

LAIKO

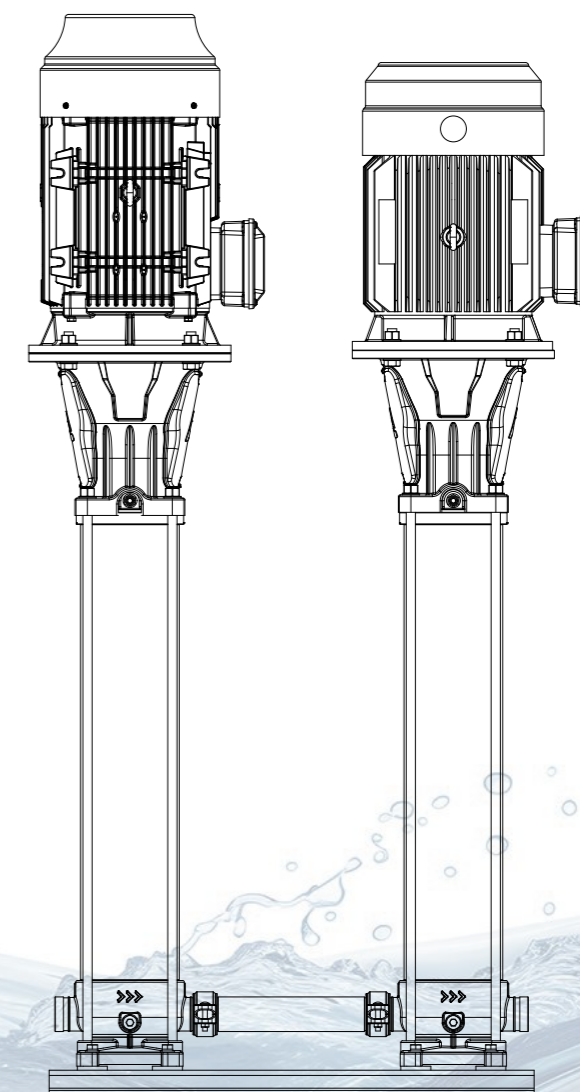


KLDS+KLH

HIGH-PRESSURE PUMP

LAIKO

KLDS+KLH
HIGH-PRESSURE PUMP



PUMP AND SYSTEM SOLUTION PROVIDER

Superior in Pump, Superior in Energy-Saving.

www.Laikopump.com



LAIKO Laiko Pump Pump and System Solution Provider

LAIKO Pump(Zhejiang) Co., Ltd. is a subsidiary of Zhejiang Dayuan Pumps Industrial Co., Ltd. (Stock code: 603757), focusing on the research and manufacturing of energy-saving pumps.

LAIKO's applications cover the fields of construction, municipal, and industrial sectors. Currently, we have product lines including Inline Multistage Pumps, Inline Circulation Pumps, Horizontal Multistage Pumps, Cold and Hot Water Circulation Pipeline Pumps, Single-Stage Centrifugal Pumps, Standard Centrifugal Pumps, Stainless steel Horizontal Single-Stage Centrifugal Pumps, Submersible Sewage Pumps, and Immersed Multistage Centrifugal Pumps. Our products are exported to many countries and regions in Europe, America, and Asia, meeting local legal requirements and obtaining recognition from clients.

A standard research and development, production, sales, and service system has laid the core competitiveness and sustainable development space for LAIKO. Reliable product quality and thoughtful after-sales service have earned LAIKO widespread reputation.

LAIKO maintains a pioneering spirit, always adheres to the concept of technological innovation, and never stops exploring energy-saving endeavors!

Research and manufacturing of energy-saving pumps, providing pump and system solutions

With over 34 years of accumulated strength, we have formed an alliance with top domestic water pump research and development, production, sales, and technical teams, Established Zhejiang Laiko Pump Industry Co., Ltd. (referred to as Zhejiang Leike), with comprehensive strength ranking among the top in the industry.

The second-generation green intelligent factory of Industry 4.0 standard covers an area of nearly 200 acres, with an annual output of over 7 million units and a total investment of over 1 billion yuan.

Zhejiang Laiko has established a comprehensive sales and service network nationwide, with direct offices in major cities. Our products are exported to multiple countries and regions in Europe, America, and Asia. China Laiko pumps globally.



GREEN SMART FACTORY

Dayuan Pump Group and its subsidiary Laiko Pump Industry have implemented a significant strategic layout. Covering an area of nearly 200 acres with a total investment of approximately 1 billion RMB, the facility has an annual production capacity of 7 million units. It is a modern integrated factory that combines production, research and development, manufacturing, and logistics.



R&D STRENGTH

346 Domestic patents	29 Invention Patent	242 New utility patent	75 Appearance patent	6 Overseas patents
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As a brand under Dayuan Pump Group, we have a strong foundation with over 177 R&D personnel and more than 352 patents. Our products have been honored with titles such as "Zhejiang Famous Brand Product" and "Zhejiang Export Famous Brand," and are exported to multiple countries and regions across Europe, America, and Asia. Our comprehensive strength ranks among the top in the industry. Through years of continuous investment in research and development, we have established a significant technological innovation advantage.

SERVICE COOPERATION

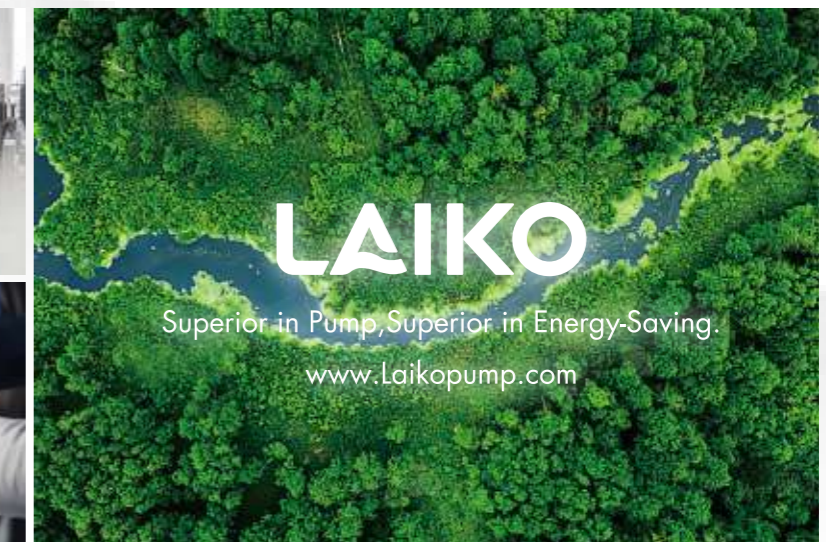
We have established offices in major cities across the country, supported by a professional and efficient service team. From consultation, purchase, after-sales, to maintenance, we provide high-quality, professional, timely, and attentive services at every stage.

Guided by the principle of "wholehearted dedication and customer-first," we respond quickly to customer needs, offering precise product recommendations and tailored solutions. Our comprehensive and full-cycle services ensure a worry-free experience for our customers.

SERVICE TENET: With all our heart and soul, Putting customers first

SERVICE TENET: Rapid response, Precise solution

SERVICE OBJECTIVES: Efficient O&M, Win-Win Cooperation



LAIKO

KLDS+KLH

High-pressure Pump



Superior in Pump, Superior in Energy-Saving.
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KLDS+KLH High-pressure Pump

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Product Overview

KLDS + KLH series is a new generation of high-efficiency non-self-priming high-pressure pump with reference to the latest European standards. The product adopts a new industrial design, and the energy efficiency index reaches $MEI \geq 0.7$. It has the characteristics of energy saving, low noise, environmental protection, compact structure, beautiful appearance, light weight, convenient use and maintenance, and high reliability.

The double pump system composed of KLDS + KLH in series can produce high pressure of 48 bar.

The first KLDS pump is a feed pump, and the second KLH pump is a high-pressure pump specially designed for high-pressure applications. This sample only provides technical information on high-pressure pumps.

The KLH pump is a non-self-priming, vertical multi-stage centrifugal pump with standard motor. The rotation direction of the pump is opposite to that of the feed water pump, the flow channel cavity is reversed, and the flow direction of the conveying liquid is opposite, so that the pressure cylinder and mechanical seal only bear the outlet pressure of the feed water pump, which improves the reliability.

Motor

The motor is a fully enclosed, air-cooled two-pole standard motor.

Protection level : IP55

Insulation grade : F

Standard voltage : 50Hz : 1x220-230 / 240V

3x200-220 / 346-380V

3x220-240 / 380-415V

Operating conditions

Thin, clean, non-flammable and explosive does not contain solid particles, fibers or things.

The physical and chemical properties of a liquid are similar to those of water.

Liquid temperature :

Common temperature type-15 °C ~ 70 °C

Hot water type-15 °C ~ 120 °C

Altitude : up to 1000 m

Applications

Water treatment ultrafiltration system/reverse osmosis system/pressurization system/high pressure flushing system/water supply

Curve Conditions

The following description applies to the curve shown below :

1.All curves are based on the measured values of the motor at a constant speed of 2900 rpm.

2.The curve tolerance meets the ISO9906 : 2012,3B level.

3.Test using 20 °C air-free water, kinematic viscosity of 1mm²/ s.

4.The use of the pump refers to the performance range of the thickening curve to prevent overheating caused by too small flow and overload of the motor caused by too large flow.

