

PURCHASING HENGJIU USING FOREVER

CDL(F) Vertical Multistage Centrifugal Pump
50Hz



 亨九水泵

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WARNINGS :

- Ground motor before connecting to power supply.
- Do not touch the pump while it is running.
- Do not run the pump without water.

The one who installs and operates the pump should know the tips as an electrician and keep safety in mind while operating, Cut off the electricity first before removing or dismantling the pump, in case of accidents, The pump should not be used in the environment with combustibles and not used for pumping inflammable gases, The water in the pump chamber should be cleared out when you finish, avoid being frozen.

1. Overview of the product

CV series light stainless steel multi-stage centrifugal pump (afterwards called pump), set for short carry out the Q/SG115 Enterprise Standards of light stainless steel multi-stage centrifugal pump. This product boasts characters of high efficiency, low noise, steady operation, etc. The pump set adopts the non-self-priming vertical multi-stage structure, which makes a compact whole, its installation easy, its operation and maintenance convenient.

2. Working Condition

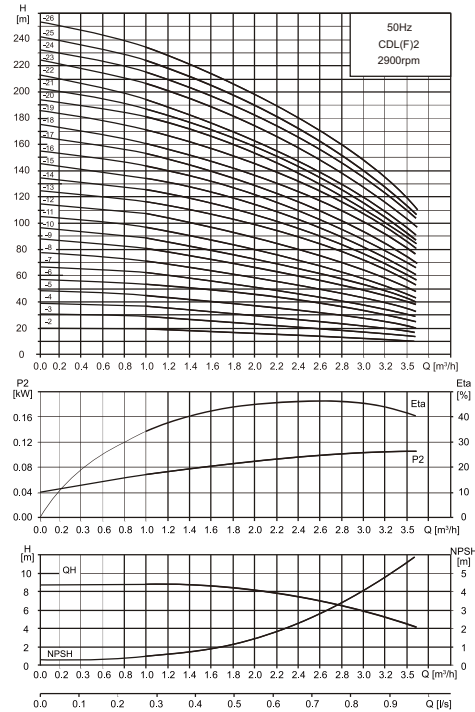
- 2.1. Medium temperature: normal type: 0°C~68°C, hot water type: 0°C~120°C,
- 2.2. Ambient temperature: +40°C,
- 2.3. Max ambient pressure: 1.0MPa,
- 2.4. Advisable to use motor of higher power in case that the density or viscosity of medium is above that of water.

3. Use Occasions

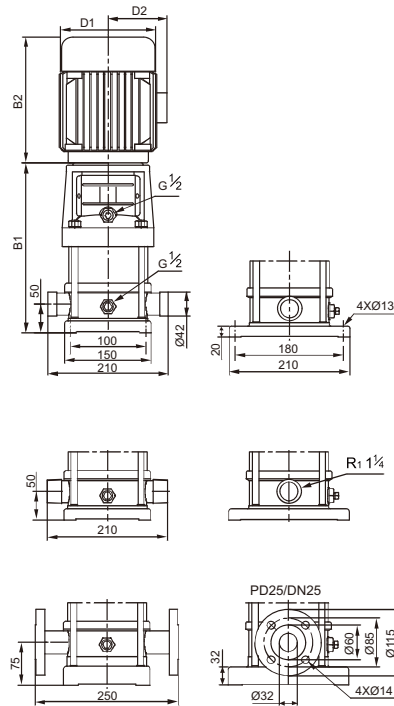
- 3.1. Used to deliver those non-inflammable and non-explosive materials that are quite thin, clean and without grains or fibers.
- 3.2. Used to pump such liquids as mineral water, softened water, purified water and clean oil etc.
- 3.3. Applied in the system of water treatment, filter and sanitation.
- 3.4. Installed in the water supply and sewerage systems of high-rise constructions.
5. Used in the agricultural irrigation and the garden sprinkling irrigation etc.

4. Technical Data

PERFORMANCE CURVE



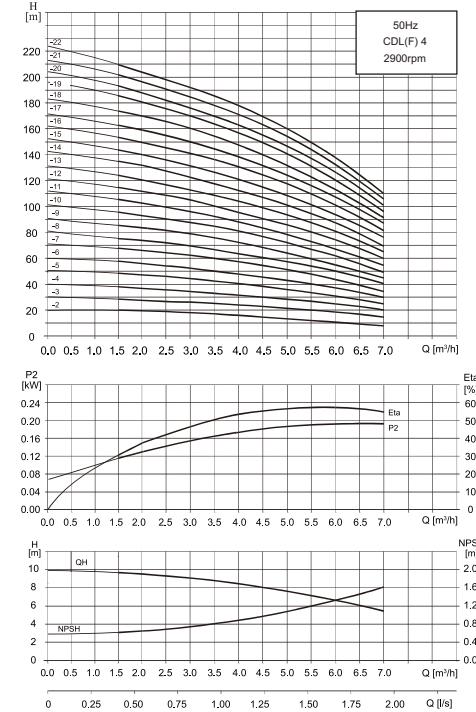
INSTALLATION DIMENSION DRAWING



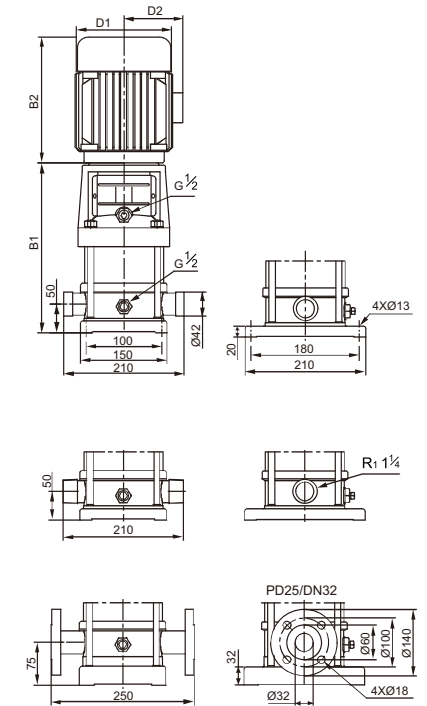
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/h)	H (m)							SIZE(mm)					WEIGHT (kg)	
			1	1.2	1.6	2.0	2.4	2.8	3.2	3.5	B1	B2	B1+B2	D1		D2
CDL(F)2-2	0.37	H (m)	18	17	16	15	13	12	10	8	258	225	483	148	117	20
CDL(F)2-3	0.37		27	26	24	22	20	18	15	12	276	225	501	148	117	20
CDL(F)2-4	0.55		36	35	33	30	26	24	20	16	294	225	519	148	117	22
CDL(F)2-5	0.55		45	42	40	37	33	30	24	20	312	225	537	148	117	23
CDL(F)2-6	0.75		53	52	50	45	40	36	30	24	340	245	585	170	142	26
CDL(F)2-7	0.75		63	61	57	52	47	41	35	28	358	245	603	170	142	26
CDL(F)2-9	1.1		80	78	73	67	61	54	45	37	394	245	639	170	142	28
CDL(F)2-11	1.1		98	95	89	82	73	64	54	44	430	245	675	170	142	29
CDL(F)2-13	1.5		116	114	106	98	89	78	65	52	476	290	766	190	155	35
CDL(F)2-15	1.5		134	130	123	112	100	90	73	60	512	290	802	190	155	36
CDL(F)2-18	2.2		161	157	148	135	121	108	91	76	566	290	856	190	155	41
CDL(F)2-22	2.2		197	192	180	165	148	130	110	90	638	290	928	190	155	42
CDL(F)2-26	3.0		232	228	214	198	179	158	130	110	720	345	1065	197	165	52

