

CDM CDMF

50Hz

Light Vertical Multistage Centrifugal Pump



Stock code:300145

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 CNP

E171201
subject to amendments



Pumping Water Pumping Honor

 CNP



Company profile

Founded in 1991, Nanfang Zhongjin Environment Co.,Ltd. (hereinafter referred to as CNP) has been listed on the Shenzhen Stock Exchange on 9th December 2010; Stock name: CNP; Stock code: 300145.

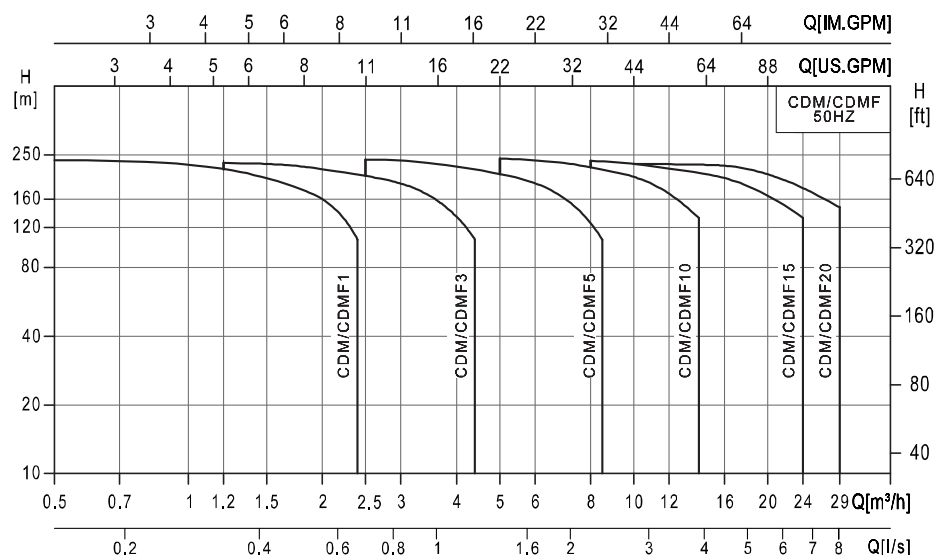
As the first enterprise specializing in the research and large-scale production of stainless steel stamping welded centrifugal pump in China, CNP is currently the professional manufacturer with the highest volume of production and marketing in that industry. It ranks first in the country in terms of product scope, sales volume, and production quality. The company has set up a complete network of marketing services to meet the requirements of overseas markets as well as domestic needs. The products have seen a wide range of application in the area of pressurization, industry, living water, cycling of air-conditioning water, heat supply, fire extinguishing system, pumping of underground water, treatment of sewage and waste water, chemical industry and desalination of sea water etc.

CNP has now entered into the fast track of development and has taken a major step forward in forging China Strong Pump Enterprise and World's famous brand in the Pump Industry. In order to better meet the client's needs and requirements for expansion, it has set up a wide network of selling and service, as well as offices and service centers in major cities in China, which are aimed at providing timely and effective services for our clients. Meanwhile, our company has successfully penetrated into the world market by forging a good business relationship with more than 50 countries and regions in the Europe, Northern American, and Southeast Asia etc.

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Performance scope



Product range

Description		CDM/CDMF					
Rated flow [m³/h]		1	3	5	10	15	20
Rated flow [l/s]		0.28	0.83	1.39	2.78	4.17	5.56
Flow range [m³/h]		0.5~2.4	1.2~4.4	2.5~8.5	5~14	8~24	10~29
Flow range [l/s]		0.14~0.67	0.33~1.22	0.69~2.36	1.39~3.89	2.22~6.67	2.78~8.06
Max. pressure [bar]		24	23	24	24	24	23
Motor power [kW]		0.37~2.2	0.37~3	0.37~5.5	0.75~11	1.1~15	1.1~18.5
Temp [°C]		-15 ~ +120					
Max. efficiency [%]		48	58	70	72	73	73
CDM Pipelines	DIN flange	DN25	DN25	DN32	DN40	DN50	DN50
	Oval flange	G1	G1	G1¼	G1½		
CDMF Pipelines	DIN flange	DN25	DN25	DN32	DN40	DN50	DN50
	Cutting ferrule joint	DN32	DN32	DN32	DN50	DN50	DN50
	Pipe thread	R1¼	R1¼	R1¼	R2	R2	R2
	Oval flange	G1	G1	G1¼	G1½		

Summary

CDM/CDMF pumps are new generation, high efficiency, non-self-priming vertical multistage centrifugal pumps (Abbr. as pumps). It referred to European standard, adopted entirely new industrial design, efficiency achieved $MEI \geq 0.7$. It is energy saving, low noise, environment friendly, compact design, beautiful shape, light weight, easy for service, high reliability.

Motor

Totally enclosed, fan cooled, 2 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

Working conditions

Thin, clean, non-flammable, non-explosive, solid free, fiber free, physically and chemically water-like liquid.

Liquid temperature:

Normal temperature type: -15°C to 70°C

Hot water type: -15°C to 120°C

Ambient temperature: up to $+40^{\circ}\text{C}$

Altitude: up to 1000m

Applications

CDM/CDMF pumps are designed for a variety of applications from the pumping of potable water to the pumping of industrial liquids. Applied for liquids of different temperature, different rated flow, different pressure range. CDM is suitable for non-corrosive liquid, CDMF is suitable for light corrosive liquid.

Boosting: Filtering and transferring water in water factories, delivering water in different zone, pressurizing for major pipelines, boosting for high buildings.

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

Industrial liquid conveying: cooling and air conditioning systems, boiler feed and condensate systems, machine matching, acid and alkali.

HVAC: Air conditioning system

Water treatment: Ultrafiltration system, R/O system, distillation system, separator, swimming pool.

Performance curve

Following conditions are suitable for the performance curves shown below.

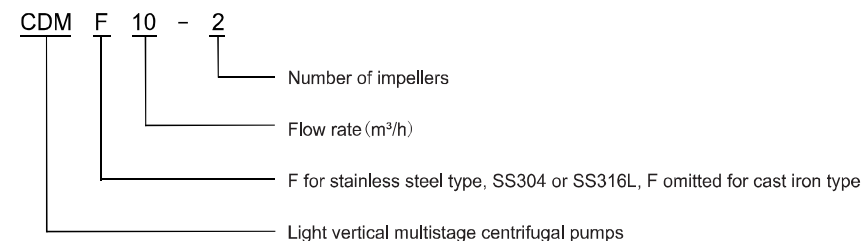
1. All curves are based on the measured values of 50Hz: constant motor speed 2900rpm.

2. Curve tolerance in conformity to ISO9906:2012 Grade 3B.

3. Measurement is done with 20°C air-free water, kinematic viscosity of $1 \text{ mm}^2/\text{sec}$.

4. 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.

Model definition

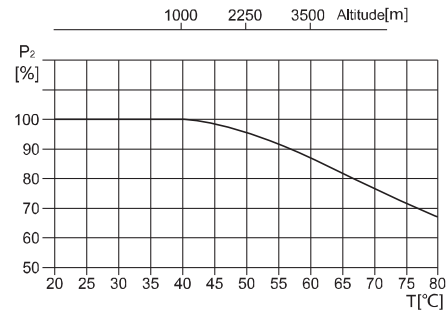


Max. working pressure

Model	Max working(bar)
CDM/CDMF1,3,5,10,15,20 Flange, cutting ferrule, pipe thread	25
CDM/CDMF1,3,5,10 oval flange	16

Max. ambient temperature, altitude above sea level

When pumps working in the condition of higher than 40°C or higher than 1000m altitude, because the air density lessened, cooling performance is reduced, motor output power P_2 is reduced also. The motor power shall be enlarged in those working conditions.



Min. inlet pressure

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. The maximum suction stroke can be calculated with following formula:

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

P_b = Barometric pressure in bar.

(Barometric pressure can be set to 1 bar).

In a closed system, P_b means system pressure [bar].

NPSH = Net Positive Suction Head [m].

(It can be read from the point of possible max. flow rate shown on NPSH curve.)

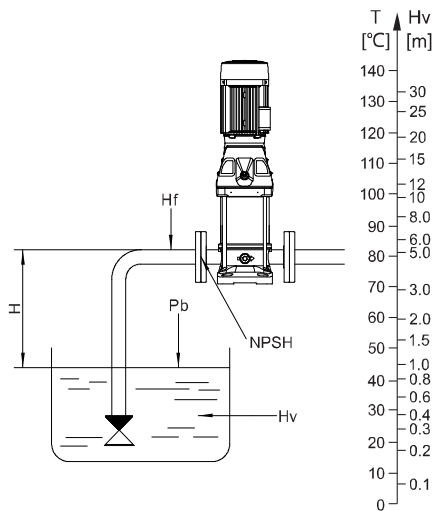
H_f = Pipe friction loss at the inlet [m].

H_v = Vapour pressure [m].

