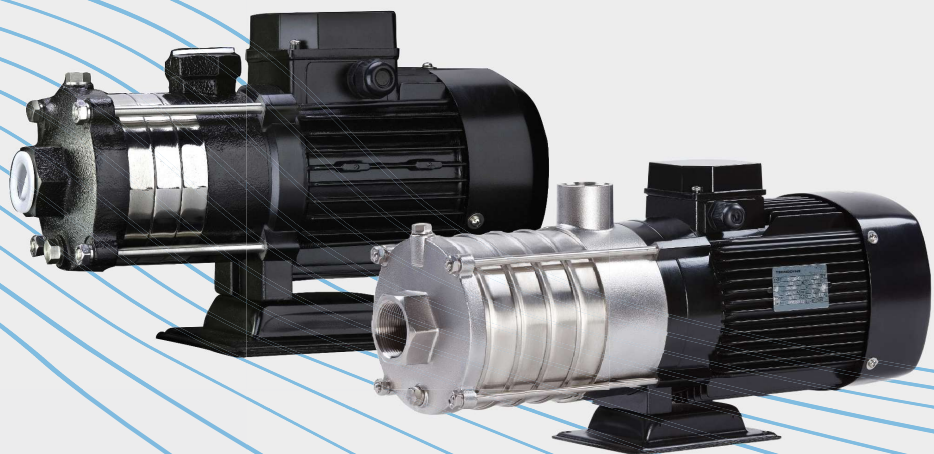


CHL, CHLF Series

Horizontal Multistage Pumps 50Hz

PRODUCT CATALOGUE



PRODUCT OVERVIEW

High-efficiency hydraulics

Product Description

CHL is a horizontal multistage non-self-priming centrifugal pump, constructed with a long-shaft electric motor. Compact design with axial inlet and radial outlet. It is suitable for water supply, pressure boosting, irrigation, heating, cooling, and washing beside other special applications.

Applications

CHL, CHLK and CHLF(T) pumps are mainly used in:

- Water supply and pressure boosting
- Heating and cooling systems
- Irrigation
- Washing

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.

Operating Date

- Liquid temperature:
Normal temperature type: -15°C to 70°C
Hot water type: -15°C to 105°C
- Ambient temperature: up to 40°C
- Max. operating pressure: 10 bar
- Max. inlet pressure is limited by the max. operating pressure.



CHL, CHLK

Motors

- All pumps are equipped with TEFC, 2-poles energy-efficient motors as standard.
- Protection class: IP55
- Insulation class: F
- Single phase motor (max power): 2.4 kW
- Voltage:
50Hz: 1x220-240V or 3x220-240/380-415V
60Hz: 1x220-240V or 3 x220-240V/380-415V

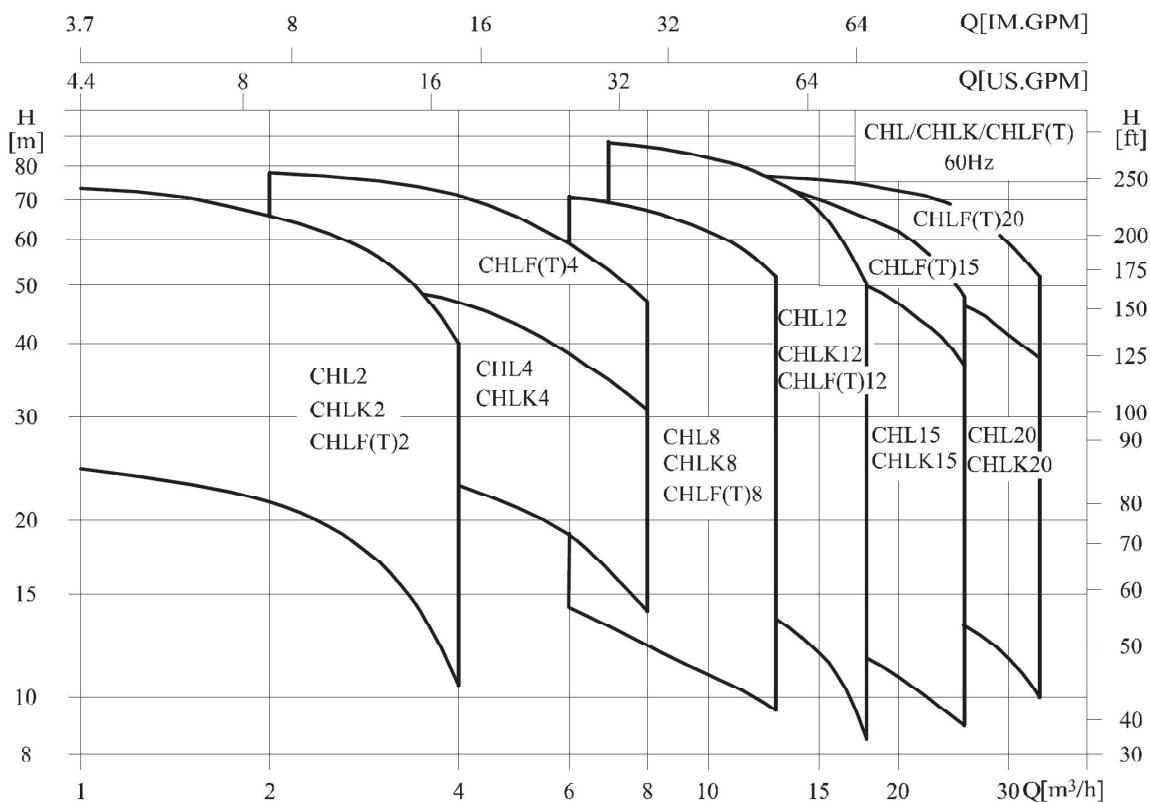
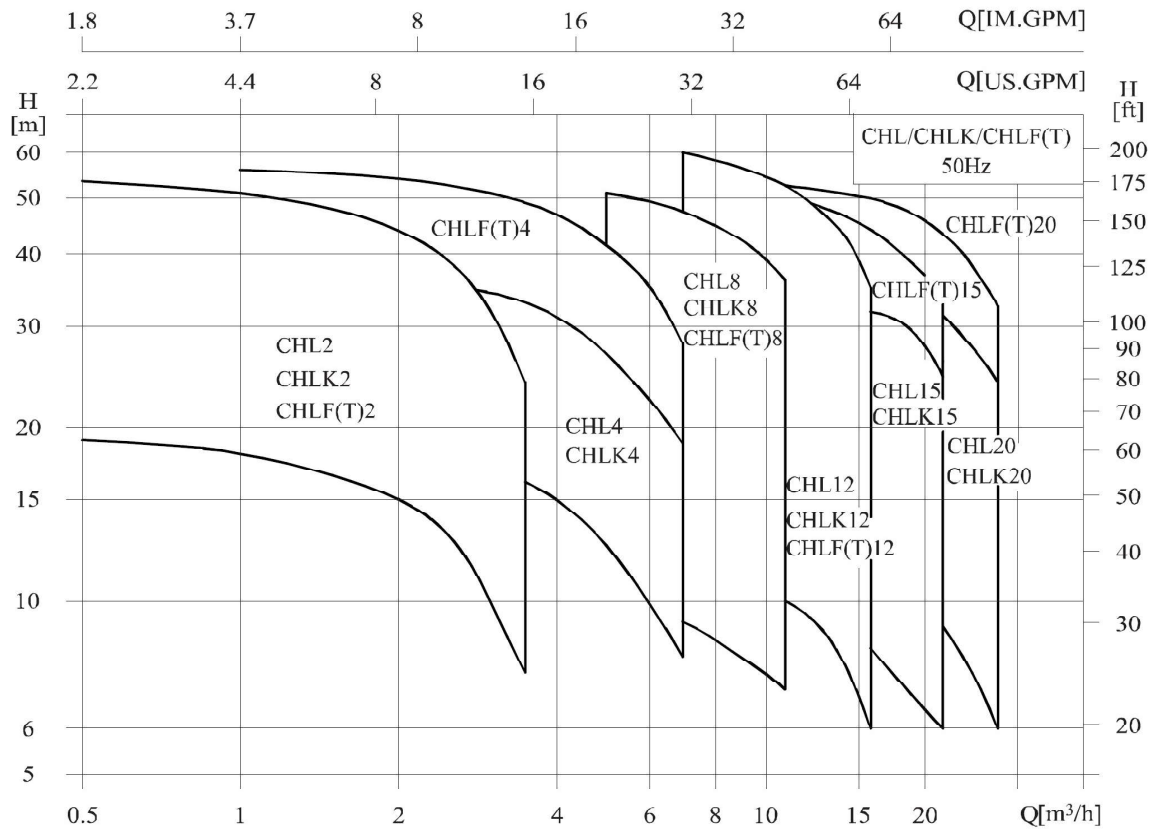
Curve Conditions

- All curves are based on the measured values of 50Hz: constant motor speed 2900r/min, 60 Hz: constant motor speed 3500r/min;
- Curve tolerance in conformity to ISO9906 2012 Grade 3B.
- Measurement is done with 20°C air-free water, kinematic viscosity of 1 mm²/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.

Model	Connection Size	
	Inlet	Outlet
CHL, CHLK, CHLF(T) 2	G1	G1
CHL, CHLK, CHLF(T) 4	G 1-1/4	G1
CHL, CHLK 8, 12, 15, 20	G2	G2
CHLF(T) 8	G 1-1/2	G 1-1/4
CHLF(T) 12	G 1-1/2	G 1-1/2
CHLF(T) 15, 20	G2	G2

PERFORMANCE RANGE

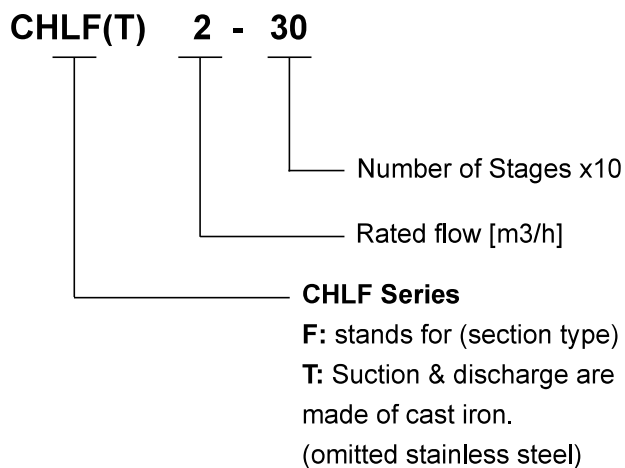
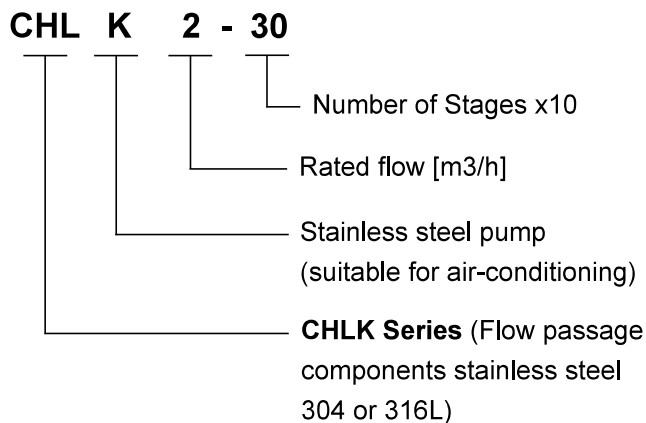
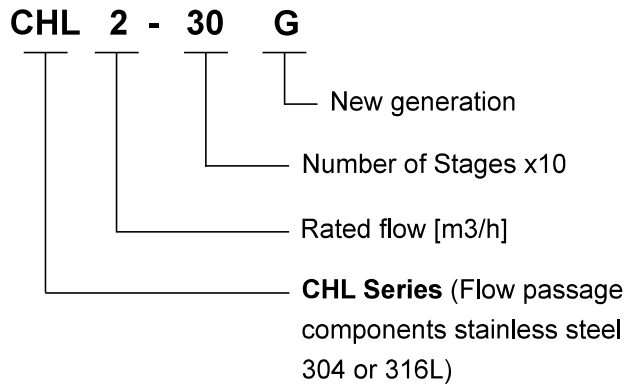
50/60Hz



