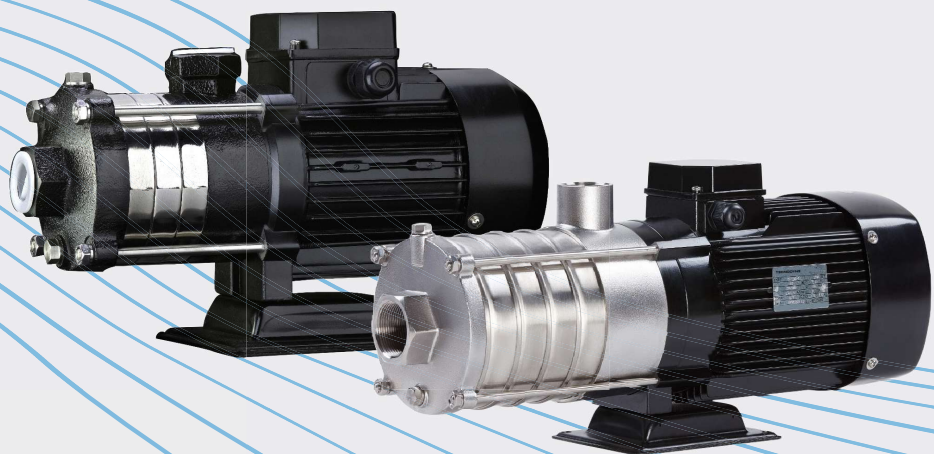


CHL, CHLF Series

Horizontal Multistage Pumps 60Hz

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

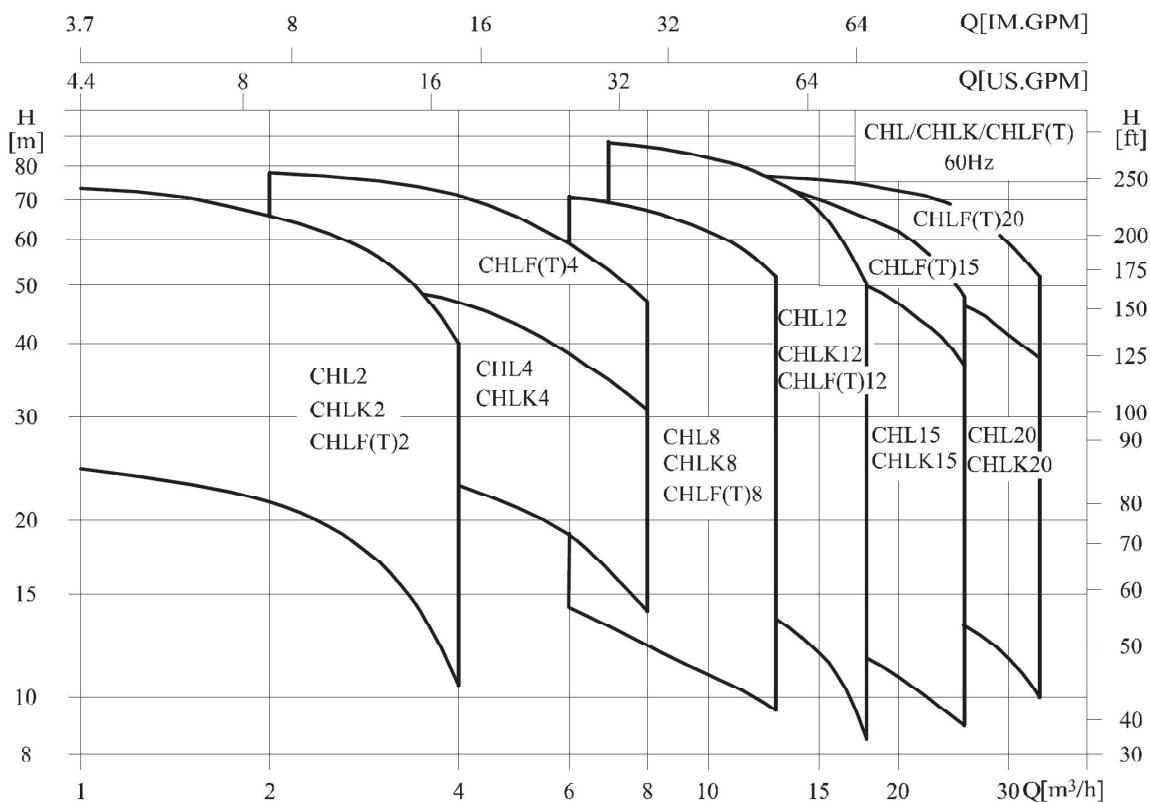
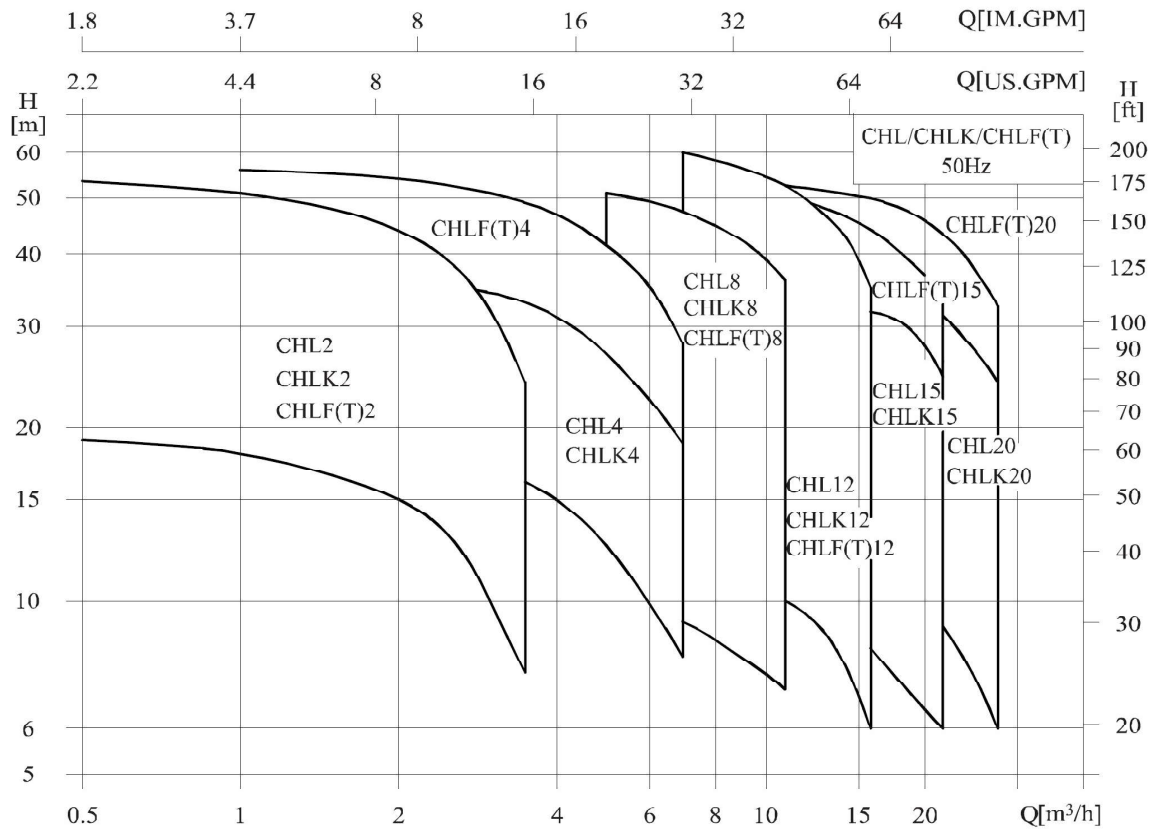
Curve Conditions

- 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

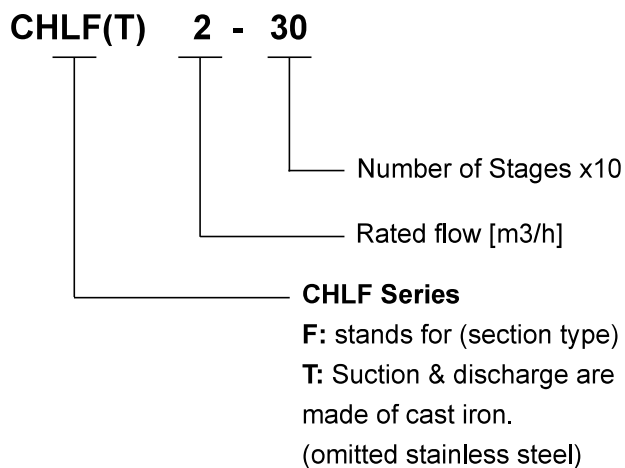
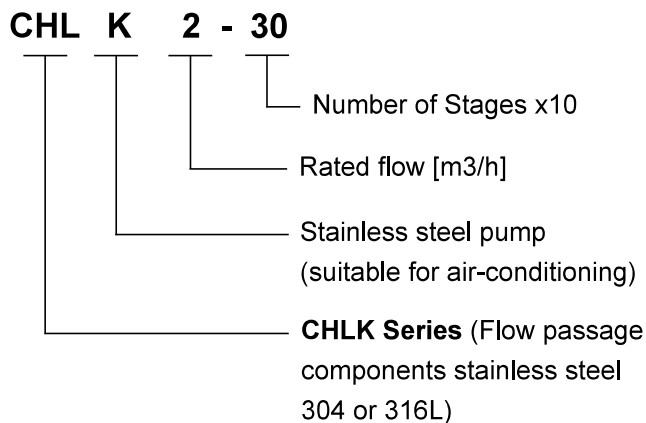
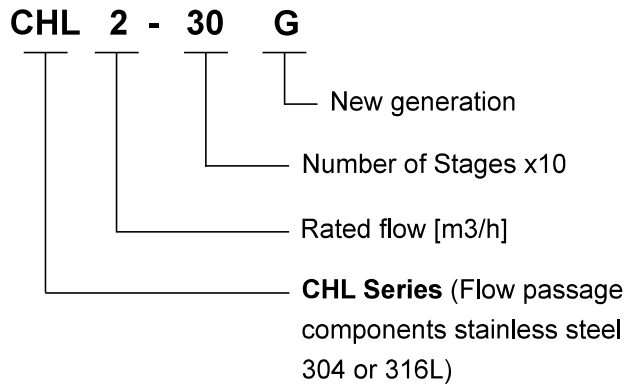
50/60Hz



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

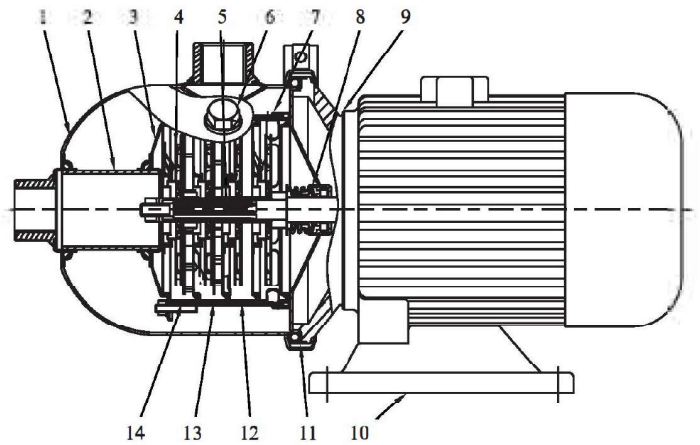
Material CHLF/CHLF(T)

