

ShowFou Electric Machine Co., Ltd

*BELIEVE PROFESSIONAL
TRUST JDYDEE*

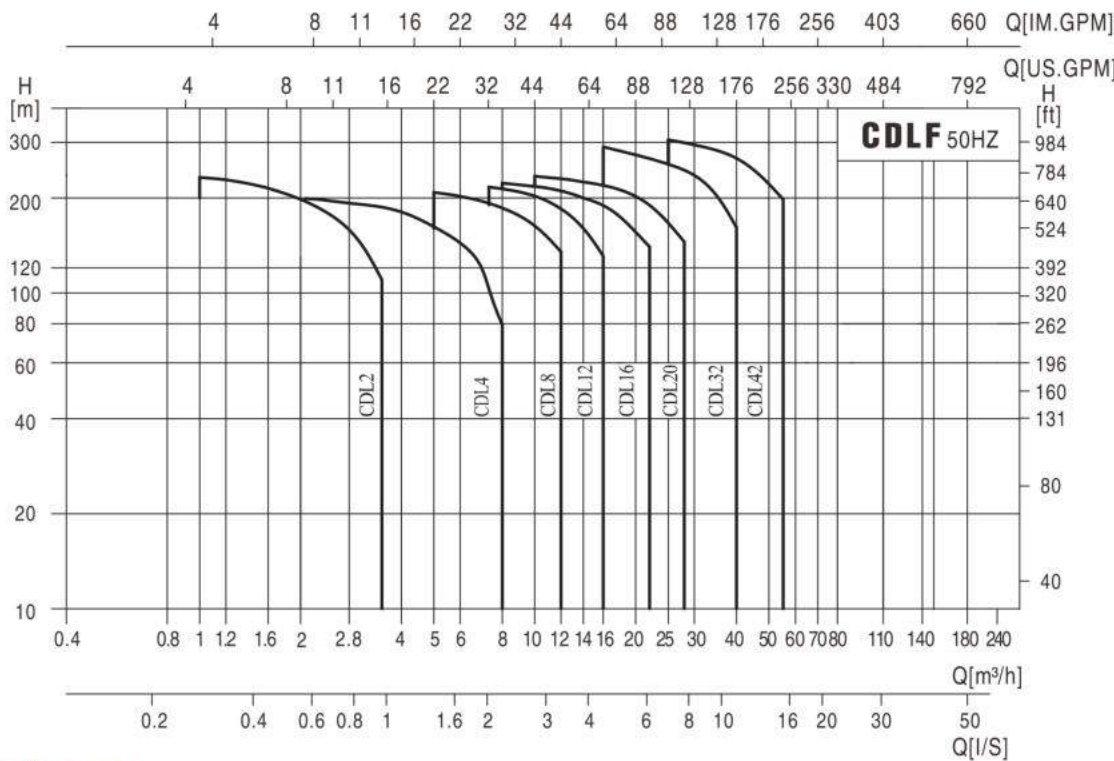


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● Performance scope



● Product range

Description	CDLF2	CDLF4	CDLF8	CDLF12	CDLF16	CDLF20	CDLF32	CDLF42
Rated flow[m³/h]	2	4	8	12	16	20	32	42
Rated flow[l/s]	0.56	1.1	2.2	3.3	4.4	5.6	8.9	11.7
Flow range[m³/h]	1-3.5	1.5-7	5-12	7-16	8-22	10-28	16-40	25-55
Flow range[l/s]	0.28-0.97	0.42-1.9	1.4-3.3	1.9-4.4	2.2-6.1	2.8-7.8	4.4-11.1	6.9-15.3
Max.pressure[bar]	23	21	21	22	22	23	29	30
Motor power[kW]	0.37-3	0.37-4	0.75-7.5	1.5-11	2.2-15	1.1-18.5	1.5-30	3.0-45
Temperature range[°C]	-15~+120							
Max.efficiency[%]	46	57	62	63	66	69	73	75
Type								
CDLF	●	●	●	●	●	●	●	●
CDLF Pipe connection								
DIN Flange	Dn25	Dn32	Dn40	DN50	DN50	DN50	DN65	DN80
Cutting ferrule joint	DN32	DN32	DN50	DN50	DN50	DN50		
Pipe thread	ZG1¼	ZG1¼	ZG2	ZG2	ZG2	ZG2		

● Pump

CDLF is a kind of vertical non-self priming multistage centrifugal pump, which is driven by a standard electric motor. The motor output shaft directly connects with the pump shaft through a coupling. The pres-sure-resistant cylinder and flow passage components are fixed between pump head and inlet &outlet section with stay bolts. The inlet and outlet are located at the pump bottom at the same plane. This kind of pump can be equipped with an intelligent protector to effectively prevent it from dry-running, out-of-phase and overload.

● Motor

Full-enclosed air-blast two-pole standard motor
Protection class: IP55
Insulation class: F
Standard voltage: 50Hz: 1×220-230/240V
3×200-220/346-380V
3×220-240/380-415V
3×380-415V

● Operation conditions

- Thin, clean, non-flammable and non-explosive liquid containing no solid granules and fibers.
- Liquid temperature:**
Normal temperature type: -15°C~+70°C,
Hot water type: -15°C~+120°C
- Ambient temperature:** up to +40°C
- Altitude:** up to 1000m

● Application

CDLF is a kind of multinational products. It can be used to convey various medium from tap water to industrial liquid at different temperature and with different flow rate and pressure. CDLF is suitable for slightly corrosive liquid.

Water supply: Water filter and transport in Water works, boosting of main pipeline, boosting in high-rise buildings.

Industrial boosting: Process flow water system, cleaning system, high-pressure washing system, fire fighting system.

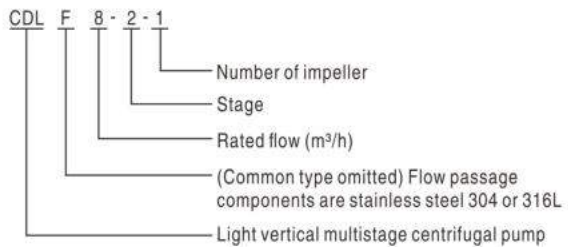
Industrial liquid conveying: Cooling and air-conditioning system, boiler water supply and condensing system, machine-associated purpose, acids and alkali.

Water treatment: Ultra-filtration system, reverse osmosis system, distillation system, separator, swimming pool.

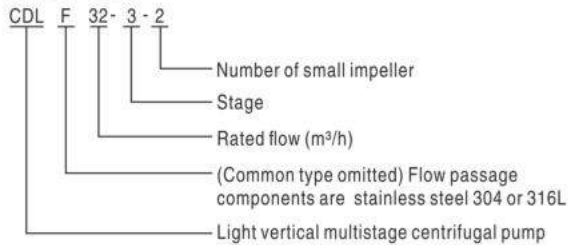
Irrigation: Farmland irrigation, spray irrigation, dripping irrigation.

● Definition of Model

1. CDLF 2,4,8,12,16,20



2. CDLF 32,42

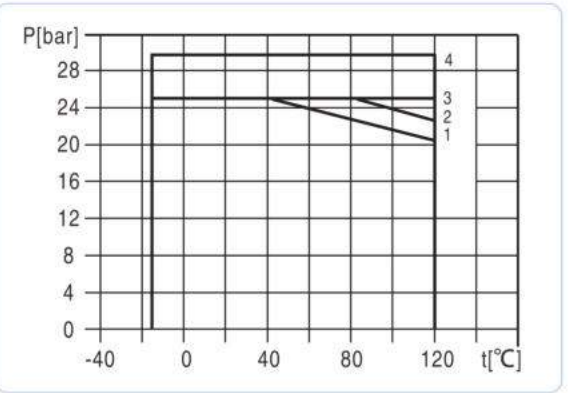


● Max. Working pressure

Model	Curve number
CDLF2,4 Flange, cutting ferrule joint, pipe thread	1
CDLF8,12,16,20 Flange, cutting ferrule joint, pipe thread	2
CDLF32	4
CDLF42	
42-10-1~42-90	3(*)
42-100-2~42-130-2	4

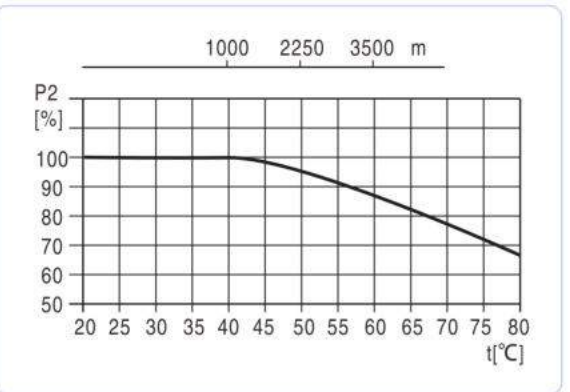
- * :For curve 4, need to specify especially;
- ** :For curve 3, need to specify especially.

The following figure shows the limitation of pressure and temperature, which shall be in the scope as shown in the figure.