Maximum working pressure

KLDS + KLH : 50 bar

Model meaning

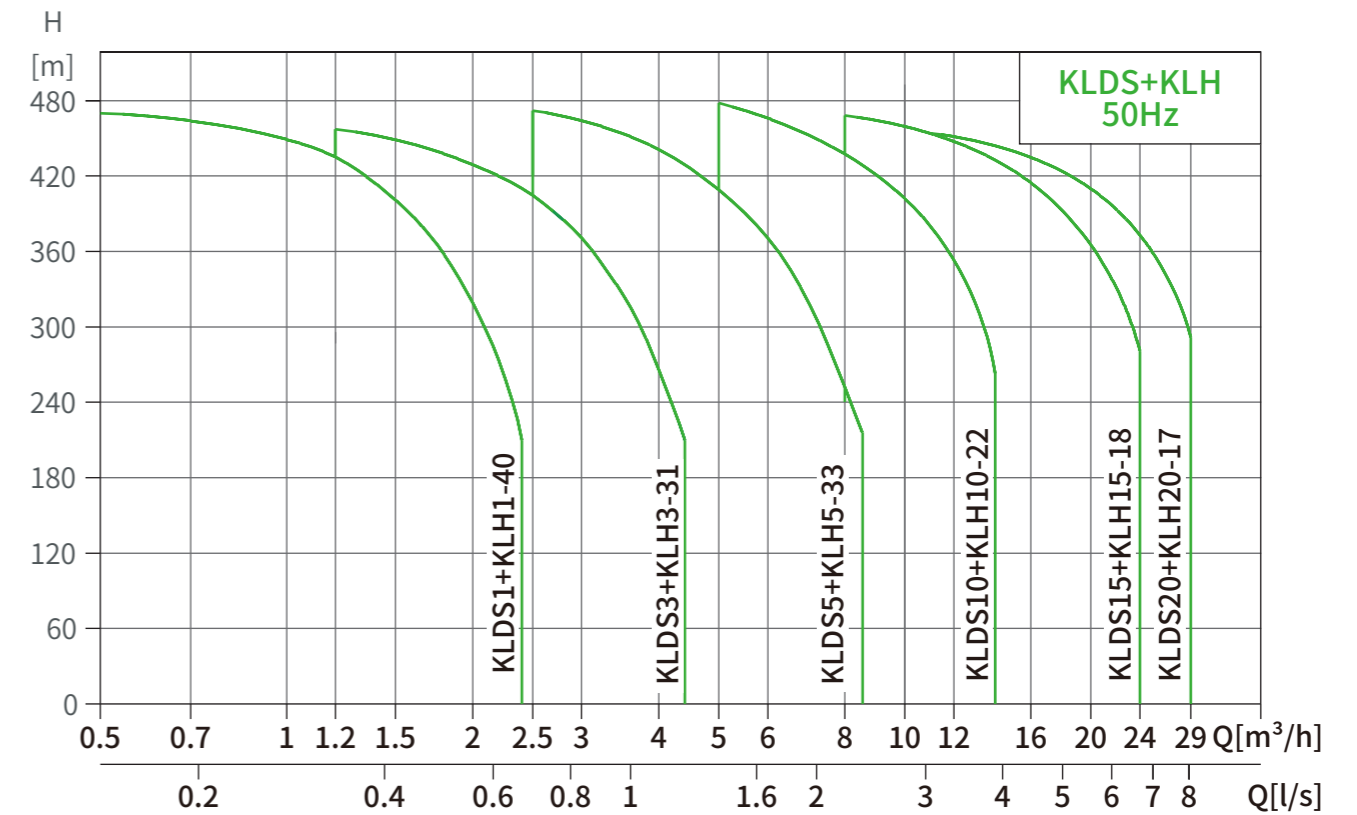
KLD S 10 - 2 K B W S C

- C: Room temperature type; R: Hot water type
- S:304; L:316L
- W:50Hz; L:60HZ
- Three phase (220V/380V for<3kW, 380V for>3kW) (omitted)
- B: Pump body
- K: Card sleeve series
- 10: Rated flow rate (m³/h)
- 2: The overcurrent components are made of stainless steel 304 or 316L
- Lightweight vertical multi-stage centrifugal pump

KLH 10 - 22 K B W S C

- C: Room temperature type; R: Hot water type
- S:304; L:316L
- W:50Hz; L:60HZ
- Three phase (220V/380V for<3kW, 380V for>3kW) (omitted)
- B: Pump body
- K: Card sleeve series
- 10: Rated flow rate (m³/h)
- 22: high-pressure pump

Performance Range



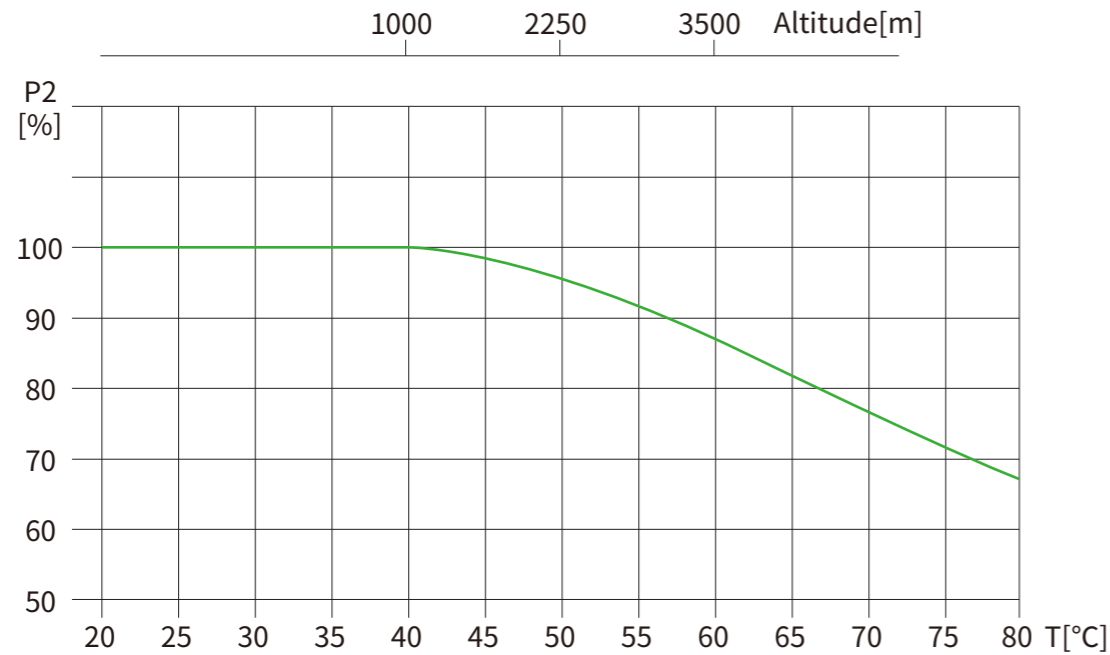
Product Scope

Model	KLDS+KLH					
Rated current[m ³ /h]	1	3	5	10	15	20
Rated current[l/s]	0.28	0.83	1.39	2.78	4.17	5.56
Flow range[m ³ /h]	0.5~2.4	1.2~4.4	2.5~8.5	5~14	8~22	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
Maximum pressure[bar]	47	46	49	48	47	46
Motor power[kW]	0.37~2.2	0.37~3	0.37~4	0.75~11	1.1~15	1.1~18.5
Temperature range[°C]	-15~+120					
Maximum efficiency[%]	48	58	70	72	73	73
Pipeline connection						
Ferrule fitting	DN32	DN32	DN32	DN50	DN50	DN50
System						
Two pumps in series	•	•	•	•	•	•

Note: The motor power is the sum of two pumps connected in series.

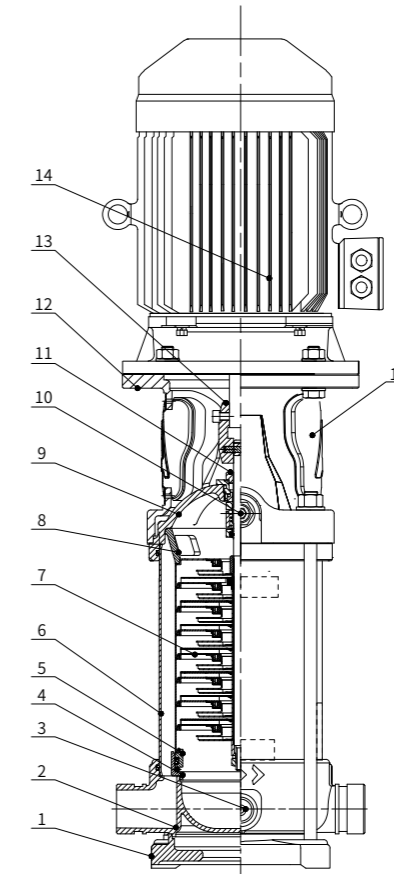
Maximum Ambient Temperature, Altitude

When the pump is operating at an ambient temperature greater than 40 °C or an altitude greater than 1000 m, the motor output power P2 will be reduced due to poor cooling effect due to low air density. The motor power needs to be increased when the pump runs under the above conditions.



KLH 1,3,5

Cross-sectional View



Minimum Inlet Pressure

KLH : 0.5bar

If the pressure in the pump is lower than the vaporization pressure of the conveying liquid, cavitation may occur. In order to avoid cavitation and ensure that there is a minimum pressure at the inlet side of the pump, the maximum suction H [m] can be calculated as follows :

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

P_b = atmospheric pressure [bar] (Atmospheric pressure can be set to 1 bar)

In a closed system, P_b is the system pressure [bar]

NPSH = net positive suction head [m]

(It can be read from the NPSH curve at the possible maximum flow rate of the pump)

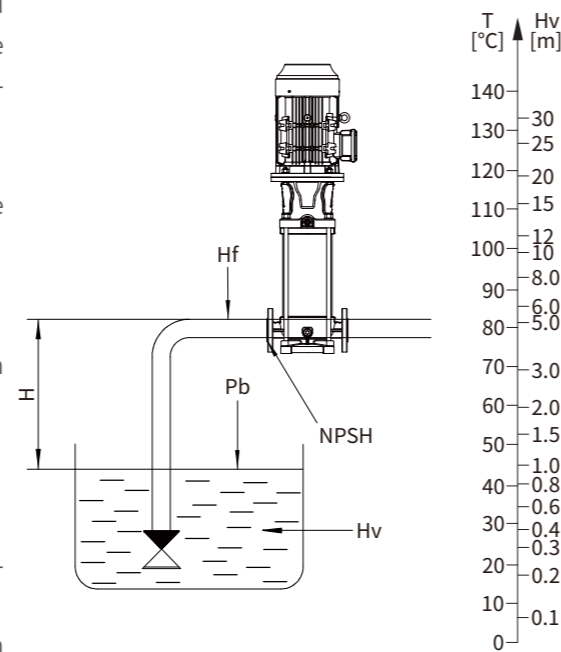
H_f = inlet pipe loss [m]

H_v = vaporization pressure [m]

H_s = safety margin = minimum 0.5m head

If the calculated H is positive, the pump can operate at the maximum suction H.

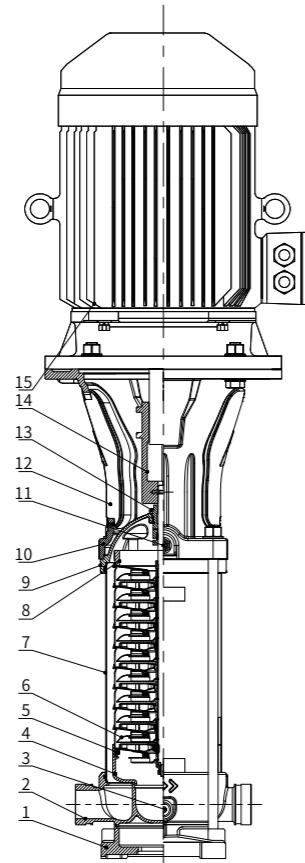
If the calculated H is negative, there must be a head of minimum inlet pressure H.