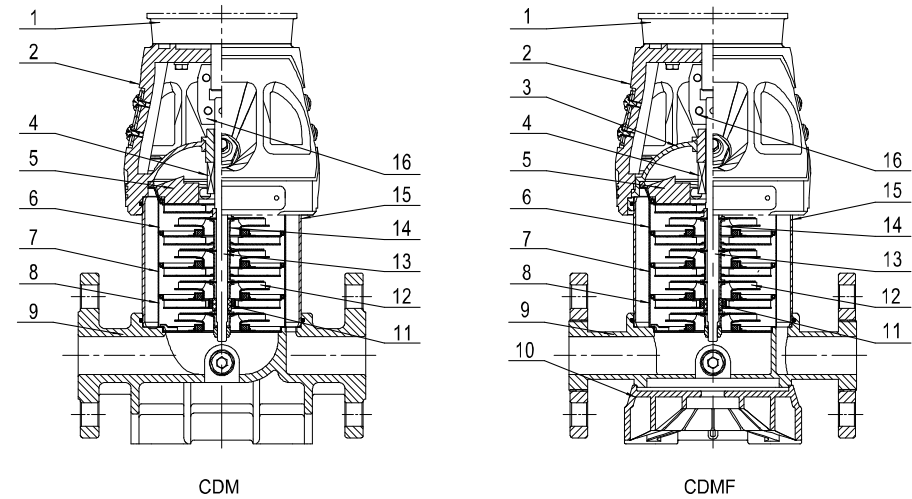
H_s = Safety margin = minimum 0.5 meters head.

If the "H" calculated is positive, the pump may run under the max. suction stroke H.

If the "H" calculated is negative, A head of minimum inlet pressure H is required.



CDM/CDMF1,3,5 Sectional drawing



CDM1,3,5 Material list

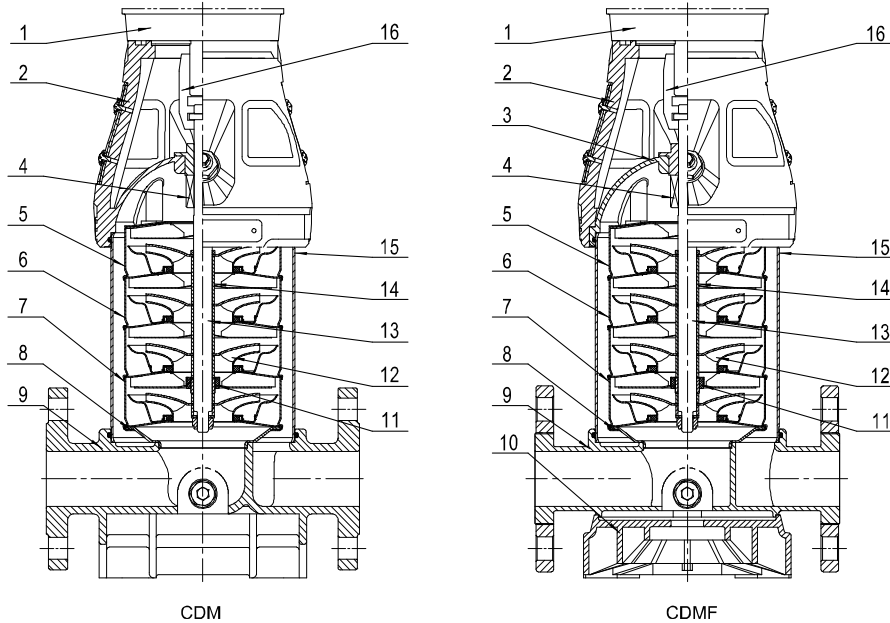
Pos.	Name	Materials	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	Tungsten carbide /Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Cast iron	ASTM25B
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

Please check with us for other materials

CDMF1,3,5 Material list

Pos.	Name	Materials	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
3	Lining	Stainless steel	AISI304
4	Mechanical seal	Tungsten carbide/ Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Stainless steel	AISI304
10	Base plate	Cast aluminum	
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

CDM/CDMF10,15,20 Sectional drawing



CDM10,15,20 Material list

Pos.	Name	Materials	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	Tungsten carbide/Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Cast iron	ASTM25B
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

Please check with us for other materials

CDMF10,15,20 Material list

Pos.	Name	Materials	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
3	Lining	Stainless steel	AISI304
4	Mechanical seal	Tungsten carbide/Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Stainless steel	AISI304
10	Base plate	Cast aluminum	
11	Bearing	Tungsten carbide	
12	Impeller	Stainless steel	AISI304
13	Shaft	Stainless steel	AISI304
14	Impeller sleeve	Stainless steel	AISI304
15	Cylinder	Stainless steel	AISI304
16	Coupling	Carbon steel/ Powder metallurgy	

CDM/CDMF1 Performance table

Model	Motor		Q (m³/h)	H (m)											
	(kW)	(hp)		0	0.5	0.7	1	1.2	1.4	1.6	1.8	2	2.2	2.4	
1-2	0.37	0.5	11.8	11.5	11.2	10.5	10.3	9.7	9	8	6.8	5.5	4		
1-3	0.37	0.5	17.5	17	16.8	16	15.6	14.8	13.5	12	10	8.5	6		
1-4	0.37	0.5	23.5	23	22.5	21.5	21	19.8	18	16	13.5	11	8		
1-5	0.37	0.5	29	28.5	28	27	26	24.5	22.5	20	17	14	10		
1-6	0.37	0.5	35	34.5	34	32.5	31.5	30	27	24	20.5	17	12.5		
1-7	0.37	0.5	41	40.5	40	39	37	35	32	28	24	20	15		
1-8	0.55	0.75	47	46	45.5	43.5	42	40	37	33	29	24.5	18		
1-9	0.55	0.75	52.5	52	51.5	49	47	44.5	41	37	32	27	20.5		
1-10	0.55	0.75	58.5	58	57	55	52.5	50	46	42	37	31	23		
1-11	0.55	0.75	64	63.5	63	61	58.5	55	51	46	40	33.5	25.5		
1-12	0.75	1	70	69	68.5	67	64.5	61	57	52	45.5	37	28		
1-13	0.75	1	75.5	75	74.5	73	70	66.5	61.5	56	49	40.5	31		
1-15	0.75	1	87.5	86.5	85.5	84	81	76.5	71	65	57	47	36		
1-17	1.1	1.5	99	98	97	95	91.5	86.5	81	73	64	53	41		
1-19	1.1	1.5	110	109	108	106	103	98	91	82	72	59	46		
1-21	1.1	1.5	122	121	120	117	113	107	100	90	79	66	51.5		
1-22	1.1	1.5	128	127	126	122	118	112	105	95	83	69	54		
1-23	1.5	2	134	133	132	128	123	118	111	102	90.5	76.5	58		
1-25	1.5	2	146	145	144	139	134	128	121	111	98	83	63		
1-27	1.5	2	158	157	155	150	145	138	130	119	106	90	69		
1-30	1.5	2	175	174	172	167	161	154	145	133	118	100	77		
1-32	2.2	3	189	188	186	180	174	166	155	143	129	110	85		
1-33	2.2	3	195	194	192	186	180	171	160	148	133	113	87		
1-34	2.2	3	200	199	198	192	185	176	165	152	137	117	90		
1-36	2.2	3	212	211	209	203	196	186	175	161	145	124	95		
1-38	2.2	3	225	224	221	215	208	197	185	171	153	131	101		
1-40	2.2	3	237	236	233	226	219	208	195	180	161	138	106		

CDM/CDMF3 Performance table

Model	Motor		Q (m³/h)	H (m)										
	(kW)	(hp)		0	1.2	1.6	2	2.4	2.8	3	3.2	3.6	4	4.4
3-2	0.37	0.5	14.7	14	13.5	13	12.5	11.5	11	10.5	9.5	8	6	
3-3	0.37	0.5	22.2	21.5	21	20.5	19.5	18	17	16.5	15	12.5	9.5	
3-4	0.37	0.5	29.7	29	28.5	27.5	26	24	23	22	20	17	13	
3-5	0.55	0.75	37.2	36	35	33.5	32	30	29	28	25	21	16	
3-6	0.55	0.75	45	43.5	42.5	41	39	36.5	35	33.5	30	25	19.5	
3-7	0.75	1	52.5	51	50	49	46	43	41	39.5	35	30	23	
3-8	0.75	1	60	58.5	58	56	53	49	47	45	40	34	26.5	
3-9	1.1	1.5	67.5	66	65	63	60	56	53	51	45	38	30	
3-10	1.1	1.5	75	73	72	70	66	61	59	56	50	42	33.5	
3-11	1.1	1.5	82.5	80	79	77	73	68	65	62	55	47	37	
3-12	1.1	1.5	90	88	86	83	79	74	71	67	59	50	40.5	
3-13	1.5	2	98	95	93	90	86	80	77	73	64	54	44	
3-14	1.5	2	105	102	101	98	92.5	86	83	78	69	58	47	
3-15	1.5	2	113	110	108	105	100	94	90	86	76	64	51	
3-16	1.5	2	120	118	116	112	107	100	96	92	81	69	54	
3-18	2.2	3	136	133	130	126	120	113	108	102	90	76	61	
3-19	2.2	3	143	140	137	132	126	119	114	108	96	82	64	
3-20	2.2	3	151	148	144	140	133	125	120	114	100	85	67	
3-21	2.2	3	158	155	152	147	140	131	126	120	106	90	71	
3-22	2.2	3	166	162	158	154	146	137	132	125	110	93	74	
3-23	2.2	3	173	170	166	161	153	144	138	131	115	97	78	
3-24	2.2	3	181	177	173	168	160	150	144	137	120	101	81	
3-25	3	4	188	185	181	175	166	156	150	142	125	105	85	
3-27	3	4	204	200	195	188	180	169	162	155	138	117	92	
3-28	3	4	212	207	202	195	187	175	168	160	143	121	95	
3-29	3	4	220	215	210	203	194	182	175	167	148	126	99	
3-31	3	4	235	230	224	216	207	194	187	178	159	134	106	

