL4-5	451/473	238	160	202	85	167	195/235	151/161	125	158	1 1/4	/92	14
	CL4-6	478/500	265	160	229	85	167	195/235	151/161	125	158	1 1/4	/92	14