NO.	Parts	Materials	GB	AISI/ASTM
1	Base	Nodular cast iron	GB/T1348-QT450-10	ASTM A536 65-45-12
2	Pump body	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
3	Discharge bolt assembly	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
4	Outlet section	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
5	O-ring seat	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
6	Pump barrel	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
7	Pump core	Subassembly	/	/
8	Connecting sleeve	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
9	Pump cover	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
10	Discharge bolt assembly	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
11	Mechanical seal	/	/	/
12	Motor base	Nodular cast iron	GB/T1348-QT450-10	ASTM A536 65-45-12
13	Half-coupling	Iron-based powder metallurgy	/	/
14	Motor	/	/	/
15	Guarding plate	Stainless steel	GB/T20878-06Cr19Ni10	AISI304

Note : Other materials can be customized according to customer requirements.

KLH 10,15,20
Cross-sectional View



NO.	Parts	Materials	GB	AISI/ASTM
1	Base	Nodular cast iron	GB/T1348-QT450-10	ASTM A536 65-45-12
2	Pump body	Stainless steel	GB/T2100-ZG07Cr19Ni9	AISI304
3	Discharge bolt assembly	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
4	Outlet section	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
5	O-ring seat	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
6	Pump core	Subassembly	/	/
7	Pump barrel	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
8	Connecting sleeve	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
9	Pump cover	Stainless steel	GB/T2100-ZG07Cr19Ni9	AISI304
10	Motor base	Nodular cast iron	GB/T1348-QT450-10	ASTMA536 65-45-12
11	Discharge bolt assembly	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
12	Guarding plate	Stainless steel	GB/T20878-06Cr19Ni10	AISI304
13	Mechanical seal	Subassembly	/	/
14	Half-coupling	Iron-based powder metallurgy	/	/
15	Motor	Subassembly	/	/

Note : Other materials can be customized according to customer requirements.

KLDS1+KLH1-40 Performance Table

Model	Matching motor [kW]	Q[m ³ /h]	0	0.5	0.7	1	1.2	1.4	1.6	1.8	2	2.2	2.4
KLDS1-2+KLH1-40	0.37+2.2	H [m]	246	245	242	233	226	214	201	185	165	141	108
KLDS1-3+KLH1-40	0.37+2.2		252	251	248	239	231	219	205	189	168	144	110
KLDS1-4+KLH1-40	0.37+2.2		258	257	253	244	237	224	210	193	172	147	112
KLDS1-5+KLH1-40	0.37+2.2		263	262	259	250	242	229	214	197	175	150	114
KLDS1-6+KLH1-40	0.37+2.2		269	268	265	255	247	235	219	201	179	153	116
KLDS1-7+KLH1-40	0.37+2.2		275	274	271	262	253	240	224	205	182	156	119
KLDS1-8+KLH1-40	0.55+2.2		281	280	276	266	258	245	229	210	187	160	122
KLDS1-9+KLH1-40	0.55+2.2		287	286	282	272	263	249	233	214	190	163	124
KLDS1-10+KLH1-40	0.55+2.2		293	292	288	278	268	255	238	219	195	167	127
KLDS1-11+KLH1-40	0.55+2.2		298	297	294	284	274	260	243	223	198	169	129
KLDS1-12+KLH1-40	0.75+2.2		304	303	299	290	280	266	249	229	204	173	132
KLDS1-13+KLH1-40	0.75+2.2		310	309	305	296	286	271	253	233	207	176	135
KLDS1-15+KLH1-40	0.75+2.2		322	321	316	307	297	281	263	242	215	183	140
KLDS1-17+KLH1-40	1.1+2.2		333	332	328	318	307	291	273	250	222	189	145
KLDS1-19+KLH1-40	1.1+2.2		346	345	339	329	319	303	283	259	230	195	150
KLDS1-21+KLH1-40	1.1+2.2		358	357	351	340	329	312	292	267	236	201	154
KLDS1-22+KLH1-40	1.1+2.2		364	363	357	345	334	317	297	272	241	205	158
KLDS1-23+KLH1-40	1.5+2.2		370	369	363	351	339	323	303	279	249	212	162
KLDS1-25+KLH1-40	1.5+2.2		382	381	375	362	350	333	313	288	256	219	167
KLDS1-27+KLH1-40	1.5+2.2		393	392	386	373	361	343	322	296	264	226	173
KLDS1-30+KLH1-40	1.5+2.2		411	410	405	390	377	359	337	310	276	236	181
KLDS1-32+KLH1-40	2.2+2.2		423	422	417	403	390	371	347	320	287	246	189
KLDS1-33+KLH1-40	2.2+2.2		429	428	423	409	396	376	352	325	291	249	191
KLDS1-34+KLH1-40	2.2+2.2		434	433	429	415	400	381	357	329	295	253	194
KLDS1-36+KLH1-40	2.2+2.2		446	445	440	426	412	391	367	338	303	260	199
KLDS1-38+KLH1-40	2.2+2.2		459	458	452	438	424	402	377	348	311	267	205
KLDS1-40+KLH1-40	2.2+2.2		471	470	464	449	435	413	387	357	319	274	210

KLDS3+KLH3-31 Performance Table

Model	Matching motor [kW]	Q[m ³ /h]	0	1.2	1.6	2	2.4	2.8	3	3.2	3.6	4	4.4
KLDS3-2+KLH3-31	0.37+3	H [m]	246	241	234	226	216	202	195	186	166	140	110
KLDS3-3+KLH3-31	0.37+3		254	248	242	233	223	209	201	192	171	144	112
KLDS3-4+KLH3-31	0.37+3		261	256	249	240	229	215	207	197	176	149	117
KLDS3-5+KLH3-31	0.55+3		269	263	256	246	235	221	213	203	181	153	120
KLDS3-6+KLH3-31	0.55+3		276	270	263	254	242	227	219	209	186	157	123
KLDS3-7+KLH3-31	0.75+3		284	278	271	262	249	234	225	215	191	162	127
KLDS3-8+KLH3-31	0.75+3		291	285	279	269	256	240	231	220	196	166	130
KLDS3-9+KLH3-31	1.1+3		299	293	286	276	263	247	237	226	201	170	134
KLDS3-10+KLH3-31	1.1+3		306	300	293	283	269	252	243	231	206	174	137
KLDS3-11+KLH3-31	1.1+3		314	307	300	290	276	289	249	237	211	179	141
KLDS3-12+KLH3-31	1.1+3		321	315	307	296	282	265	255	242	215	182	144
KLDS3-13+KLH3-31	1.5+3		329	322	314	303	289	271	261	248	220	186	148
KLDS3-14+KLH3-31	1.5+3		337	329	322	311	296	277	267	253	225	190	151
KLDS3-15+KLH3-31	1.5+3		344	337	329	318	303	285	274	261	232	196	155
KLDS3-16+KLH3-31	1.5+3		352	345	337	325	310	291	280	267	237	201	158
KLDS3-18+KLH3-31	2.2+3		367	360	351	339	323	304	292	277	246	208	165
KLDS3-19+KLH3-31	2.2+3		374	367	358	345	329	310	298	283	252	214	168
KLDS3-20+KLH3-31	2.2+3		382	375	365	353	336	316	304	289	256	217	171
KLDS3-21+KLH3-31	2.2+3		389	382	373	360	343	322	310	295	262	222	175
KLDS3-22+KLH3-31	2.2+3		397	389	379	367	349	328	316	300	266	225	178
KLDS3-23+KLH3-31	2.2+3		404	397	387	374	356	335	322	306	271	229	182
KLDS3-24+KLH3-31	2.2+3		412	404	394	381	363	341	328	312	276	233	185
KLDS3-25+KLH3-31	3+3		419	412	402	388	369	347	334	317	281	237	189
KLDS3-27+KLH3-31	3+3		435	427	416	401	383	360	346	330	294	249	196
KLDS3-28+KLH3-31	3+3		443	434	423	408	390	366	352	335	299	253	199
KLDS3-29+KLH3-31	3+3		451	442	431	416	397	373	359	342	304	258	203
KLDS3-31+KLH3-31	3+3		466	457	445	429	410	385	371	353	315	266	210

KLDS5+KLH5-33 Performance Table

Model	Matching motor [kW]	Q[m ³ /h]	0	2.5	3	4	5	6	7	8	8.5
KLDS5-2+KLH5-33	0.37+5.5	H [m]	260	248	244	231	214	193	164	130	111
KLDS5-3+KLH5-33	0.55+5.5		267	255	251	238	220	199	169	134	114
KLDS5-4+KLH5-33	0.55+5.5		275	262	258	245	227	205	174	138	118
KLDS5-5+KLH5-33	0.75+5.5		282	269	265	252	233	211	180	143	122
KLDS5-6+KLH5-33	1.1+5.5		290	276	272	259	240	217	184	146	125
KLDS5-7+KLH5-33	1.1+5.5		297	284	279	265	245	223	189	149	128
KLDS5-8+KLH5-33	1.1+5.5		304	291	286	272	252	228	193	153	131
KLDS5-9+KLH5-33	1.5+5.5		312	298	293	279	258	234	199	156	134
KLDS5-10+KLH5-33	1.5+5.5		320	305	300	285	265	239	203	160	137
KLDS5-11+KLH5-33	1.5+5.5		327	312	307	292	271	245	208	164	140
KLDS5-12+KLH5-33	2.2+5.5		335	319	314	300	277	250	212	168	144
KLDS5-13+KLH5-33	2.2+5.5		342	326	321	306	283	255	217	172	147
KLDS5-14+KLH5-33	2.2+5.5		350	334	328	312	290	261	222	176	150
KLDS5-15+KLH5-33	2.2+5.5		357	341	336	319	296	266	226	179	153
KLDS5-16+KLH5-33	2.2+5.5		365	348	342	326	302	272	231	183	157
KLDS5-17+KLH5-33	3+5.5		372	355	349	332	308	278	236	187	160
KLDS5-18+KLH5-33	3+5.5		380	362	356	339	314	283	241	191	163
KLDS5-20+KLH5-33	3+5.5		394	377	370	352	327	294	250	198	170
KLDS5-21+KLH5-33	3+5.5		402	384	377	359	333	300	255	202	173
KLDS5-22+KLH5-33	4+5.5		409	391	384	365	339	306	260	207	177
KLDS5-23+KLH5-33	4+5.5		417	399	391	372	345	312	265	211	181
KLDS5-24+KLH5-33	4+5.5		424	406	398	379	352	317	270	215	184
KLDS5-25+KLH5-33	4+5.5		432	413	405	386	358	323	274	218	187
KLDS5-27+KLH5-33	4+5.5		447	427	419	399	371	334	284	226	193
KLDS5-28+KLH5-33	4+5.5		455	435	427	406	377	340	289	230	197
KLDS5-29+KLH5-33	5.5+5.5		462	442	434	413	383	347	296	236	202
KLDS5-30+KLH5-33	5.5+5.5		471	450	442	420	389	353	301	240	205
KLDS5-33+KLH5-33	5.5+5.5		494	472	464	441	409	371	317	252	216