CDM/CDMF5 Performance table

Model	Motor		Q (m³/h)	H (m)								
	(kW)	(hp)		0	2.5	3	4	5	6	7	8	8.5
5-2	0.37	0.5	H (m)	14.7	13.5	13.3	12.5	11.5	9	7	5	4
5-3	0.55	0.75		22.1	21	20.5	19	17.5	15	12	9	7.5
5-4	0.55	0.75		29.5	28	27.5	26	24	21	17	13	11
5-5	0.75	1		37	35	34.5	33	30	27	23	18	15
5-6	1.1	1.5		44.5	42	41.5	40	37	33	27	21	18
5-7	1.1	1.5		52	49.5	48.5	46	42.5	38.5	31.5	24.5	21
5-8	1.1	1.5		59	57	56	53	49	44	36	28	24
5-9	1.5	2		67	64	63	60	55	49.5	41.5	31.5	27
5-10	1.5	2		74.5	71	70	66	62	55	46	35	30
5-11	1.5	2		82	78	77	73	68	61	51	39	33
5-12	2.2	3		89.5	85	84	81	74.5	66	55	43	37
5-13	2.2	3		97	92	91	87	80	71	60	47	40
5-14	2.2	3		104	100	98	93	87	77	65	51	43.5
5-15	2.2	3		112	107	106	100	93	82	69	54	46.5
5-16	2.2	3		119	114	112	107	99	88	74	58	50
5-17	3	4		127	121	118.5	113	105	94	79	62	53
5-18	3	4		134	128	126	120	111	99	84	66	56
5-20	3	4		149	143	140	133	124	110	93	73	63
5-21	3	4		157	150	147	140	130	116	98	77	66
5-22	4	5.5		164	157	154	146	136	122	103	82	70
5-23	4	5.5		172	165	161	153	142	128	108	86	74
5-24	4	5.5		179	172	168	160	149	133	113	90	77
5-25	4	5.5		187	179	175	167	155	139	117	93	80
5-27	4	5.5		202	193	189	180	168	150	127	101	86
5-28	4	5.5	210	201	197	187	174	156	132	105	90	
5-29	5.5	7.5	217	208	204	194	180	163	139	111	95	
5-30	5.5	7.5	225	216	212	201	186	169	144	115	98	
5-33	5.5	7.5	249	238	234	222	206	187	160	127	109	

CDM/CDMF10 Performance table

Model	Motor		Q (m³/h)	H (m)							
	(kW)	(hp)		0	5	6	8	10	12	14	
10-1	0.75	1	H (m)	11	10.2	10	9	8	7	4.5	
10-2	0.75	1		22.2	21	20.5	19	16.5	13.5	9.5	
10-3	1.1	1.5		33.3	31.5	31	28.5	25.5	22	16.5	
10-4	1.5	2		44.5	42	41	38	34	29	22	
10-5	2.2	3		56	52.5	51	48	43	37	28	
10-6	2.2	3		67	63	62	58	52	44	34	
10-7	3	4		78.5	74	73	69	62	52	40	
10-8	3	4		90	85	84	79	71	60	46	
10-9	4	5.5		101.5	96	94	89	80	67	52	
10-10	4	5.5		113	107	105	98	89	76	58	
10-11	4	5.5		124	118	115	108	98	84	64	
10-12	4.5	6		137	129	127	119	107	91	70	
10-13	5.5	7.5		147	140	138	130	116	99	76	
10-14	5.5	7.5		160	151	148	139	125	106	82	
10-15	5.5	7.5		171	162	159	149	134	114	88	
10-16	7.5	10		183	173	170	159	144	123	94	
10-17	7.5	10		194	184	180	169	153	130	100	
10-18	7.5	10		205	195	191	180	163	141	108	
10-19	7.5	10		217	206	201	190	172	147	113	
10-20	7.5	10		228	217	213	200	181	155	120	
10-21	7.5	10		240	228	223	210	191	162	126	
10-22	11	15		250	240	235	221	201	171	132	

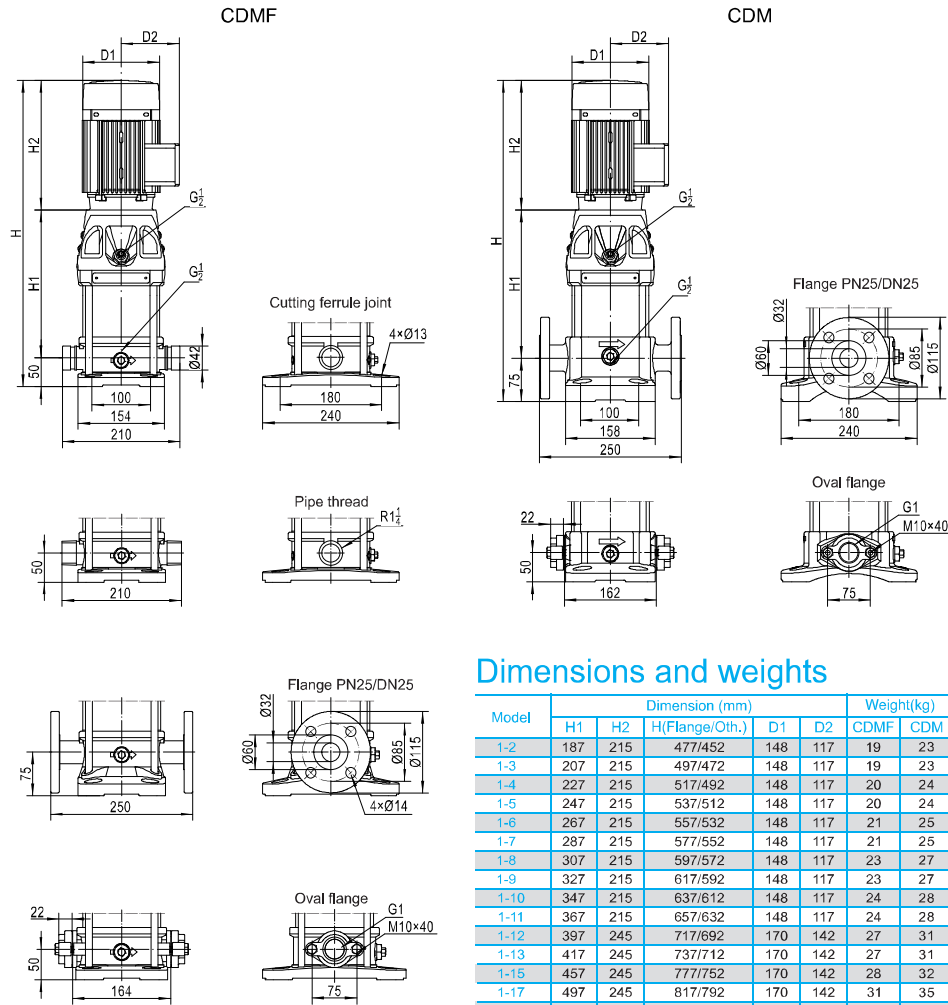
CDM/CDMF15 Performance table

Model	Motor		Q (m³/h)	H (m)											
	(kW)	(hp)		0	8	10	12	14	15	16	18	20	22	24	
15-1	1.1	1.5	H (m)	12.6	12.2	12	11.8	11.5	11	10.5	10	9	8	6.5	
15-2	2.2	3		26	24.5	24	23.5	23	22.5	21.5	20	18	16	13.5	
15-3	3	4		40	37.5	37	36.5	35.5	34.5	34	32	29	25	21	
15-4	4	5.5		54	50.5	50	49	47.5	47	46	43	39	34	28.5	
15-5	4	5.5		68	63	62	61	59	58	57	53	48	42.5	36	
15-6	5.5	7.5		82	76	75	73	71	69	67	63	58	52	43	
15-7	5.5	7.5		96	89	88	86	83	81	79	74	68	61	51	
15-8	7.5	10		110	102	100	98	95	93	91	85	78	69	59	
15-9	7.5	10		124	115	113	111	108	106	103	96	88	78	67	
15-10	11	15		138	128	126	124	121	118	115	107	98	87	75	
15-11	11	15		151	142	140	137	133	130	126	117	107	95	83	
15-12	11	15		166	154	152	149	145	142	138	129	117	104	90	
15-13	11	15		180	167	164	160	155	152	148	138	126	113	99	
15-14	11	15		194	180	177	173	168	165	160	149	136	122	106	
15-15	15	20		208	196	192	188	182	178	173	161	147	132	116	
15-16	15	20		222	209	205	200	194	189	184	172	157	142	125	
15-17	15	20		236	222	218	213	206	201	196	183	167	151	132	
15-18	15	20		250	235	231	225	218	213	207	194	177	160	141	

CDM/CDMF20 Performance table

Model	Motor		Q (m³/h)	H (m)											
	(kW)	(hp)		0	10	12	14	16	18	20	22	24	26	28	29
20-1	1.1	1.5	H (m)	13.3	12.5	12.3	12	11.5	11	10.5	10	9.5	9	8	7
20-2	2.2	3		27.2	25.5	25	24.5	24	23.7	23	22	20.5	18	16	14.5
20-3	4	5.5		41.5	39.5	39	38	37	36	35	33	31	28	25	23.5
20-4	5.5	7.5		55.5	52.5	51	50	49	48.5	47	45	41.5	37	33	31.5
20-5	5.5	7.5		69.5	66	65	64	62	60	58	55	51	47	42	40
20-6	7.5	10		84	79	78	77	75	73	70	66	62	58	52	48
20-7	7.5	10		98	92.5	91	90	88	85	82	78	73	68	61	57.5
20-8	11	15		113	106	105	103	101	98	95	90	84	77	70	66
20-10	11	15		141	133	132	130	127	123	119	113	106	97	88	83
20-12	15	20		171	160	158	156	153	149	143	137	127	117	106	100
20-14	15	20		200	187	185	183	179	174	168	160	149	137	124	117
20-17	18.5	25		244	228	225	222	218	212	205	195	182	168	154	147

