CDM
CDMF

60Hz

Light Vertical Multistage Centrifugal Pump

Stock code:300145

Nanfang Zhongjin Environment Co.,Ltd.

CNP Headquarter
Address: Renhe Town, Hangzhou,China
Post code: 311107
Tel: +86 571 86397876, +86 571 86397827
Fax:+86 571 86397809
E-mail: info@nanfang-pump.com
http: //www.cnppump.com

E171101
subject to amendments

Pumping Water Pumping Honor

Company profile

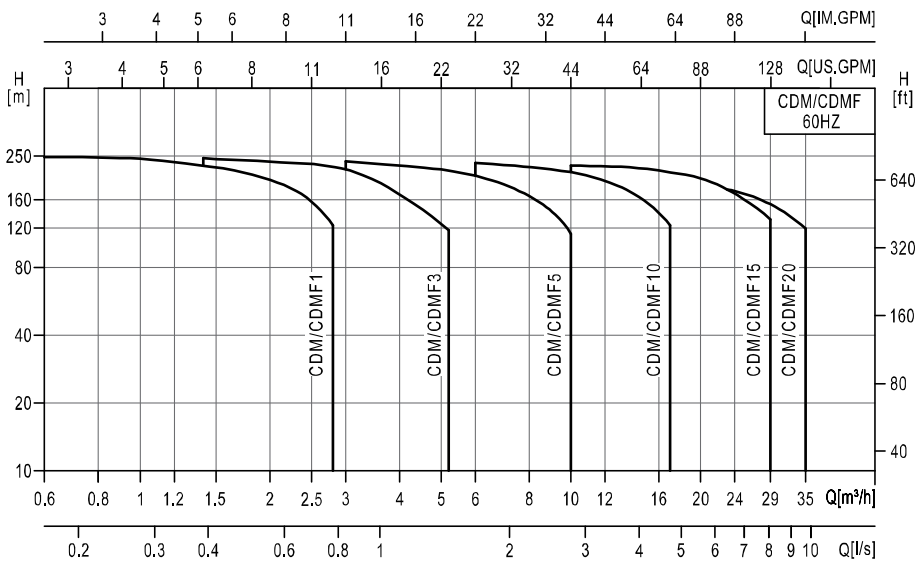
Founded in 1991, Nanfang Zhongjin Environment Co.,Ltd. (hereinafter referred to as CNP) has been listed on the Shenzhen Stock Exchange on 9th December 2010; Stock name: CNP; Stock code: 300145.

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.

Contents

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]		0.6~2.8	1.4~5.2	3~10	6~17	10~29	13~35
Flow range [l/s]		0.17~0.78	0.39~1.44	0.83~2.78	1.67~4.72	2.78~8.06	3.61~9.72
Max. pressure [bar]		25	25	24	24	23	20
Motor power [kW]		0.37~3	0.37~4	0.55~5.5	0.75~11	1.5~18.5	2.2~18.5
Temp [℃]		-15 ~ +120					
Max. efficiency [%]		49	59	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≥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

IP class: IP55

Insulation class: F

Voltage: 60Hz: 3×200-230/346-400V

3×220-255/380-440V

3×220-277/380-480V

Working conditions

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

Liquid temperature:

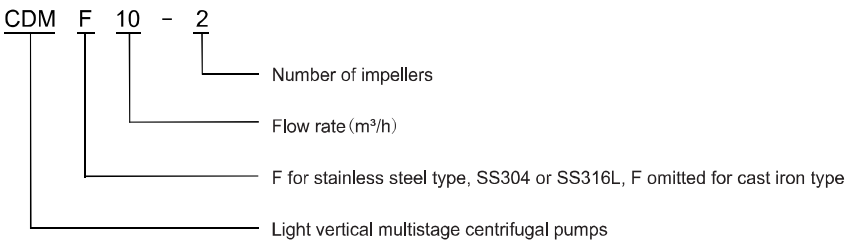
Normal temperature type: -15℃ to 70℃

Hot water type:-15℃ to 120℃

Ambient temperature: up to +40℃

Altitude: up to 1000m

Model definition



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 bellow.

1. All curves are based on the measured values of 60Hz: constant motor speed 3500rpm.

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

3. Measurement is done with 20℃ air-free water, kinematic viscosity of 1 mm²/sec.

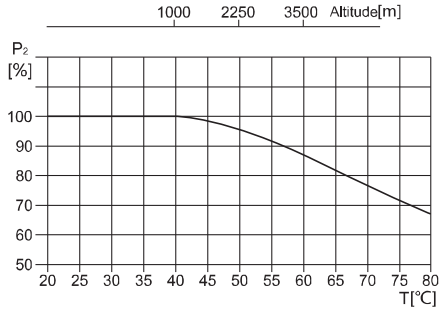
4.The operation of pump shall refer to the performance region indicated by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

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℃ 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=Pb×10.2-NPSH-Hf-Hv-Hs

Pb = Barometric pressure in bar.

(Barometric pressure can be set to 1 bar).

In a closed system, Pb 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.)

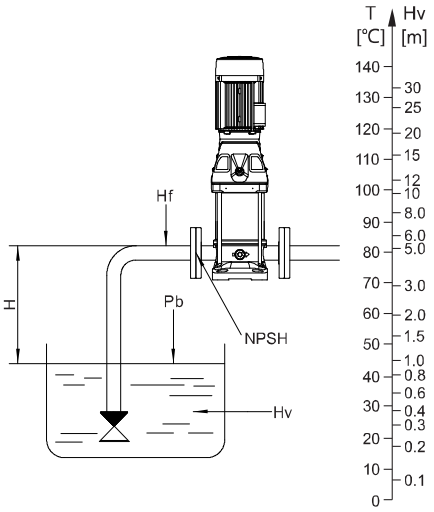
Hf = Pipe friction loss at the inlet[m].

Hv = Vapour pressure [m].

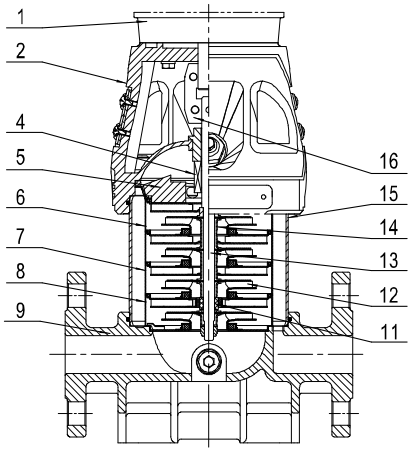
Hs = Safety margin = minimum 0.5 meters head.

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

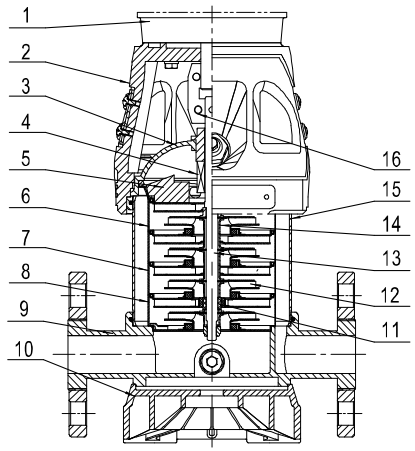
If the "H" calculated is negative, A head of minimum inlet pressure H is required.