PERFORMANCE CURVE



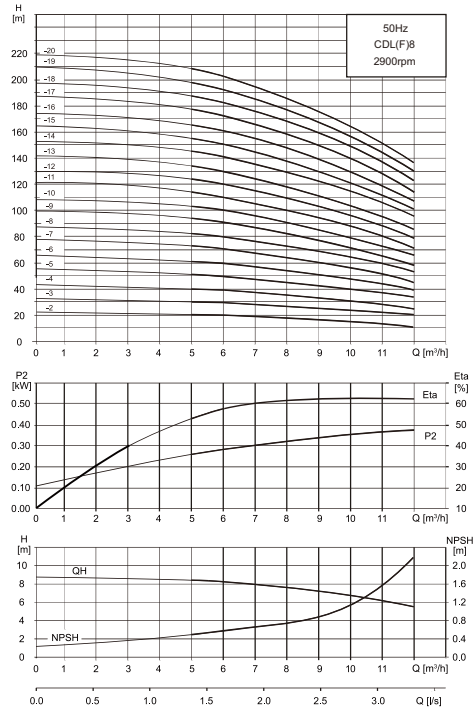
INSTALLATION DIMENSION DRAWING



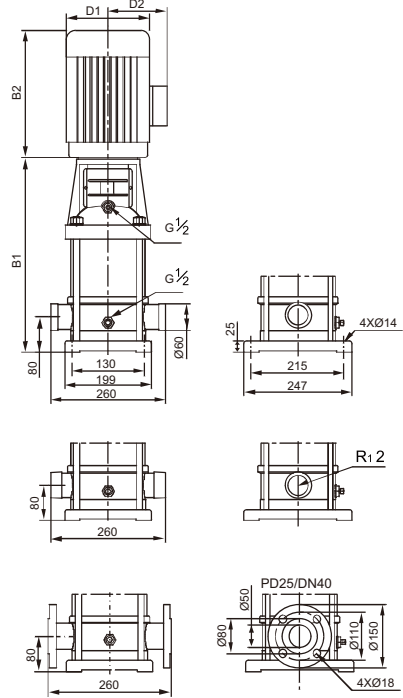
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/h)	H (m)							SIZE(mm)					WEIGHT (kg)	
			1.5	2.0	3.0	4.0	5.0	6.0	7.0	B1	B2	B1+B2	D1	D2		
CDL(F)4-2	0.37	H (m)	19	18	17	15	13	10	8	276	225	501	148	117	21	
CDL(F)4-3	0.55		28	27	26	24	20	18	13	10	303	225	528	148	117	22
CDL(F)4-4	0.75		38	36	34	32	27	24	19	14	340	245	585	170	142	25
CDL(F)4-5	1.1		47	45	43	40	34	31	23	17	367	245	612	170	142	27
CDL(F)4-6	1.1		56	65	52	48	41	37	28	20	394	245	639	170	142	27
CDL(F)4-7	1.5		66	63	61	56	48	43	33	24	431	290	721	190	155	33
CDL(F)4-8	1.5		74	72	70	64	55	50	38	28	458	290	748	190	155	33
CDL(F)4-10	2.2		96	90	87	81	71	62	48	35	512	290	802	190	155	37
CDL(F)4-12	2.2		114	108	104	95	85	75	58	42	566	290	856	190	155	38
CDL(F)4-14	3.0		136	126	122	112	101	89	68	50	630	345	975	197	165	46
CDL(F)4-16	3.0		152	144	140	129	115	101	78	58	684	345	1029	197	165	48
CDL(F)4-19	4.0		183	171	168	153	137	122	93	70	765	355	1120	230	188	57
CDL(F)4-22	4.0		211	200	192	178	160	138	108	80	846	355	1201	230	188	59

