



YOKING PUMP INDUSTRY CO.,LTD.



FLOWS OF POWER CYCLES OF LIFE

ISO9001:2015  
International  
Quality Management System  
Certification

# CDL(F)

Light-duty  
Stainless Steel  
Vertical Multistage  
Centrifugal Pump

50Hz



FLOWS OF POWER CYCLES OF LIFE

## YOKING PUMP INDUSTRY CO.,LTD.

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20231110

YOKING PUMP INDUSTRY CO.,LTD.

High-Quality Industrial Pumps Manufacturer



## HIGH-QUALITY INDUSTRIAL PUMPS MANUFACTURER

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YOKING PUMP INDUSTRY CO., LTD is a professional manufacturer of high quality industrial pumps, with the business purpose of "Quality As The Basis, Sales For Development" and the value of "Technology First, Beyond Self". We use super high casting technology,high quality parts to create the best quality products. In order to better meet customer demand and business expansion needs, We are looking for agents and cooperative partner from all over the world. Our quality and production of products improved year by year, YOKING has entered a period of rapid development, but we will work harder, constantly improve the product framework, innovative technology, will be more excellent products and perfect service for the majority of customers.



# CDL(F)

## Light-duty Stainless Steel Vertical Multistage Centrifugal Pump



Private House



Agricultural



Civil use



Industrial use



### Light-duty Stainless Steel Vertical Multistage Centrifugal Pump

#### Main Application

CDL/CDLF is a multifunctional product that can transport various media from tap water to industrial liquids, and is suitable for different temperature, flow and pressure ranges. CDL is suitable for non-corrosive liquids, and CDL is suitable for mildly corrosive liquids.

Water Supply: water plant filtration and transmission, water plant zoning water delivery, main booster, highrise building booster.

Industrial Pressurization : Process water systems, cleaning systems, high-pressure flushing systems, fire-fighting systems.

Industrial fluid transfer : Cooling and air conditioning systems, boiler feed and condensing systems, machine tool sets, acids and alkalis.

Water treatment : Ultrafiltration systems, reverse osmosis systems, distillation systems, separators, swimming pools.

Irrigation: Agricultural irrigation, sprinkler irrigation, drip irrigation.

#### Pump

CDL/CDLF is a non-self-priming vertical multistage centrifugal pump with standard motor.

By a coupling the motor shaft is through the pump head directly connected with the pump shaft, the pressure-resistant cylinder and the over-current component are fixed between the pump head and the water inlet and outlet section by a tie rod bolt. Water inlet and outlet of the pump are on the same straight line at the pump bottom; This pump can be equipped with intelligent protectors as required to effectively protect the pump from dry rotation, phase loss and overload.

#### Operating Conditions

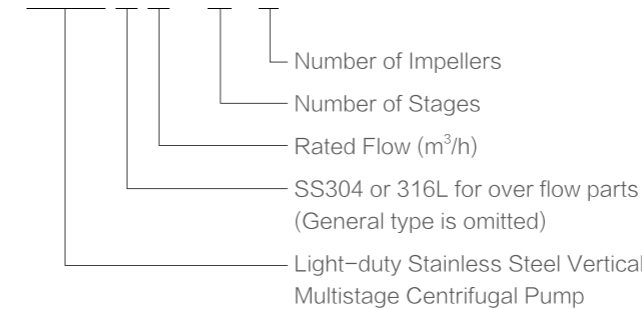
- Liquid Temperature:
- Normal Temperature Type -15°C to +70°C
- Hot Water Type - 15°C to +120°C
- Ambient Temperature: Max. +40°C
- Altitude: up to 1000m

#### Motor

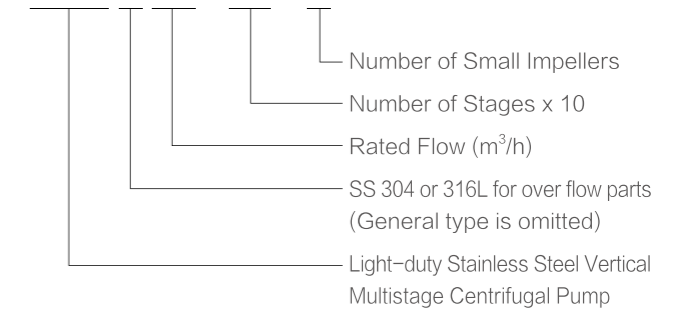
- Motor is a fully enclosed, air-cooled two pole standard motor
- Protection Class : IP55
- Insulation Class: F
- Voltage : 50Hz: 1 × 220-230/240V  
 3 × 200-220/346-380V  
 3 × 220-240/380-415V  
 3 × 380-415V

#### Model Implication

##### CDL F 8 - 2 / 1



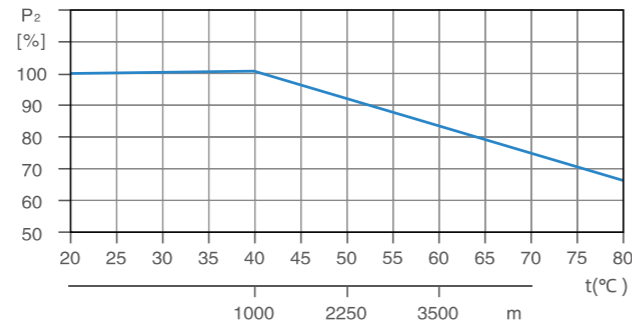
##### CDL F 32 - 10 - 2



## Ambient Temperature

Max. ambient temperature: +40°C . Ambient temperature above 40°C or installation at altitude of more than 1000 meters above sea level require the use of an oversize motor. Because of low air density and poor cooling effects, the motor output power P2 will be decreased. See the picture.

In such cases, it may be necessary to use a motor with a higher output power rating.



## Minimum Inlet Pressure

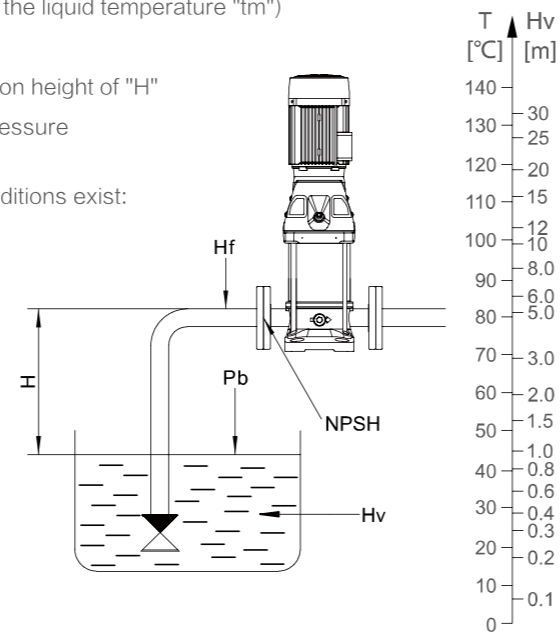
To avoid cavitation, it is necessary to ensure a minimum pressure on the inlet side of the pump. The maximum suction height "H" can be calculated as follows:

$$H = P_b \times 10.2 - NPSH - H_f - H_v - H_s$$

- **H** is maximum suction head (m)
- **Pb** is atmospheric pressure in bar  
(Can be set to 1bar, in closed system, Pb is system pressure)
- **NPSH** is the net positive suction head of the pump in m; the corresponding value at maximum flow can be read in the graph
- **Hf** is the suction line resistance loss in m (at the maximum flow of the pump)
- **Hv** is the vaporization pressure in m  
(can be read from the vaporization pressure gauge. Its value depends on the liquid temperature "tm")
- **Hs** is the minimum safety margin of 0.5m
- If the calculated "H" is positive, the pump can operate at a maximum suction height of "H"
- If the calculated "H" is negative, the pump requires a minimum "H" inlet pressure

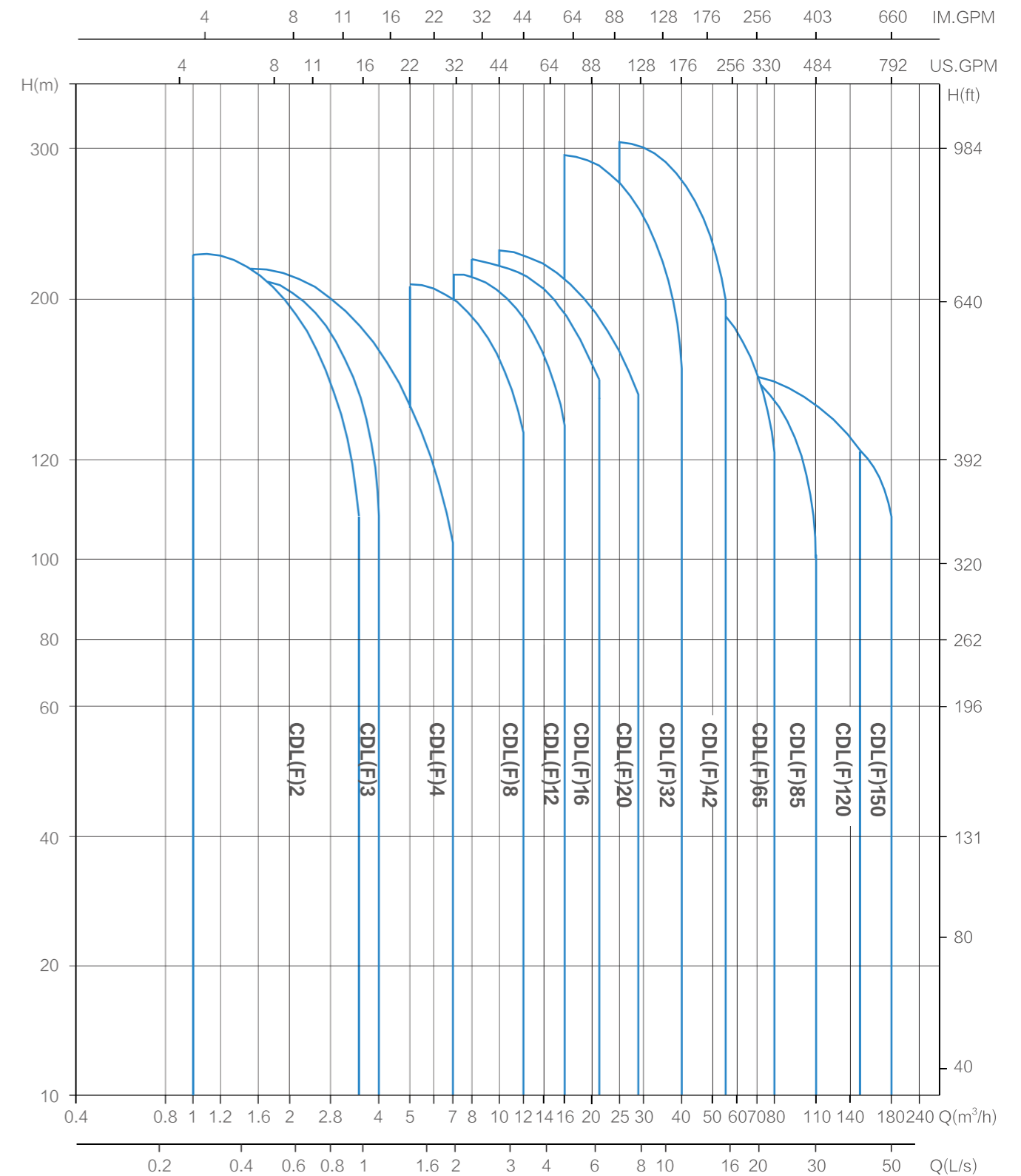
It is recommended to calculate the inlet pressure "H" when the following conditions exist:

- High liquid temperature
- The flow is significantly greater than the rated flow
- Pump water from low
- Pumping water from long pipes
- Poor import conditions