CDM/CDMF1,3,5 Sectional drawing



CDM



CDMF

CDM1,3,5 Material list

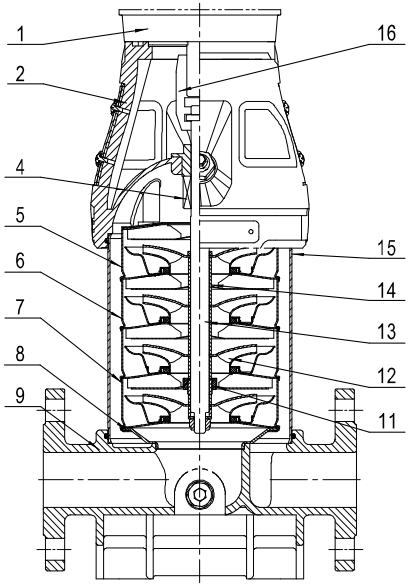
Pos.	Name	Materials	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
4	Mechanical seal	Tungsten carbide /Carbon	
5	Top diffuser	Stainless steel	AISI304
6	Diffuser	Stainless steel	AISI304
7	Support diffuser	Stainless steel	AISI304
8	Inducer	Stainless steel	AISI304
9	Inlet & outlet chamber	Cast iron	ASTM25B
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



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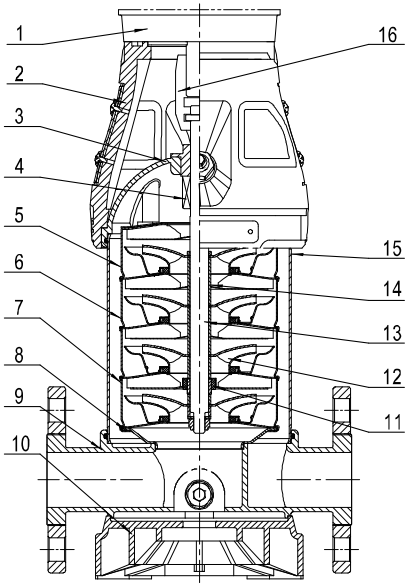


CDMF

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 (kW)	Motor (hp)	Q (m³/h)	0	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.4	2.8
1-2	0.37	0.5		17.5	17	16.8	16.6	16.4	16	15.4	14.6	13.7	11.3	8.4
1-3	0.37	0.5		26	25.5	25.3	25	24.6	24	23	22	20.5	17	12.5
1-4	0.37	0.5		34	33.8	33.5	33	32.5	31.5	30.5	29.3	27.5	22.5	16.8
1-5	0.55	0.75		43	42.5	42	41.5	41	40	38.6	36.6	34.4	28.3	21
1-6	0.55	0.75		51.5	51	50.6	50	49	47.5	46	44	41	34	25
1-7	0.75	1		60	59	58.5	58	57	56	54	51.5	48	39	29
1-8	0.75	1		68	67	66.5	66	65.5	64	62	59	55	45	33
1-9	0.75	1		77	76.5	76	75	74	72	69.5	66	62	51	38
1-10	1.1	1.5		85.5	84.5	84	83	82	80	77	73	68.5	56.5	42
1-11	1.1	1.5		94	93	92.5	91.5	90	88	85	80.5	75.5	62	46
1-12	1.1	1.5	H (m)	103	102	101	100	98.5	96	92.5	88	82.5	68	50
1-13	1.1	1.5		112	111	110	109	107	105	101	96	90	74	55
1-15	1.5	2		129	128	127	126	124	121	117	111	104	86	64
1-17	1.5	2		146	144	143	142	140	137	132	125	118	97	72
1-19	2.2	3		162	161	160	159	157	153	147	140	131	108	81
1-21	2.2	3		180	179	178	177	175	170	164	155	145	120	90
1-23	2.2	3		197	196	195	194	191	186	179	170	158	132	98
1-25	2.2	3		215	214	213	211	208	203	195	184	172	143	107
1-26	2.2	3		223	222	221	220	217	211	203	192	179	149	111
1-27	3	4		232	231	230	228	225	219	210	199	186	155	115
1-29	3	4		249	248	247	245	242	235	226	214	199	166	123

CDM/CDMF3 Performance table

Model	Motor (kW)	Motor (hp)	Q (m³/h)	0	1.4	1.8	2.4	2.8	3	3.6	4.2	4.8	5.2
3-2	0.37	0.5		21.2	20.2	19.8	19	18.2	17.7	16	14	11.5	9.2
3-3	0.55	0.75		32	31	30.5	29.5	28.4	27.6	25.2	22	18	14.6
3-4	0.75	1		43	42	41.5	40	38	37	33.5	29.5	24.5	20
3-5	1.1	1.5		54	52	51	48.5	46.5	45.5	42	37.5	30.2	24.5
3-6	1.1	1.5		65	63	62	59	57	55.5	50.5	44.5	36	29.5
3-7	1.1	1.5		76	74	73	70	67	65.5	60	52	43.2	35
3-8	1.5	2		86	85	84	81	77	75	68	59.5	49	40
3-9	1.5	2		97	95	94	91	87.5	85	77	67	55	45
3-10	2.2	3		108	106	105	101	96	93.5	85	74.5	60.5	50
3-11	2.2	3		119	116	114	111	106	103	94	82	68	56
3-12	2.2	3	H (m)	130	127	125	120	115	112	103	88	72	60
3-13	2.2	3		141	137	135	130	125	122	111	95.5	78	66
3-14	2.2	3		152	148	146	141	135	131	119	102.5	83.5	70
3-15	3	4		163	159	157	151	146	142	130	113	92	77
3-16	3	4		174	170	168	161	156	152	138	121	99	82
3-18	3	4		196	192	189	182	175	171	156	135	110	92
3-19	3	4		206	202	199	190	183	179	164	143	118	97
3-20	4	5.5		218	213	210	202	194	189	173	150	124	103
3-21	4	5.5		228	224	220	212	204	199	181	158	130	108
3-22	4	5.5		239	234	230	222	212	207	190	165	135	113
3-23	4	5.5		250	245	241	232	223	218	199	172	140	117

CDM/CDMF5 Performance table

Model	Motor (kW)	Motor (hp)	Q (m³/h)	0	3	4	5	6	7	8	9	10
5-2	0.55	0.75		21.2	19.4	18.8	17.7	16	13.5	11	8.6	6.2
5-3	0.75	1		31.8	30.2	29.3	27.6	25.2	22.3	18.8	15.2	11.5
5-4	1.1	1.5		42.5	40.3	39	37	34.5	31	26.5	21.5	16.8
5-5	1.5	2		53.3	50.4	49	47	44	39.8	35	29.5	23
5-6	1.5	2		64	60.5	59.3	57	53.3	48.7	42	34.5	27.5
5-7	2.2	3		75	71	69	65.5	61.2	56.2	49	40.5	32
5-8	2.2	3		85	82	79.5	75.5	70.6	64.5	56	46	36.5
5-9	2.2	3		96.5	92.2	89.5	85.5	80	73	64	53	41
5-10	3	4		107	102	99	95	89.3	81	71	59	46
5-11	3	4		118	112	109	104	98	90	79	65	50.5
5-12	3	4	H (m)	129	122	120	115	107	97.5	85	71	56
5-13	4	5.5		140	133	130	124	115	105	92	78	61
5-14	4	5.5		151	144	140	134	125	114	100	84.5	66
5-15	4	5.5		161	155	151	144	134	121	106	89	71
5-16	4	5.5		172	164	159	153	143	130	114	95	76
5-17	5.5	7.5		183	174	168	161	151	139	121	102	81
5-18	5.5	7.5		194	184	179	171	160	146	128	108	86
5-20	5.5	7.5		215	206	199	190	179	162	143	120	95
5-21	5.5	7.5		226	216	209	199	187	171	151	126	100
5-22	5.5	7.5		236	226	218	208	196	180	158	134	107
5-23	5.5	7.5		248	237	228	218	205	188	166	141	113

CDM/CDMF10 Performance table

Model	Motor (kW)	Motor (hp)	Q (m³/h)	0	6	8	10	12	14	16	17
10-1	0.75	1		15.8	14.9	14	13	12	10.5	8	6.5
10-2	1.5	2		32	30.2	29	27	23.8	20.2	16	13.5
10-3	2.2	3		48	45.5	44	40.5	36.5	32.5	27	23
10-4	3	4		64	60.5	58	54	49	43.5	35.5	30.5
10-5	4	5.5		80	75	72	68	62	55	45.5	39
10-6	4	5.5		96.5	91.5	87.5	82	75	65.5	54	47.5
10-7	5.5	7.5		113	107	103	98	89	77.5	63	56
10-8	5.5	7.5	H (m)	130	123	119	112	102	90	73	64.5
10-9	7.5	10		146	138	133.5	126.5	115	100	83	73
10-10	7.5	10		163	154	148.5	139.5	128	113	94	82
10-11	7.5	10		179	170	163	153	141	125	103	89
10-12	7.5	10		197	187	180	169	154	136	112	98
10-13	11	15		213	202	196	185	167	147	121	107
10-14	11	15		230	217	210	197	180	158	131	115
10-15	11	15		246	233	226	212	193	170	141	123

