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## DL系列立式多级离心泵

DL SERIES VERTICAL MULTI-STAGE CENTRIFUGAL PUMP



做精·做强

诚信·务实·双赢



# 产品说明书

PRODUCTS SPECIFICATION

### ① 重要/IMPORTANT

操作人员在使用本产品前,请务必仔细查阅产品说明书,以确保操作安全。  
Please ensure that these instructions are read and understood by machine operators before using the product

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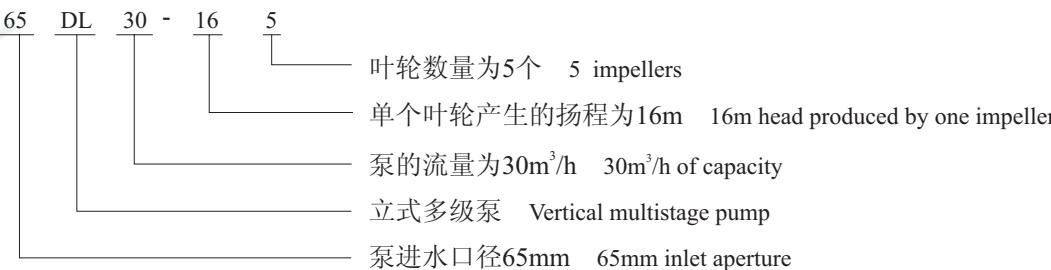
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## 概 述 Overview

- 1、DL系列泵是立式、单吸、多级、分段式离心泵，供输送清水及物理化学性质类似于水的85℃以下的液体之用。
- 2、泵为立式安装，具有结构紧凑、噪声低、占地面积小等特点，主要用于城镇供水及集中供热系统。
- 3、泵型号意义：



- 4、本系列泵所执行的技术标准是：JB/TQ809-89《立式多级泵型式与基本参数》、GB5659-85《多级离心泵技术条件》。
- 5、泵的旋转方向：从电机端往下看，泵为逆时针方向旋转。

- 1.DL series pumps are vertical, single suction, multistage, sectional and centrifugal ones and used for transporting pure water and the liquids below 85°C and with the physical and chemical natures similar to water's.
- 2.Vertically mounted, of a compact structure, low noise, small occupied land etc, features and mainly used for the water supply and the centralized heat supply system in cities.
- 3.Model meaning:

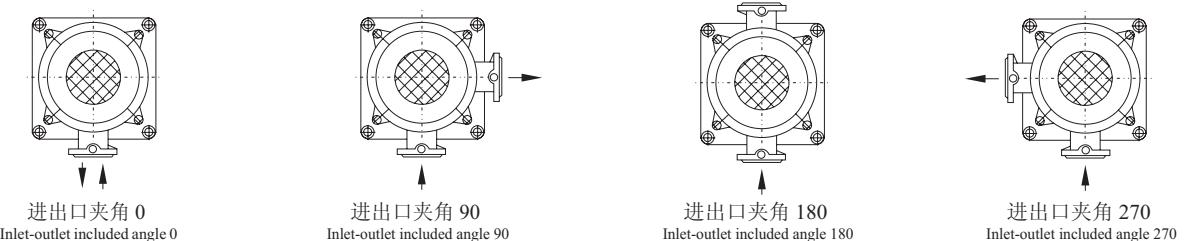
- 4.The technical standard executed for this series pumps is: JB/TQ809-89(Vertical multistage pump model and basic parameters),GB5659-85(Technical conditions for multistage centrifugal pumps).
- 5.Rotating direction of pump:CCW as viewed downward from the motor.

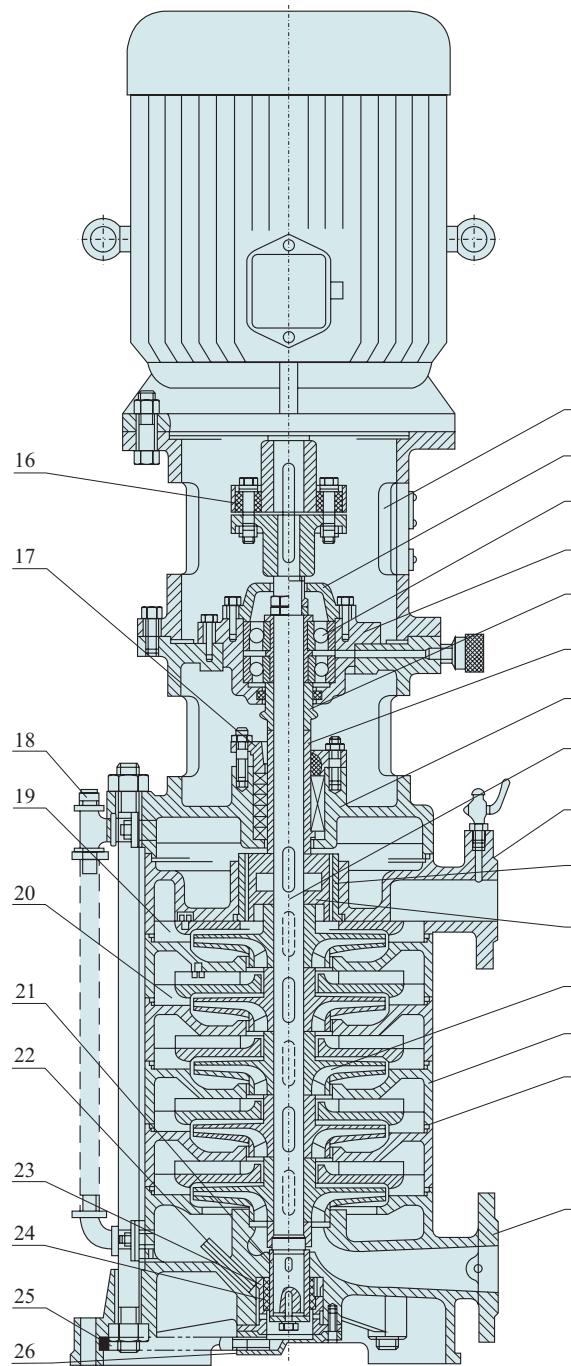
## 结构说明 On structure

- 1、DL型泵为立式结构，其吸入口位于进水段上（泵的下部），吐出口位于出水段上（泵的上部），均呈水平方向布置。可根据使用扬程的需要增减水泵级数。根据安装使用不同，进出口夹角可选用0°、90°、180°、270°四个方位（见下图），以调整吐出口的安装位置（若无特别说明，本公司将按进出口夹角180°出厂）。

- 1.Model DL pump is vertically structured,its suction port is located on the inlet section(lower part of pump),spitting port on the output section(upper part of pump), both are horizontally positioned. The number of stages can be increased or decreased per the required head at use. There are four included angles of 0°,90°,180°and 270°available for selecting per different installations and uses in order to adjust the mounting position of the spitting port (the one when ex-works is 180° if no special note is given).

从电机端看，出口相对进口位置示意图  
Schematic diagram of the position of the outlet relative to the inlet, as viewed from the motor



**DL型泵结构图 DL type pump structure drawing**

- 1.进水段 section casing
- 2.密封圈/密封垫 seal ring/seal pad
- 3.中段 stage casing
- 4.叶轮 impeller
- 5.平衡鼓 balancing sleeve
- 6.平衡套 balancing piston
- 7.出水段 discharge casing
- 8.轴 shaft
- 9.机械密封/填料函体 mechanical seal/filling body
- 10.轴套 shaft sleeve
- 11.挡水套 water retaining sleeve
- 12.轴承体 bearing support
- 13.推力球轴承 thrust ball bearing
- 14.轴承盖 bearing cover
- 15.连接架 linkage stand
- 16.联轴器部件 coupling
- 17.机械密封/填料压盖 mechanical seal/gland cover
- 18.回水管部件 balancing pipe part
- 19.末级导叶 last-stage guide vanes
- 20.导叶 guide vane
- 21.水润滑轴承套 water lubricated bearing sleeve
- 22.防砂管 sand-proof tube
- 23.水润滑轴承体 water lubricated bearing body
- 24.水润滑轴承 submerged bearing
- 25.放水丝堵 drainage wire-jam
- 26.水润滑轴承盖 water lubricated bearing cover

- 2、DL型泵的主要零件有：进水段、中段、出水段、叶轮、导叶、出水段导叶、轴、轴承、轴套、平衡鼓、平衡套、连接架等。
- 2.1 进水段、中段、出水段、导叶、出水段导叶均为铸铁制成，共同形成泵的工作室。
- 2.2 叶轮为铸铁制成，液体沿轴向单侧进入，由于叶轮前后受压不等，会在轴向力，此轴向力绝大部分由平衡鼓来平衡，而小部分残余轴向力由轴上端的球轴承来承受。
- 2.3 轴为优质碳钢制成，中间装有叶轮、平衡鼓和轴套，用键和轴套螺母固定在轴上组成为转子部件。轴的一端装有下轴套，与塑料轴承相配合，另一端装有球轴承，借以支撑转子部件。其上安装联轴器部件与电机直接连接。
- 2.4 平衡鼓、平衡套两者组成泵的平衡装置，磨损后可以更换。
- 2.5 轴封不仅能用软填料，而且可与机械密封互换，当用软填料密封时，轴套磨损后可以更换。  
轴封为机械密封时，采用平衡室内的压力水进行润滑和冷却。  
轴封为填料密封时，出水段上的3/8"软管接头，用于把填料体中漏出的水通过软管排放到地沟里，以保持水泵周围场地的整洁。
- 2.6 泵上端轴承采用二硫化钼润滑脂润滑。
- When as the filling seal, the 3/8" flexible union on the outlet section is used through the flexible pipe to drain the water leaked from the filling body to the underground ditch to keep the place around the pump clean.
- 2.6 The bearing on the upper end of the pump uses molybdenum disulfide grease for lubrication.

**可供选择的材料和结构特性（订货时注明）**  
**Selectable materials and structural characteristics(please note at order)**

- |                           |  |
|---------------------------|--|
| 1 轴封形式<br>shaft seal form | 填料密封<br>filling seal<br>机械密封<br>mechanical seal  |
| 3 叶轮<br>impeller          | 铸铁HT200叶轮<br>cast-iron HT200 impeller<br>ZCuSn10Zn2铜合金叶轮<br>ZCuSn10Zn2 copper alloy impeller |
| 2 轴承<br>bearing           | 国产优质轴承<br>domestic qualified bearing<br>进口低噪音轴承<br>imported low noise bearing                |
| 4 轴<br>shaft              | 45#钢轴<br>45# steel shaft<br>不锈钢轴<br>stainless steel shaft                                    |

## 泵的装配与拆卸 Assembly and disassembly

### 1. 部件组装:

- 1.1 将防砂管插入进水段孔内。将水中轴承装入水中轴承套内，并装在进水段上。
- 1.2 将平衡套压在出水段上，并装上出水段导叶。
- 1.3 在填料体上拧好双头螺柱，装上填料和填料压盖。
- 1.4 装好回水管部件。
- 1.5 在轴上嵌上短键，将下轴套穿入轴上，并用挡圈和螺母压紧固定之。
- 1.6 将电机联轴器装到电机上。

### 2. 总装:

- 2.1 将轴穿入进水段，并将键放在轴键槽内，顺轴装上第一级叶轮。
- 2.2 将已装好导叶的中段顺轴装在出水段上，再装上第二级键、叶轮，重复以上步骤，直至将所有键、叶轮和中段装完。
- 2.3 将出水段装在中段上，装上平衡鼓。
- 2.4 在轴上嵌上短键，装上轴套。轴封为机械密封时，应连同轴套装好，然后穿在轴上，并用密封压盖固定之。轴封为填料时，先装好轴套，再上紧填料，并用填料压盖固定好。
- 2.5 装入挡水套，将轴承盒装在填料体上，并用螺栓紧固。
- 2.6 装上球轴承，并套上轴承挡板，再用螺母紧固。
- 2.7 往轴承盒内注入适量黄油，并将纸垫套在轴承盖上，将轴承盖装到轴承盒上，并用螺栓紧固，再装上泵联轴器，并用手盘动转子，检查转子是否灵活。
- 2.8 将联接架装在填料体上，用螺母紧固之，并在联接架上安装好电机。
- 2.9 在泵上装好回水管部件。
- 2.10 装上联轴器柱销和填料。装好放气旋塞、油杯和所有的丝堵。

### 3. 泵的拆卸按上述相反步骤进行。

### 1. Assembly of parts:

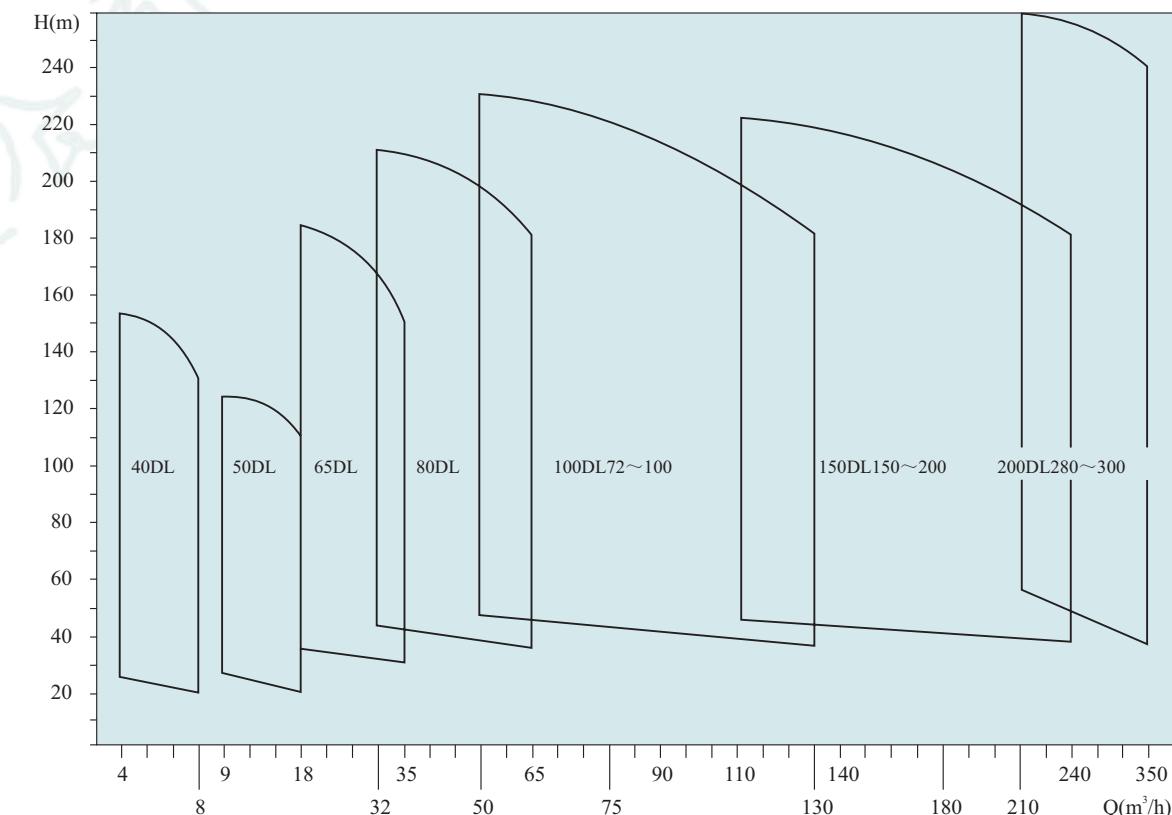
- 1.1 Insert the sand-proof tube into the hole on the inlet section. Put the water bearing into the water bearing sleeve and then in the inlet section.
- 1.2 Press the balance sleeve on both and outlet sections and mount the guide vane on the outlet section.
- 1.3 Tighten the stud on the filling body and place the filling and the filling gland.
- 1.4 Mount the back water pipe.
- 1.5 Inlay the short key on the shaft and put the lower shaft sleeve on, then fix it with the retaining ring and nuts.
- 1.6 Mount the clutch on the motor.