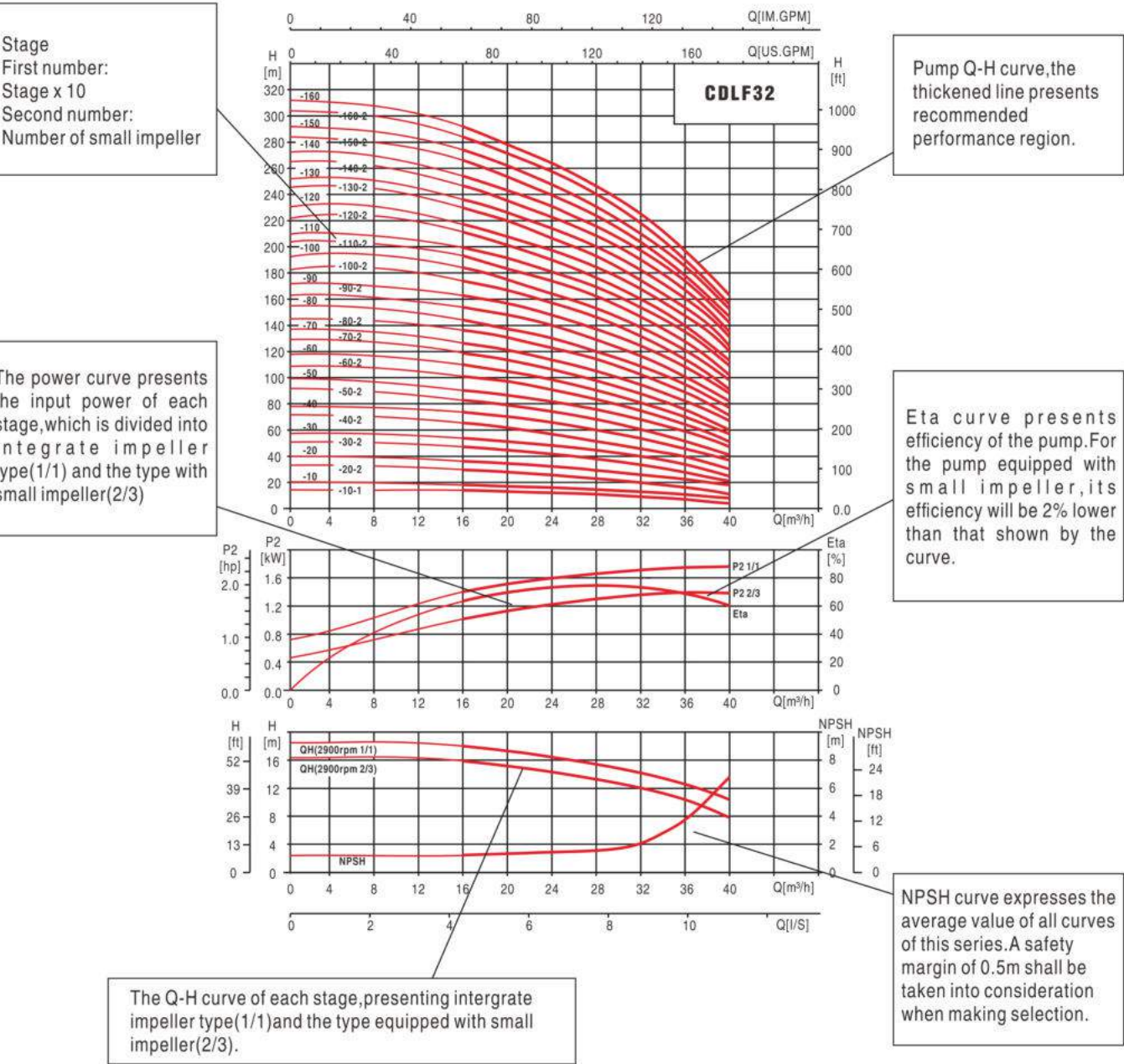


● Max. Ambient temperature

when the pump operates under ambient temperature higher than 40°C or under altitude higher than 1000m, because of low air density and poor cooling effects, the motor output power P2 will be decreased to certain extent. If the pump is operated under the above-said conditions, it should be equipped with motor of higher power.



● Curve illustration

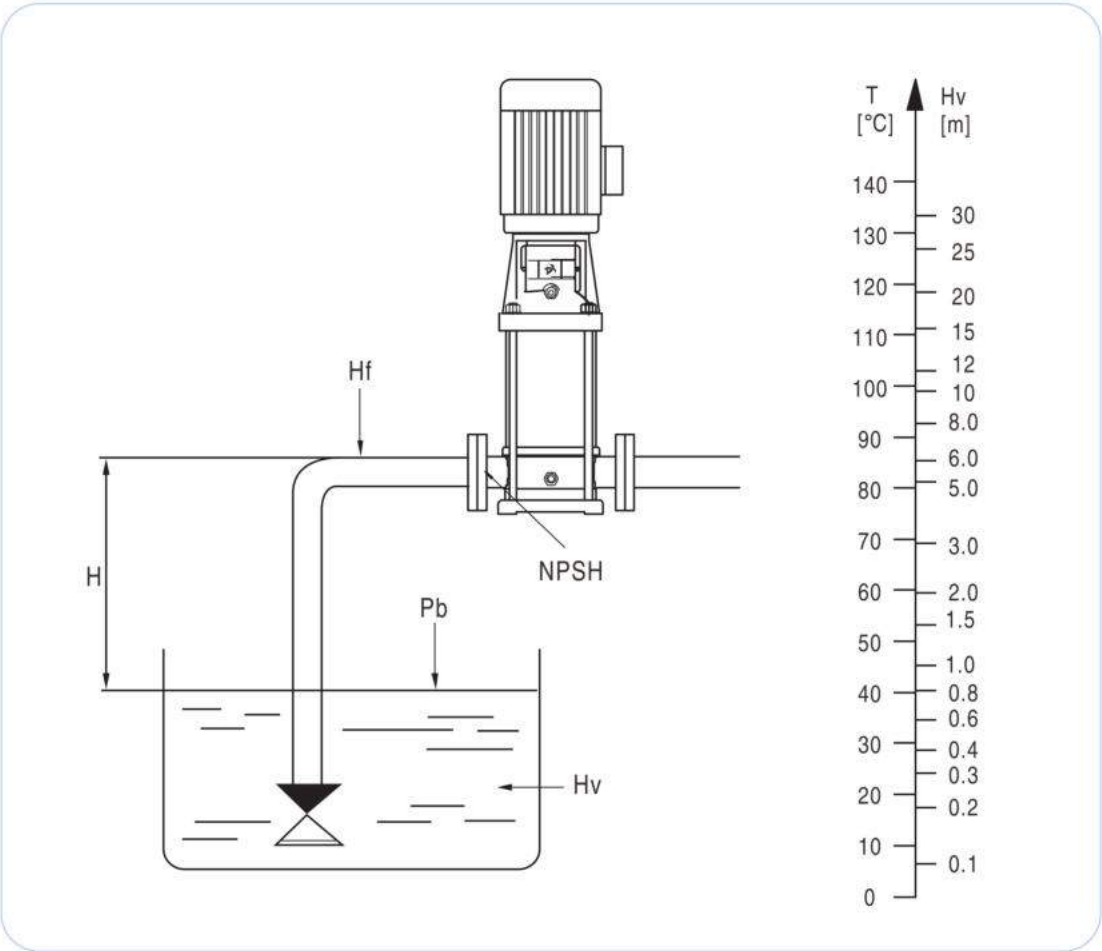


● Performance curve

- Following conditions are suitable for the performance curves shown below:
- All curves are based on the measured values of 50Hz: constant motor speed 2900rpm or 2950rpm.
 - Curve tolerance in conformity with ISO9906 Annex A.
 - Measurement is done with 20°C air-free water, kinematic viscosity of 1mm²/sec.
 - The operation of pump shall refer to the performance region indicated by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

Minimum inlet pressure NPSH

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed.

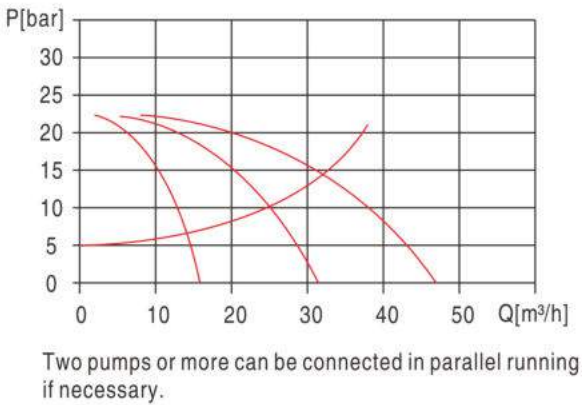


Check and ensure that the pump is not at cavitations state.

Operation in parallel

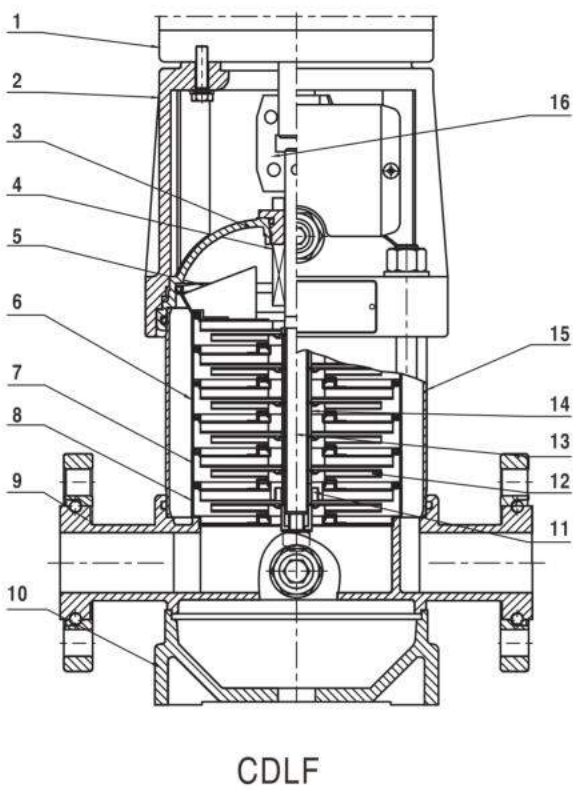
Connecting several pumps in parallel running will benefit much more than running a single large pump.

