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E230301

CHL/CHLF(T) 50Hz

Horizontal Multistage Centrifugal Pump

ZHEJIANG NANBENG FLUID MACHINERY CO.,LTD.

Company Profile

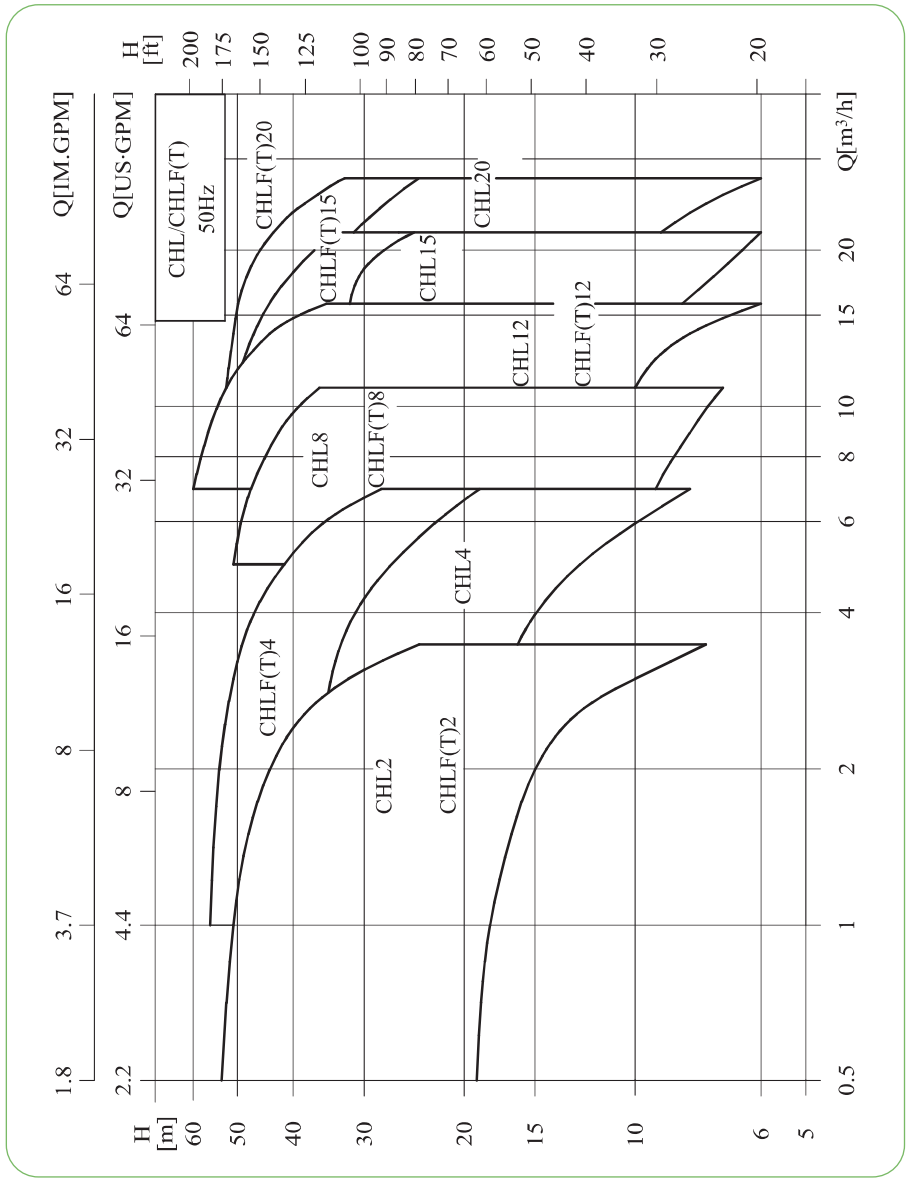
Zhejiang Nanbeng Fluid Machinery Co.,Ltd. is a leading pump manufacturer committed to the Chinese people's water safety to make our own contribution.The team who founded the company is the first generation research and development of stainless steel centrifugal pump in China, has accumulated more than 30 years of technology research and development experience,core members presided over and participated in the development of national standard of the "light, small multistage centrifugal pump", national science and technology support plans for the 11th, 12th and 13th five-years plan, "national torch project", "national key new product project" and other projects of research and development,design and production.R&D centre equipped with industry-leading CFD fluid 3D simulation design software, domestic top stamping equipment and automatic production line to ensure high performance and high stability of products,our comprehensive R & D and production strength achieve domestic advanced level.

The construction area of the company is 82,000 square meters,design output value is one billion per year.We can offer you a wide range of stainless steel stamping and welding centrifugal pump, pipeline circulation pump, end suction centrifugal pump, sewage submersible pump, high pressure pump, fire pump and water supply and drainage complete sets of products for many applications as highest performance in booster sets and pressurization, building services,water treatment, industry, irrigation and industrial process,fire-fighting sets, pumping of underground water, drainage and sewage, utilities and desalination.Now we are looking for more partners around the world,we sincerely looking forward to your joining at Huzhou China.Global water challenges as well as opportunities, require excellence in pumping technologies and close cooperation between pump designers and manufacturers. Let's cooperate and make our contribution to the water security for more people all over the world.

General Data

Content

Performance scope



General Data

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: -15℃ ~+110℃
- ●Ambient temperature: up to +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 above.

- ●All curves are based on the measured values of 50Hz:
- ●constant motor speed 2900r/min;
- ●Curve tolerance in conformity with ISO9906Annex A.
- ●Measurement is done with 20° C air-free water, kincmatic viscosity of 1mm²scc.
- ●The operation of pump shall refer to the performance region described by the thickened curve to prevent over-heating due to too small flow rate or overloadof motor duc to too large flow rate.

Definition of Model

CHL Example

CHL 2 – 30

- 30 — Stage×10
- 2 — Rated flow m³/h
- CHL — Light horizontal multistage centrifugal pump (Flow passage components stainless steel 304 or 316 L)

CHLF(T) Example

CHLF(T) 2 – 30

- 30 — Stage×10
- 2 — Rated flow m³/h
- CHLF(T) — Light horizontal multistage centrifugal pump (F stands for "section type", T means "Suction and discharge are made of cast iron"; stainless steel, omitted)

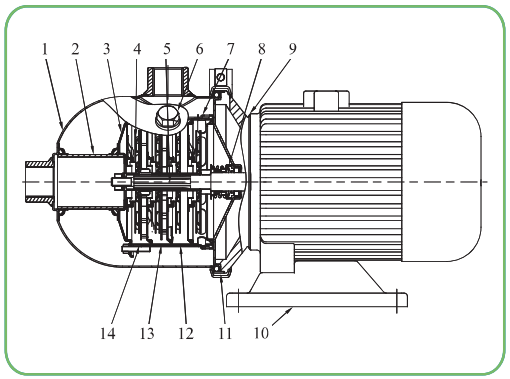
Motor

- ●Full-enclosed air-blast two-pole standard motor
- ●Protection class:IP55
- ●Insulation class:F
- ●Standard voltage: 50HZ: 1 ×220-240V
  3 × 220-240V/380-415V
- ●The maximum power of single-phase motor is 2.4kW.