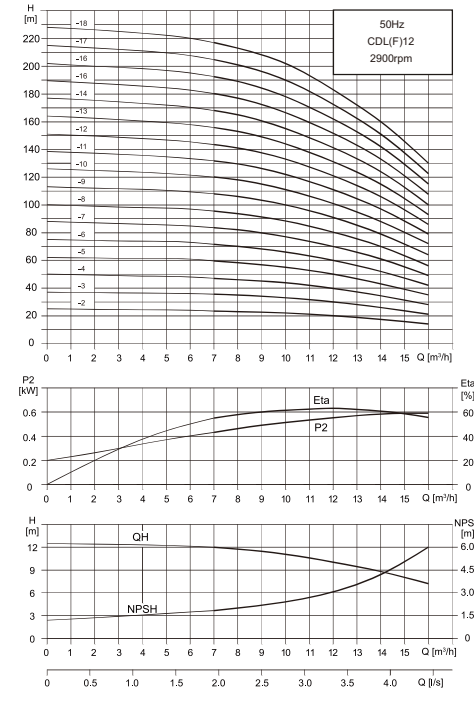
PERFORMANCE CURVE



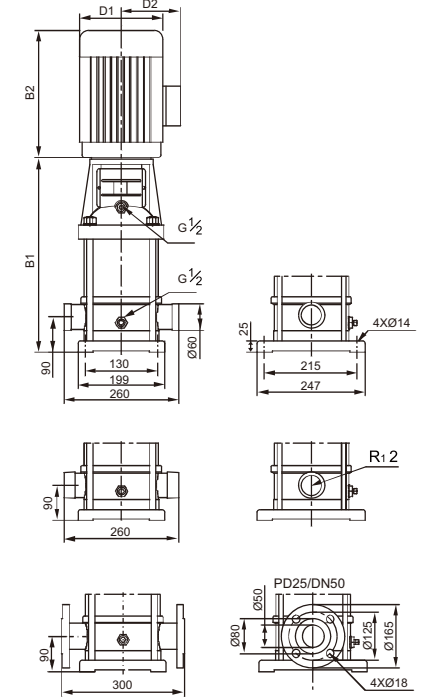
INSTALLATION DIMENSION DRAWING



PERFORMANCE CURVE



INSTALLATION DIMENSION DRAWING



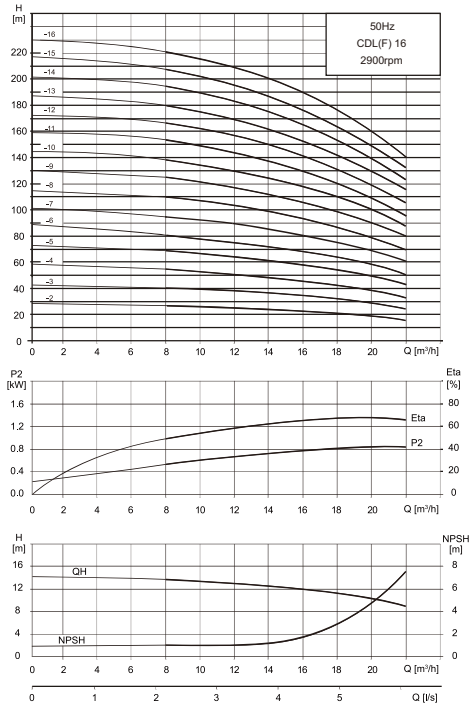
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/H)	SIZE(mm)												WEIGHT (kg)	
			5	6	7	8	9	10	11	12	B1	B2	B1+B2	D1		D2
CDL(F)8-2	0.75	H (m)	20	19.5	19	18	17	16	14	13	347	245	592	170	142	32
CDL(F)8-3	1.1		30	29.5	28.5	27	25	24	21	19	377	245	622	170	142	34
CDL(F)8-4	1.5		41	39.5	38	36	34	32	28	26	417	290	707	190	155	40
CDL(F)8-5	2.2		52	50	48	45	42	40	36	32	447	290	737	190	155	44
CDL(F)8-6	2.2		62	60	57	54	51	48	43	39	477	290	767	190	155	45
CDL(F)8-8	3.0		83	80	77	73	69	65	58	52	547	345	892	197	165	53
CDL(F)8-10	4.0		104	100	97	92	87	81	73	65	607	355	962	230	188	64
CDL(F)8-12	4.0		124	120	116	111	104	92	87	78	667	355	1022	230	188	66
CDL(F)8-14	5.5		145	141	136	130	122	113	102	92	747	390	1137	260	208	81
CDL(F)8-16	5.5		166	161	156	148	139	130	118	106	807	390	1197	260	208	84
CDL(F)8-18	7.5		187	182	175	167	157	146	134	120	867	390	1257	260	208	93
CDL(F)8-20	7.5		208	202	195	186	175	163	150	135	927	390	1317	260	208	94

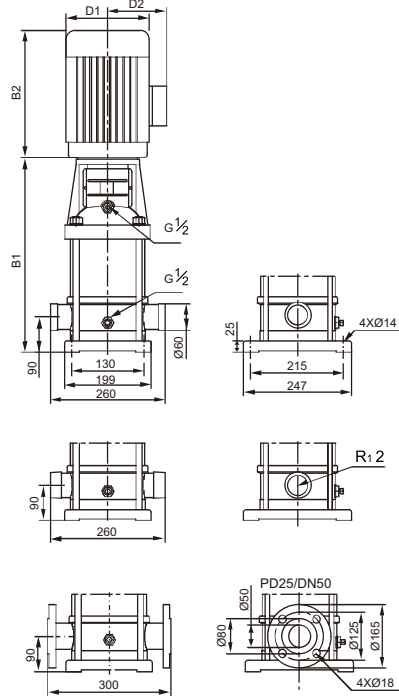
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/H)	SIZE(mm)																WEIGHT (kg)
			7	8	9	10	11	12	13	14	15	16	B1	B2	B1+B2	D1	D2		
CDL(F)12-2	1.5	H (m)	23.5	23	22.5	22	21	20	18.5	17	15.5	14	367	290	657	190	155	39	
CDL(F)12-3	2.2		35.5	35	34	33	31.5	30	28	26	23.5	21	397	290	687	190	155	43	
CDL(F)12-4	3		47	46	45	44	42	40	37	34	31	28	437	345	782	197	165	51	
CDL(F)12-5	3		59.5	58	56.5	55	52.5	50	46.5	43	39	35	467	345	812	197	165	53	
CDL(F)12-6	4		71.5	70	68	66	63	60	56	52	47	42	497	355	852	230	188	61	
CDL(F)12-7	5.5		83.5	82	79.5	77	73.5	70	65.5	61	55	49	547	390	937	260	208	73	
CDL(F)12-8	5.5		95.5	94	91	88	84	80	75	70	63	56	577	390	967	260	208	74	
CDL(F)12-9	5.5		108	106	103	100	95.5	91	85	79	71.5	64	607	390	997	260	208	76	
CDL(F)12-10	7.5		120	118	114.5	111	106	101	94.5	88	80	72	637	390	1027	260	208	83	
CDL(F)12-12	7.5		143.5	141	137	133	127	121	113.5	106	96	86	697	390	1087	260	208	87	
CDL(F)12-14	11		168	165	160	155	148	141	132.5	124	112	100	845	500	1345	330	255	158	
CDL(F)12-16	11		192.5	189	183.5	178	170	162	152	142	128.5	115	905	500	1405	330	255	161	
CDL(F)12-18	11		217	213	207.5	202	192.5	183	171.5	160	145	130	965	500	1465	330	255	164	