MODEL DEFINITION

CHL, CHLK, CHLF & CHLF(T)

Model Description



Material CHL/CHLK

Part No.	Description	Material	AISI / ASTM
1	Inlet & 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	Baseplate	Steel plate	AISI1015
11	Spann band	Stainless steel	AISI304
12	Diffuser	Stainless steel	AISI304
13	Support diffuser	Stainless steel	AISI304
14	Inducer	Stainless steel	AISI304

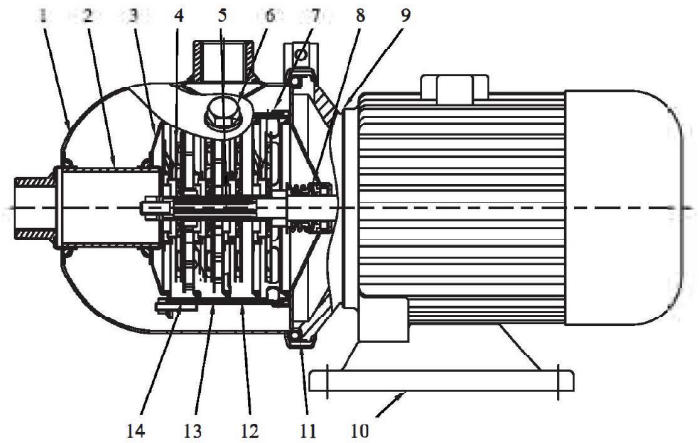
Material CHLF/CHLF(T)

Part No.	Description	Material	AISI / ASTM
2	Plug	Stainless steel	AISI304
3	Bearing	Tungsten carbide	
4	Impeller	Stainless steel	AISI304
5	Shaft	Stainless steel	AISI304
8	Mechanical seal		
9	Motor end cover	Aluminum alloy	
10	Baseplate	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

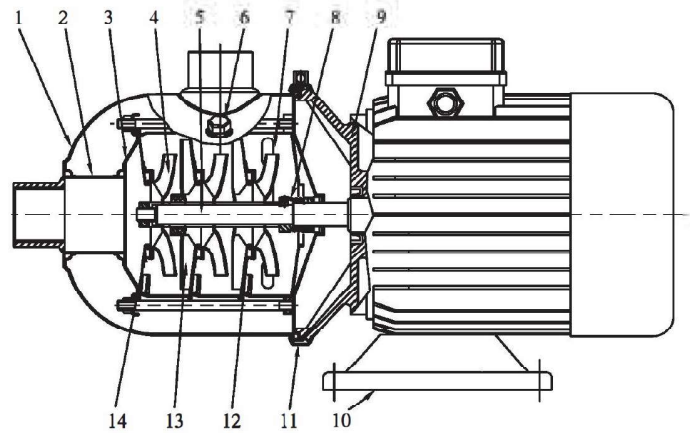
SECTION DRAWINGS

CHL, CHLK, CHLF & CHLF(T)

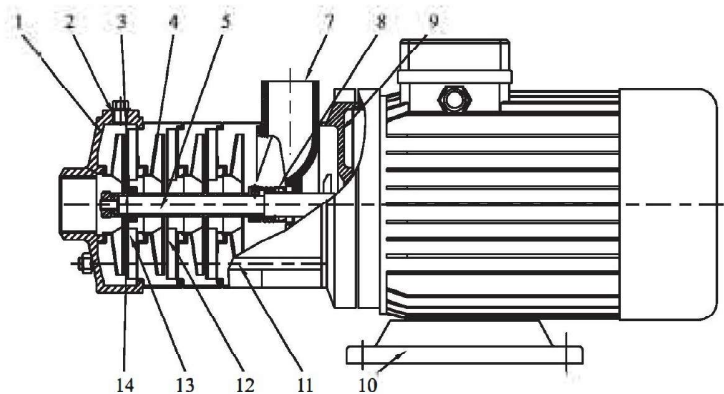
Section Drawing CHL, CHLK 2, 4



Section Drawing CHL, CHLK 8, 12, 15, 20

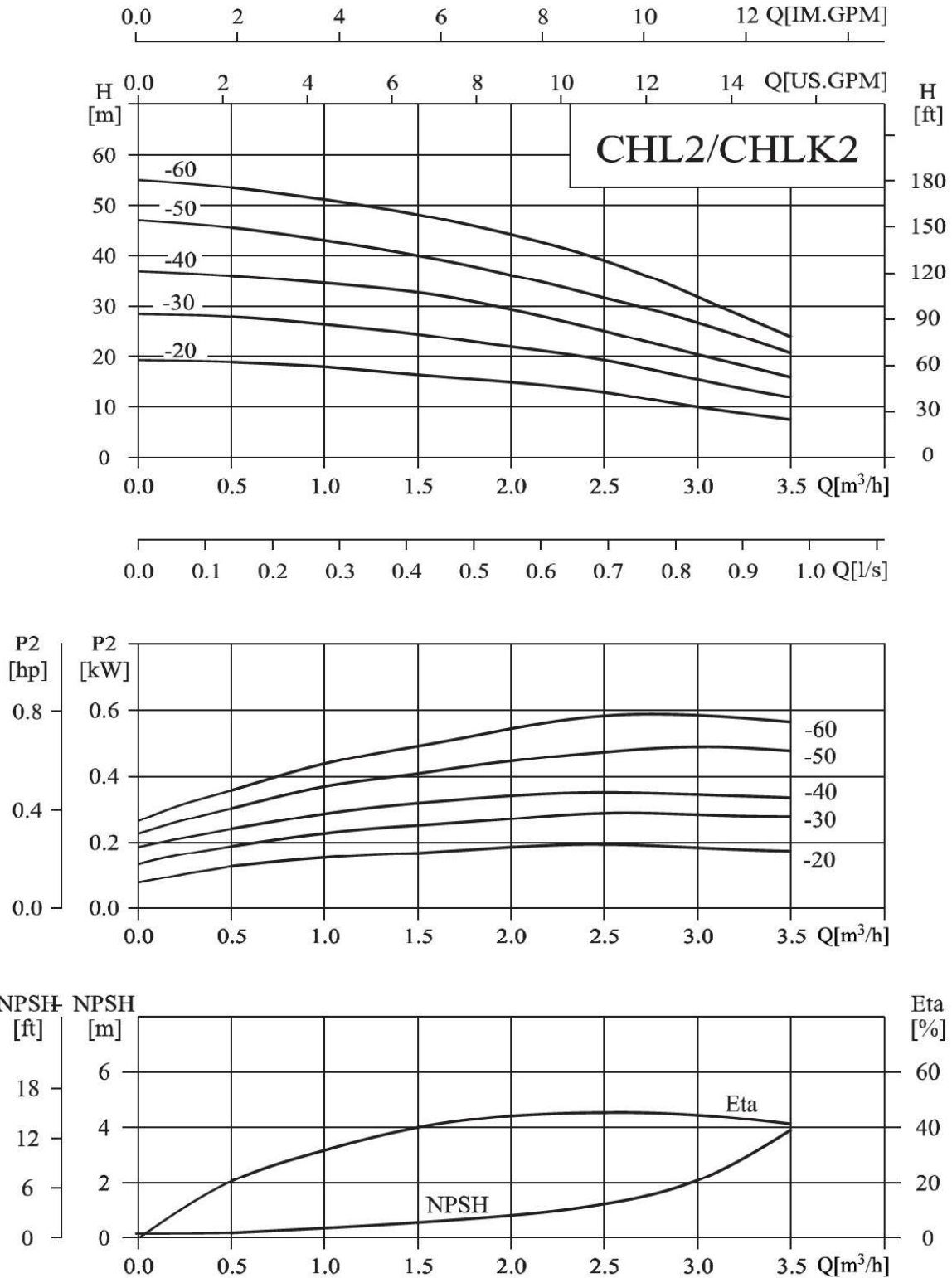


Section Drawing CHLF, CHLF(T)



PERFORMANCE CURVE

CHL/CHLK 2 - 50Hz

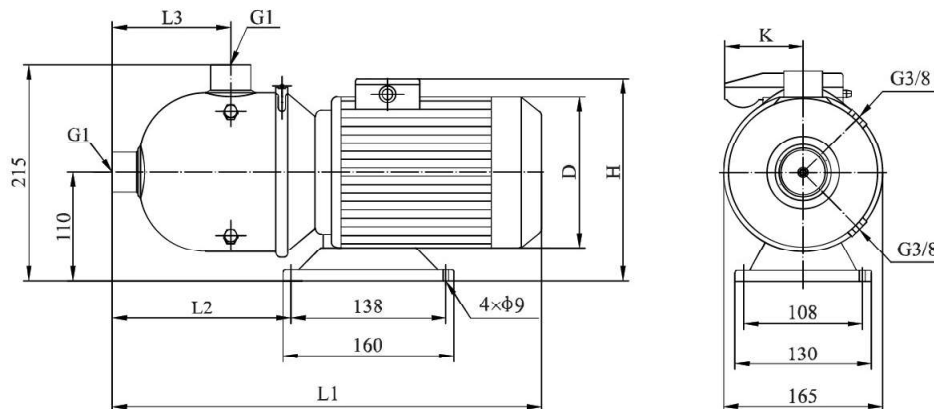


TECHNICAL DATA

CHL/CHLK 2 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	0.5	1	1.5	2	2.5	3	3.5
	[kW]	[hp]								
CHL 2-20	0.37	0.5	H [m]	19	18	16.5	15	13	10	7.5
CHL 2-20G	0.37	0.5		19	18	16.5	15	13	10	7.5
CHL 2-30	0.37	0.5		28	26.5	24.5	22	19	15.5	12
CHL 2-30G	0.37	0.5		28	26.5	24.5	22	19	15.5	12
CHL 2-40	0.55	0.75		36	34.5	33	29	25	20.5	16
CHL 2-40G	0.55	0.75		36	34.5	33	29	25	20.5	16
CHL 2-50	0.55	0.75		45.5	43	40	36	31.5	26.5	20.5
CHL 2-60	0.75	1		53.5	51	48	44	39	32	24