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

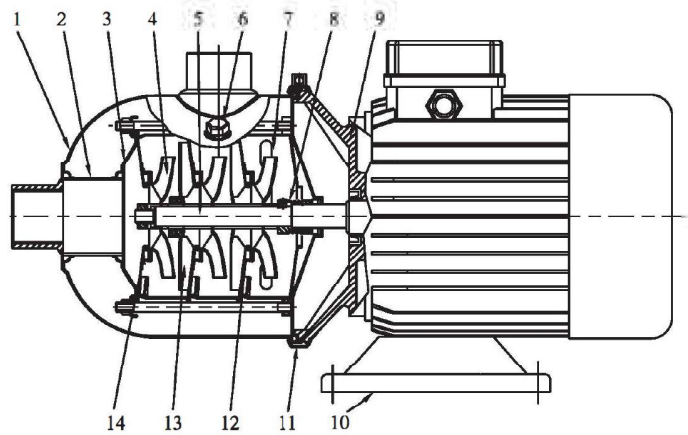
SECTION DRAWINGS

CHL, CHLK, CHLF & CHLF(T)

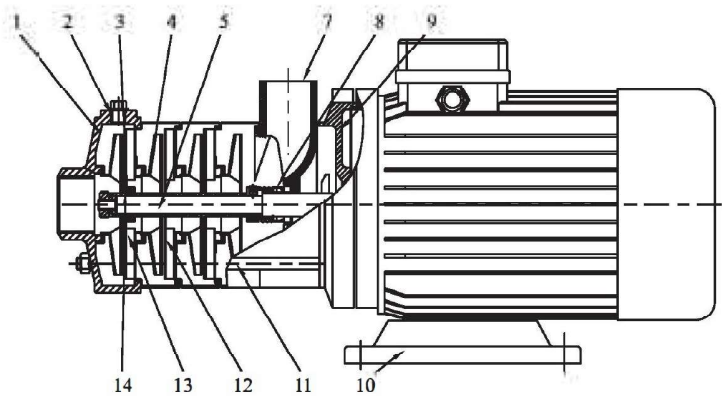
Section Drawing CHL, CHLK 2, 4



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

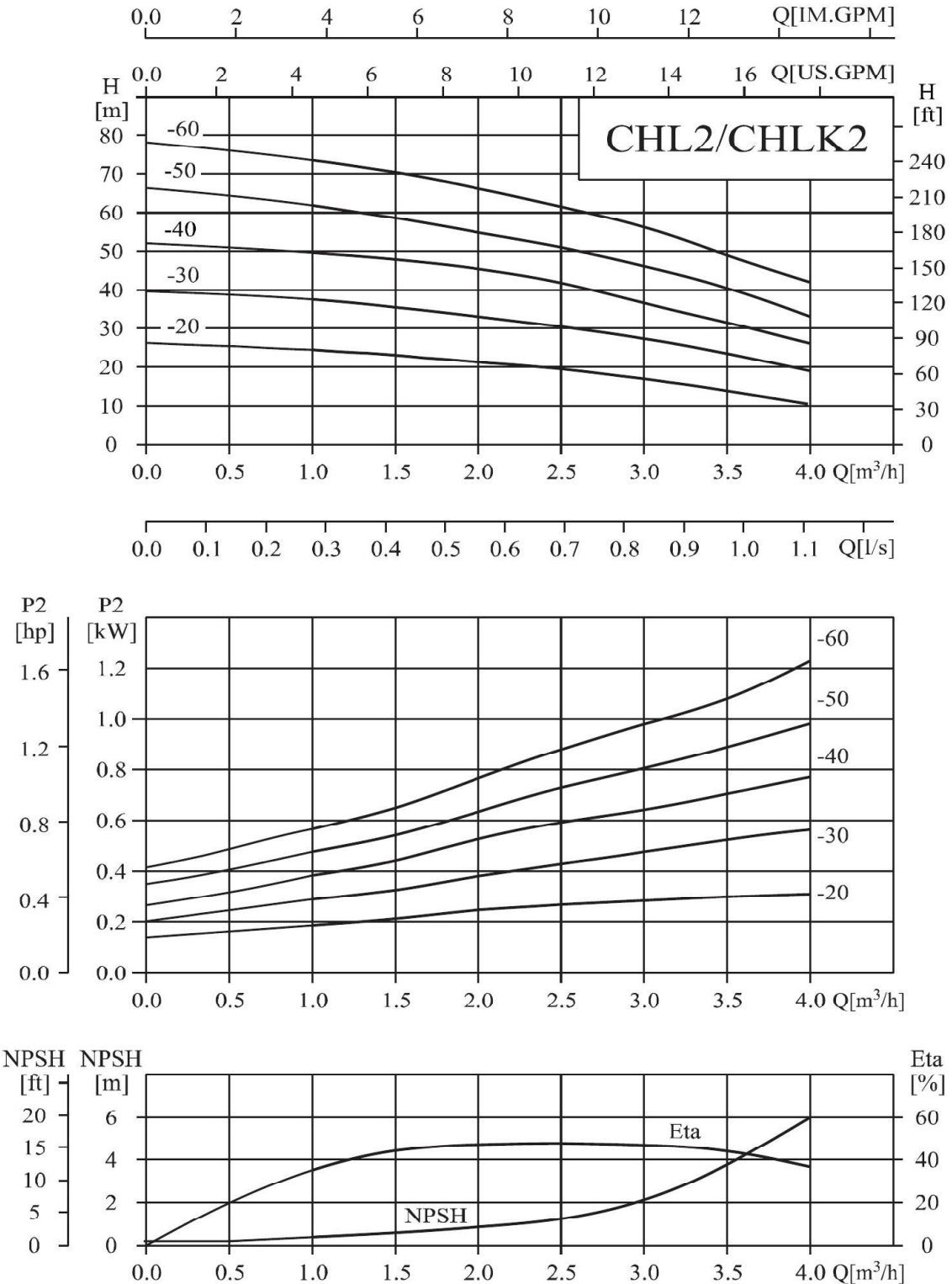


Section Drawing CHLF, CHLF(T)



PERFORMANCE CURVE

CHL/CHLK 2 - 60Hz

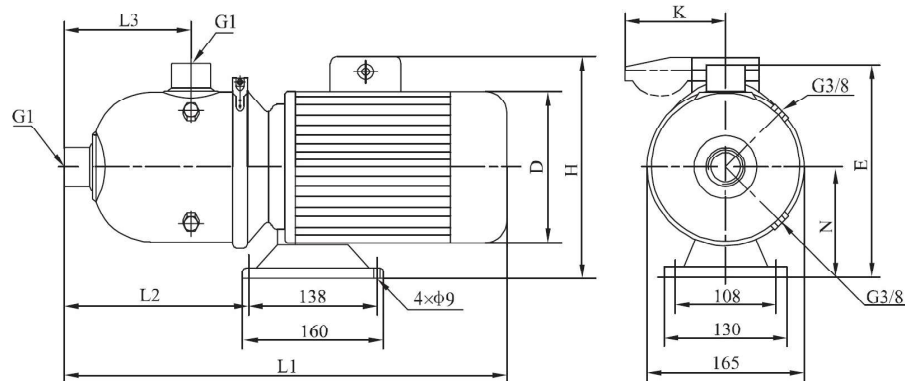


TECHNICAL DATA

CHL/CHLK 2 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	1	1.5	2	2.5	3	3.5	4
	[kW]	[hp]								
CHL 2-20	0.55	0.75	H [m]	24.5	23	21.5	19.5	17	14	10.5
CHL 2-20G	0.55	0.75		24.5	23	21.5	19.5	17	14	10.5
CHL 2-30	0.75	1		37.5	35.5	33	30.5	27.5	23.5	19
CHL 2-30G	0.75	1		37.5	35.5	33	30.5	27.5	23.5	19
CHL 2-40	1.1	1.5		49.5	48	45.5	42	36	32	26
CHL 2-40G	1.1	1.5		49.5	48	45.5	42	36	32	26
CHL 2-50	1.1	1.5		62	58.5	55	51	46	40.5	33
CHL 2-60	1.1	1.5		73.5	70.5	66	61.5	56	49	40

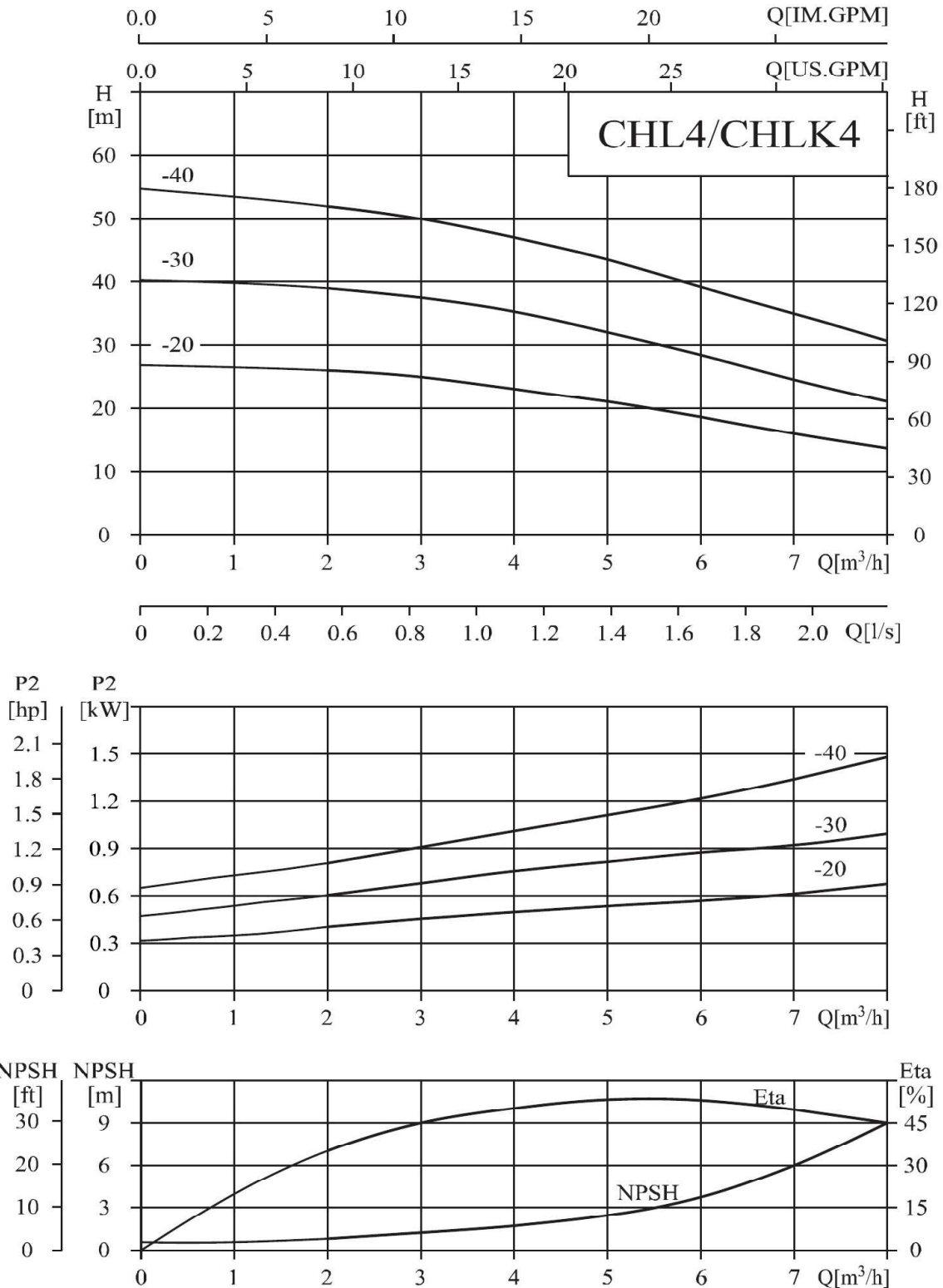


Dimensions and Weight

Motor	Model	Dimensions [mm]								Weight [kg]
		L1	L2	L3	H	N	D	E	K	
Three-phase/ single-phase	CHL 2-20	400	165	125	215/249	110	141	215	/62	13
	CHL 2-20G	360	125	85	215/249	110	141	215	/62	13
	CHL 2-30	420	165	125	230/265	110	151/161	215	/91	13
	CHL 2-30G	380	125	85	230/265	110	151/161	215	/91	13
	CHL 2-40	420	165	125	230/265	110	151/161	215	/91	15
	CHL 2-40G	380	125	85	230/265	110	151/161	215	/91	15
	CHL 2-50	420	165	125	230/265	110	151/161	215	/91	15
	CHL 2-60	420	165	125	230/265	110	151/161	215	/91	15