KLDS10+KLH10-22 Performance Table

Model	Matching motor [kW]	Q[m ³ /h]	0	5	6	8	10	12	14
KLDS10-1+KLH10-22	0.75+11	H [m]	259	248.2	243	228	209	178	135.5
KLDS10-2+KLH10-22	0.75+11		270.2	259	253.5	238	217.5	184.5	140.5
KLDS10-3+KLH10-22	1.1+11		281.3	269.5	264	247.5	226.5	193	147.5
KLDS10-4+KLH10-22	1.5+11		292.5	280	274	257	235	200	153
KLDS10-5+KLH10-22	2.2+11		304	290.5	284	267	244	208	159
KLDS10-6+KLH10-22	2.2+11		315	301	295	277	253	215	165
KLDS10-7+KLH10-22	3+11		326.5	312	306	288	263	223	171
KLDS10-8+KLH10-22	3+11		338	323	317	298	272	231	177
KLDS10-9+KLH10-22	4+11		349.5	334	327	308	281	238	183
KLDS10-10+KLH10-22	4+11		361	345	338	317	291	247	189
KLDS10-11+KLH10-22	4+11		372	356	348	327	299	255	195
KLDS10-12+KLH10-22	5.5+11		385	367	360	338	308	262	201
KLDS10-13+KLH10-22	5.5+11		395	378	371	349	317	270	207
KLDS10-14+KLH10-22	5.5+11		408	389	381	358	326	277	213
KLDS10-15+KLH10-22	5.5+11		419	400	392	368	335	285	219
KLDS10-16+KLH10-22	7.5+11		431	411	403	378	345	294	225
KLDS10-17+KLH10-22	7.5+11		442	422	413	388	354	301	231
KLDS10-18+KLH10-22	7.5+11		453	433	424	399	364	312	239
KLDS10-19+KLH10-22	7.5+11		465	444	434	409	373	318	244
KLDS10-20+KLH10-22	7.5+11		476	455	446	419	382	326	251
KLDS10-21+KLH10-22	7.5+11		488	466	456	429	392	333	257
KLDS10-22+KLH10-22	11+11		498	478	468	440	402	342	263

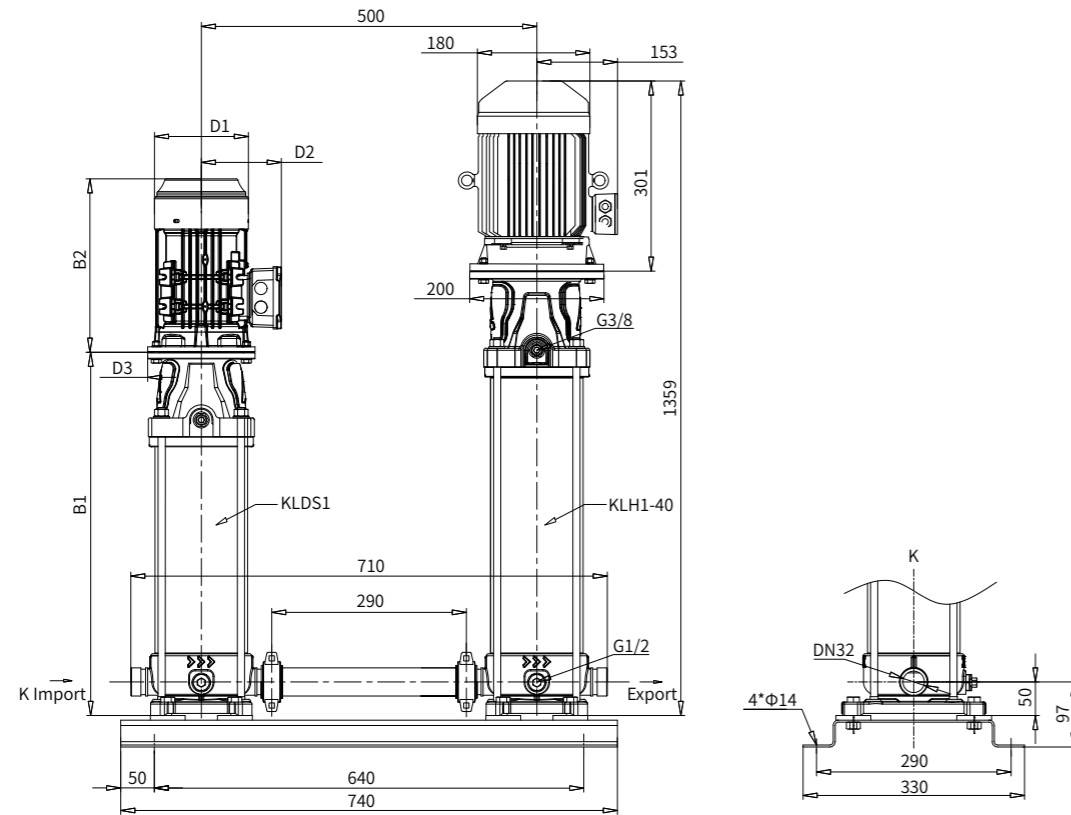
KLDS15+KLH15-18 Performance Table

Model	Matching motor [kW]	Q[m ³ /h]	8	9	12	15	18	20	22
KLDS15-1+KLH15-18	1.1+15	H [m]	256.5	254	242	226	205	187.5	166
KLDS15-2+KLH15-18	2.2+15		271	267	255	238	216	197	175
KLDS15-3+KLH15-18	3+15		284	281	268	250	227	207	183
KLDS15-4+KLH15-18	4+15		299	296	281	262	238	217	193
KLDS15-5+KLH15-18	4+15		311	307	294	273	248	227	201
KLDS15-6+KLH15-18	5.5+15		325	321	307	286	259	237	210
KLDS15-7+KLH15-18	5.5+15		338	335	319	298	270	246	218
KLDS15-8+KLH15-18	7.5+15		353	349	333	311	281	257	228
KLDS15-9+KLH15-18	7.5+15		366	361	345	323	292	267	236
KLDS15-10+KLH15-18	11+15		381	377	359	335	304	278	247
KLDS15-11+KLH15-18	11+15		394	390	372	345	314	287	256
KLDS15-12+KLH15-18	11+15		408	403	385	357	325	297	265
KLDS15-13+KLH15-18	11+15		419	415	396	368	334	306	271
KLDS15-14+KLH15-18	11+15		433	429	410	381	346	316	280
KLDS15-15+KLH15-18	15+15		446	443	422	395	357	326	288
KLDS15-16+KLH15-18	15+15		460	455	435	406	369	337	299
KLDS15-17+KLH15-18	15+15		475	471	449	420	380	347	308
KLDS15-18+KLH15-18	15+15		489	484	462	432	391	357	317

KLDS20+KLH20-17 Performance Table

Model	Matching motor [kW]	Q[m ³ /h]	10	12	16	18	20	24	26	29
KLDS20-1+KLH20-17	1.1+18.5	H [m]	258	254	240	231	215.5	190	171	139
KLDS20-2+KLH20-17	2.2+18.5		273	268	253	244	227.5	200	181	146
KLDS20-3+KLH20-17	4+18.5		288	283	267	258	241	211	191	156
KLDS20-4+KLH20-17	5.5+18.5		302	297	281	271	253	222	201	164
KLDS20-5+KLH20-17	5.5+18.5		316	311	294	283	265	233	209	172
KLDS20-6+KLH20-17	7.5+18.5		331	325	308	297	277	243	220	179
KLDS20-7+KLH20-17	7.5+18.5		344	338	321	308	289	253	228	186
KLDS20-8+KLH20-17	11+18.5		361	354	335	324	301	266	240	196
KLDS20-9+KLH20-17	11+18.5		376	368	348	337	313	277	250	204
KLDS20-10+KLH20-17	11+18.5		389	381	360	348	325	286	258	212
KLDS20-11+KLH20-17	15+18.5		403	395	373	361	337	297	268	220
KLDS20-12+KLH20-17	15+18.5		418	410	389	375	349	308	278	227
KLDS20-13+KLH20-17	15+18.5		432	424	402	388	361	319	288	235
KLDS20-14+KLH20-17	15+18.5		445	438	415	400	373	328	296	242
KLDS20-15+KLH20-17	18.5+18.5		459	452	428	413	385	339	306	250
KLDS20-16+KLH20-17	18.5+18.5		474	466	442	426	397	349	315	257
KLDS20-17+KLH20-17	18.5+18.5		490	482	457	440	410	362	326	268

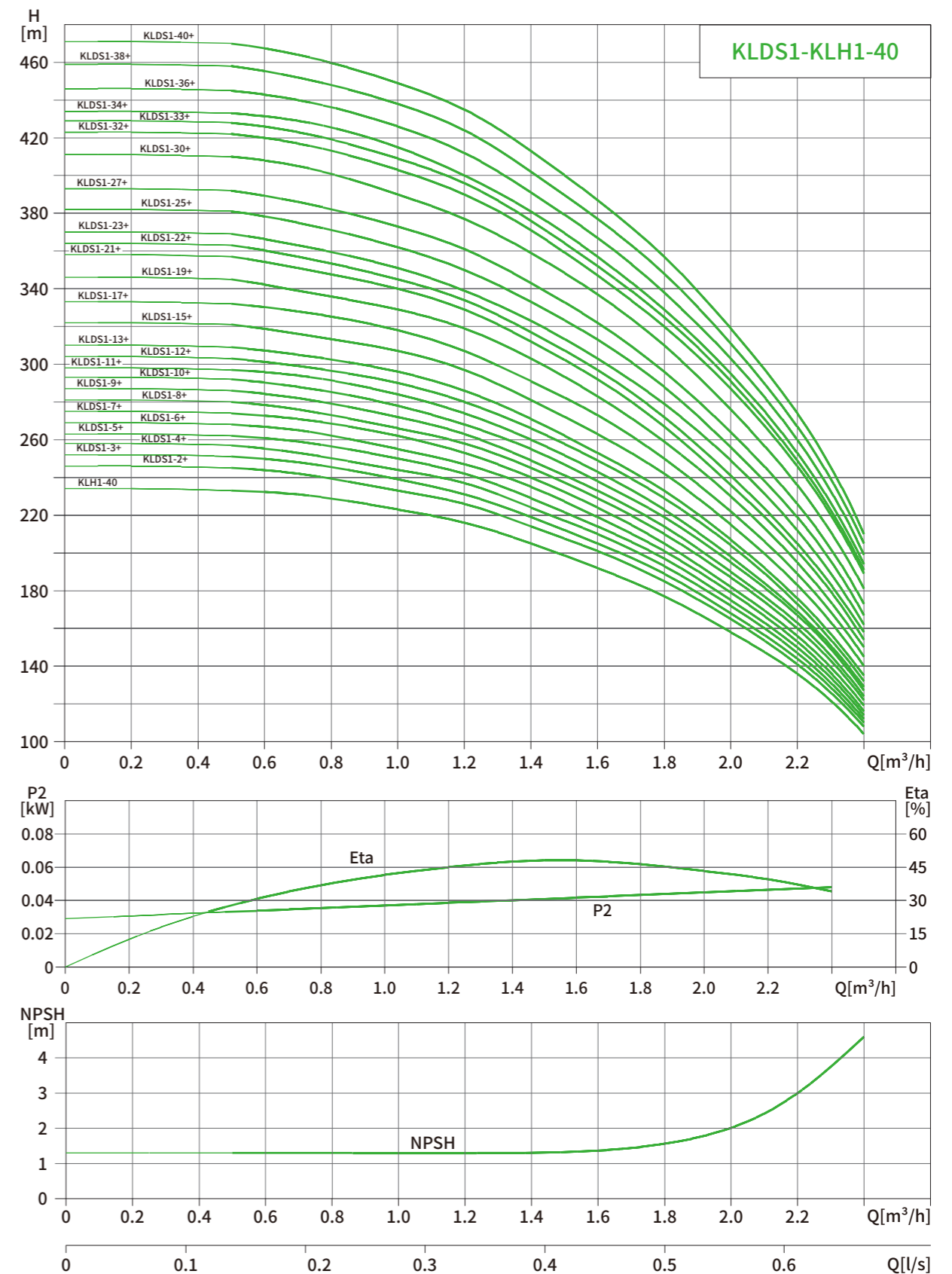
KLDS1-KLH1-40 Installation Dimension Drawing