- Applicable to different working states necessary in a variable flow system.
- Increasing the possibility of water supply when the pump is in failure. Because in case of pump failure, only part of the system flow is effected.



Two pumps or more can be connected in parallel running if necessary.

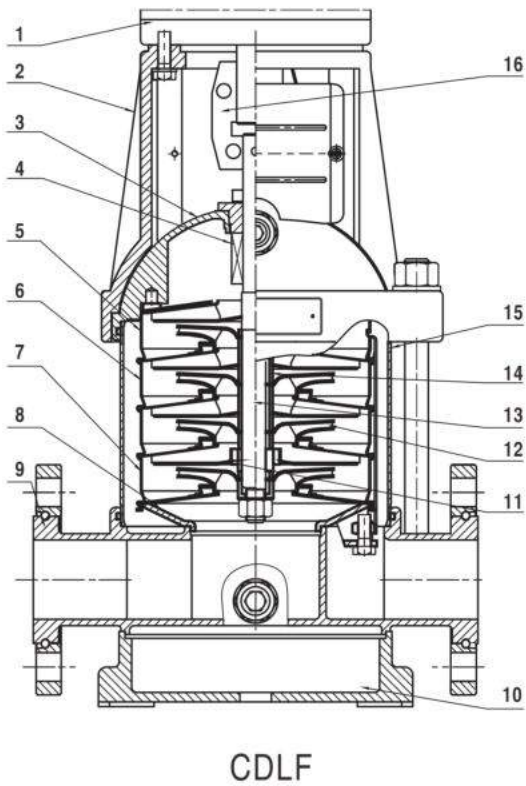
Section drawing CDLF2,4



Material CDLF2,4

NO.	Name	Material	AISI/ASTM	NO.	Name	Material	AISI/ASTM
1	Motor			13	Shaft	Stainless steel	AISI304 AISI316L
2	Pump head	Cast iron	ASTM25B	14	Impeller sleeve	Stainless steel	AISI304
4	Mechanical seal			15	Cylinder	Stainless steel	AISI304
5	Top diffuser	Stainless steel	AISI304	16	Coupling	Carbon steel	
6	Diffuser	Stainless steel	AISI304	CDLF			
7	Support diffuser	Stainless steel	AISI304	3	Seal base	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304	9	Inlet and outlet chamber	Stainless steel	AISI304
11	Bearing	Tungsten carbide		10	Base plate	Cast iron	ASTM25B
12	Impeller	Stainless steel	AISI304				

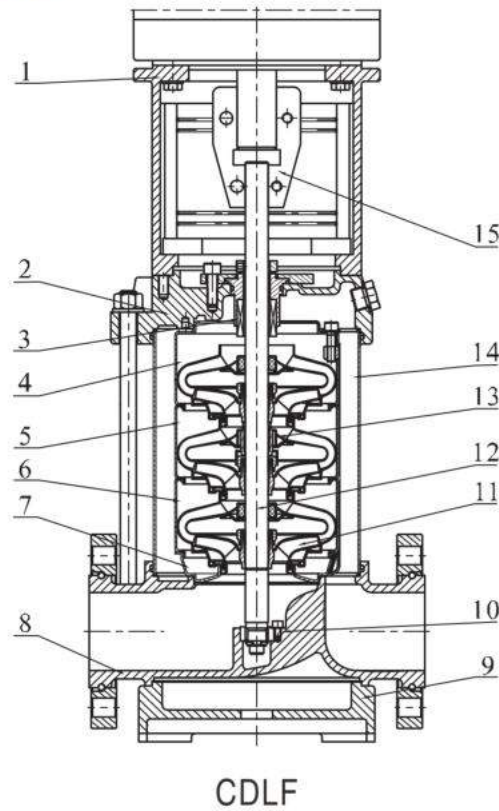
● Section drawing CDLF8,12,16,20



● Material CDLF8,12,16,20

NO.	Name	Material	AISI/ASTM	NO.	Name	Material	AISI/ASTM
1	Motor			13	Shaft	Stainless steel	AISI304 AISI316L
2	Pump head	Cast iron	ASTM25B	14	Impeller sleeve	Stainless steel	AISI304
4	Mechanical seal			15	Cylinder	Stainless steel	AISI304
5	Top diffuser	Stainless steel	AISI304	16	Coupling	Carbon steel	
6	Diffuser	Stainless steel	AISI304			CDLF	
7	Support diffuser	Stainless steel	AISI304	3	Seal base	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304	9	Inlet and outlet chamber	Stainless steel	AISI304
11	Bearing	Tungsten carbide		10	Base plate	Cast iron	ASTM25B
12	Impeller	Stainless steel	AISI304				

● Section drawing CDLF32,42



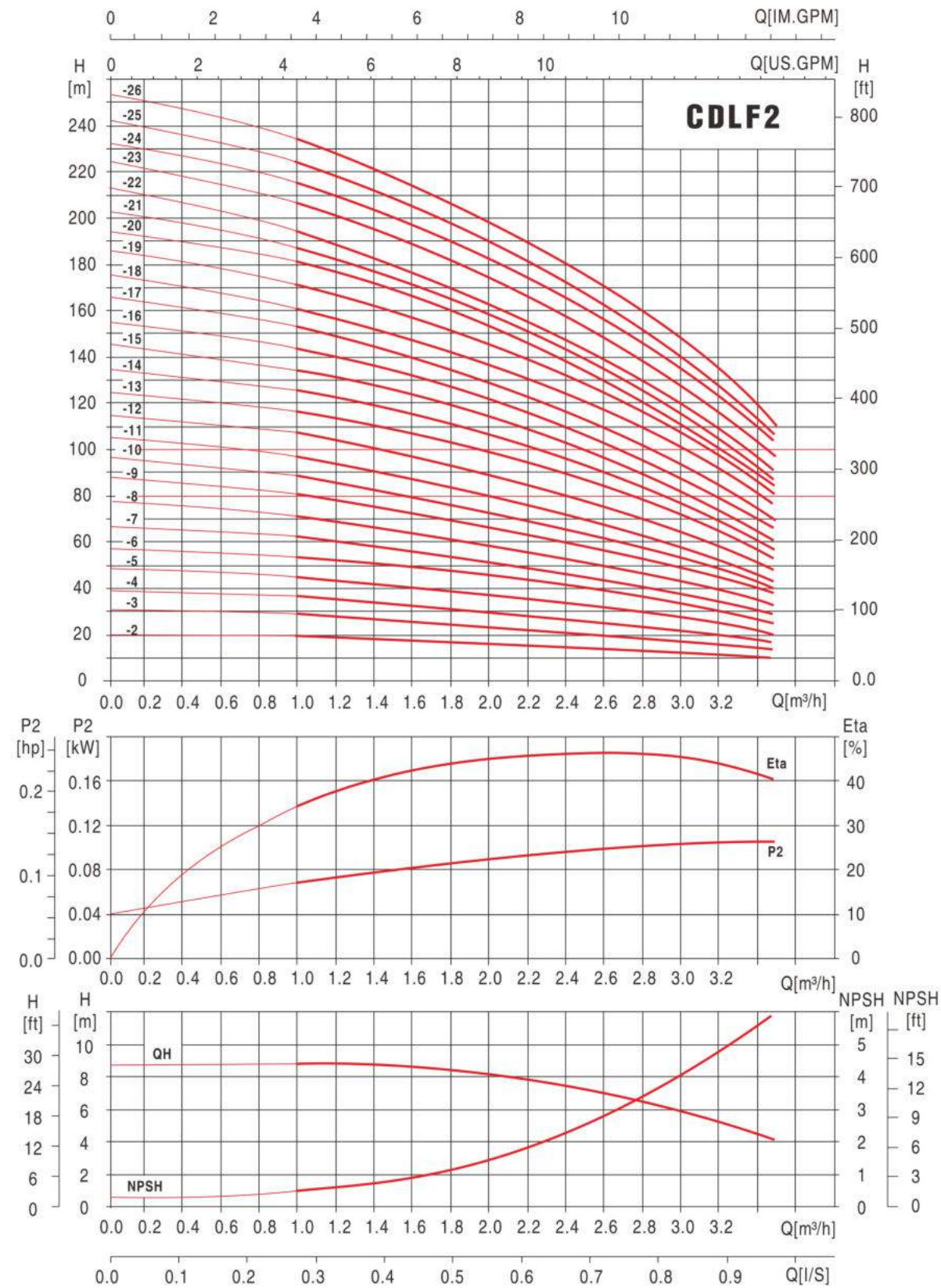
● Material CDLF32,42

NO.	Name	Material	AISI/ASTM	NO.	Name	Material	AISI/ASTM
1	Bracket	Cast iron	ASTM25B	12	Shaft	Stainless steel	AISI316L AISI304 AISI431
3	Mechanical seal			13	Intermediate bearing	Tungsten carbide	
4	Top diffuser	Stainless steel	AISI304	14	Cylinder	Stainless steel	AISI304
5	Support diffuser	Stainless steel	AISI304	15	Coupling	Carbon steel	
6	Diffuser	Stainless steel	AISI304		Rubber parts	NBR	
7	Inducer	Stainless steel	AISI304	CDLF			
9	Base plate	Cast iron	ASTM25B	2	Pump head	Stainless steel	AISI304
10	Bottom bearing	Tungsten carbide		8	Inlet and outlet chamber	Stainless steel	AISI304
11	Impeller	Stainless steel	AISI304				