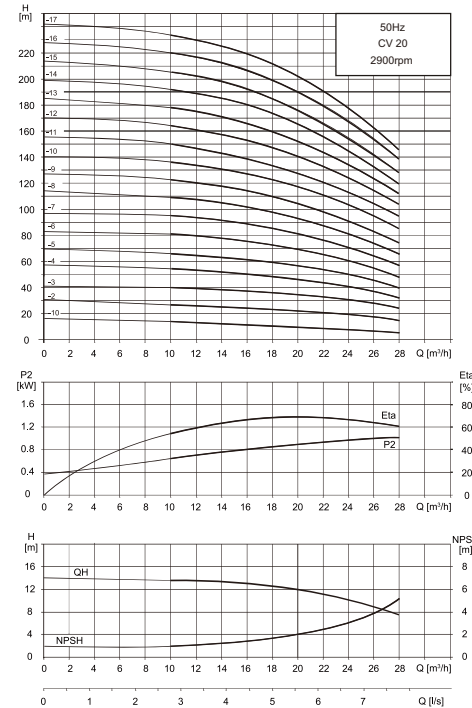
PERFORMANCE CURVE



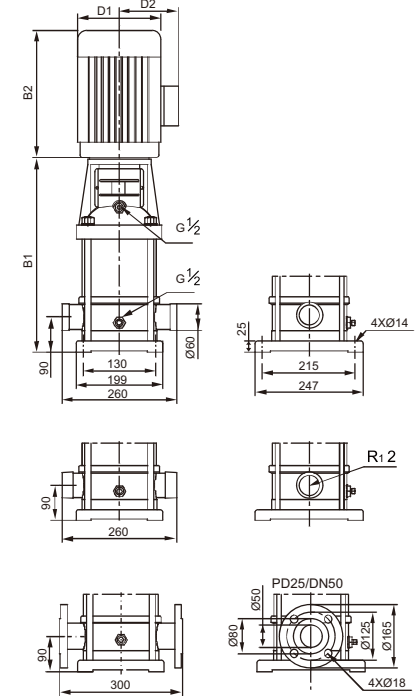
INSTALLATION DIMENSION DRAWING



PERFORMANCE CURVE



INSTALLATION DIMENSION DRAWING



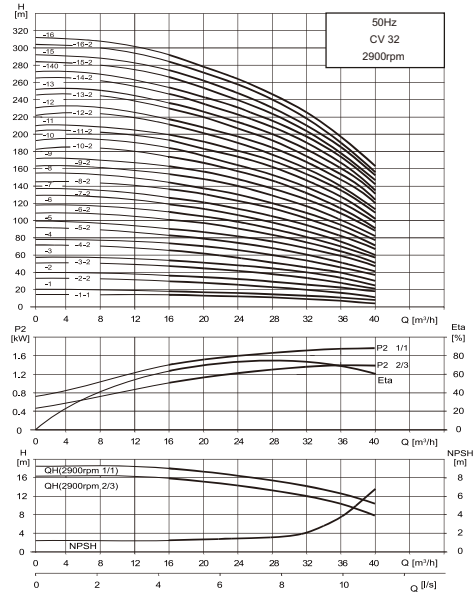
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/h)	H (m)								SIZE(mm)					WEIGHT (kg)
			8	10	12	14	16	18	20	22	B1	B2	B1+B2	D1	D2	
CDL(F)16-2	2.2	H (m)	27	26	25	24	22	21	19	16	397	290	687	190	155	42
CDL(F)16-3	3.0		41	40	38	37	34	32	29	25	452	345	797	197	165	50
CDL(F)16-4	4.0		54	53	52	49	46	43	38	34	497	355	852	230	188	59
CDL(F)16-5	5.5		68	67	65	62	58	54	48	43	562	390	952	260	208	76
CDL(F)16-6	5.5		82	80	78	74	70	64	58	52	607	390	997	260	208	77
CDL(F)16-7	7.5		96	95	91	87	82	76	68	61	652	390	1042	260	208	84
CDL(F)16-8	7.5		110	108	104	99	94	86	77	70	697	390	1087	260	208	86
CDL(F)16-10	11		138	136	131	125	118	109	97	87	875	500	1375	330	255	158
CDL(F)16-12	11		166	162	157	150	141	130	116	105	965	500	1465	330	255	161
CDL(F)16-14	15		194	190	184	175	166	152	136	122	1055	500	1555	330	255	174
CDL(F)16-16	15		222	217	210	200	189	174	156	140	1145	500	1645	330	255	178

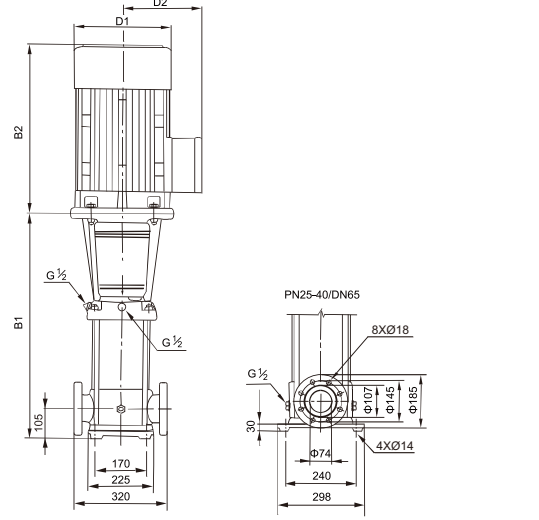
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/h)	H (m)								SIZE(mm)					WEIGHT (kg)		
			10	12	14	16	18	20	22	24	26	28	B1	B2	B1+B2		D1	D2
CDL(F)20-1	1.1	H (m)	13.5	13	12.5	12	11	10	9	8	7	6	387	245	632	170	142	33
CDL(F)20-2	2.2		27	26.5	26	25	24	23	22	20	18	15	397	290	687	190	155	42
CDL(F)20-3	4.0		40	39.5	39	38	37	35	33	30	27	24	452	355	807	230	188	58
CDL(F)20-4	5.5		54	53	52	51	49	47	44	41	37	33	517	390	907	260	208	74
CDL(F)20-5	5.5		67	66	64	62	60	58	55	50	45	40	562	390	952	260	208	76
CDL(F)20-6	7.5		81	79	77	75	73	70	66	61	55	49	607	390	997	260	208	82
CDL(F)20-7	7.5		95	93	91	89	86	82	77	71	65	58	652	390	1042	260	208	84
CDL(F)20-8	11		109	107	105	102	99	94	89	82	75	67	785	500	1285	330	255	153
CDL(F)20-10	11		136	134	131	128	124	118	111	103	95	85	875	500	1375	330	255	157
CDL(F)20-12	15		164	162	158	154	149	142	133	124	114	102	965	500	1465	330	255	170
CDL(F)20-14	15		192	189	185	180	174	166	156	145	133	119	1055	500	1555	330	255	172
CDL(F)20-17	18.5		234	230	225	219	212	202	190	177	162	145	1190	550	1740	330	255	195

PERFORMANCE CURVE



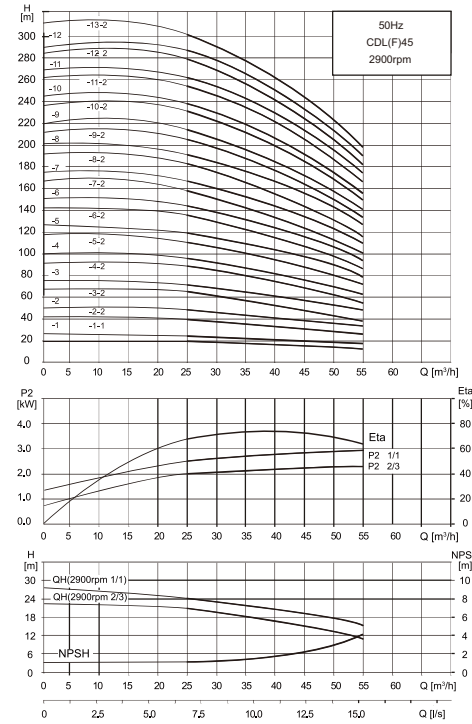
INSTALLATION DIMENSION DRAWING



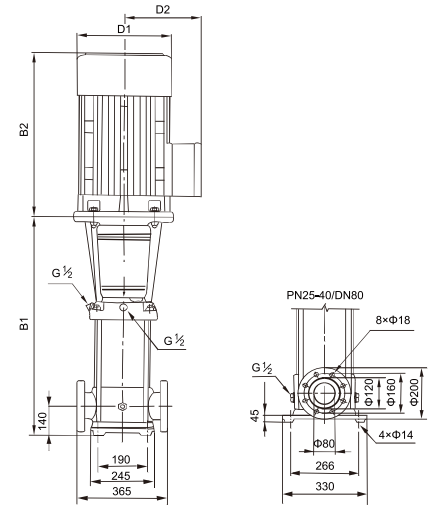
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m ³ /H)	H (m)								SIZE(mm)					WEIGHT (kg)
			16	20	24	28	32	36	40	B1	B2	B1+B2	D1	D2		
CDL(F)32-2-2	3.0		29	28	26	23	20	16	11	575	345	920	197	165	77	
CDL(F)32-2	4.0		36	34	32	29	27	23	18	575	355	930	230	180	85	
CDL(F)32-3-2	5.5		47	44	41	38	33	28	21	645	390	1035	260	208	100	
CDL(F)32-3	5.5		54	51	48	44	40	35	27	645	390	1035	260	208	100	
CDL(F)32-4-2	7.5		65	62	58	53	46	40	30	715	390	1105	260	208	109	
CDL(F)32-4	7.5		72	69	65	59	53	47	37	715	390	1105	260	208	109	
CDL(F)32-5-2	11		83	79	74	68	60	52	41	890	500	1390	330	255	181	
CDL(F)32-5	11		90	86	81	74	67	59	47	890	500	1390	330	255	181	
CDL(F)32-6-2	11		101	97	90	83	74	65	51	960	500	1460	330	255	185	
CDL(F)32-6	11		108	104	97	90	81	72	57	960	500	1460	330	255	185	
CDL(F)32-7-2	15		119	114	107	98	88	78	60	1030	500	1530	330	255	199	
CDL(F)32-7	15		126	121	113	105	95	85	67	1030	500	1530	330	255	199	
CDL(F)32-8-2	15		136	131	123	114	102	90	71	1100	500	1600	330	255	203	
CDL(F)32-8	15		144	138	130	120	109	97	77	1100	500	1600	330	255	203	
CDL(F)32-9-2	18.5		154	148	140	129	117	102	82	1170	550	1720	330	255	222	
CDL(F)32-9	18.5		162	156	147	136	124	109	88	1170	550	1720	330	255	222	
CDL(F)32-10-2	18.5		175	166	157	146	131	115	91	1240	550	1790	330	255	227	
CDL(F)32-10	18.5		182	173	164	152	138	122	98	1240	550	1790	330	255	227	
CDL(F)32-11-2	22		193	184	173	164	146	128	102	1310	575	1885	360	285	272	
CDL(F)32-11	22		200	191	180	168	153	135	109	1310	575	1885	360	285	272	
CDL(F)32-12-2	22		211	201	189	178	160	140	113	1380	575	1955	360	285	276	
CDL(F)32-12	22		218	208	196	184	167	147	120	1380	575	1955	360	285	276	
CDL(F)32-13-2	30		230	218	206	193	174	153	124	1450	650	2100	400	310	337	
CDL(F)32-13	30		237	225	213	200	181	160	131	1450	650	2100	400	310	337	
CDL(F)32-14-2	30		247	235	222	210	189	165	135	1520	650	2170	400	310	341	
CDL(F)32-14	30		255	242	229	216	198	172	142	1520	650	2170	400	310	341	
CDL(F)32-15-2	30		266	253	239	224	203	178	145	1590	650	2240	400	310	345	
CDL(F)32-15	30		274	260	246	231	210	185	152	1590	650	2240	400	310	345	