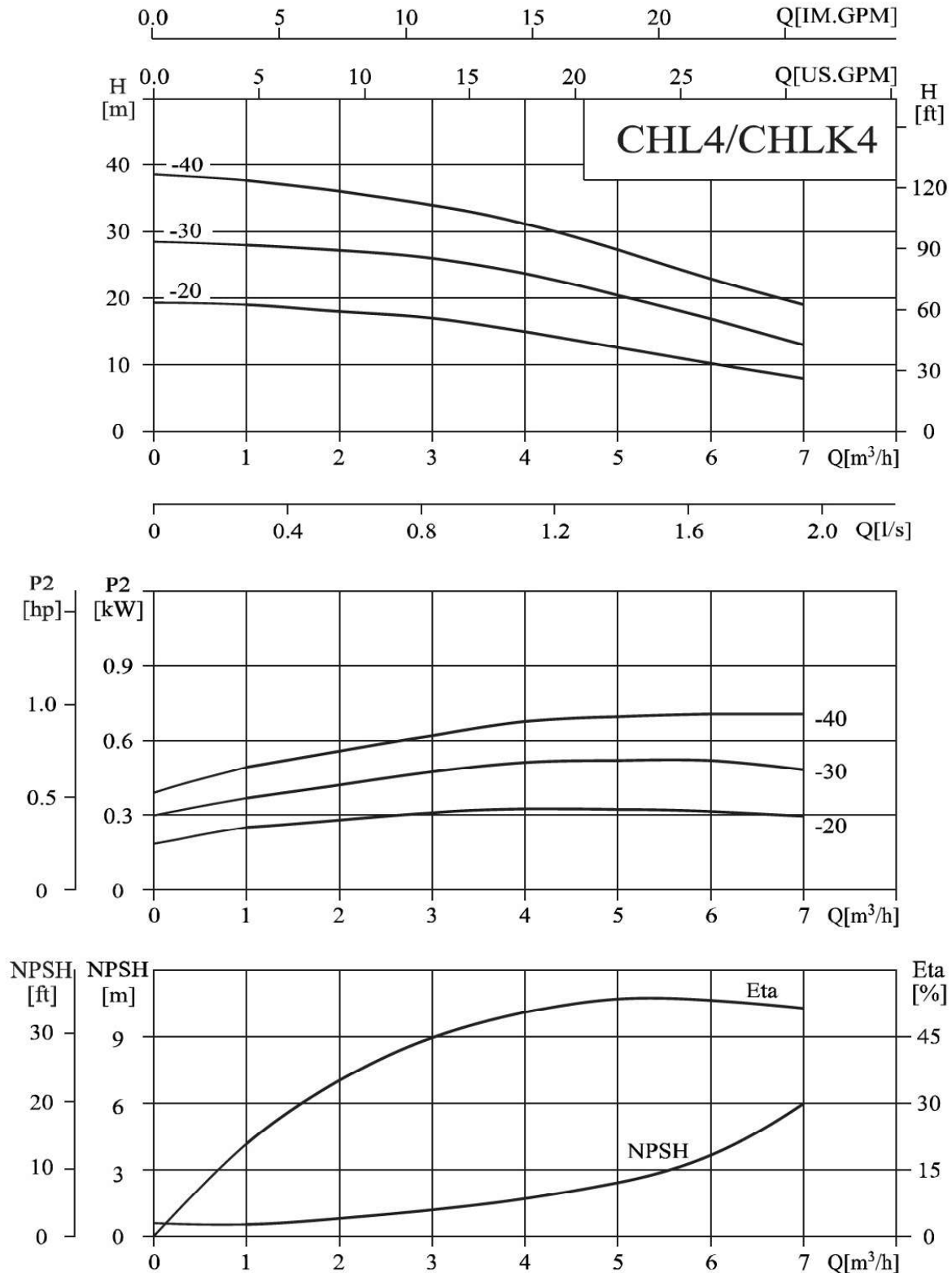


Dimensions and Weight

Motor	Model	Dimensions [mm]						Weight [kg]
		L1	L2	L3	D	H	K	
Three-phase/ Single-phase	CHL 2-20	400	165	125	141	215 / 249	62	10
	CHL 2-20G	360	125	85	141	215 / 249	62	10
	CHL 2-30	400	165	125	141	215 / 249	62	10
	CHL 2-30G	360	125	85	141	215 / 249	62	10
	CHL 2-40	400	165	125	141	215 / 249	62	11
	CHL 2-40G	360	125	85	141	215 / 249	62	11
	CHL 2-50	400	165	125	141	215 / 249	62	12
	CHL 2-60	420	165	125	151 / 161	225 / 265	91	14

PERFORMANCE CURVE

CHL/CHLK 4 - 50Hz

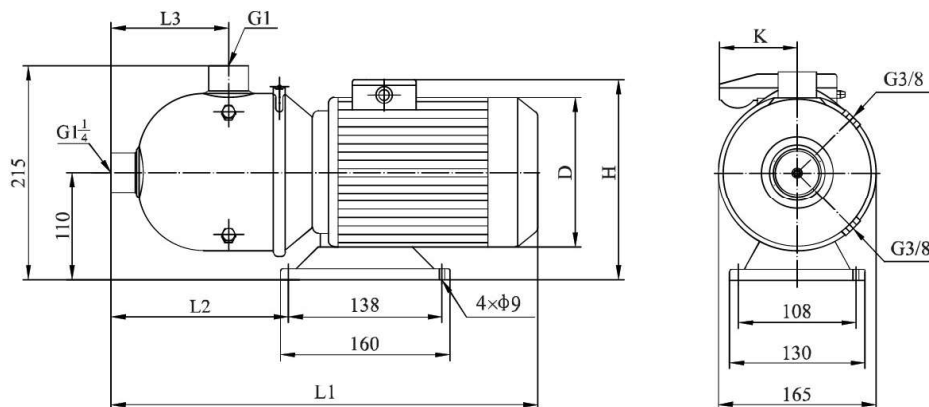


TECHNICAL DATA

CHL/CHLK 4 - 50Hz

Performance Table

Model	Motor		Q [m ³ /h]	1	2	3	4	5	6	7
	[kW]	[hp]								
CHL 4-20	0.37	0.5	H [m]	19	18	17	15	12.5	10	8
CHL 4-20G	0.37	0.5		19	18	17	15	12.5	10	8
CHL 4-30	0.55	0.75		28	27	26	23.5	30.5	17	13
CHL 4-40	0.75	1		37.5	36	34	31	27	23	19

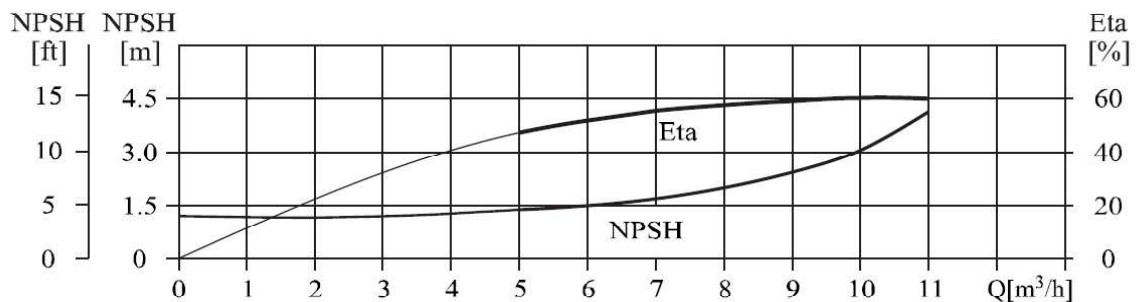
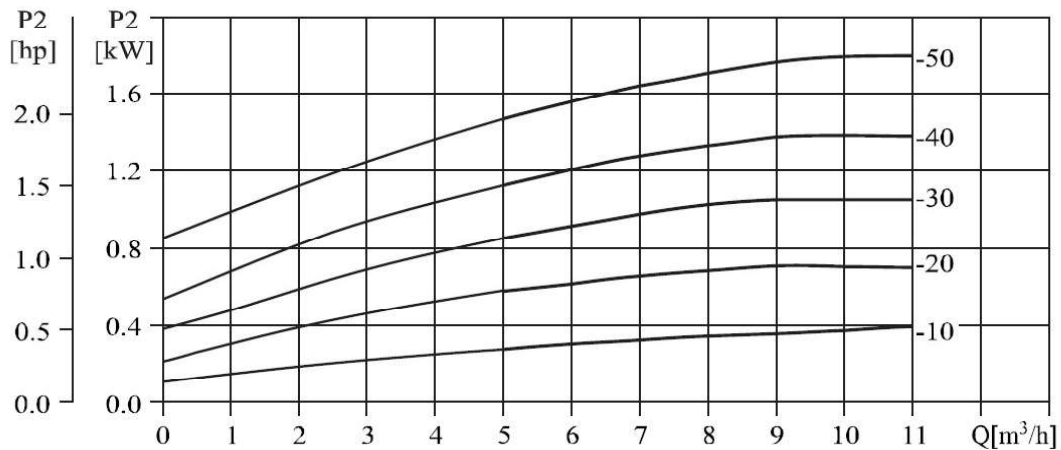
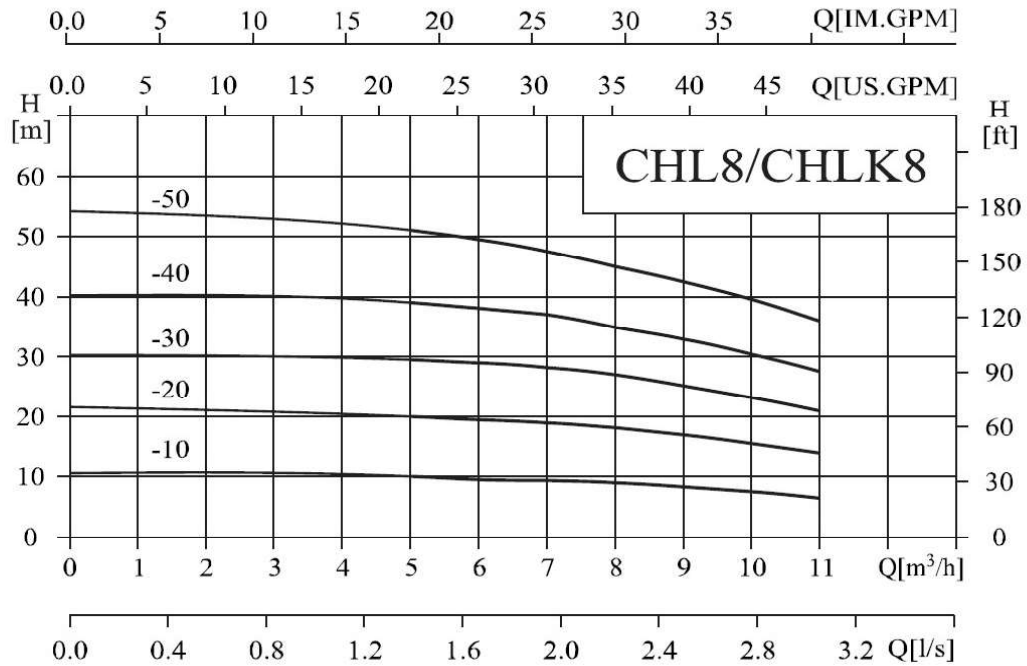


Dimensions and Weight

Motor	Model	Dimensions [mm]						Weight [kg]
		L1	L2	L3	D	H	K	
Three-phase/ Single-phase	CHL 4-20	400	172	132	141	215 / 249	62	10
	CHL 4-20G	360	132	92	141	215 / 249	62	10
	CHL 4-30	400	172	132	141	215 / 249	62	11
	CHL 4-40	420	172	132	151 / 161	225 / 265	91	14