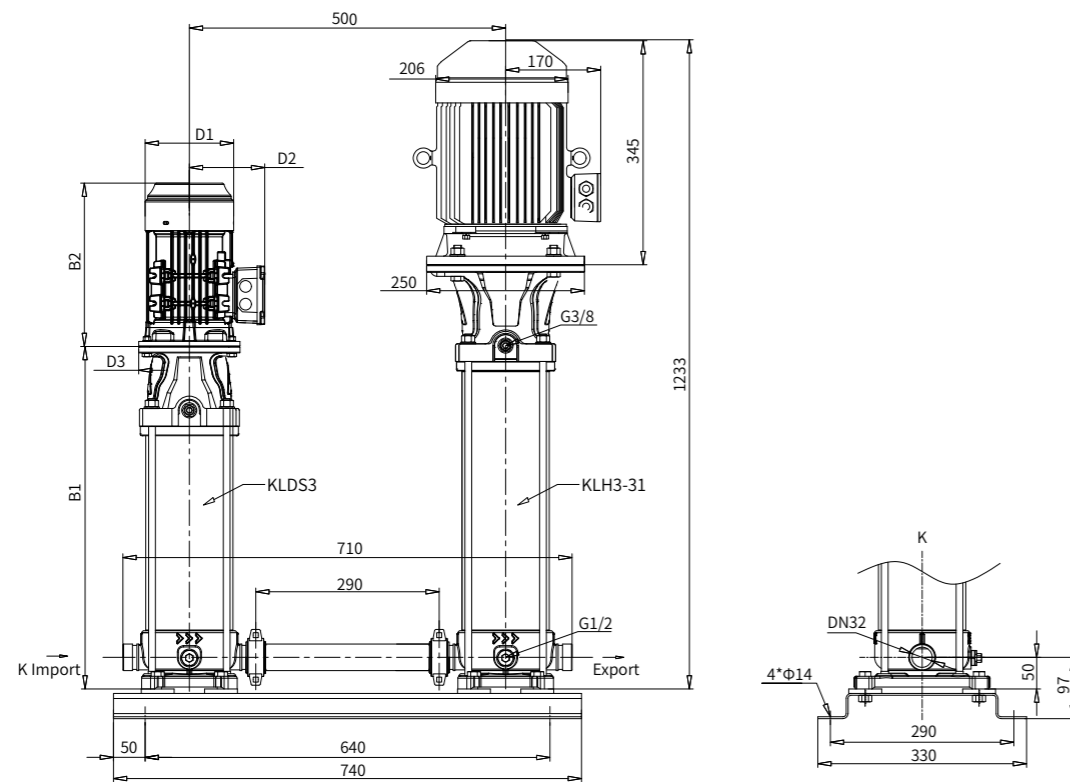
Dimensions and Weight

Model	Dimensions (mm)					Weight (kg)
	B1	B1+B2	D1	D2	D3	
KLDS1-2+KLH1-40	268	522	140	119	160	85.8
KLDS1-3+KLH1-40	288	542			160	86.2
KLDS1-4+KLH1-40	308	562			160	86.7
KLDS1-5+KLH1-40	328	582			160	87.1
KLDS1-6+KLH1-40	348	602			160	87.5
KLDS1-7+KLH1-40	368	622			160	87.9
KLDS1-8+KLH1-40	388	642			160	89.9
KLDS1-9+KLH1-40	408	662			160	90.3
KLDS1-10+KLH1-40	428	682			160	90.8
KLDS1-11+KLH1-40	448	702			160	91.2
KLDS1-12+KLH1-40	478	765	155	123	200	95.2
KLDS1-13+KLH1-40	498	785			200	95.6
KLDS1-15+KLH1-40	538	805			200	96.5
KLDS1-17+KLH1-40	578	845			200	98.1
KLDS1-19+KLH1-40	618	885			200	98.9
KLDS1-21+KLH1-40	658	925			200	99.8
KLDS1-22+KLH1-40	678	945			200	100.2
KLDS1-23+KLH1-40	705	1021			200	104.1
KLDS1-25+KLH1-40	745	1061			200	104.9
KLDS1-27+KLH1-40	785	1101			200	105.8
KLDS1-30+KLH1-40	845	1161	168	132	200	107.0
KLDS1-32+KLH1-40	885	1236			200	112.3
KLDS1-33+KLH1-40	905	1256			200	112.7
KLDS1-34+KLH1-40	925	1276			200	113.1
KLDS1-36+KLH1-40	965	1316			200	113.9
KLDS1-38+KLH1-40	1005	1356			200	114.8
KLDS1-40+KLH1-40	1045	1396			200	115.6

Performance Curve



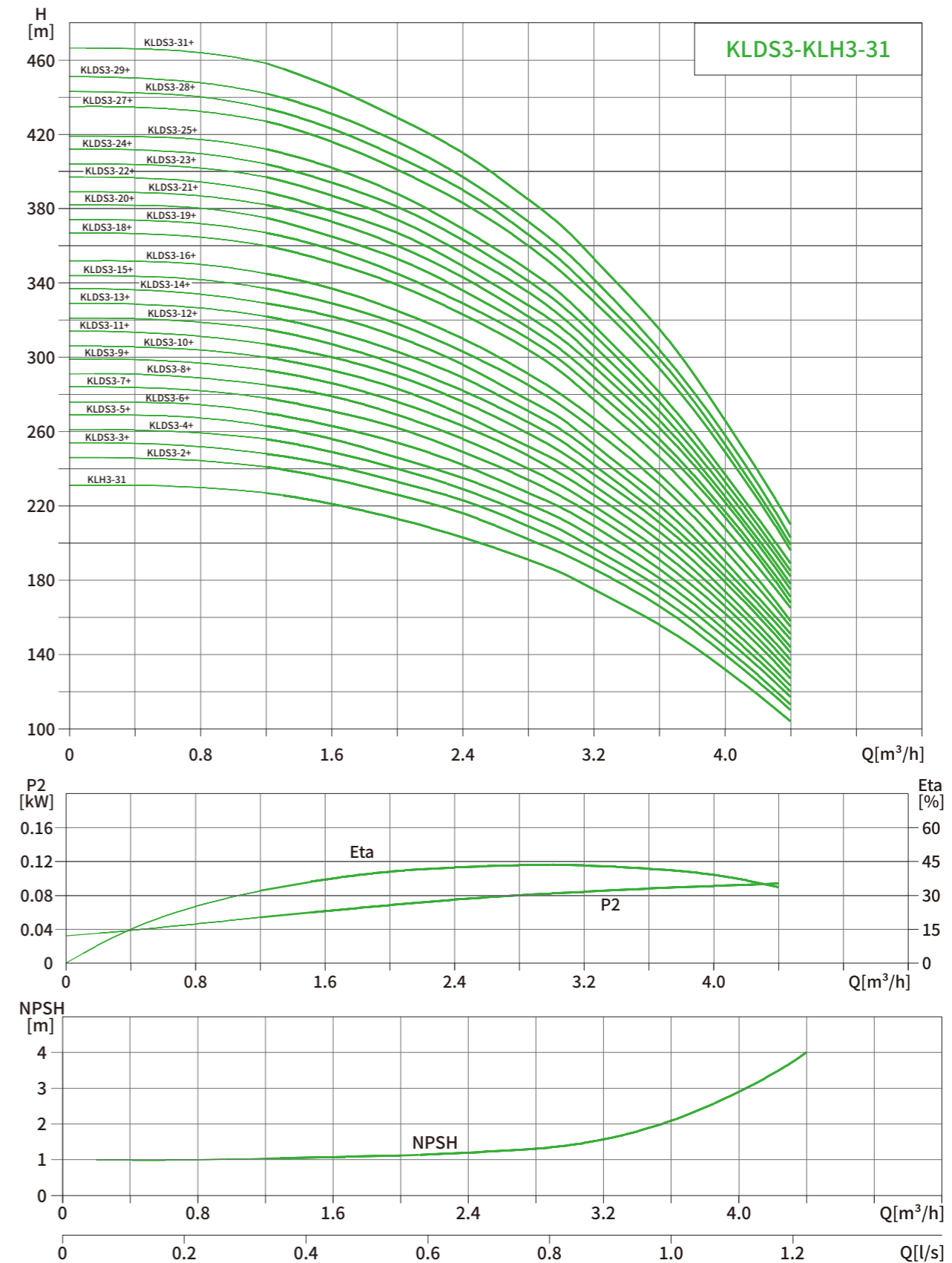
KLDS3-KLH3-31 Installation Dimension Drawing