### 2 Assembly:

- 2.1 Insert the shaft into the inlet section and put the key into the key slot on the shaft and mount the first-stage impeller on along with the shaft.
- 2.2 Mount the middle section already mounted with the guide vane on the outlet section along with the shaft, then the secondstage key and impeller, repeat these steps till all keys, impellers and middle sections mounted.
- 2.3 Mount the outlet section on the middle one, the balance drum.
- 2.4 Inlay the short key on the shaft and put on the sleeve. When as a mechanical seal, the shaft seal has to be put on the sleeve, then on the shaft and fixed with a seal gland. In case a packing is used as the axis seal, first place the muff, then the packing and fix it with the packing gland.
- 2.5 Put the water retaining sleeve in. Mount the bearing case on the filling body and tighten it with a bolt.
- 2.6 Mount the ball bearing on and put a bearing baffle on it, then fix with nuts.
- 2.7 Add a proper amount of grease into the bearing case, put a paper pad on the bearing cover, then mount the bearing cover on the case and fix it with a bolt. Then mount the pump clutch and turn the rotor with hand to check if it turns flexibly.
- 2.8 Mount the linkage stand on the filling body and fix it with nuts then mount the motor on the stand.
- 2.9 Mount the back water pipe on the pump.
- 2.10 Mount the postal pin on the clutch and fill the filling. Mount the airbleed cock, oil cup and all wire-jams.

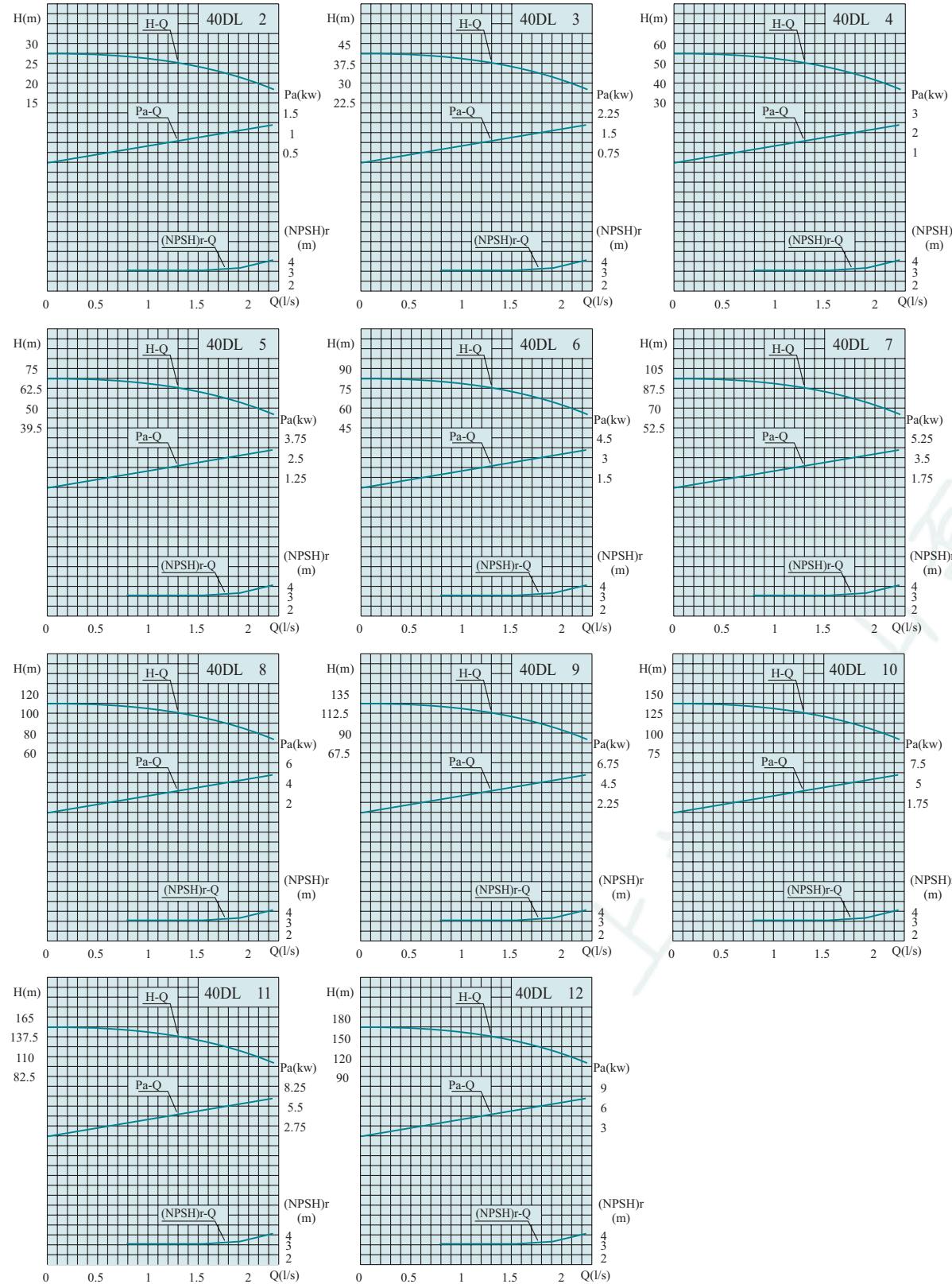
### 3. Take reversed steps to disassemble.

## DL型泵型谱图 DL type pump atlas of style



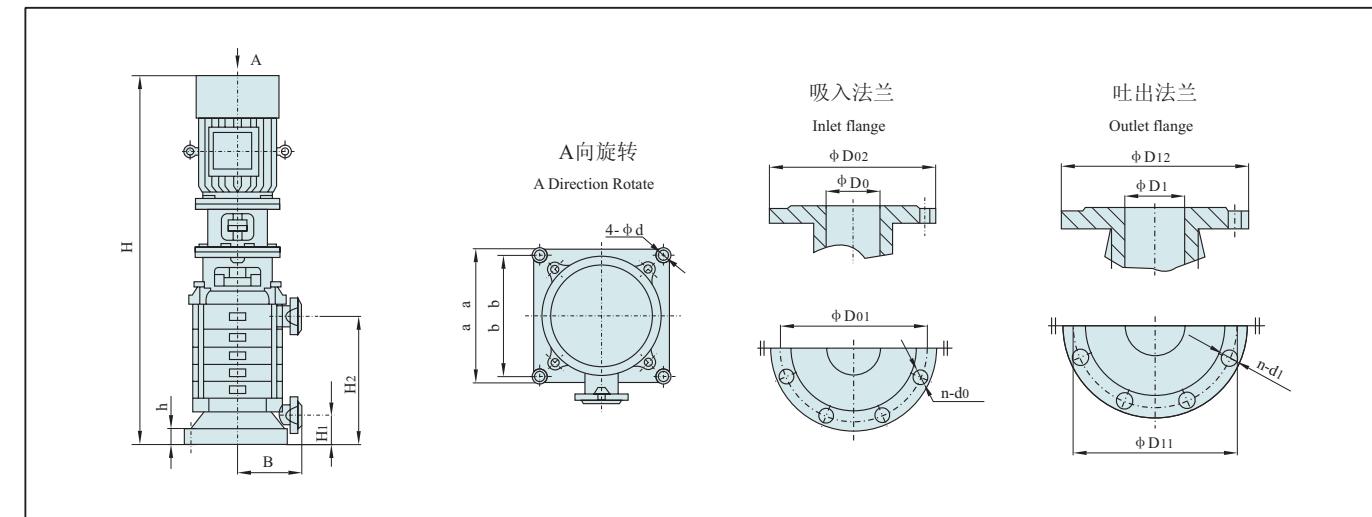
## DL型泵性能曲线图 DL type pump performance curve chart

40DL 2~40DL 12



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

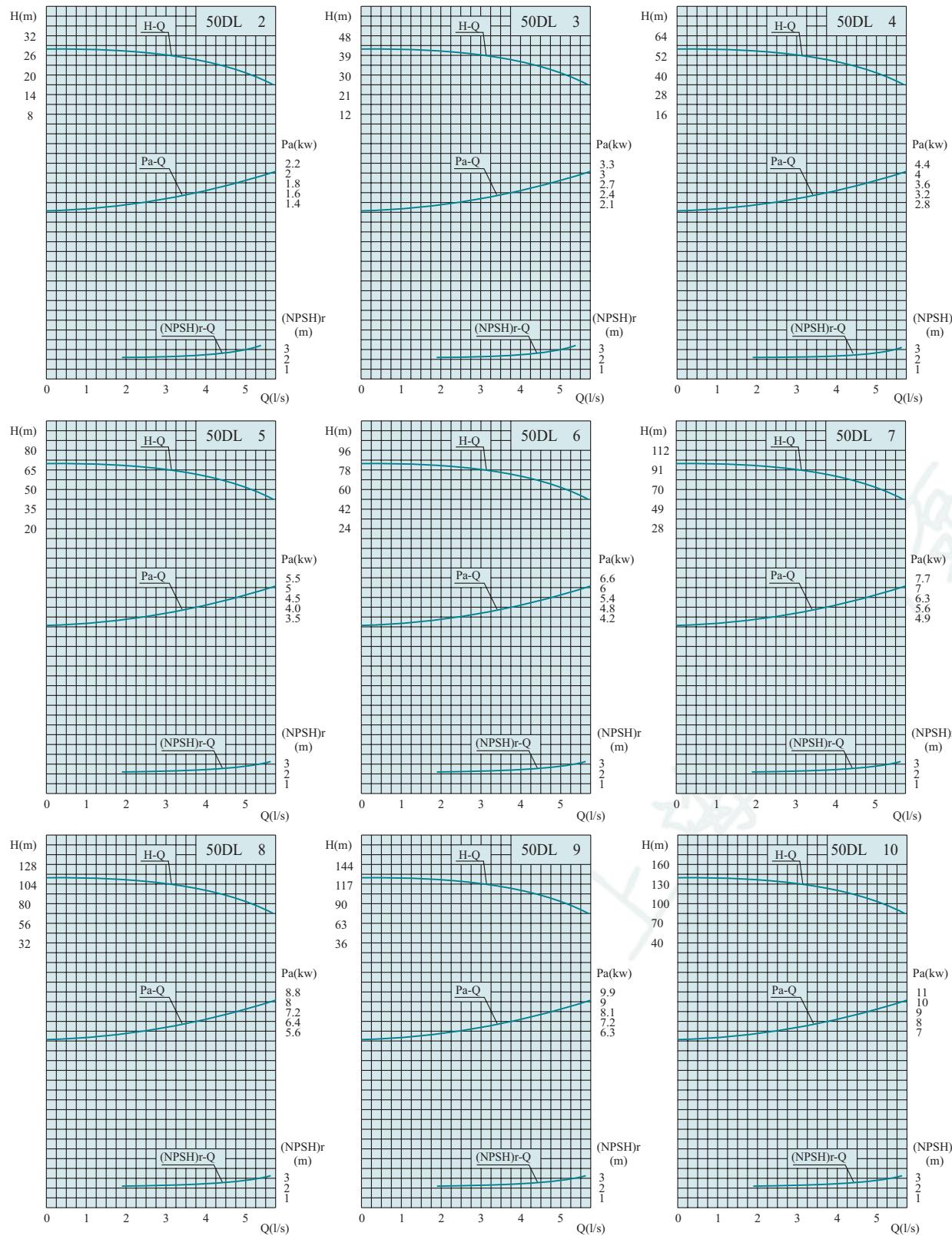
泵型 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余量 NPSHr (m)	重量 Weight (kg)
		(m³/h)	(L/s)					
40DL6-12	2	4.2	1.17	26	23.6	1.5	3	230
	3	4.2	1.17	39	35.4	2.2	3	280
	4	4.2	1.17	52	47.2	3	3	300
	5	4.2	1.17	65	59	4	3	330
	6	4.2	1.17	78	70.8	4	3	350
	7	4.2	1.17	91	82.6	5.5	3	400
40DL6-12	8	4.2	1.17	104	94.4	5.5	3	415
	9	4.2	1.17	117	106	7.5	3	450
	10	4.2	1.17	130	118	7.5	3	470
	11	4.2	1.17	143	130	7.5	3	490
	12	4.2	1.17	156	142	11	3	560