CDM/CDMF15 Performance table

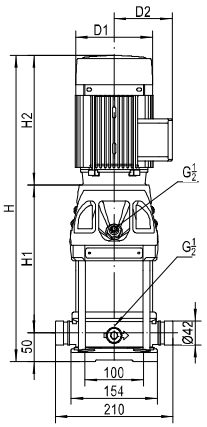
Model	Motor (kW)	Motor (hp)	Q (m³/h)	0	10	12	14	15	16	18	20	22	24	26	28	29
15-1	1.5	2		18	17.5	17.3	17.1	16.9	16.7	16	15.2	14.3	13	11.5	10	9.2
15-2	3	4		38	36.5	36	35.5	35	34.3	32.8	31	29	27	24.5	21.5	19.5
15-3	4	5.5		57	54.5	54	53.5	53	52.5	51	49	46.5	43	38	33	30
15-4	5.5	7.5		80	74.5	73.5	72	71	70	68	65	61	56	51	45	41
15-5	7.5	10		100	93	91	89	88	87	84.5	81	76	70	63	56	52
15-6	11	15	H (m)	120	112	110	108	107	106	102	97	92	85	78	68	63
15-7	11	15		141	132	130	128	126	124	119	114	108	100	91	80	74
15-8	11	15		161	151	149	146	144	142	137	131	123	114	104	92	86
15-9	15	20		183	172	169	166	164	162	156	148	139	129	117	104	97
15-10	15	20		203	190	187	184	182	179	173	165	155	144	130	116	108
15-11	15	20		222	208	205	202	200	198	191	181	169	157	143	127	119
15-12	18.5	25		239	227	224	221	219	216	209	199	187	172	156	139	131

CDM/CDMF20 Performance table

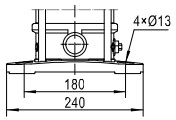
Model	Motor (kW)	Motor (hp)	Q (m³/h)	0	13	15	17	20	23	26	29	32	34	35
20-1	2.2	3		19.5	18.3	18	17.7	17	16	15	13.7	12.3	11.3	10.7
20-2	4	5.5		40	38	37.5	37	35.5	34	32	29	25.5	23	21.5
20-3	5.5	7.5		60	57.5	57	56	54	51	48	44	39	35	33
20-4	7.5	10		80	77	76	75	73	70	65	59.5	52	47	44
20-5	11	15	H (m)	100	95	94	93	91	87	81	74	65	59	56
20-6	11	15		121	115	114	113	110	105	98	90	81	74	70
20-7	15	20		141	135	134	132	128	122	115	106	96	88	84
20-8	15	20		163	155	153	151	147	140	132	121	109	100	96
20-9	18.5	25		183	175	173	171	167	160	150	138	123	113	108
20-10	18.5	25		203	194	192	190	186	178	167	153	137	125	119