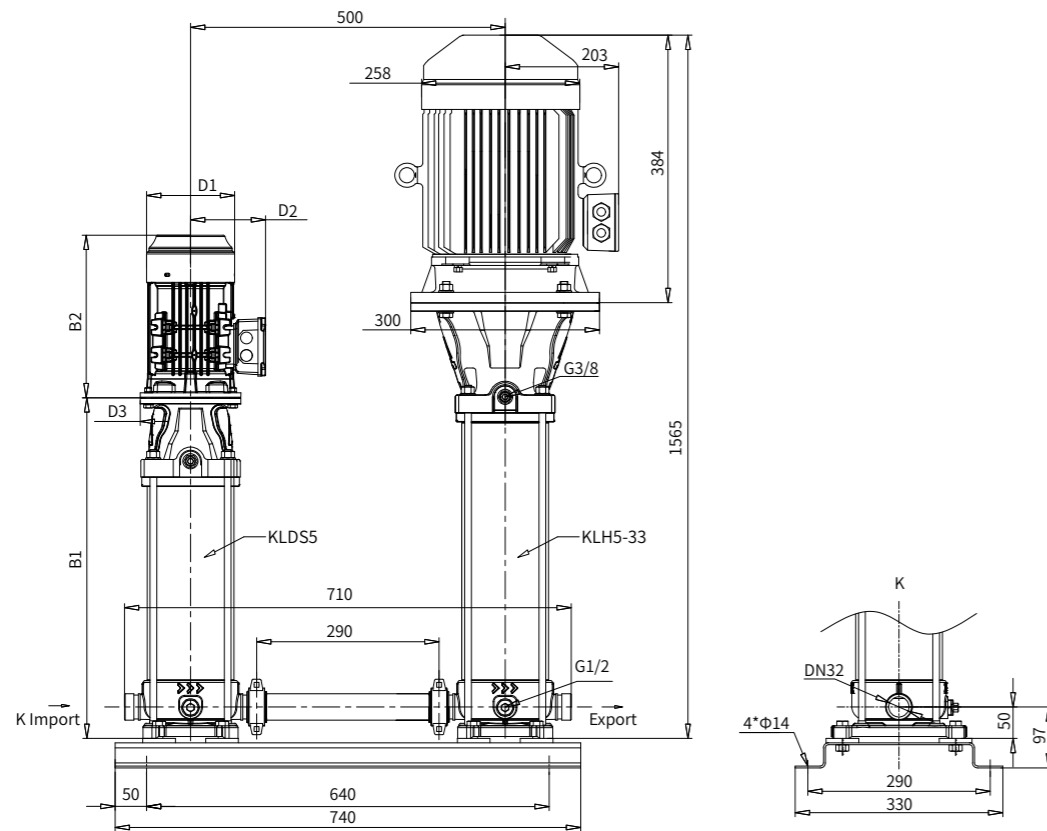
Dimensions and Weight

Model	Dimensions (mm)					Weight (kg)
	B1	B1+B2	D1	D2	D3	
KLDS3-2+KLH3-31	268	522	140	119	160	89.5
KLDS3-3+KLH3-31	288	542			160	89.9
KLDS3-4+KLH3-31	308	562			160	90.4
KLDS3-5+KLH3-31	328	582			160	92.4
KLDS3-6+KLH3-31	348	602			160	92.8
KLDS3-7+KLH3-31	378	665			200	96.9
KLDS3-8+KLH3-31	398	685			200	97.3
KLDS3-9+KLH3-31	418	705	155	123	200	98.5
KLDS3-10+KLH3-31	438	725			200	99.0
KLDS3-11+KLH3-31	458	745			200	99.4
KLDS3-12+KLH3-31	478	765			200	99.8
KLDS3-13+KLH3-31	505	821	168	132	200	103.8
KLDS3-14+KLH3-31	525	841			200	104.2
KLDS3-15+KLH3-31	545	861			200	104.6
KLDS3-16+KLH3-31	565	881			200	105.1
KLDS3-18+KLH3-31	605	956			200	110.3
KLDS3-19+KLH3-31	625	976			200	110.8
KLDS3-20+KLH3-31	645	996			200	111.2
KLDS3-21+KLH3-31	665	1016			200	111.6
KLDS3-22+KLH3-31	685	1036			200	112.0
KLDS3-23+KLH3-31	705	1056			200	112.5
KLDS3-24+KLH3-31	725	1076	200	112.9		
KLDS3-25+KLH3-31	755	1147	194	161	250	119.3
KLDS3-27+KLH3-31	795	1187			250	120.2
KLDS3-28+KLH3-31	815	1027			250	120.6
KLDS3-29+KLH3-31	835	1227			250	121.1
KLDS3-31+KLH3-31	875	1267			250	121.9

Performance Curve



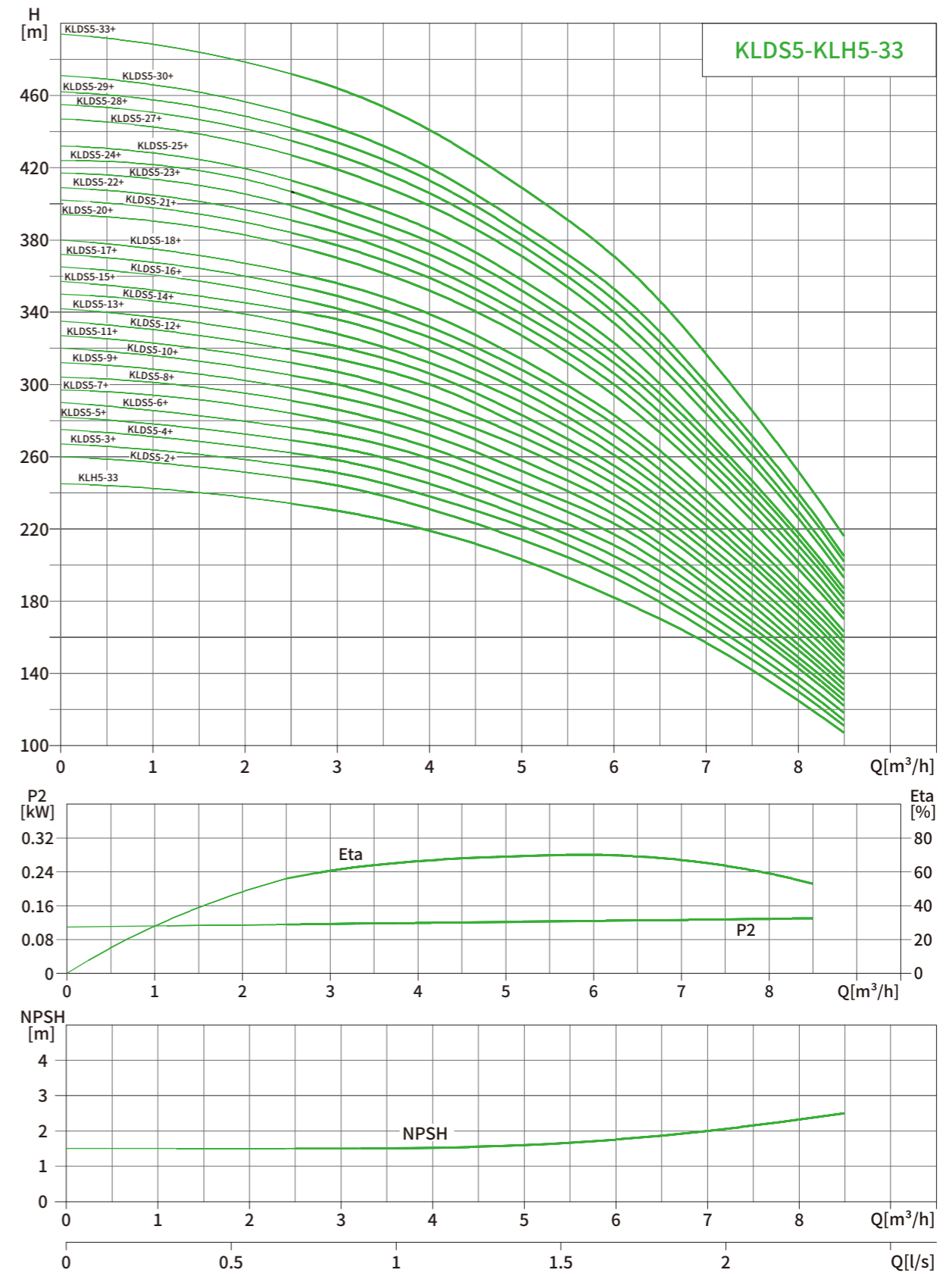
KLDS5-KLH5-33 Installation Dimension Drawing