泵型 Pump model	级数 Series	外形尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange						
		H	a	H1	H2	h	B	b	b	4-φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1	
40DL6-12	2	968	345	345	112	282	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	3	1073	345	345	112	342	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	4	1133	345	345	112	402	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	5	1213	345	345	112	462	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	6	1273	345	345	112	522	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	7	1408	345	345	112	582	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	8	1468	345	345	112	642	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	9	1568	345	345	112	702	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	10	1628	345	345	112	762	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	11	1688	345	345	112	822	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5
	12	1833	345	345	112	882	55	225	300	300	φ18	40	110	150	4-φ17.5	40	110	150	4-φ17.5

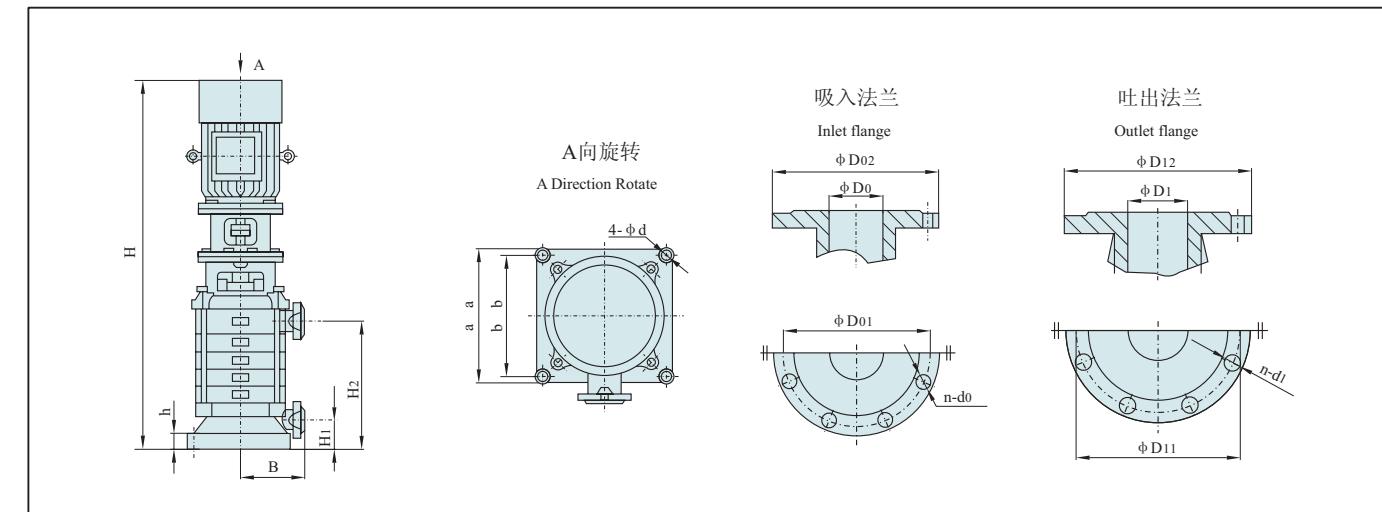
## DL型泵性能曲线图 DL type pump performance curve chart

50DL 2~50DL 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

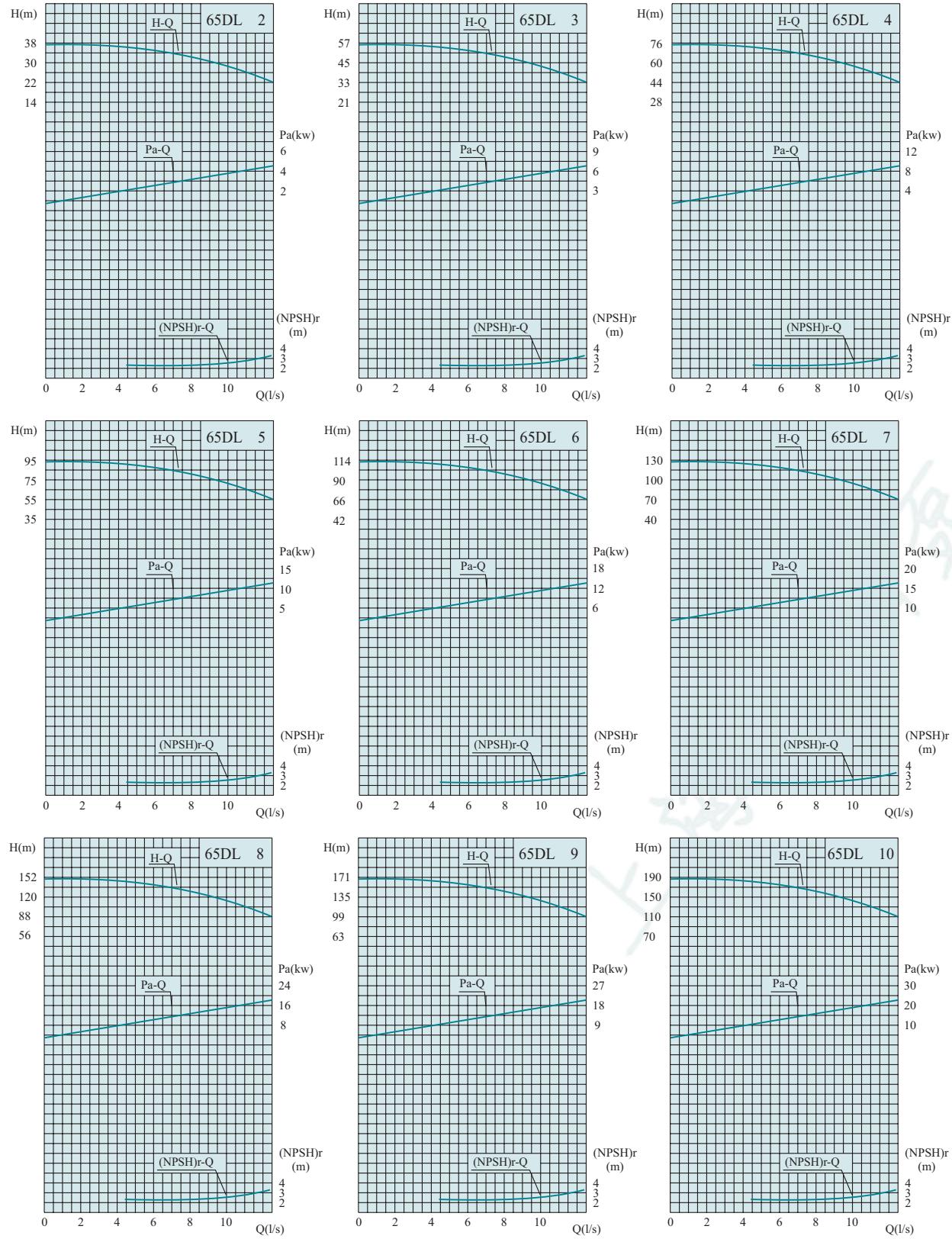
泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	必需汽蚀余量 (NPSH)r (m)	重量 Weight (kg)
		(m³/h)	(L/s)					
50DL12-12.5	2	9	2.5	27	24.4	3	1480	2.6 2.7 3.2 235
	3	9	3.5	40.5	36.6	3	1480	2.6 2.7 3.2 255
	4	9	5	54	48.8	4	1480	2.6 2.7 3.2 285
	5	9	5	67.5	61	5.5	1480	2.6 2.7 3.2 330
	6	9	5	81	73.2	5.5	1480	2.6 2.7 3.2 350
	7	9	5	94.5	85.4	7.5	1480	2.6 2.7 3.2 380
50DL12-12.5	8	9	5	108	97.6	7.5	1480	2.6 2.7 3.2 405
	9	9	5	121.5	110	11	1480	2.6 2.7 3.2 470
	10	9	5	135	122	11	1480	2.6 2.7 3.2 490



泵型号 Pump model	级数 Series	外型尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange						
		H	a	H1	H2	h	B	b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1		
50DL12-12.5	2	1024	345	345	105	293	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	3	1092	345	345	105	361	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	4	1180	345	345	105	429	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	5	1323	345	345	105	497	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	6	1431	345	345	105	565	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	7	1499	345	345	105	633	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	8	1567	345	345	105	701	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	9	1725	345	345	105	769	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5
	10	1793	345	345	105	837	58	220	305	305	φ18	50	125	165	4-Φ17.5	40	110	150	4-Φ17.5

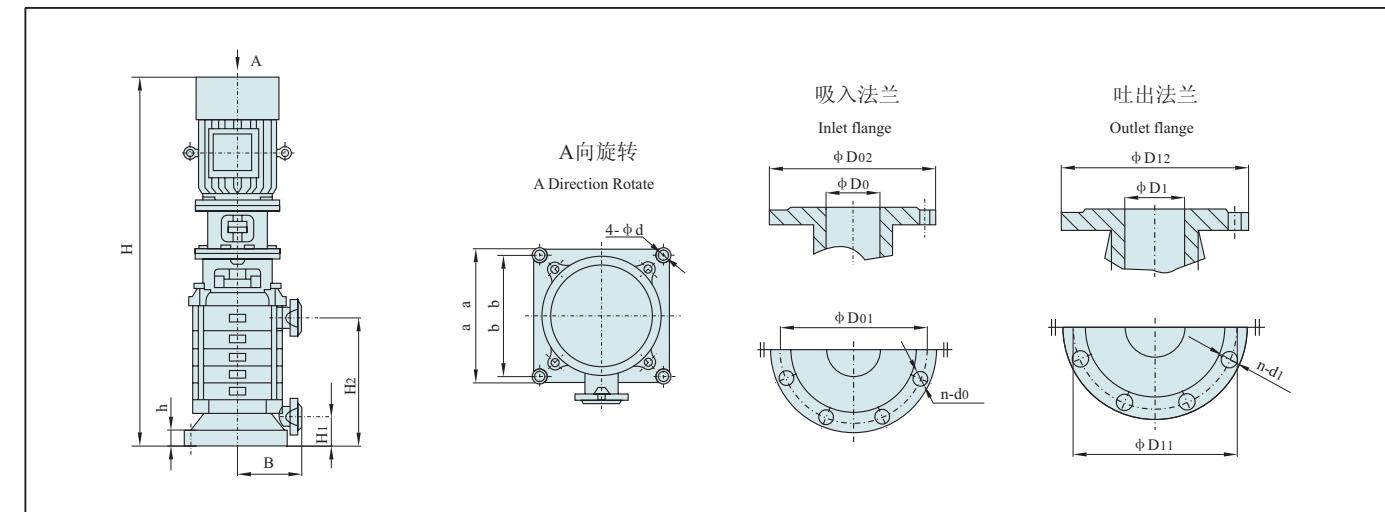
## DL型泵性能曲线图 DL type pump performance curve chart

65DL 2~65DL 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

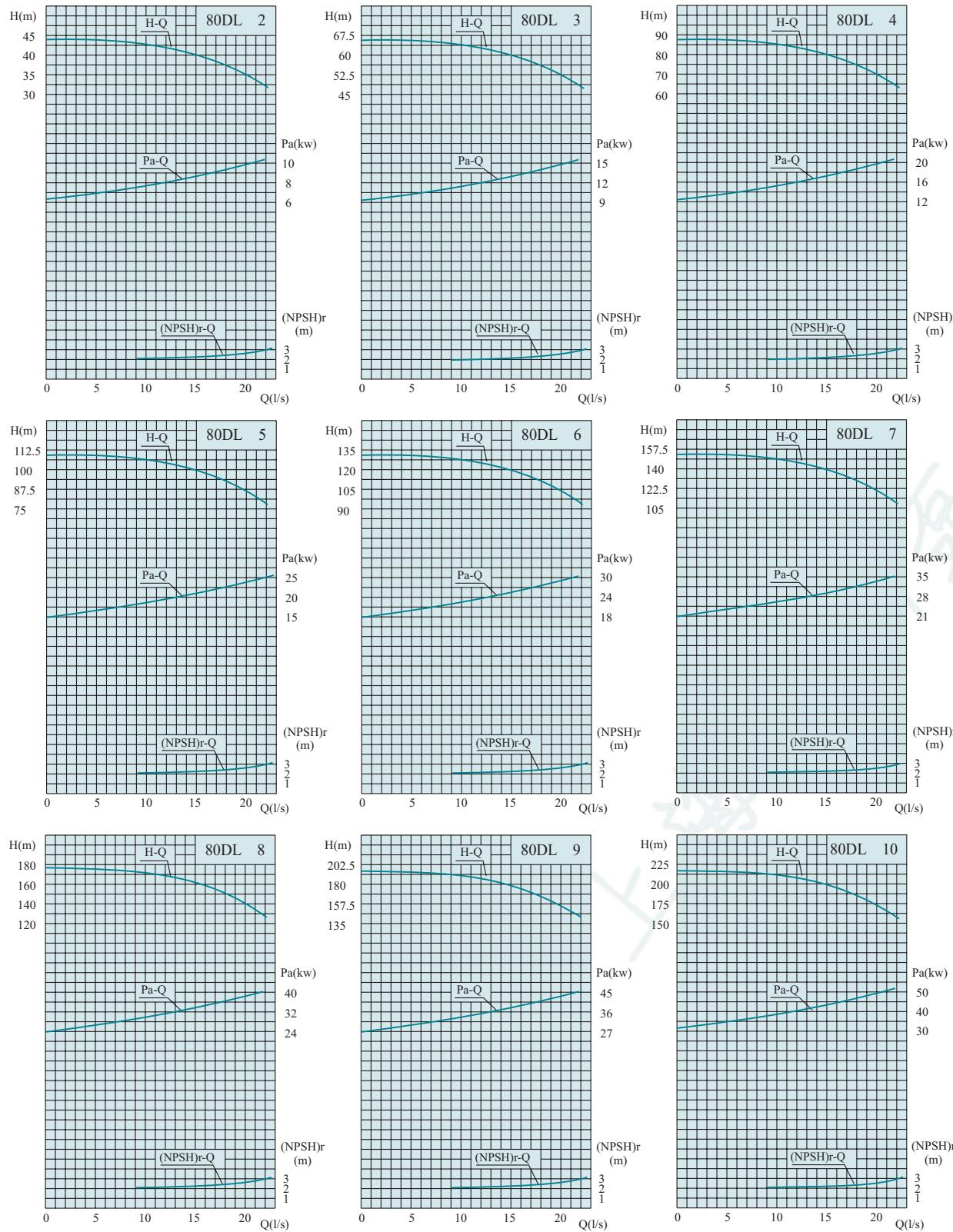
泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余量 NPSH <sub>r</sub> (m)	重量 Weight (kg)	泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余量 NPSH <sub>r</sub> (m)	重量 Weight (kg)
		(m <sup>3</sup> /h)	(L/s)								(m <sup>3</sup> /h)	(L/s)					
65DL30-16	2	18 30 35	5 8.33 9.72	37 32 29	5.5	1480	2.41 2.82 3.03	380	65DL30-16	7	18 30 35	5 8.33 9.72	129.5 112 101.5	18.5	1480	2.41 2.82 3.03	730
	3	18 30 35	5 8.33 9.72	55.5 48 43.5	7.5	1480	2.41 2.82 3.03	450		8	18 30 35	5 8.33 9.72	148 128 116	22	1480	2.41 2.82 3.03	795
	4	18 30 35	5 8.33 9.72	74 64 58	11	1480	2.41 2.82 3.03	540		9	18 30 35	5 8.33 9.72	166.5 144 130.5	22	1480	2.41 2.82 3.03	840
	5	18 30 35	5 8.33 9.72	92.5 80 72.5	15	1480	2.41 2.82 3.03	600		10	18 30 35	5 8.33 9.72	185 160 145	30	1480	2.41 2.82 3.03	965
	6	18 30 35	5 8.33 9.72	111 96 87	15	1480	2.41 2.82 3.03	645									