PERFORMANCE CURVE

CHL/CHLK 4 - 60Hz

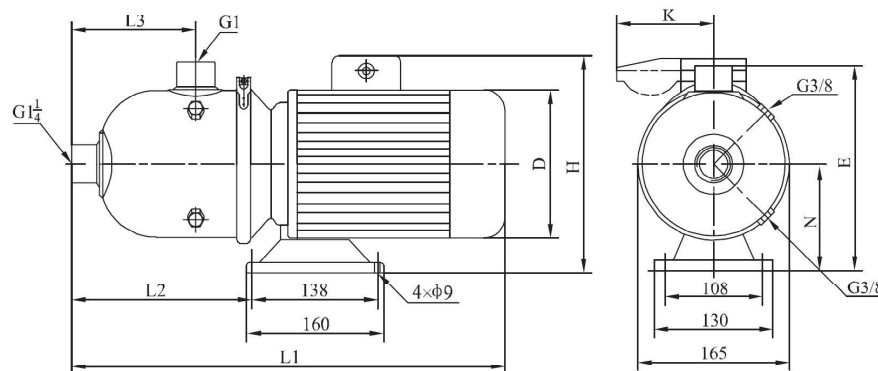


TECHNICAL DATA

CHL/CHLK 4 - 60Hz

Performance Table

Model	Motor		Q [m ³ /h]	2	3	4	5	6	7	8
	[kW]	[hp]								
CHL 4-20	0.75	1	H [m]	26	25	23	21	19	16	14
CHL 4-20G	0.75	1		26	25	23	21	19	16	14
CHL 4-30	1.1	1.5		39	37.5	36	32	28	24	21
CHL 4-40	1.5	2		52	50	47	43.5	38.5	35	31

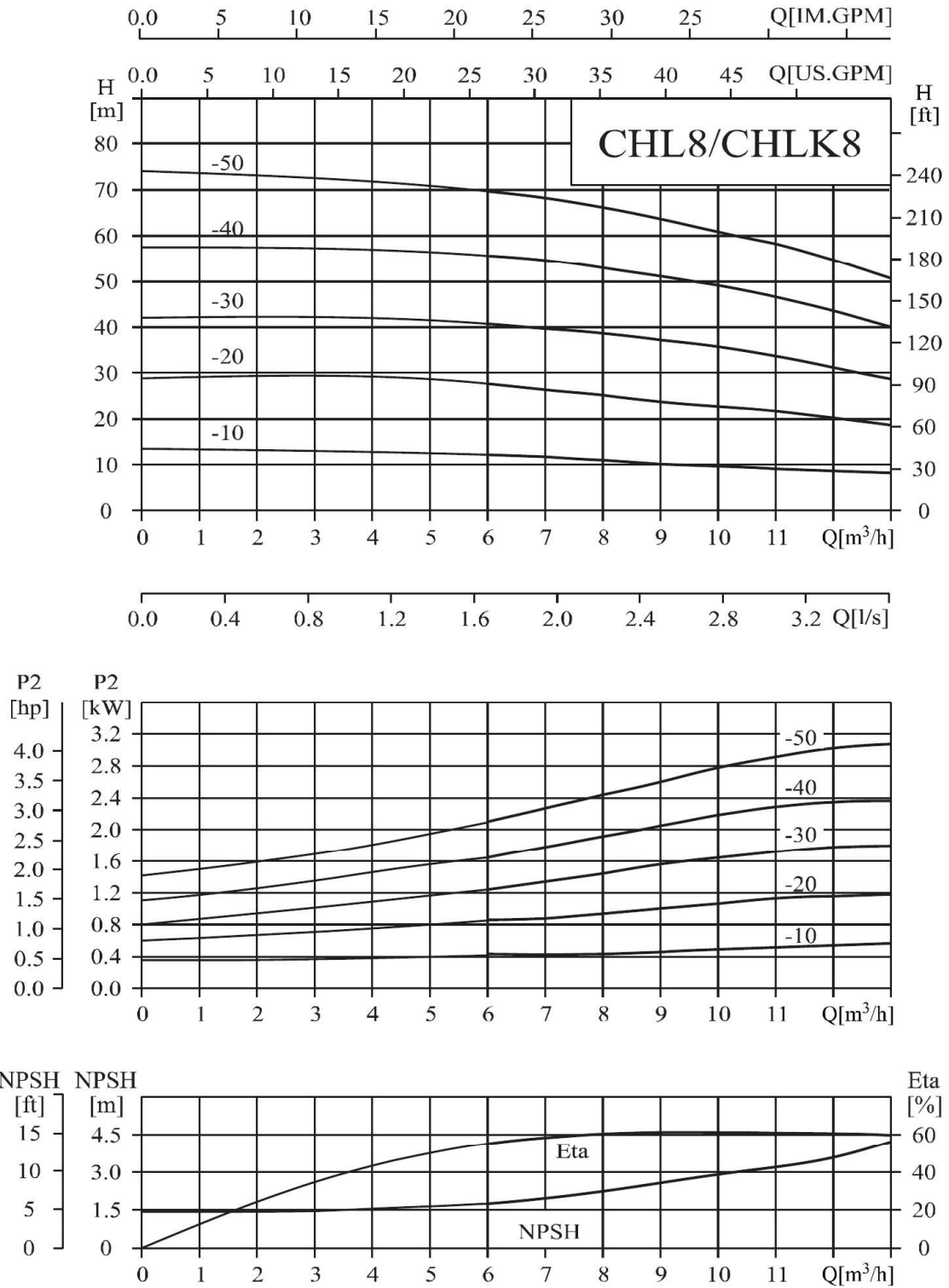


Dimensions and Weight

Motor	Model	Dimensions [mm]								Weight [kg]
		L1	L2	L3	H	N	D	E	K	
Three-phase/ single-phase	CHL 4-20	420	172	132	230/265	110	151/161	215	/91	12
	CHL 4-20G	380	132	92	230/265	110	151/161	215	/91	12
	CHL 4-30	420	172	132	230/265	110	151/161	215	/91	15
	CHL 4-40	470	172	132	235/270	110	171/176	215	/91	20

PERFORMANCE CURVE

CHL/CHLK 8 - 60Hz

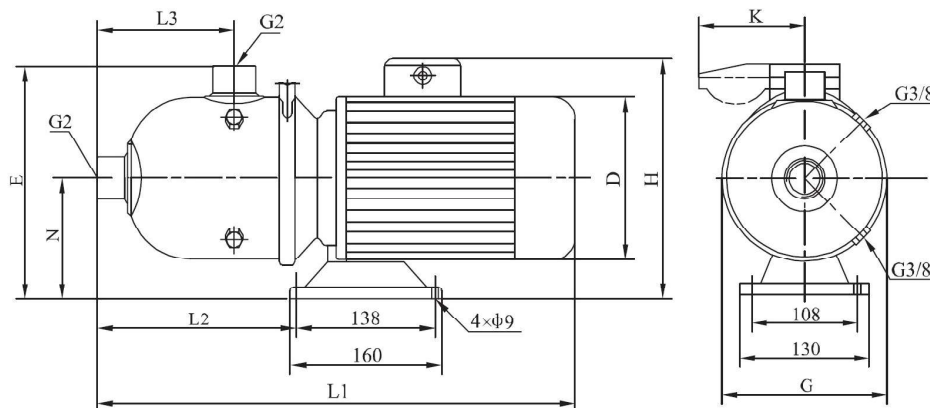


TECHNICAL DATA

CHL/CHLK 8 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	6	7	8	9	10	11	12	13
	[kW]	[hp]									
CHL 8-10	0.75	1	H [m]	14.5	13	12	11.5	11	10.5	10	9.5
CHL 8-10G	0.75	1		14.5	13	12	11.5	11	10.5	10	9.5
CHL 8-20	1.5	2		29	27	26	25	24	23	21.5	20
CHL 8-20G	1.5	2		29	27	26	25	24	23	21.5	20
CHL 8-30	2.2	3		42	41	40	39	37	35	33	30
CHL 8-30G	2.2	3		42	41	40	39	37	35	33	30
CHL 8-40	3	4		55.5	54.5	53	51	49	46.5	43.5	40
CHL 8-50	3	4		71	69.5	67.5	65	63	59	56	52