CDM/CDMF1 Installation sketch

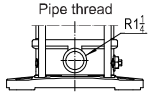
CDMF

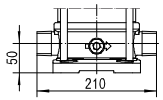


Cutting ferrule joint

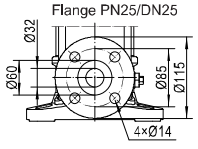


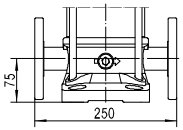
Pipe thread



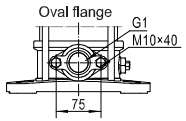


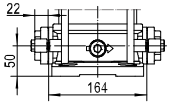
Flange PN25/DN25



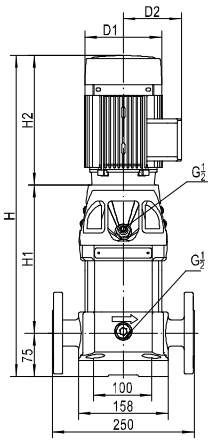


Oval flange

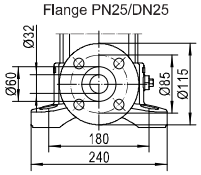




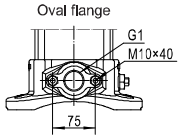
CDM

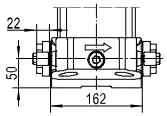


Flange PN25/DN25



Oval flange



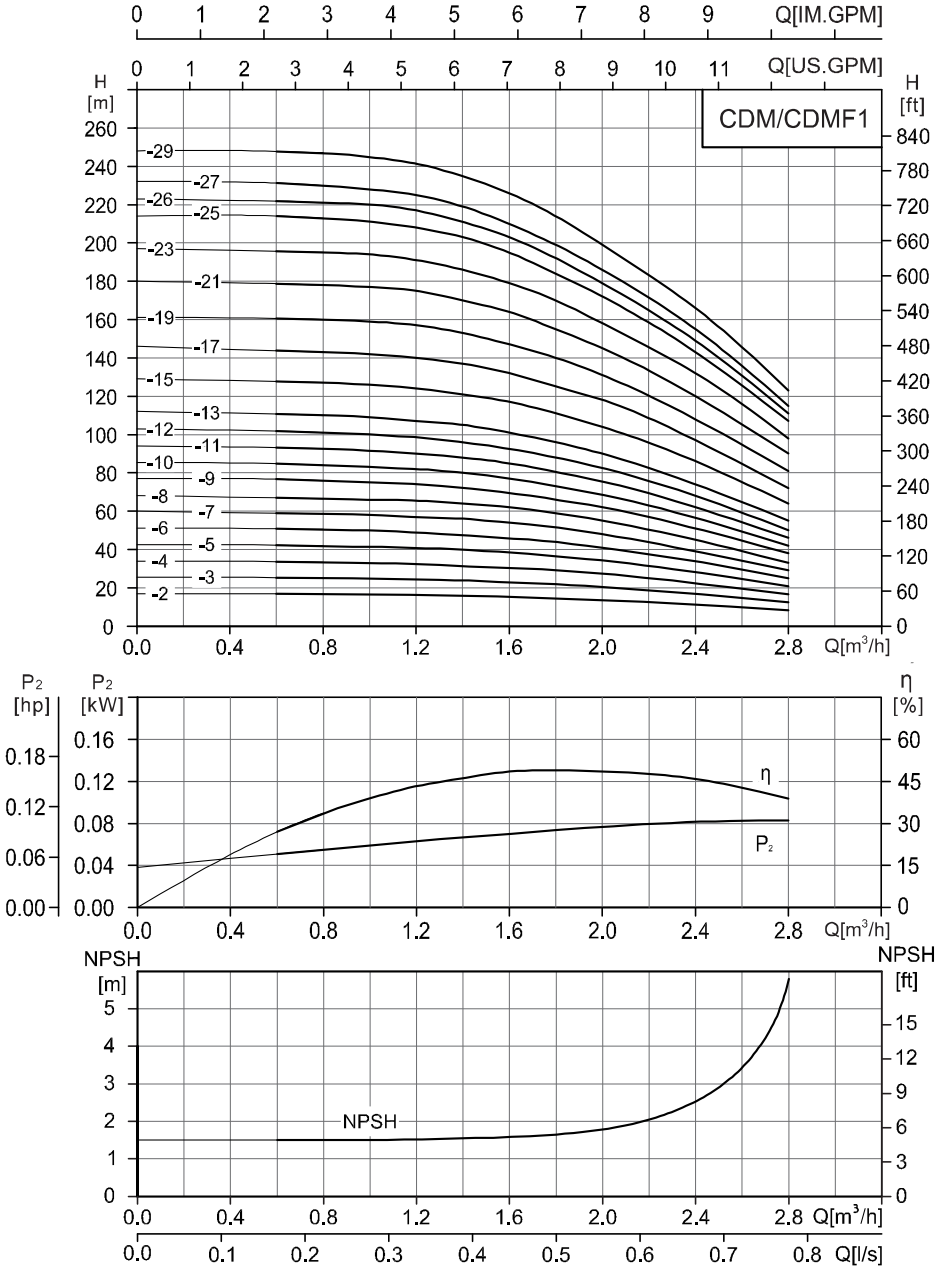


Dimensions and weights

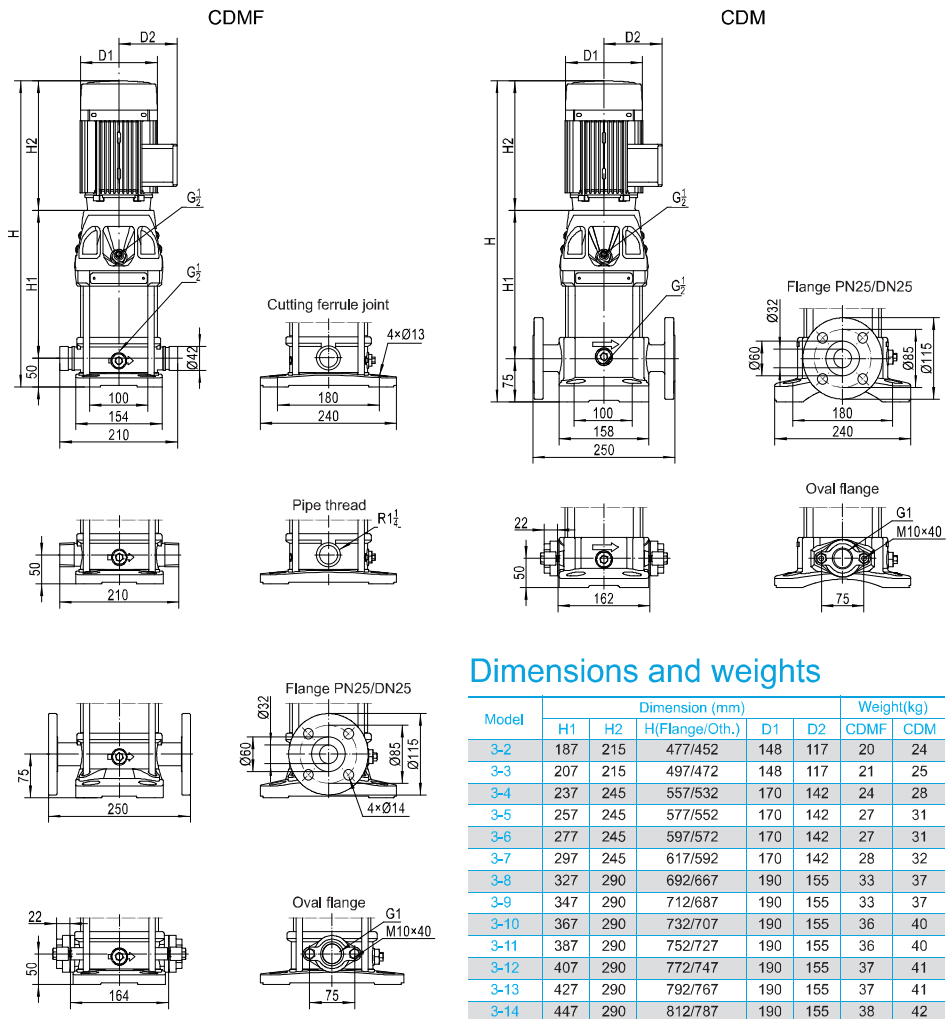
Model	Dimension (mm)					Weight(kg)	
	H1	H2	H(Flange/Oth.)	D1	D2	CDMF	CDM
1-2	187	215	477/452	148	117	19	23
1-3	207	215	497/472	148	117	19	23
1-4	227	215	517/492	148	117	20	24
1-5	247	215	537/512	148	117	21	25
1-6	267	215	557/532	148	117	21	25
1-7	297	245	617/592	170	142	25	29
1-8	317	245	637/612	170	142	25	29
1-9	337	245	657/632	170	142	26	30
1-10	357	245	677/652	170	142	28	32
1-11	377	245	697/672	170	142	29	33
1-12	397	245	717/692	170	142	29	33
1-13	417	245	737/712	170	142	29	33
1-15	467	290	832/807	190	155	35	39
1-17	507	290	872/847	190	155	36	40
1-19	547	290	912/887	190	155	39	43
1-21	587	290	952/927	190	155	39	43
1-23	627	290	992/967	190	155	40	44
1-25	667	290	1032/1007	190	155	41	45
1-26	687	290	1052/1027	190	155	42	46
1-27	717	345	1137/1112	197	165	53	57
1-29	757	345	1177/1152	197	165	54	58

CDM/CDMF1-19~1-29 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/CDMF3 Installation sketch