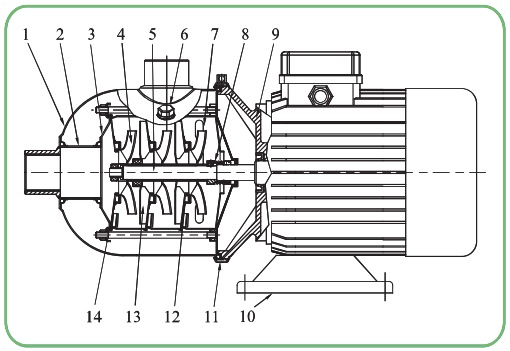
Pump

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

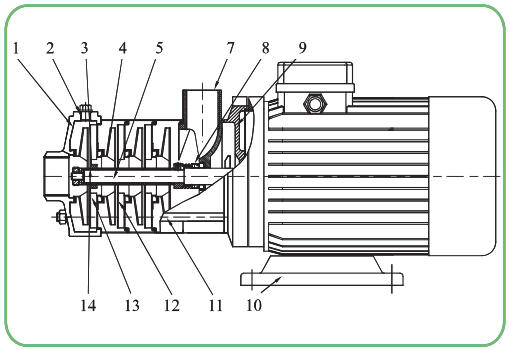
Section drawing CHL2,4



Section drawing CHL8,12,15,20



Section drawing CHLF(T)



Material CHL

NO.	Name	Material	AISI / ASTM
1	Inlet and outlet chamber	Stainless steel	AISI304
2	Connection pipe	Stainless steel	AISI304
3	Clamp plate	Stainless steel	AISI304
4	Impeller	Stainless steel	AISI304
5	Shaft	Stainless steel	AISI304
6	Plug	Stainless steel	AISI304
7	Discharge diffuser	Stainless steel	AISI304
8	Mechanical seal		
9	Motor end cover	Aluminum alloy	
10	Base plate	Steel plate	AISI1015
11	Spannband	Stainless steel	AISI304
12	Diffuser	Stainless steel	AISI304
13	Support diffuser	Stainless steel	AISI304
14	Inducer	Stainless stee	AISI304

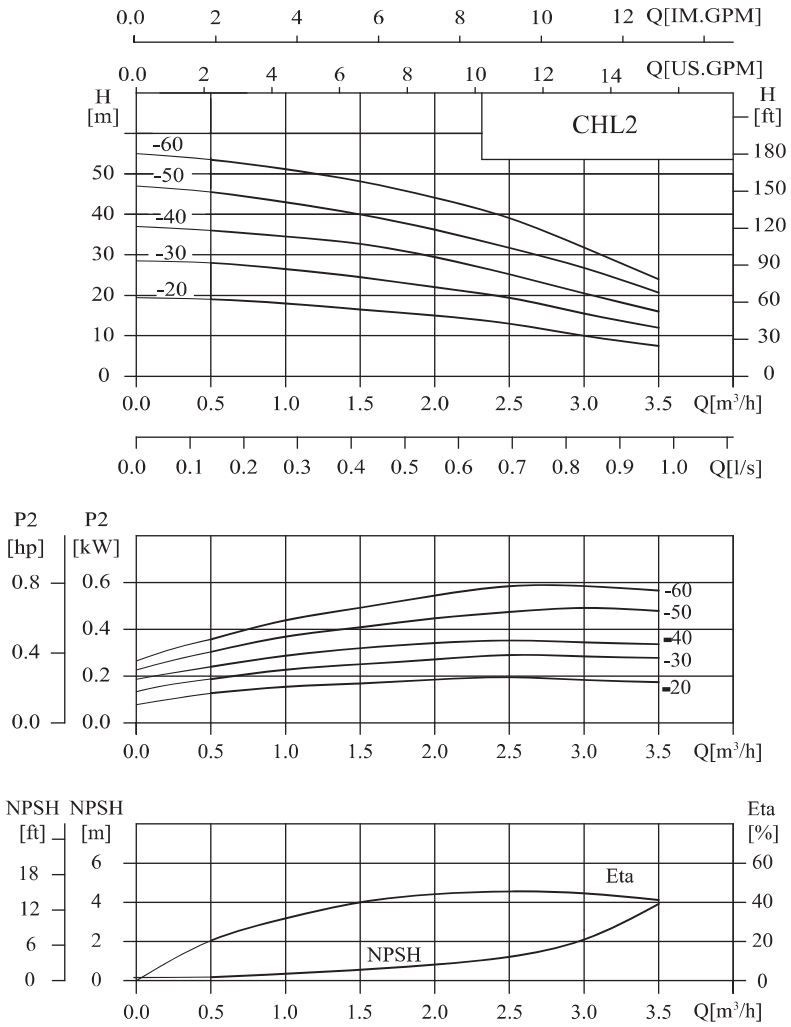
Material CHLF(T)

NO.	Name	Material	AISI / ASTM
2	Plug	Material	AISI304
3	Bearing	Stainless steel	
4	Impeller	Tungsten carbide	AISI304
5	Shaft	Stainless steel	AISI304
8	Mechanical seal	Stainless steel	
9	Motor end cover	Aluminum alloy	
10	Base plate	Steel plate	AISI1015
11	Staybolt	Stainless steel	AISI304
12	Diffuser	Stainless steel	AISI304
13	Support diffuser	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
CHLF			
1	Suction	Stainless steel	AISI304
7	Discharge	Stainless steel	AISI304
CHLF(T)			
1	Suction	Cast iron	ASTM25B
7	Discharge	Cast iron	ASTM25B

Technical Data

Performance curve

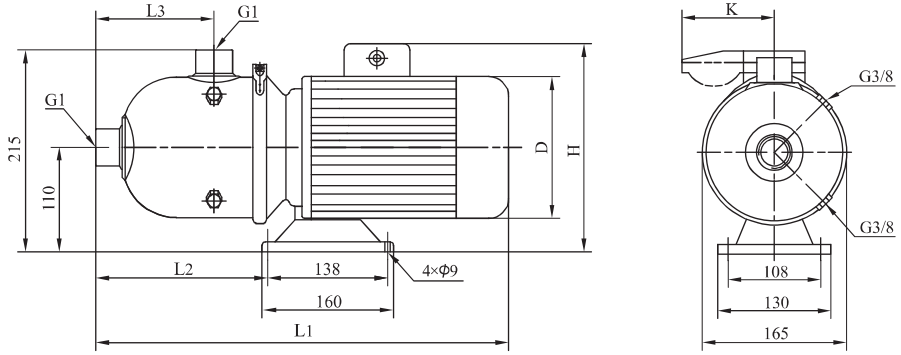
2900rpm



Performance table

Model	Driving motor (kW)	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	16.5	15	13	10	7.5
CHL2-30	0.37		28	26.5	24.5	22	19	15.5	12
CHL2-40	0.55		36	34.5	33	29	25	20.5	16
CHL2-50	0.55		45.5	43	40	36	31.5	26.5	20.5
CHL2-60	0.75		53.5	51	48	44	39	32	24

Installation sketch



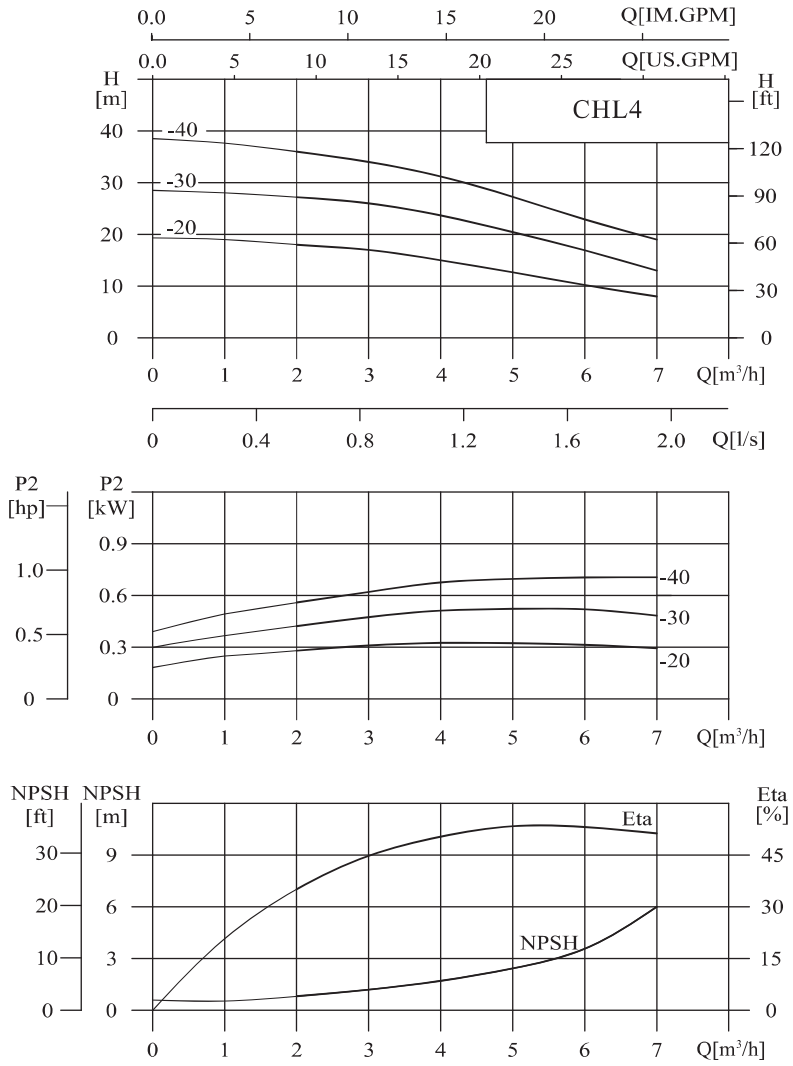
Size and weight

Motor	Model	Size (mm)						Weight (kg)
		L1	L2	L3	D	H	K	
Three-phase/ single-phase	CHL2-20	400	165	125	141	215/249	62	10
	CHL2-30	400	165	125	141	215/249	62	10
	CHL2-40	400	165	125	141	215/249	62	11
	CHL2-50	400	165	125	141	215/249	62	12
	CHL2-60	420	165	125	151/161	225/265	91	14

