

CHL, CHLK, CHLF(T)

轻型卧式多级离心泵

Light Horizontal Multistage Centrifugal Pump



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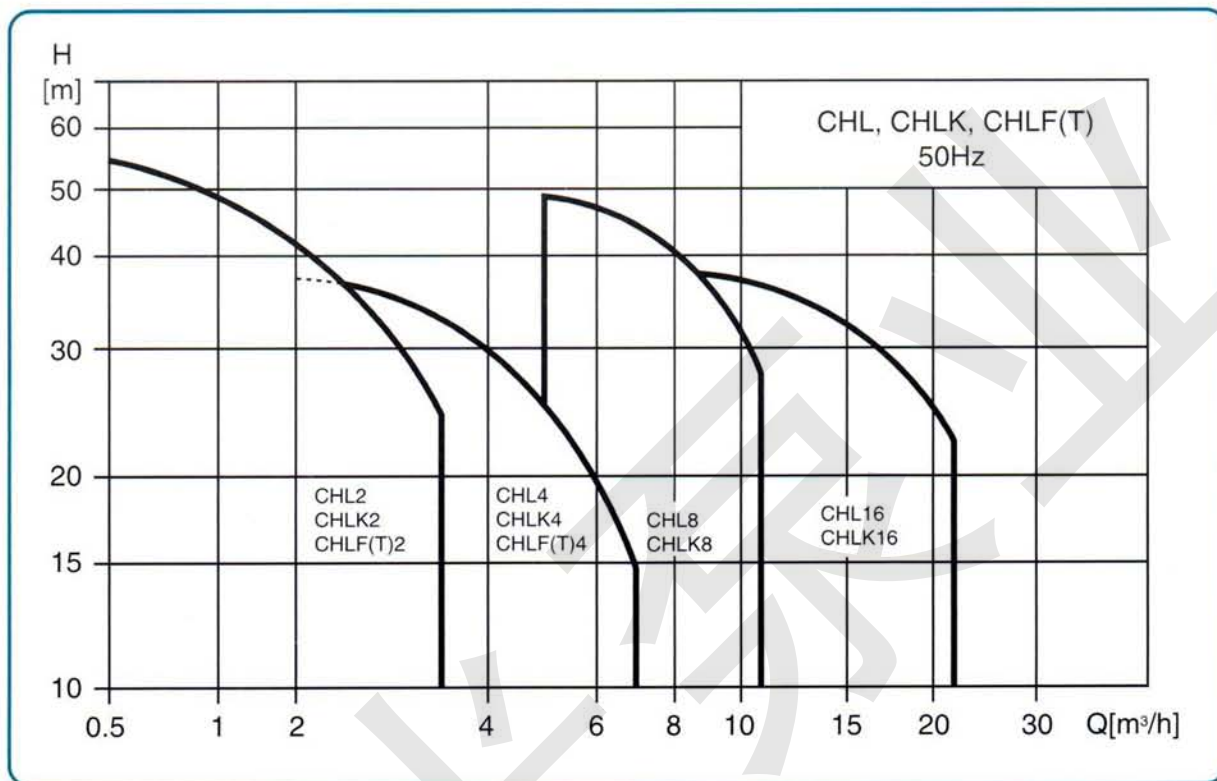
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性能范围 / Performance scope



应用

CHL,CHLK 和 CHLF(T)型泵主要用于工业上:

- 空调系统
- 冷却系统
- 工业清洗
- 水处理 (水的净化)
- 水产养殖
- 施肥 / 计量系统
- 环境应用
- (其他) 许多专门特定用途

输送液体

- 稀薄、清洁、不含固体颗粒或纤维的非易燃易爆液体。
- 泵可以输送诸如矿泉水、软化水、纯水、清油和其他轻化工介质。
- 当输送液体的密度或粘度大于水, 如需要, 必须配备大功率电机。
- 泵是否适用于某一特定液体由多种因素决定, 其中最重要的是氯含量、PH 值、温度和溶剂、油的含量等。

运行条件

- 液体温度: 常温型 - 15℃ 至 + 70℃
热水型 + 70℃ 至 + 110℃
- 最大环境温度: + 40℃
- 最大运作压力: 10 巴
- 最大进口压力受最大运作压力限制

泵

- 卧式多级非自吸离心泵, 配加长轴电机。
- 紧凑式结构使泵尺寸很小, 轴向入口和径向出口。

Application

CHL,CHLK and CHLF(T) type pump are mainly used in industrial field:

- Air-conditioning system
- Cooling system
- Industrial cleaning
- Water treatment (Water purification)
- Aquiculture
- Fertilizing / metering system
- Environmental application
- Other special applications

Applicable medium

- Thin and clean non-flammable and non-explosive liquid without solid granules and fibers.
- Mineral water, soft water, pure water, edible vegetable oil and other light chemical mediums.
- When the density or viscosity of to-be-conveyed liquid is larger than that of water, it is necessary to select a driving motor of high-power.
- Whether a specific liquid is suitable for the pump depends on many factors, among which the most important ones are chlorine content, PH value, temperature, solvent and oil content.