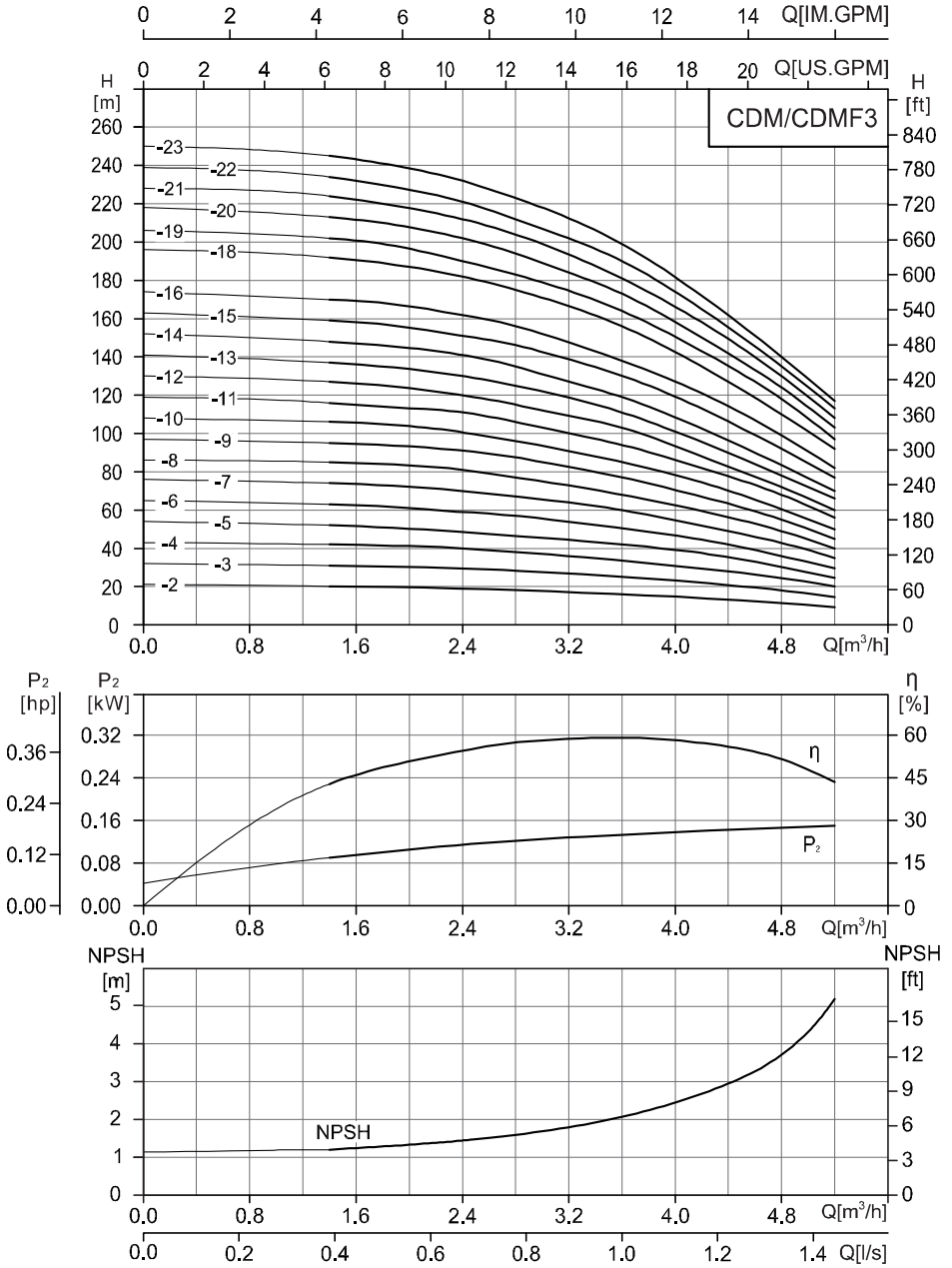


Dimensions and weights

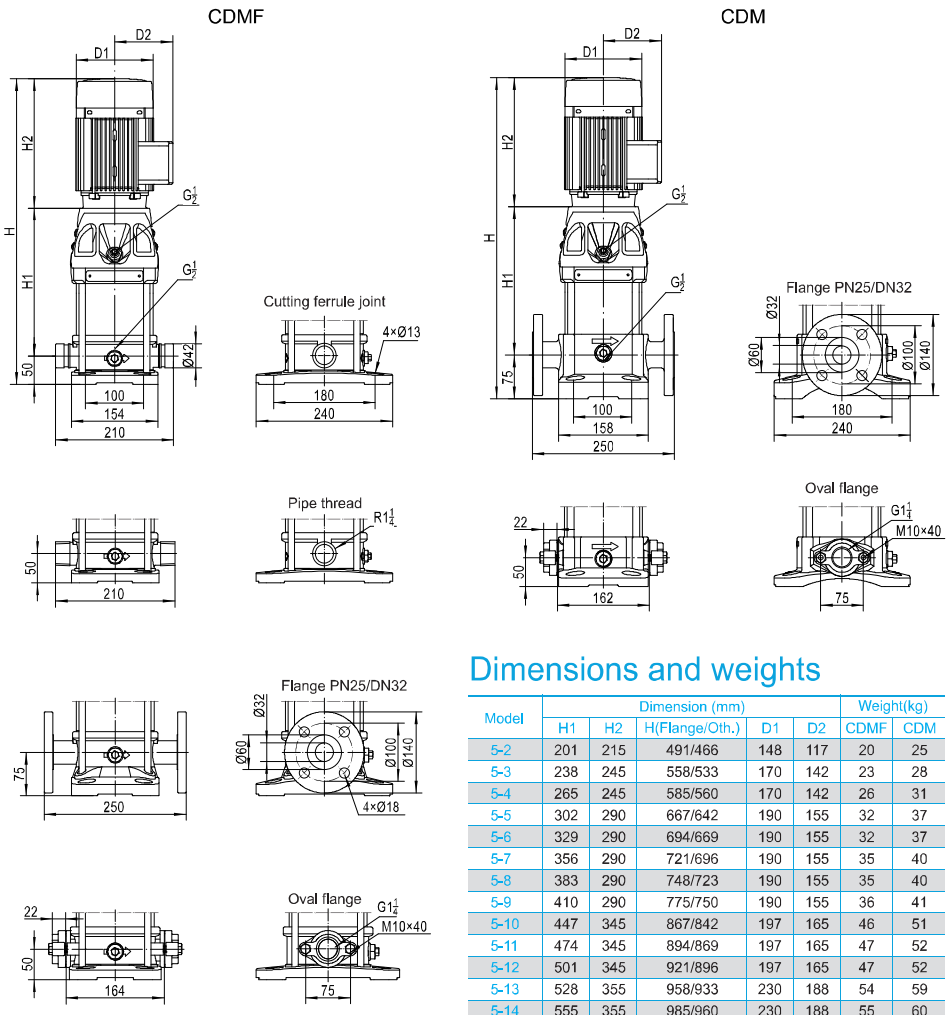
Model	Dimension (mm)					Weight(kg)	
	H1	H2	H(Flange/Oth.)	D1	D2	CDMF	CDM
3-2	187	215	477/452	148	117	20	24
3-3	207	215	497/472	148	117	21	25
3-4	237	245	557/532	170	142	24	28
3-5	257	245	577/552	170	142	27	31
3-6	277	245	597/572	170	142	27	31
3-7	297	245	617/592	170	142	28	32
3-8	327	290	692/667	190	155	33	37
3-9	347	290	712/687	190	155	33	37
3-10	367	290	732/707	190	155	36	40
3-11	387	290	752/727	190	155	36	40
3-12	407	290	772/747	190	155	37	41
3-13	427	290	792/767	190	155	37	41
3-14	447	290	812/787	190	155	38	42
3-15	477	345	897/872	197	165	48	52
3-16	497	345	917/892	197	165	49	53
3-18	537	345	957/932	197	165	50	54
3-19	557	345	977/952	197	165	50	54
3-20	577	355	1007/982	230	188	57	61
3-21	597	355	1027/1002	230	188	57	61
3-22	617	355	1047/1022	230	188	58	62
3-23	637	355	1067/1042	230	188	58	62