PERFORMANCE CURVE

CHL/CHLK 8 - 50Hz

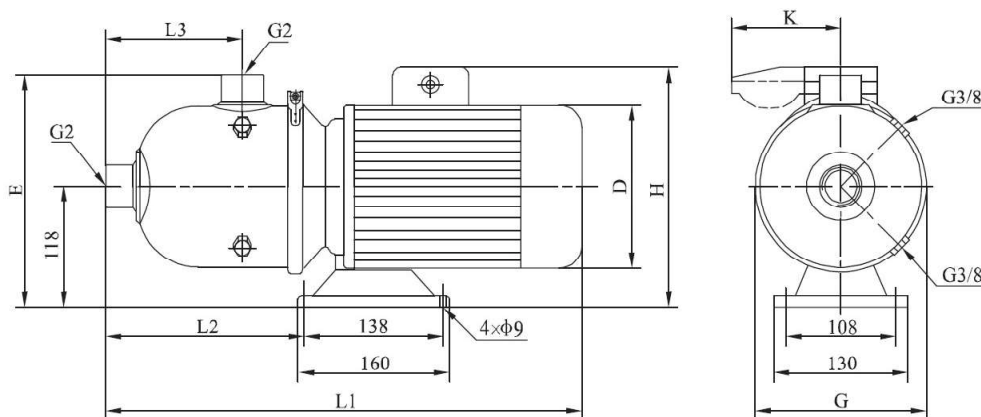


TECHNICAL DATA

CHL/CHLK 8 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	5	6	7	8	9	10	11
	[kW]	[hp]								
CHL 8-10	0.75	1	H [m]	10	9.5	9.3	9	8	7.5	7
CHL 8-10G	0.75	1		10	9.5	9.3	9	8	7.5	7
CHL 8-20	0.75	1		20	19.5	19	18	17	15.5	14
CHL 8-20G	0.75	1		20	19.5	19	18	17	15.5	14
CHL 8-30	1.1	1.5		29.5	29	28	27	25	23	21
CHL 8-30G	1.1	1.5		29.5	29	28	27	25	23	21
CHL 8-40	1.5	2		39	38	37	35	33	30.5	27.5
CHL 8-50	2.2	3		51	49.5	47.5	45	42.5	39.5	36

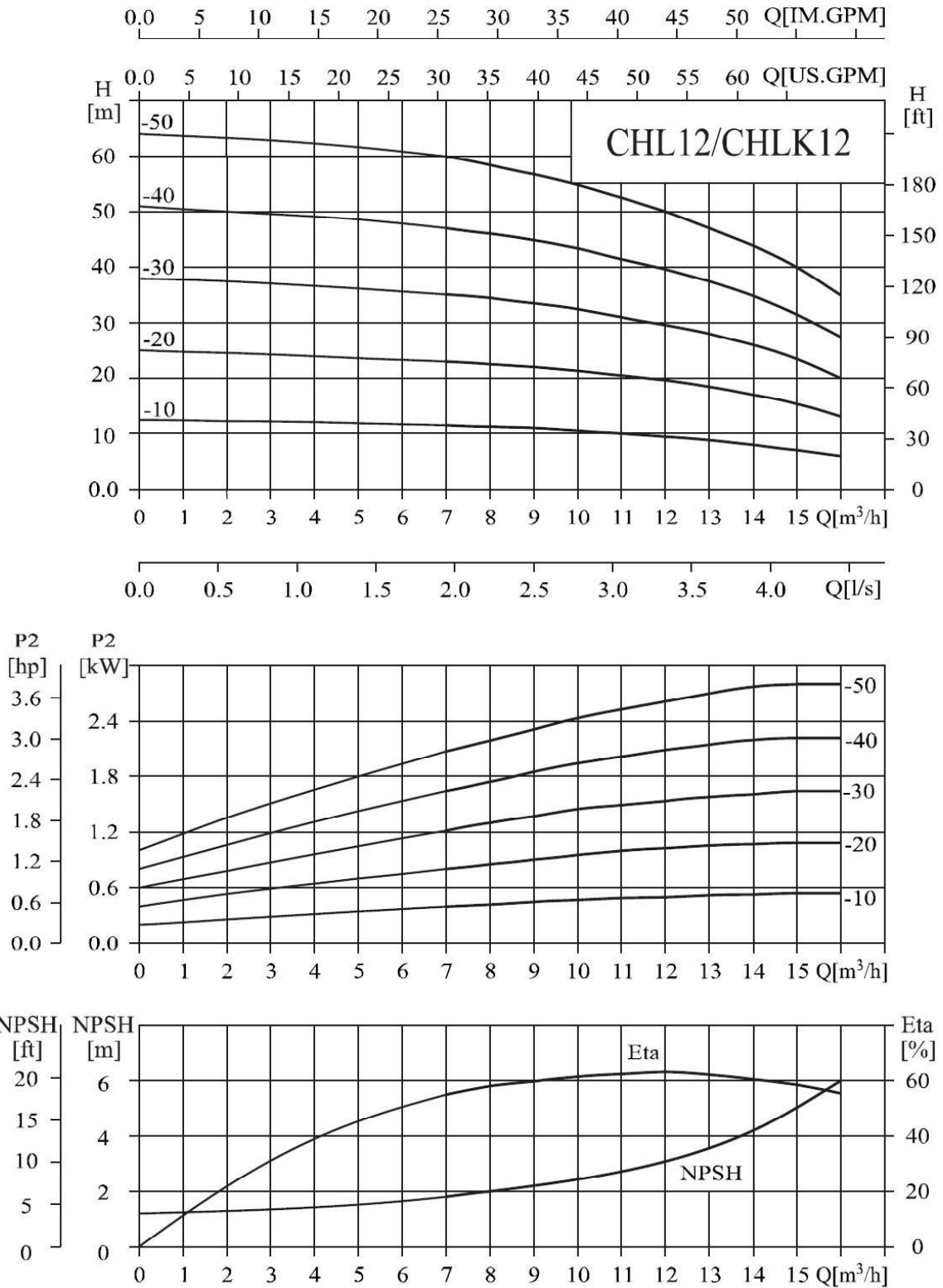


Dimensions and Weight

Motor	Model	Dimensions [mm]								Weight [kg]
		L1	L2	L3	E	G	D	H	K	
Three-phase/ Single-phase	CHL 8-10	530	279	176	264	223	151/161	225/265	91	18
	CHL 8-10G	480	199	95	249	193	151/161	225/265	91	17
	CHL 8-20	530	279	176	264	223	151/161	225/265	91	19
	CHL 8-20G	480	199	95	249	193	151/161	225/265	91	18
	CHL 8-30	530	279	176	264	223	151/161	230/265	91	22
	CHL 8-30G	480	199	95	249	193	151/161	230/265	91	21
	CHL 8-40	563	279	176	265	223	171/176	235/270	91	27
	CHL 8-50	563	279	176	265	223	171/176	235/270	91	32

PERFORMANCE CURVE

CHL/CHLK 12 - 50Hz

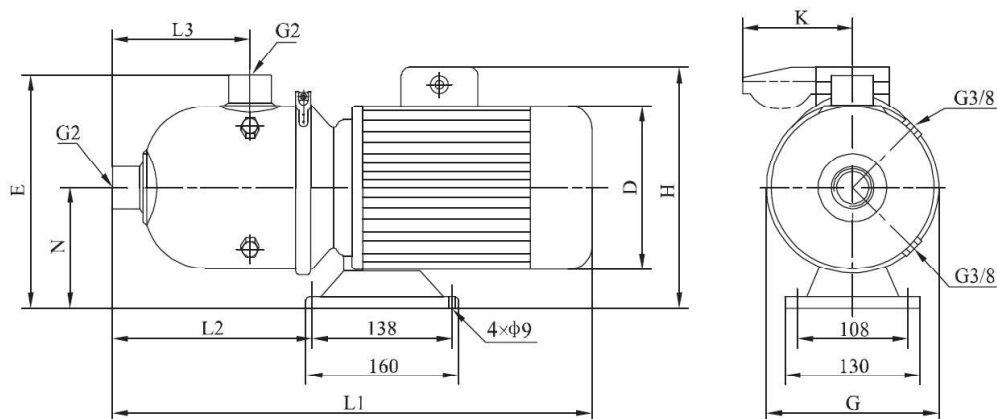


TECHNICAL DATA

CHL/CHLK 12 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	7	8	9	10	11	12	13	14	15	16
	[kW]	[hp]											
CHL 12-10	0.75	1	H [m]	11.5	11.2	11	10.5	10	9.5	9	8	7	6
CHL 12-10G	0.75	1		11.5	11.2	11	10.5	10	9.5	9	8	7	6
CHL 12-20	1.2	1.6		23	22.5	22	21.5	20.5	19.5	18.5	17	15.5	13
CHL 12-20G	1.2	1.6		23	22.5	22	21.5	20.5	19.5	18.5	17	15.5	13
CHL 12-30	1.8	2.4		35	34.5	33.5	32.5	31	29.5	28	26	23.5	20
CHL 12-30G	1.8	2.4		35	34.5	33.5	32.5	31	29.5	28	26	23.5	20
CHL 12-40	2.4	3.3		47	46	45	43.5	41.5	39.5	37.5	35	31.5	27.5
CHL 12-50	3	4		60	58	56.5	55	52.5	50	47	44	40	35