CDM/CDMF1 Installation sketch

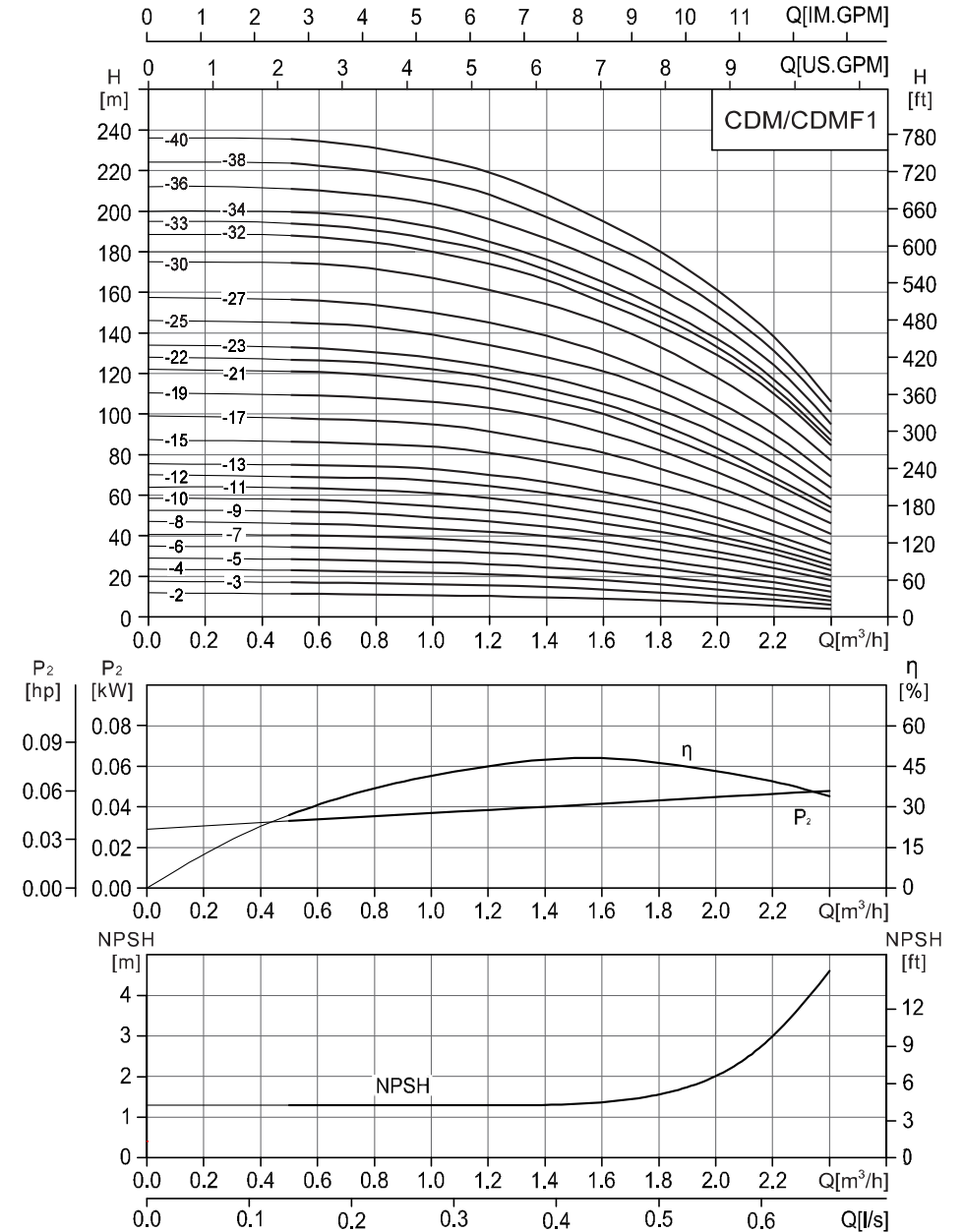


Dimensions and weights

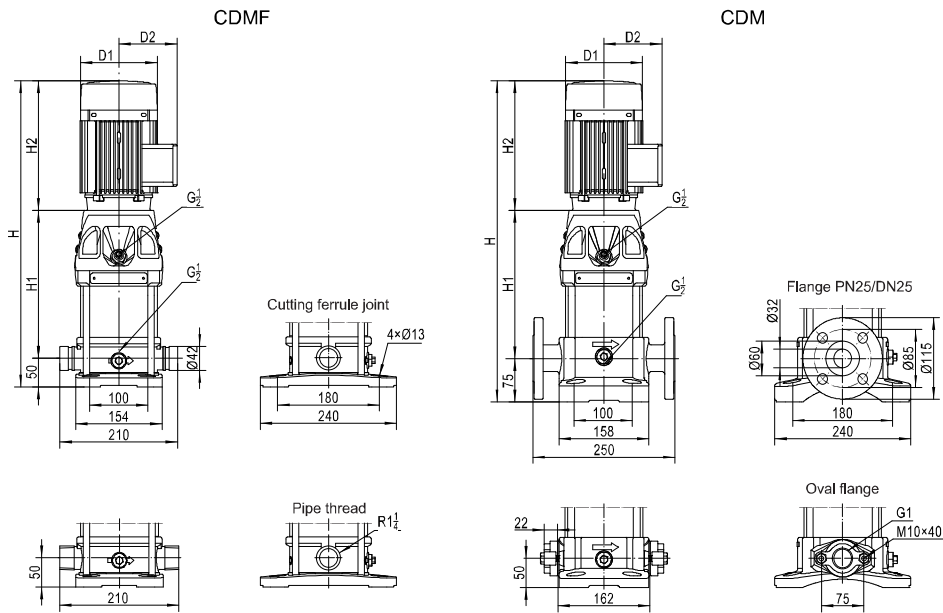
Model	Dimension (mm)				Weight(kg)		
	H1	H2	H(Flange/Oth.)	D1	D2	CDMF	CDM
1-2	187	215	477/452	148	117	19	23
1-3	207	215	497/472	148	117	19	23
1-4	227	215	517/492	148	117	20	24
1-5	247	215	537/512	148	117	20	24
1-6	267	215	557/532	148	117	21	25
1-7	287	215	577/552	148	117	21	25
1-8	307	215	597/572	148	117	23	27
1-9	327	215	617/592	148	117	23	27
1-10	347	215	637/612	148	117	24	28
1-11	367	215	657/632	148	117	24	28
1-12	397	245	717/692	170	142	27	31
1-13	417	245	737/712	170	142	27	31
1-15	457	245	777/752	170	142	28	32
1-17	497	245	817/792	170	142	31	35
1-19	537	245	857/832	170	142	32	36
1-21	577	245	897/872	170	142	32	36
1-22	597	245	917/892	170	142	33	37
1-23	627	290	992/967	190	155	39	43
1-25	667	290	1032/1007	190	155	40	44
1-27	707	290	1072/1047	190	155	41	45
1-30	767	290	1132/1107	190	155	42	46
1-32	807	290	1172/1147	190	155	45	49
1-33	827	290	1192/1167	190	155	45	49
1-34	847	290	1212/1187	190	155	46	50
1-36	887	290	1252/1227	190	155	47	51
1-38	927	290	1292/1267	190	155	47	51
1-40	967	290	1332/1307	190	155	48	52

CDM/CDMF1-27~140 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosion-proof motor are a little different. Please contact us for details.