Technical Data

Performance curve

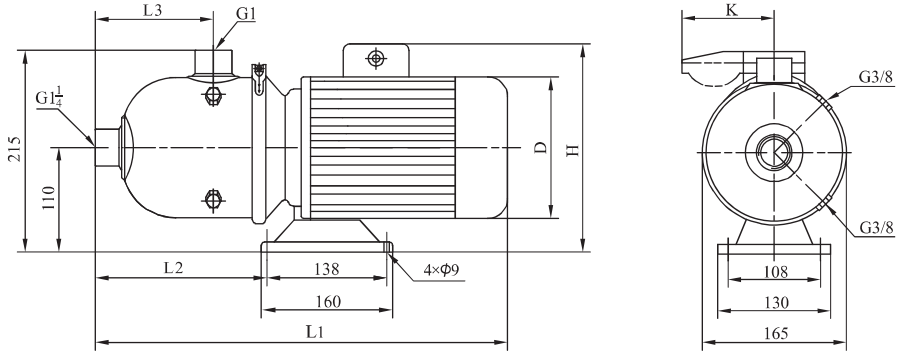
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	1	2	3	4	5	6	7
CHL4-20	0.37	H (m)	19	18	17	15	12.5	10	8
CHL4-30	0.55		28	27	26	23.5	20.5	17	13
CHL4-40	0.75		37.5	36	34	31	27	23	19

Installation sketch



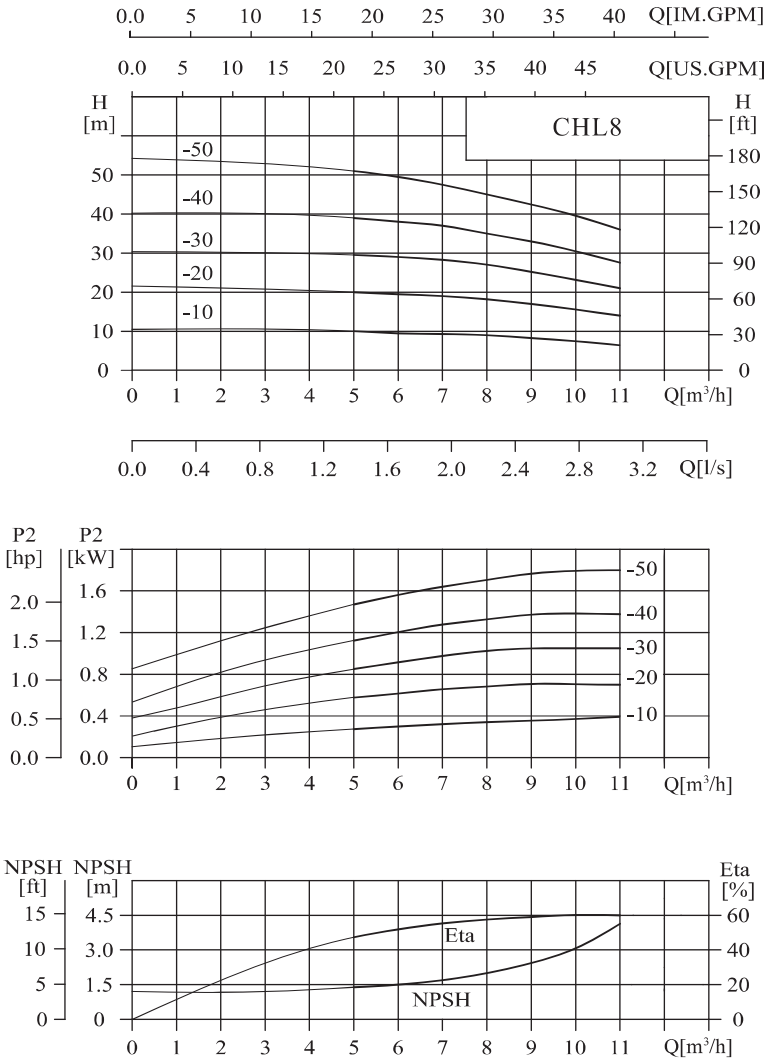
Size and weight

Motor	Model	Size (mm)						Weight (kg)
		L1	L2	L3	D	H	K	
Three-phase/ single-phase	CHL4-20	400	172	132	141	215/249	62	10
	CHL4-30	400	172	132	141	215/249	62	11
	CHL4-40	420	172	132	151/161	225/265	91	14

Technical Data

Performance curve

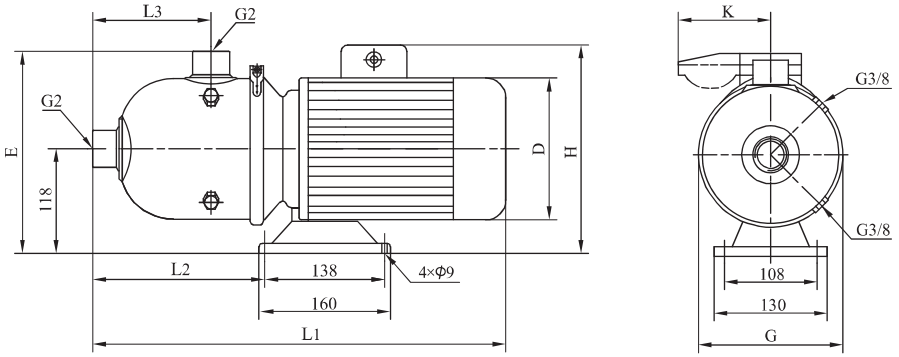
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	5	6	7	8	9	10	11
CHL8-10	0.75	H (m)	10	9.5	9.3	9	8	7.5	7
CHL8-20	0.75		20	19.5	19	18	17	15.5	14
CHL8-30	1.1		29.5	29	28	27	25	23	21
CHL8-40	1.5		39	38	37	35	33	30.5	27.5
CHL8-50	2.2		51	49.5	47.5	45	42.5	39.5	36