CDM/CDMF3-15~3-23 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

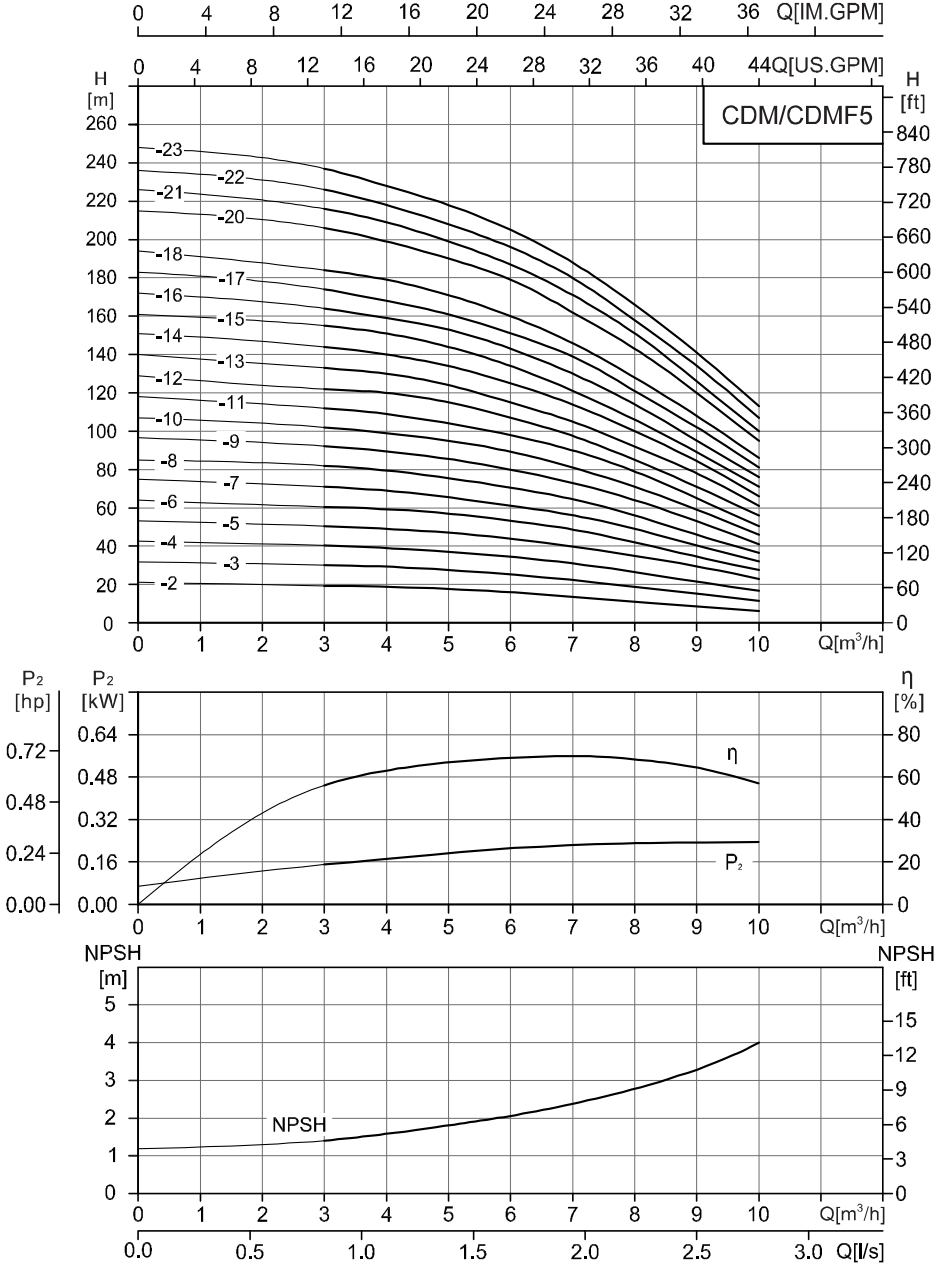


CDM/CDMF5-15~5-23 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

Dimensions and weights

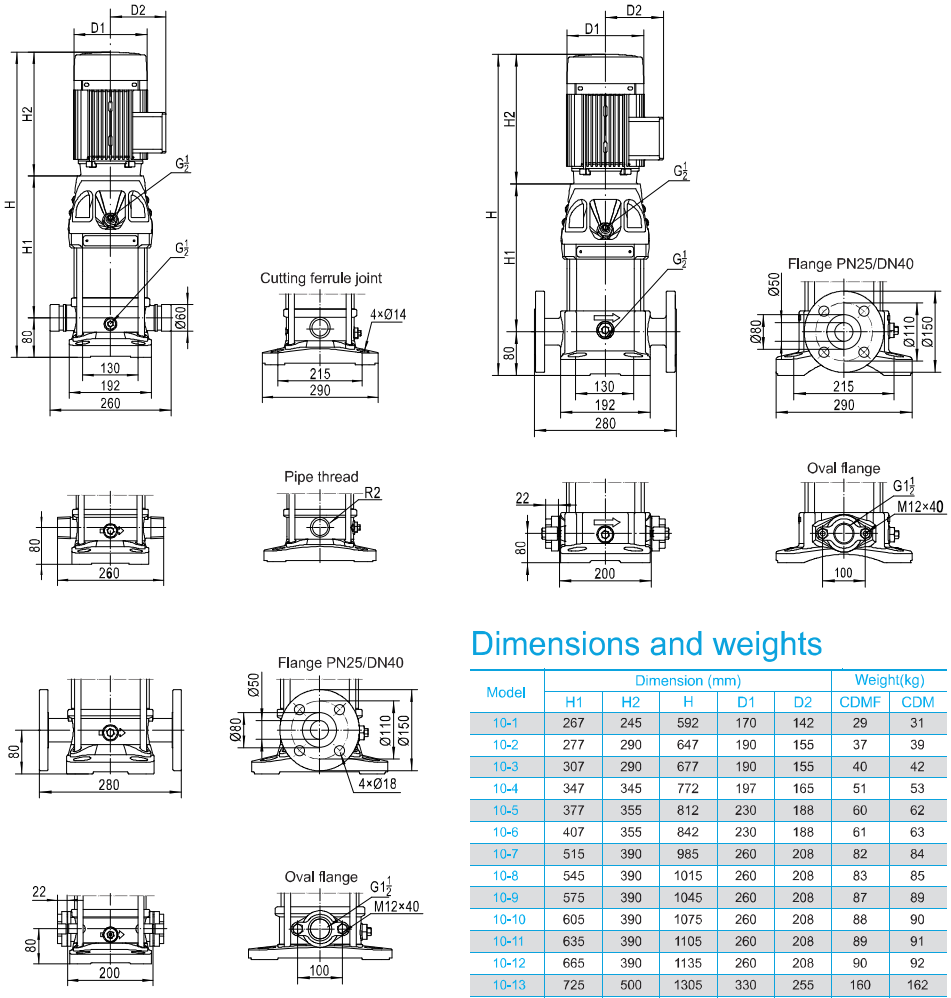
Model	Dimension (mm)					Weight(kg)	
	H1	H2	H(Flange/Oth.)	D1	D2	CDMF	CDM
5-2	201	215	491/466	148	117	20	25
5-3	238	245	558/533	170	142	23	28
5-4	265	245	585/560	170	142	26	31
5-5	302	290	667/642	190	155	32	37
5-6	329	290	694/669	190	155	32	37
5-7	356	290	721/696	190	155	35	40
5-8	383	290	748/723	190	155	35	40
5-9	410	290	775/750	190	155	36	41
5-10	447	345	867/842	197	165	46	51
5-11	474	345	894/869	197	165	47	52
5-12	501	345	921/896	197	165	47	52
5-13	528	355	958/933	230	188	54	59
5-14	555	355	985/960	230	188	55	60
5-15	582	355	1012/987	230	188	55	60
5-16	609	355	1039/1014	230	188	56	61
5-17	711	390	1176/1151	260	208	76	81
5-18	738	390	1203/1178	260	208	76	81
5-20	792	390	1257/1232	260	208	77	82
5-21	819	390	1284/1259	260	208	78	83
5-22	846	390	1311/1286	260	208	78	83
5-23	873	390	1338/1313	260	208	79	84

Performance curve



CDM/CDMF10 Installation sketch

CDMF



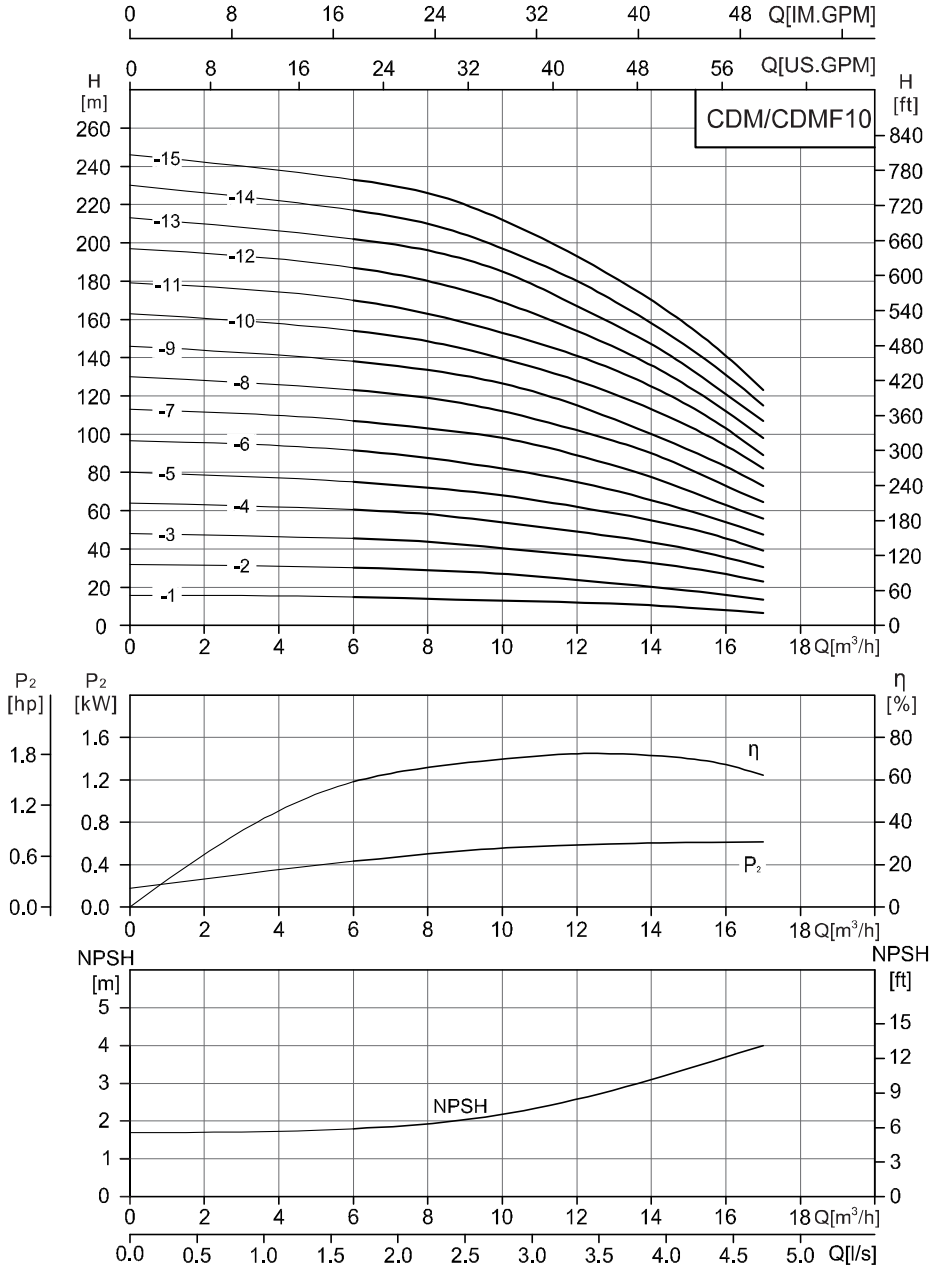
CDM

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	277	290	647	190	155	37	39
10-3	307	290	677	190	155	40	42
10-4	347	345	772	197	165	51	53
10-5	377	355	812	230	188	60	62
10-6	407	355	842	230	188	61	63
10-7	515	390	985	260	208	82	84
10-8	545	390	1015	260	208	83	85
10-9	575	390	1045	260	208	87	89
10-10	605	390	1075	260	208	88	90
10-11	635	390	1105	260	208	89	91
10-12	665	390	1135	260	208	90	92
10-13	725	500	1305	330	255	160	162
10-14	755	500	1335	330	255	161	163
10-15	785	500	1365	330	255	162	164