PERFORMANCE CURVE



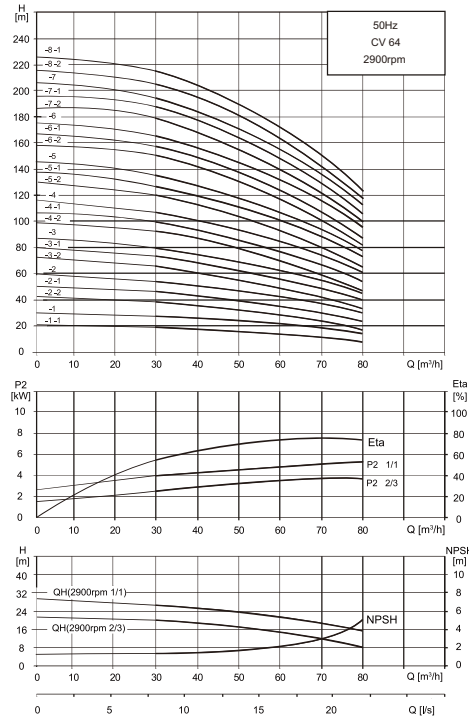
INSTALLATION DIMENSION DRAWING



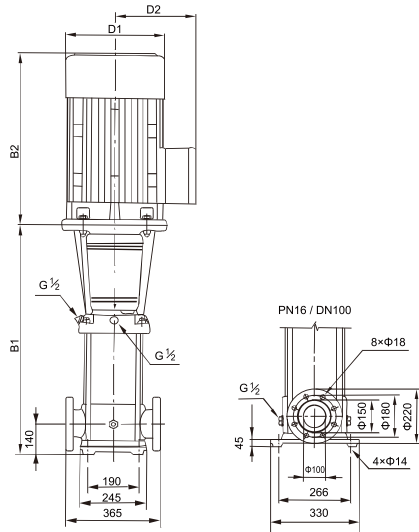
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m ³ /H)	H (m)								SIZE(mm)					WEIGHT (kg)
			25	30	35	40	45	50	55	B1	B2	B1+B2	D1	D2		
CDL(F)45-1-1	3.0		20	19	18	17	15	13	11	561	345/355	906/916	197/230	165/188	83/90	
CDL(F)45-1	4.0		24	23	22	21	19	18	16	641	390	1031	260	208	105/110	
CDL(F)45-2-2	5.5		40	38	36	33	30	27	23	826	500	1326	330	255	183	
CDL(F)45-2	7.5		48	46	44	42	39	35	31	906	500	1406	330	255	197	
CDL(F)45-3-2	11		63	61	58	54	50	44	38	986	550	1536	330	255	221	
CDL(F)45-3	11		71	69	66	63	58	53	47	1068	575	1641	360	285	261	
CDL(F)45-4-2	15		87	84	80	75	69	62	54	1146	650	1796	400	310	320	
CDL(F)45-4	15		95	92	88	84	78	71	62	1226	650	1876	400	310	324	
CDL(F)45-5-2	18.5		111	107	102	96	88	80	69	1306	650	1956	400	310	328/352	
CDL(F)45-5	18.5		119	115	110	105	97	88	78	1386	650	2036	400	310	355	
CDL(F)45-6-2	22		135	130	124	117	108	97	85	1466	685	2151	450	345	426	
CDL(F)45-6	22		143	138	132	125	116	106	93	1546	685	2231	450	345	432	
CDL(F)45-7-2	30		158	152	146	138	127	115	100	1626	685	2311	450	345	438	
CDL(F)45-7	30		166	161	154	146	135	124	109	1706	685	2391	450	345	444	
CDL(F)45-8-2	30		182	175	168	159	146	133	116	1786	685	2471	450	345	450	
CDL(F)45-8	30		190	184	176	167	154	141	124	1866	685	2551	450	345	456	
CDL(F)45-9-2	30		205	198	180	180	166	150	132	1946	685	2631	450	345	462	
CDL(F)45-9	37		214	207	198	188	174	159	140	2026	685	2711	450	345	468	
CDL(F)45-10-2	37		230	221	212	200	185	168	147	2106	685	2791	450	345	474	
CDL(F)45-10	37		238	230	220	209	193	177	155	2186	685	2871	450	345	480	
CDL(F)45-11-2	45		255	246	236	223	206	188	165	2266	685	2951	450	345	486	
CDL(F)45-11	45		263	255	244	232	214	196	173	2346	685	3031	450	345	492	
CDL(F)45-12-2	45		280	270	259	245	226	206	181	2426	685	3111	450	345	498	
CDL(F)45-12	45		289	280	268	255	236	216	190	2506	685	3191	450	345	504	
CDL(F)45-13-2	45		305	294	282	267	247	225	19	2586	685	3271	450	345	510	