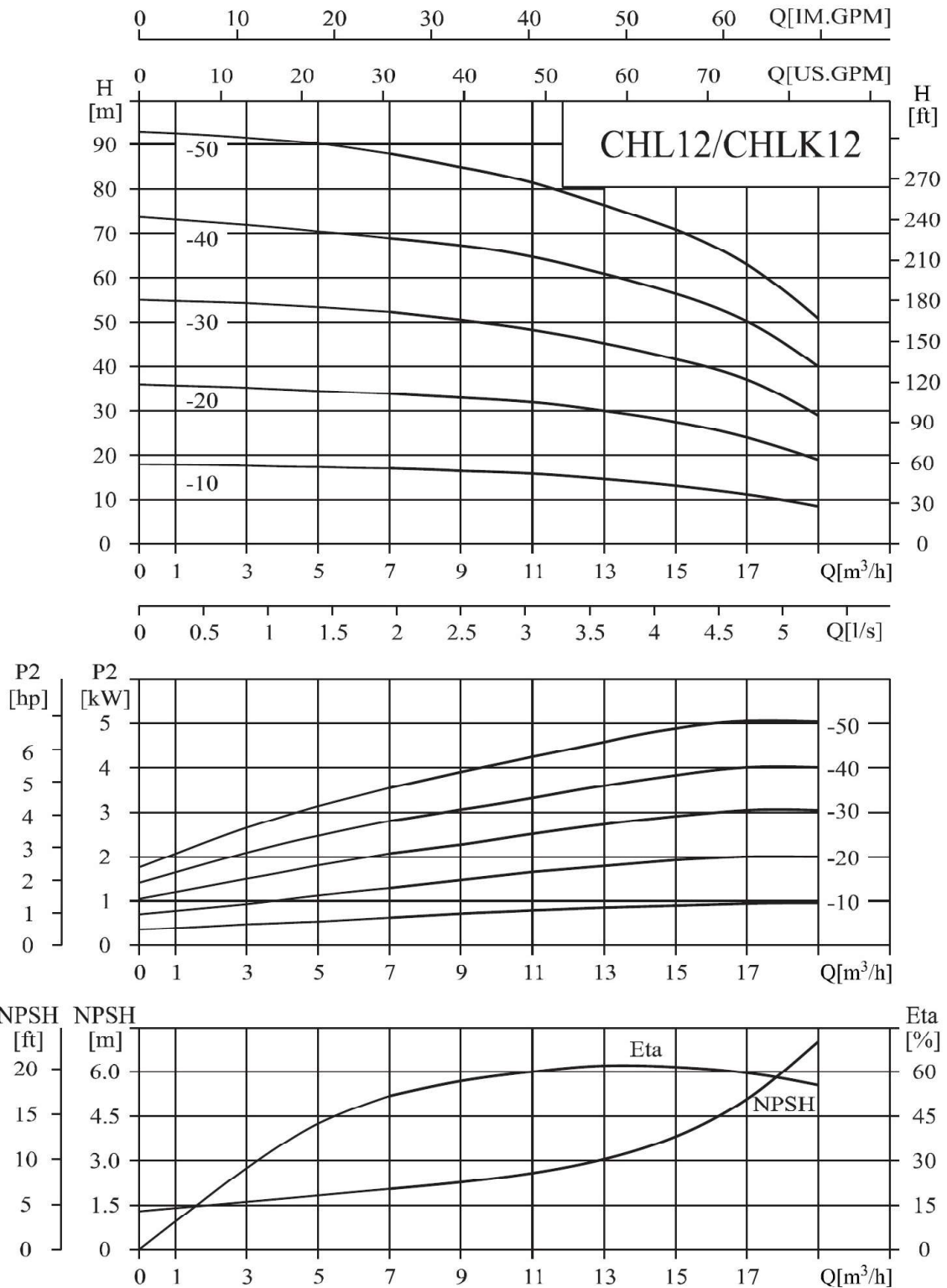


Dimensions and Weight

Motor	Model	Dimensions [mm]									Weight [kg]
		L1	L2	L3	N	E	G	D	H	K	
Three-phase/ single-phase	CHL 8-10	530	279	176	117	264	223	151/161	230/265	/91	20
	CHL 8-10G	480	199	95	117	249	193	151/161	230/265	/91	19.5
	CHL 8-20	563	279	176	118	265	223	171/176	235/270	/91	25
	CHL 8-20G	490	199	95	118	250	193	171/176	235/270	/91	24.5
	CHL 8-30	563	279	176	118	265	223	171/176	235/270	/91	25
	CHL 8-30G	490	199	95	118	250	193	171/176	235/270	/91	24.5
	CHL 8-40	605	269	176	128	275	223	196/	259/	-	30
	CHL 8-50	605	269	176	128	275	223	196/	259/	-	30

PERFORMANCE CURVE

CHL/CHLK 12 - 60Hz

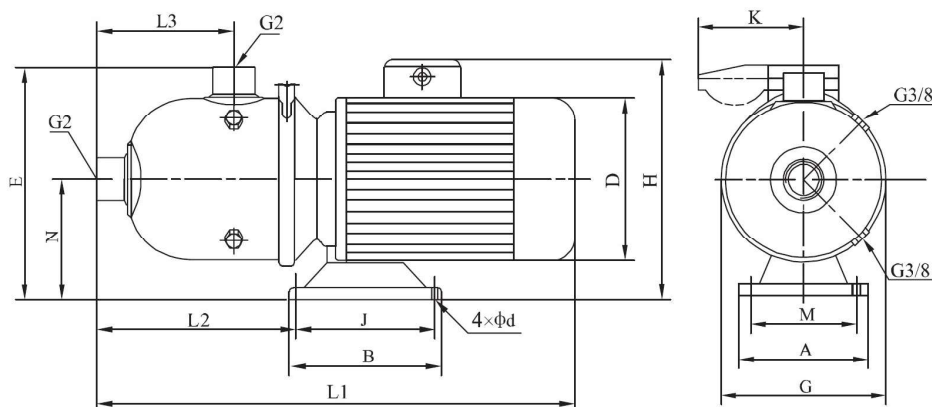


TECHNICAL DATA

CHL/CHLK 12 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	7	9	11	12	13	15	17	19
	[kW]	[hp]									
CHL 12-10	1.1	1.5	H [m]	17	16	15	14.5	14	12.5	11	8.5
CHL 12-10G	1.1	1.5		17	16	15	14.5	14	12.5	11	8.5
CHL 12-20	2.2	3		34	33	32	31	30	27	24.5	19
CHL 12-20G	2.2	3		34	33	32	31	30	27	24.5	19
CHL 12-30	3	4		52.5	50	48.5	47	45	41.5	37.5	29
CHL 12-30G	3	4		52.5	50	48.5	47	45	41.5	37.5	29
CHL 12-40	4	5.5		69	67.5	65	63	60.5	55	49.5	40
CHL 12-50	5.5	7.5		88	85	82	80	76	70	62	50.5

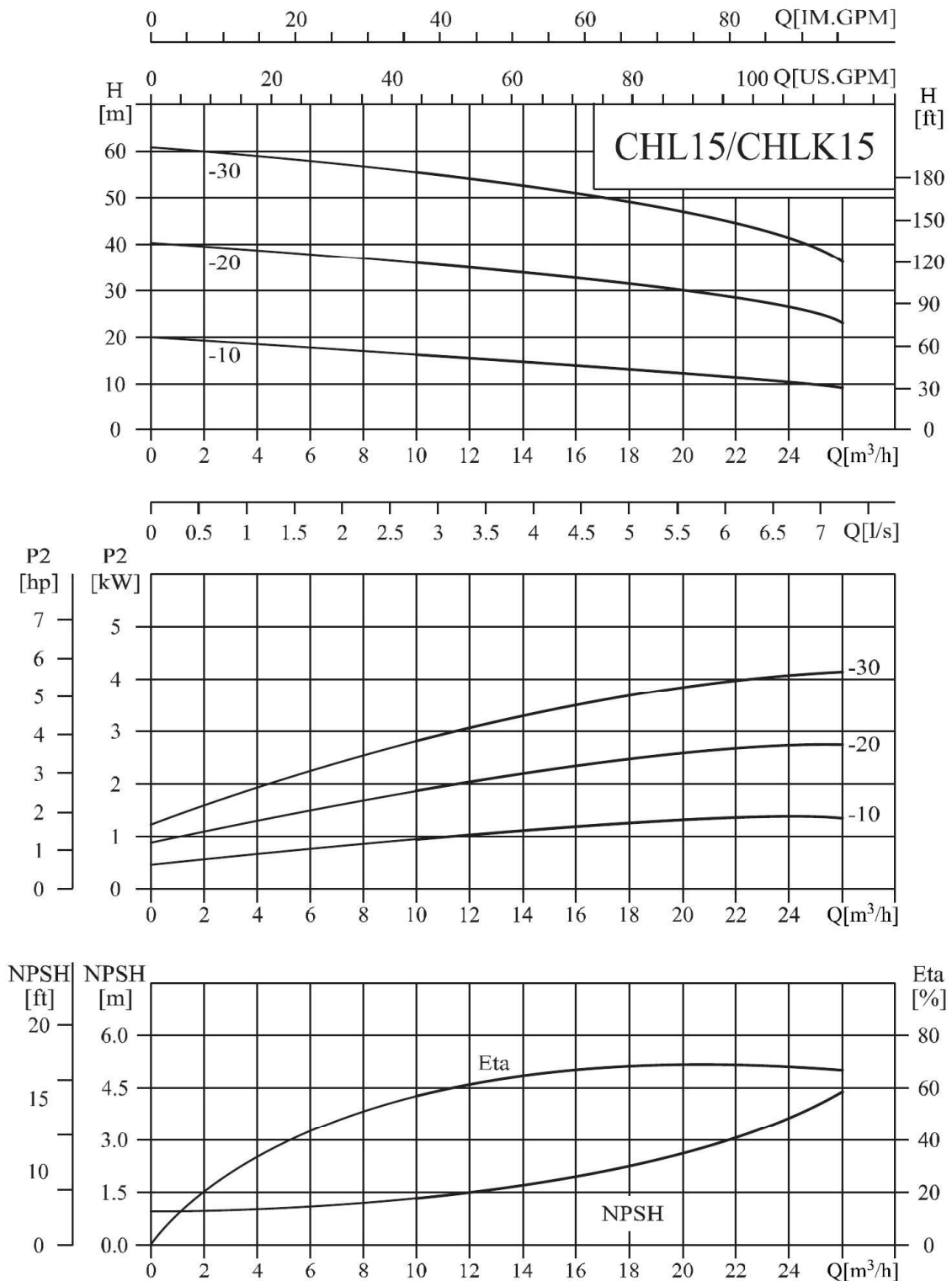


Dimensions and Weight

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 12-10	530	279	176	117	264	223	130	108	160	138	9	151/161	230/265	/91	22
	CHL 12-10G	480	199	95	117	249	193	130	108	160	138	9	151/161	230/265	/91	21.5
	CHL 12-20	563	279	176	118	265	223	130	108	160	138	9	171/176	235/270	/91	25
	CHL 12-20G	490	199	95	118	250	193	130	108	160	138	9	171/176	235/270	/91	24
	CHL 12-30	612	279	176	118	265	223	130	108	160	138	9	196/	259/	-	32
	CHL 12-30G	530	199	95	118	250	193	130	108	160	138	9	196/	259/	-	31.5
	CHL 12-40	612	357	176	120	267	223	220	190	170	140	12	213/	270/	-	44
	CHL 12-50	661	369	176	132	279	223	248	216	190	140	12	255/	300/	-	58

PERFORMANCE CURVE

CHL/CHLK 15 - 60Hz

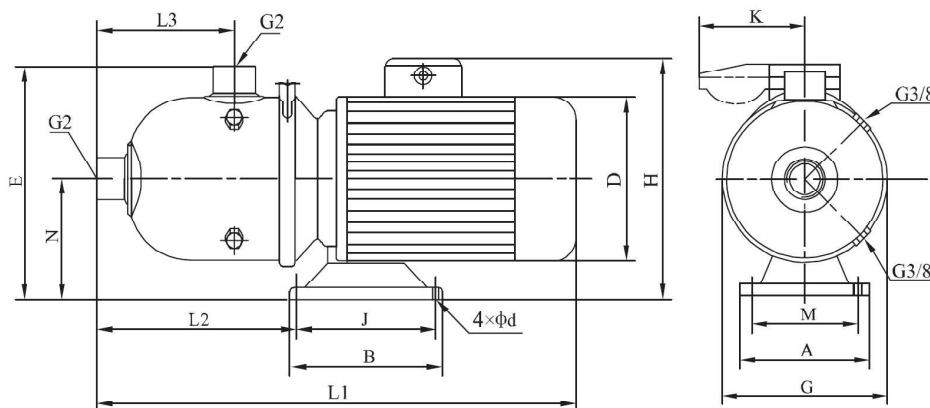


TECHNICAL DATA

CHL/CHLK 15 - 60Hz

Performance Table

Model	Motor		Q [m ³ /h]	10	12	14	15	16	18	20	22	24	26
	[kW]	[hp]		H [m]									
CHL 15-10	1.5	2	H [m]	17	15.5	14.5	14	13.5	13	12	11	10	9
CHL 15-20	3	4		35.5	34.5	33.5	33	32.5	31	30	28	26	23
CHL 15-30	4	5.5		55	53.5	52.5	51.5	51	49	47	44	41	36.5