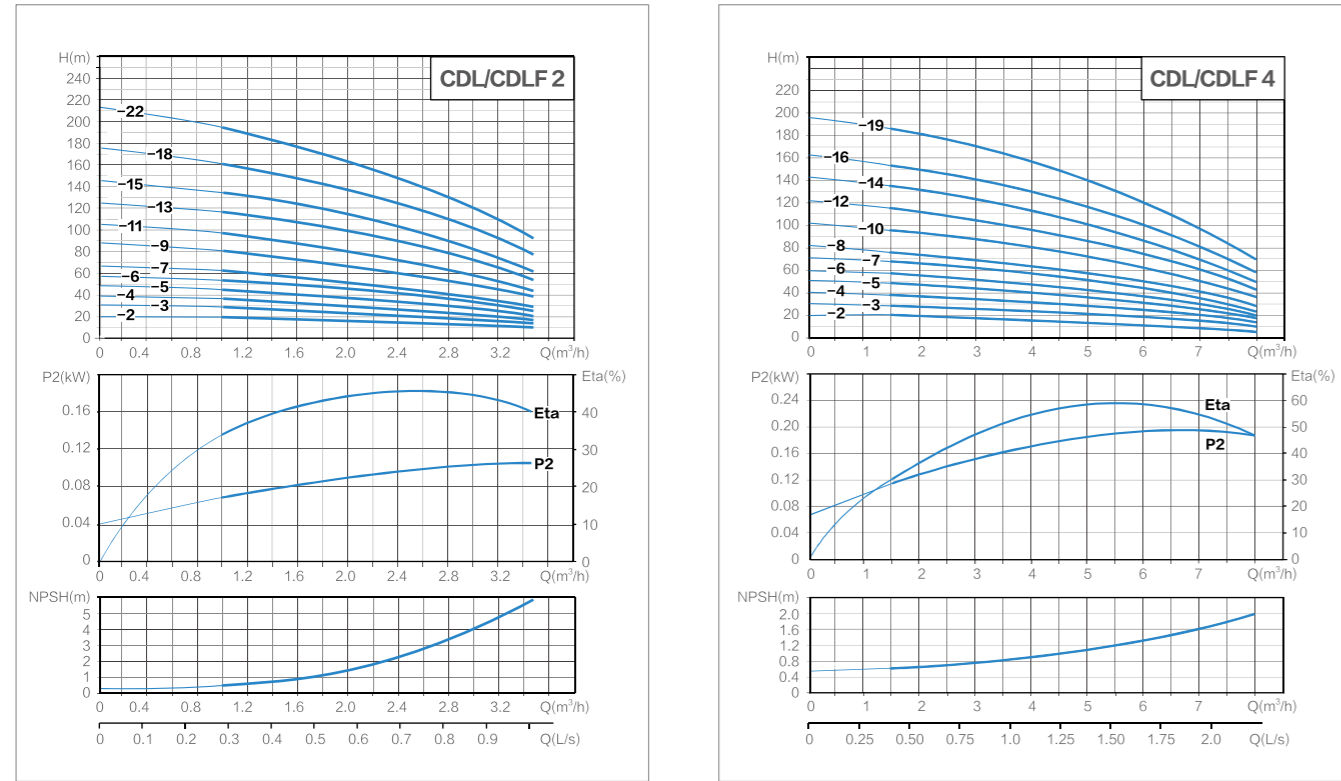


**NOTE:** To avoid cavitation, the pump should be rated away from the right side of the NPSH curve. Always check the NPSH value of the pump at the highest possible flow.