Operation condition

- Liquid temperature:
Normal temperature type: - 15℃ ~ +70℃
Hot water type: + 70℃ ~ + 110℃
- Highest ambient temperature: + 40℃
- Max. operation pressure: 10 bar
- Max. inlet pressure is limited by max. operation pressure

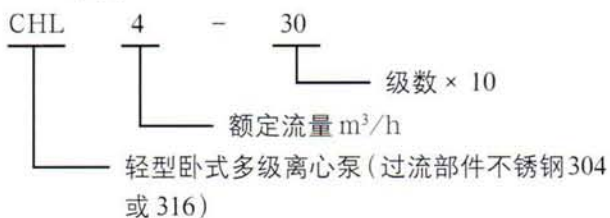
Pump

- 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.

接口 / Connection port	CHL,CHLK,CHLF(T)2	CHL,CHLK,CHLF(T)4	CHL,CHLK8,16
入口 / Inlet	G1	G1 1/4	G2
出口 / Outlet	G1	G1	G2

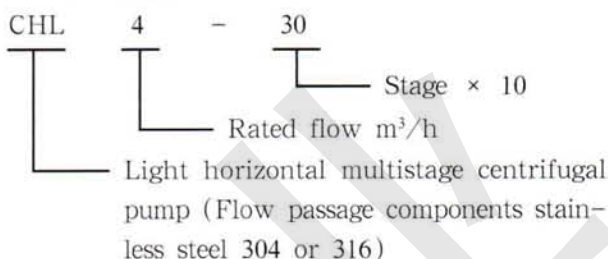
型号含义

CHL 示例

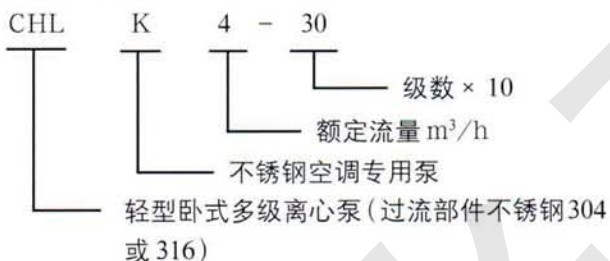


Definition of Model

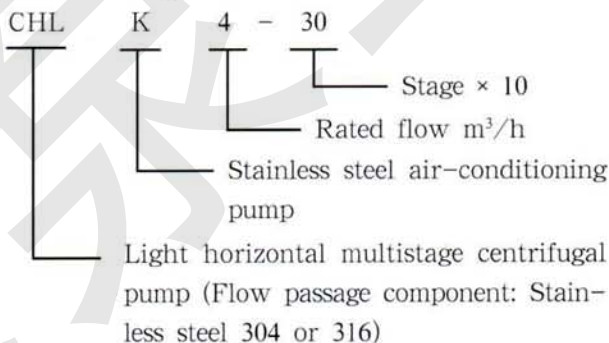
CHL Example



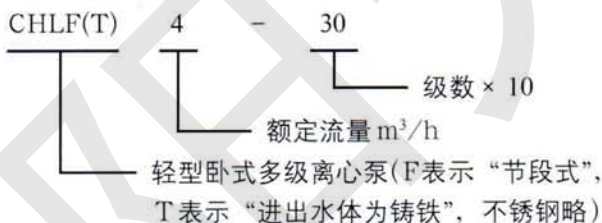
CHLK 示例



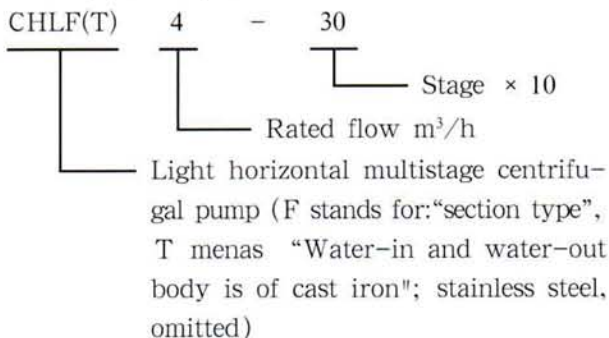
CHLK Example



CHLF(T) 示例



CHLF(T) Example



电机

- 电机为全封闭, 风冷式二极电机。
- 防护等级: IP55
- 绝缘等级: F
- 标准电压, 50Hz: 1x220-240V
3x220-240V/380-415V

Electric Motor

- Full-enclosed, air-blast two-pole motor
- Protection class: IP55
- Insulation class: F
- Standard voltage, 50Hz: 1x220-240V
3x220-240V/380-415V