泵型号 Pump model	级数 Series	外形尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange				吐出法兰 Outlet flange					
		H	a	H <sub>1</sub>	H <sub>2</sub>	h	B	b	b	4-Φd	D <sub>0</sub>	D <sub>01</sub>	D <sub>02</sub>	n-d <sub>0</sub>	D <sub>1</sub>	D <sub>11</sub>	D <sub>12</sub>	n-d <sub>1</sub>	
65DL30-16	2	1217	430	430	167	364	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	3	1337	430	430	167	444	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	4	1522	430	430	167	524	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	5	1647	430	430	167	604	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	6	1727	430	430	167	684	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	7	1832	430	430	167	764	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	8	1952	430	430	167	844	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	9	2032	430	430	167	924	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5
	10	2177	430	430	167	1004	45	260	370	370	Φ26	65	145	185	4-Φ17.5	50	125	165	4-Φ17.5

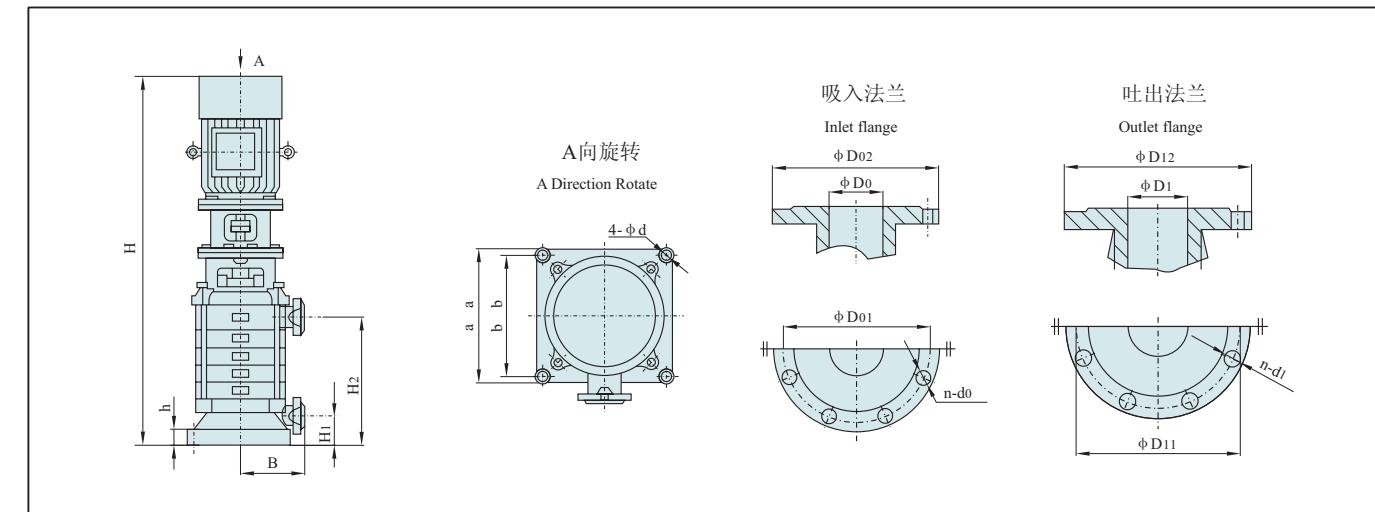
## DL型泵性能曲线图 DL type pump performance curve chart

80DL 2~80DL 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

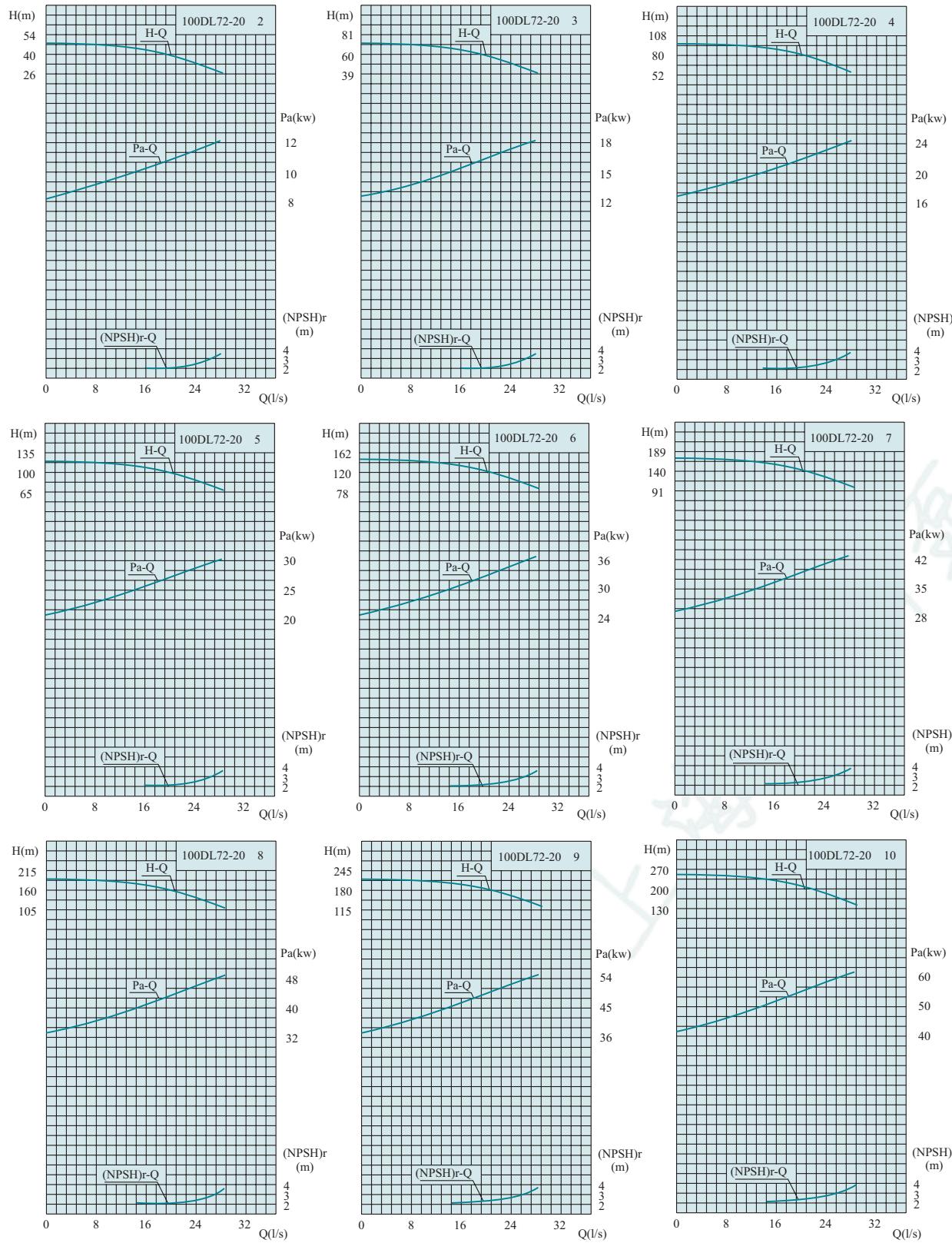
泵型 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	必需汽蚀余量 (NPSH)r (m)	重量 Weight (kg)
		(m³/h)	(L/s)					
80DL50-20	2	32.4 50.4 65	9 14 18	42 40 36	11	1480	2.2 2.5 2.8	570
	3	32.4 50.4 65	9 14 18	63 60 54	15	1480	2.2 2.5 2.8	640
	4	32.4 50.4 65	9 14 18	84 80 72	22	1480	2.2 2.5 2.8	760
	5	32.4 50.4 65	9 14 18	105 100 90	30	1480	2.2 2.5 2.8	900
	6	32.4 50.4 65	9 14 18	126 120 108	30	1480	2.2 2.5 2.8	945
	7	32.4 50.4 65	9 14 18	151 140 120	37	1480	2.2 2.5 2.8	1040
80DL50-20	8	32.4 50.4 65	9 14 18	173 160 137	45	1480	2.2 2.5 2.8	1120
	9	32.4 50.4 65	9 14 18	194 180 154	45	1480	2.2 2.5 2.8	1175
	10	32.4 50.4 65	9 14 18	216 200 171	55	1480	2.2 2.5 2.8	1335



泵型 Pump model	级数 Series	外型尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange				
		H	a	H1	H2	h	B	b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1
80DL50-20	2	1396	470 470	150	427	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	3	1530	470 470	150	516	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	4	1684	470 470	150	605	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	5	1838	470 470	150	694	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	6	1927	470 470	150	783	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	7	2061	470 470	150	872	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	8	2175	470 470	150	961	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	9	2264	470 470	150	1050	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5
	10	2543	470 470	150	1139	55	280	410 410	Φ26	80	160	200	8-Φ17.5	65	145	185	8-Φ17.5

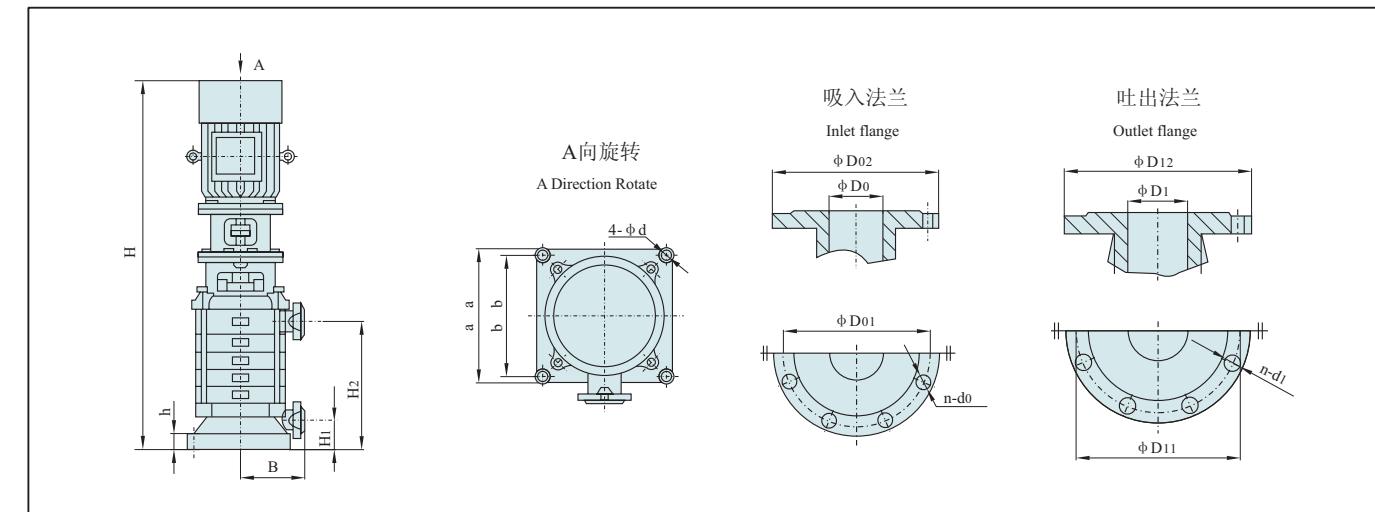
## DL型泵性能曲线图 DL type pump performance curve chart