Performance curve



CDM/CDMF3 Installation sketch

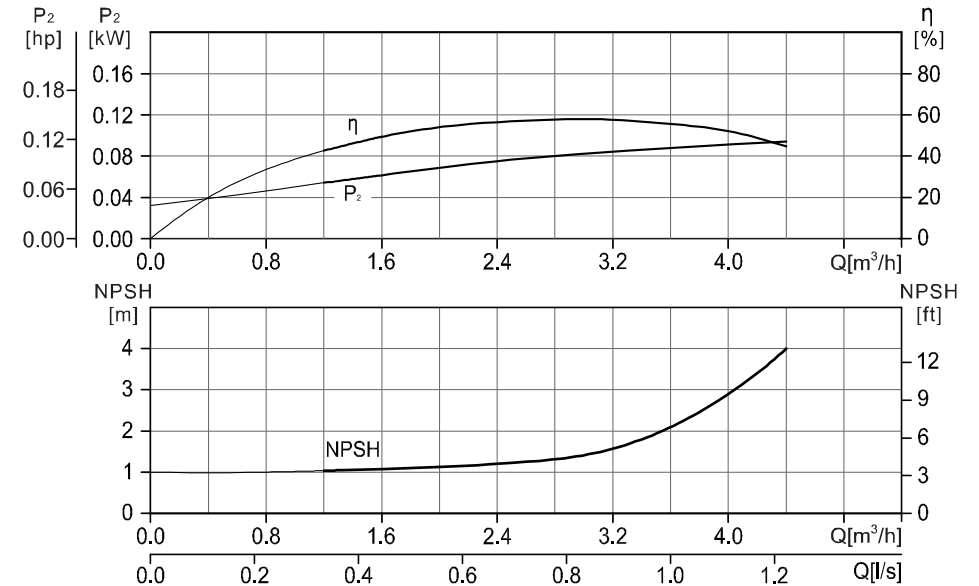
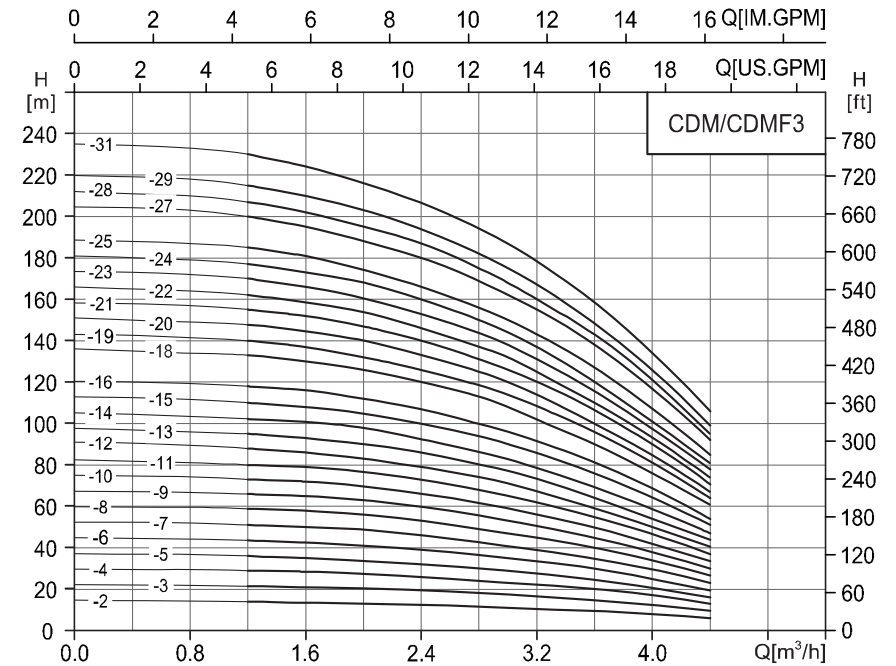


Dimensions and weights

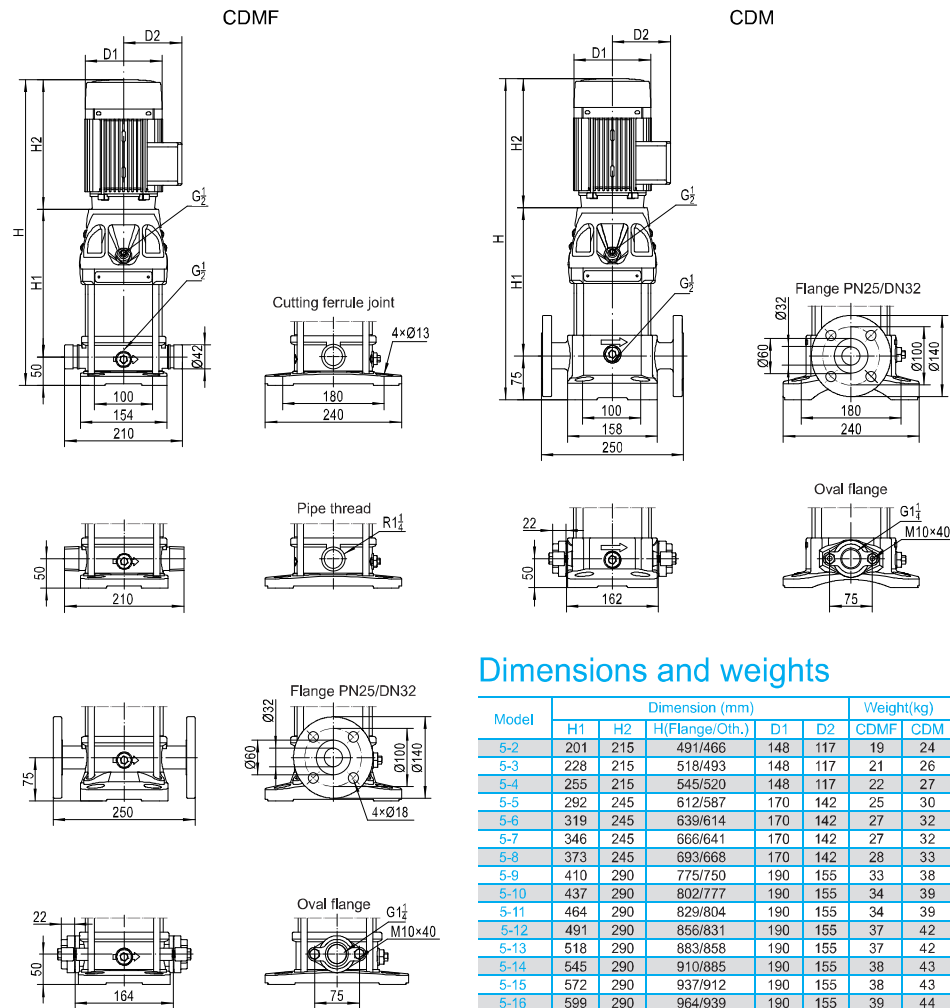
Model	Dimension (mm)				Weight(kg)		
	H1	H2	H(Flange/Oth.)	D1	D2	CDMF	CDM
3-2	187	215	477/452	148	117	20	24
3-3	207	215	497/472	148	117	20	24
3-4	227	215	517/492	148	117	21	25
3-5	247	215	537/512	148	117	22	26
3-6	267	215	557/532	148	117	23	27
3-7	297	245	617/592	170	142	26	30
3-8	317	245	637/612	170	142	26	30
3-9	337	245	657/632	170	142	28	32
3-10	357	245	677/652	170	142	29	33
3-11	377	245	697/672	170	142	29	33
3-12	397	245	717/692	170	142	30	34
3-13	427	290	792/767	190	155	35	39
3-14	447	290	812/787	190	155	36	40
3-15	467	290	832/807	190	155	36	40
3-16	487	290	852/827	190	155	37	41
3-18	527	290	892/867	190	155	39	43
3-19	547	290	912/887	190	155	40	44
3-20	567	290	932/907	190	155	40	44
3-21	587	290	952/927	190	155	41	45
3-22	607	290	972/947	190	155	41	45
3-23	627	290	992/967	190	155	42	46
3-24	647	290	1012/987	190	155	42	46
3-25	677	345	1097/1072	197	165	53	57
3-27	717	345	1137/1112	197	165	54	58
3-28	737	345	1157/1132	197	165	54	58
3-29	757	345	1177/1152	197	165	54	58
3-31	797	345	1217/1192	197	165	55	59