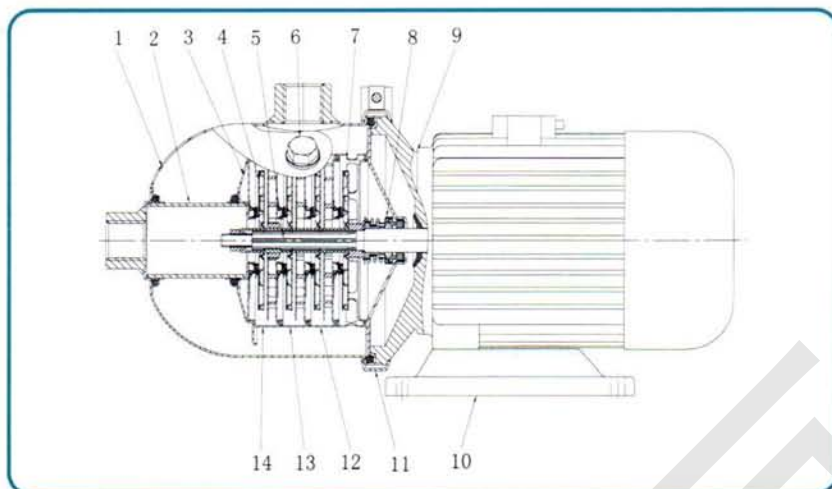
材 料 / Material CHL, CHLK2, 4, 8, 16

序号 / No.	名称 / Name	材料 / Material	AISI / ASTM
1	进出水段 / Inlet and outlet section	不锈钢 / Stainless steel	AISI304
2	连接管 / Connection pipe	不锈钢 / Stainless steel	AISI304
3	压板 / Clamp plate	不锈钢 / Stainless steel	AISI304
4	叶轮 / Impeller	不锈钢 / Stainless steel	AISI304
5	轴 / Shaft	不锈钢 / Stainless steel	AISI304
6	堵头 / Gag	不锈钢 / Stainless steel	AISI304
7	出水导叶 / Water-out guide vane	不锈钢 / Stainless steel	AISI304
8	机械密封 / Mechanical seal		
9	电机端盖 / Motor end cover	铝合金 / Aluminum alloy	
10	底座 / Base frame	铸铁 / Cast iron	ASTM25B
11	快速接头 / Quick joint	不锈钢 / Stainless steel	AISI304
12	导叶 / Guide vane	不锈钢 / Stainless steel	AISI304
13	支撑导叶 / Support guide vane	不锈钢 / Stainless steel	AISI304
14	导流器 / Inducer	不锈钢 / Stainless steel	AISI304

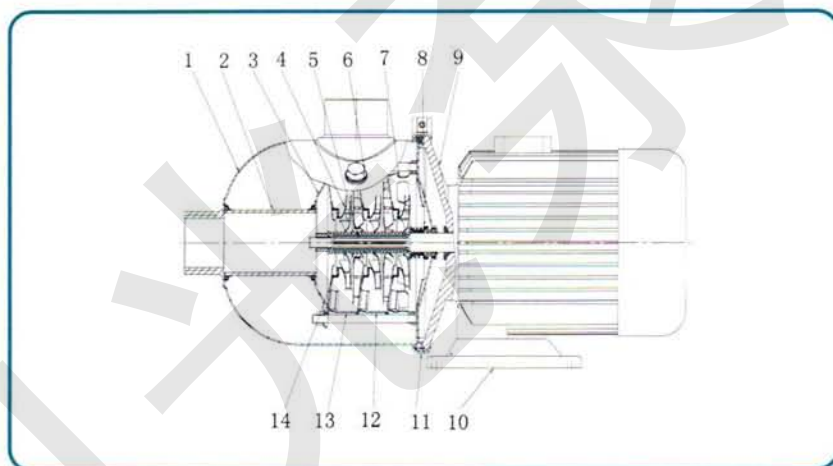
材 料 / Material CHLF, CHLF(T)2, 4

序号 / No.	名称 / Name	材料 / Material	AISI / ASTM
2	堵头 / Gag	不锈钢 / Stainless steel	AISI304
3	轴承 / Bearing	碳化钨 / Tungsten carbide	
4	叶轮 / Impeller	不锈钢 / Stainless steel	AISI304
5	轴 / Shaft	不锈钢 / Stainless steel	AISI304
6	出水导叶 / Water-out guide vane	不锈钢 / Stainless steel	AISI304
8	机械密封 / Mechanical seal		
9	电机端盖 / Motor end cover	铝合金 / Aluminum alloy	
10	底座 / Base frame	铸铁 / Cast iron	ASTM25B
11	拉杆 / Pull-rod	不锈钢 / Stainless steel	AISI304
12	导叶 / Guide vane	不锈钢 / Stainless steel	AISI304
13	支撑导叶 / Support guide vane	不锈钢 / Stainless steel	AISI304
14	叶轮隔套 / Impeller separating sleeve	不锈钢 / Stainless steel	AISI304
C H L F			
1	进水体 / Water-in body	不锈钢 / Stainless steel	AISI304
7	出水体 / Water-out body	不锈钢 / Stainless steel	AISI304
C H L F (T)			
1	进水体 / Water-in body	铸铁 / Cast iron	ASTM25B
7	出水体 / Water-out body	铸铁 / Cast iron	ASTM25B