Installation sketch



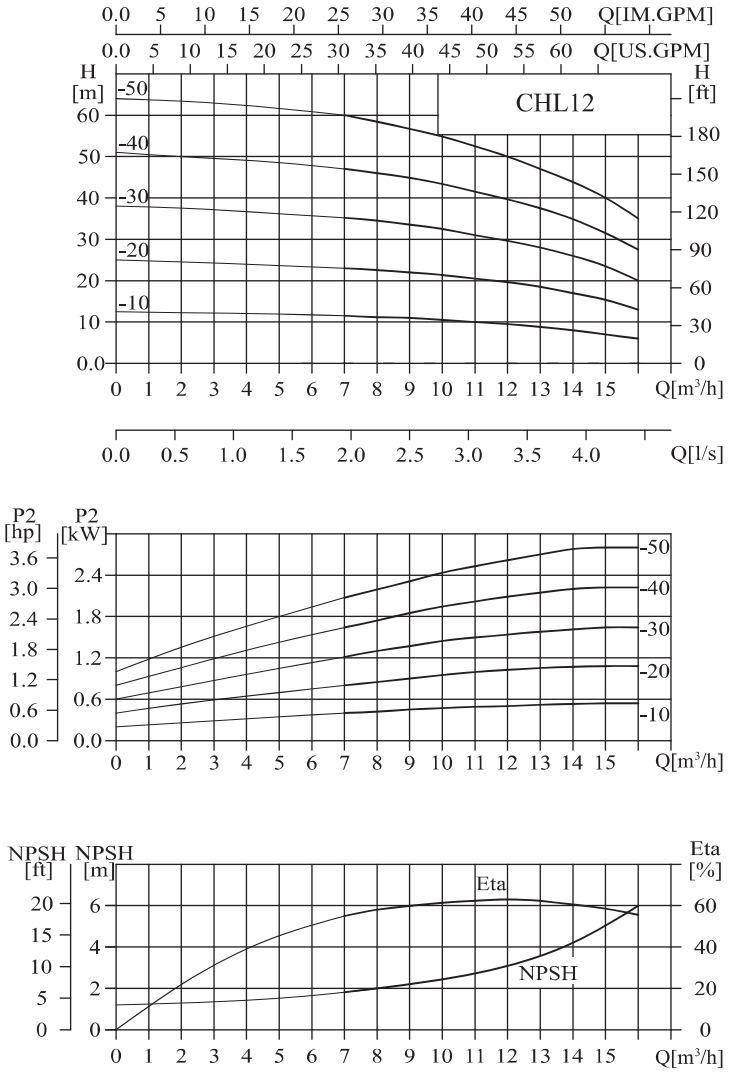
Size and weight

Motor	Model	Size (mm)								Weight (kg)
		L1	L2	L3	E	G	D	H	K	
Three phase/ single phase	CHL8-10	530	279	176	264	223	151/161	225/265	91	18
	CHL8-20	530	279	176	264	223	151/161	225/265	91	19
	CHL8-30	530	279	176	264	223	151/161	230/265	91	22
	CHL8-40	563	279	176	265	223	171/176	235/270	91	27
	CHL8-50	563	279	176	265	223	171/176	235/270	91	32

Technical Data

Performance curve

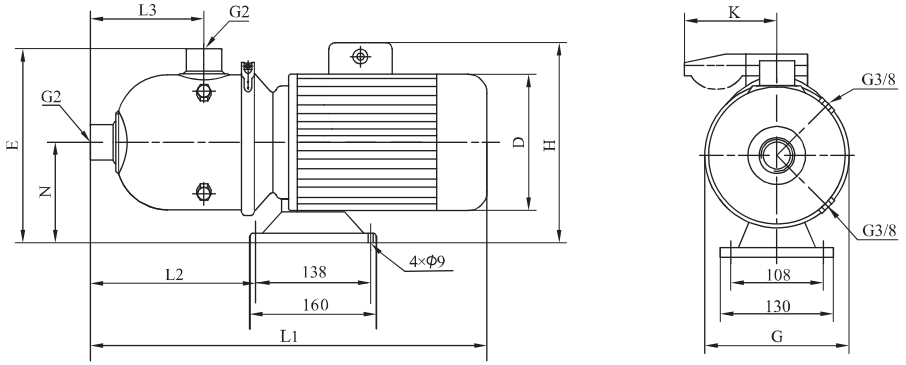
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	7	8	9	10	11	12	13	14	15	16
CHL12-10	0.75	H (m)	11.5	11.2	11	10.5	10	9.5	9	8	7	6
CHL12-20	1.2		23	22.5	22	21.5	20.5	19.5	18.5	17	15.5	13
CHL12-30	1.8		35	34.5	33.5	32.5	31	29.5	28	26	23.5	20
CHL12-40	2.4		47	46	45	43.5	41.5	39.5	37.5	35	31.5	27.5
CHL12-50	3		60	58	56.5	55	52.5	50	47	44	40	35

Installation sketch



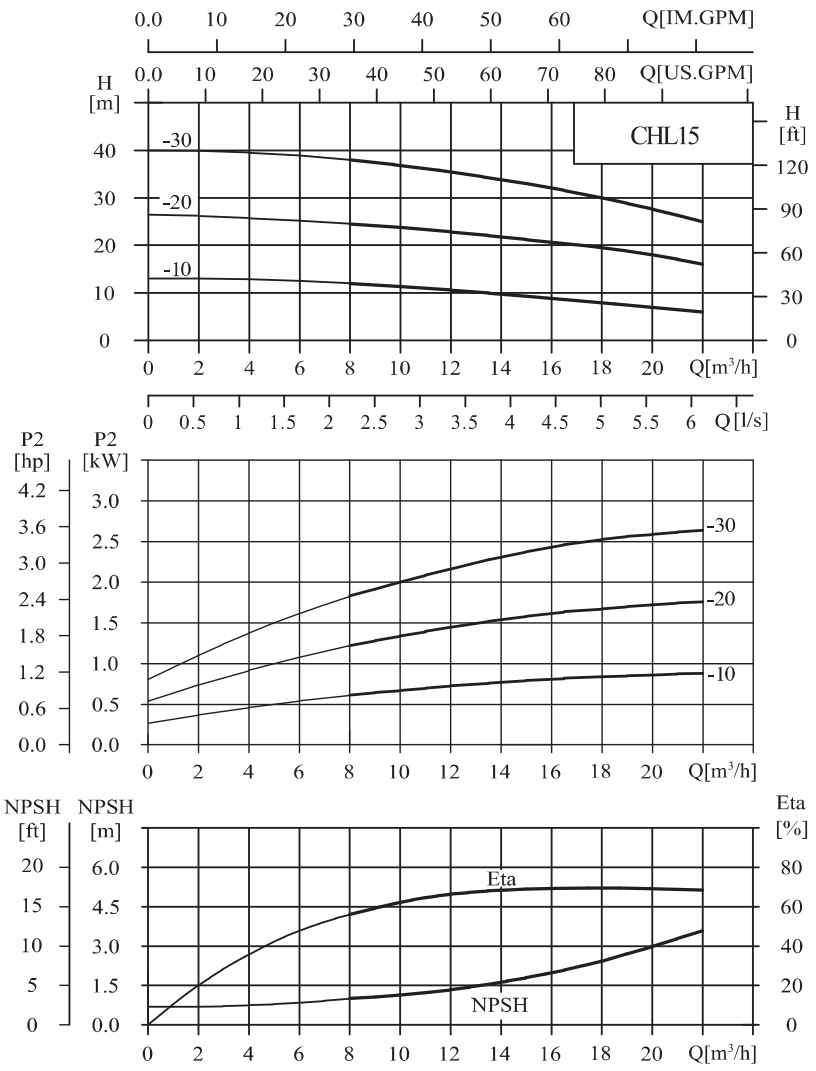
Size and weight

Motor	Model	Size(mm)									Weight(kg)
		L1	L2	L3	N	E	G	D	H	K	
Three phase/ single phase	CHL12-10	530	279	176	117	264	223	151/161	225/265	91	18
	CHL12-20	530	279	176	117	264	223	151/161	225/265	91	22
	CHL12-30	563	279	176	118	265	223	171/176	235/270	91	28
	CHL12-40	563	279	176	118	265	223	171/176	235/270	91	33
	CHL12-50	610	279	176	128	275	223	196	259		37

Technical Data

Performance curve

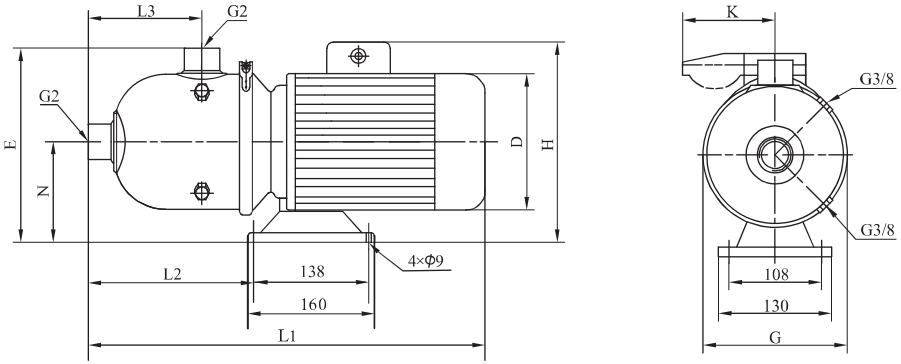
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	8	10	12	14	15	16	18	20	22
CHL15-10	1.1	H (m)	12	11	10.5	9.5	9	8.5	7.5	6.5	6
CHL15-20	2.2		24.5	24	23	22	21	20.5	19	18	16
CHL15-30	3		38	37	35.5	34	33	32	30	28	25