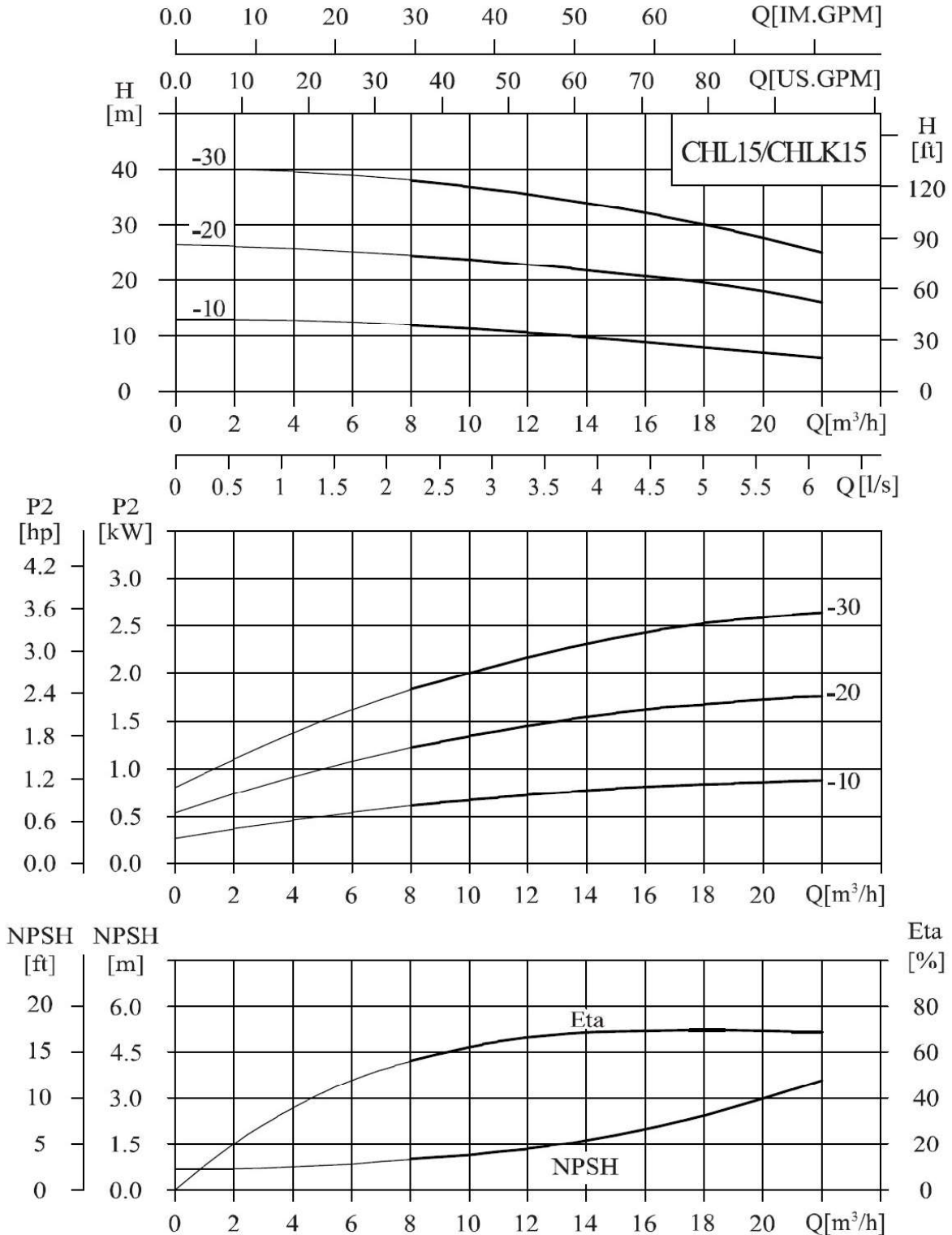


Dimensions and Weight

Motor	Model	Dimensions [mm]									Weight [kg]
		L1	L2	L3	N	E	G	D	H	K	
Three-phase/ Single-phase	CHL 12-10	530	279	176	117	264	223	151/161	225/265	91	18
	CHL 12-10G	480	199	95	117	249	193	151/161	225/265	91	17
	CHL 12-20	530	279	176	117	264	223	151/161	225/265	91	22
	CHL 12-20G	480	199	95	117	249	193	151/161	225/265	91	21
	CHL 12-30	563	279	176	118	265	223	171/176	235/270	91	28
	CHL 12-30G	490	199	95	118	250	193	171/176	235/270	91	27
	CHL 12-40	563	279	176	118	265	223	171/176	235/270	91	33
	CHL 12-50	610	279	176	128	275	223	196	259	-	37

PERFORMANCE CURVE

CHL/CHLK 15 - 50Hz

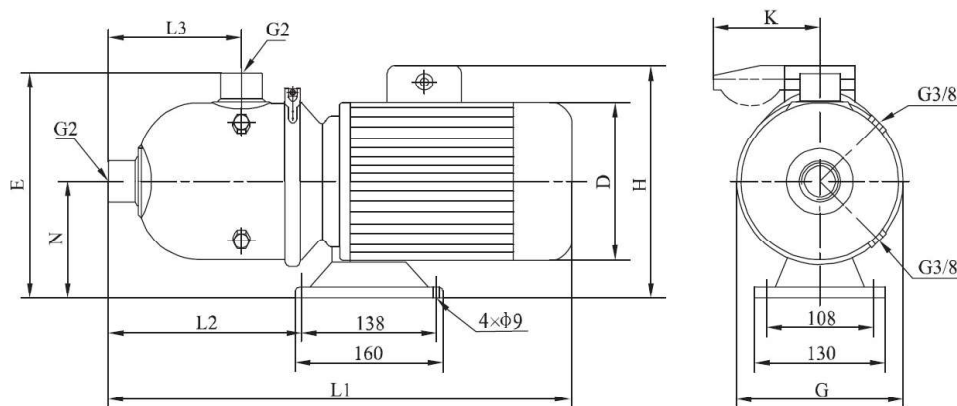


TECHNICAL DATA

CHL/CHLK 15 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	8	10	12	14	15	16	18	20	22
	[kW]	[hp]										
CHL 15-10	1.1	1.5	H [m]	12	11	10.5	9.5	9	8.5	7.5	6.5	6
CHL 15-20	2.2	3		24.5	24	23	22	21	20.5	19	18	16
CHL 15-30	3	4		38	37	35.5	34	33	32	30	28	25

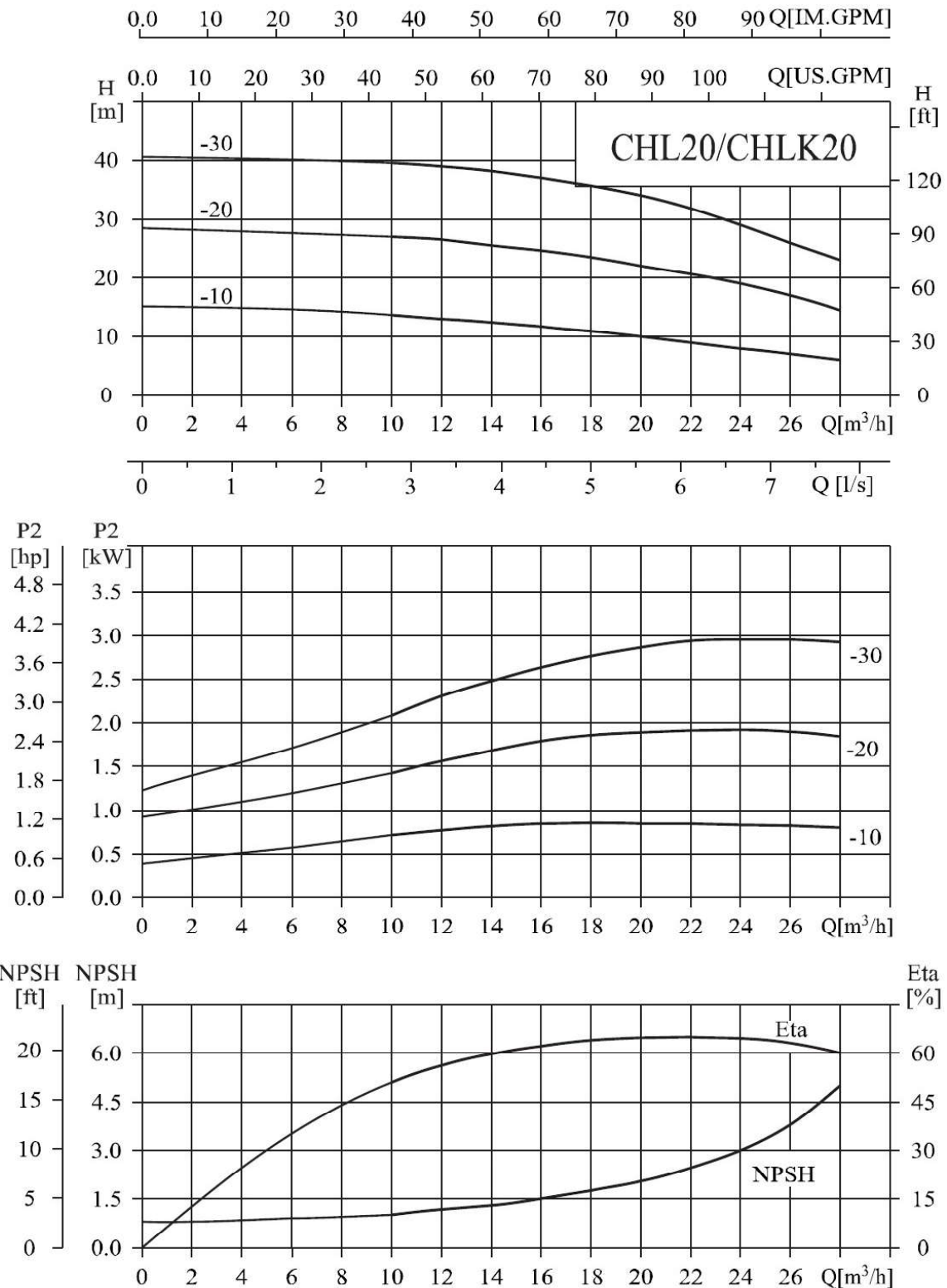


Dimensions and Weight

Motor	Model	Dimensions [mm]									Weight [kg]
		L1	L2	L3	N	E	G	D	H	K	
Three-phase/ Single-phase	CHL 15-10	530	279	176	117	264	223	151/161	225/265	91	20
	CHL 15-20	563	279	176	118	265	223	171/176	235/270	91	26
	CHL 15-30	605	279	176	128	275	223	196	259	-	34

PERFORMANCE CURVE

CHL/CHLK 20 - 50Hz

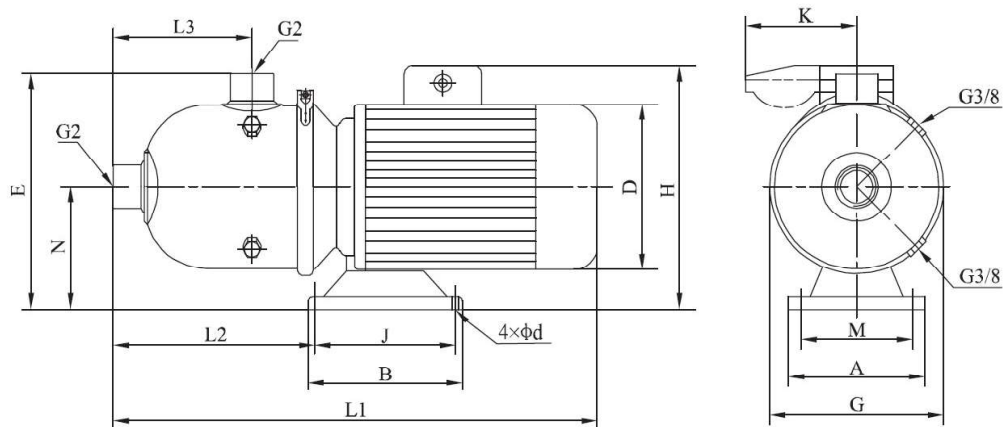


TECHNICAL DATA

CHL/CHLK 20 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	10	12	14	16	18	20	22	24	26	28
	[kW]	[hp]											
CHL 20-10	1.1	1.5	H [m]	13.5	13	12.5	12	11	10	9	8	7	6
CHL 20-10G	1.1	1.5		13.5	13	12.5	12	11	10	9	8	7	6
CHL 20-20	2.2	3		27	26.5	25.5	25	23.5	22	20.5	18.5	17	14.5
CHL 20-20G	2.2	3		27	26.5	25.5	25	23.5	22	20.5	18.5	17	14.5
CHL 20-30	4	5.5		39.5	39	38	37.5	35.5	34	31.5	29	26	23