CDLF2, 50Hz

- **Performance curve**

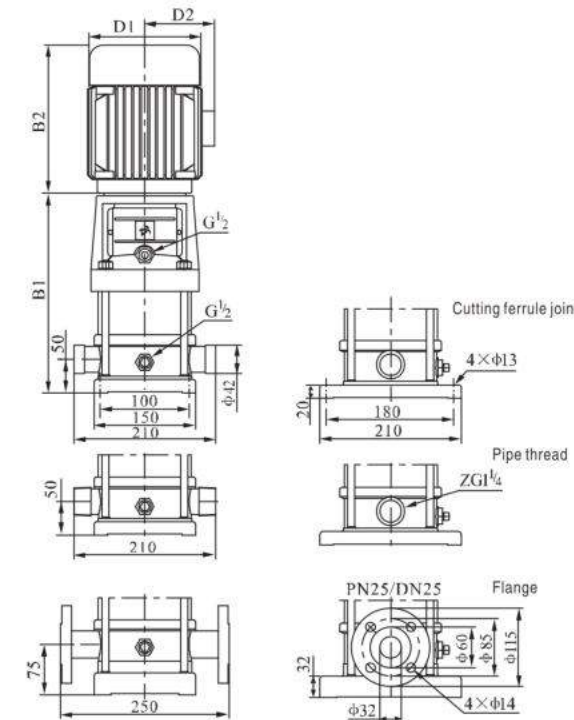
2900rpm



● Performance table

MODEL	DRIVINF MOTOR		Q (m³/h)	1	1.2	1.6	2.0	2.4	2.8	3.2	3.5
	(kW)	(hp)									
CDLF2-2	0.37	0.5	H (m)	18	17	16	15	13	12	10	8
CDLF2-3	0.37	0.5		27	26	24	22	20	18	15	12
CDLF2-4	0.55	0.75		36	35	33	30	26	24	20	16
CDLF2-5	0.55	0.75		45	43	40	37	33	30	24	20
CDLF2-6	0.75	1		53	52	50	45	40	36	30	24
CDLF2-7	0.75	1		63	61	57	52	47	41	35	28
CDLF2-9	1.1	1.5		80	78	73	67	61	54	45	37
CDLF2-11	1.1	1.5		98	95	89	82	73	64	54	44
CDLF2-13	1.5	2		116	114	106	98	89	78	64	52
CDLF2-15	1.5	2		134	130	123	112	100	90	73	60
CDLF2-18	2.2	3		161	157	148	136	121	108	91	76
CDLF2-22	2.2	3		197	192	180	165	148	130	110	90
CDLF2-26	3.0	4		232	228	214	198	179	158	130	110

● Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contast us for details.

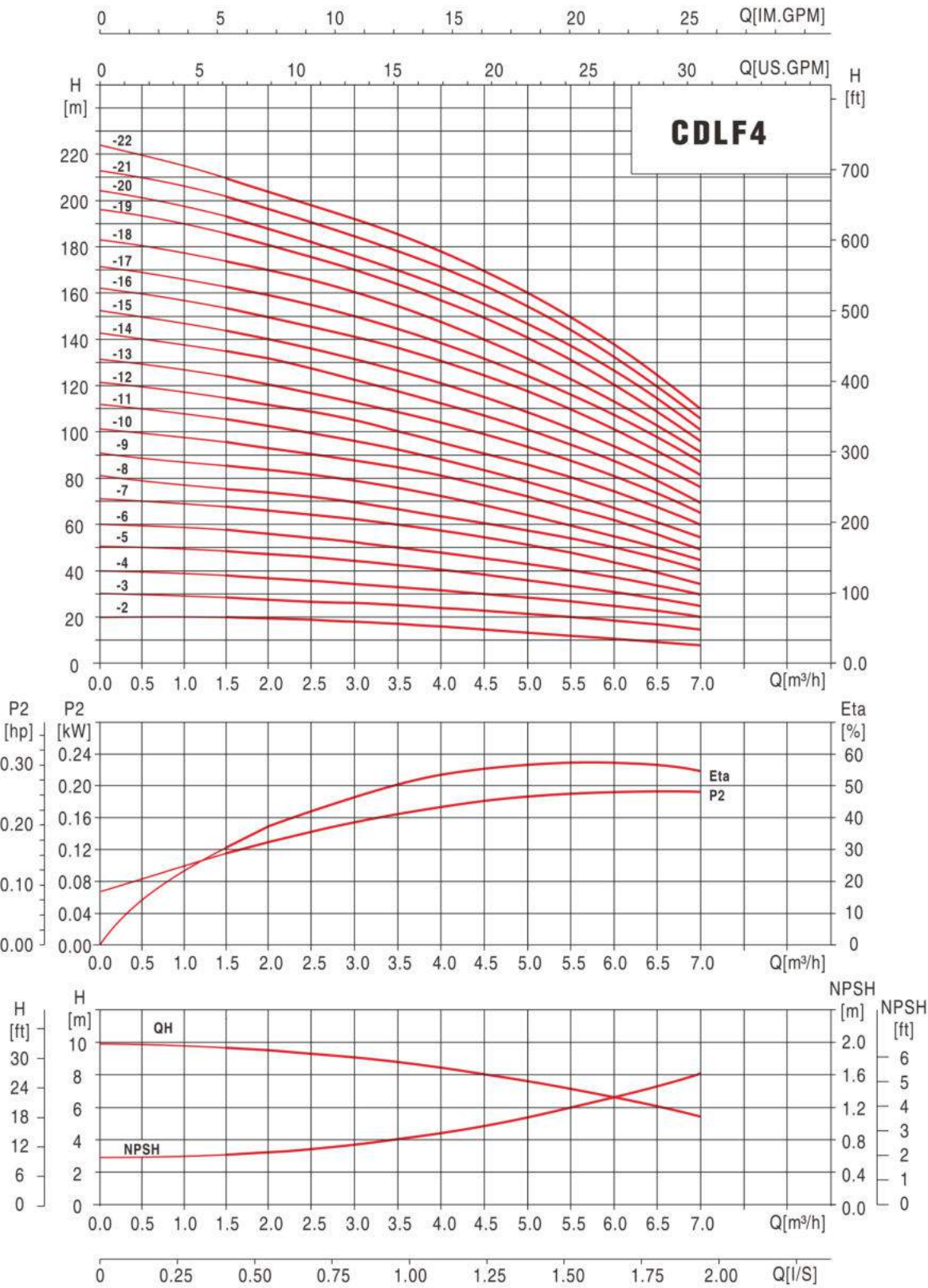
- **Size and weight**

MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF2-2	258	225	483	148	117	20
CDLF2-3	276	225	501	148	117	20
CDLF2-4	294	225	519	148	117	22
CDLF2-5	312	225	537	148	117	23
CDLF2-6	340	245	585	170	142	26
CDLF2-7	358	245	603	170	142	26
CDLF2-9	394	245	639	170	142	28
CDLF2-11	430	245	675	170	142	29
CDLF2-13	476	290	766	190	155	35
CDLF2-15	512	290	802	190	155	36
CDLF2-18	566	290	856	190	155	41
CDLF2-22	638	290	928	190	155	42
CDLF2-26	720	345	1065	197	165	52

CDLF4, 50Hz

● Performance curve

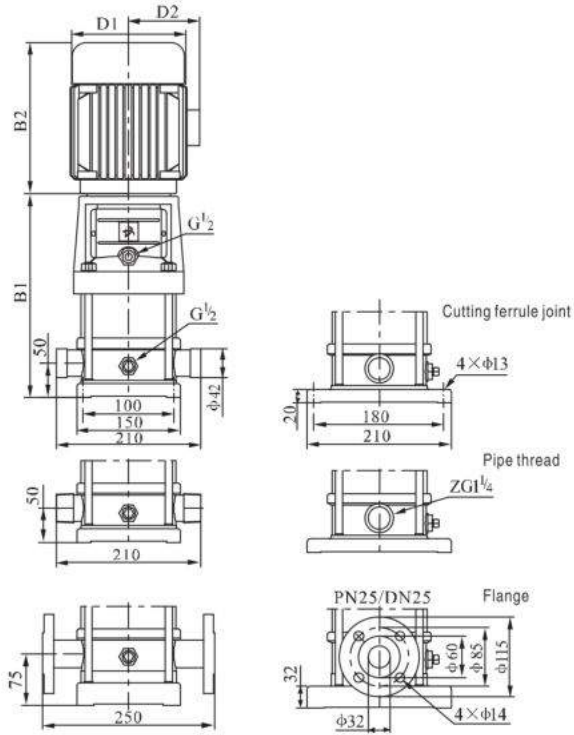
2900rpm



● Performance table

MODEL	DRIVING MOTOR		Q (m³/h)	1.5	2.0	3.0	4.0	5.0	6.0	7.0
	(kW)	(hp)								
CDLF4-2	0.37	0.5	H (m)	19	18	17	15	13	10	8
CDLF4-3	0.55	0.75		28	27	26	24	20	18	13
CDLF4-4	0.75	1		38	36	34	32	27	24	19
CDLF4-5	1.1	1.5		47	45	43	40	34	31	23
CDLF4-6	1.1	1.5		56	54	52	48	41	37	28
CDLF4-7	1.5	2		66	63	61	56	48	43	33
CDLF4-8	1.5	2		74	72	70	64	55	50	38
CDLF4-10	2.2	3		96	90	87	81	71	62	48
CDLF4-12	2.2	3		114	108	104	95	85	75	58
CDLF4-14	3.0	4		136	126	122	112	101	89	68
CDLF4-16	3.0	4		152	144	140	129	115	101	78
CDLF4-19	4.0	5.5		183	171	168	153	137	122	93
CDLF4-22	4.0	5.5		211	200	192	178	160	138	108

● Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

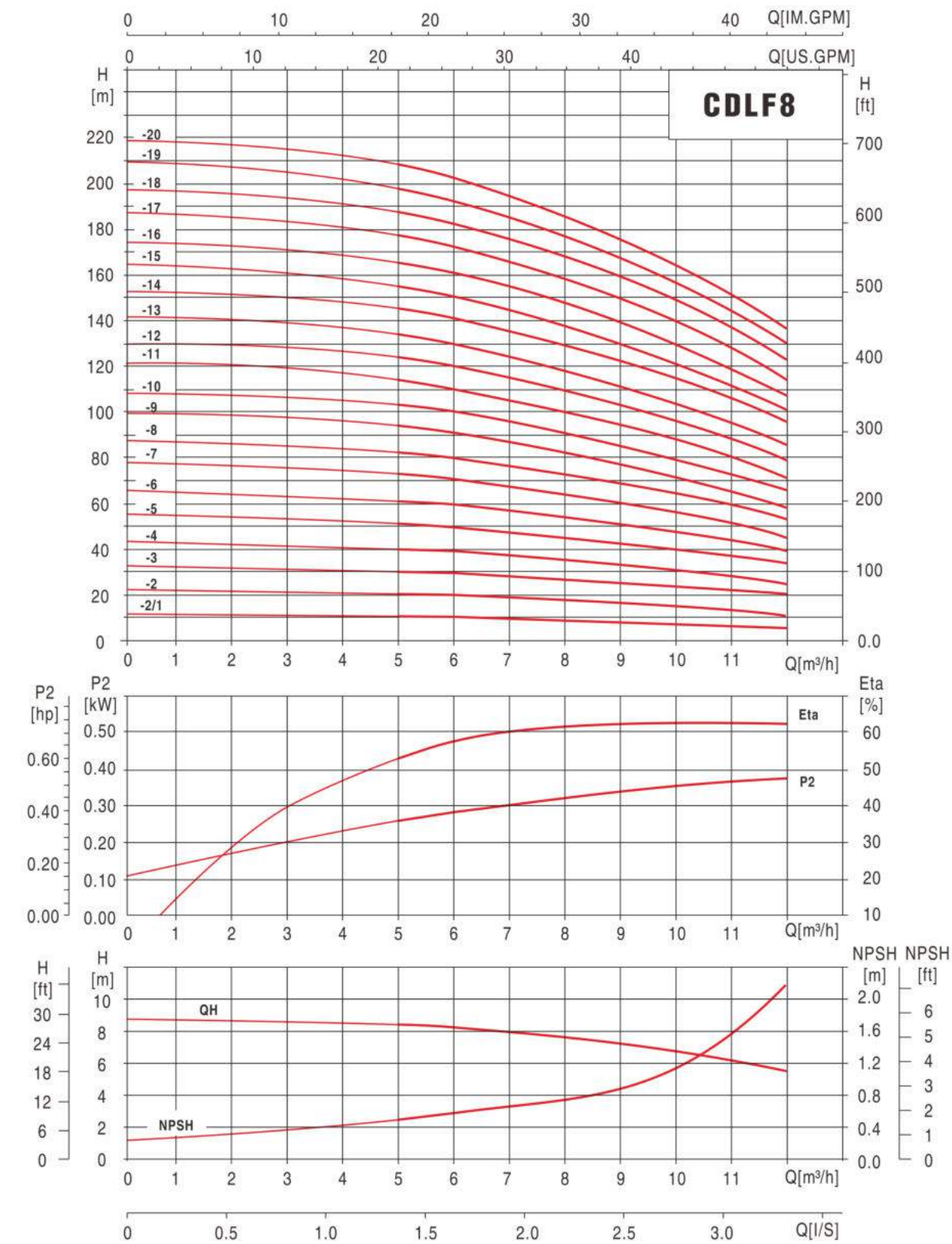
● Size and weight

MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF4-2	276	225	501	148	117	21
CDLF4-3	303	225	528	148	117	22
CDLF4-4	340	245	585	170	142	25
CDLF4-5	367	245	612	170	142	27
CDLF4-6	394	245	639	170	142	27
CDLF4-7	431	290	721	190	155	33
CDLF4-8	458	290	748	190	155	33
CDLF4-10	512	290	802	190	155	37
CDLF4-12	566	290	856	190	155	38
CDLF4-14	630	345	975	197	165	46
CDLF4-16	684	345	1029	197	165	48
CDLF4-19	765	355	1120	230	188	57
CDLF4-22	846	355	1201	230	188	59

CDLF8, 50Hz

● Performance curve

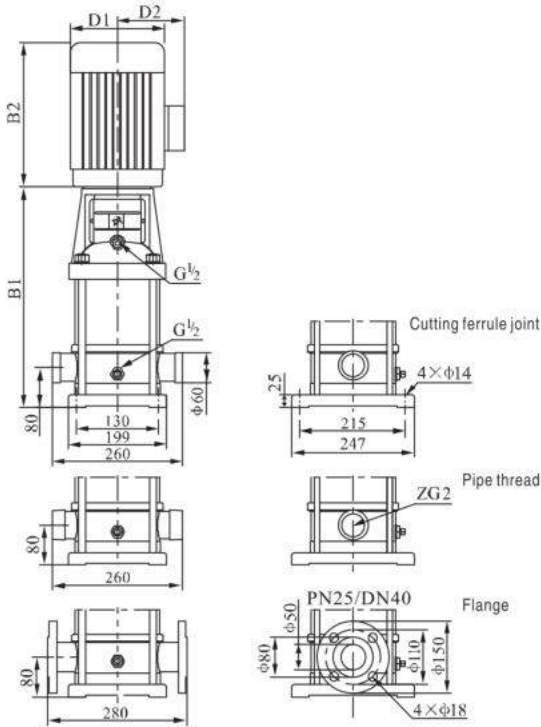
2900rpm



● Performance table

MODEL	DRIVING MOTOR		Q (m³/h)	5	6	7	8	9	10	11	12
	(kW)	(hp)									
CDLF8-2/1	0.75	1	H (m)	10	9.5	9.3	9	8.5	8	7	6
CDLF8-2	0.75	1		20	19.5	19	18	17	16	14	13
CDLF8-3	1.1	1.5		30	29.5	28.5	27	25	24	21	19
CDLF8-4	1.5	2		41	39.5	38	36	34	32	28	26
CDLF8-5	2.2	3		52	50	48	45	42	40	36	32
CDLF8-6	2.2	3		62	60	57	54	51	48	43	37
CDLF8-8	3.0	4		83	80	77	73	69	65	58	52
CDLF8-10	4.0	5.5		104	100	97	92	87	81	73	65
CDLF8-12	4.0	5.5		124	120	116	111	104	92	87	78
CDLF8-14	5.5	7.5		145	141	136	130	122	113	102	92
CDLF8-16	5.5	7.5		166	161	156	148	139	130	118	106
CDLF8-18	7.5	10		187	182	175	167	157	146	134	120
CDLF8-20	7.5	10		208	202	195	186	175	163	150	135