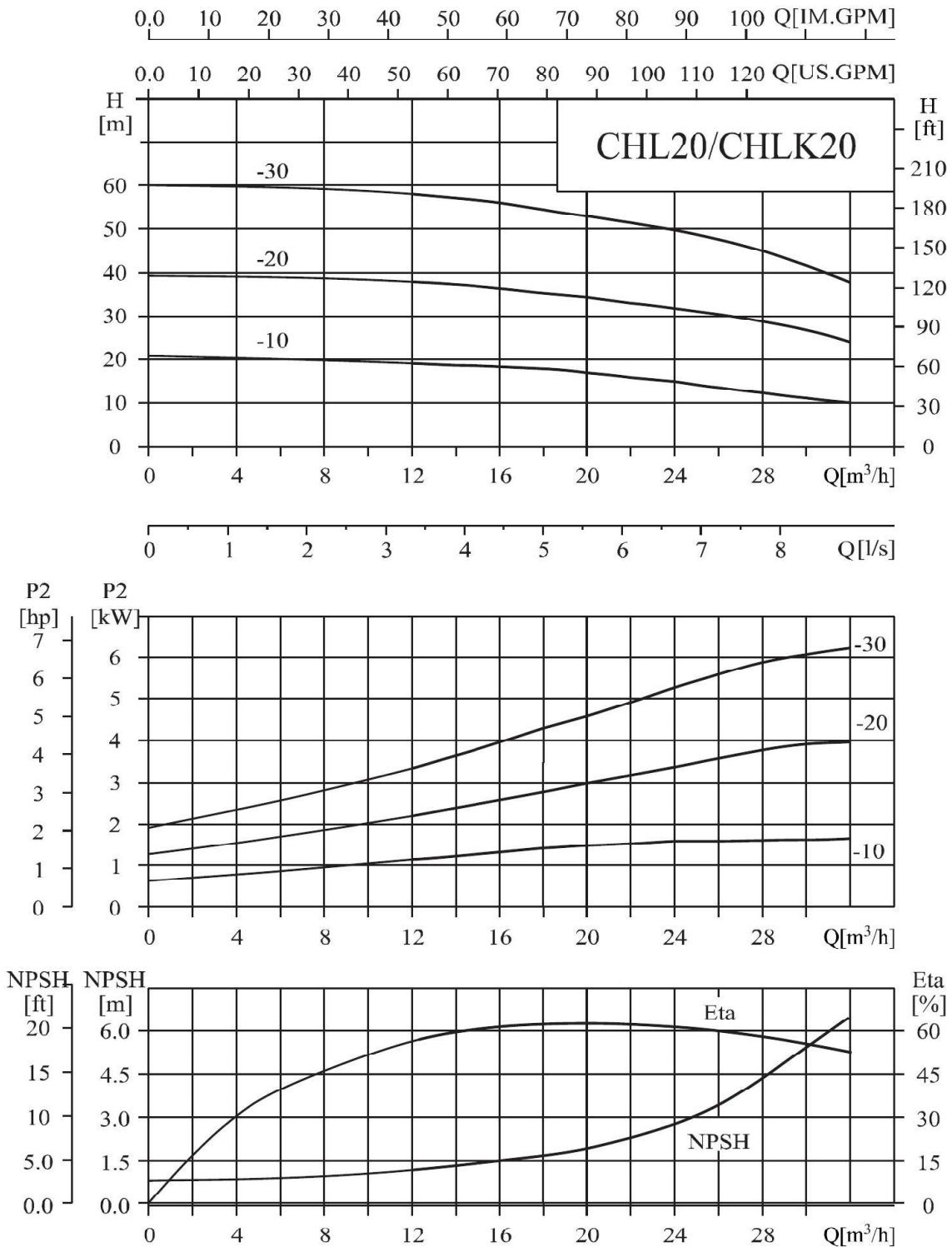


Dimensions and Weight

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 15-10	563	279	176	118	264	223	130	108	160	138	9	171/176	235/270	/91	23
	CHL 15-20	605	279	176	128	274	223	130	108	160	138	9	196/	259/	-	32
	CHL 15-30	612	357	176	120	266	223	220	190	170	140	12	213/	270/	-	45

PERFORMANCE CURVE

CHL/CHLK 20 - 60Hz

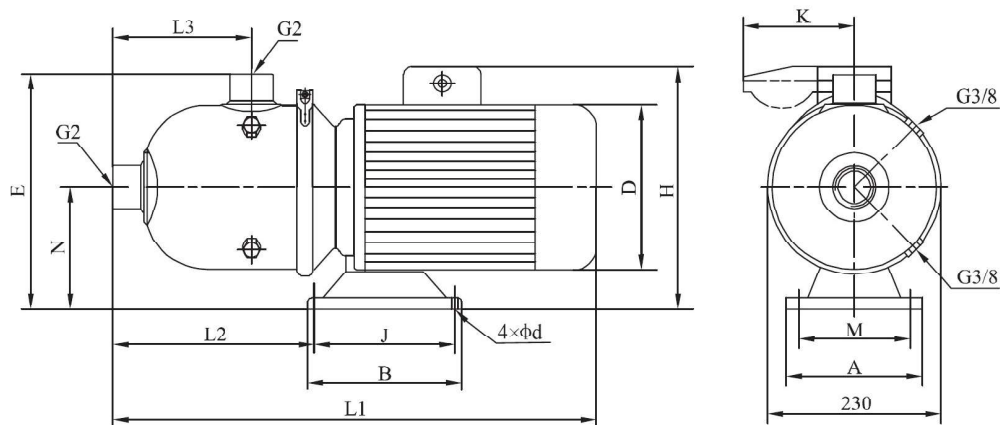


TECHNICAL DATA

CHL/CHLK 20 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	H											
	[kW]	[hp]		12	14	16	18	20	22	24	26	28	30	32	
CHL 20-10	2.2	3	H	19	18.50	18	17.5	17	16	15	13.5	12	11	10	
CHL 20-10G	2.2	3		19	18.50	18	17.5	17	16	15	13.5	12	11	10	
CHL 20-20	4	5.5		38	37	36	35	34	33	32	30.5	29	26.5	24	
CHL 20-20G	4	5.5		38	37	36	35	34	33	32	30.5	29	26.5	24	
CHL 20-30	5.5	7.5		58	57	56	55	53	51.4	50	47.5	45	41.6	38	

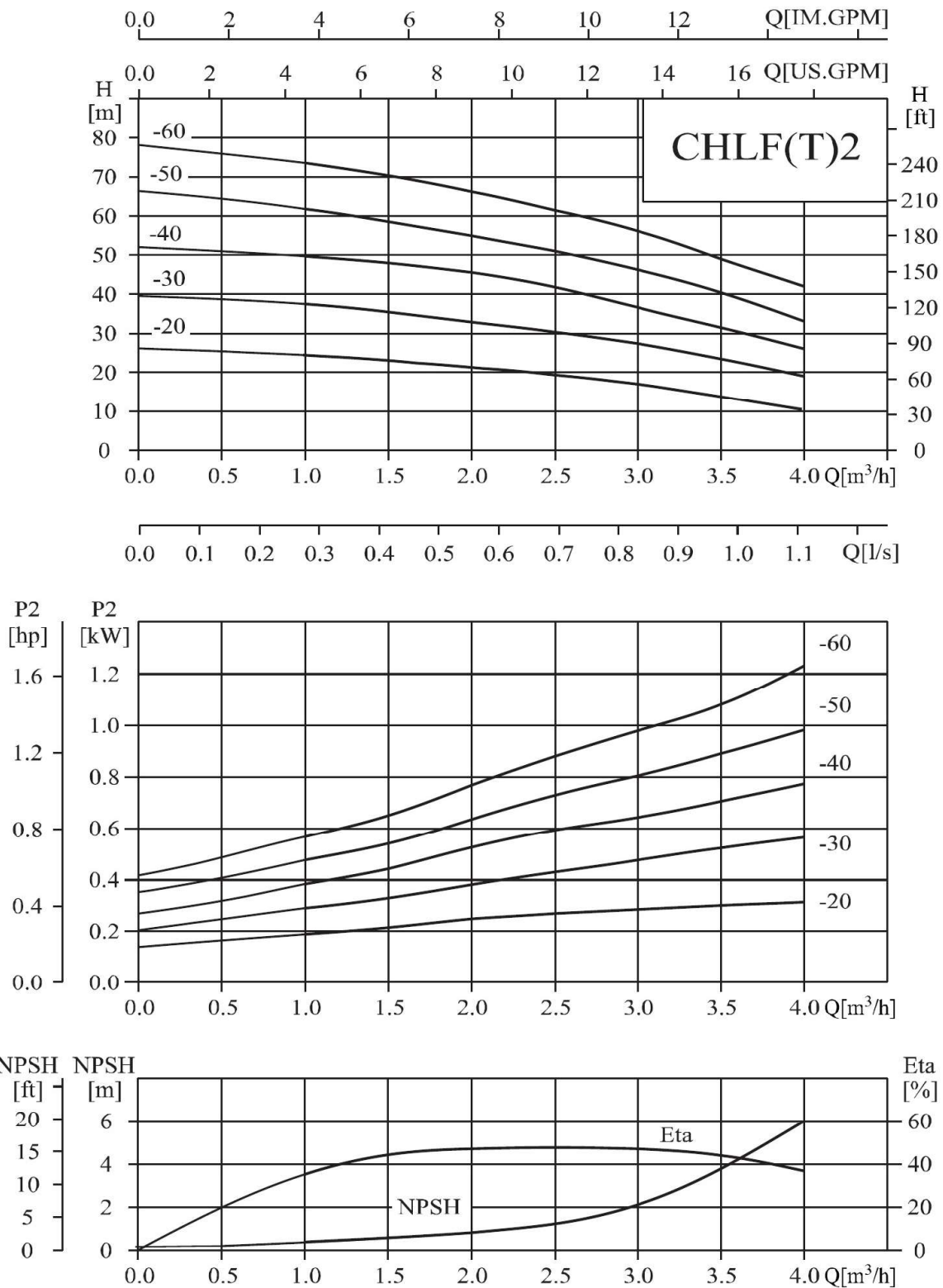


Dimensions and Weight

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	563	279	176	118	265	223	130	108	160	138	9	171/176	235/270	/91	26
	CHL 20-10G	490	199	95	118	250	193	130	108	160	138	9	171/176	235/270	/91	25.5
	CHL 20-20	612	357	176	120	267	223	220	190	170	140	12	213/	270/	-	43
	CHL 20-20G	532	275	95	120	251	193	220	190	170	140	12	213/	270/	-	42.5
	CHL 20-30	661	369	176	132	279	223	248	216	190	140	12	255/	300/	-	56

PERFORMANCE CURVE

CHLF/CHLF(T) 2 - 60Hz

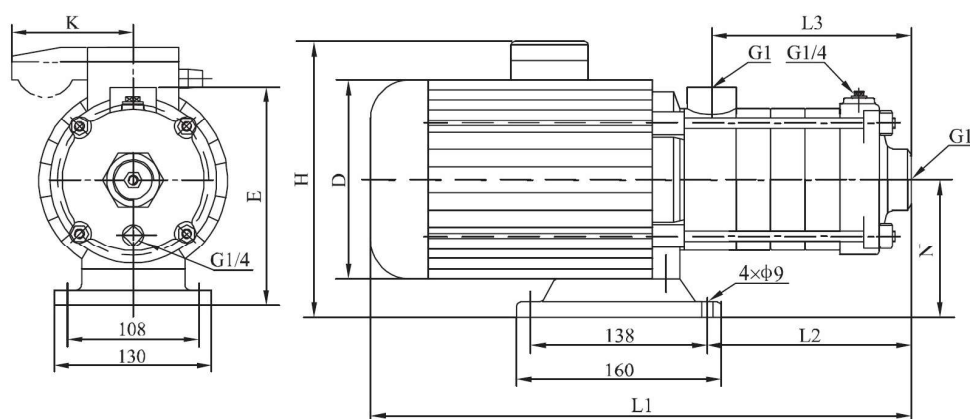


TECHNICAL DATA

CHLF/CHLF(T) 2 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	1	1.5	2	2.5	3	3.5	4
	[kW]	[hp]								
CHLF(T) 2-20	0.55	0.75	H [m]	24.5	23	21.5	19.5	17	14	10.5
CHLF(T) 2-30	0.75	1		37.5	35.5	33	30.5	27.5	23.5	19
CHLF(T) 2-40	1.1	1.5		49.5	48	45.5	42	36	32	26
CHLF(T) 2-50	1.1	1.5		62	58.5	55	51	46	40.5	33
CHLF(T) 2-60	1.1	1.5		73.5	70.5	66	61.5	56	49	40