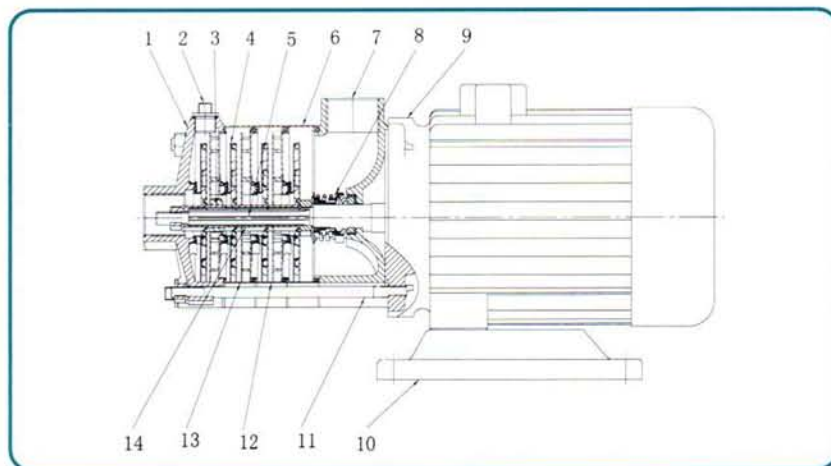
截面图 / Section drawing CHL, CHLK2, 4



截面图 / Section drawing CHL, CHLK8, 16



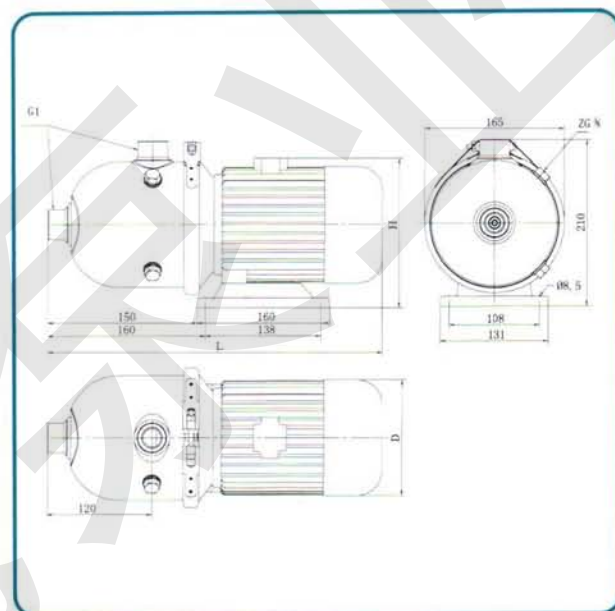
截面图 / Section drawing CHLF, CHLF(T)2, 4



The three graphs illustrate the performance characteristics of the CHL2 / CHLK2 50Hz pump across a range of flow rates (0.0 to 4.0 m³/h).

- Top Graph: Total Head (H) vs. Flow Rate (Q)**
 - Y-axis:** Total Head (H) in meters [m], ranging from 0 to 50.
 - X-axis:** Flow Rate (Q) in m³/h, ranging from 0.0 to 4.0.
 - Curves:** Five curves representing different total head values at zero flow: -20, -30, -40, -50, and -60 meters.
 - Label:** CHL2 / CHLK2 50Hz
- Middle Graph: Power (P2) vs. Flow Rate (Q)**
 - Y-axis:** Power (P2) in kilowatts [kW], ranging from 0 to 0.6.
 - X-axis:** Flow Rate (Q) in m³/h, ranging from 0.0 to 4.0.
 - Curves:** Five curves corresponding to the same head values as the top graph (-20 to -60 m).
- Bottom Graph: Net Positive Suction Head (NPSH) vs. Flow Rate (Q)**
 - Y-axis:** Net Positive Suction Head (NPSH) in meters [m], ranging from 0 to 4.
 - X-axis:** Flow Rate (Q) in m³/h, ranging from 0.0 to 4.0.
 - Curves:** Two curves labeled "NPSH" and "Eta" (Efficiency).

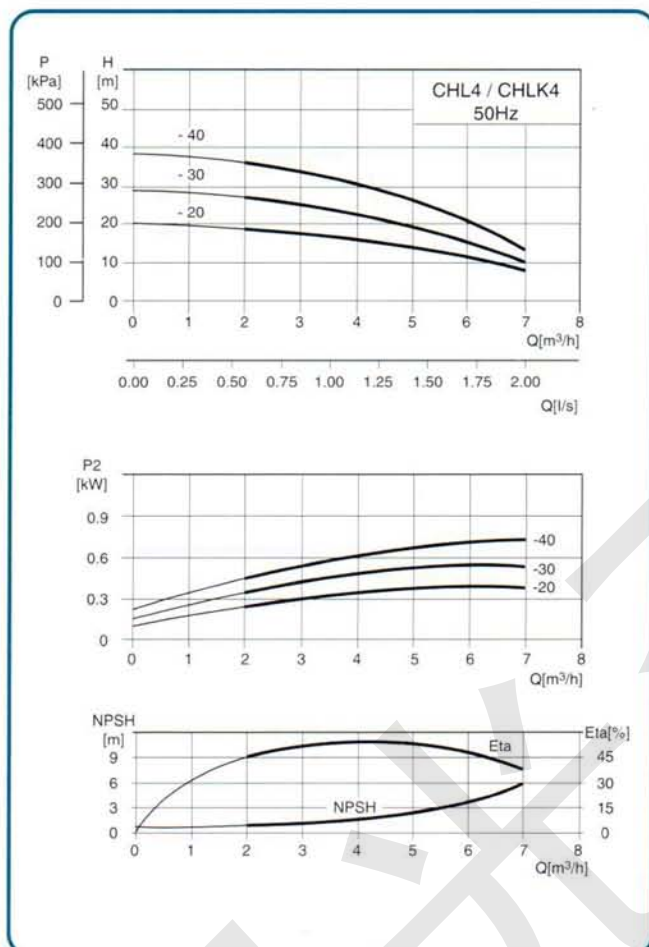
安装图 / Installation sketch



型号 /Model	L(mm)	D(mm)	重量(kg)/Weight
CHL2-20	400	145	10
CHL2-30	400	145	10
CHL2-40	400	145	10
CHL2-50	400	145	10
CHL2-60	445	170	10