● Installation sketch



● Size and weight

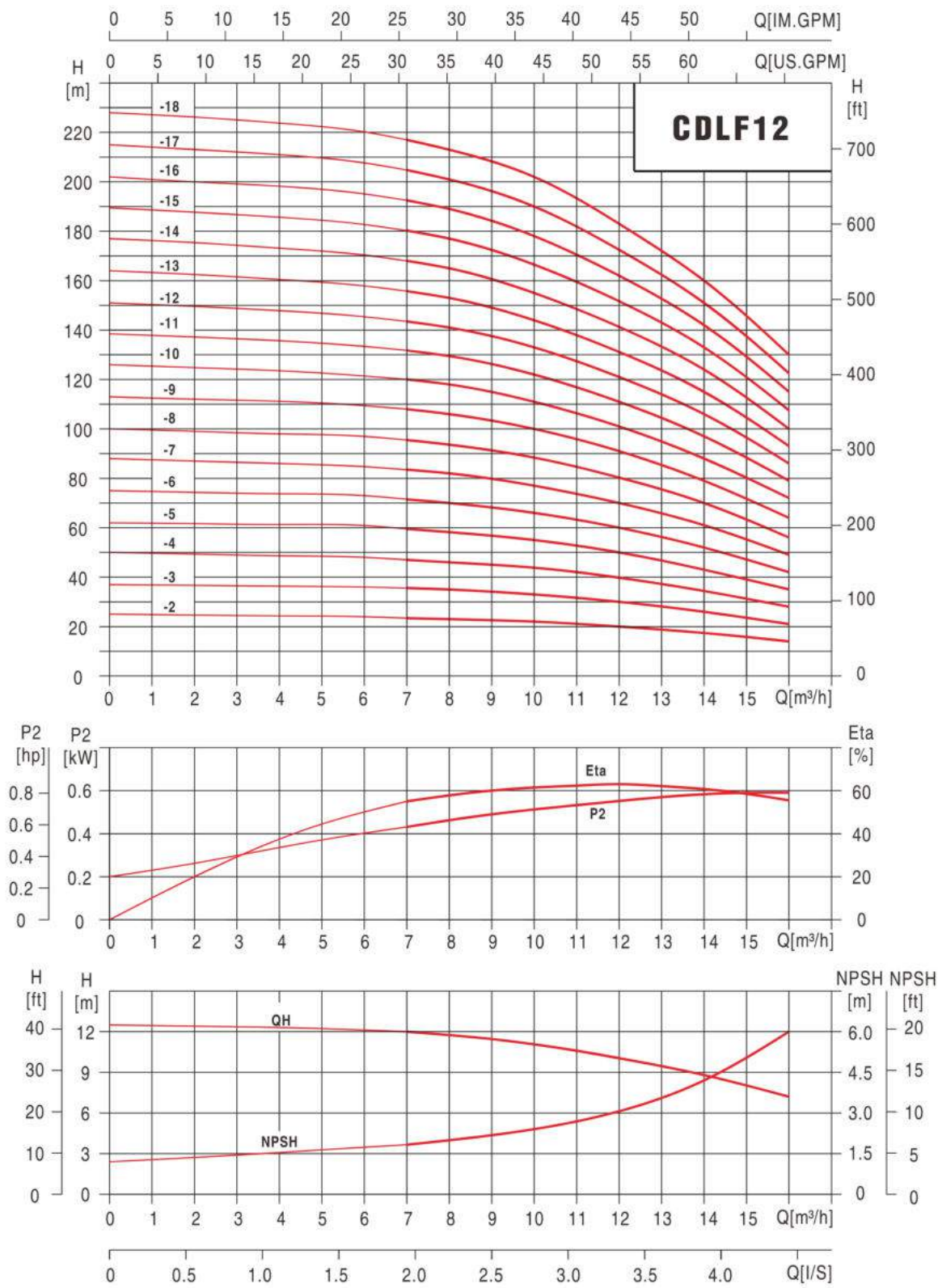
MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF8-2/1	347	245	592	170	142	32
CDLF8-2	347	245	592	170	142	32
CDLF8-3	377	245	622	170	142	34
CDLF8-4	417	290	707	190	155	40
CDLF8-5	447	290	737	190	155	44
CDLF8-6	477	290	767	190	155	45
CDLF8-8	547	345	892	197	165	53
CDLF8-10	607	355	962	230	188	64
CDLF8-12	667	355	1022	230	188	66
CDLF8-14	747	390	1137	260	208	81
CDLF8-16	807	390	1197	260	208	84
CDLF8-18	867	390	1257	260	208	93
CDLF8-20	927	390	1317	260	208	94

The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

CDLF12, 50Hz

● Performance curve

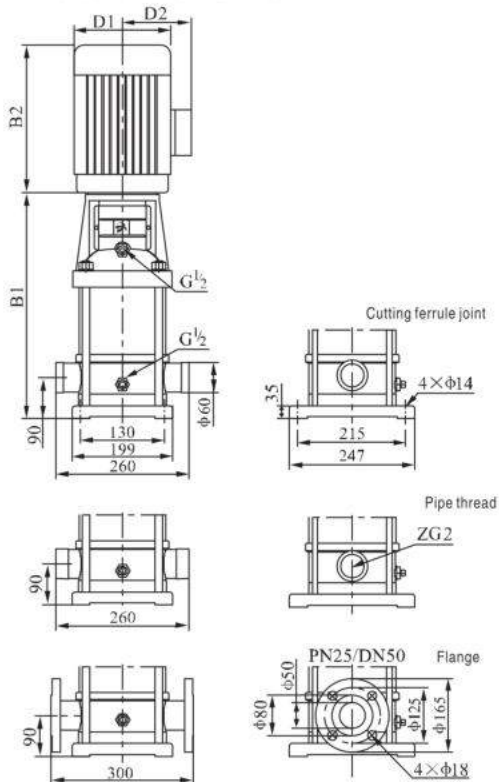
2900rpm



● Performance table

MODEL	DRIVING MOTOR		Q (m³/h)	7	8	9	10	11	12	13	14	15	16
	(kW)	(hp)											
CDLF12-2	1.5	2	H (m)	23.5	23	22.5	22	21	20	18.5	17	15.5	14
CDLF12-3	2.2	3		35.5	35	34	33	31.5	30	28	26	23.5	21
CDLF12-4	3	4		47	46	45	44	42	40	37	34	31	28
CDLF12-5	3	4		59.5	58	56.5	55	52.5	50	46.5	43	39	35
CDLF12-6	4	5.5		71.5	70	68	66	63	60	56	52	47	42
CDLF12-7	5.5	7.5		83.5	82	79.5	77	73.5	70	65.5	61	55	49
CDLF12-8	5.5	7.5		95.5	94	91	88	84	80	75	70	63	56
CDLF12-9	5.5	7.5		108	106	103	100	95.5	91	85	79	71.5	64
CDLF12-10	7.5	10		120	118	114.5	111	106	101	94.5	88	80	72
CDLF12-12	7.5	10		143.5	141	137	133	127	121	113.5	106	96	86
CDLF12-14	11	15		168	165	160	155	148	141	132.5	124	112	100
CDLF12-16	11	15		192.5	189	183.5	178	170	162	152	142	128.5	115
CDLF12-18	11	15		217	213	207.5	202	192.5	183	171.5	160	145	130

● Installation sketch



● Size and weight

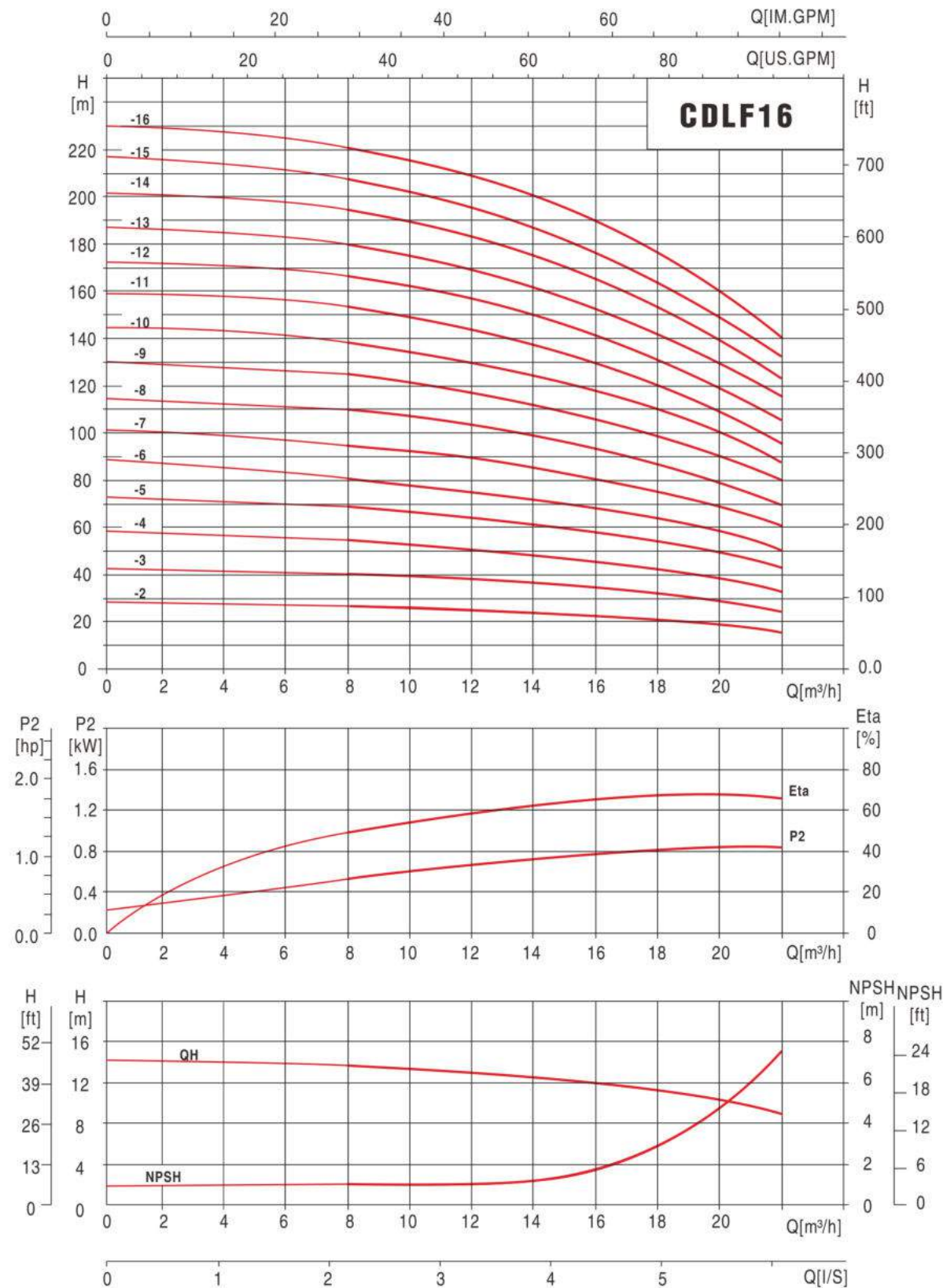
MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF12-2	367	290	657	190	155	39
CDLF12-3	397	290	687	190	155	43
CDLF12-4	437	345	782	197	165	51
CDLF12-5	467	345	812	197	165	53
CDLF12-6	497	355	852	230	188	61
CDLF12-7	547	390	937	260	208	73
CDLF12-8	577	390	967	260	208	74
CDLF12-9	607	390	997	260	208	76
CDLF12-10	637	390	1027	260	208	83
CDLF12-12	697	390	1087	260	208	87
CDLF12-14	845	500	1345	330	255	157
CDLF12-16	905	500	1405	330	255	161
CDLF12-18	965	500	1465	330	255	164