Installation sketch



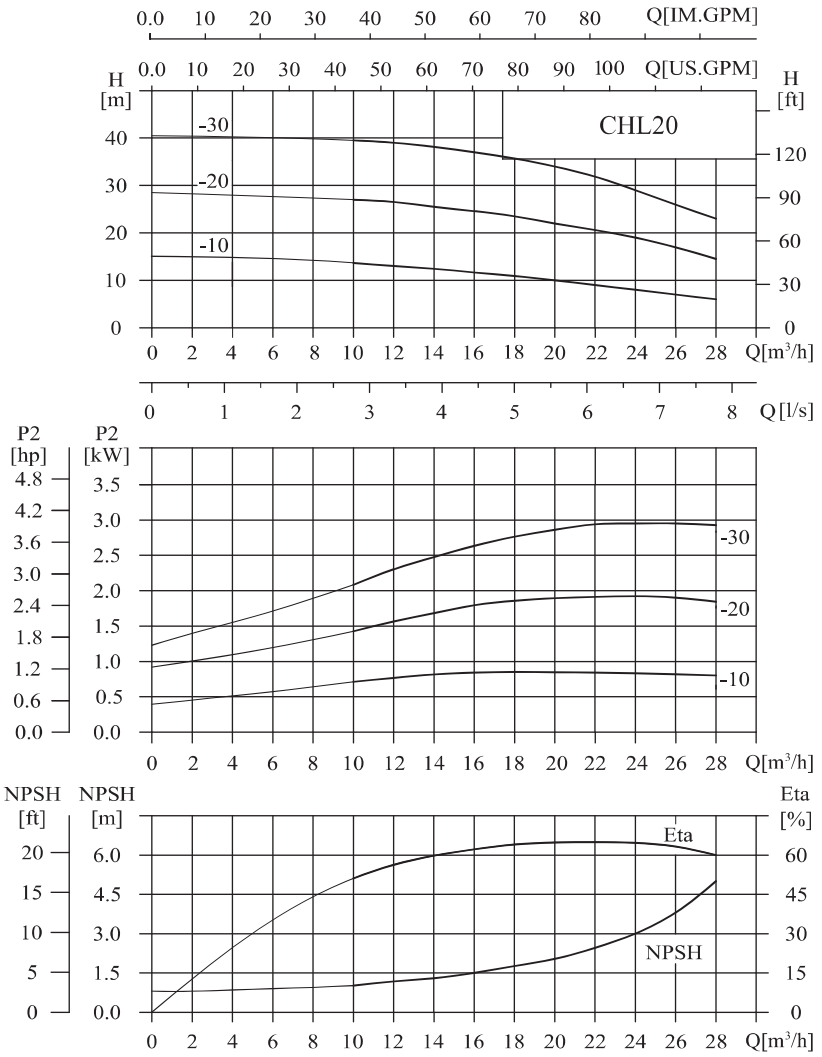
Size and weight

Motor	Model	Size (mm)									Weight (kg)
		L1	L2	L3	N	E	G	D	H	K	
Three phase/ single phase	CHL15-10	530	279	176	117	264	223	151 /161	225/265	91	20
	CHL15-20	563	279	176	118	265	223	171/176	235/270	91	26
	CHL15-30	605	279	176	128	275	223	196	259		34

Technical Data

Performance curve

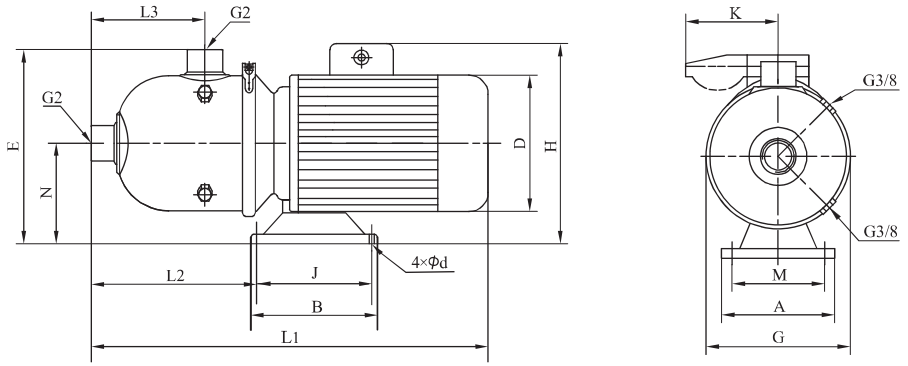
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	10	12	14	16	18	20	22	24	26	28
CHL20-10	1.1	H (m)	13.5	13	12.5	12	11	10	9	8	7	6
CHL20-20	2.2		27	26.5	25.5	25	23.5	22	20.5	18.5	17	14.5
CHL20-30	4		39.5	39	38	37.5	35.5	34	31.5	29	26	23

Installation sketch



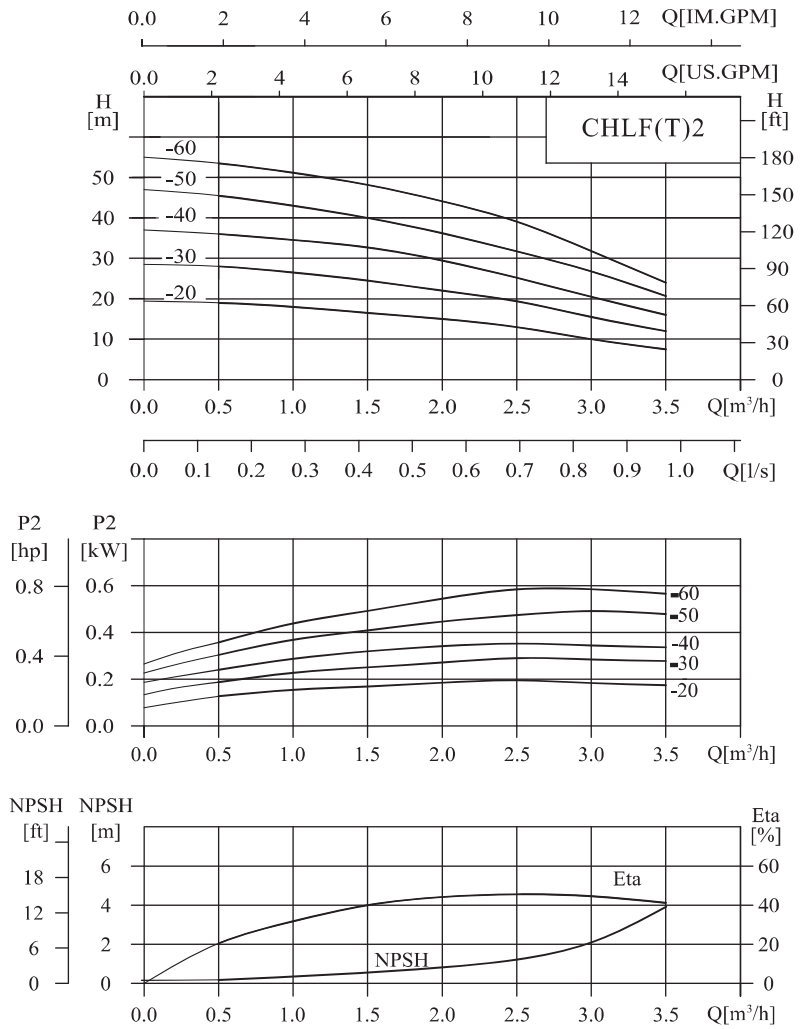
Size and weight

Motor	Model	Size (mm)														Weight (kg)
		L1	L2	L3	N	E	G	A	M	B	J	d	D	H	K	
Three phase/ single phase	CHL20-10	530	279	176	117	264	223	130	108	160	138	9	151/161	230/265	91	20
	CHL20-20	563	279	176	118	265	223	130	108	160	138	9	171/176	235/270	91	26
	CHL20-30	612	357	176	120	267	223	220	190	170	140	12	213	270		40

Technical Data

Performance curve

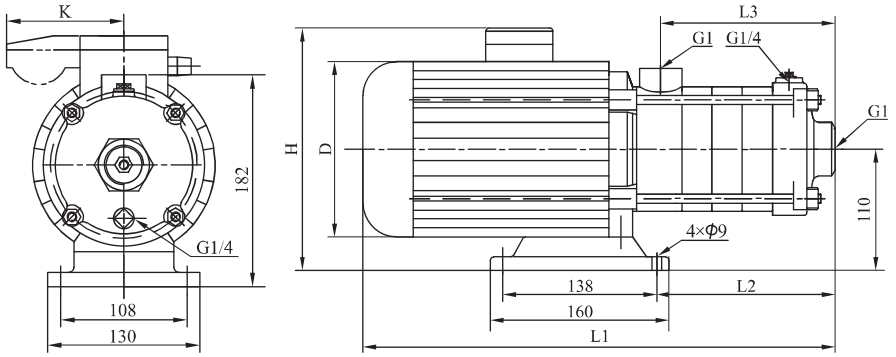
2900rpm



Performance table

Model	Driving motor (kW)	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	16.5	15	13	10	7.5
CHLF(T)2-30	0.37		28	26.5	24.5	22	19	15.5	12
CHLF(T)2-40	0.55		36	34.5	33	29	25	20.5	16
CHLF(T)2-50	0.55		45.5	43	40	36	31.5	26.5	20.5
CHLF(T)2-60	0.75		53.5	51	48	44	39	32	24