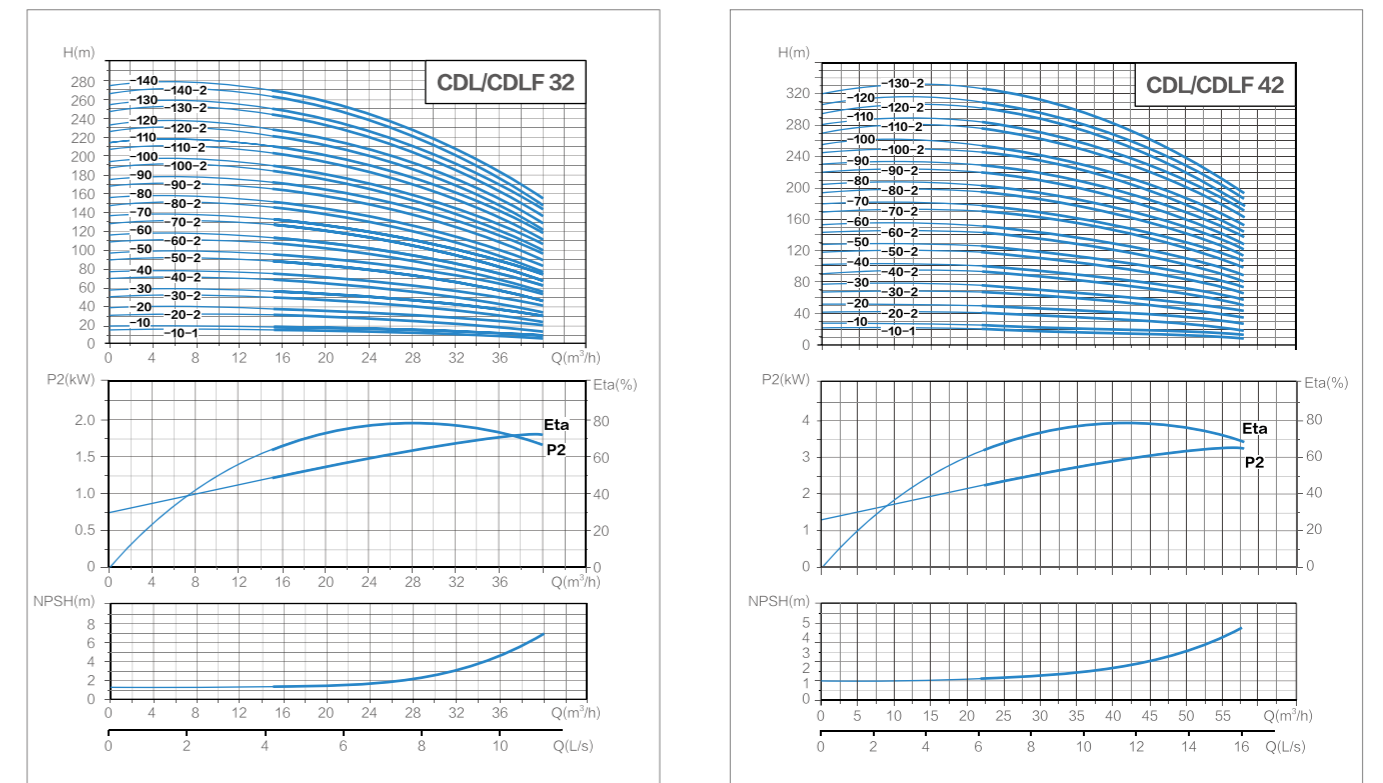
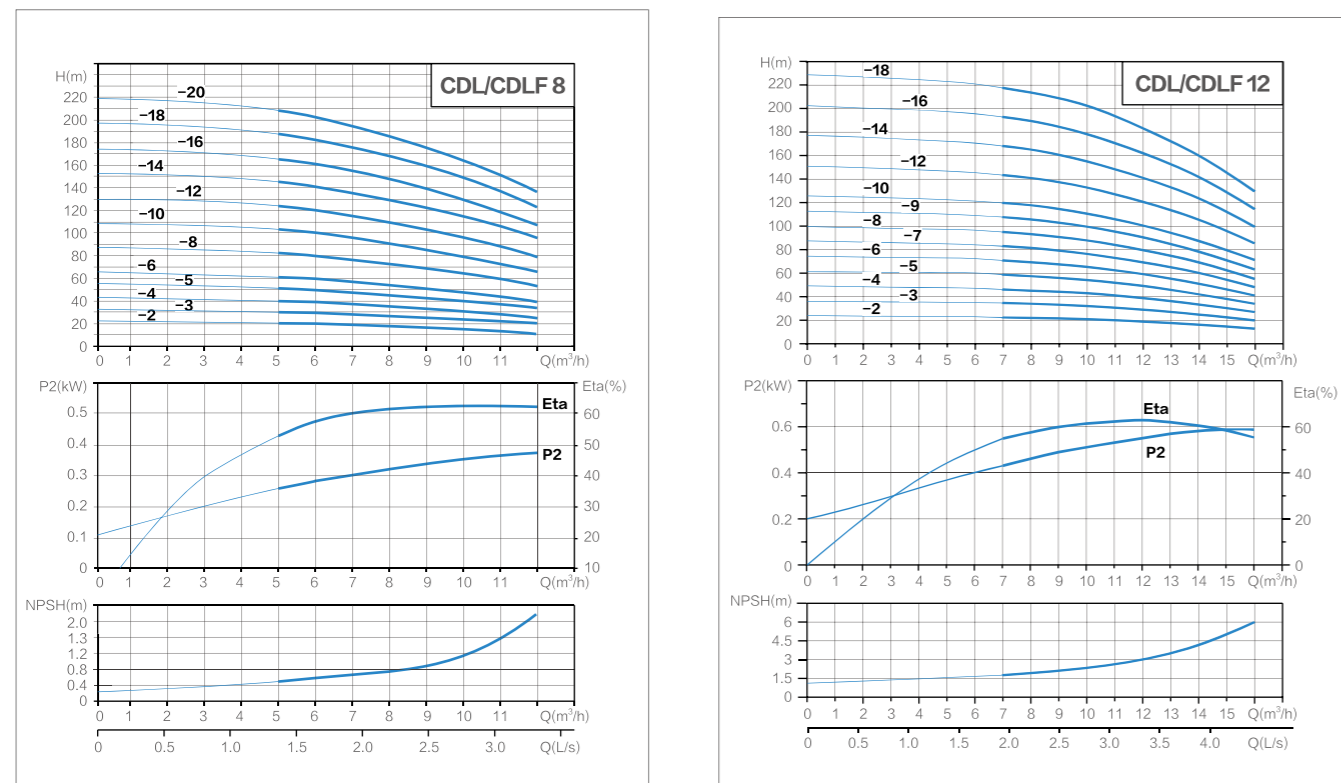
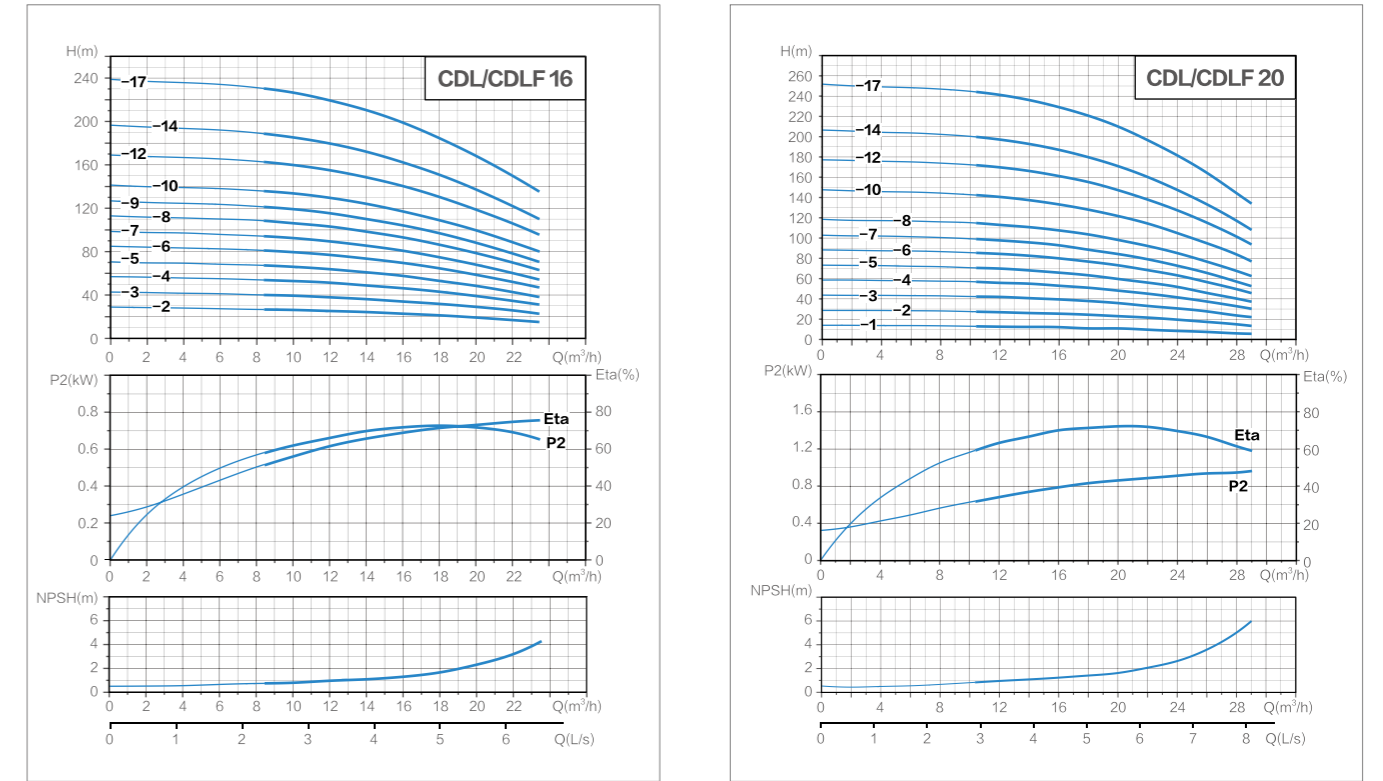
## Scope of Performance