CDM/CDMF3-21~3-31 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

Performance curve



CDM/CDMF5 Installation sketch

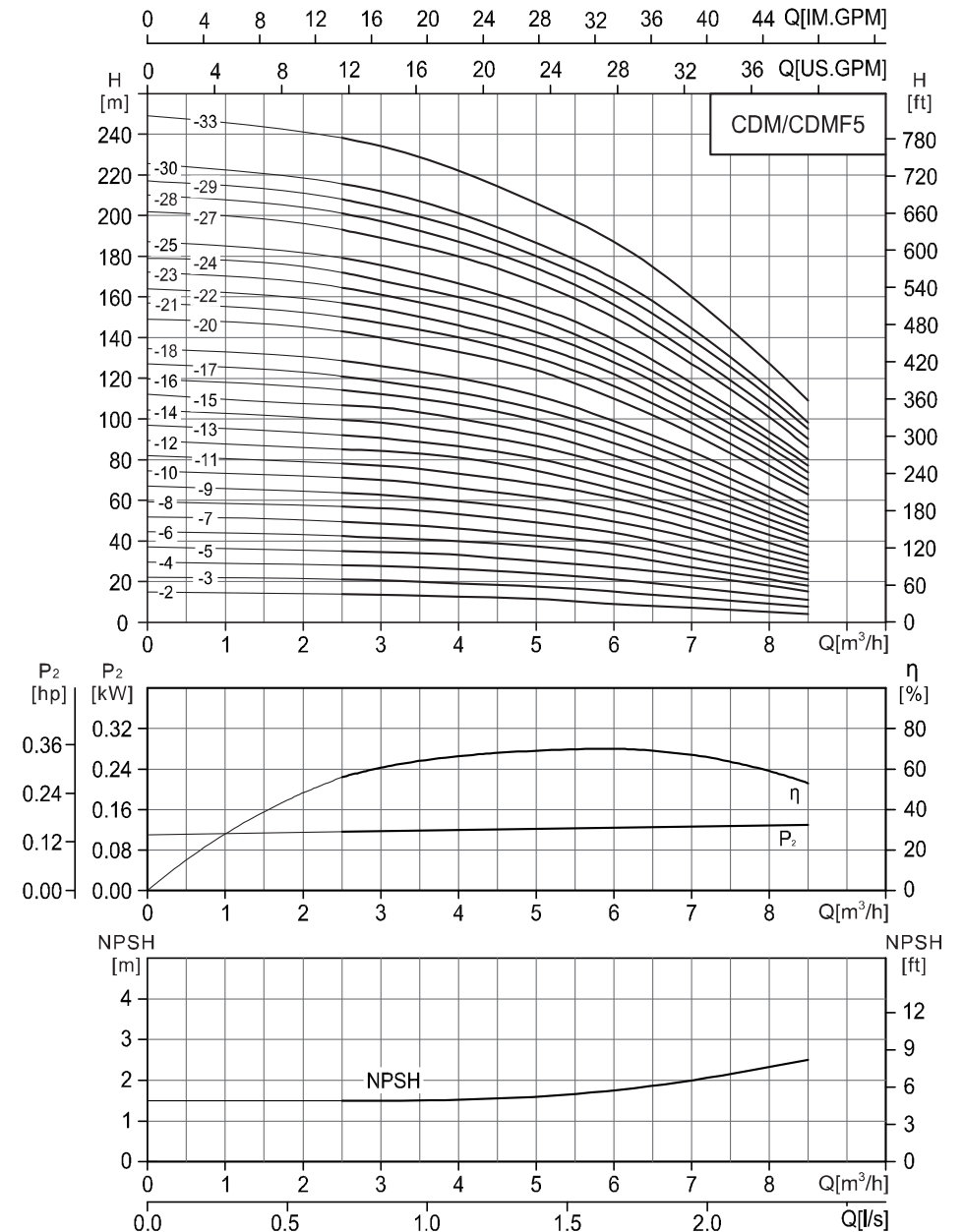


Dimensions and weights

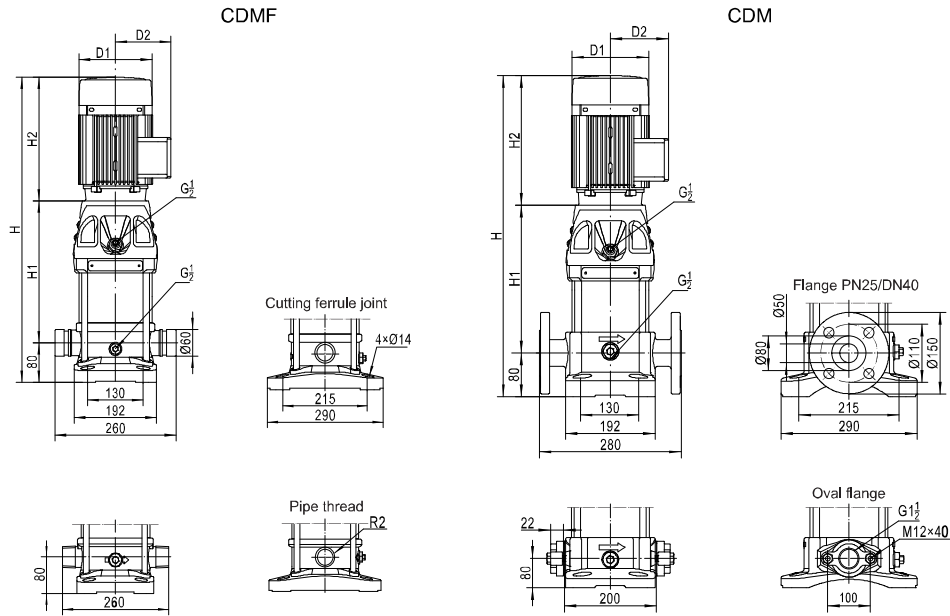
Model	Dimension (mm)				Weight(kg)		
	H1	H2	H(Flange/Oth.)	D1	D2	CDMF	CDM
5-2	201	215	491/466	148	117	19	24
5-3	228	215	518/493	148	117	21	26
5-4	255	215	545/520	148	117	22	27
5-5	292	245	612/587	170	142	25	30
5-6	319	245	639/614	170	142	27	32
5-7	346	245	666/641	170	142	27	32
5-8	373	245	693/668	170	142	28	33
5-9	410	290	775/750	190	155	33	38
5-10	437	290	802/777	190	155	34	39
5-11	464	290	829/804	190	155	34	39
5-12	491	290	856/831	190	155	37	42
5-13	518	290	883/858	190	155	37	42
5-14	545	290	910/885	190	155	38	43
5-15	572	290	937/912	190	155	38	43
5-16	599	290	964/939	190	155	39	44
5-17	636	345	1056/1030	197	165	50	55
5-18	663	345	1083/1058	197	165	50	55
5-20	717	345	1137/1112	197	165	51	56
5-21	744	345	1164/1139	197	165	52	57
5-22	771	355	1201/1176	230	188	59	64
5-23	798	355	1228/1203	230	188	60	65
5-24	825	355	1255/1230	230	188	60	65
5-25	852	355	1282/1257	230	188	61	66
5-27	906	355	1336/1311	230	188	62	67
5-28	933	355	1363/1338	230	188	62	67
5-29	1035	390	1500/1475	260	208	82	87
5-30	1062	390	1527/1502	260	208	83	88
5-33	1143	390	1608/1583	260	208	84	89