100DL72-20 2~100DL72-20 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

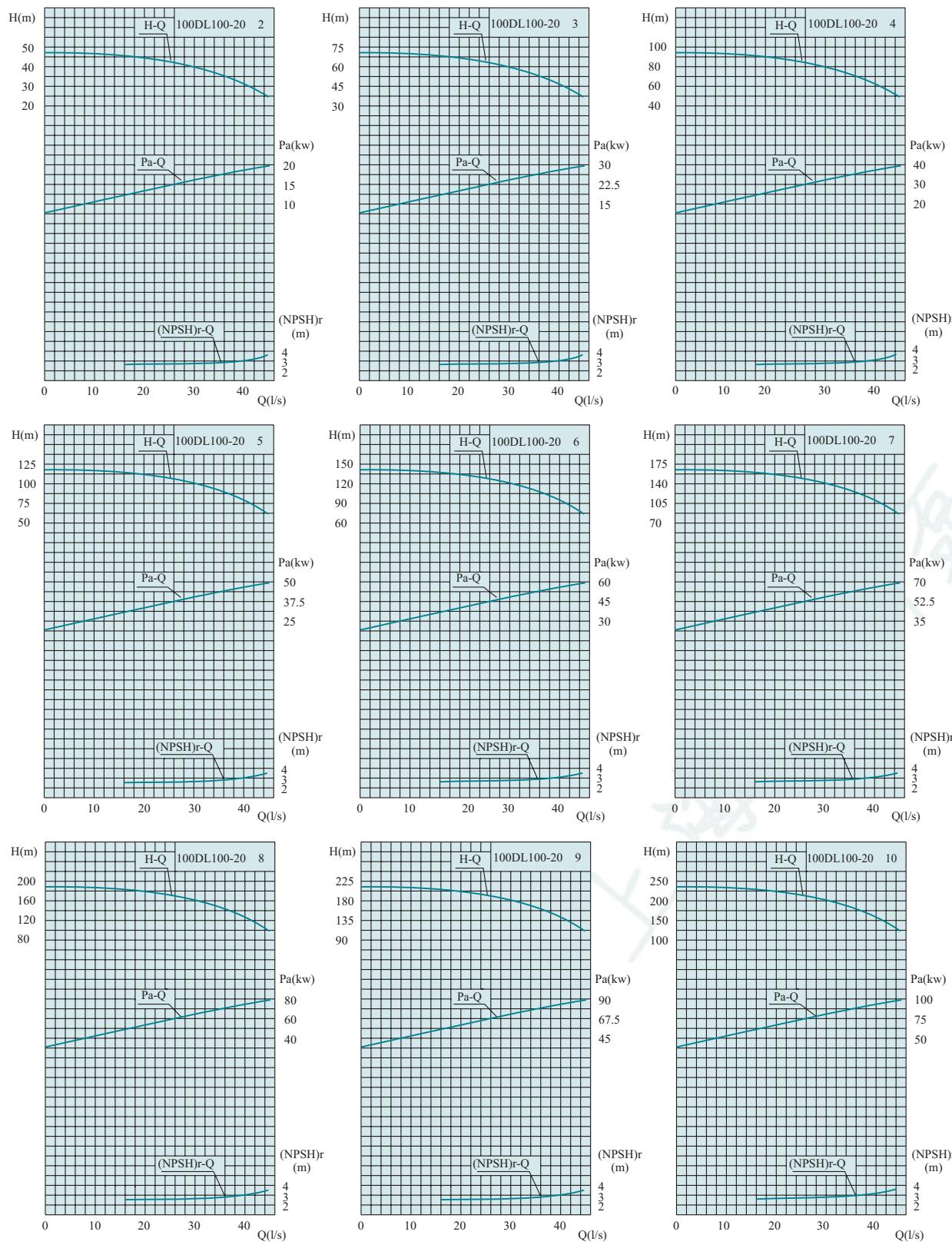
泵型 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余量 NPSH <sub>r</sub> (m)	重量 Weight (kg)	泵型 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余量 NPSH <sub>r</sub> (m)	重量 Weight (kg)
		(m <sup>3</sup> /h)	(L/s)								(m <sup>3</sup> /h)	(L/s)					
100DL72-20	2	50.4 72 86.4	14 20 24	46 40 36	15	1480	2.2 2.8 3.1	755	100DL72-20	7	50.4 72 86.4	14 20 24	157 140 126	45	1480	2.2 2.8 3.1	1435
	3	50.4 72 86.4	14 20 24	69 60 54	18.5	1480	2.2 2.8 3.1	890		8	50.4 72 86.4	14 20 24	184 160 144	55	1480	2.2 2.8 3.1	1490
	4	50.4 72 86.4	14 20 24	92 80 72	30	1480	2.2 2.8 3.1	985		9	50.4 72 86.4	14 20 24	207 180 162	55	1480	2.2 2.8 3.1	1590
	5	50.4 72 86.4	14 20 24	115 100 90	37	1480	2.2 2.8 3.1	1070		10	50.4 72 86.4	14 20 24	230 200 180	75	1480	2.2 2.8 3.1	1650
	6	50.4 72 86.4	14 20 24	138 120 108	37	1480	2.2 2.8 3.1	1235									



泵型 Pump model	级数 Series	外型尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange				
		H	a	H1	H2	h	B	b	b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12
100DL72-20	2	1460	465 465	172	467	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	3	1628	465 465	172	570	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	4	1796	465 465	172	673	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	5	1944	465 465	172	776	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	6	2072	465 465	172	879	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	7	2365	465 465	172	982	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	8	2468	465 465	172	1085	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	9	2656	465 465	172	1188	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	10	2759	465 465	172	1291	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5

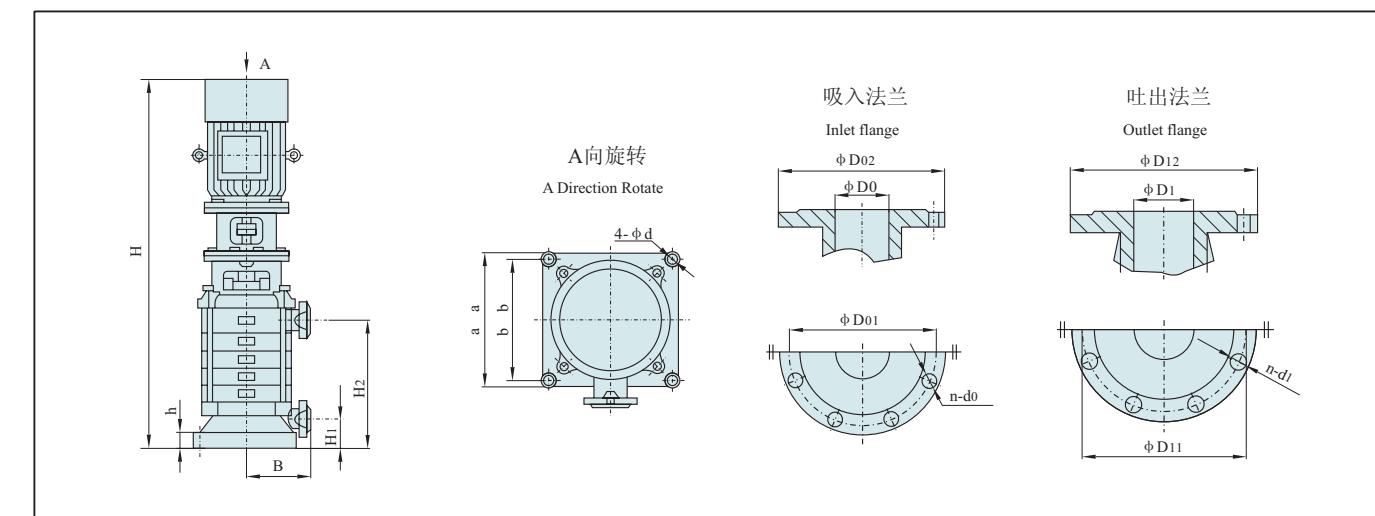
## DL型泵性能曲线图 DL type pump performance curve chart

100DL100-20 2~100DL100-20 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

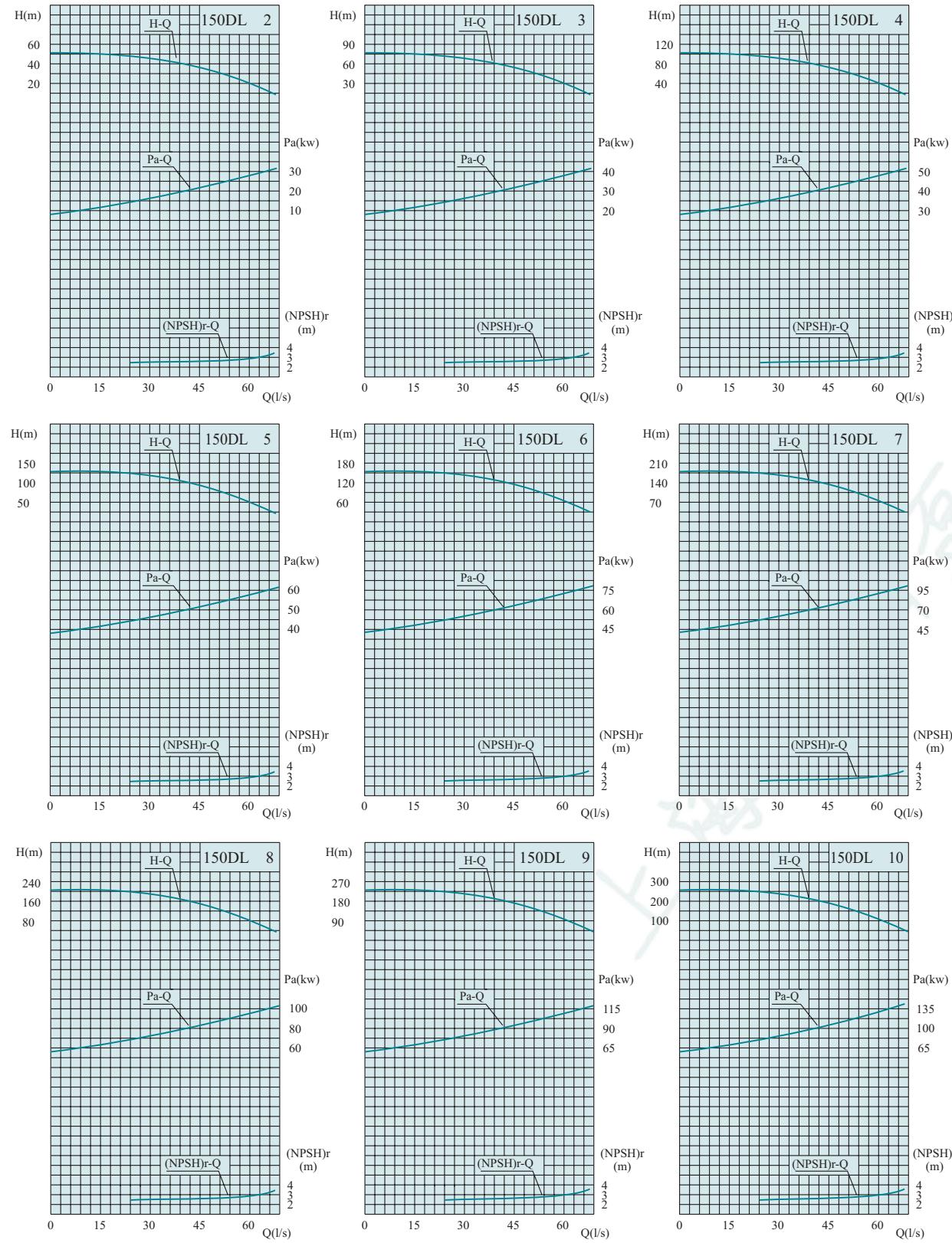
泵型号 Pump model	级数 Series	流量Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙腔 (NPSH)r (m)	重量 Weight (kg)	泵型号 Pump model	级数 Series	流量Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙腔 (NPSH)r (m)	重量 Weight (kg)
		(m³/h)	(L/s)								(m³/h)	(L/s)					
100DL100-20	2	72 100 126	20 27.8 35	46 40 36	18.5	1480	2.8 3.5 4.4	765	100DL100-20	7	72 100 126	20 27.8 35	157 140 126	75	1480	2.8 3.5 4.4	1445
	3	72 100 126	20 27.8 35	69 60 54	30	1480	2.8 3.5 4.4	900		8	72 100 126	20 27.8 35	184 160 144	75	1480	2.8 3.5 4.4	1500
	4	72 100 126	20 27.8 35	92 80 72	37	1480	2.8 3.5 4.4	995		9	72 100 126	20 27.8 35	207 180 162	90	1480	2.8 3.5 4.4	1600
	5	72 100 126	20 27.8 35	115 100 90	45	1480	2.8 3.5 4.4	1080		10	72 100 126	20 27.8 35	230 200 180	90	1480	2.8 3.5 4.4	1660
	6	72 100 126	20 27.8 35	138 120 108	55	1480	2.8 3.5 4.4	1245									



泵型号 Pump model	级数 Series	外型尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange				
		H	a	H1	H2	h	B	b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1
100DL100-20	2	1485	465 465	172	467	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	3	1693	465 465	172	570	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	4	1841	465 465	172	673	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	5	1969	465 465	172	776	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	6	2262	465 465	172	879	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	7	2450	465 465	172	982	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	8	2553	465 465	172	1085	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	9	2706	465 465	172	1188	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5
	10	2809	465 465	172	1291	50	280	410 410	Φ24	100	180	220	8-Φ17.5	80	160	200	8-Φ17.5

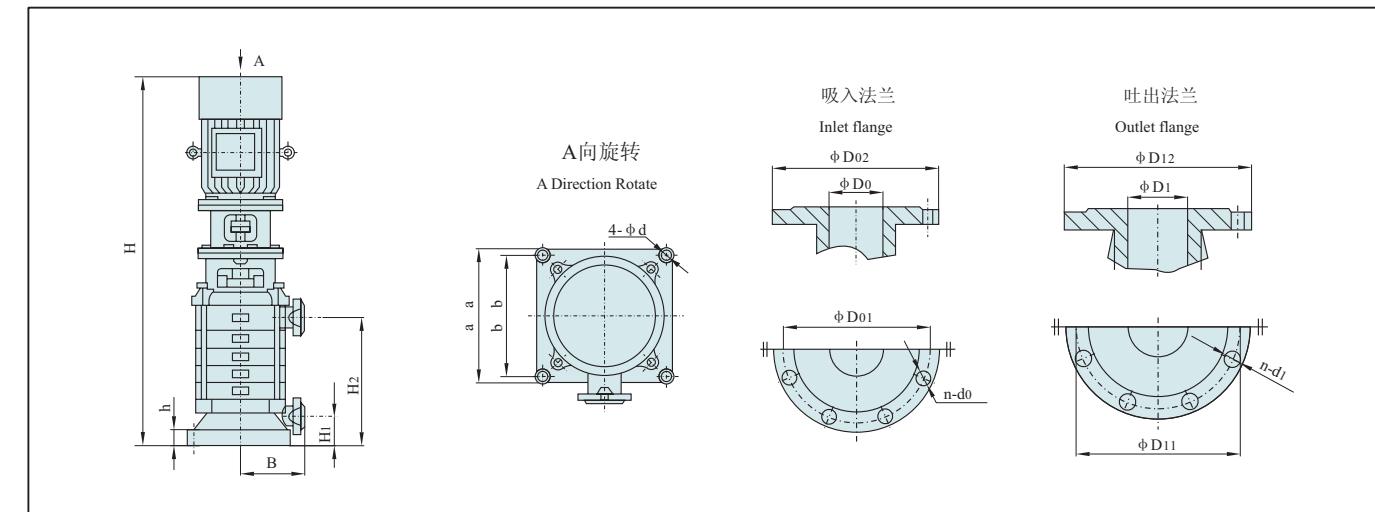
## DL型泵性能曲线图 DL type pump performance curve chart