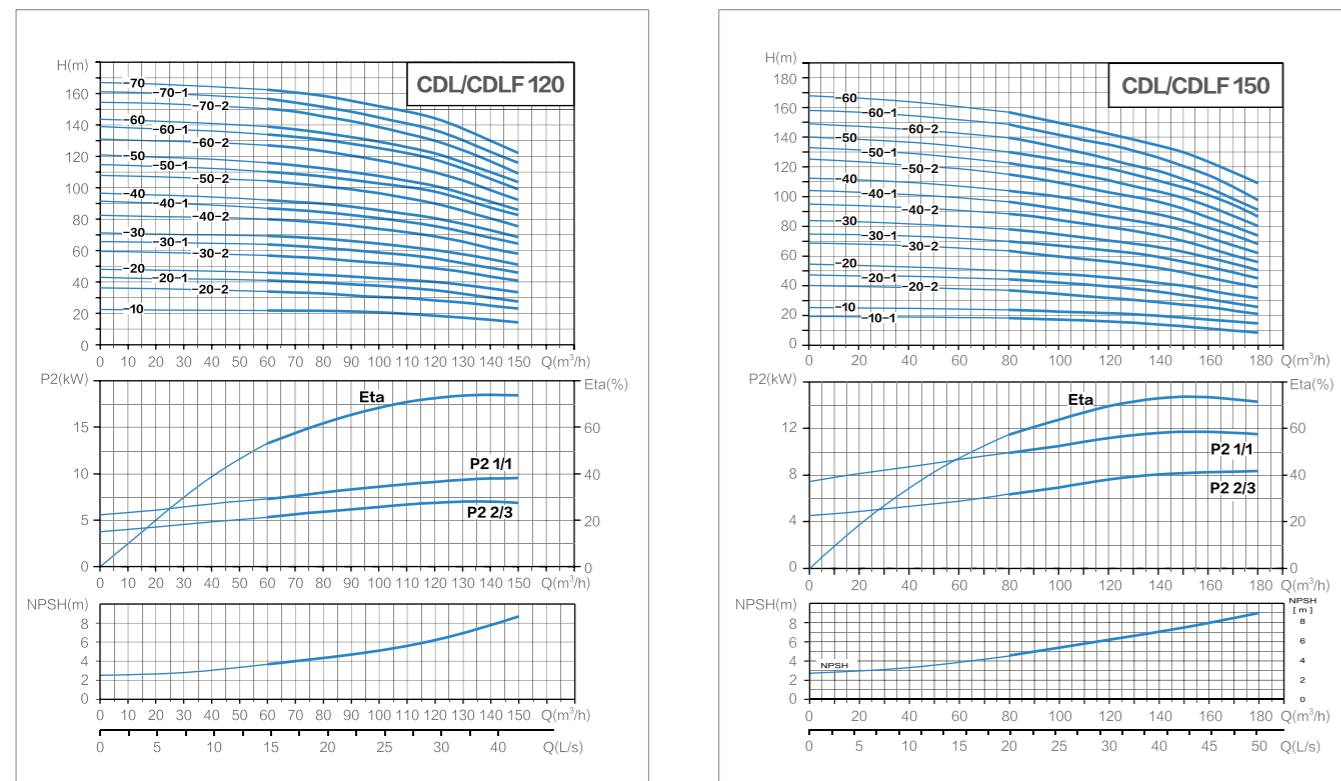
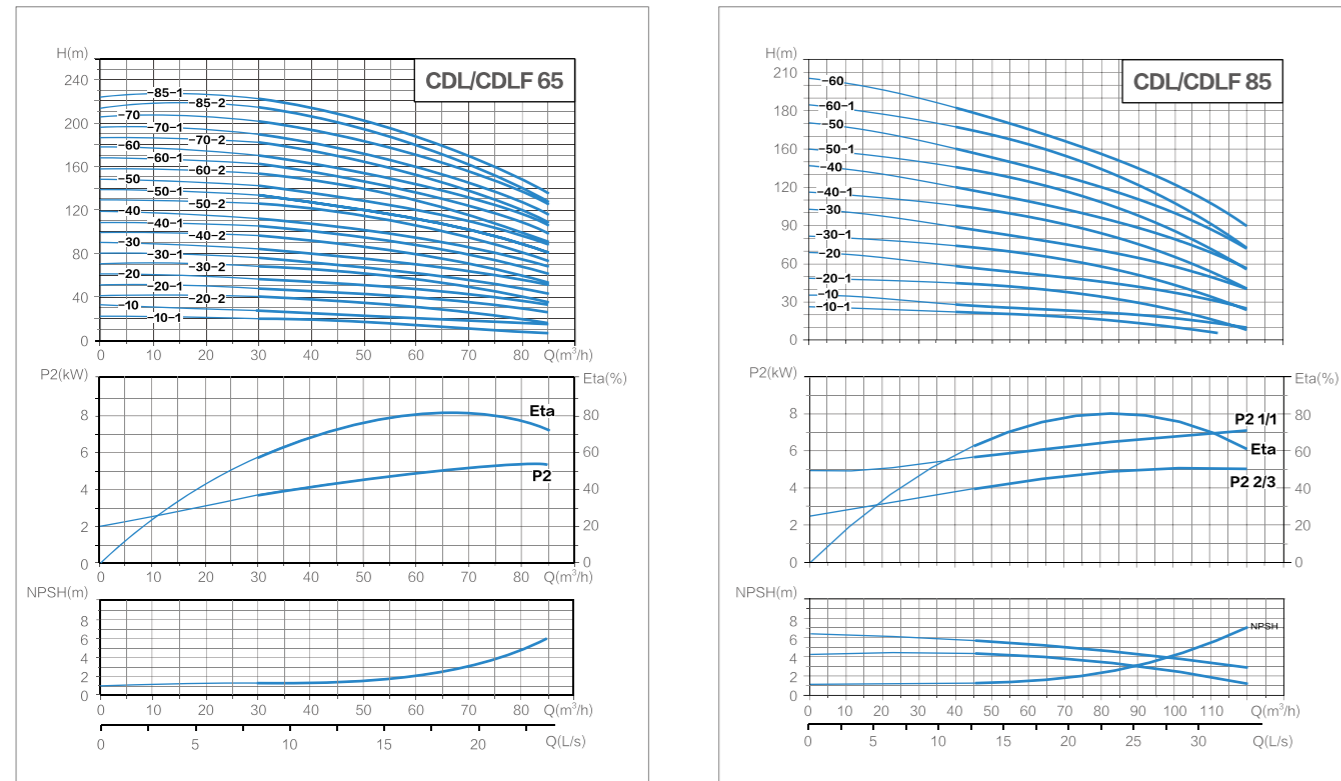
### Hydraulic Performance Curves