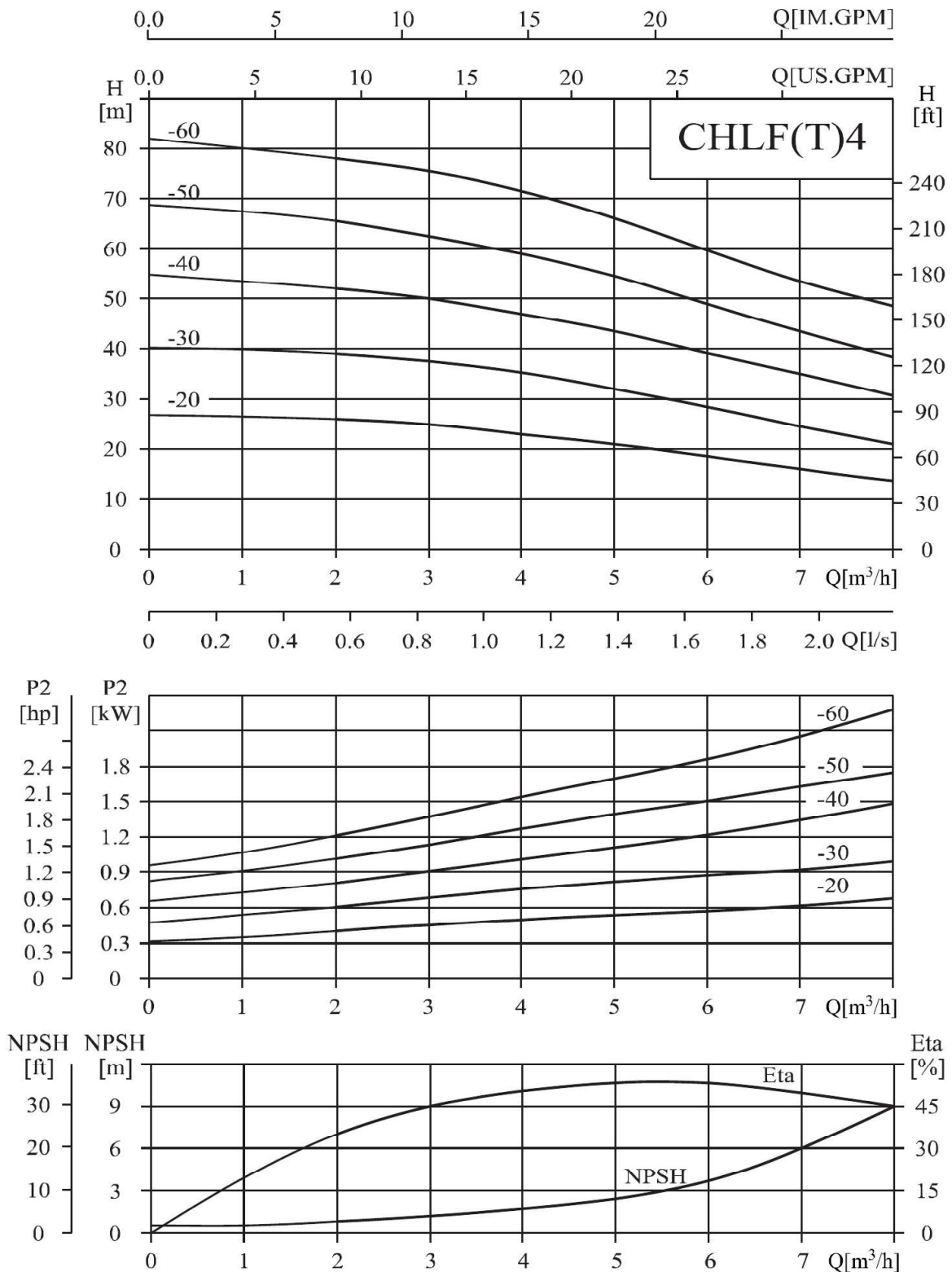


Dimensions and Weight

Motor	Model	Dimensions [mm]								Weight [kg]
		L1	L2	L3	E	H	N	D	K	
Three-phase/ single-phase	CHLF(T) 2-20	305	87	84	182	230/230	110	141	/62	15
	CHLF(T) 2-30	370	105	102	182	230/245	110	151/161	/91	17
	CHLF(T) 2-40	388	123	120	182	230/245	110	151/161	/91	17
	CHLF(T) 2-50	406	141	138	182	230/245	110	151/161	/91	17
	CHLF(T) 2-60	424	159	156	182	230/245	110	151/161	/91	17

PERFORMANCE CURVE

CHLF/CHLF(T) 4 - 60Hz

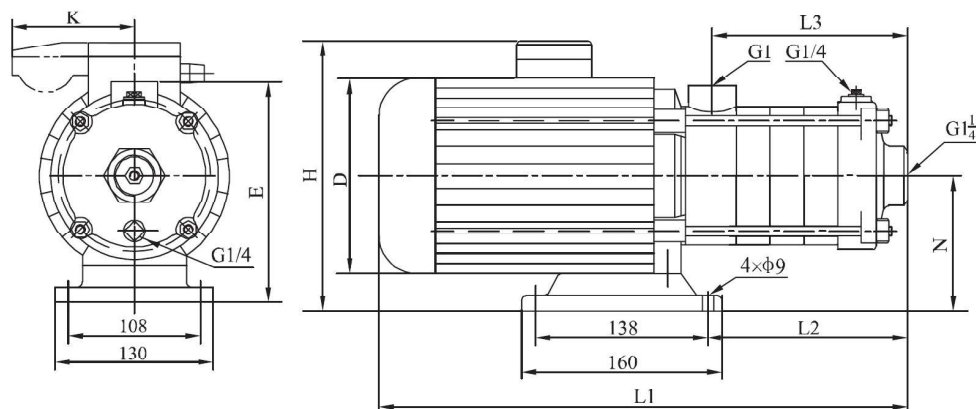


TECHNICAL DATA

CHLF/CHLF(T) 4 - 60Hz

Performance Table

Model	Motor		Q [m ³ /h]	2	3	4	5	6	7	8
	[kW]	[hp]								
CHLF(T) 4-20	0.75	1	H [m]	26	25	23	21	19	16	14
CHLF(T) 4-30	1.1	1.5		39	37.5	36	32	28	24	21
CHLF(T) 4-40	1.5	2		52	50	47	43.5	38.5	35	31
CHLF(T) 4-50	2.2	3		65.5	62.5	59	54.5	49	43	39
CHLF(T) 4-60	2.2	3		78	75.5	71.5	66.5	59	53.5	47

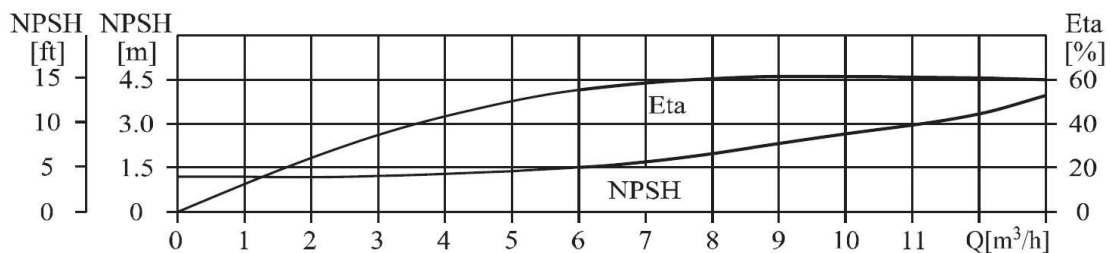
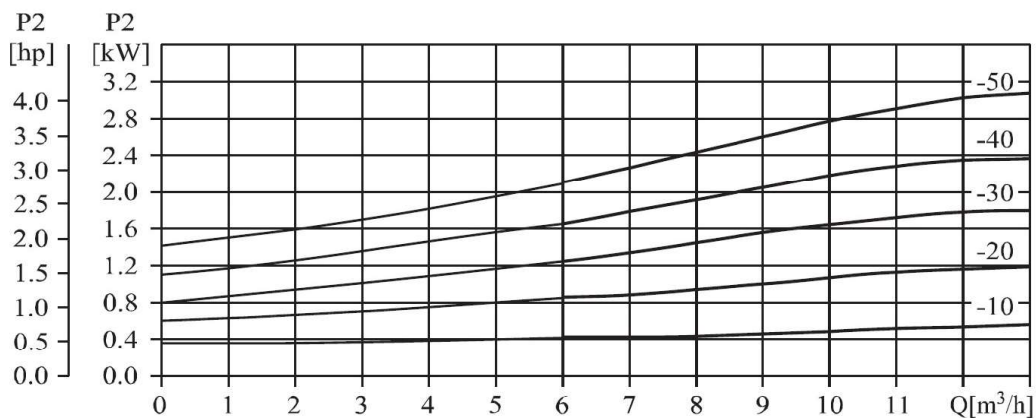
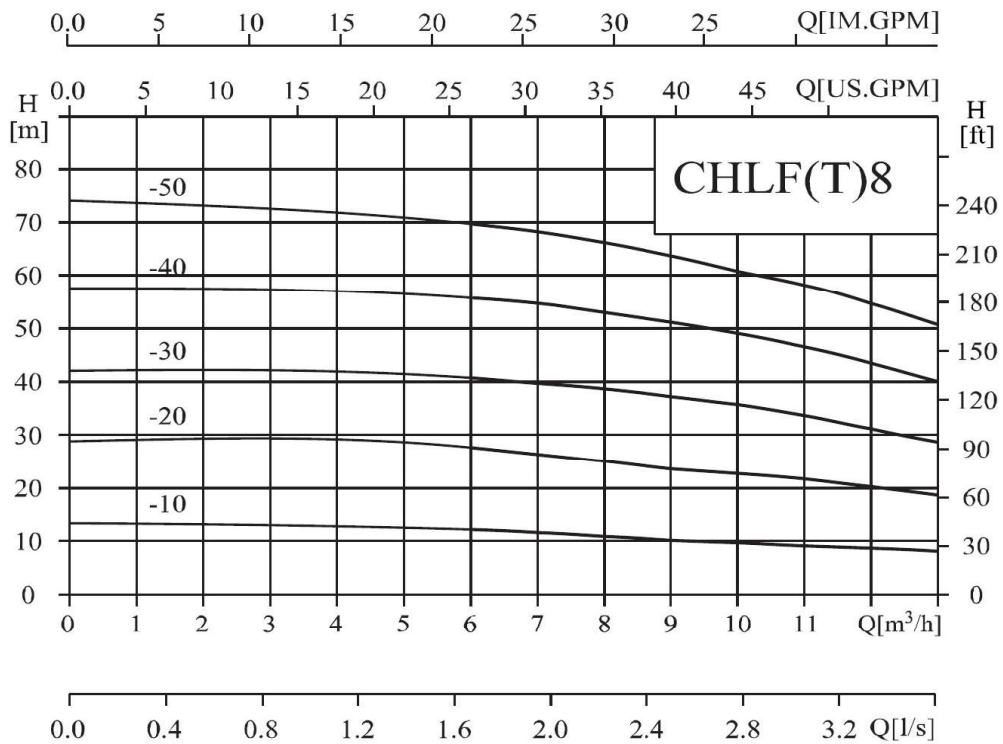