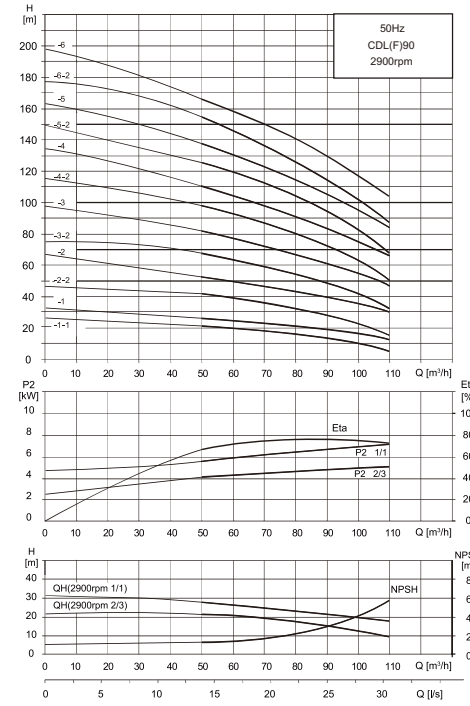
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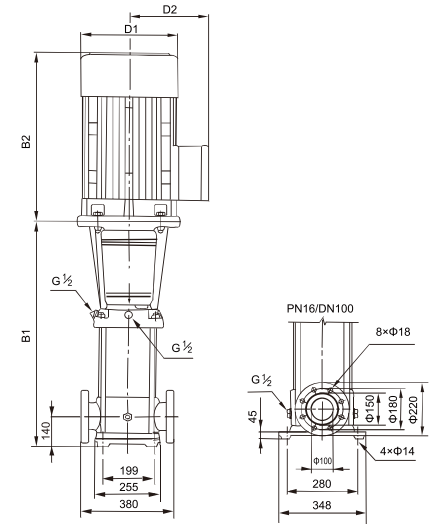
INSTALLATION DIMENSION DRAWING



PERFORMANCE CURVE



INSTALLATION DIMENSION DRAWING



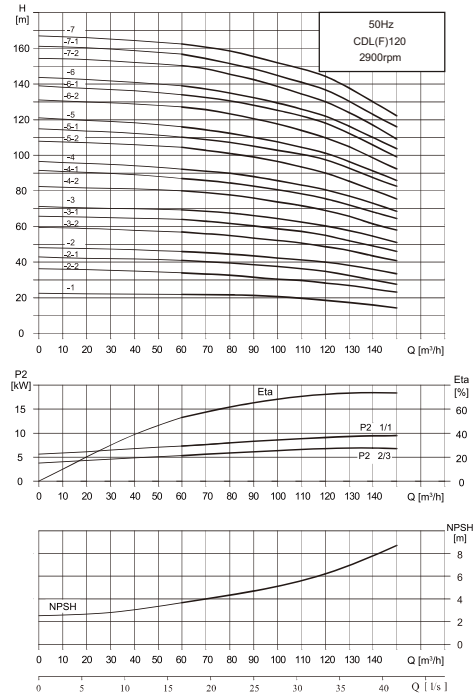
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/H)	H (m)								SIZE(mm)					WEIGHT (kg)
			30	40	50	60	64	70	80	B1	B2	B1+B2	D1	D2		
CDL(F)64-1-1	4.0		19	18	16	14	13	11	8	561	355	916	230	188	93	
CDL(F)64-1	5.5		27	25	23	21	20	18	15	561	390	951	260	208	105	
CDL(F)64-2-2	7.5		39	36	33	29	27	23	17	644	390	1034	260	208	110	
CDL(F)64-2-1	11		46	44	40	36	34	30	24	754	500	1254	330	255	182	
CDL(F)64-2	11		53	51	47	43	41	37	30	754	500	1254	330	255	182	
CDL(F)64-3-2	15		66	62	56	50	47	41	32	836	500	1336	330	255	196	
CDL(F)64-3-1	15		73	69	63	57	54	48	39	836	500	1336	330	255	197	
CDL(F)64-3	18.5		80	76	70	64	61	55	46	836	550	1386	330	255	221	
CDL(F)64-4-2	18.5		92	87	80	71	67	60	47	919	550	1469	330	255	225	
CDL(F)64-4-1	22		100	94	87	78	74	67	54	919	575	1494	360	285	258	
CDL(F)64-4	22		107	101	94	85	81	74	61	919	575	1494	360	285	258	
CDL(F)64-5-2	30		121	114	105	95	89	80	64	1001	650	1651	400	310	319	
CDL(F)64-5-1	30		128	121	112	102	96	87	71	1001	650	1651	400	310	320	
CDL(F)64-5	30		136	129	119	109	103	94	78	1001	650	1651	400	310	320	
CDL(F)64-6-2	30		150	142	131	118	111	101	81	1084	650	1734	400	310	325	
CDL(F)64-6-1	37		157	149	138	125	118	108	88	1084	650	1734	400	310	349	
CDL(F)64-6	37		164	156	145	132	125	115	95	1084	650	1734	400	310	349	
CDL(F)64-7-2	37		179	169	156	141	133	121	99	1166	650	1816	400	310	353	
CDL(F)64-7-1	37		186	176	163	148	141	128	106	1166	650	1816	400	310	353	
CDL(F)64-7	45		193	183	170	155	148	135	112	1166	685	1851	460	340	420	
CDL(F)64-8-2	45		207	196	182	164	156	142	116	1284	685	1933	460	340	424	
CDL(F)64-8-1	45		215	203	189	171	163	149	123	1284	685	1933	460	340	424	

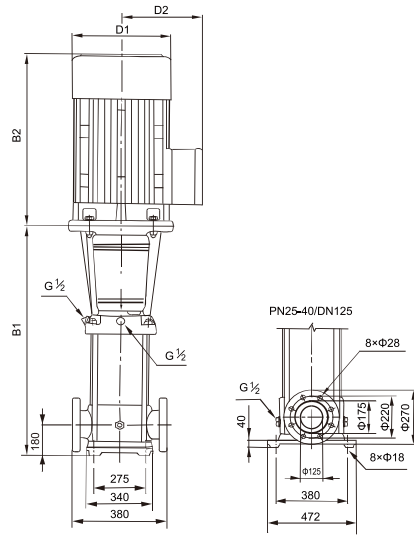
PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/H)	H (m)								SIZE(mm)					WEIGHT (kg)
			50	60	70	80	90	100	110	B1	B2	B1+B2	D1	D2		
CDL(F)90-1-1	5.5		22	19	17	16	13	10	6	571	390	961	260	208	105	
CDL(F)90-1	7.5		25	24	22	21	19	16	12	571	390	961	260	208	110	
CDL(F)90-2-2	11		41	39	36	32	28	22	15	773	500	1273	330	255	181	
CDL(F)90-2	15		53	50	47	44	40	36	30	773	500	1273	330	255	192	
CDL(F)90-3-2	18.5		68	65	60	55	49	41	32	865	550	1415	330	255	215	
CDL(F)90-3	22		81	77	72	67	62	55	48	865	575	1440	360	285	252	
CDL(F)90-4-2	30		98	93	87	80	72	62	50	957	650	1607	400	310	312	
CDL(F)90-4	30		110	105	100	92	84	76	66	957	650	1607	400	310	312	
CDL(F)90-5-2	37		126	120	113	104	93	81	68	1049	650	1699	400	310	336	
CDL(F)90-5	37		139	131	124	115	106	94	83	1049	650	1699	400	310	336	
CDL(F)90-6-2	45		155	148	139	129	117	102	86	1141	685	1826	460	340	407	
CDL(F)90-6	45		168	160	150	141	130	117	103	1141	685	1826	460	340	407	