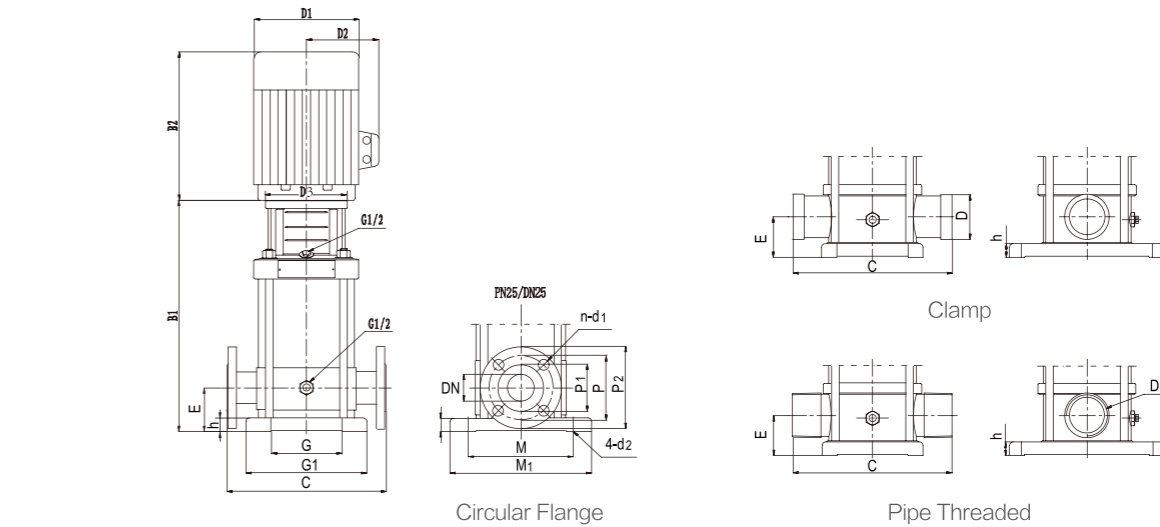
### Hydraulic Performance Curves



### Hydraulic Performance Curves



### Technical Parameter



Size	Model	CDL/CDLF											
		2	4	8	12	16	20	32	42	65	85	120	150
Circular Flange Connection	DN	25	32	40	50		65	80	100	125	150	175	210
	P1	60		80		107	120	150	180	220	270	330	400
	P	85	100	110	125		145	160	180	220	270	330	400
	P2	115	140	150	165		185	200	220	270	330	400	470
	n-d1	4-Φ14		4-Φ18		8-Φ18			8-Φ28				
	C	250		280		320	365	380	380				
	E	75		86		105	140		180				
h	32		35		30	45		40					
Nominal Pressure	PN25					PN25-40		PN16		PN25-40			
Clamp Connection	D	42		60		-	-	-	-				
	C	210		260		-	-	-	-				
	E	50		80	90		-	-	-	-			
	h	20		25	35		-	-	-	-			
Pipe Threaded Connection	D	ZG1 1/4		ZG2		-	-	-	-				
	C	210		260		-	-	-	-				
	E	50		80	90		-	-	-	-			
	h	20		25	35		-	-	-	-			
Waist Flange Connection	D	G1	G1 1/4	G1 1/2		-	-	-	-				
	C	162		200		-	-	-	-				
	E	50		80		-	-	-	-				
	h	20		25		-	-	-	-				
	P	75		100		-	-	-	-				
Foot Connection	n-d1	2-M10×40		2-M12×45		-	-	-	-				
	k	22		-		-	-	-	-				
	G	100		130		170	190	199	275				
	G1	150		199		225	245	255	340				
Siz	M	180		215		240	266	280	380				
	M1	210		247		298	330	348	472				
	d2	13		14		14		18					

- Pump should be installed in a well-ventilated and anti-freezing place, and the distance between the pump and the motor should be at least 150mm from the obstacle, so that there is enough air around the cooling fan of the motor.
- In order to minimize the friction loss at the inlet, the water inlet pipe should be as short as possible.
- Before installing the pump, check whether the pipeline system is equipped with check valves to prevent liquid backflow. If the pump is used for boiler water supply, a check valve must be installed on the pipeline between the pump and the boiler.
- Pump should be installed on concrete or similar foundation with appropriate height.

Technical Parameter

NO.	Model	Motor		Rated Flow m³/h	Rated Head m	Dimension ( mm )					Weight kg
		kW	HP			B1	B2	B1+B2	D1	D2	
1	CDL(F)2-2	0.37	0.5	2 (DN25)	15	258	225	483	148	117	24
2	CDL(F)2-3	0.37	0.5		22	276	225	501	148	117	24
3	CDL(F)2-4	0.55	0.75		30	294	225	519	148	117	25
4	CDL(F)2-5	0.55	0.75		37	312	225	537	148	117	26
5	CDL(F)2-6	0.75	1		45	358	245	603	170	142	30
6	CDL(F)2-7	0.75	1		52	376	245	621	170	142	30
7	CDL(F)2-9	1.1	1.5		67	412	245	657	170	142	33
8	CDL(F)2-11	1.1	1.5		82	448	245	693	170	142	34
9	CDL(F)2-13	1.5	2		98	459	290	749	190	155	40
10	CDL(F)2-15	1.5	2		112	495	290	785	190	155	42
11	CDL(F)2-18	2.2	3		136	554	290	844	190	155	46
12	CDL(F)2-22	2.2	3		165	626	290	916	190	155	47
13	CDL(F)4-2	0.37	0.5	4 (DN32)	15	276	225	501	148	117	22
14	CDL(F)4-3	0.55	0.75		24	303	225	528	148	117	24
15	CDL(F)4-4	0.75	1		32	358	245	603	170	142	30
16	CDL(F)4-5	1.1	1.5		40	385	245	630	170	142	32
17	CDL(F)4-6	1.1	1.5		48	412	245	657	170	142	33
18	CDL(F)4-7	1.5	2		56	414	290	704	190	155	39
19	CDL(F)4-8	1.5	2		64	441	290	731	190	155	40
20	CDL(F)4-10	2.2	3		81	500	290	790	190	155	43
21	CDL(F)4-12	2.2	3		95	554	290	844	190	155	44
22	CDL(F)4-14	3	4		112	628	345	973	197	165	52
23	CDL(F)4-16	3	4		129	684	345	1029	197	165	54
24	CDL(F)4-19	4	5.5		153	788	345	1133	230	188	56
25	CDL(F)8-2	0.75	1	8 (DN40)	18	367	245	612	170	142	33
26	CDL(F)8-3	1.1	1.5		27	397	245	642	170	142	35
27	CDL(F)8-4	1.5	2		36	402	290	692	190	155	42
28	CDL(F)8-5	2.2	3		45	437	290	727	190	155	46
29	CDL(F)8-6	2.2	3		54	467	290	757	190	155	47
30	CDL(F)8-8	3	4		73	527	345	872	197	165	55
31	CDL(F)8-10	4	5.5		92	602	355	957	230	188	67
32	CDL(F)8-12	4	5.5		111	662	355	1017	230	188	70
33	CDL(F)8-14	5.5	7.5		130	727	390	1117	260	208	85
34	CDL(F)8-16	5.5	7.5		148	727	390	1117	260	208	88
35	CDL(F)8-18	7.5	10		167	847	390	1237	260	208	98
36	CDL(F)8-20	7.5	10		186	907	390	1297	260	208	99