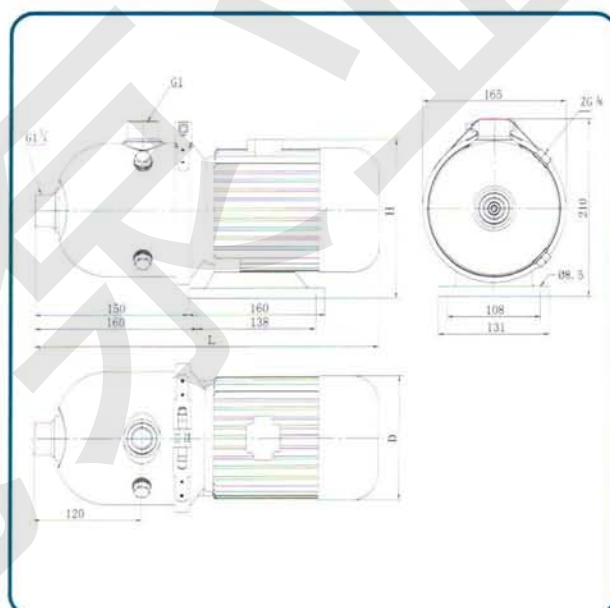
型号 /Model	配用电机 (kW) Driving motor	Q (m³/h)	0.5	1.0	1.5	2.0	2.5	3.0	3.5
CHL2-20	0.37	H (m)	19	18	16	14	13	11	9
CHL2-30	0.55		28	27	24	21	20	17	14
CHL2-40	0.55		36	34	32	28	26	23	17
CHL2-50	0.55		46	43	40	35	33	28	22
CHL2-60	0.75		54	50	48	42	38	33	25

性能曲线 / Performance curve



CHL, CHLK4

安装图 / Installation sketch



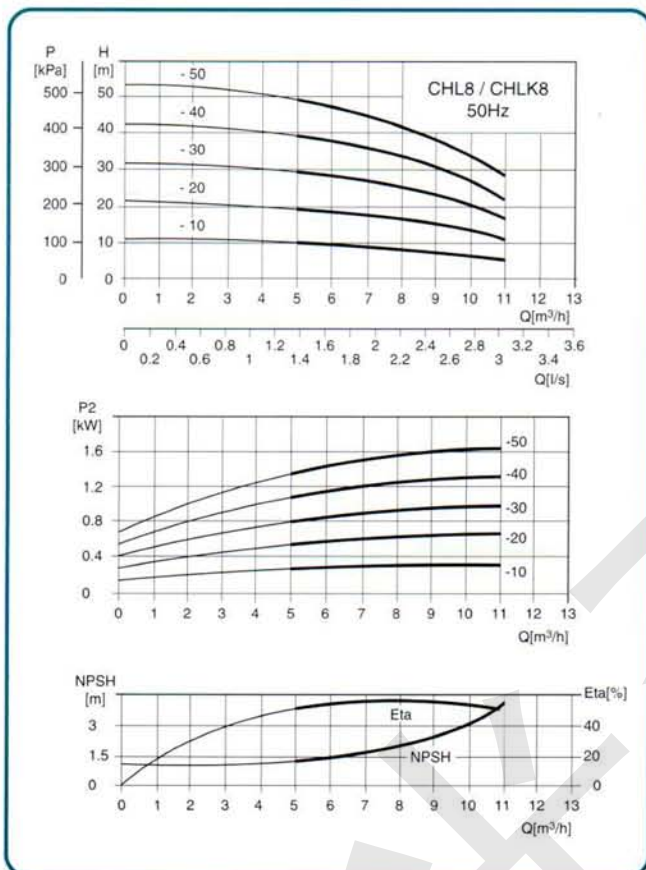
尺寸和重量 / Size and weight

型号 / Model	L(mm)	D(mm)	重量(kg) / Weight
CHL4-20	400	145	10
CHL4-30	445	170	10
CHL4-40	445	170	10