CDM/CDMF5-21~5-33 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

Performance curve



CDM/CDMF10 Installation sketch

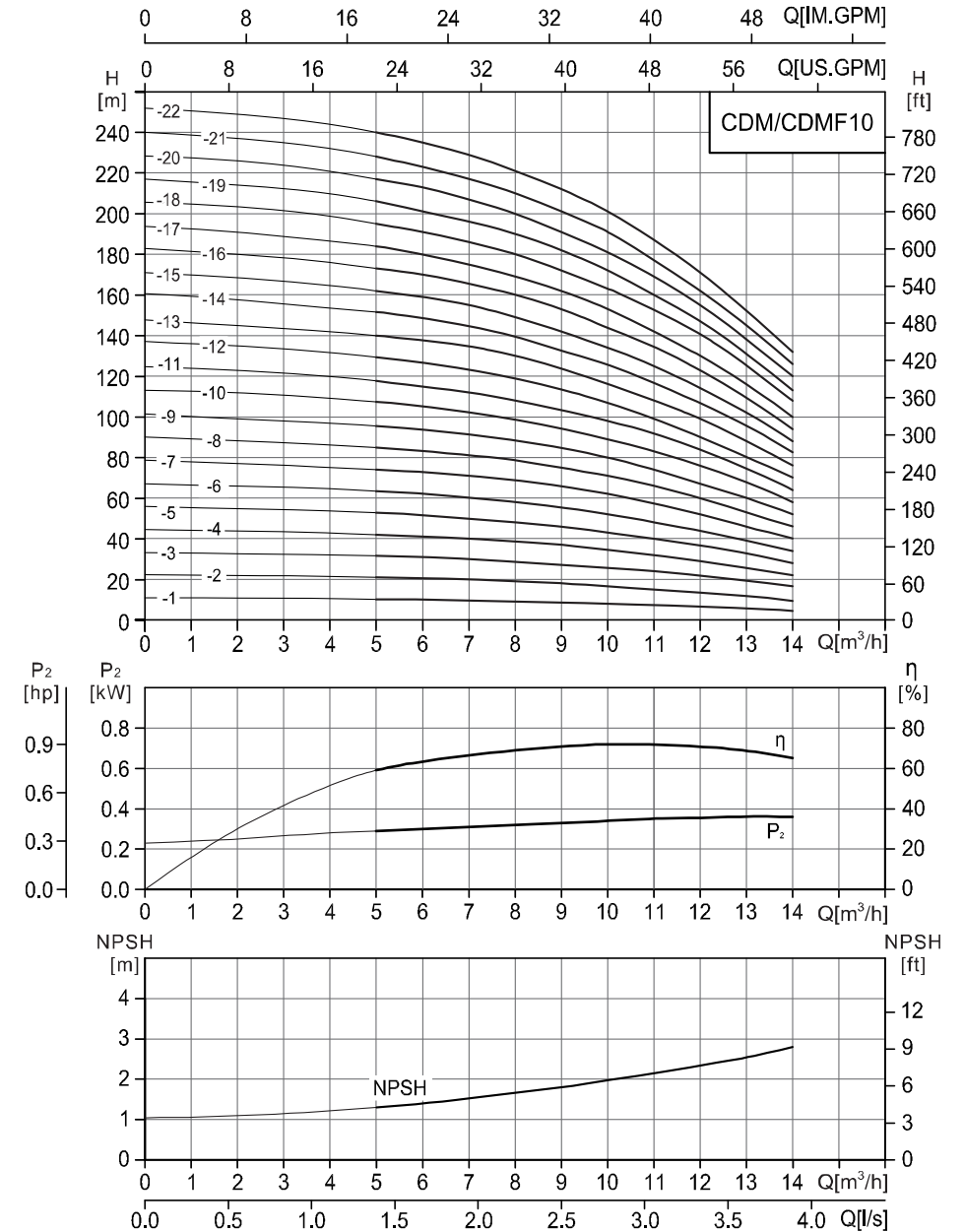


Dimensions and weights

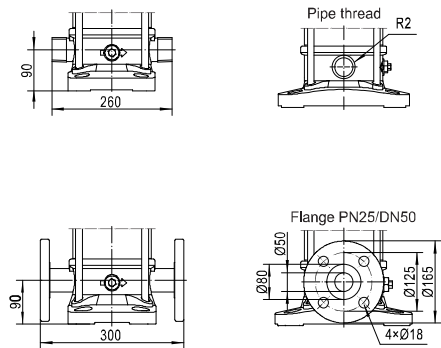
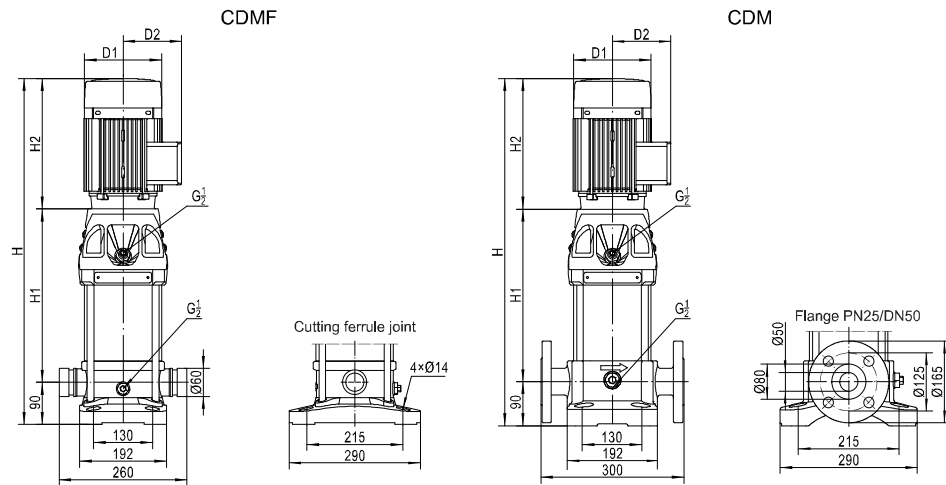
Model	Dimension (mm)					Weight(kg)	
	H1	H2	H	D1	D2	CDMF	CDM
10-1	267	245	592	170	142	29	31
10-2	267	245	592	170	142	30	32
10-3	297	245	622	170	142	33	35
10-4	337	290	707	190	155	39	41
10-5	367	290	737	190	155	43	45
10-6	397	290	767	190	155	44	46
10-7	437	345	862	197	165	55	57
10-8	467	345	892	197	165	56	58
10-9	497	355	932	230	188	63	65
10-10	527	355	962	230	188	64	66
10-11	557	355	992	230	188	65	67
10-12	587	355	1022	230	188	66	68
10-13	695	390	1165	260	208	86	88
10-14	725	390	1195	260	208	87	89
10-15	755	390	1225	260	208	88	90
10-16	785	390	1255	260	208	97	99
10-17	815	390	1285	260	208	98	100
10-18	845	390	1315	260	208	99	101
10-19	875	390	1345	260	208	100	102
10-20	905	390	1375	260	208	101	103
10-21	935	390	1405	260	208	102	104
10-22	995	500	1575	330	255	168	170

CDM/CDMF10-15~10-22 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

Performance curve



CDM/CDMF15 Installation sketch

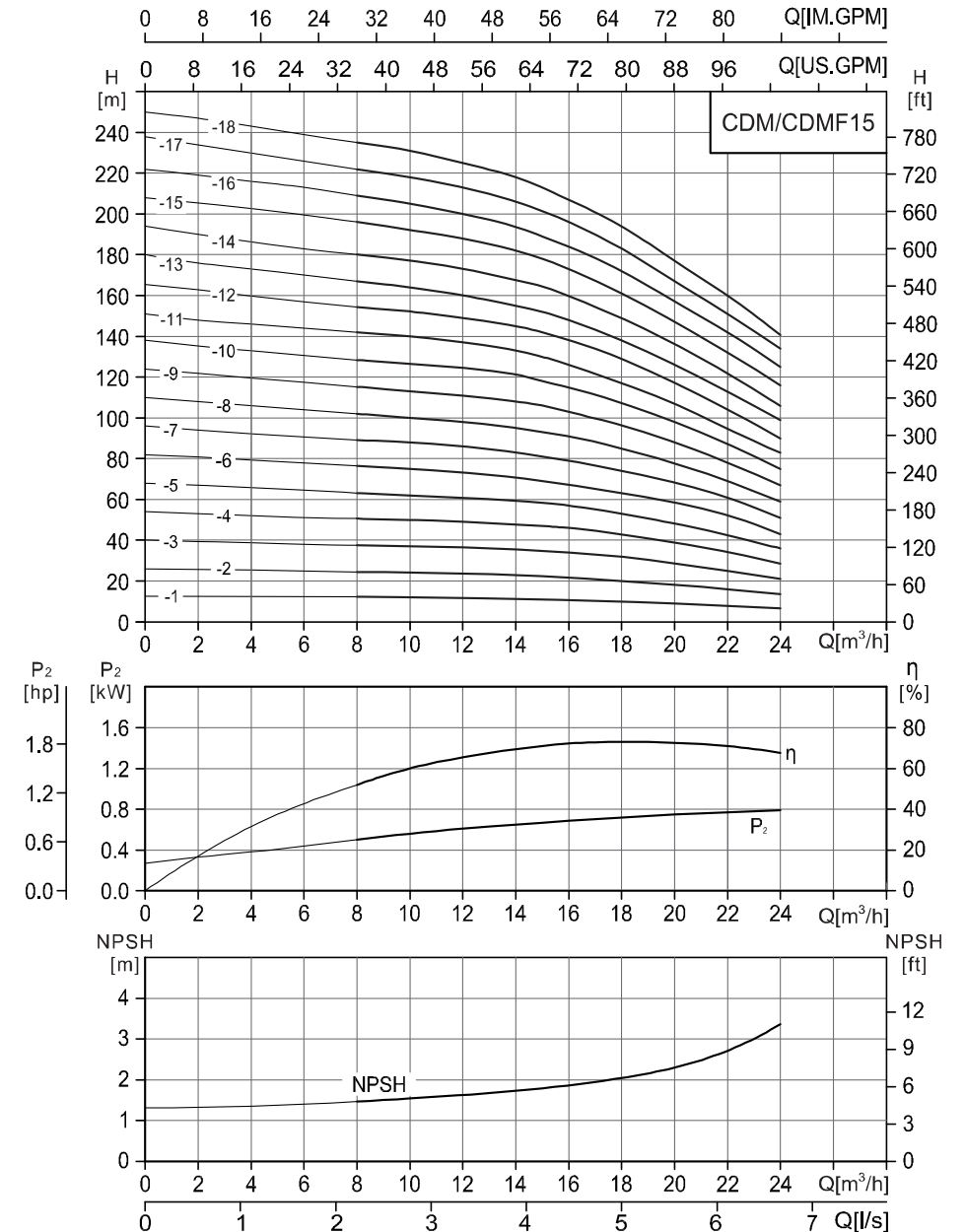


The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

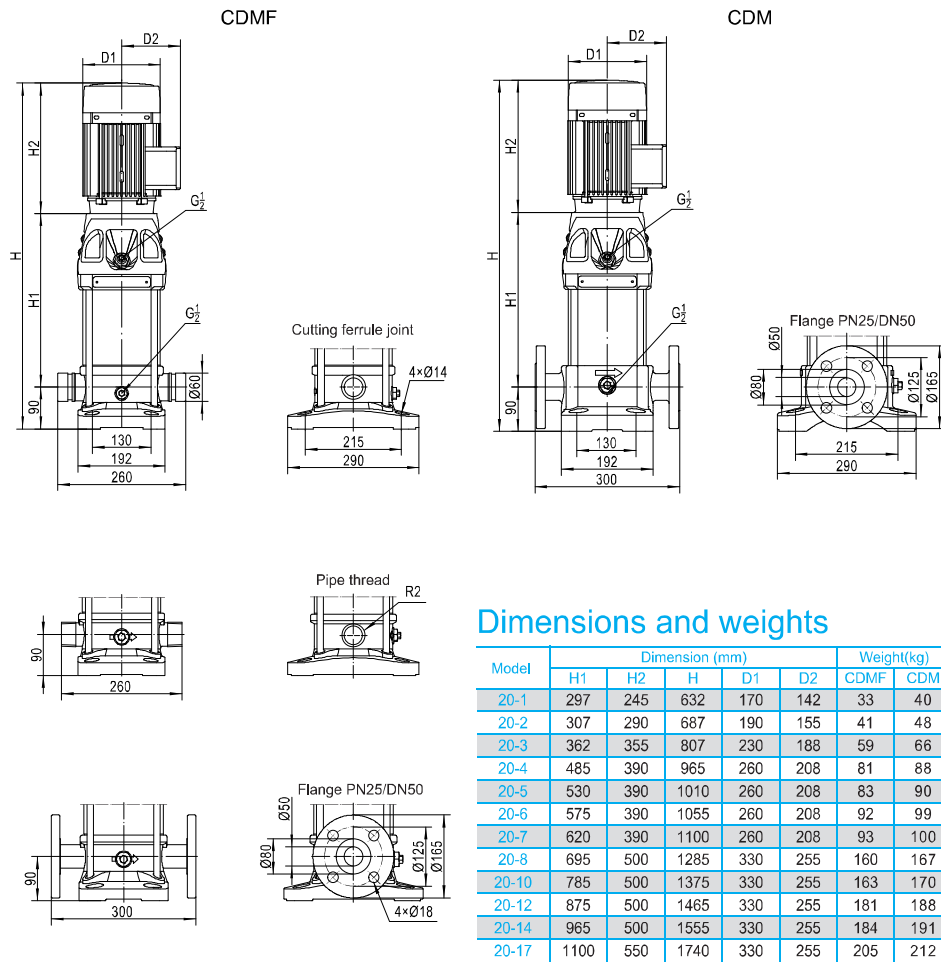
Dimensions and weights

Model	Dimension (mm)					Weight(kg)	
	H1	H2	H	D1	D2	CDMF	CDM
15-1	297	245	632	170	142	33	40
15-2	307	290	687	190	155	41	48
15-3	362	345	797	197	165	52	59
15-4	407	355	852	230	188	59	66
15-5	452	355	897	230	188	61	68
15-6	575	390	1055	260	208	83	90
15-7	620	390	1100	260	208	84	91
15-8	665	390	1145	260	208	91	98
15-9	710	390	1190	260	208	92	99
15-10	785	500	1375	330	255	150	157
15-11	830	500	1420	330	255	152	159
15-12	875	500	1465	330	255	153	160
15-13	920	500	1510	330	255	155	162
15-14	965	500	1555	330	255	156	163
15-15	1010	500	1600	330	255	172	179
15-16	1055	500	1645	330	255	174	181
15-17	1100	500	1690	330	255	175	182
15-18	1145	500	1735	330	255	177	184