Dimensions and Weight

Motor	Model	Dimensions [mm]								Weight [kg]
		L1	L2	L3	E	H	N	D	K	
Three-phase/ single-phase	CHLF(T) 4-20	359	105	102	182	230/245	110	151/161	/91	15
	CHLF(T) 4-30	395	132	129	182	230/245	110	151/161	/91	17
	CHLF(T) 4-40	465	159	156	190	240/260	118	171/176	/91	20
	CHLF(T) 4-50	492	186	183	190	240/260	118	171/176	/91	25
	CHLF(T) 4-60	519	213	210	190	240/260	118	171/176	/91	25

PERFORMANCE CURVE

CHLF/CHLF(T) 8 - 60Hz

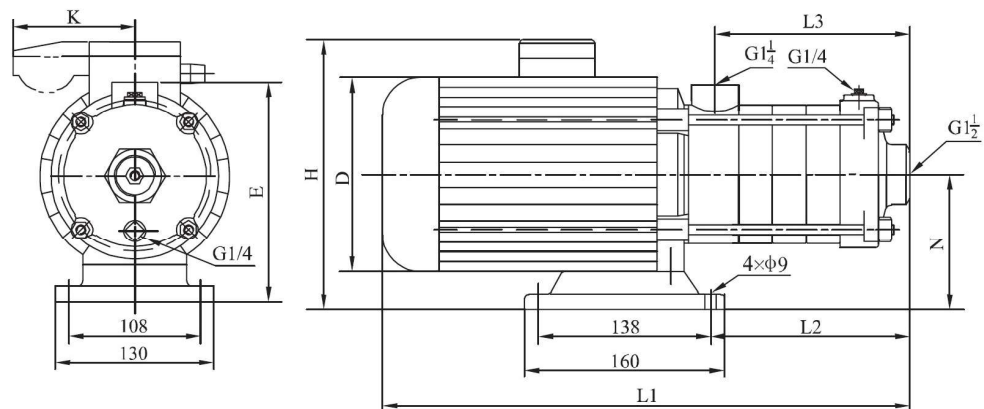


TECHNICAL DATA

CHLF/CHLF(T) 8 - 60Hz

Performance Table

Model	Motor		Q [m ³ /h]	6	7	8	9	10	11	12	13
	[kW]	[hp]									
CHLF(T) 8-10	0.75	1	H [m]	14.5	13	12	11.5	11	10.5	10	9.5
CHLF(T) 8-20	1.5	2		29	27	26	25	24	23	21.5	20
CHLF(T) 8-30	2.2	3		42	41	40	39	37	35	33	30
CHLF(T) 8-40	3	4		55.5	54.5	53	51	49	46.5	43.5	40
CHLF(T) 8-50	3	4		71	69.5	67.5	65	63	59	56	52

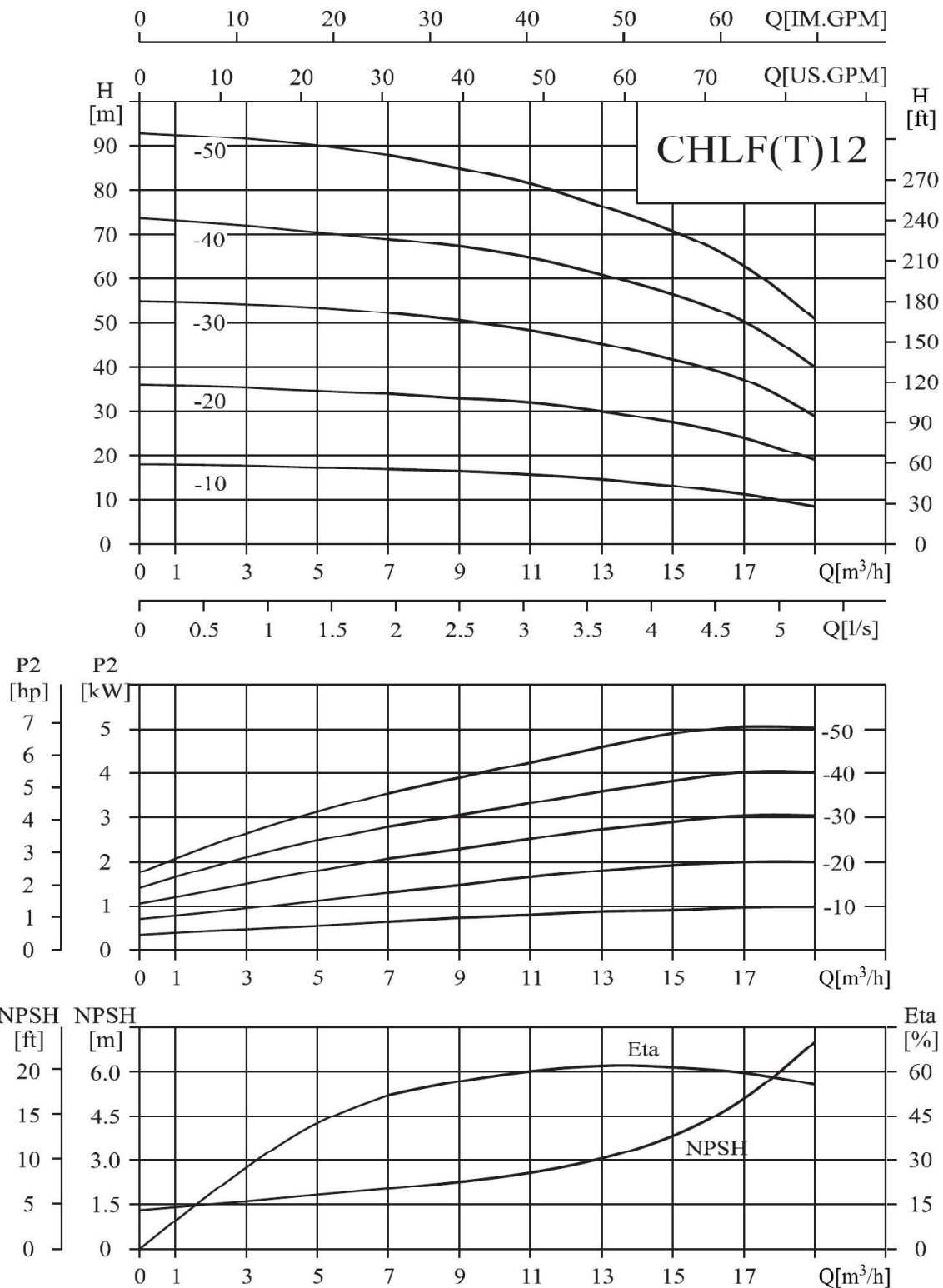


Dimensions and Weight

Motor	Model	Dimensions [mm]								Weight [kg]
		L1	L2	L3	E	H	N	D	K	
Three-phase/ single-phase	CHLF(T) 8-10	395	128	108	227	230/265	117	151/156	/91	22
	CHLF(T) 8-20	460	128	108	228	240/270	118	171/176	/91	25
	CHLF(T) 8-30	460	158	138	228	240/270	118	171/176	/91	27
	CHLF(T) 8-40	550	188	168	238	259/	128	197/	-	32
	CHLF(T) 8-50	580	218	198	238	259/	128	197/	-	32

PERFORMANCE CURVE

CHLF/CHLF(T) 12 - 60Hz

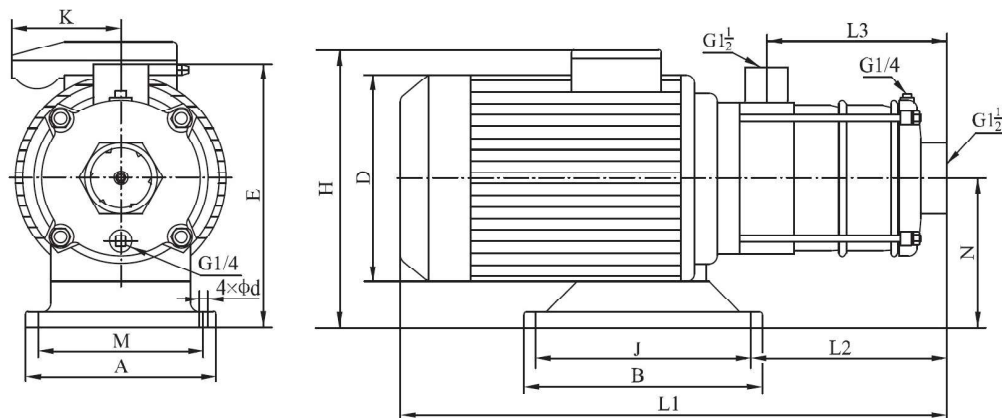


TECHNICAL DATA

CHLF/CHLF(T) 12 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	7	9	11	12	13	15	17	19
	[kW]	[hp]									
CHLF(T) 12-10	1.1	1.5	H [m]	17	16	15	14.5	14	12.5	11	8.5
CHLF(T) 12-20	2.2	3		34	33	32	31	30	27	24.5	19
CHLF(T) 12-30	3	4		52.5	50	48.5	47	45	41.5	37.5	29
CHLF(T) 12-40	4	5.5		69	67.5	65	63	60.5	55	49.5	40
CHLF(T) 12-50	5.5	7.5		88	85	82	80	76	70	62	50.5