The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

CDLF16, 50Hz

- **Performance curve**

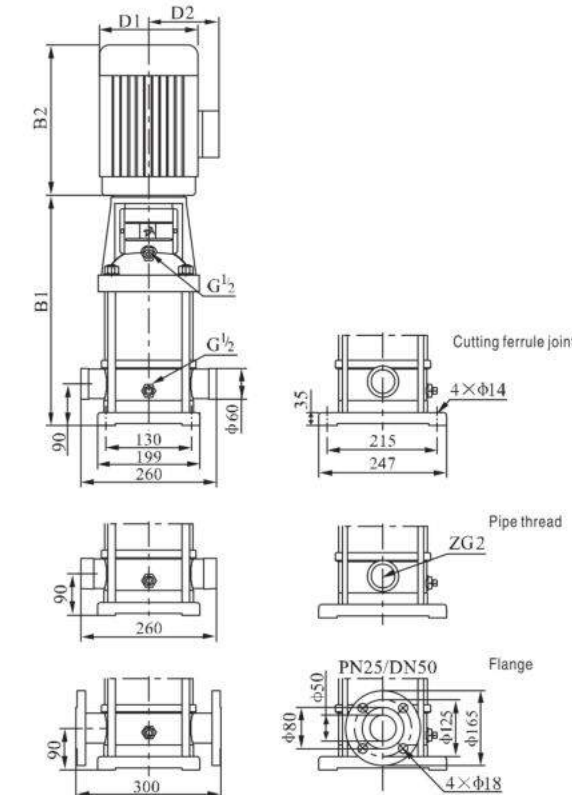
2900rpm



● Performance table

MODEL	DRIVINF MOTOR		Q (m³/h)	8	10	12	14	16	18	20	22
	(kW)	(hp)									
CDLF16-2	2.2	3	H (m)	27	26	25	24	22	21	19	16
CDLF16-3	3.0	4		41	40	38	37	34	32	29	25
CDLF16-4	4.0	5.5		54	53	52	49	46	43	38	34
CDLF16-5	5.5	7.5		68	67	65	62	58	54	48	43
CDLF16-6	5.5	7.5		82	80	78	74	70	64	58	52
CDLF16-7	7.5	10		96	95	91	87	82	76	68	61
CDLF16-8	7.5	10		110	108	104	99	94	86	77	70
CDLF16-10	11	15		138	136	131	125	118	109	97	87
CDLF16-12	11	15		166	162	157	150	141	130	116	105
CDLF16-14	15	20		194	190	184	175	166	152	136	122
CDLF16-16	15	20		222	217	210	200	189	174	156	140

- **Installation sketch**



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

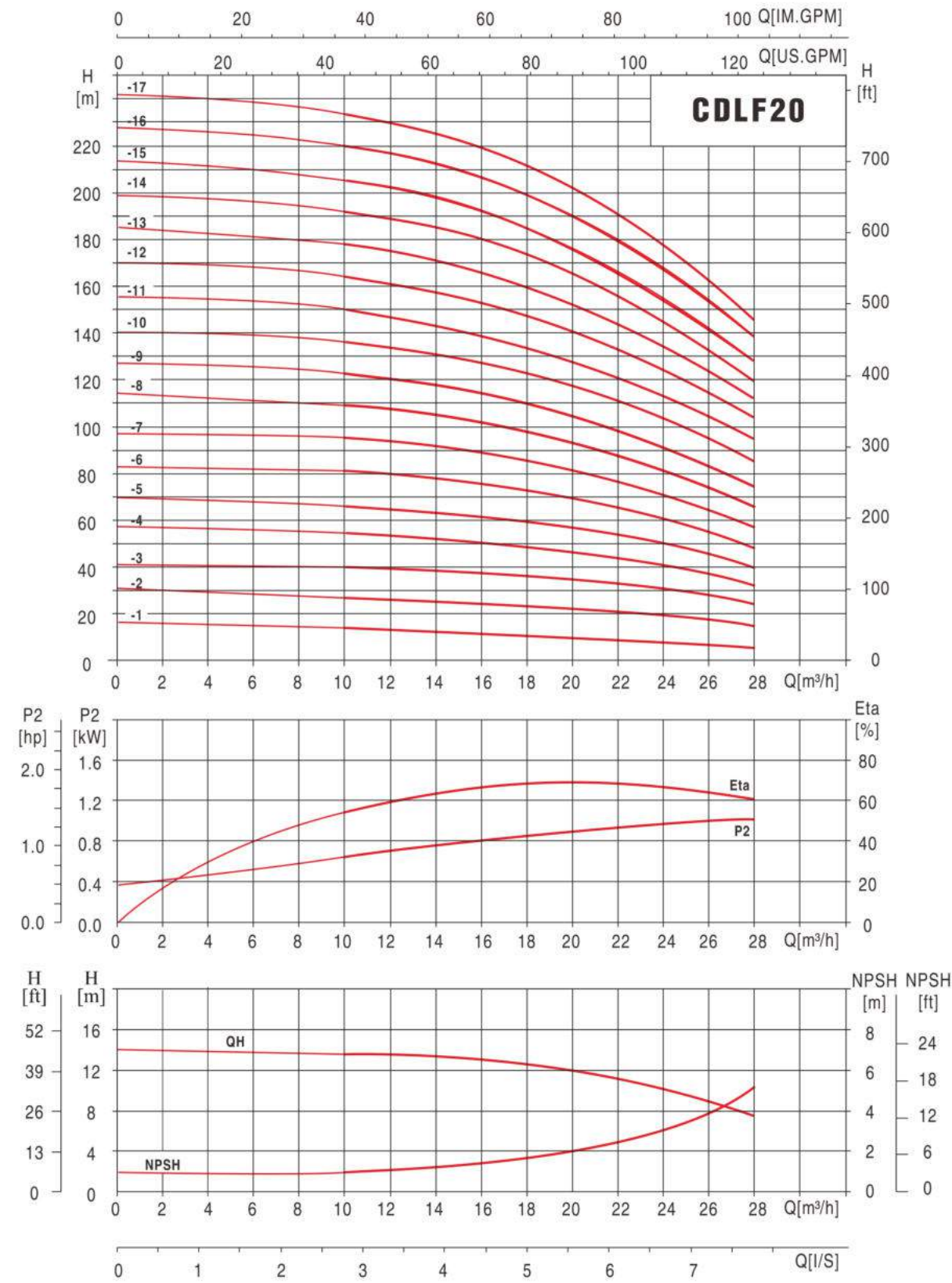
- **Size and weight**

MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF16-2	397	290	687	190	155	42
CDLF16-3	452	345	797	197	165	50
CDLF16-4	497	355	852	230	188	59
CDLF16-5	562	390	952	260	208	76
CDLF16-6	607	390	997	260	208	77
CDLF16-7	652	390	1042	260	208	84
CDLF16-8	697	390	1087	260	208	86
CDLF16-10	875	500	1375	330	255	158
CDLF16-12	965	500	1465	330	255	161
CDLF16-14	1055	500	1555	330	255	174
CDLF16-16	1145	500	1645	330	255	178

CDLF20, 50Hz

● Performance curve

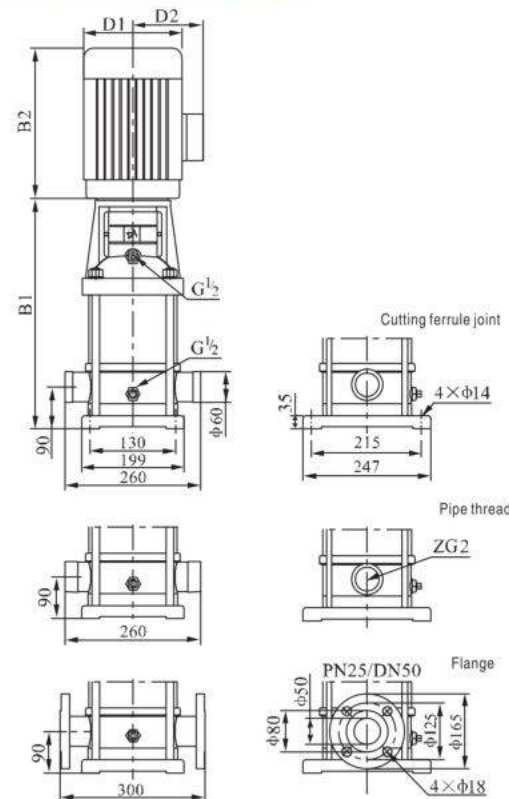
2900rpm



● Performance table

MODEL	DRIVING MOTOR (kW)	Q (m³/h)	H (m)									
			10	12	14	16	18	20	22	24	26	28
CDLF20-1	1.1	H (m)	13.5	13	12.5	12	11	10	9	8	7	6
CDLF20-2	2.2		27	26.5	26	25	24	23	22	20	18	15
CDLF20-3	4.0		40	39.5	39	38	37	35	33	30	27	24
CDLF20-4	5.5		54	53	52	51	49	47	44	41	37	33
CDLF20-5	5.5		67	66	64	62	60	58	55	50	45	40
CDLF20-6	7.5		81	79	77	75	73	70	66	61	55	49
CDLF20-7	7.5		95	93	91	89	86	82	77	71	65	58
CDLF20-8	11		109	107	105	102	99	94	89	82	75	67
CDLF20-10	11		136	134	131	128	124	118	111	103	95	85
CDLF20-12	15		164	162	158	154	149	142	133	124	114	102
CDLF20-14	15		192	189	185	180	174	166	156	145	133	119
CDLF20-17	18.5		234	230	225	219	212	202	190	177	162	145

● Installation sketch



The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.