150DL150-20 2~150DL150-20 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

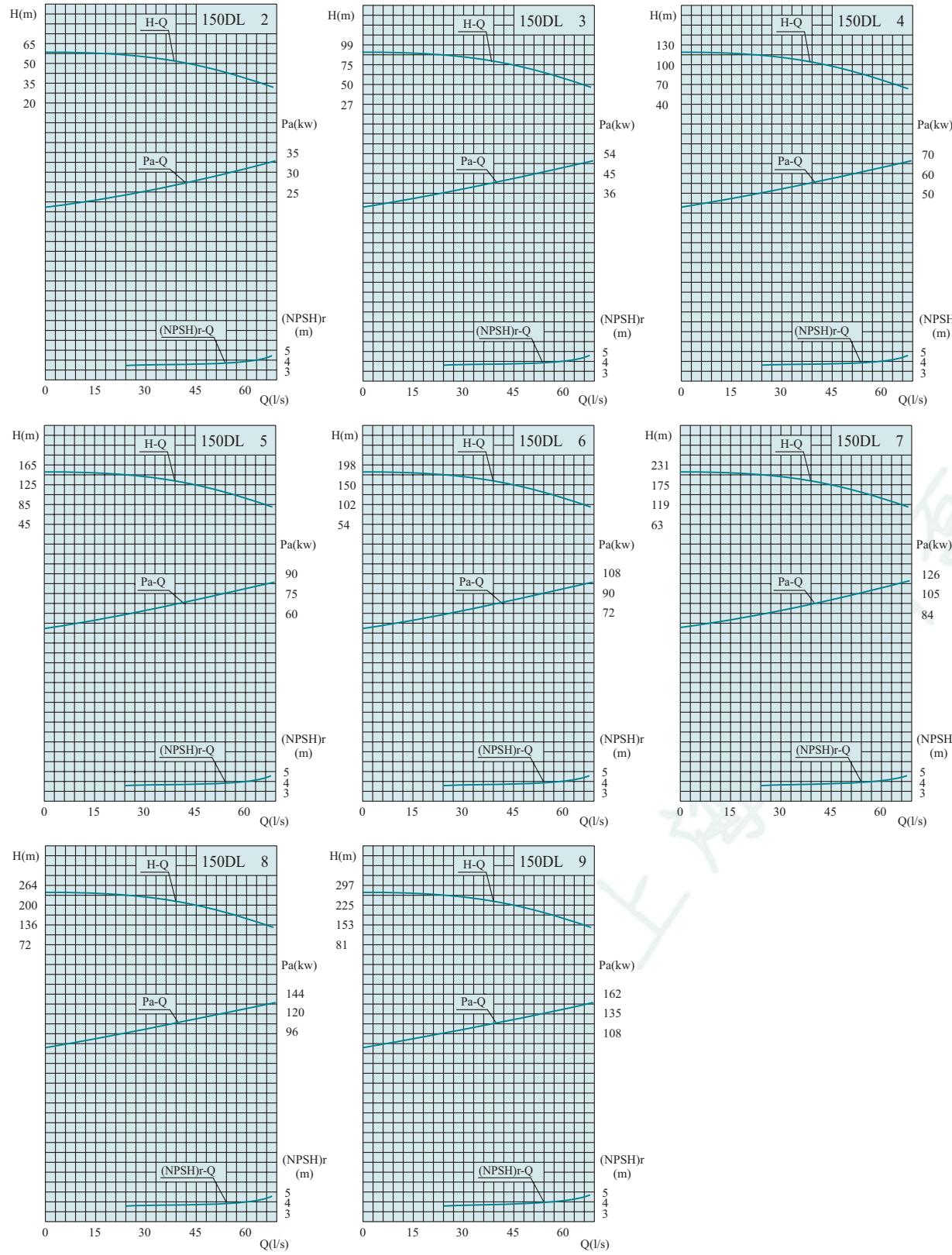
泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	必需汽蚀余量 NPSHr (m)	重量 Weight (kg)
		(m³/h)	(L/s)					
150DL150-20	2	108 150 180	30 41.6 50	45 40 34	30	1480	2.2 2.8 3.7	815
	3	108 150 180	30 41.6 50	67.5 60 51	37	1480	2.2 2.8 3.7	960
	4	108 150 180	30 41.6 50	90 80 68	45	1480	2.2 2.8 3.7	1100
	5	108 150 180	30 41.6 50	112.5 100 85	55	1480	2.2 2.8 3.7	1245
	6	108 150 180	30 41.6 50	135 120 102	75	1480	2.2 2.8 3.7	1410
	7	108 150 180	30 41.6 50	157.5 140 119	90	1480	2.2 2.8 3.7	1560
150DL150-20	8	108 150 180	30 41.6 50	180 160 136	90	1480	2.2 2.8 3.7	1710
	9	108 150 180	30 41.6 50	200 180 156	110	1480	2.2 2.8 3.7	1870
	10	108 150 180	30 41.6 50	220 200 176	132	1480	2.2 2.8 3.7	2050



泵型号 Pump model	级数 Series	外型尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange						
		H	a	H1	H2	h	B	b	b1	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1	
150DL150-20	2	1745	600	600	208	559	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	3	1920	600	600	208	689	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	4	2265	600	600	208	819	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	5	2480	600	600	208	949	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	6	2610	600	600	208	1079	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	7	2790	600	600	208	1209	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	8	3140	600	600	208	1339	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	9	3270	600	600	208	1469	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26
	10	3500	600	600	208	1599	65	380	550	550	Φ26	150	240	285	8-Φ22	125	220	270	8-Φ26

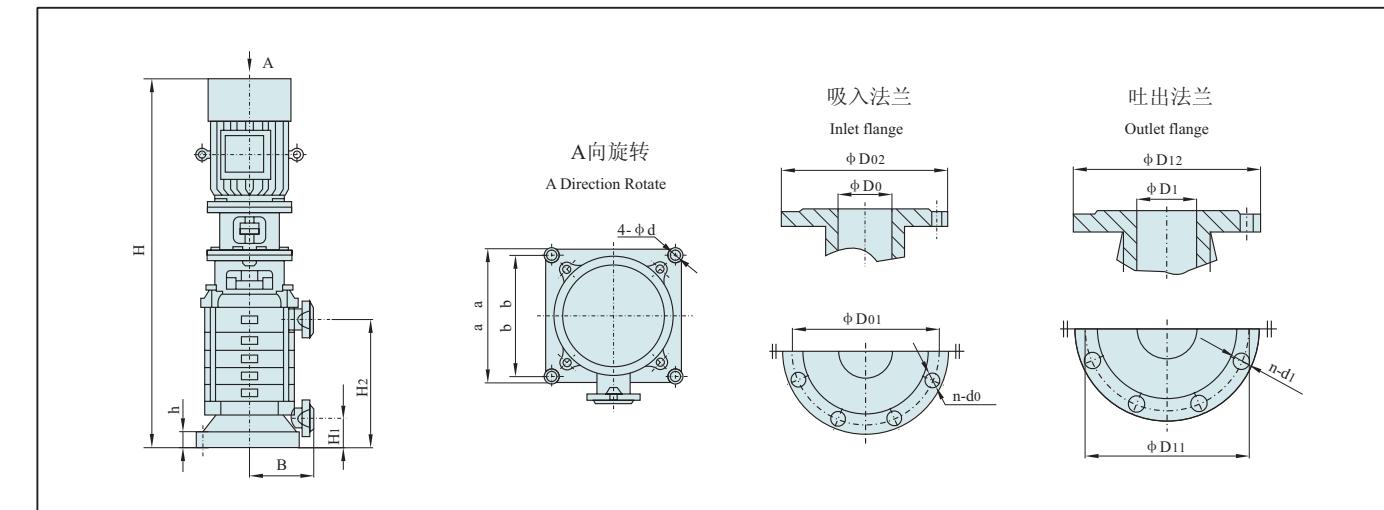
## DL型泵性能曲线图 DL type pump performance curve chart

150DL160-25 2~150DL160-25 9



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

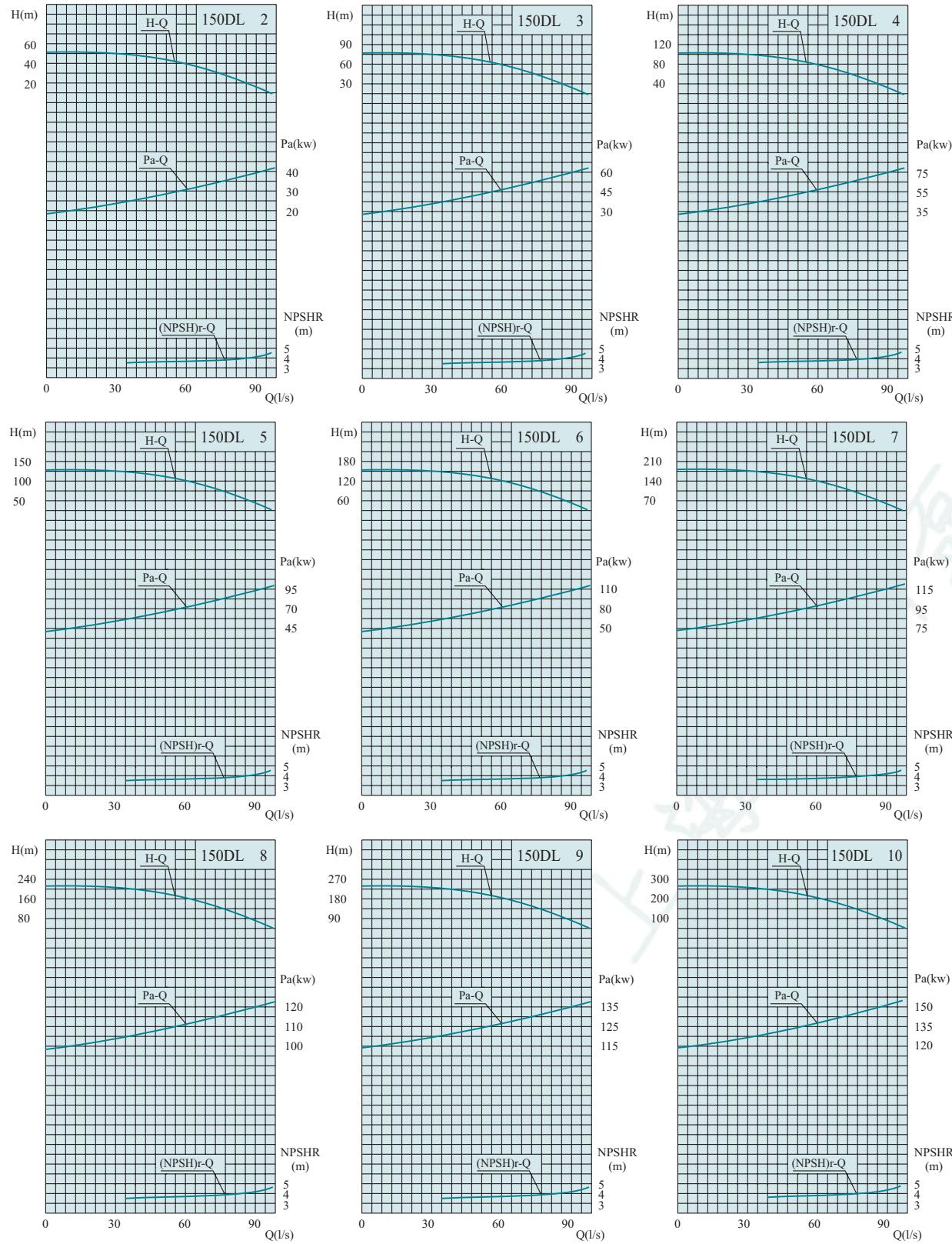
泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙水头 (NPSH)r (m)	重量 Weight (kg)	泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙水头 (NPSH)r (m)	重量 Weight (kg)
		(m³/h)	(L/s)								(m³/h)	(L/s)					
150DL160-25	2	120	33.3	53	37	1480	3.1	825	150DL160-25	6	120	33.3	159	3.1	1410		
		160	44.4	50			3.5				160	44.4	150	3.5			
		200	55.6	44			3.8				200	55.6	132	3.8			
	3	120	33.3	79.5	55	1480	3.1	970		7	120	33.3	186	3.1			
		160	44.4	75			3.5				160	44.4	175	3.5			
150DL160-25	4	120	33.3	106	75	1480	3.1	1110		8	120	33.3	212	3.1			
		160	44.4	100			3.5				160	44.4	200	3.5			
		200	55.6	88			3.8				200	55.6	176	3.8			
	5	120	33.3	133	90	1480	3.1	1255		9	120	33.3	239	3.1			
		160	44.4	125			3.5				160	44.4	225	3.5			
		200	55.6	110			3.8				200	55.6	198	3.8			



泵型号 Pump model	级数 Series	外型尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange						
		H	a	H1	H2	h	B	b	b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1	
150DL160-25	2	1985	600	600	208	559	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	3	2330	600	600	208	689	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	4	2545	600	600	208	819	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	5	2725	600	600	208	949	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	6	3075	600	600	208	1079	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	7	3305	600	600	208	1209	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	8	3435	600	600	208	1339	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	9	3565	600	600	208	1469	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26