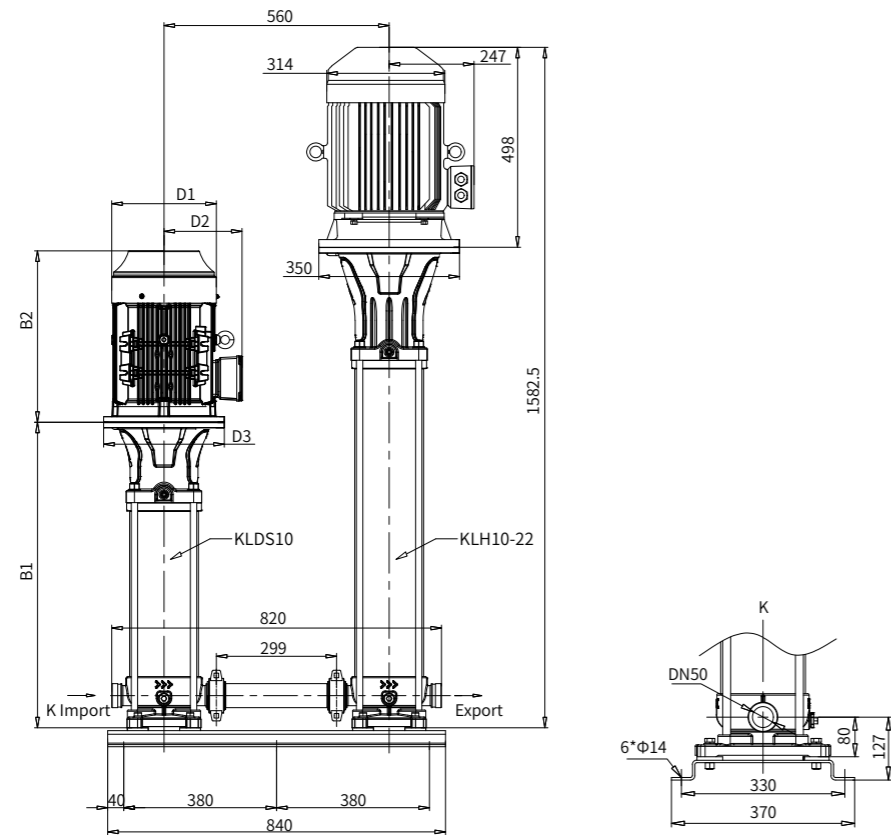
Dimensions and Weight

Model	Dimensions (mm)					Weight (kg)
	B1	B1+B2	D1	D2	D3	
KLDS5-2+KLH5-33	261	536	140	119	160	125.2
KLDS5-3+KLH5-33	288	563			160	127.2
KLDS5-4+KLH5-33	315	590			160	127.7
KLDS5-5+KLH5-33	352	660	155	123	200	131.7
KLDS5-6+KLH5-33	379	687			200	133.0
KLDS5-7+KLH5-33	406	714			200	133.4
KLDS5-8+KLH5-33	433	741	168	132	200	133.8
KLDS5-9+KLH5-33	467	804			200	137.8
KLDS5-10+KLH5-33	494	831			200	138.2
KLDS5-11+KLH5-33	521	858	194	161	200	138.6
KLDS5-12+KLH5-33	548	885			200	143.5
KLDS5-13+KLH5-33	575	912			200	143.9
KLDS5-14+KLH5-33	602	939	220	175	200	144.3
KLDS5-15+KLH5-33	629	966			200	144.8
KLDS5-16+KLH5-33	656	993			200	145.2
KLDS5-17+KLH5-33	693	1106	260	195	250	151.6
KLDS5-18+KLH5-33	720	1133			250	152.1
KLDS5-20+KLH5-33	774	1187			250	152.9
KLDS5-21+KLH5-33	801	1214	260	195	250	153.4
KLDS5-22+KLH5-33	828	1260			250	159.8
KLDS5-23+KLH5-33	855	1287			250	160.2
KLDS5-24+KLH5-33	882	1314	300	195	250	160.7
KLDS5-25+KLH5-33	909	1341			250	161.1
KLDS5-27+KLH5-33	963	1395			250	162.0
KLDS5-28+KLH5-33	990	1422	300	195	250	162.4
KLDS5-29+KLH5-33	1039	1540			300	182.1
KLDS5-30+KLH5-33	1066	1567			300	182.5
KLDS5-33+KLH5-33	1147	1648	300	183.8		

Performance Curve



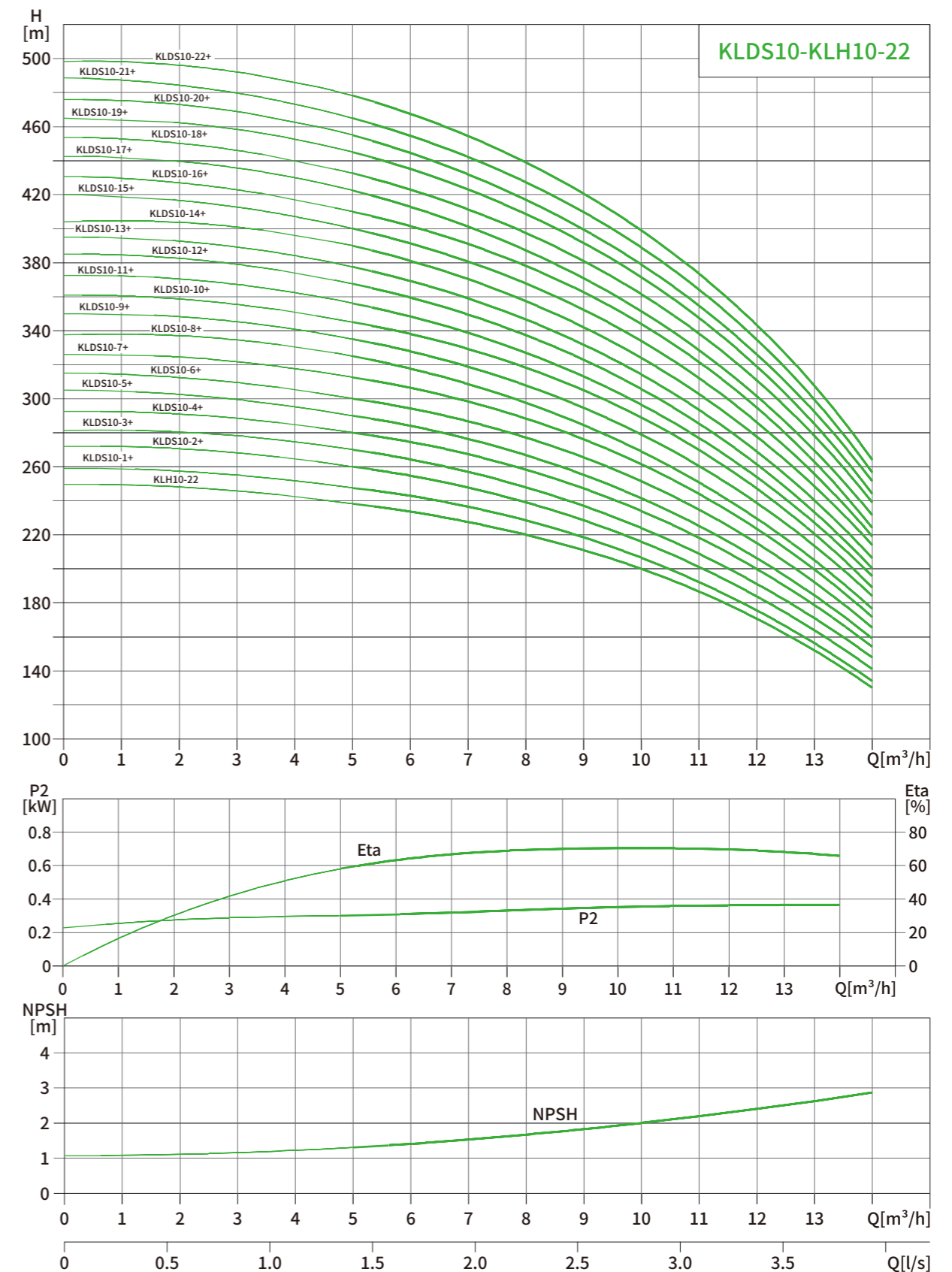
KLDS10-KLH10-22 Installation Dimension Drawing



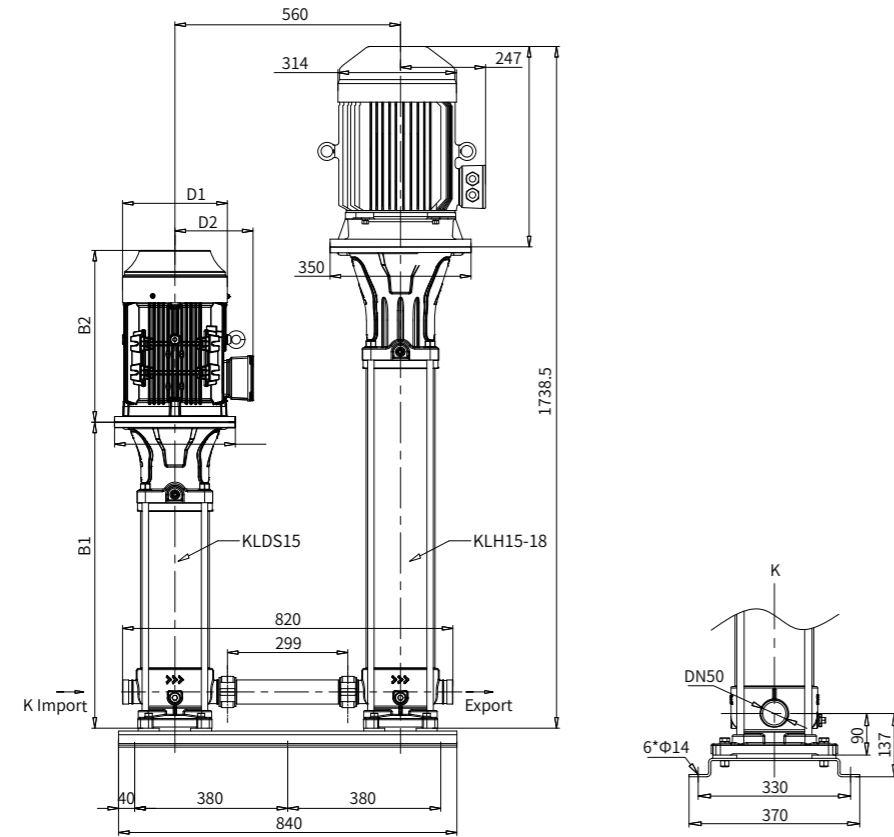
Dimensions and Weight

Model	Dimensions (mm)					Weight (kg)
	B1	B1+B2	D1	D2	D3	
KLDS10-1+KLH10-22	352	639	155	123	200	218.8
KLDS10-2+KLH10-22	352	639			200	218.9
KLDS10-3+KLH10-22	382	669			200	220.9
KLDS10-4+KLH10-22	418	744	168	132	200	225.1
KLDS10-5+KLH10-22	448	799			200	230.7
KLDS10-6+KLH10-22	478	829			200	231.8
KLDS10-7+KLH10-22	518	910	194	161	250	239.1
KLDS10-8+KLH10-22	548	940			250	240.2
KLDS10-9+KLH10-22	578	989			250	247.4
KLDS10-10+KLH10-22	608	1079	220	175	250	248.5
KLDS10-11+KLH10-22	638	1049			250	249.6
KLDS10-12+KLH10-22	694	1145			300	269.2
KLDS10-13+KLH10-22	724	1175	260	195	300	270.3
KLDS10-14+KLH10-22	754	1205			300	271.4
KLDS10-15+KLH10-22	784	1235			300	272.6
KLDS10-16+KLH10-22	814	1315			300	277.7
KLDS10-17+KLH10-22	844	1345			300	278.9
KLDS10-18+KLH10-22	874	1375			300	280.0
KLDS10-19+KLH10-22	904	1405			300	281.1
KLDS10-20+KLH10-22	934	1435			300	282.2
KLDS10-21+KLH10-22	964	1465			300	283.3
KLDS10-22+KLH10-22	1075	1618			311	233