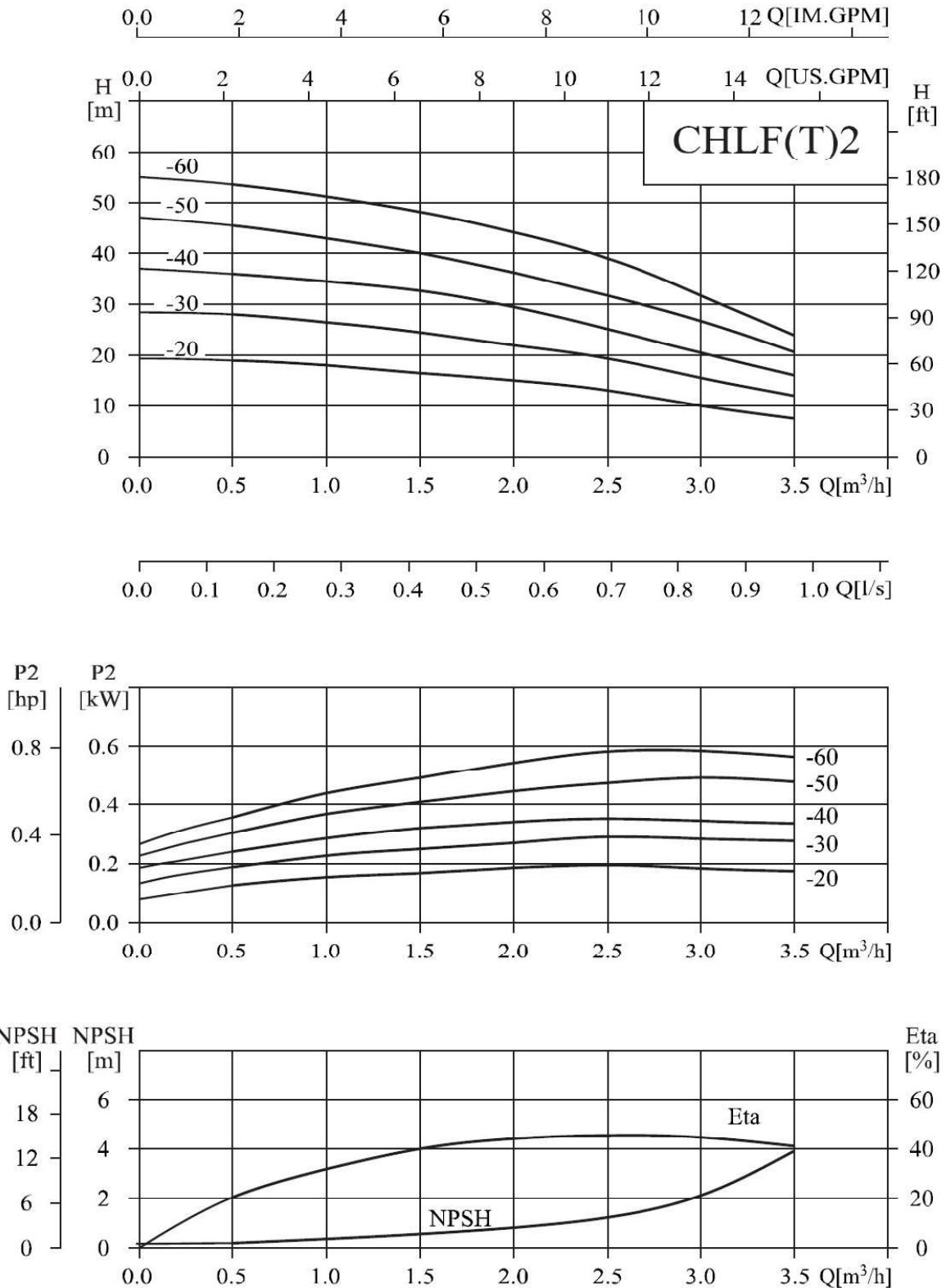


Dimensions and Weight

Motor	Model	Dimensions [mm]														Weight [kg]
		L1	L2	L3	N	E	G	A	M	B	J	d	D	H	K	
Three-phase/ Single-phase	CHL 20-10	530	279	176	117	264	223	130	108	160	138	9	151/161	230/265	91	20
	CHL 20-10G	480	199	95	117	249	193	130	108	160	138	9	151/161	230/265	91	19
	CHL 20-20	563	279	176	118	265	223	130	108	160	138	9	171/176	235/270	91	26
	CHL 20-20G	490	199	95	118	250	193	130	108	160	138	9	171/176	235/270	91	25
	CHL 20-30	612	357	176	120	267	223	220	190	170	140	12	213	270	-	40

PERFORMANCE CURVE

CHLF/CHLF(T) 2 - 50Hz

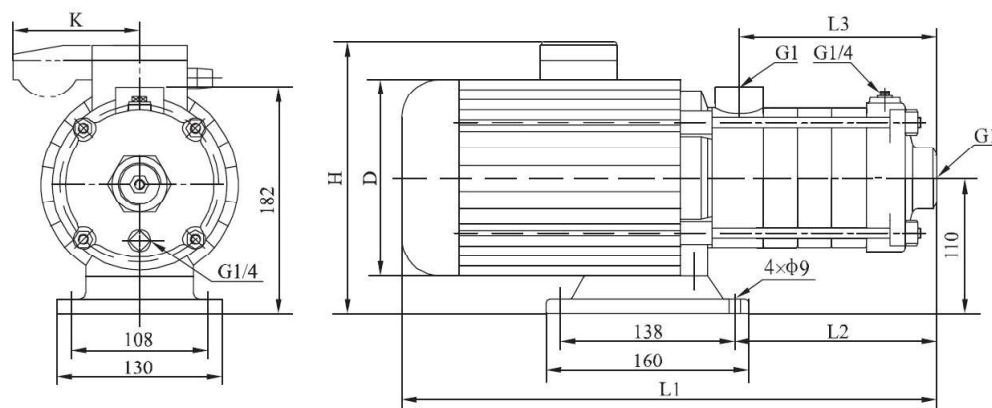


TECHNICAL DATA

CHLF/CHLF(T) 2 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	0.5	1	1.5	2	2.5	3	3.5
	[kW]	[hp]								
CHLF(T) 2-20	0.37	0.5	H [m]	19	18	16.5	15	13	10	7.5
CHLF(T) 2-30	0.37	0.5		28	26.5	24.5	22	19	15.5	12
CHLF(T) 2-40	0.55	0.75		36	34.5	33	29	25	20.5	16
CHLF(T) 2-50	0.55	0.75		45.5	43	40	36	31.5	26.5	20.5
CHLF(T) 2-60	0.75	1		53.5	51	48	44	39	32	24

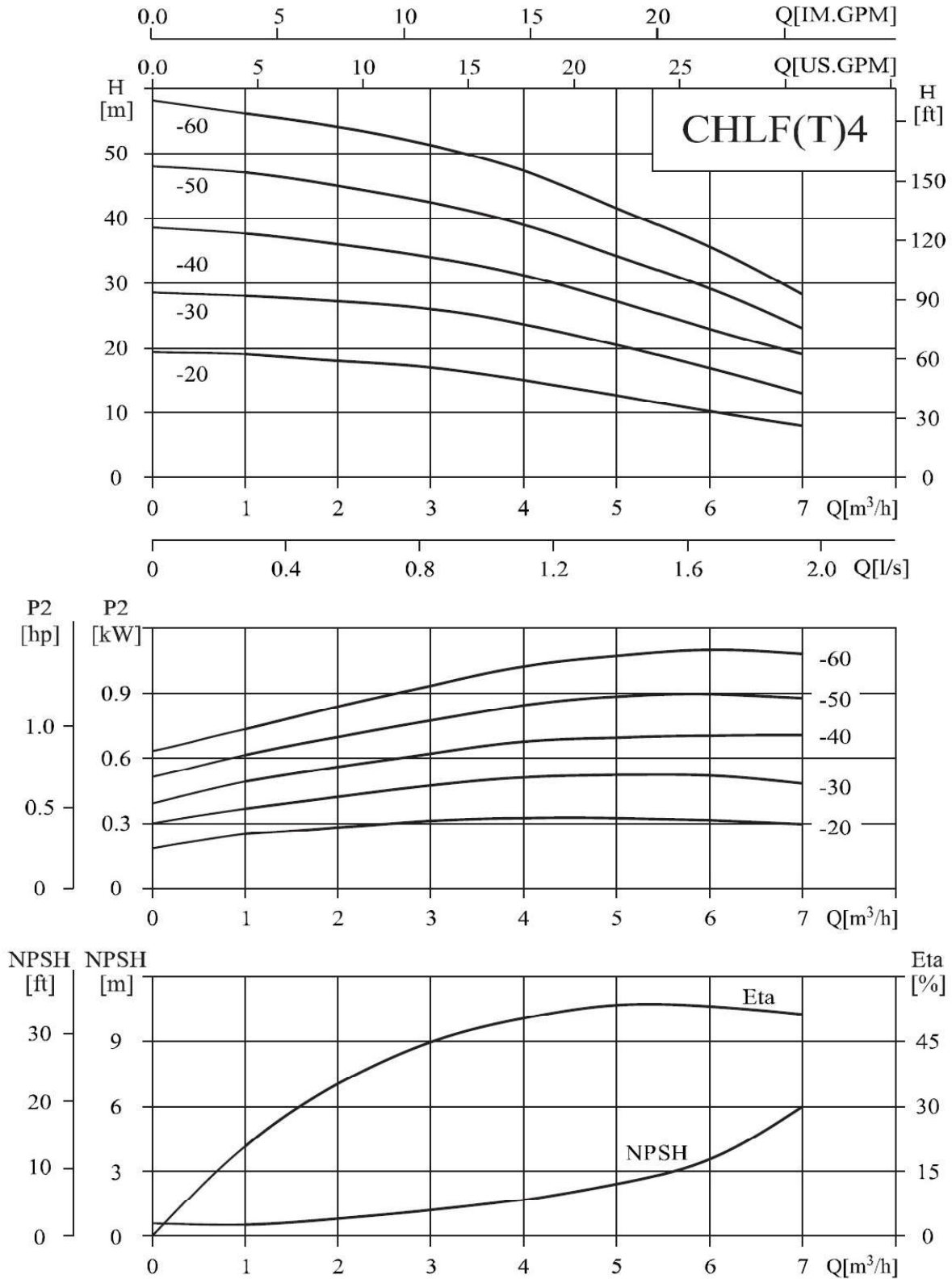


Dimensions and Weight

Motor	Model	Dimensions [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

PERFORMANCE CURVE

CHLF/CHLF(T) 4 - 50Hz

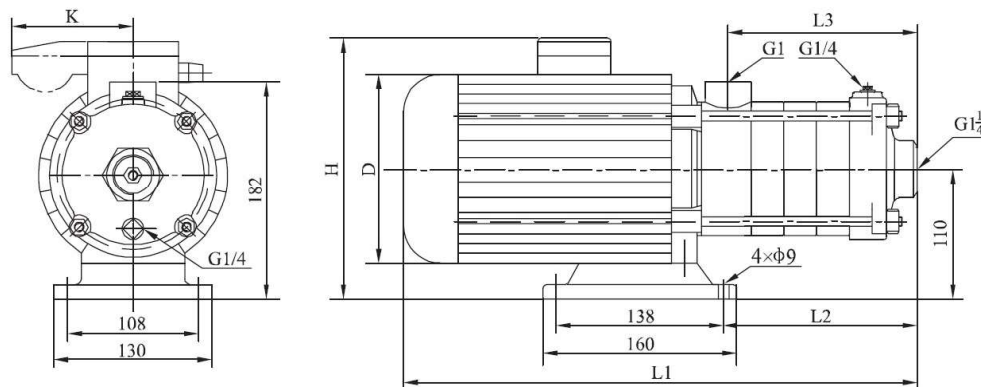


TECHNICAL DATA

CHLF/CHLF(T) 4 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	1	2	3	4	5	6	7
	[kW]	[hp]								
CHLF(T) 4-20	0.37	0.5	H [m]	19	18	17	15	12.5	10	8
CHLF(T) 4-30	0.55	0.75		28	27	26	23.5	20.5	17	13
CHLF(T) 4-40	0.75	1		37.5	36	34	31	27	23	19
CHLF(T) 4-50	1.1	1.5		47	45	42.5	39	34	29	23
CHLF(T) 4-60	1.1	1.5		56	54	51	47	41.5	35.5	28