Technical Parameter

NO.	Model	Motor		Rated Flow m³/h	Rated Head m	Dimension ( mm )					Weight kg
		kW	HP			B1	B2	B1+B2	D1	D2	
37	CDL(F)12-2	1.5	2	12 (DN50)	20	342	290	632	190	155	40
38	CDL(F)12-3	2.2	3		30	377	290	667	190	155	45
39	CDL(F)12-4	3	4		40	407	345	752	197	165	55
40	CDL(F)12-5	3	4		50	437	345	782	197	165	57
41	CDL(F)12-6	4	5.5		60	482	355	837	230	188	66
42	CDL(F)12-7	5.5	7.5		70	517	390	907	260	208	77
43	CDL(F)12-8	5.5	7.5		80	547	390	937	260	208	78
44	CDL(F)12-9	5.5	7.5		91	577	390	967	260	208	80
45	CDL(F)12-10	7.5	10		101	607	390	997	260	208	88
46	CDL(F)12-12	7.5	10		121	667	390	1057	260	208	92
47	CDL(F)12-14	11	15		141	835	500	1335	330	255	162
48	CDL(F)12-16	11	15		162	895	500	1395	330	255	167
49	CDL(F)12-18	11	15	183	955	500	1455	330	255	168	
50	CDL(F)16-2	2.2	3	16 (DN50)	21.5	377	290	667	190	155	42
51	CDL(F)16-3	3	4		33	422	345	767	197	165	51
52	CDL(F)16-4	4	5.5		44	482	355	837	230	188	60
53	CDL(F)16-5	5.5	7.5		55	567	355	922	230	188	62
54	CDL(F)16-6	5.5	7.5		67	577	390	967	260	208	78
55	CDL(F)16-7	5.5	7.5		79	622	390	1012	260	208	80
56	CDL(F)16-8	7.5	10		90	667	390	1057	260	208	86
57	CDL(F)16-9	7.5	10		103	712	390	1102	260	208	88
58	CDL(F)16-10	11	15		114	835	500	1335	330	255	166
59	CDL(F)16-12	11	15		138	925	500	1425	330	255	170
60	CDL(F)16-14	15	20		160	1015	500	1515	330	255	173
61	CDL(F)16-14	15	20		160	1105	500	1605	330	255	173
62	CDL(F)20-2	2.2	3	20 (DN50)	23	377	290	667	190	155	42
63	CDL(F)20-3	4	5.5		35	437	355	792	230	188	58
64	CDL(F)20-4	5.5	7.5		47	487	390	877	230	208	74
65	CDL(F)20-5	5.5	7.5		58	532	390	922	260	208	75
66	CDL(F)20-6	7.5	10		70	577	390	967	260	208	84
67	CDL(F)20-7	7.5	10		82	622	390	1012	260	208	86
68	CDL(F)20-8	11	15		94	775	500	1275	330	255	157
69	CDL(F)20-10	11	15		118	865	500	1365	330	255	162
70	CDL(F)20-12	15	20		142	955	500	1455	330	255	176
71	CDL(F)20-14	15	20		166	1045	500	1545	330	255	178
72	CDL(F)20-17	18.5	25		202	1240	500	1740	330	255	201
73	CDL(F)32-10-1	1.5	2		32 (DN65)	9	495	290	785	190	155
74	CDL(F)32-10	2.2	3	13		495	290	785	190	155	71
75	CDL(F)32-20-2	3	4	20		575	315	890	197	165	84
76	CDL(F)32-20	4	5.5	27		600	335	935	230	188	84
77	CDL(F)32-30-2	5.5	7.5	33		615	430	1045	260	208	95

Technical Parameter

NO.	Model	Motor		Rated Flow m³/h	Rated Head m	Dimension ( mm )					Weight kg
		kW	HP			B1	B2	B1+B2	D1	D2	
78	CDL(F)32-30	5.5	7.5	32 (DN65)	40	615	430	1045	260	208	95
79	CDL(F)32-40-2	7.5	10		46	685	430	1115	260	208	104
80	CDL(F)32-40	7.5	10		53	685	430	1115	260	208	104
81	CDL(F)32-50-2	11	15		60	905	490	1395	330	255	174
82	CDL(F)32-50	11	15		67	905	490	1395	330	255	174
83	CDL(F)32-60-2	11	15		74	975	490	1465	330	255	178
84	CDL(F)32-60	11	15		81	975	490	1465	330	255	178
85	CDL(F)32-70-2	15	20		88	1045	490	1535	330	255	190
86	CDL(F)32-70	15	20		95	1045	490	1535	330	255	190
87	CDL(F)32-80-2	15	20		102	1115	490	1605	330	255	194
88	CDL(F)32-80	15	20		109	1115	490	1605	330	255	194
89	CDL(F)32-90-2	18.5	25		117	1180	550	1730	330	255	220
90	CDL(F)32-90	18.5	25		124	1180	550	1730	330	255	220
91	CDL(F)32-100-2	18.5	25		131	1250	550	1800	330	255	224
92	CDL(F)32-100	18.5	25		138	1250	550	1800	330	255	224
93	CDL(F)32-110-2	22	30		146	1310	590	1900	360	255	261
94	CDL(F)32-110	22	30		153	1310	590	1900	360	255	261
95	CDL(F)32-120-2	22	30		160	1380	590	1970	360	285	265
96	CDL(F)32-120	22	30		167	1380	590	1970	360	285	265
97	CDL(F)32-130-2	30	40		174	1450	660	2110	400	310	330
98	CDL(F)32-130	30	40	181	1450	660	2110	400	310	330	
99	CDL(F)32-140-2	30	40	189	1520	660	2180	400	310	337	
100	CDL(F)32-140	30	40	196	1520	660	2180	400	310	337	
101	CDL(F)42-10-1	3	4	42 (DN80)	16	586	315	901	197	165	86
102	CDL(F)42-10	4	5.5		20	586	335	921	230	188	92
103	CDL(F)42-20-2	5.5	7.5		32	611	430	1041	260	208	102
104	CDL(F)42-20	7.5	10		41	611	430	1041	260	208	107
105	CDL(F)42-30-2	11	15		52	841	490	1331	330	255	175
106	CDL(F)42-30	11	15		61	841	490	1331	330	255	175
107	CDL(F)42-40-2	15	20		73	921	490	1411	330	255	187
108	CDL(F)42-40	15	20		81	921	490	1411	330	255	187
109	CDL(F)42-50-2	18.5	25		93	996	550	1546	330	255	208
110	CDL(F)42-50	18.5	25		101	996	550	1546	330	255	208
111	CDL(F)42-60-2	22	30		113	1066	590	1656	360	285	251
112	CDL(F)42-60	22	30		122	1066	590	1656	360	285	251
113	CDL(F)42-70-2	30	40		134	1146	660	1806	400	310	315
114	CDL(F)42-70	30	40		142	1146	660	1806	400	310	315
115	CDL(F)42-80-2	30	40		154	1226	660	1886	400	310	319
116	CDL(F)42-80	30	40		162	1226	660	1886	400	310	319
117	CDL(F)42-90-2	30	40		174	1306	660	1966	400	310	323
118	CDL(F)42-90	37	50		183	1306	660	1966	400	310	343