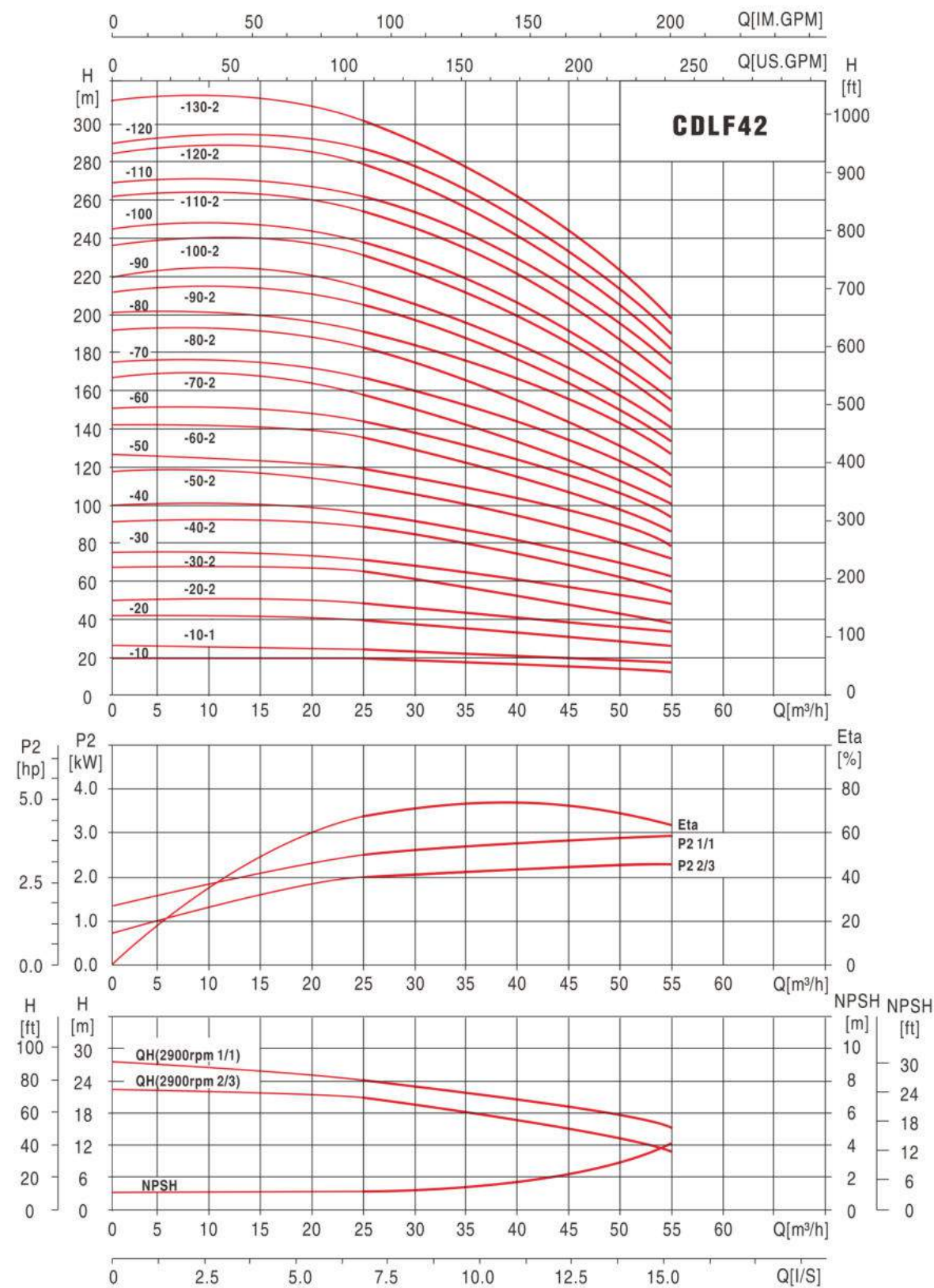
● Size and weight

MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF20-1	387	245	632	170	142	33
CDLF20-2	397	290	687	190	155	42
CDLF20-3	452	355	807	230	188	58
CDLF20-4	517	390	907	260	208	74
CDLF20-5	562	390	952	260	208	76
CDLF20-6	607	390	997	260	208	82
CDLF20-7	652	390	1042	260	208	84
CDLF20-8	785	500	1285	330	255	153
CDLF20-10	875	500	1375	330	255	157
CDLF20-12	965	500	1465	330	255	170
CDLF20-14	1055	500	1555	330	255	172
CDLF20-17	1190	550	1740	330	255	195

CDLF42, 50Hz

● Performance curve

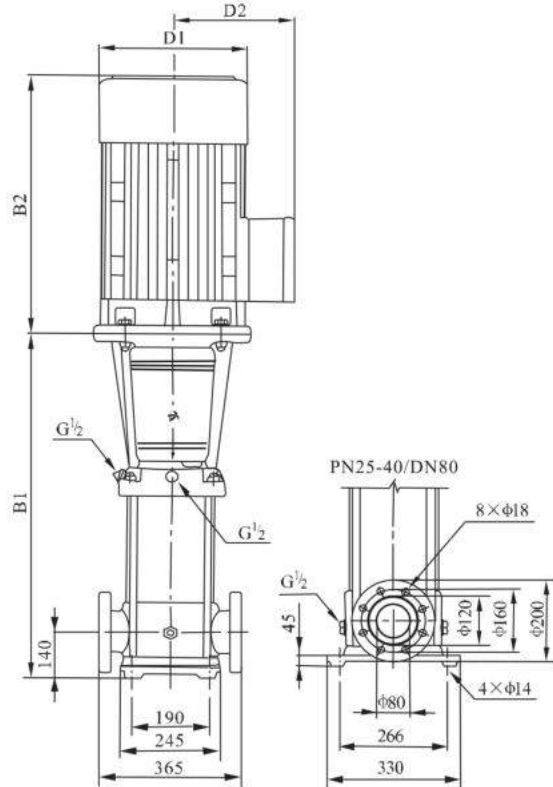
2900rpm



● Performance table

MODEL	DRIVING MOTOR		Q (m³/h)	25	30	35	40	42	45	50	55
	(kW)	(hp)									
CDLF42-1-1	3.0	4	H (m)	20	19	18	17	16	15	13	11
CDLF42-1	4.0	5.5		24	23	22	21	20	19	18	16
CDLF42-2-2	5.5	7.5		40	38	36	33	32	30	27	23
CDLF42-2	7.5	10		48	46	44	42	41	39	35	31
CDLF42-3-2	11	15		63	61	58	54	52	50	44	38
CDLF42-3	11	15		71	69	66	63	61	58	53	47
CDLF42-4-2	15	20		87	84	80	75	73	69	62	54
CDLF42-4	15	20		95	92	88	84	81	78	71	62
CDLF42-5-2	18.5	25		111	107	102	96	93	88	80	69
CDLF42-5	18.5	25		119	115	110	105	101	97	88	78
CDLF42-6-2	22	30		135	130	124	117	113	108	97	85
CDLF42-6	22	30		143	138	132	125	122	116	106	93
CDLF42-7-2	30	40		158	152	146	138	134	127	115	100
CDLF42-7	30	40		166	161	154	146	142	135	124	109
CDLF42-8-2	30	40		182	175	168	159	154	146	133	116
CDLF42-8	30	40		190	184	176	167	162	154	141	124
CDLF42-9-2	30	40		205	198	190	180	174	166	150	132
CDLF42-90	37	40		214	207	198	188	183	174	159	140
CDLF42-10-2	37	50		230	221	212	200	194	185	168	147
CDLF42-10	37	50		238	230	220	209	203	193	177	155
CDLF42-11-2	45	60		255	246	236	223	217	206	188	165
CDLF42-11	45	60		263	255	244	232	225	214	196	173
CDLF42-12-2	45	60		280	270	259	245	238	226	206	181
CDLF42-12	45	60		289	280	268	255	247	236	216	190
CDLF42-13-2	45	60		305	294	282	267	259	247	225	198

● Installation sketch



● Size and weight

MODEL	Size(mm)					Weight (kg)
	B1	B2	B1+B2	D1	D2	
CDLF42-1-1	561	345/355	906/916	197/230	165/188	83/90
CDLF42-1						
CDLF42-2-2	641	390	1031	260	208	105/110
CDLF42-2						
CDLF42-3-2	826	500	1326	330	255	183
CDLF42-3						
CDLF42-4-2	906	500	1406	330	255	197
CDLF42-4						
CDLF42-5-2	986	550	1536	330	255	221
CDLF42-5						
CDLF42-6-2	1066	575	1641	360	285	261
CDLF42-6						
CDLF42-7-2	1146	650	1796	400	310	320
CDLF42-7						
CDLF42-8-2	1226	650	1876	400	310	320
CDLF42-8						
CDLF42-9-2	1306	650	1956	400	310	328/352
CDLF42-9						
CDLF42-10-2	1386	650	2036	400	310	355
CDLF42-10						
CDLF42-11-2	1466	685	2151	450	345	426
CDLF42-11						
CDLF42-12-2	1546	685	2231	450	345	432
CDLF42-12						
CDLF42-13-2	1626	685	2311	450	345	438

The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Pls contact us for details.