性能表 / Performance table

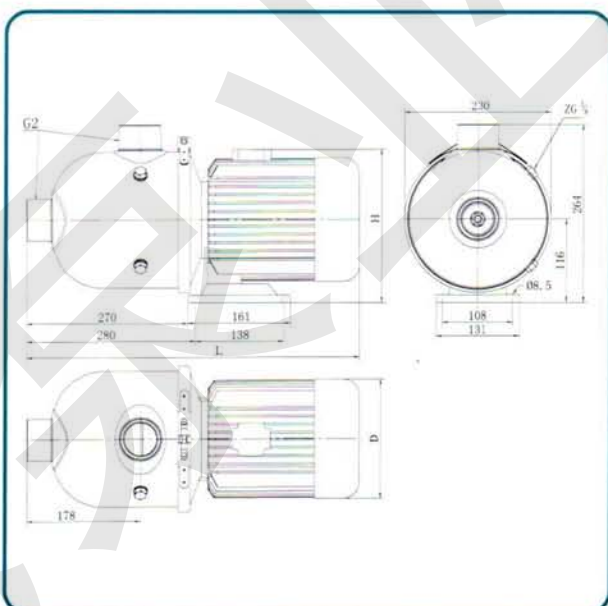
型号 / Model	配用电机 (kW) / Driving motor	Q (m³/h)	1	2	3	4	5	6	7
CHL4-20	0.55	H (m)	19	18	16	15	13	10	7
CHL4-30	0.75		28	27	24	22	19	15	10
CHL4-40	0.75		38	36	32	30	26	20	14

性能曲线 / Performance curve



CHL, CHLK8

安装图 / Installation sketch



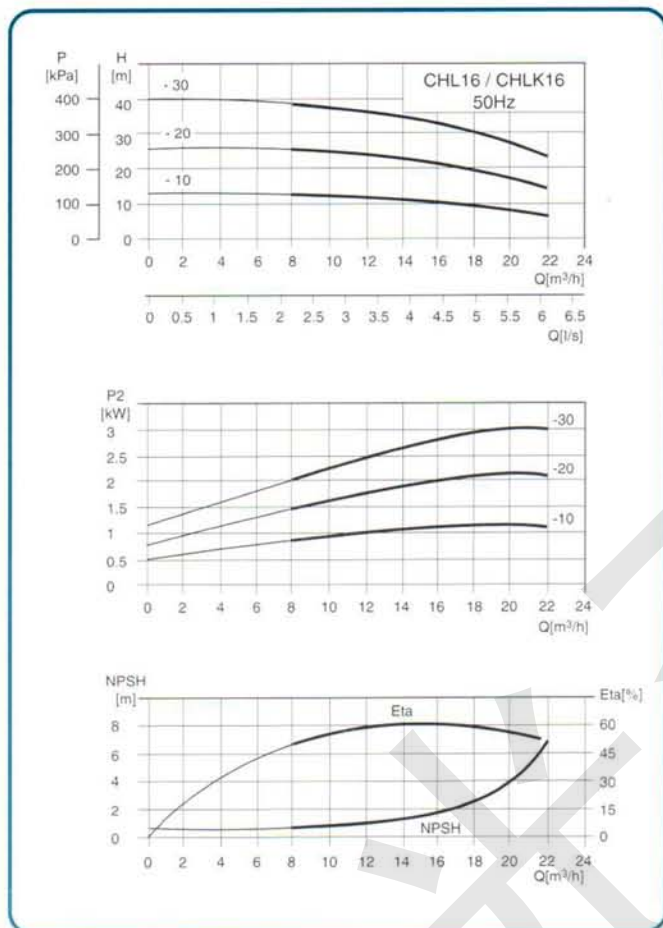
尺寸和重量 / Size and weight

型号 / Model	L(mm)	H(mm)	D(mm)	重量(kg)/Weight
CHL8-10	540	220	170	20
CHL8-20	540	220	170	20
CHL8-30	550	220	170	25
CHL8-40	560	230	180	25
CHL8-50	570	230	180	30

性能表 / Performance table

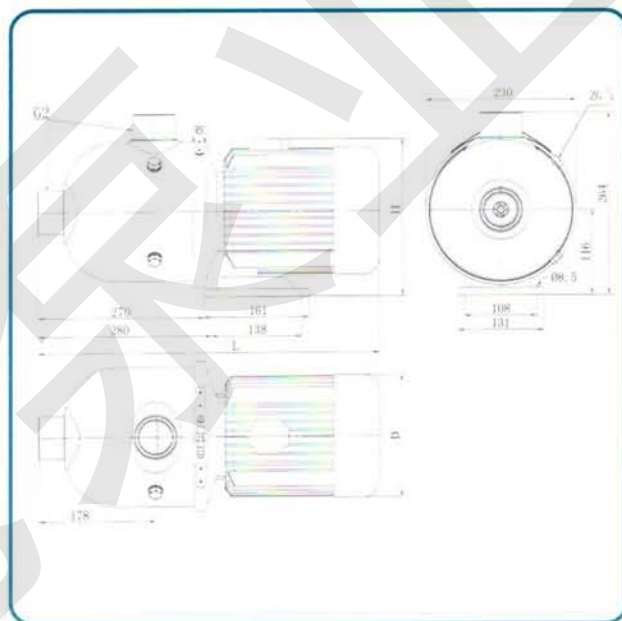
型号 / Model	配用电机 (kW) Driving motor	Q (m³/h)	5	6	7	8	9	10	11
CHL8-10	0.75	H (m)	9.5	9.3	9	8.5	7.5	6.5	5.5
CHL8-20	0.75		19	18.5	18	17	15	13	11
CHL8-30	1.1		29	28	27	25.5	22.5	20	17.5
CHL8-40	1.5		39	38	36	34	30	26.5	22.5
CHL8-50	2.2		49	47	45	42.5	38	33.5	28