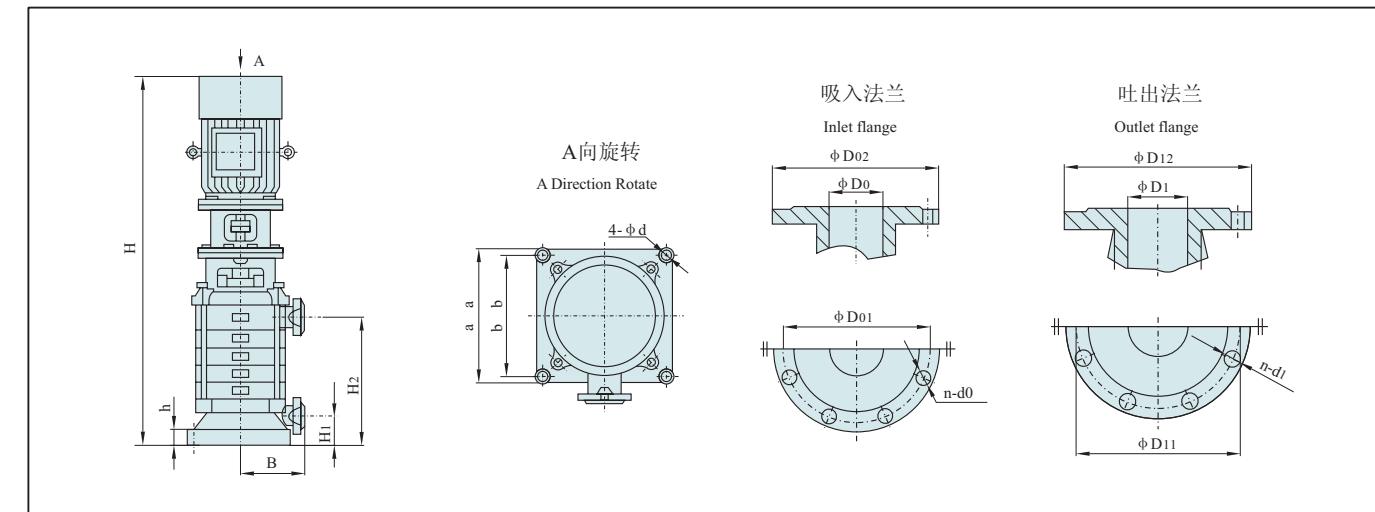
## DL型泵性能曲线图 DL type pump performance curve chart

150DL200-20 2~150DL200-20 10



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

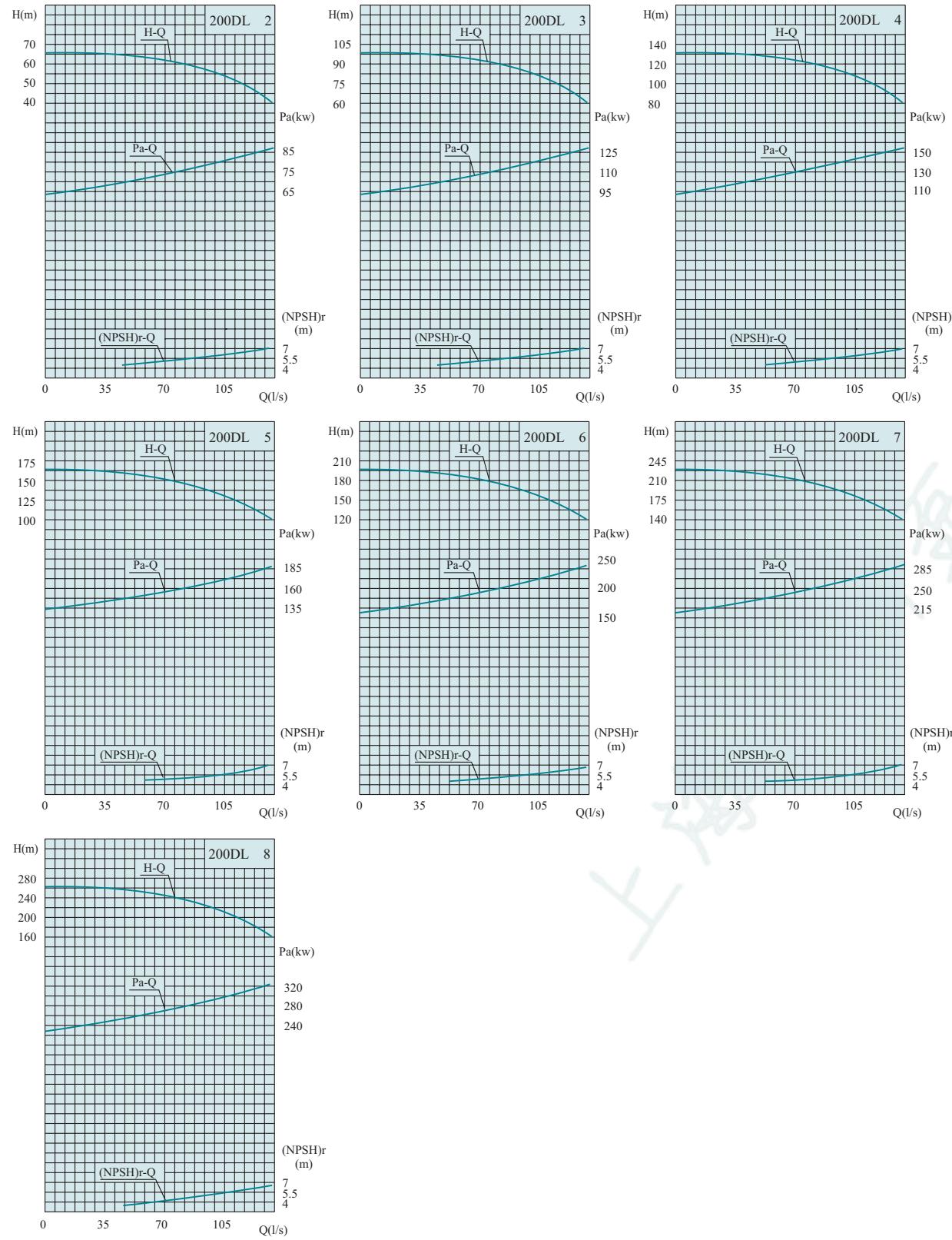
泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙汽蚀量 NPSH <sub>r</sub> (m)	重量 Weight (kg)
		(m <sup>3</sup> /h)	(L/s)					
150DL200-20	2	140 200 240	38.9 55.6 66.7	45 40 34	37	1480	3 3.5 4.1	825
	3	140 200 240	38.9 55.6 66.7	67.5 60 51	55	1480	3 3.5 4.1	970
	4	140 200 240	38.9 55.6 66.7	90 80 68	75	1480	3 3.5 4.1	1110
	5	140 200 240	38.9 55.6 66.7	112.5 100 85	90	1480	3 3.5 4.1	1255
	6	140 200 240	38.9 55.6 66.7	135 120 102	110	1480	3 3.5 4.1	1410
	7	140 200 240	38.9 55.6 66.7	157.5 140 119	110	1480	3 3.5 4.1	1570
150DL200-20	8	140 200 240	38.9 55.6 66.7	180 160 136	132	1480	3 3.5 4.1	1720
	9	140 200 240	38.9 55.6 66.7	200 180 156	160	1480	3 3.5 4.1	1880
	10	140 200 240	38.9 55.6 66.7	220 200 176	160	1480	3 3.5 4.1	2050



泵型号 Pump model	级数 Series	外形尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange						
		H	a	H <sub>1</sub>	H <sub>2</sub>	h	B	b	b	4-Φd	D <sub>0</sub>	D <sub>01</sub>	D <sub>02</sub>	n-d <sub>0</sub>	D <sub>1</sub>	D <sub>11</sub>	D <sub>12</sub>	n-d <sub>1</sub>	
150DL200-20	2	1985	600	600	208	559	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	3	2330	600	600	208	689	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	4	2545	600	600	208	819	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	5	2725	600	600	208	949	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	6	3075	600	600	208	1079	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	7	3205	600	600	208	1209	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	8	3435	600	600	208	1339	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	9	3565	600	600	208	1469	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26
	10	3695	600	600	208	1599	73	380	550	550	Φ24	150	240	285	8-Φ22	125	220	270	8-Φ26

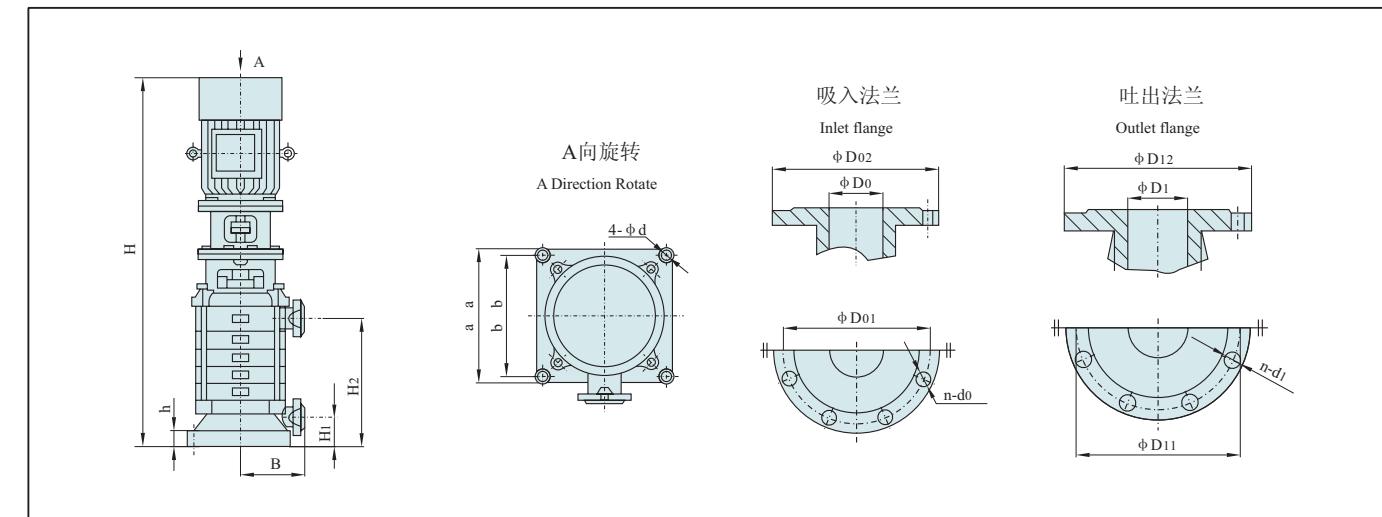
## DL型泵性能曲线图 DL type pump performance curve chart

200DL280-30 2~200DL280-30 8



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

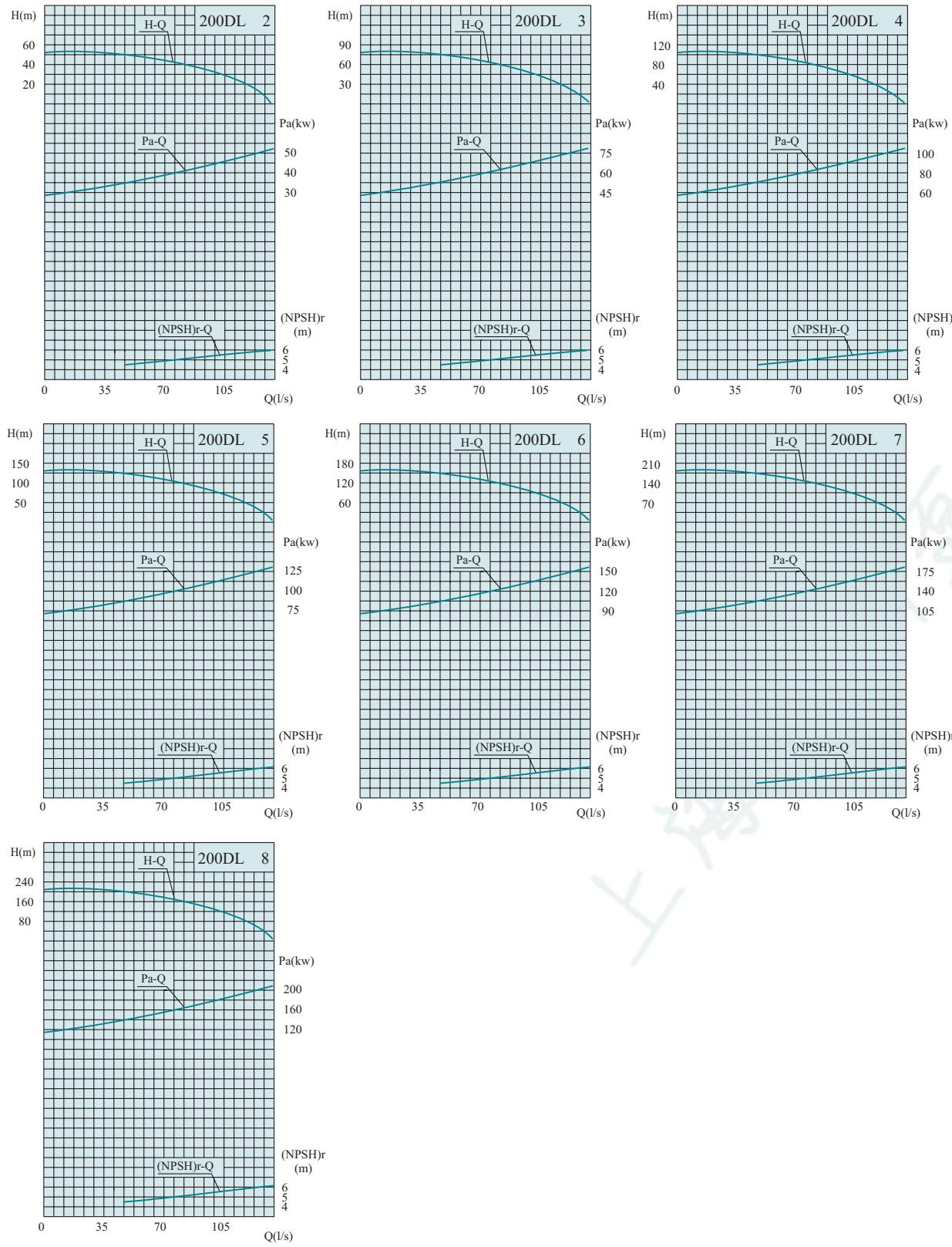
泵型号 Pump model	级数 Series	流量 Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙水头 NPSH <sub>r</sub> (m)	重量 Weight (kg)
		(m³/h)	(L/s)					
200DL280-30	2	200	55.6	64	75	1480	4.2	1215
	3	200	55.6	60	77.8	1480	5	1780
	4	200	55.6	56	90	1480	5.5	2000
	5	200	55.6	96	110	1480	4.2	2210
	6	200	55.6	90	120	1480	5	2440
200DL280-30	7	200	55.6	128	132	1480	5.5	3440
	8	200	55.6	160	160	1480	4.2	3800