Technical Parameter

NO.	Model	Motor		Rated Flow m³/h	Rated Head m	Dimension ( mm )					Weight kg	
		kW	HP			B1	B2	B1+B2	D1	D2		
119	CDL(F)42-100-2	37	50	42 (DN80)	194	1386	660	2046	400	310	347	
120	CDL(F)42-100	37	50		203	1386	660	2046	400	310	347	
121	CDL(F)42-110-2	45	60		217	1471	700	2171	450	345	413	
122	CDL(F)42-110	45	60		225	1471	700	2171	450	345	413	
123	CDL(F)42-120-2	45	60		238	1551	700	2251	450	345	417	
124	CDL(F)42-120	45	60		247	1551	700	2251	450	345	417	
125	CDL(F)42-130-2	45	60		259	1631	700	2331	450	345	421	
126	CDL(F)65-10-1	4	5.5		65 (DN100)	13	561	335	896	230	188	105
127	CDL(F)65-10	5.5	7.5			20	531	430	961	260	208	110
128	CDL(F)65-20-2	7.5	10			26	614	430	1044	260	208	120
129	CDL(F)65-20-1	11	15	33		769	490	1259	330	255	155	
130	CDL(F)65-20	11	15	40		769	490	1259	330	255	155	
131	CDL(F)65-30-2	15	20	46		836	490	1326	330	255	195	
132	CDL(F)65-30-1	15	20	53		836	490	1326	330	255	195	
133	CDL(F)65-30	18.5	25	60		846	550	1396	330	255	205	
134	CDL(F)65-40-2	18.5	25	66		919	550	1469	330	255	208	
135	CDL(F)65-40-1	22	30	73		919	590	1509	360	285	260	
136	CDL(F)65-40	22	30	80		919	590	1509	360	285	260	
137	CDL(F)65-50-2	30	40	88		1001	660	1661	400	310	345	
138	CDL(F)65-50-1	30	40	95		1001	660	1661	400	310	345	
139	CDL(F)65-50	30	40	102		1001	660	1661	400	310	345	
140	CDL(F)65-60-2	30	40	110		1084	660	1744	400	310	350	
141	CDL(F)65-60-1	37	50	117		1084	660	1744	400	310	370	
142	CDL(F)65-60	37	50	124		1084	660	1744	400	310	370	
143	CDL(F)65-70-2	37	50	132		1166	660	1826	500	310	375	
144	CDL(F)65-70-1	37	50	139		1166	660	1826	400	310	375	
145	CDL(F)65-70	45	60	146	1171	700	1871	440	310	435		
146	CDL(F)65-85-2	45	60	154	1248	700	1948	460	340	440		
147	CDL(F)65-85-1	45	60	161	1248	700	1948	460	340	440		
148	CDL(F)85-10-1	5.5	7.5	85 (DN100)	14	541	430	971	260	208	120	
149	CDL(F)85-10	7.5	10		20	541	430	971	260	208	122	
150	CDL(F)85-20-2	11	15		30	788	490	1278	330	255	165	
151	CDL(F)85-20	15	20		41	788	490	1278	330	255	198	
152	CDL(F)85-30-2	18.5	25		52	865	550	1415	330	255	212	
153	CDL(F)85-30	22	30		64	865	590	1455	360	285	265	
154	CDL(F)85-40-2	30	40		75	957	660	1617	400	310	348	
155	CDL(F)85-40	30	40		86	957	660	1617	400	310	348	
156	CDL(F)85-50-2	37	50		98	1049	660	1709	400	310	375	
157	CDL(F)85-50	37	50		110	1049	660	1709	400	310	375	
158	CDL(F)85-60-2	45	60		122	1146	700	1846	460	340	438	
159	CDL(F)85-60	45	60	134	1146	700	1846	460	340	438		



### Technical Parameter

NO.	Model	Motor		Rated Flow m <sup>3</sup> /h	Rated Head m	Dimension ( mm )					Weight kg
		kW	HP			B1	B2	B1+B2	D1	D2	
160	CDL(F)120-10	11	15	120 ( DN125 )	18.5	840	490	1330	330	255	230
161	CDL(F)120-20-2	15	20		28.5	1000	490	1490	330	255	245
162	CDL(F)120-20-1	18.5	25		34.5	1000	550	1550	330	255	250
163	CDL(F)120-20	22	30		40	1000	590	1590	360	285	285
164	CDL(F)120-30-2	30	40		49	1160	660	1820	400	310	360
165	CDL(F)120-30-1	30	40		55.5	1160	660	1820	400	310	360
166	CDL(F)120-30	30	40		61	1160	660	1820	400	310	360
167	CDL(F)120-40-2	37	50		69	1320	660	1980	400	310	400
168	CDL(F)120-40-1	37	50		76	1320	660	1980	400	310	400
169	CDL(F)120-40	45	60		81	1320	700	2020	460	340	460
170	CDL(F)120-50-2	45	60		90	1480	700	2180	460	340	470
171	CDL(F)120-50-1	45	60		97	1480	700	2180	460	340	470
172	CDL(F)120-50	55	75		101.5	1510	770	2280	540	370	575
173	CDL(F)120-60-2	55	75		110	1670	770	2440	540	370	585
174	CDL(F)120-60-1	55	75		118	1670	770	2440	540	370	585
175	CDL(F)120-60	75	100		123	1670	845	2515	580	410	705
176	CDL(F)120-70-2	75	100		130	1830	845	2675	580	410	715
177	CDL(F)120-70-1	75	100		137.5	1830	845	2675	580	410	715
178	CDL(F)120-70	75	100	145	1830	845	2675	580	410	715	
179	CDL(F)150-10-1	11	15	150 ( DN125 )	12.5	840	490	1330	330	255	230
180	CDL(F)150-10	15	20		18.5	840	490	1330	330	255	235
181	CDL(F)150-20-2	18.5	25		27.5	1000	550	1550	330	255	250
182	CDL(F)150-20-1	22	30		35	1000	590	1590	360	285	295
183	CDL(F)150-20	30	40		40	1000	660	1660	400	310	350
184	CDL(F)150-30-2	30	40		49	1160	660	1820	400	310	360
185	CDL(F)150-30-1	37	50		56	1160	660	1820	400	310	360
186	CDL(F)150-30	37	50		63	1160	660	1820	400	310	385
187	CDL(F)150-40-2	45	60		70.5	1320	700	2020	460	340	460
188	CDL(F)150-40-1	45	60		77	1320	700	2020	460	340	460
189	CDL(F)150-40	55	75		84	1350	770	2120	540	370	560
190	CDL(F)150-50-2	55	75		92	1510	770	2280	540	370	570
191	CDL(F)150-50-1	75	100		99	1510	845	2355	580	410	690
192	CDL(F)150-50	75	100		106.5	1510	845	2355	580	410	690
193	CDL(F)150-60-2	75	100		112	1670	845	2515	580	410	700
194	CDL(F)150-60-1	75	100		120.5	1670	845	2515	580	410	700
195	CDL(F)150-60	75	100		130	1670	845	2515	580	410	700