性能曲线 / Performance curve



CHL, CHLK16

安装图 / Installation sketch



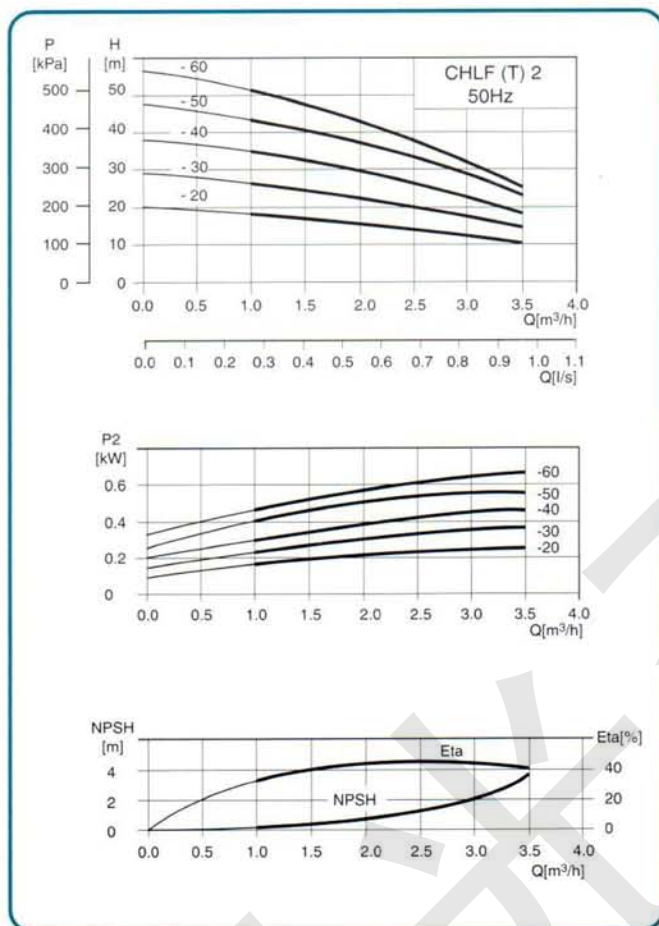
尺寸和重量 / Size and weight

型号 / Model	L(mm)	H(mm)	D(mm)	重量(kg) / Weight
CHL16-10	560	220	170	20
CHL16-20	570	230	180	25
CHL16-30	590	230	180	30

性能表 / Performance table

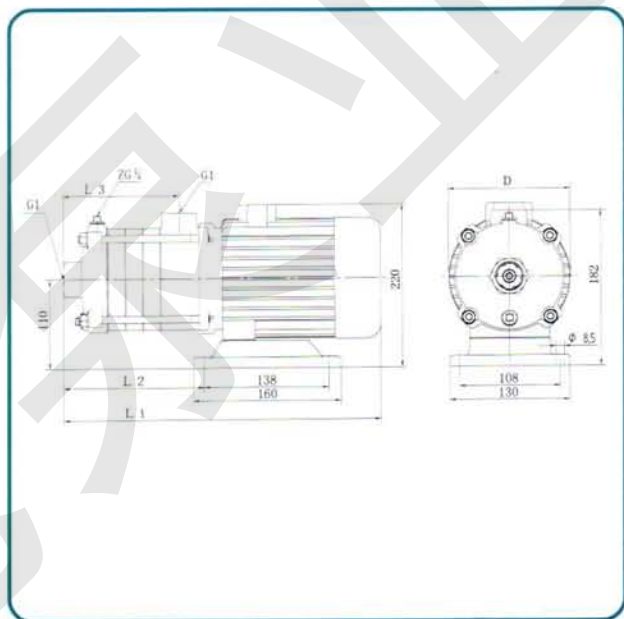
型号 / Model	配用电机 (kW) Driving motor	Q (m³/h)	8	10	12	14	16	18	20	22
CHL16-10	1.1	H (m)	12.5	12	11.5	10.5	10	9	7.5	6.5
CHL16-20	2.2		25.5	24	23	22	21	19	17	14.5
CHL16-30	3		38.5	37	36	34	32	30	27	23