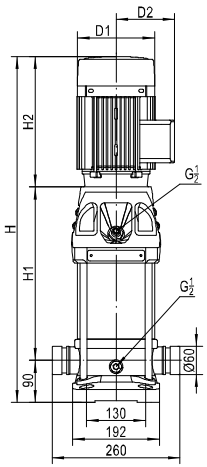
CDM/CDMF10-10~10-15 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

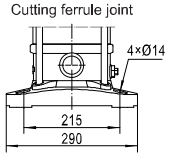
Performance curve



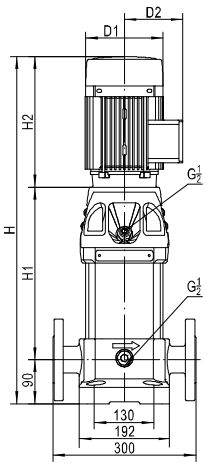
CDM/CDMF15 Installation sketch

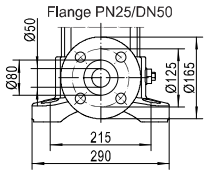
CDMF

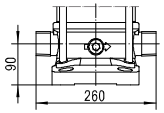


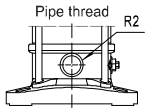


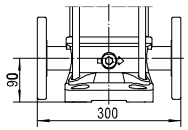
CDM

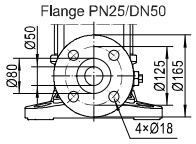










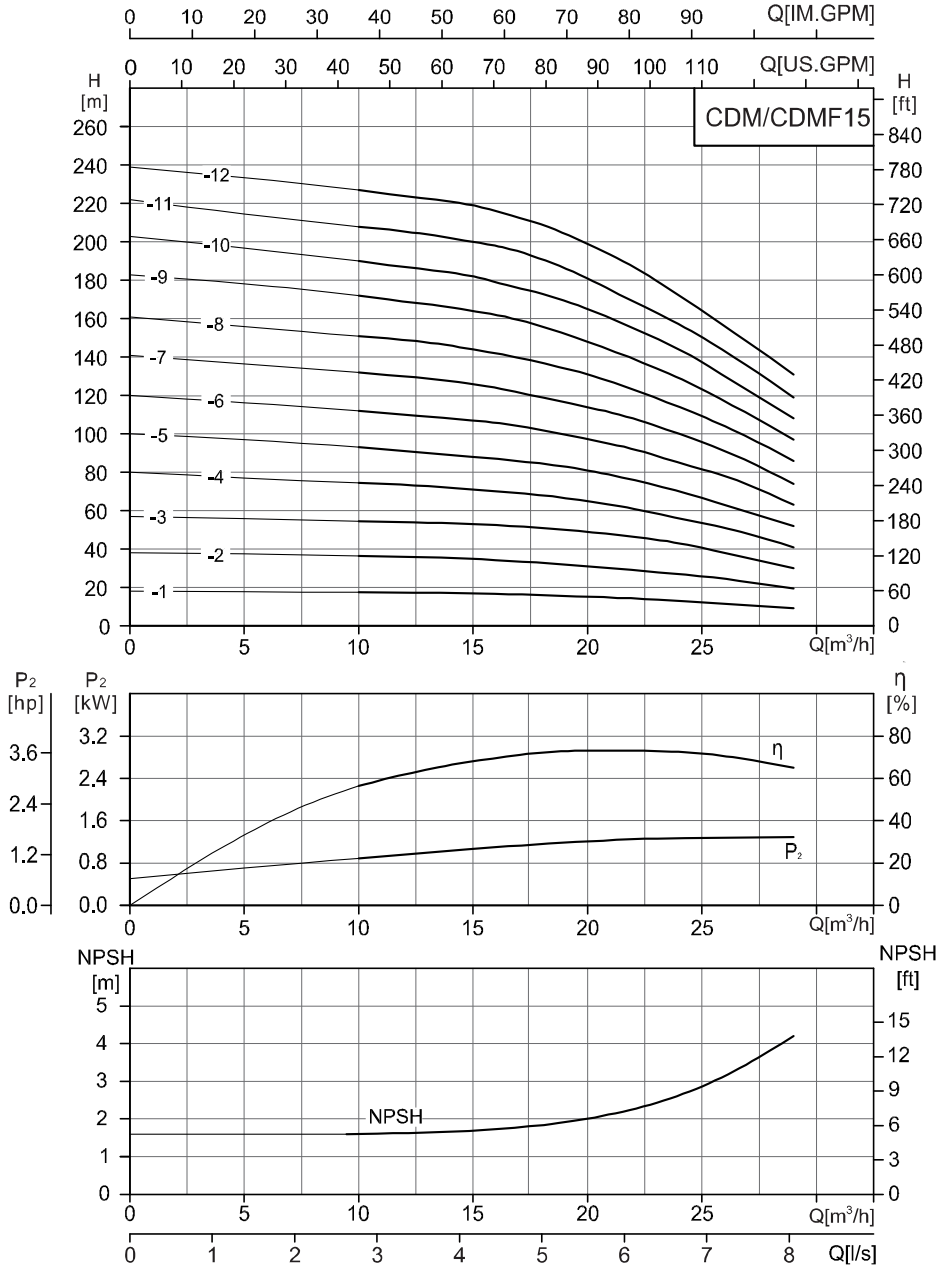


The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

Dimensions and weights

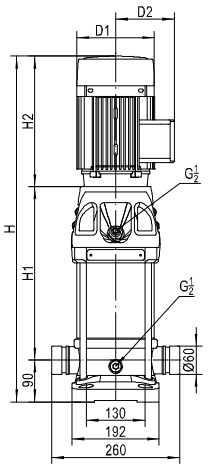
Model	Dimension (mm)					Weight(kg)	
	H1	H2	H	D1	D2	CDMF	CDM
15-1	307	290	687	190	155	40	47
15-2	317	345	752	197	165	53	60
15-3	362	355	807	230	188	61	68
15-4	485	390	965	260	208	83	90
15-5	530	390	1010	260	208	87	94
15-6	605	500	1195	330	255	168	175
15-7	650	500	1240	330	255	170	177
15-8	695	500	1285	330	255	171	178
15-9	740	500	1330	330	255	173	180
15-10	785	500	1375	330	255	174	181
15-11	830	500	1420	330	255	175	182
15-12	875	550	1515	330	255	185	192