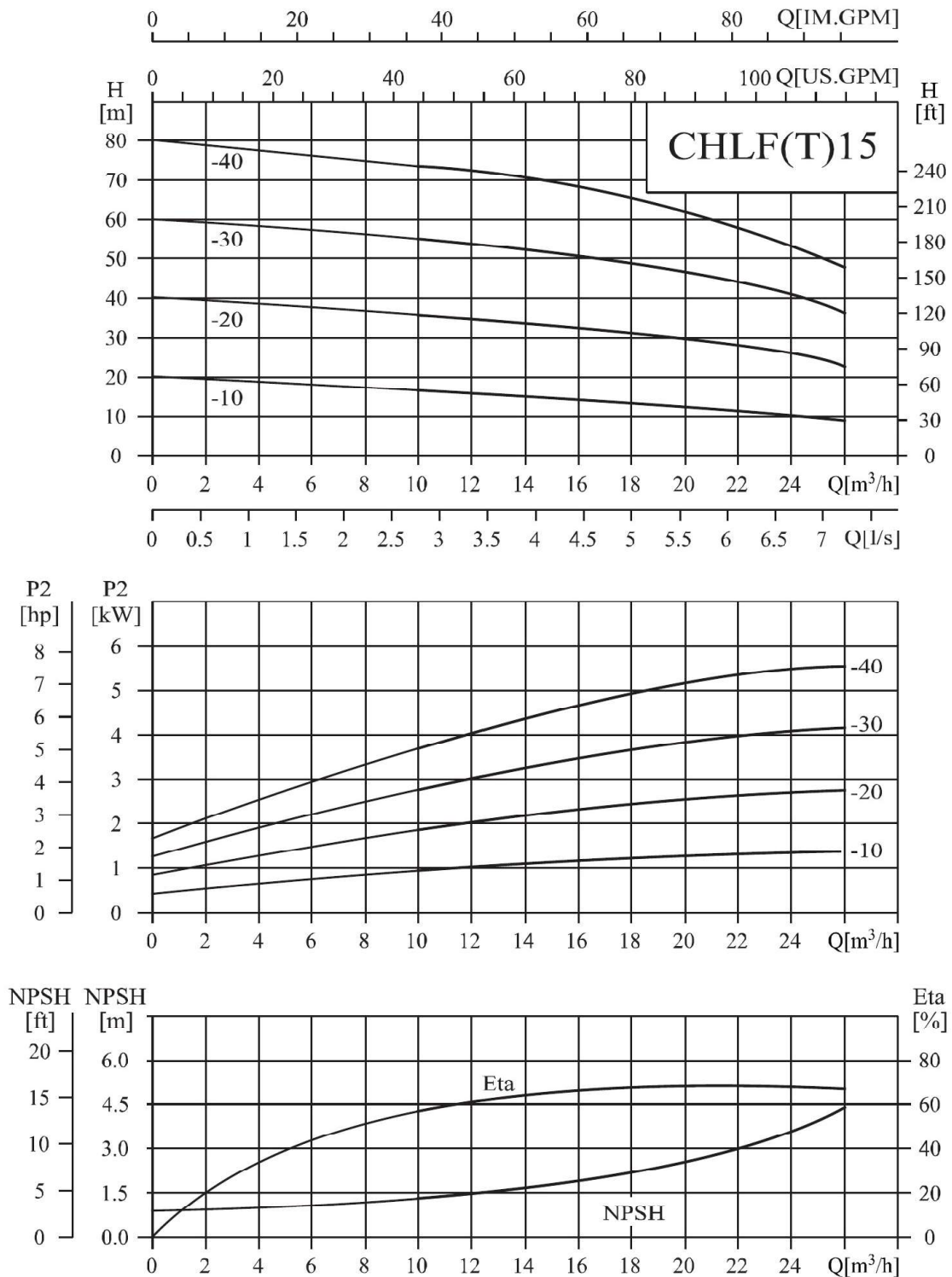


Dimensions and Weight

Motor	Model	Dimensions [mm]													Weight [kg]
		L1	L2	L3	H	D	E	N	A	M	B	I	d	K	
Three-phase/ single-phase	CHLF(T) 12-10	375/395	125	108	230/265	151/156	227	117	130	108	160	138	9		22
	CHLF(T) 12-20	415/426	125	108	240/270	171/176	228	118	130	108	160	138	9	/91	25
	CHLF(T) 12-30	501/	155	138	259/	197/	238	128	130	108	160	138	9		32
	CHLF(T) 12-40	537/	281	168	270/	213/	230	120	220	190	170	140	12		44
	CHLF(T) 12-50	618/	324	198	300/	255/	242	132	248	216	184	140	12		58

PERFORMANCE CURVE

CHLF/CHLF(T) 15 - 60Hz

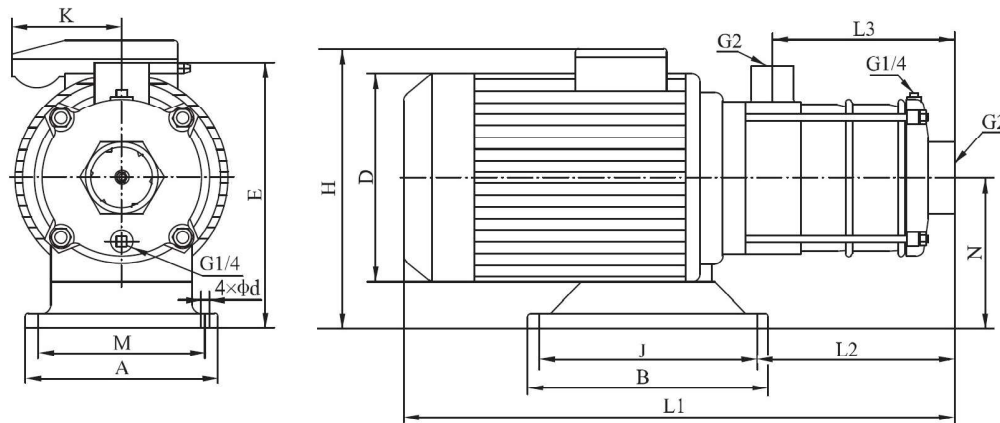


TECHNICAL DATA

CHLF/CHLF(T) 15 - 60Hz

Performance Table

Model	Motor		Q [m³/h]	10	12	14	15	16	18	20	22	24	26
	[kW]	[hp]		H [m]									
CHLF(T) 15-10	1.5	2	H	17	15.5	14,5	14	13.5	13	12	11	10	9
CHLF(T) 15-20	3	4		35.5	34.5	33.5	33	32.5	31	30	28	26	23
CHLF(T) 15-30	4	5.5		55	53.5	52.5	51.5	51	49	47	44	41	36.5
CHLF(T) 15-40	5.5	7.5		73.5	72.5	70.5	69.5	68.5	65.5	62	58	54	48

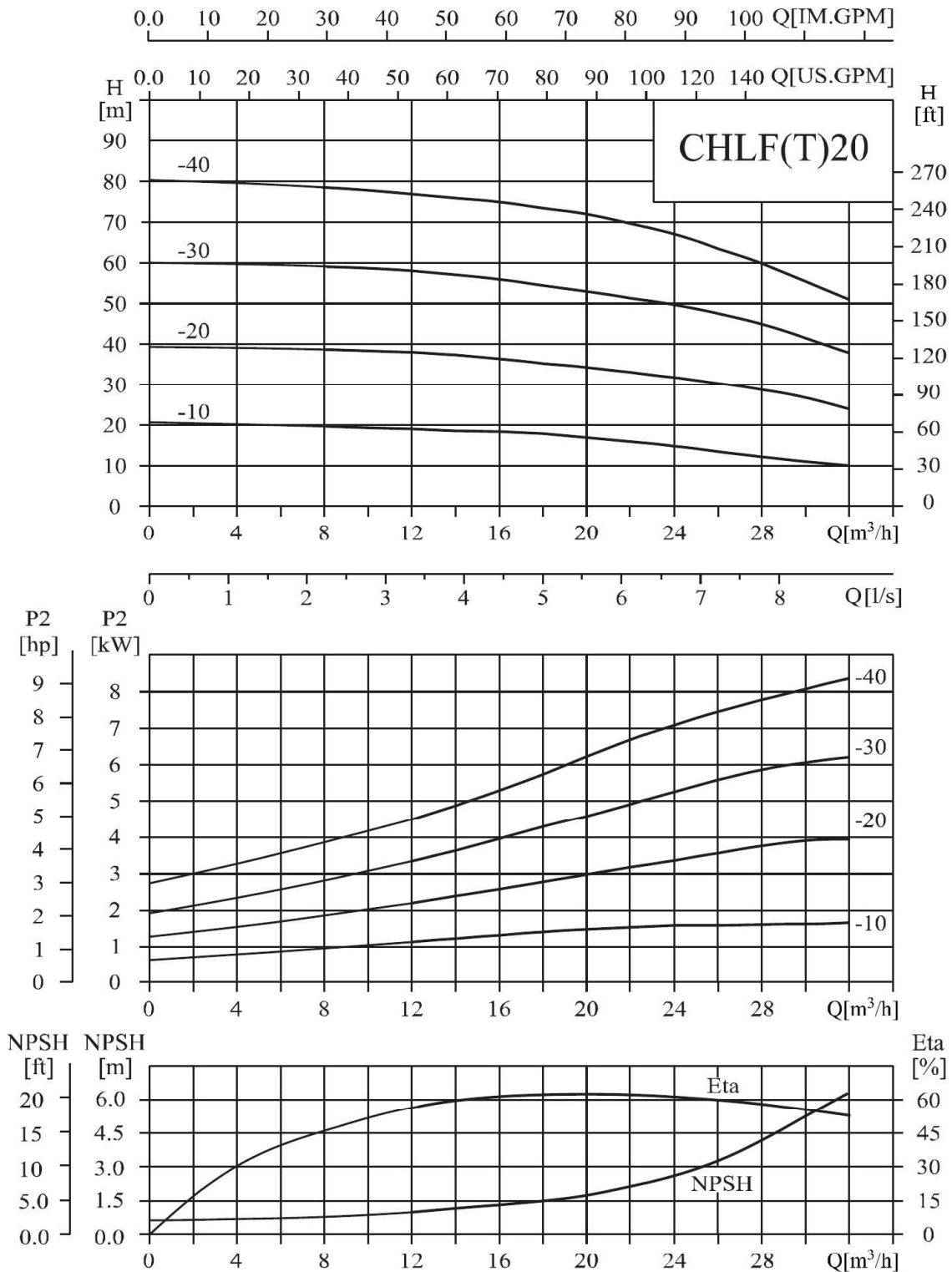


Dimensions and Weight

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	440/451	150	126	240/270	171/176	228	118	130	108	160	138	9	/91	24
	CHLF(T) 15-20	499/	150	126	259/	197/	238	128	130	108	160	138	9	-	36
	CHLF(T) 15-30	550/	291	171	270/	213/	230	120	220	190	170	140	12	-	45
	CHLF(T) 15-40	646/	349	216	300/	255/	242	132	248	216	184	140	12	-	54

PERFORMANCE CURVE

CHLF/CHLF(T) 20 - 60Hz

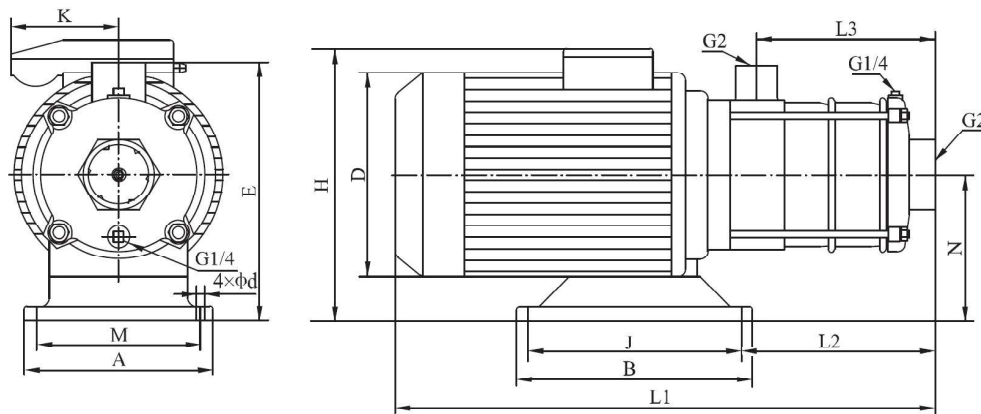


TECHNICAL DATA

CHLF/CHLF(T) 20 - 60Hz

Performance Table

Model	Motor		Q [m ³ /h]	12	14	16	18	20	22	24	26	28	30	32
	[kW]	[hp]		H [m]										
CHLF(T) 20-10	2.2	3		19	18.5	18	17.5	17	16	15	13.5	12	11	10
CHLF(T) 20-20	4	5.5		38	37	36	35	34	33	32	30.5	29	26.5	24
CHLF(T) 20-30	5.5	7.5		58	57	56	55	53	51.4	50	47.5	45	41.6	38
CHLF(T) 20-40	7.5	10		77	76	75	73.5	72	70	67	65	60.5	56	51



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	440/451	150	126	240/270	171/176	228	118	130	108	160	138	9	/91	26
	CHLF(T) 20-20	502	246	126	270/	213/	230	120	220	190	170	140	12	-	43
	CHLF(T) 20-30	598/	304	171	300/	255/	242	132	248	216	184	140	12	-	56
	CHLF(T) 20-40	643/	349	216	300/	255/	242	132	248	216	184	140	12	-	63

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