Performance curve

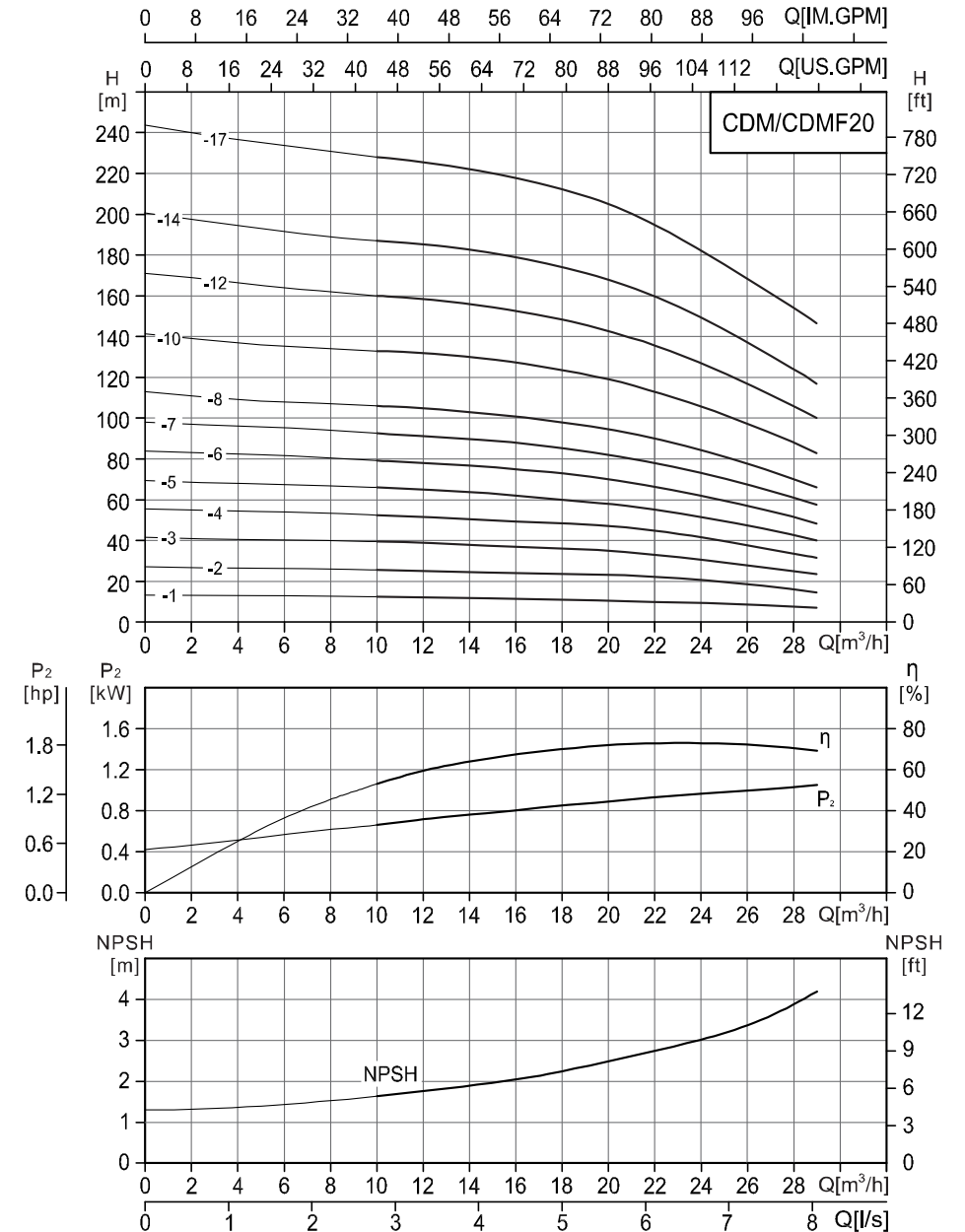


CDM/CDMF20 Installation sketch



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

Performance curve



Material code

Pump material	Sealing rubber	Mechanical Seal
S : AISI304	N : NBR	B : Tungsten carbide/Graphite
L : AISI316L	E : EPDM	S : Tungsten carbide/Silicon carbide
P : ASTM25B	F : FPM	W : Tungsten Carbide/Tungsten Carbide

Compatibility chart for materials

Pumped liquid	Chemical formula	Liquid concentration	Liquid temperature	Pump material	Sealing rubber	Machinery Seal
Sulphuric acid	H ₂ SO ₄	1.0%	20°C	L	F	S
Nitric acid	HNO ₃	1.0%	20°C	L	F	S
Phosphoric acid	H ₃ PO ₄	20.0%	20°C	L	E	W
Chromic acid	H ₂ CrO ₄	1.0%	20°C	L	F	S
Acetic acid	CH ₃ COOH	5.0%	20°C	L	E	S
Formic acid	HCOOH	5.0%	20°C	L	E	S
Oxalic acid	(COOH) ₂	1.0%	20°C	L	E	S
Citric acid	HOC(CH ₂ CO ₂ H) ₂ COOH	5.0%	40°C	L	E	W
Salicylic acid	C ₆ H ₄ (OH)COOH	0.1%	20°C	L	E	W
Benzoic acid	C ₆ H ₅ COOH	0.5%	20°C	L	F	W
Sodium hydroxide	NaOH	20.0%	50°C	L	E	W
Potassium hydroxide	KOH	20.0%	50°C	L	E	W
Potassium hydroxide	KOH	40.0%	80°C	L	E	W
Calcium hydroxide	Ca(OH) ₂	5.0%	50°C	P	F	W
Ammonia in water	NH ₄ OH	20.0%	40°C	S	E	W
Copper sulphate	CuSO ₄	10.0%	50°C	L	F	W
Sodium carbonate	Na ₂ CO ₃	10.0%	51°C	S	F	W
Sodium nitrate	NaNO ₃	10.0%	60°C	L	F	W
Sodium phosphate	Na ₃ PO ₄	10.0%	60°C	L	F	W
Sodium bicarbonate	NaHCO ₃	10.0%	60°C	L	F	W
Ammonium bicarbonate	NH ₄ HCO ₃	20.0%	40°C	L	F	W
Sodium sulphate	Na ₂ SO ₄	10.0%	60°C	L	F	W
Potassium carbonate	K ₂ CO ₃	20.0%	50°C	S	F	W
Potassium sulphate	K ₂ SO ₄	20.0%	50°C	L	F	W
Potassium nitrate	KNO ₃	20.0%	50°C	L	F	W
Potassium permanganate	KMnO ₄	5.0%	20°C	L	E	W
Calcium acetate	C ₄ H ₆ CaO ₄	30.0%	50°C	L	F	W
Ethanol (ethyl alcohol)	C ₂ H ₅ OH	80.0%	100°C	S,P	F	B
Ethylene glycol	HOCH ₂ CH ₂ OH	50.0%	50°C	S,P	F	B
Propanol	C ₃ H ₇ OH	50.0%	100°C	S,P	F	B
Propylene glycol	CH ₃ CH(OH)CH ₂ OH	50.0%	70°C	S,P	F	B
Butanediol	HOCH ₂ CH ₂ CH ₂ CH ₂ OH	50.0%	25°C	S,P	F	B
formaldehyde	HCHO	10.0%	25°C	S	F	B
Acetaldehyde	CH ₃ CHO	20.0%	25°C	S	F	B
Petrol			80°C	S	N	B
kerosene			80°C	S	N	B
Diesel oil			80°C	S	N	B
Pee			60°C	L	N	B
Hydrogen peroxide			45°C	S,P	E	S
Ozone water			50°C	S,P	E	S
Deionised water			100°C	S,P	N	B

Motor parameter table

Motor P ₂		Frame size	Standard voltage [V]	I ₁ /I ₂ [A]	Cos φ _{1/1}	Efficiency class	η [%]	I _{sn} /I _n	Speed [min ⁻¹]
[kW]	[hp]								
0.37	0.50	71	220/380	1.7/1.0	0.81	-	70	6.1	2730
0.55	0.75	71	220/380	2.4/1.4	0.82	-	73	6.1	2760
0.75	1	80	220/380	3.0/1.7	0.82	IE3	80.7	7	2865
1.1	1.5	80	220/380	4.2/2.4	0.83	IE3	82.7	7.3	2870
1.5	2	90	220/380	5.6/3.2	0.84	IE3	84.2	7.6	2880
2.2	3	90	220/380	7.9/4.6	0.85	IE3	85.9	7.6	2880
3	4	100	220/380	10.4/6.0	0.87	IE3	87.1	7.8	2890
4	5.5	112	380	7.8	0.88	IE3	88.1	8.3	2900
4.5	6	112	380	8.8	0.88	IE3	88.1	8.3	2900
5.5	7.5	132	380	10.6	0.88	IE3	89.2	8.3	2920
7.5	10	132	380	14.4	0.88	IE3	90.1	7.9	2920
11	15	160	380	20.6	0.89	IE3	91.2	8.1	2945
15	20	160	380	27.9	0.89	IE3	91.9	8.1	2945
18.5	25	160	380	34.2	0.89	IE3	92.4	8.2	2945

MEMO

A series of horizontal dashed lines for writing.