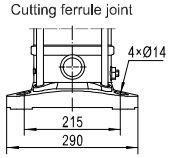
Performance curve



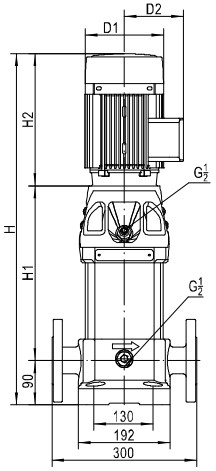
CDM/CDMF20 Installation sketch

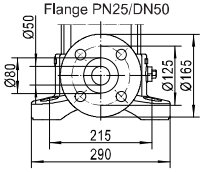
CDMF

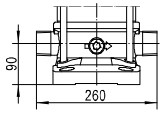


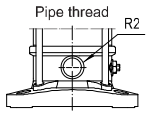


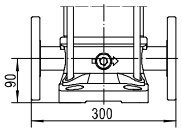
CDM

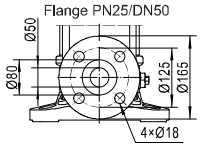










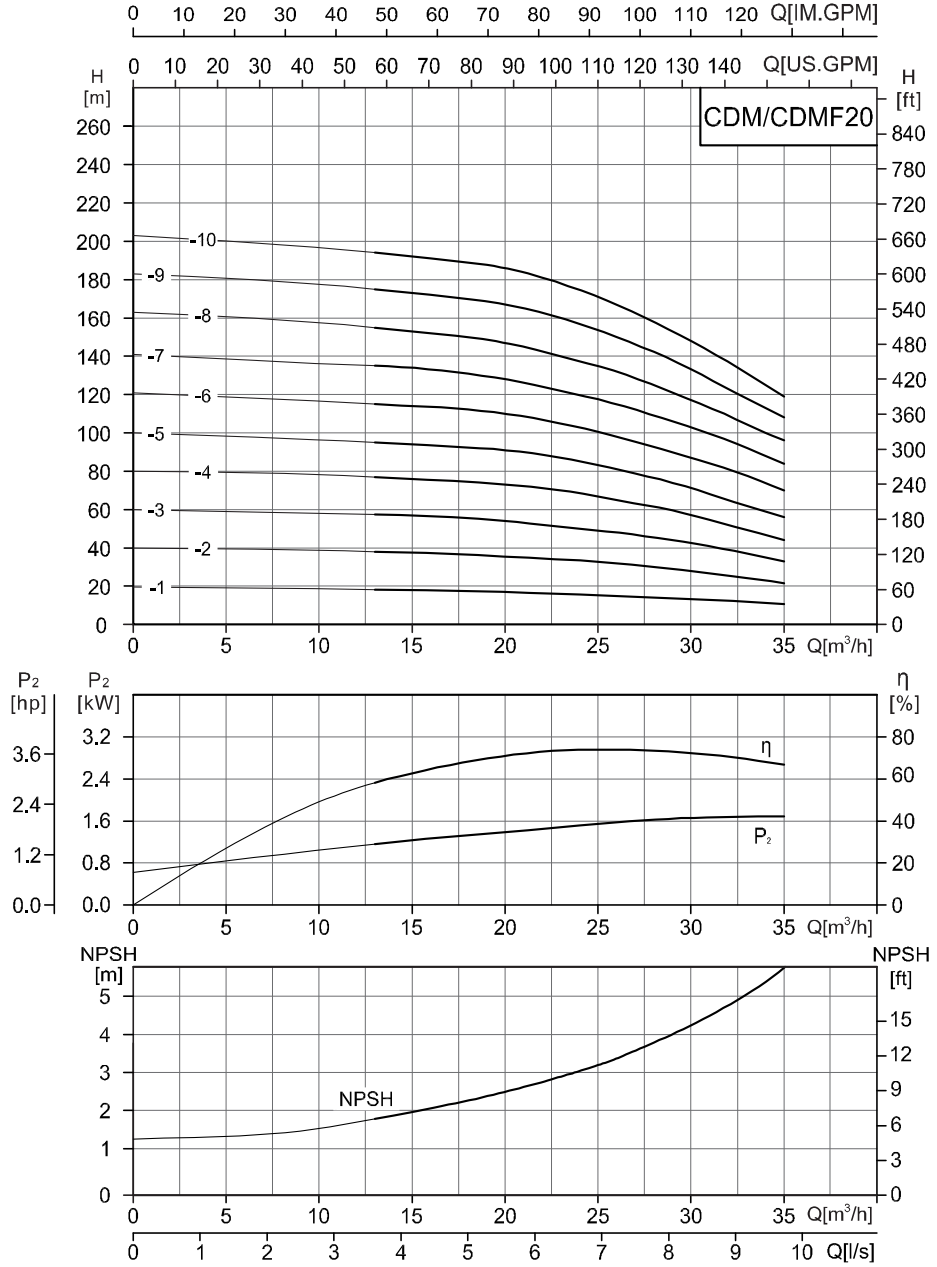


Dimensions and weights

Model	Dimension (mm)					Weight(kg)	
	H1	H2	H	D1	D2	CDMF	CDM
20-1	307	290	687	190	155	40	47
20-2	317	355	762	230	188	58	65
20-3	440	390	920	260	208	80	87
20-4	485	390	965	260	208	84	91
20-5	560	500	1150	330	255	151	158
20-6	605	500	1195	330	255	153	160
20-7	650	500	1240	330	255	169	176
20-8	695	500	1285	330	255	170	177
20-9	740	550	1380	330	255	180	187
20-10	785	550	1425	330	255	181	188

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_2SO_4	1.0%	20℃	L	F	S
Nitric acid	HNO_3	1.0%	20℃	L	F	S
Phosphoric acid	H_3PO_4	20.0%	20℃	L	E	W
Chromic acid	H_2CrO_4	1.0%	20℃	L	F	S
Acetic acid	CH_3COOH	5.0%	20℃	L	E	S
Formic acid	HCOOH	5.0%	20℃	L	E	S
Oxalic acid	$(COOH)_2$	1.0%	20℃	L	E	S
Citric acid	$HOC(CH_2CO_2H)_2COOH$	5.0%	40℃	L	E	W
Salicylic acid	$C_6H_4(OH)COOH$	0.1%	20℃	L	E	W
Benzoic acid	C_6H_5COOH	0.5%	20℃	L	F	W
Sodium hydroxide	NaOH	20.0%	50℃	L	E	W
Potassium hydroxide	KOH	20.0%	50℃	L	E	W
Potassium hydroxide	KOH	40.0%	80℃	L	E	W
Calcium hydroxide	$Ca(OH)_2$	5.0%	50℃	P	F	W
Ammonia in water	NH4OH	20.0%	40℃	S	E	W
Copper sulphate	$CuSO_4$	10.0%	50℃	L	F	W
Sodium carbonate	Na_2CO_3	10.0%	51℃	S	F	W
Sodium nitrate	$NaNO_3$	10.0%	60℃	L	F	W
Sodium phosphate	Na_3PO_4	10.0%	60℃	L	F	W
Sodium bicarbonate	$NaHCO_3$	10.0%	60℃	L	F	W
Ammonium bicarbonate	NH_4HCO_3	20.0%	40℃	L	F	W
Sodium sulphate	Na_2SO_4	10.0%	60℃	L	F	W
Potassium carbonate	K_2CO_3	20.0%	50℃	S	F	W
Potassium sulphate	K_2SO_4	20.0%	50℃	L	F	W
Potassium nitrate	KNO_3	20.0%	50℃	L	F	W
Potassium permanganate	$KMnO_4$	5.0%	20℃	L	E	W
Calcium acetate	$C4H_6CaO_4$	30.0%	50℃	L	F	W
Ethanol (ethyl alcohol)	C_2H_5OH	80.0%	100℃	S,P	F	B
Ethylene glycol	$HOCH_2CH_2OH$	50.0%	50℃	S,P	F	B
Propanol	C_3H_7OH	50.0%	100℃	S,P	F	B
Propylene glycol	$CH_3CH(OH)CH_2OH$	50.0%	70℃	S,P	F	B
Butanediol	$HOCH_2CH_2CH_2CH_2OH$	50.0%	25℃	S,P	F	B
formaldehyde	HCHO	10.0%	25℃	S	F	B
Acetaldehyde	CH_3CHO	20.0%	25℃	S	F	B
Petrol			80℃	S	N	B
kerosene			80℃	S	N	B
Diesel oil			80℃	S	N	B
Pee			60℃	L	N	B
Hydrogen peroxide			45℃	S,P	E	S
Ozone water			50℃	S,P	E	S
Deionised water			100℃	S,P	N	B

Motor parameter table

Motor P_2 [kW]	Motor P_2 [hp]	Frame size	Standard voltage [V]	I1/1 [A]	Cos φ1/1	Efficiency class	η [%]	Isn/In	Speed [min -1]
0.37	0.50	71	220/380	1.7/1.0	0.81	-	70.0	6.1	3400
0.55	0.75	71	220/380	2.4/1.4	0.82	-	73.0	6.1	3400
0.75	1	80	220/380	3.1/1.8	0.82	IE3	77.0	7	3460
1.1	1.5	80	220/380	4.1/2.4	0.83	IE3	84.0	7.3	3460
1.5	2	90	220/380	5.5/3.2	0.84	IE3	85.5	7.6	3470
2.2	3	90	220/380	7.9/4.5	0.85	IE3	86.5	7.6	3470
3	4	100	220/380	10.2/5.9	0.87	IE3	88.5	7.8	3500
4	5.5	112	380	7.8	0.88	IE3	88.5	8.3	3510
5.5	7.5	132	380	10.6	0.88	IE3	89.5	8.3	3530
7.5	10	132	380	14.4	0.88	IE3	90.2	7.9	3530
11	15	160	380	20.6	0.89	IE3	91.0	8.1	3550
15	20	160	380	28.1	0.89	IE3	91.0	8.1	3550
18.5	25	160	380	34.4	0.89	IE3	91.7	8.2	3550

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