Installation sketch



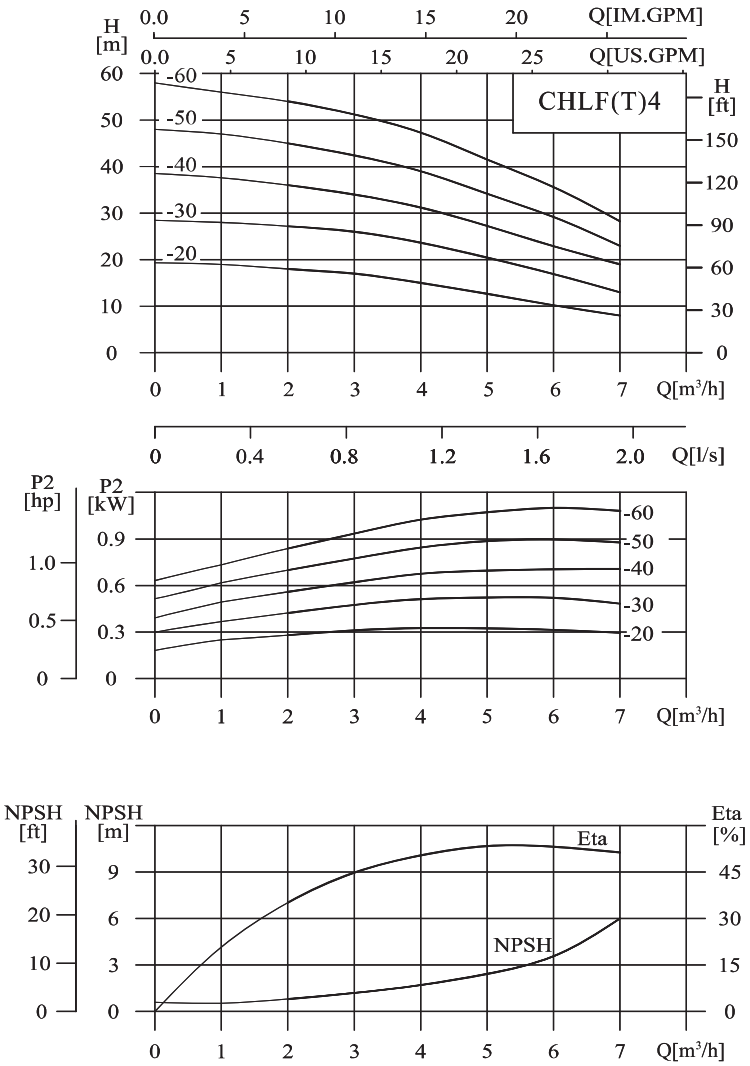
Size and weight

Motor	Model	Size (mm)						Weight (kg)
		L1	L2	L3	D	H	K	
Three phase/ single phase	CHLF(T)2-20	305	87	84	141	215/230	62	9
	CHLF(T)2-30	323	105	102	141	215/230	62	10
	CHLF(T)2-40	341	123	120	141	215/230	62	11
	CHLF(T)2-50	359	141	138	141	215/230	62	12
	CHLF(T)2-60	422	159	156	151/161	225/245	91	15

Technical Data

Performance curve

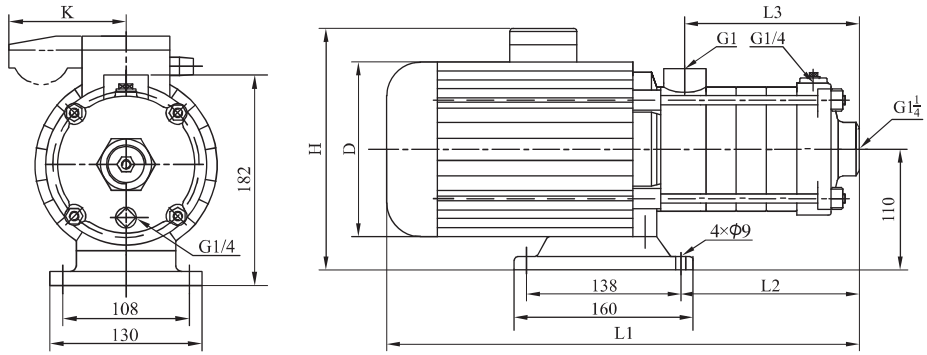
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	1	2	3	4	5	6	7
CHLF(T)4-20	0.37	H (m)	19	18	17	15	12.5	10	8
CHLF(T)4-30	0.55		28	27	26	23.5	20.5	17	13
CHLF(T)4-40	0.75		37.5	36	34	31	27	23	19
CHLF(T)4-50	1.1		47	45	42.5	39	34	29	23
CHLF(T)4-60	1.1		56	54	51	47	41.5	35.5	28

Installation sketch



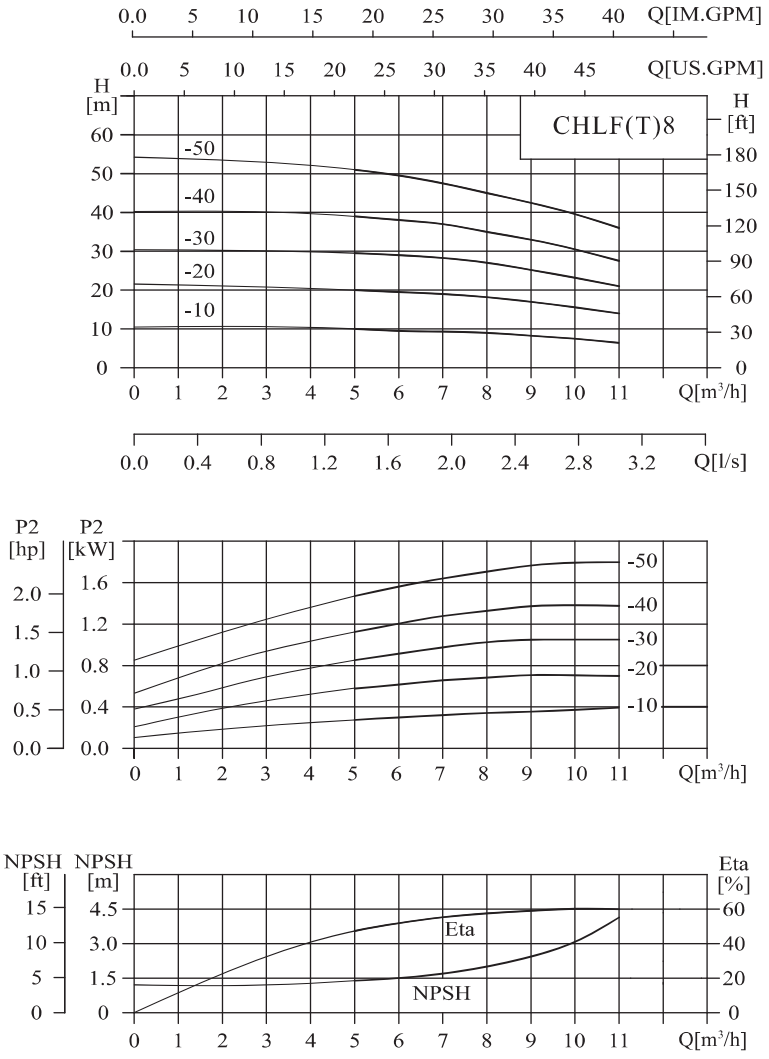
Size and weight

Motor	Model	Size(mm)						Weight(kg)
		L1	L2	L3	D	H	K	
Three phase/ single phase	CHLF(T)4-20	329	105	102	141	215/230	62	10
	CHLF(T)4-30	356	132	129	141	215/230	62	11
	CHLF(T)4-40	416	162	156	151/161	225/245	91	14
	CHLF(T)4-50	455	188	183	151/161	225/245	91	16
	CHLF(T)4-60	482	213	210	151/161	225/245	91	17