性能曲线 / Performance curve



CHLF, CHLF(T)2

安装图 / Installation sketch



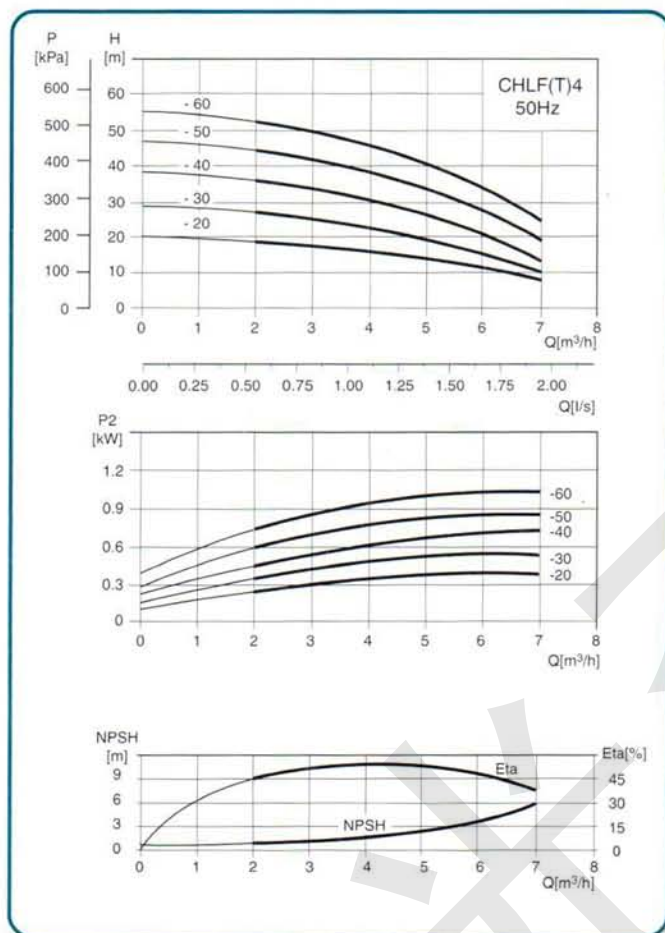
尺寸和重量 / Size and weight

型号 / Model	L1(mm)	L2(mm)	L3(mm)	D(mm)	重量(kg)/Weight
CHLF(T)2-20	305	87	84	145	15
CHLF(T)2-30	323	105	102	145	15
CHLF(T)2-40	341	123	120	145	15
CHLF(T)2-50	359	141	138	145	15
CHLF(T)2-60	422	159	156	170	17

性能表 / Performance table

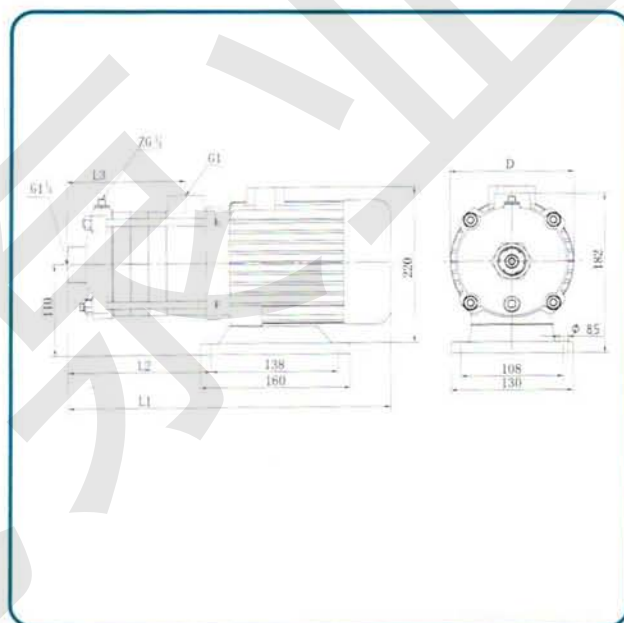
型号 / Model	配用电机 (kW) Driving motor	Q (m³/h)	0.5	1.0	1.5	2.0	2.5	3.0	3.5
CHLF(T)2-20	0.37	H (m)	19	18	16	14	13	11	9
CHLF(T)2-30	0.55		28	27	24	21	20	17	14
CHLF(T)2-40	0.55		36	34	32	28	26	23	17
CHLF(T)2-50	0.55		46	43	40	35	33	28	22
CHLF(T)2-60	0.75		54	50	48	42	38	33	25

性能曲线 / Performance curve



CHLF,CHLF(T)4

安装图 / Installation sketch



尺寸和重量 / Size and weight

型号 / Model	L1(mm)	L2(mm)	L3(mm)	D(mm)	重量(kg)/Weight
CHLF(T)4-20	323	96	102	145	15
CHLF(T)4-30	395	132	129	145	17
CHLF(T)4-40	422	159	156	170	17
CHLF(T)4-50	469	186	183	170	20
CHLF(T)4-60	496	213	210	170	20

性能表 / Performance table

型号 / Model	配用电机 (kW) Driving motor	Q (m³/h)	1	2	3	4	5	6	7
CHLF(T)4-20	0.55	H (m)	19	18	16	15	13	10	7
CHLF(T)4-30	0.55		28	27	24	22	19	15	10
CHLF(T)4-40	0.75		38	36	32	30	26	20	14
CHLF(T)4-50	1.10		46	44	41	38	32	26	20
CHLF(T)4-60	1.10		55	53	50	45	37	31	26

曲线条件

下述条件适用于前面所示性能曲线。

- 所有曲线都基于 $3 \times 380 \sim 415V$ ，电机在恒速 2900rpm 的测量值。
- 曲线容差符合 ISO9906，附录 A。
- 测试采用 $20^{\circ}C$ 不含空气的水，运动粘度为 $1mm^2/s$ 。
- 泵的使用参照加粗曲线的性能范围，以防流量过小产生过热和流量过大使电机过载等。

Curve conditions

Following conditions are suitable for the performance curves shown above

- All the performance curves are based on the measured values of a motor $3 \times 380V \sim 415V$ at a constant speed of 2900 rpm.
- Curve tolerance in conformity with ISO9906, appendix A
- Measurement is done with $20^{\circ}C$ air-free water, kinematic viscosity of $1mm^2/sec$;
- 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.