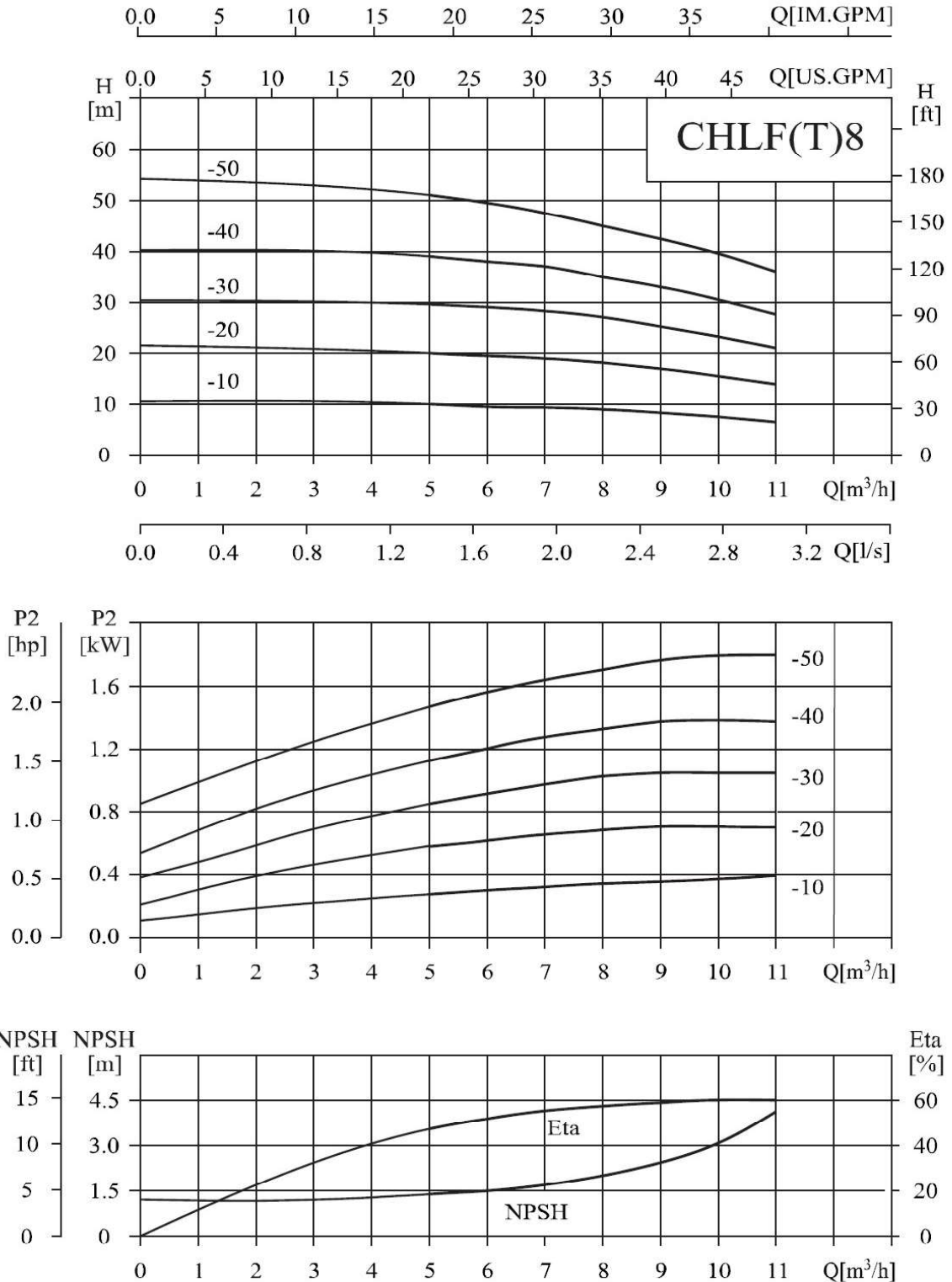


Dimensions and Weight

Motor	Model	Dimensions [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

PERFORMANCE CURVE

CHLF/CHLF(T) 8 - 50Hz

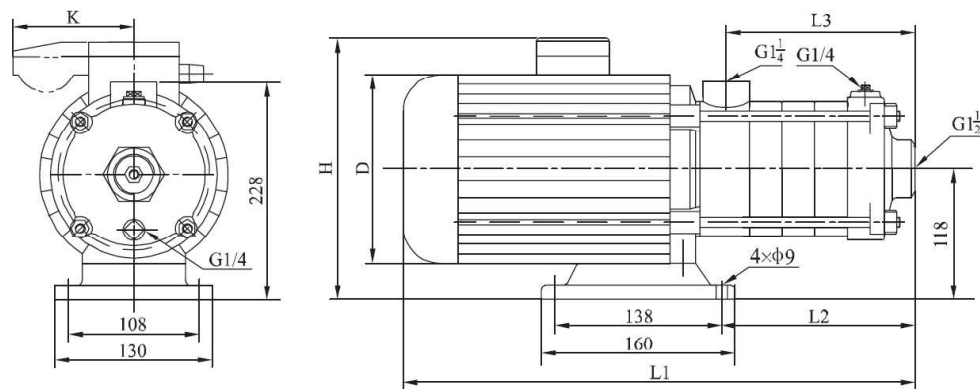


TECHNICAL DATA

CHLF/CHLF(T) 8 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	5	6	7	8	9	10	11
	[kW]	[hp]								
CHLF(T) 8-10	0.75	1	H [m]	10	9.5	9.3	9	8	7.5	7
CHLF(T) 8-20	0.75	1		20	19.5	19	18	17	15.5	14
CHLF(T) 8-30	1.1	1.5		29.5	29	28	27	25	23	21
CHLF(T) 8-40	1.5	2		39	38	37	36	33	30.5	27.5
CHLF(T) 8-50	2.2	3		51	49.5	47.5	45	42.5	39.5	36

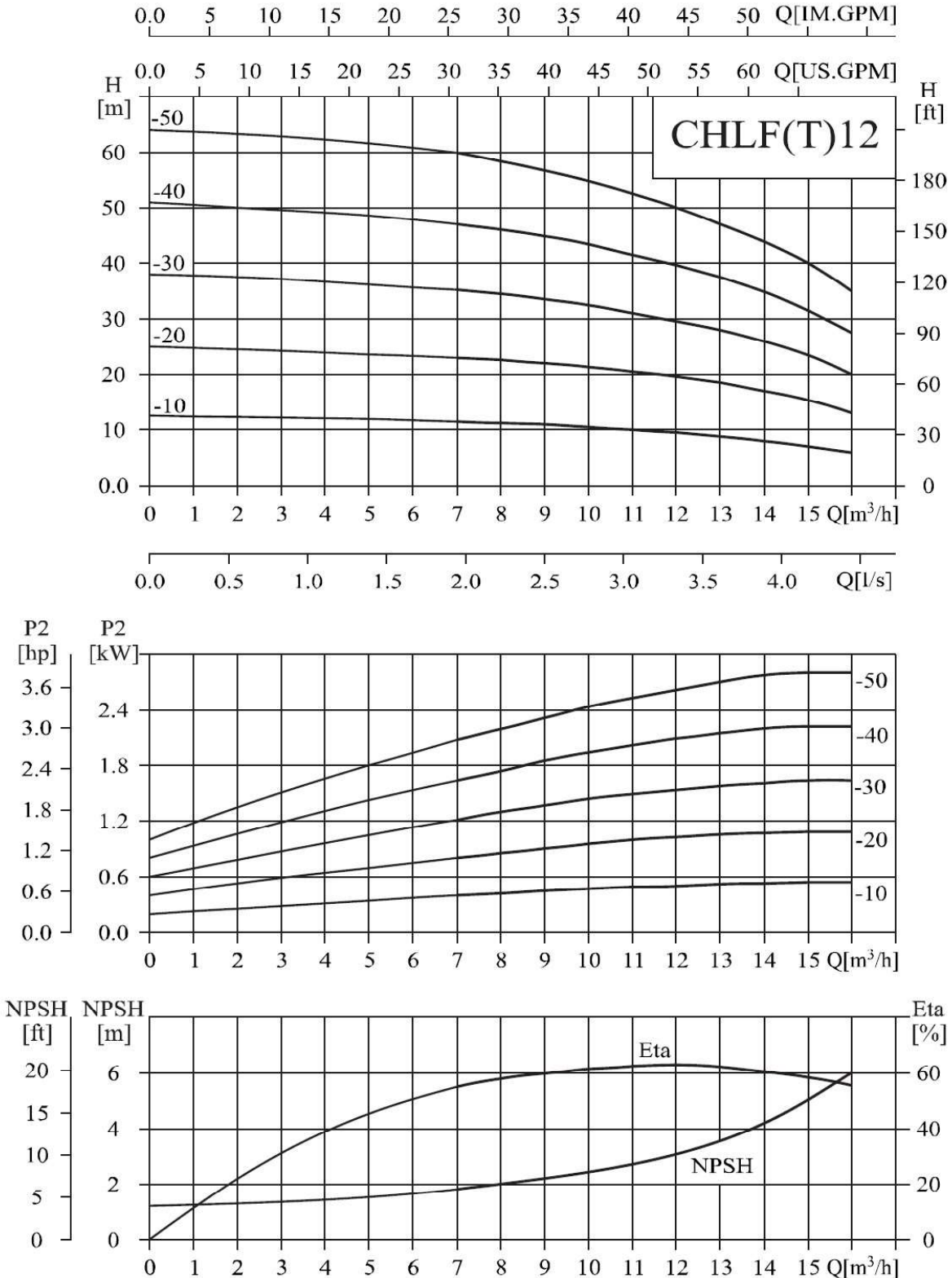


Dimensions and Weight

Motor	Model	Dimensions [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	156	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

PERFORMANCE CURVE

CHLF/CHLF(T) 12 - 50Hz

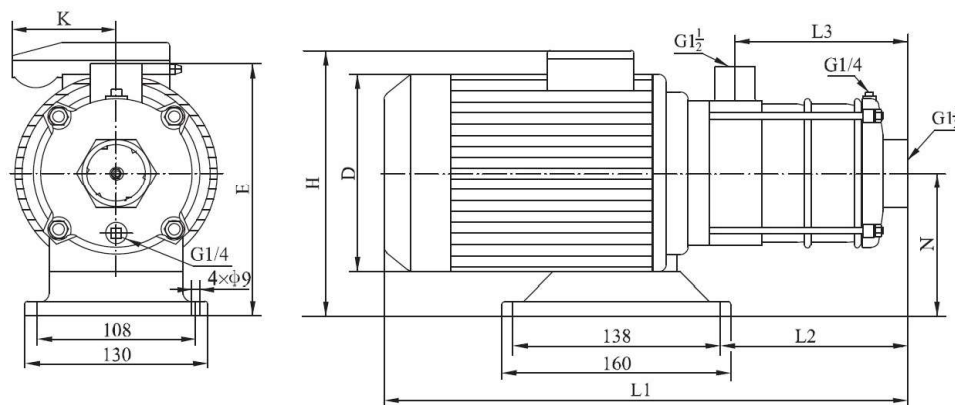


TECHNICAL DATA

CHLF/CHLF(T) 12 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	7	8	9	10	11	12	13	14	15	16
	[kW]	[hp]											
CHLF(T) 12-10	0.75	1	H [m]	11.5	11.2	11	10.5	10	9.5	9	8	7	6
CHLF(T) 12-20	1.2	1.6		23	22.5	22	21.5	20.5	19.5	18.5	17	15.5	13
CHLF(T) 12-30	1.8	2.4		35	34.5	33.5	32.5	31	29.5	28	26	23.5	20
CHLF(T) 12-40	2.4	3.3		47	46	45	43.5	41.5	39.5	37.5	35	31.5	27.5
CHLF(T) 12-50	3	4		60	58	56.5	55	52.5	50	47	44	40	35