Technical Data

Performance curve

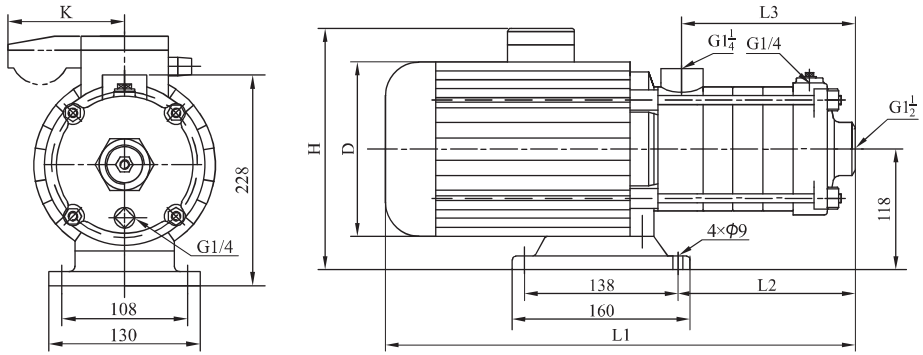
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	5	6	7	8	9	10	11
CHLF(T)8-10	0.75	H (m)	10	9.5	9.3	9	8	7.5	7
CHLF(T)8-20	0.75		20	19.5	19	18	17	15.5	14
CHLF(T)8-30	1.1		29.5	29	28	27	25	23	21
CHLF(T)8-40	1.5		39	38	37	35	33	30.5	27.5
CHLF(T)8-50	2.2		51	49.5	47.5	45	42.5	39.5	36

Installation sketch



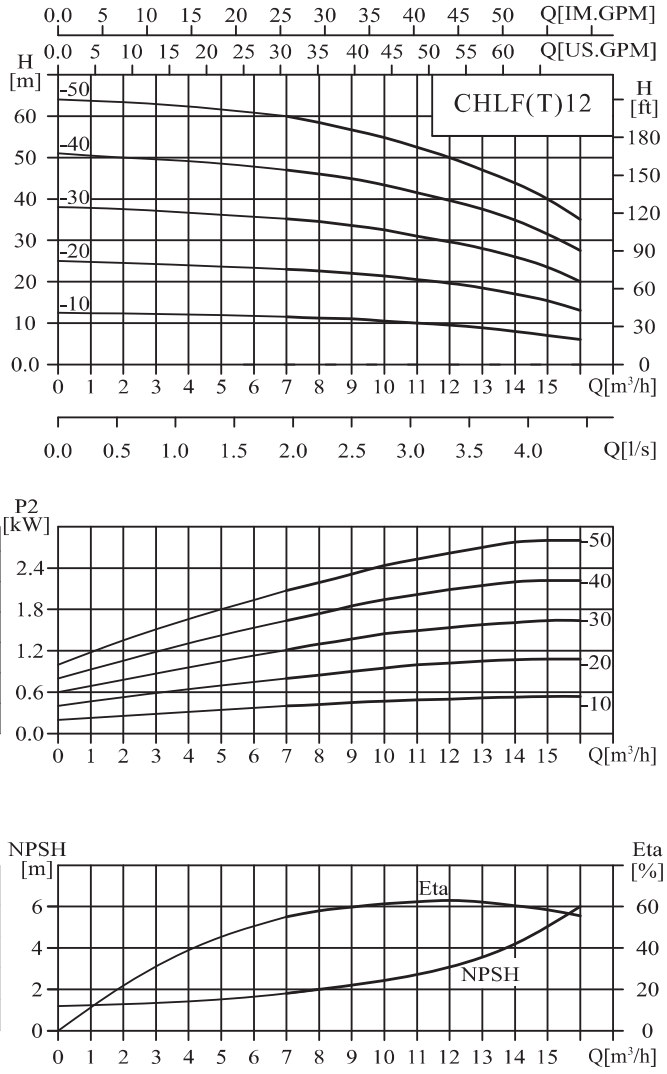
Size and weight

Motor	Model	Size (mm)						Weight(kg)
		L1	L2	L3	D	H	K	
Three phase/ single phase	CHLF(T)8-10	395	128	108	151/161	230/265	91	17
	CHLF(T)8-20	395	128	108	151/161	230/265	91	17
	CHLF(T)8-30	425	158	138	151/161	230/265	91	19
	CHLF(T)8-40	490	188	168	171/176	240/270	91	22
	CHLF(T)8-50	520	218	198	171/176	240/270	91	25

Technical Data

Performance curve

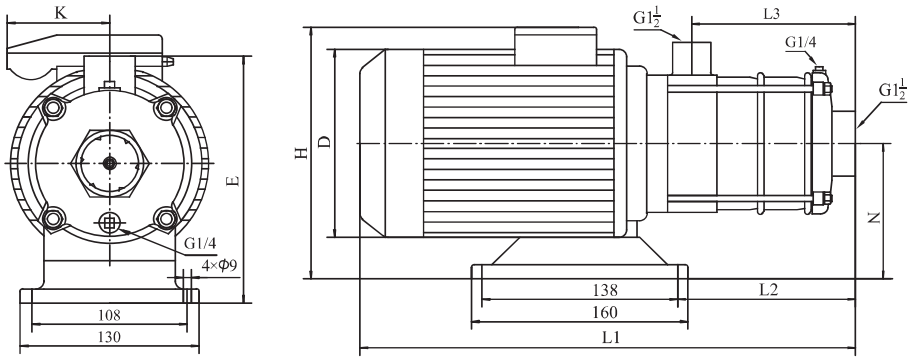
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	7	8	9	10	11	12	13	14	15	16
CHLF(T)12-10	0.75	H (m)	11.5	11.2	11	10.5	10	9.5	9	8	7	6
CHLF(T)12-20	1.2		23	22.5	22	21.5	20.5	19.5	18.5	17	15.5	13
CHLF(T)12-30	1.8		35	34.5	33.5	32.5	31	29.5	28	26	23.5	20
CHLF(T)12-40	2.4		47	46	45	43.5	41.5	39.5	37.5	35	31.5	27.5
CHLF(T)12-50	3		60	58	56.5	55	52.5	50	47	44	40	35