泵型号 Pump model	级数 Series	外形尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange						
		H	a	H1	H2	h	B	b	b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1	
200DL280-30	2	2200	550	550	182	624	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23
	3	2660	550	550	182	808	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23
	4	2950	550	550	182	992	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23
	5	3130	550	550	182	1176	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23
	6	3310	550	550	182	1330	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23
	7	3720	550	550	182	1544	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23
	8	3900	550	550	182	1728	75	350	480	480	Φ23	200	295	340	12-Φ23	150	240	285	8-Φ23

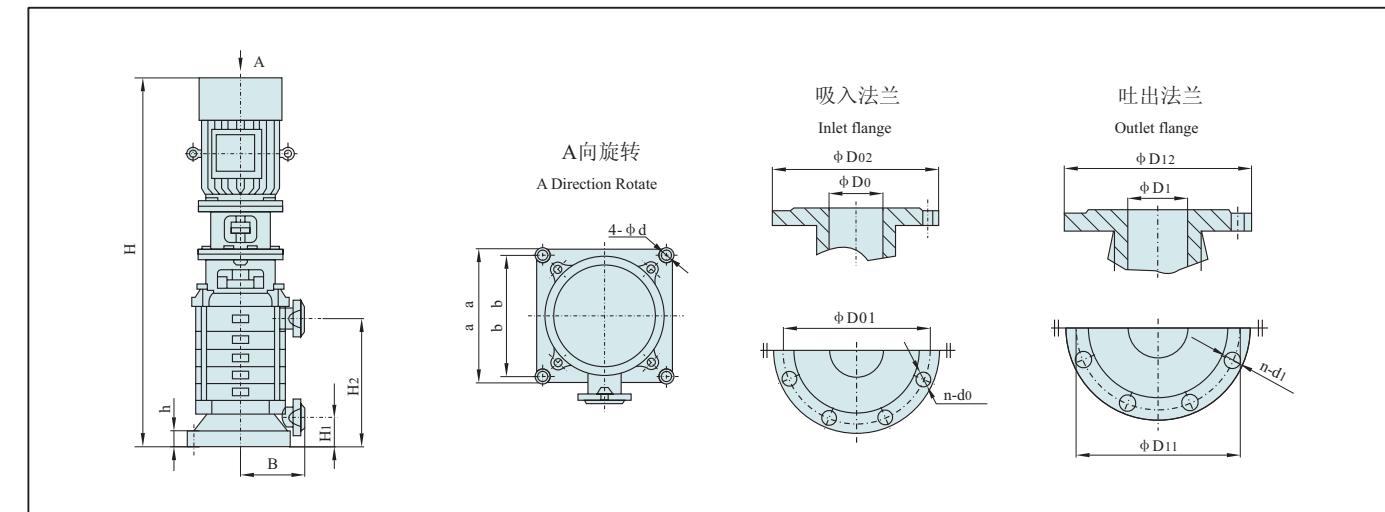
## DL型泵性能曲线图 DL type pump performance curve chart

200DL300-20 2~200DL300-20 8



## DL型泵性能参数及外形安装尺寸图表 Performance data and installation drawing table

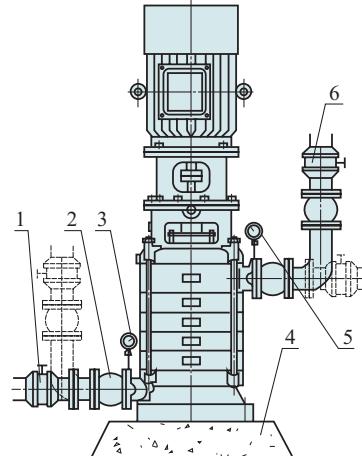
泵型号 Pump model	级数 Series	流量Capacity		扬程 Head (m)	功率 Power (kW)	转速 Speed (r/min)	余隙高度 (NPSH)r (m)	重量 Weight (kg)
		(m³/h)	(L/s)					
200DL300-20	2	210 300 360	58.3 83.3 100	45 40 36	55	1480	4.2 5 5.5	1080
	3	210 300 360	58.3 83.3 100	65.5 60 54.5	75	1480	4.2 5 5.5	1340
	4	210 300 360	58.3 83.3 100	86 80 74	110	1480	4.2 5 5.5	1900
	5	210 300 360	58.3 83.3 100	106 100 95	132	1480	4.2 5 5.5	2150
	6	210 300 360	58.3 83.3 100	127 120 114	160	1480	4.2 5 5.5	2400
200DL300-20	7	210 300 360	58.3 83.3 100	146 140 134	160	1480	4.2 5 5.5	2550
	8	210 300 360	58.3 83.3 100	166.5 160 150	200	1480	4.2 5 5.5	2700



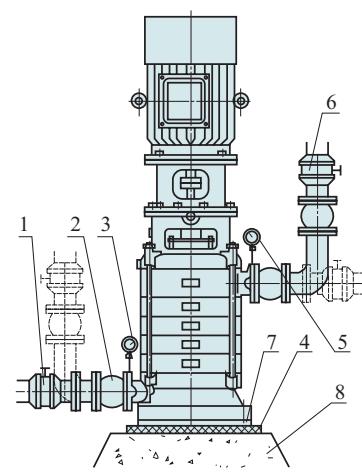
泵型号 Pump model	级数 Series	外形尺寸 Figure dimension		安装尺寸 Installation dimension						吸入法兰 Inlet flange			吐出法兰 Outlet flange				
		H	a a	H1	H2	h	B	b b	4-Φd	D0	D01	D02	n-d0	D1	D11	D12	n-d1
200DL300-20	2	2115	550 550	182	624	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23
	3	2385	550 550	182	808	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23
	4	2840	550 550	182	992	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23
	5	3125	550 550	182	1176	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23
	6	3305	550 550	182	1360	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23
	7	3490	550 550	182	1544	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23
	8	3675	550 550	182	1728	50	350	480 480	Φ27	200	295	340	12-Φ23	150	240	285	8-Φ23

## 泵的几种安装方法 Several ways of installation

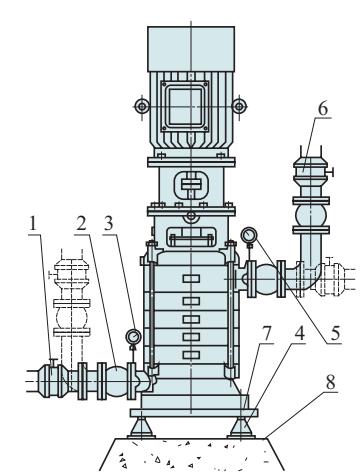
硬性联接（直接安装） Hard Link(Directly Mounted)



柔性联接（联接板+隔振垫） Soft Link(Link Plate+Vibration Isolation Pad)



柔性联接（联接板+隔振器） Soft Link(Link Plate+Vibration Isolator)

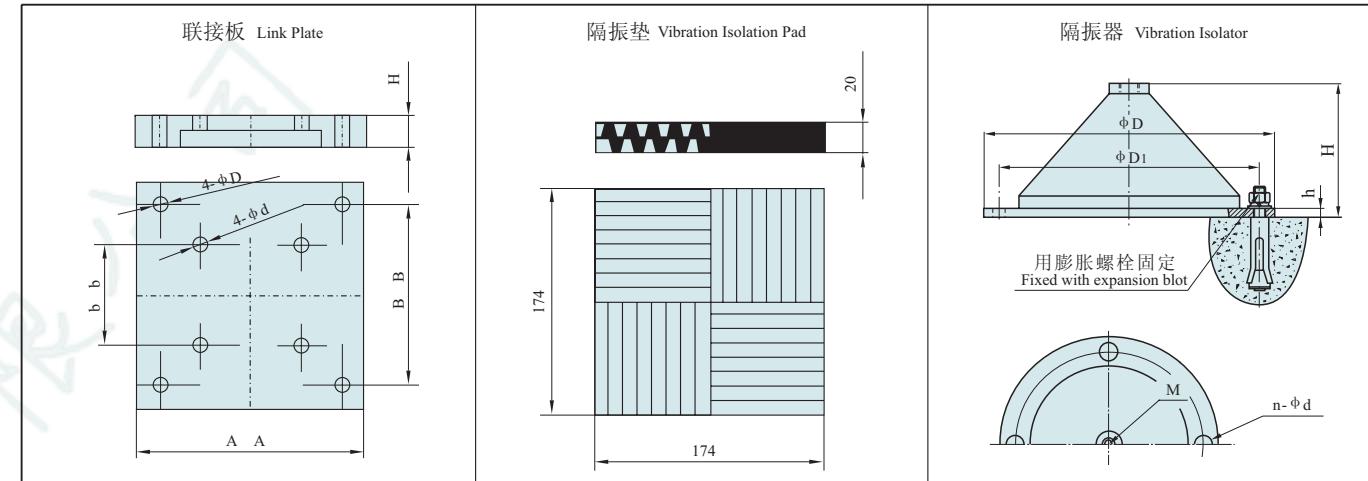


1	进口阀门 inlet valve
2	挠性接头 flexible union
3	进口压力表 inlet manometer
4	基础 basis
5	出口压力表 outlet manometer
6	出口阀门 outlet valve

1	进口阀门 inlet valve
2	挠性接头 flexible union
3	进口压力表 inlet manometer
4	隔振垫 vibration isolation pad
5	出口压力表 outlet manometer
6	出口阀门 outlet valve
7	联接板 link plate
8	基础 basis

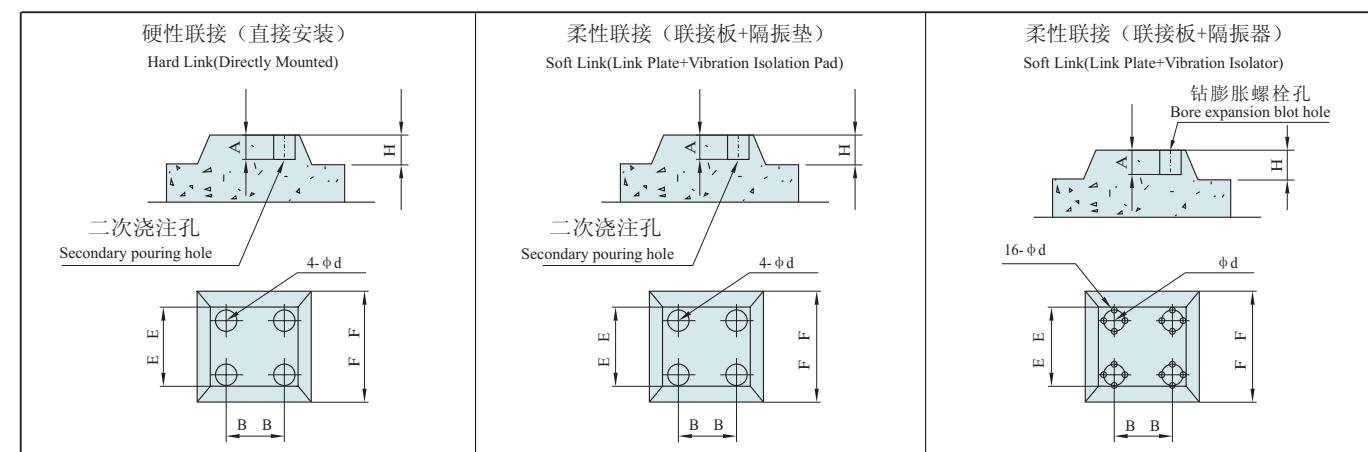
1	进口阀门 inlet valve
2	挠性接头 flexible union
3	进口压力表 inlet manometer
4	隔振器 vibration isolator
5	出口压力表 outlet manometer
6	出口阀门 outlet valve
7	联接板 link plate
8	基础 basis

## 泵附件图及其尺寸表 Fittings drawing and dimension table



泵型号 Model	联接板尺寸 Link plate dimension						隔振器尺寸 Vibration isolator dimension								
	型号 Model	A	B	b	d	D	H	型号 Model	M	D	D <sub>1</sub>	H	h	n-Φd	配膨胀螺栓规格 Expansion bolt specs
40DL	1#	650	600	300	18	14	63	JG2-2	12	150	130	65	9	4-Φ8.5	M8 80
50DL	2#	650	600	305	18	14	63	JG2-2	12	150	130	65	9	4-Φ8.5	M8 80
65DL	3#	700	650	370	26	17.5	63	JG3-2	16	200	170	87	9	4-Φ12.5	M12 110
80DL	4#	600	550	410	24	17.5	63	JG3-2	16	200	170	87	9	4-Φ12.5	M12 110
100DL	5#	700	650	410	24	22	63	JG4-2	20	290	260	133	9	4-Φ12.5	M12 110
150DL	6#	850	800	550	26/24	22	63	JG4-2	20	290	260	133	9	4-Φ12.5	M12 110
200DL	7#	800	740	480	27	23	55	JG4-1	20	290	260	133	9	4-Φ12.5	M12 110

## 泵基础图及其联接尺寸 Basic drawing and link dimension



泵型号 Model	直接安装基础尺寸 Basic dimension for direct mounting						配联接板基础尺寸 Basic dimension with link plate						配联接板、隔振器基础尺寸 Basic dimension with link plate and vibration isolator								
	H	A	B	E	F	d	地脚螺栓规格 Foundation bolt specs	H	A	B	E	F	d	地脚螺栓规格 Foundation bolt specs	H	A	B	E	F	D	d
40DL	250	300	300	600	650	80	M16 300	250	200	600	950	1050	80	M12 200	250	50	600	950	1050	130	12.5
50DL	250	300	305	600	650	80	M16 300	250	200	600	950	1050	80	M12 200	250	50	600	950	1050	130	12.5
65DL	250	500	370	650	700	80	M24 500	250	400	650	1000	1100	80	M16 300	250	75	650	1000	1100	170	19
80DL	250	500	410	700	750	100	M20 400	250	400	650	1000	1100	100	M16 300	250	75	650	1000	1100	170	19
100DL	250	400	410	700	750	100	M20 400	250	300	650	1000	1100	100	M20 400	250	75	650	1000	1100	260	19
150DL	250	500	550	750	800	100	M24 500/M20 400	250	400	800	1000	1100	100	M20 400	250	75	800	1100	1200	260	19
200DL	250	500	480	750	800	100	M24 500	250	400	800	1000	1100	100	M20 400	250	75	800	1100	1200	260	19