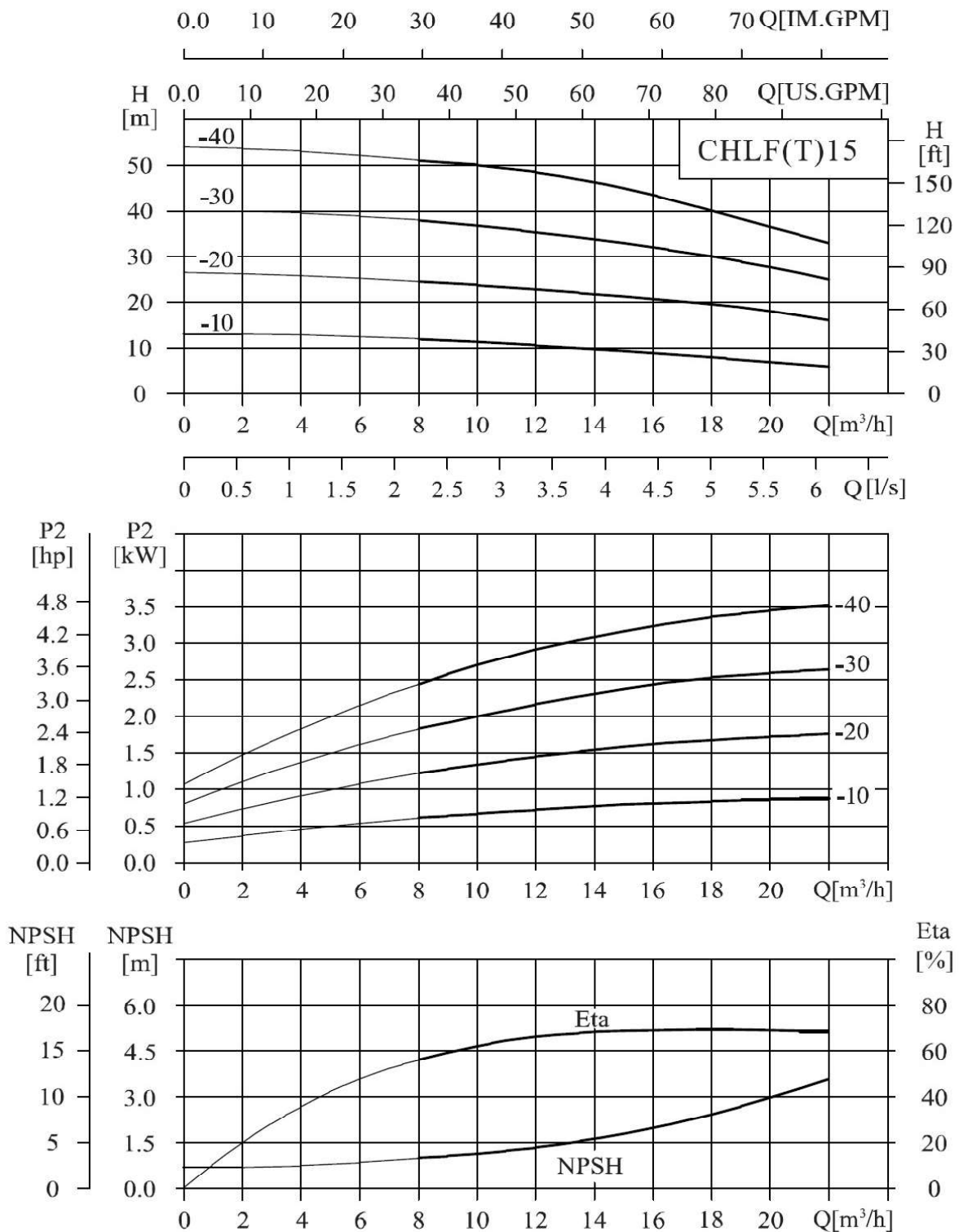


Dimensions and Weight

Motor	Model	Dimensions [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	29
	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

PERFORMANCE CURVE

CHLF/CHLF(T) 15 - 50Hz

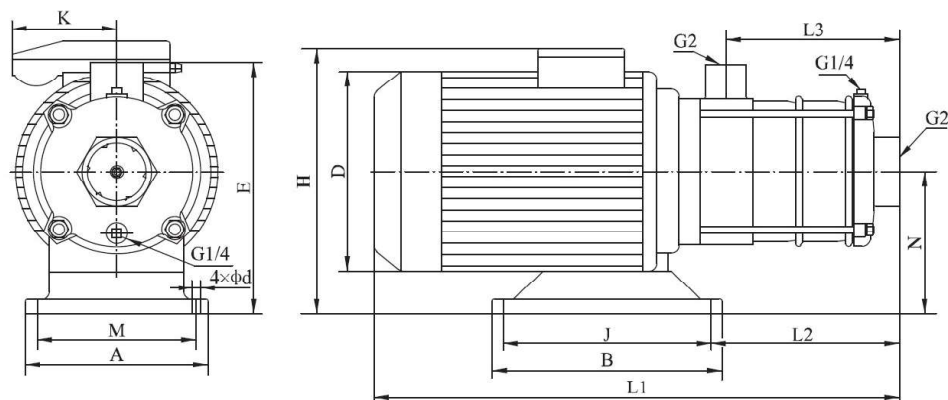


TECHNICAL DATA

CHLF/CHLF(T) 15 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	8	10	12	14	15	16	18	20	22
	[kW]	[hp]										
CHLF(T) 15-10	1.1	1.5	H [m]	12	11	10.5	9.5	9	8.5	7.5	6.5	6
CHLF(T) 15-20	1.2	3		24.5	24	23	22	21	20.5	19	18	16
CHLF(T) 15-30	3	4		38	37	35.5	34	33	32	30	28	25
CHLF(T) 15-40	4	5.5		51	50	48	46	45	43	40	37	33

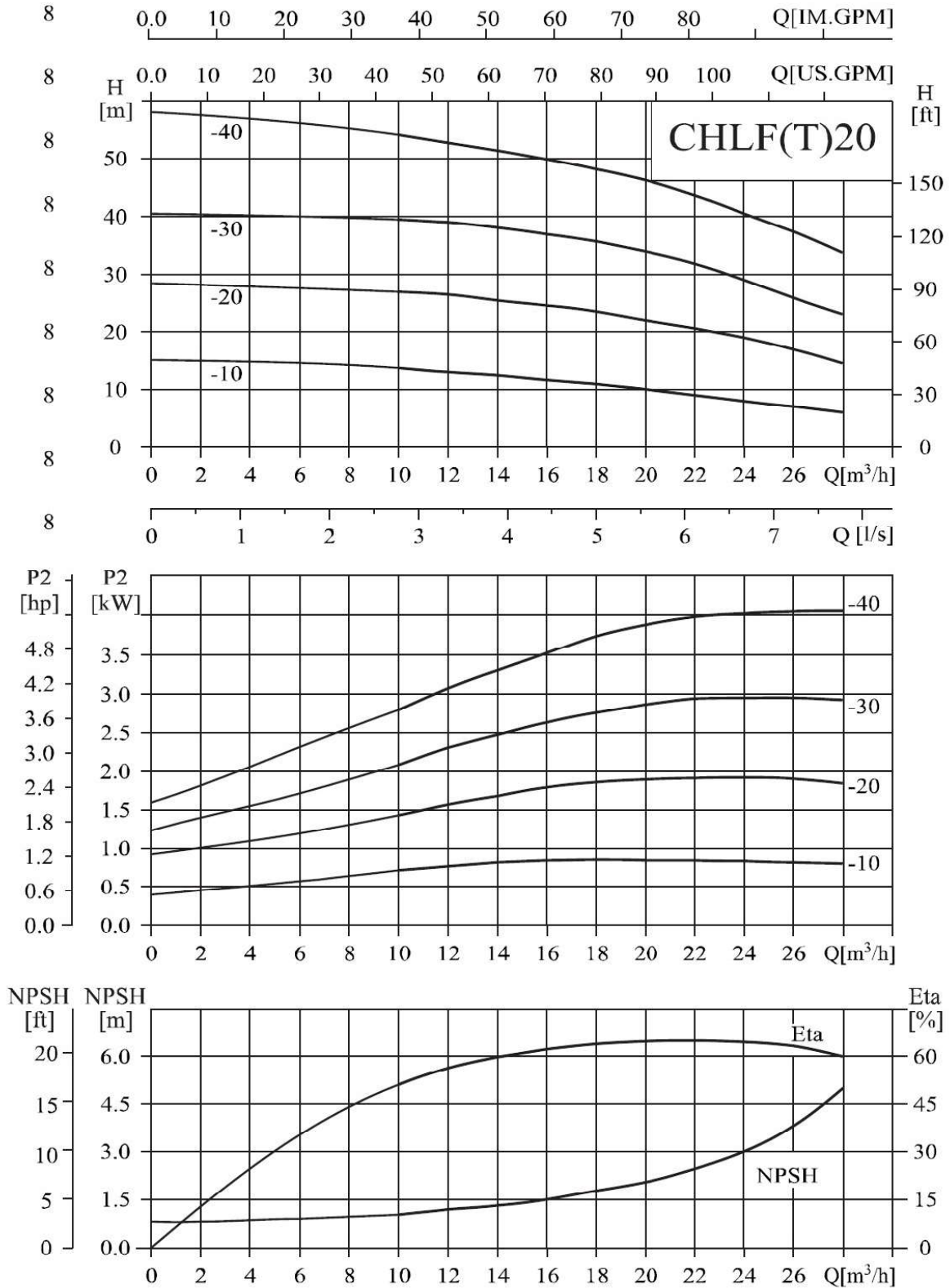


Dimensions and Weight

Motor	Model	Dimensions [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	109	170	140	12	-	41

PERFORMANCE CURVE

CHLF/CHLF(T) 20 - 50Hz

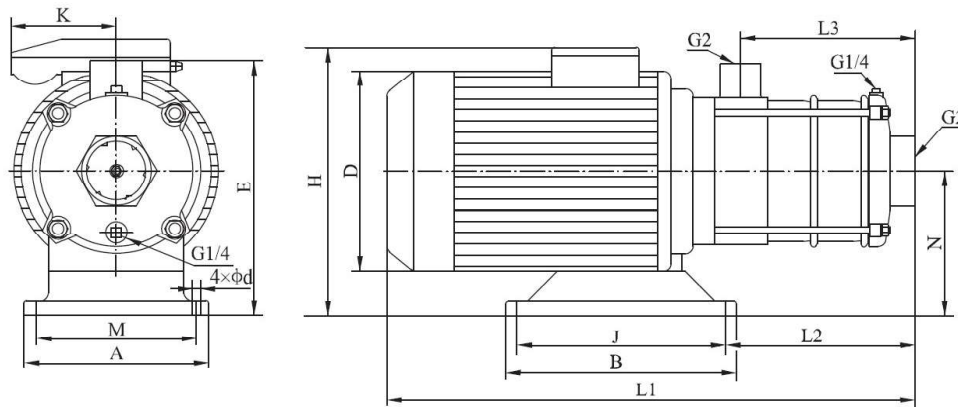


TECHNICAL DATA

CHLF/CHLF(T) 20 - 50Hz

Performance Table

Model	Motor		Q [m³/h]	10	12	14	16	18	20	22	24	26	28
	[kW]	[hp]											
CHLF(T) 20-10	1.1	1.5	H [m]	13.5	13	12.5	12	11	10	9	8	7	6
CHLF(T) 20-20	2.2	3		27	26.5	25.5	25	23.5	22	20.5	18.5	17	14.5
CHLF(T) 20-30	4	5.5		39.5	39	38	37.5	35.5	34	31.5	29	26	23
CHLF(T) 20-40	4.4	6		53	52	51	50	48.5	46.5	43	40	36	32.5



Dimensions and Weight

Motor	Model	Dimensions [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

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