Installation sketch



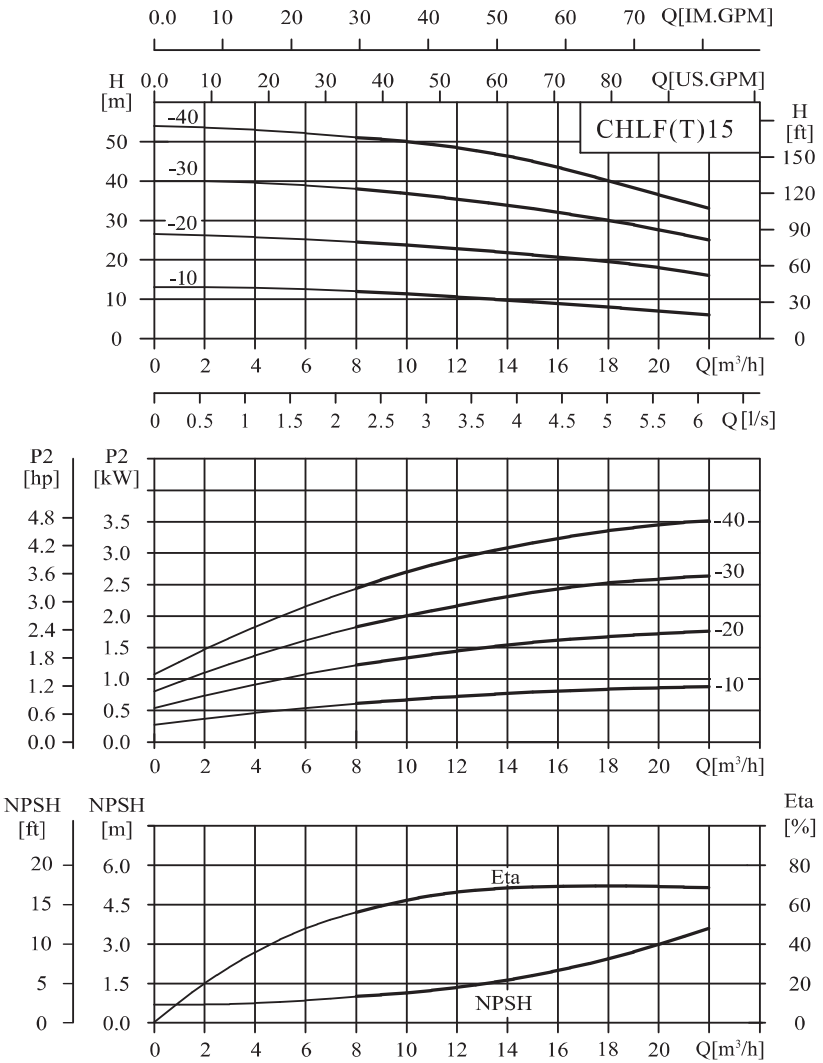
Size and weight

Motor	Model	Size (mm)								Weight (kg)
		L1	L2	L3	H	D	E	N	K	
Three phase/ single phase	CHLF(T)12-10	375/375	125	108	230/265	151/161	227	117	91	18
	CHLF(T)12-20	375/395	125	108	230/265	151/161	227	117	91	19
	CHLF(T)12-30	445/456	155	138	240/270	171/176	228	118	91	28
	CHLF(T)12-40	475/486	185	168	240/270	171/176	228	118	91	30
	CHLF(T)12-50	561	215	198	259	197	238	128		36

Technical Data

Performance curve

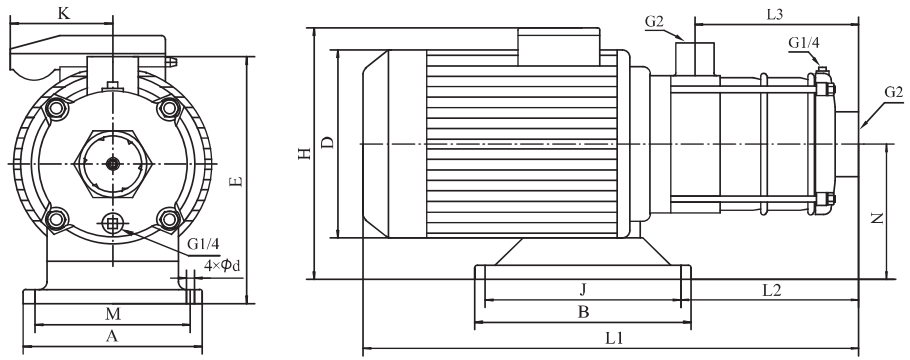
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	8	10	12	14	15	16	18	20	22
CHLF(T)15-10	1.1	H (m)	12	11	10.5	9.5	9	8.5	7.5	6.5	6
CHLF(T)15-20	2.2		24.5	24	23	22	21	20.5	19	18	16
CHLF(T)15-30	3		38	37	35.5	34	33	32	30	28	25
CHLF(T)15-40	4		51	50	48	46	45	43	40	37	33

Installation sketch



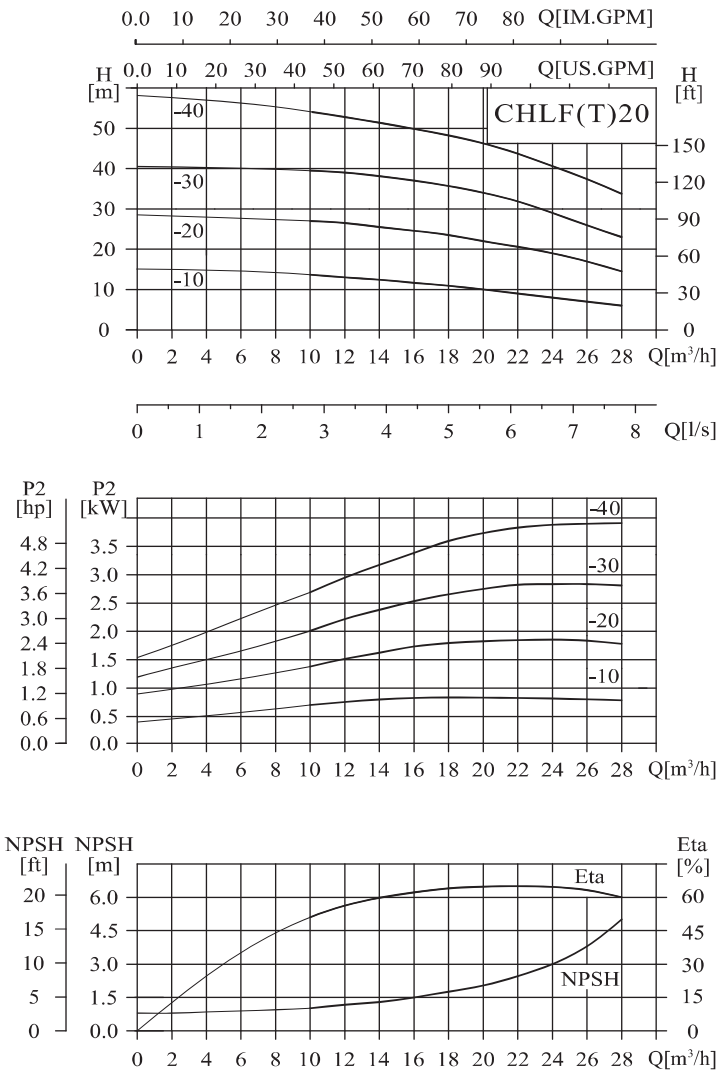
Size and weight

Motor	Model	Size (mm)												Weight (kg)
		L1	L2	L3	H	D	E	N	A	M	B	J	d	K	
Three phase/ single phase	CHLF(T)15-10	400/420	150	126	230/265	151/161	227	117	130	108	160	138	9	91	19
	CHLF(T)15-20	440/451	150	126	240/270	171 /176	228	118	130	108	160	138	9	91	27
	CHLF(T)15-30	544	195	171	259	197	238	128	130	108	160	138	9		34
	CHLF(T)15-40	595	336	216	270	213	230	120	221	190	170	140	12		41

Technical Data

Performance curve

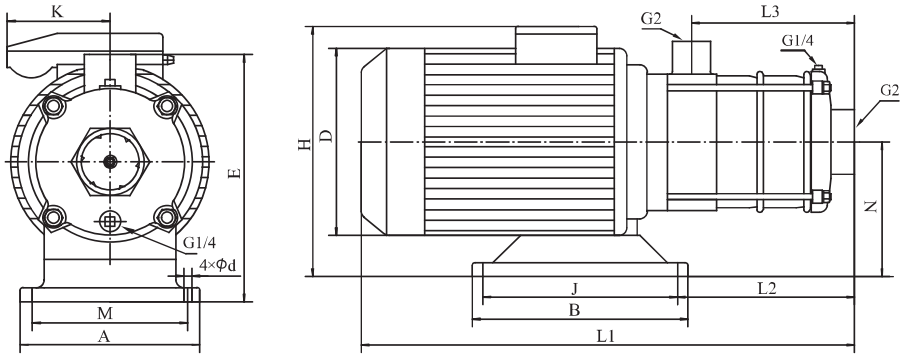
2900rpm



Performance table

Model	Driving motor (kW)	Q(m³/h)	10	12	14	16	18	20	22	24	26	28
CHLF(T)20-10	1.1	H (m)	13.5	13	12.5	12	11	10	9	8	7	6
CHLF(T)20-20	2.2		27	26.5	25.5	25	23.5	22	20.5	18.5	17	14.5
CHLF(T)20-30	4		39.5	39	38	37.5	35.5	34	31.5	29	26	23
CHLF(T)20-40	4.4		53	52	51	50	48.5	46.5	43	40	36	32.5

Installation sketch



Size and weight

Motor	Model	Size (mm)												Weight (kg)
		L1	L2	L3	H	D	E	N	A	M	B	J	d	K	
Three phase/ single phase	CHLF(T)20-10	400/420	150	126	230/265	151/161	227	117	130	108	160	138	9	91	19
	CHLF(T)20-20	440/451	150	126	240/270	171/176	228	118	130	108	160	138	9	91	27
	CHLF(T)20-30	547	291	171	270	213	230	120	221	190	170	140	12		40
	CHLF(T)20-40	592	336	216	270	213	230	120	221	190	170	140	12		42