Performance Curve



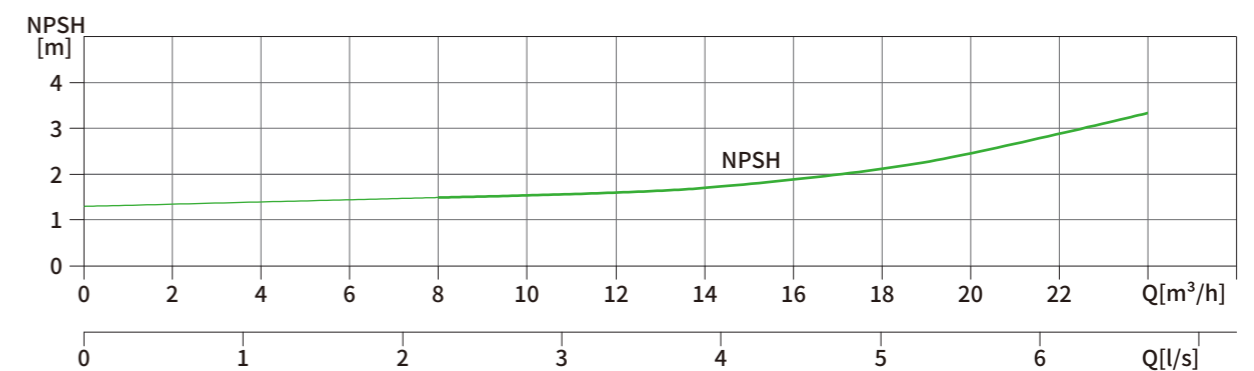
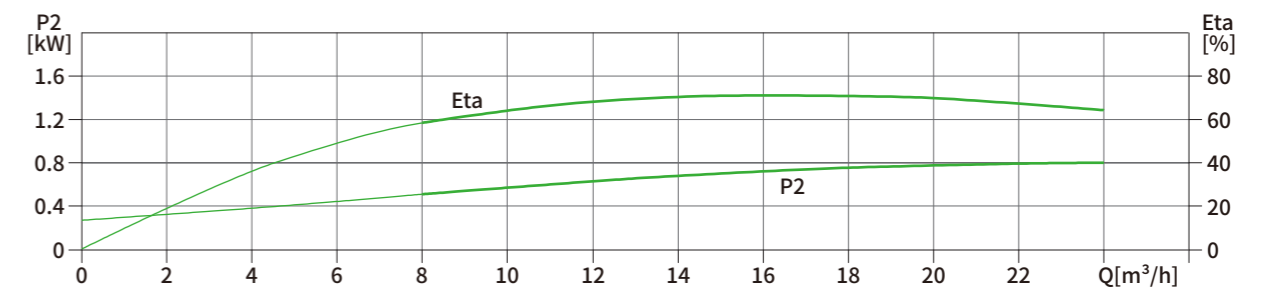
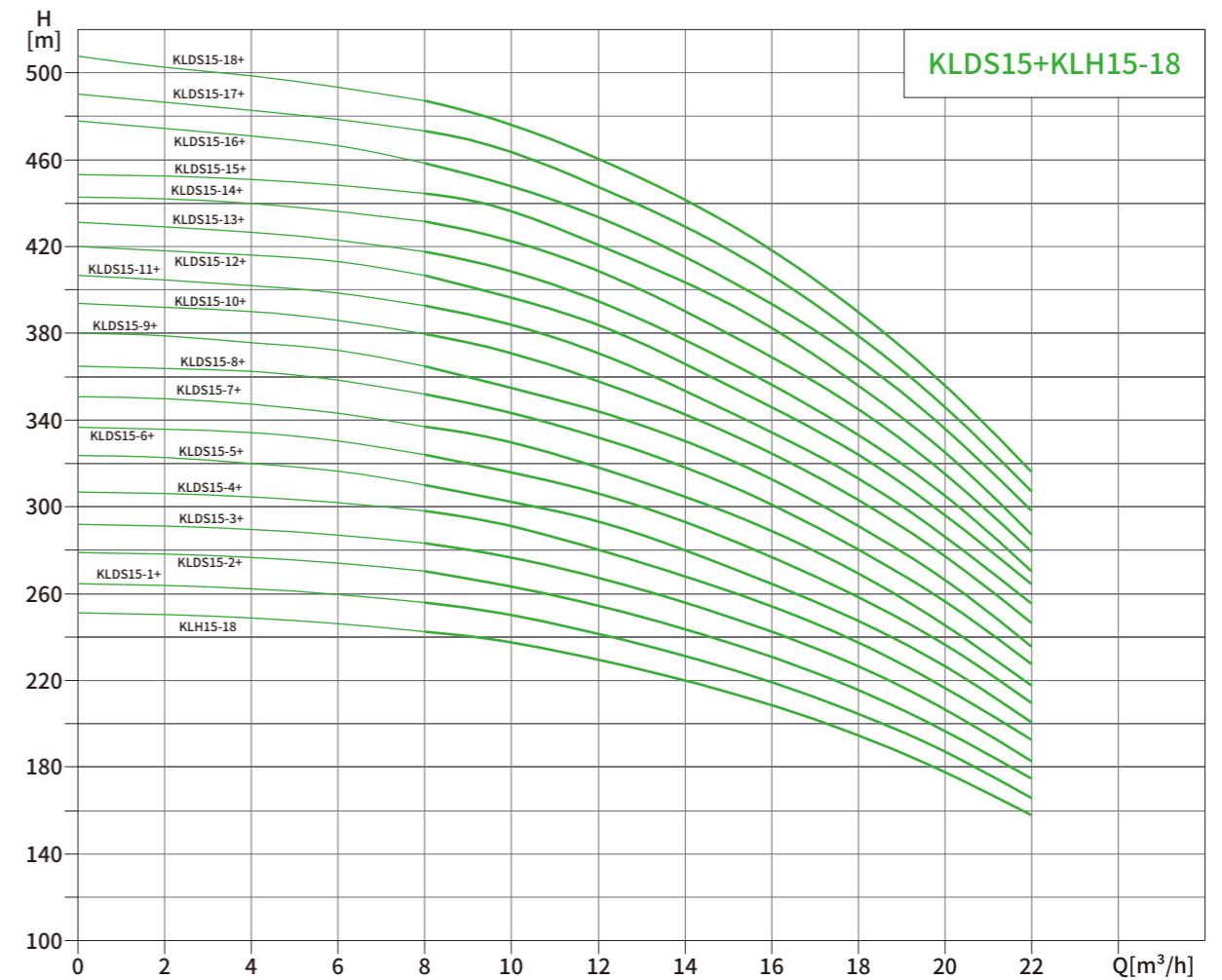
KLDS15-KLH15-18 Installation Dimension Drawing



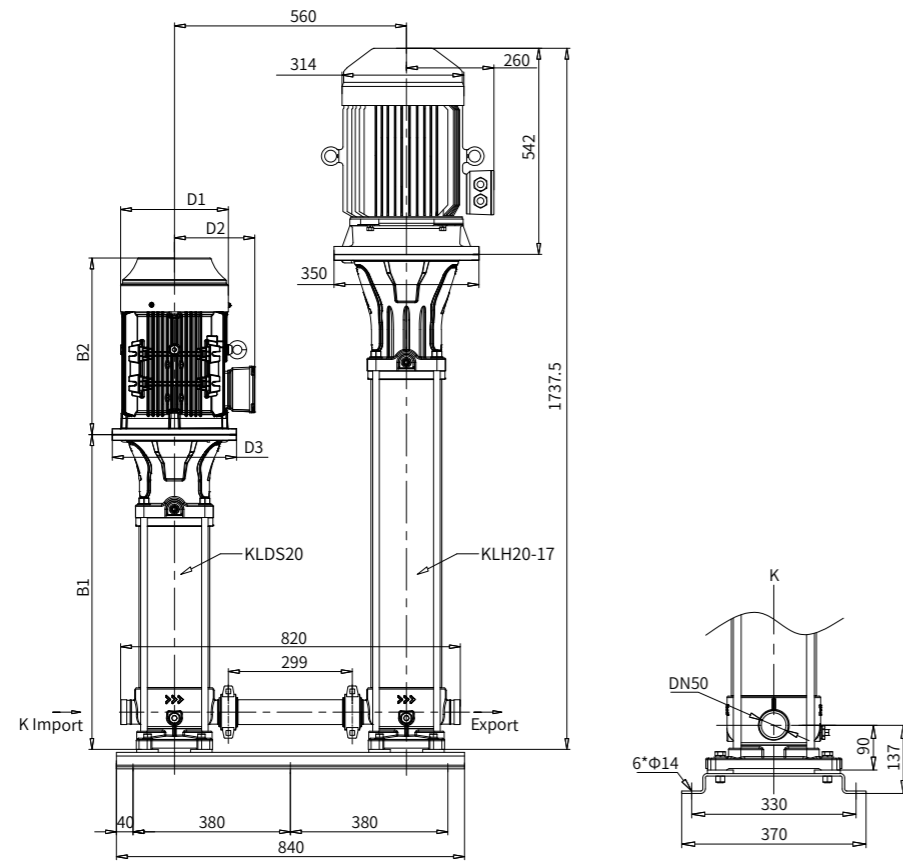
Dimensions and Weight

Model	Dimensions (mm)					Weight (kg)
	B1	B1+B2	D1	D2	D3	
KLDS15-1+KLH15-18	405	692	155	123	200	237.7
KLDS15-2+KLH15-18	411	762	168	132	200	245.5
KLDS15-3+KLH15-18	466	858	194	161	250	253.1
KLDS15-4+KLH15-18	511	922	220	175	250	260.5
KLDS15-5+KLH15-18	556	967			250	262.0
KLDS15-6+KLH15-18	627	1078	260	195	300	281.9
KLDS15-7+KLH15-18	672	1123			300	283.3
KLDS15-8+KLH15-18	717	1218			300	288.8
KLDS15-9+KLH15-18	762	1263			300	290.2
KLDS15-10+KLH15-18	888	1431	311	233	350	356.8
KLDS15-11+KLH15-18	933	1476			350	358.2
KLDS15-12+KLH15-18	978	1521			350	359.6
KLDS15-13+KLH15-18	1023	1566			350	361.1
KLDS15-14+KLH15-18	1068	1611			350	362.5
KLDS15-15+KLH15-18	1113	1656			350	372.0
KLDS15-16+KLH15-18	1158	1701			350	373.4
KLDS15-17+KLH15-18	1203	1746			350	374.8
KLDS15-18+KLH15-18	1248	1791	350	376.3		

Performance Curve



KLDS20-KLH20-17 Installation Dimension Drawing



Dimensions and Weight

Model	Dimensions (mm)					Weight (kg)
	B1	B1+B2	D1	D2	D3	
KLDS20-1+KLH20-17	405	692	155	123	200	247.9
KLDS20-2+KLH20-17	411	762	168	132	200	251.3
KLDS20-3+KLH20-17	466	858	220	175	250	269.3
KLDS20-4+KLH20-17	537	988	260	195	300	289.2
KLDS20-5+KLH20-17	582	1033			300	290.6
KLDS20-6+KLH20-17	627	1128			300	296.1
KLDS20-7+KLH20-17	672	1173			300	297.5
KLDS20-8+KLH20-17	798	1341			350	364.1
KLDS20-9+KLH20-17	843	1386	311	233	350	365.9
KLDS20-10+KLH20-17	888	1431			350	369.0
KLDS20-11+KLH20-17	933	1476			350	370.2
KLDS20-12+KLH20-17	978	1521			350	381.8
KLDS20-13+KLH20-17	1023	1566			350	383.6
KLDS20-14+KLH20-17	1068	1611			350	386.8
KLDS20-15+KLH20-17	1113	1700			350	389.1
KLDS20-16+KLH20-17	1158	1745			350	391.5
KLDS20-17+KLH20-17	1203	1790			350	413.0

Performance Curve