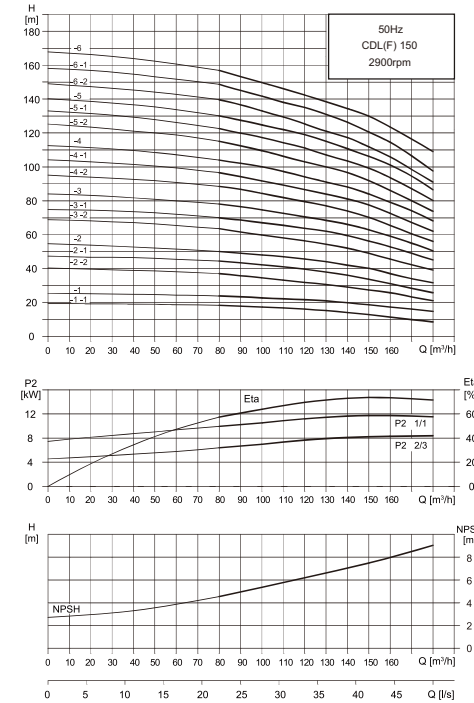
PERFORMANCE CURVE



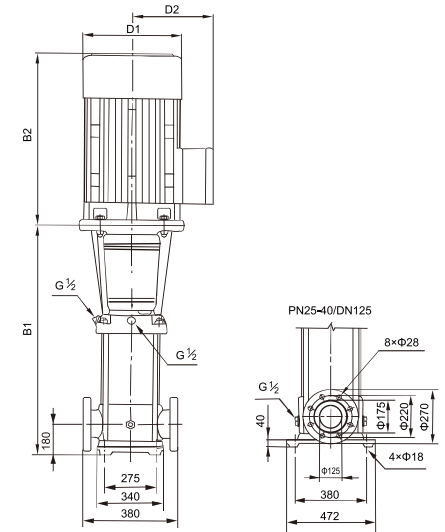
INSTALLATION DIMENSION DRAWING



PERFORMANCE CURVE



INSTALLATION DIMENSION DRAWING



PERFORMANCE PARAMETER

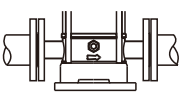

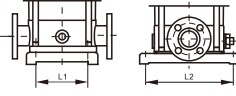
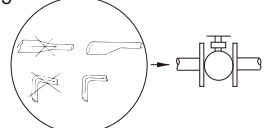
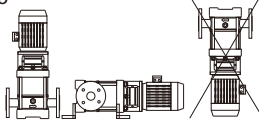
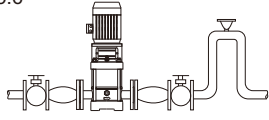
TYPE	POWER (kW)	Q (m³/H)	Q (m³/H)										SIZE(mm)					WEIGHT (kg)
			60	70	80	90	100	110	120	130	140	150	B1	B2	B1+B2	D1	D2	
CDL(F)120-1	11	H (m)	22	21.8	21.6	21	20.5	19.5	18.5	17	16	15	840	500	1340	330	255	230
CDL(F)120-2	15		34	33.6	33	31	30.2	30	28.5	27	25	24	1000	500	1500	330	255	245
CDL(F)120-2-1	18.5		41	40	39.5	38.5	37	36.5	34.5	32.5	30	27.5	1000	550	1550	330	255	250
CDL(F)120-2	22		46	45	44.5	43.5	42.4	41	40	38	36	33.5	1000	575	1575	360	285	285
CDL(F)120-3-2	30		57	56	55	53.5	52	51	49	46.5	43.5	41	1160	650	1810	400	310	359
CDL(F)120-3-1	30		64	63	62	60	58.5	57.5	55.5	52	49	46	1160	650	1810	400	310	360
CDL(F)120-3	30		69.5	68.5	67.5	66	64.4	62.5	61	57.5	54.5	51	1160	650	1810	400	310	360
CDL(F)120-4-2	37		80.5	79	78	76	73.5	72	69	66	61.5	58	1320	650	1970	400	310	400
CDL(F)120-4-1	37		87	86	84.5	82	80	78	76	72	68	64.5	1320	650	1970	400	310	400
CDL(F)120-4	45		92.5	91	90	88	85.5	83	81	77	73	68.5	1320	685	2005	460	340	460
CDL(F)120-5-2	45		104.5	103	101	99	96	93	90	85.5	80.5	75.5	1480	685	2165	460	340	470
CDL(F)120-5-1	45		110.5	109	107.5	105	102	100	97	92	86.5	83	1480	685	2165	460	340	470
CDL(F)120-5	55		115.5	114	113	110	107.5	104.5	101.5	96	91	86	1510	760	2270	540	370	575
CDL(F)120-6-2	55		128	125.5	123	121	117.3	113.5	110	104.5	98.5	92.5	1670	760	2430	540	370	585
CDL(F)120-6-1	55		134	132	130.5	127	124	121	118	111	105	100	1670	760	2430	540	370	585
CDL(F)120-6	75		139	137	135	132	128.8	126	123	116	110	104	1830	845	2515	580	410	705
CDL(F)120-7-2	75		151	148	145.5	143	138.6	134	130	123.5	116.5	109	1830	845	2675	580	410	715
CDL(F)120-7-1	75		156.5	154	152	148.5	144.5	141	137.5	130	123	116.5	1830	845	2675	580	410	715
CDL(F)120-7	75		162.5	160.5	158.5	155	151	148	145	137	129	123	1830	845	2675	580	410	715

PERFORMANCE PARAMETER

TYPE	POWER (kW)	Q (m³/H)	Q (m³/H)										SIZE(mm)					WEIGHT (kg)	
			80	90	100	110	120	130	140	150	160	170	180	B1	B2	B1+B2	D1		D2
CDL(F)150-1-1	11	H (m)	18.3	17.8	17.3	17	16	15	14	12.5	11	10	8.5	840	500	1340	330	255	230
CDL(F)150-1	15		24	23	22.5	22	21.5	20.5	20	18.5	17	16	15	840	500	1340	330	255	235
CDL(F)150-2-2	18.5		37	35.5	34	33	32	31	29	27.5	26	23	21	1000	550	1550	330	255	250
CDL(F)150-2-1	22		44.3	43	42	40	39	38.5	37.5	35	33	30	27	1000	575	1575	360	285	295
CDL(F)150-2	30		50	49	48	47	45.5	44	42	40	37	34	32	1000	650	1650	400	310	350
CDL(F)150-3-2	30		63.5	61	59	57.5	56	54.5	53	49	45.5	42	39	1160	650	1810	400	310	360
CDL(F)150-3-1	37		70	68	67	65	63	62	60	56	53	49	45	1160	650	1810	400	310	360
CDL(F)150-3	37		78	76.5	75	73	70.5	68	66	63	59	55	50.5	1160	650	1810	400	310	385
CDL(F)150-4-2	45		89	87	84	81.5	79	77	74.5	70.5	65.5	60	56	1320	685	2005	460	340	460
CDL(F)150-4-1	45		96.5	94	91.5	89	86.5	84	81.5	77	72.5	67	62	1320	685	2005	460	340	460
CDL(F)150-4	55		104	102	100	97	95	91	88	84	79.5	74	68	1350	760	2110	540	370	560
CDL(F)150-5-2	55		115.5	112	109	106	102.5	100	97	92	86	79	73.5	1510	760	2270	540	370	570
CDL(F)150-5-1	75		122.5	119.5	117	113.5	111.5	107.5	104.5	99	93.5	87	80	1510	845	2355	580	410	690
CDL(F)150-5	75		130	127.5	125	121	119	115	111.5	106.5	101	94.5	86.5	1510	845	2355	580	410	690
CDL(F)150-6-2	75		140	137	133	130	126	121	118	112	106	98	91	1670	845	2515	580	410	700
CDL(F)150-6-1	75		148.5	145	141.7	137.5	135	131	127	120.5	114.5	106.5	97.5	1670	845	2515	580	410	700
CDL(F)150-6	75		157	153	149	145	142	139.5	137	130	123.5	116	109	1670	845	2515	580	410	700

5. Installation Notes

To avoid any damage to the pump, please follow the below procedures before installation.

Procedure	Process	Procedure	Process
5.1 	According to the direction of the arrow to install water pump outlet	5.4 	Recommended water inlet and outlet and anti shock tube in the pump
5.2 	The pump base installation size, dimensions of the corresponding types of technical data	5.5 	Installation of piping, to prevent the accumulation of air
5.3 	The pump can be vertical or horizontal installation, no motor rewind. To ensure that the motor is cooled sufficiently, must maintain the air circulation	5.6 	Prevent backflow, a siphon dangerous, install vacuum vent valve

6. Program Activation



- The pump is not filled with water before, please do not start the pump, in dry running conditions, water bearing and mechanical seal damage.
- The exhaust, pay attention to the water don't hurt person or thing, especially for conveying hot water scald, beware of the hot water injection.

CV2,4,8,12,16,20

6.1 For these pump start-up process, proposal to open the bypass valve, pump inlet and outlet is communicated, filling water into the pump, when the pump runs stably, locking the bypass valve. but the water gas and the working pressure is lower than 6 bar, suggested that open the bypass valve, if the working pressure is higher than that of 6 bar, must be sustained, locking the bypass valve at the outlet of the material, otherwise it will damage due to speed the flow of liquid.

6.2 The air is discharged, tighten the bleeder screw using special tool. (Figure 1)

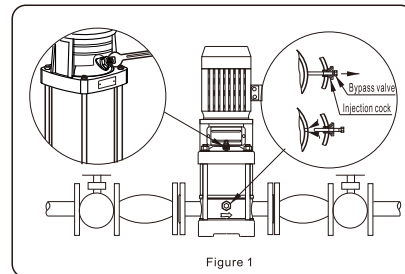


Figure 1

7. Maintenance and Maintenance



Before maintenance, determine the pump should be disconnected, to prevent accidental start

10.1 Pump such as longtime need not work, should remove the coupling cover, pour oil on the pump shaft to prevent mechanical sealing surface sticky, then heavy coupling cover. (Figure 2)

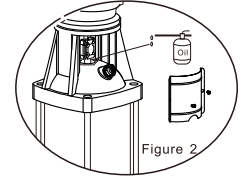


Figure 2

10.2 Frost period without pump, the liquid emptying pump to prevent pump damage, using the bottom of pump water valve may be excluded from the liquid in the pump, drainage, pay attention to a person or thing of security

10.3 Need to replace the water drain valve, must first unscrew the valve, then unscrew the screw plug to tighten the drain plug, then tighten bypass valve. (Figure 1)

8.Common Fault (exclude) Table

Before opening the teiminal box and pump,please make sure that the power supply has been disconnected and can not be opened accidentally.

Failure phenomenon	Analysis	Solution	Remark
Motor not running	a、 Power failure b、 Power overload c、 Control circuit problem d、 The fuse burned	a、 Check power supply b、 Check the system c、 Check control circuit d、 Change the fuse	Professional electrician check
Pump operation without water	a、 Suction is too high b、 Less water in pump cavity c、 Inlet pipe or pump cavity with air	a、 Lower installation height b、 Increase water storage c、 Exhaust air	
Pump operation with inadequate flow	a、 The pump reversal b、 Pipeline or impeller blocked c、 Mouth ring wear serious d、 Choose the wrong model e、 The lower voltage	a、 Adjust the motor wiring b、 Clean the pipeline and impeller c、 Change the impeller d、 Re-select model e、 Adjust the voltage	c、 Do not allow users to remove by themselves
Power consumption is too large	a、 Not use it at rated conditions b、 Motor bearing damaged c、 Pump cavity parts wearing	a、 Adjust the opeation conditions b、 Change the motor bearing c、 Change the spare parts	c、 Do not allow users to remove by themselves
Pump running with noise and vibration	a、 Installation is not stable b、 The liquid with air c、 Pump cavitation d、 Damaged of the bearing or spare parts e、 Motor overload operation	a、 Fix the installation b、 Adjust the high suction pressure and exhaust air c、 Lower vacuum degree d、 change the bearing or spare parts e、 Adjust the normal operation	d、 Do not allow users to remove by themselves
The pump water leakage	a、 The mechanical seal damaged b、 The O-ring damaged c、 Casting with hole or broken	a、 Change the mechanical seal b、 Change the O-ring c、 Change the spare parts	Do not allow users to remove by themselves

9.Appendix

Calculation of the Minimum Inlet Pressure

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

P_b : Atmospheric Pressure (bar)
 H_f : Frictional Resistance in the Inlet Pipe
 H_v : Water Vaporization Pressure (Figure 3)
 H_s : The safety allowance is usually rated as 0.5m
 NPSH: Net Inlet Pressure (Q-NPSH)

If the value of H is positive value, the suction lift is H.
 If it is negative, the amount of liquid being poured into the pump is H.(Figure4)

Note: The calculation may be more than under normal circumstances,only when using the pump in the following cases H calculation:

- 1.A high media temperature,
- 2.Liquid flow rate exceeds the rating ,
- 3.Improted high suction piping,
- 4.System pressure is too small,
- 5.Poor inlet conditions.

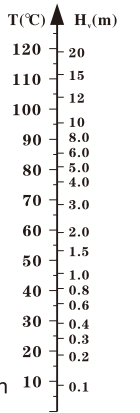


Figure3

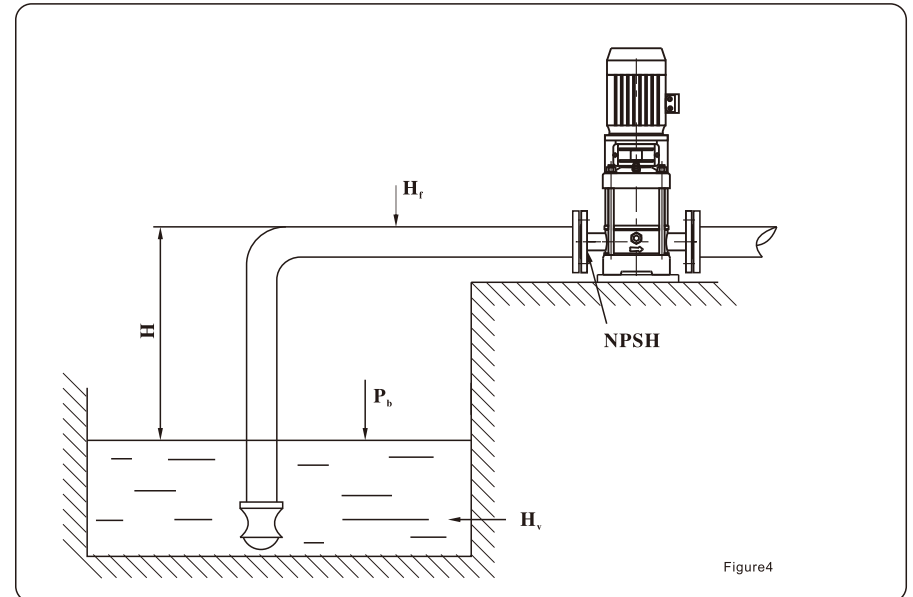


Figure4