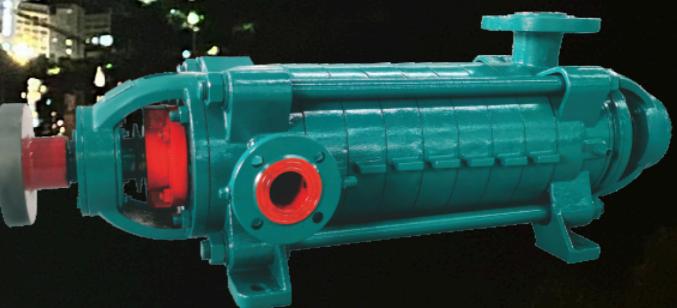




D/DF/DY/MD/LDV/LDH/LDA

AMEGA GROUP

AMEGA Multi-stage Centrifugal pump

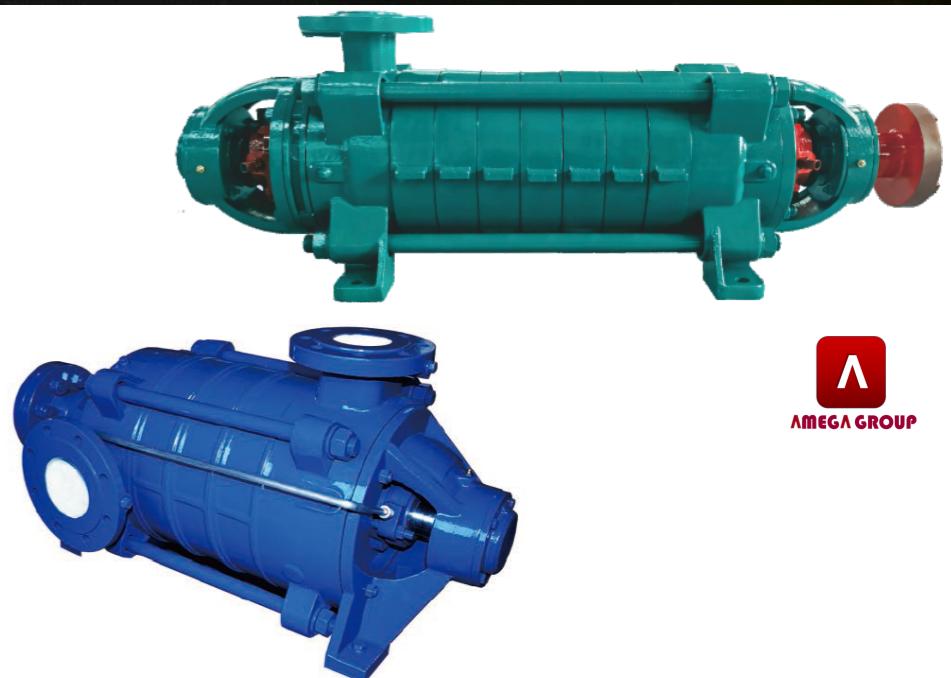


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目 录

CONTENTS

一、概述 / Overview	1
二、技术特点 / Technical Features	2
三、性能范围 / Performance Range	3
四、型号说明 / Model description	4
五、配套电机 / Auxiliary Molar	4
六、执行标准 / Executive Standard	5
七、产品特点 / Product features	5
八、过流部件材质 / Material of wet Parts	6
九、结构图 / Structure diagram	7
十、型谱图 / Type Spectrum	8
十一、性能参数 / Performance parameters	9
十二、性能曲线 / performance curve	11
十三、外形安装尺寸图、表 / Overall Installation Dimension Diagram and Table	16
十四、泵砣安装尺寸图、表 / Pump Installation Dimensions Figure and Table	23
十五、泵进、出口法兰尺寸图、表 / Pump Inlet and Outlet Dimensions Diagtam and Table	26
十六、装配与拆卸 / Assembly and disassembly	27
十七、泵的安装 / Pump Installation	28
十八、起动、运行与停止 / Start-up, Operating and Halting	29
十九、常见故障原因及其解决办法 / Common fault causes and solutions	31
二十、矿用泵配套电机表 / Mining pump motor list	34
二十一、管路安装示意图 Pipeline installation diagram	34

概 述

该系列泵系卧式单吸多级分段式离心泵，采用了国家推荐使用的高效节能产品的水力模型，具有效率高、性能范围广、运转安全平稳、噪音低、寿命长、安装维修方便等优点。我公司是专门生产D、DF、DY、MD等单吸多级节段式离心泵的专业厂家，是中南地区最大的多级泵生产厂家，具有二十多年的生产历史，产品系列规格齐全，应用范围广泛。

产品可供输送不含固体颗粒（磨料）、不含悬浮物的清水或物理化学性质类似于清水的其它液体之用。也可通过改变泵的材质（或泵过流部件的材质）、密封形式和增加冷却系统用于输送热水、油类、腐蚀性或含磨料的介质等。

泵进口允许压力小于0.6MPa。

按其使用范围主要分为以下几个类型：

D型：用于输送不含固体颗粒、温度低于80℃的清水或物理化学性质类似于清水的液体。适合于矿山、工厂和城市给排水工程之用。

DF型：用于输送不含固体颗粒、温度低于80℃的腐蚀性液体。用户可根据输送介质的名称、浓度、比重、使用温度及泵进口压力等合理选用泵的材质、密封形式、泵的结构及确定电机的容量等。

Overview

This series of pump is of sub-horizontal, multi-stage single-suction and centrifugal, using state-recommended hydro-module. The pump is efficient, reliable, and durable with low noise performance, easy maintenance and wide scope of usages. We specialize in manufacturing D, DF, DY and MD series of single-suction multistage centrifugal pumps based on our 20 years plus history and fame of biggest multistage pump manufacturer in Middle-Southern Area. Our pumps are widely applicable.

Our pump is applicable to deliver those fluid without solid, particles or any other suspended stuff, water for instance. While oily and corrosive or solid-contained fluid can be pumped by means of material modification, sealing methods, and cooling system adding.

The max. inlet pressure shall be 0.6MPa.

Horizontal multi-stage centrifugal pumps according to their scope of use can be divided into the following types:

D type: Used for transmission of water free of solid particles and temperature below 80 °C, or similar physical and chemical liquid. Suitable for mining, mill and city water supply and drainage.

DF type: Used for transmission of corrosive liquid with temperature below 80°C and non-solid

DY 型：用于输送不含固体颗粒、温度为低于 80℃、粘度小于 120 厘泡的油类和石油产品。

MD 型：用于输送颗粒含量 $\leq 1.5\%$ ，粒度 $\leq 0.5\text{mm}$ ，温度低于 80℃ 的中性矿井水及其他类似的污水。

技术特点

高效节能

坚持专业化生产，在产品的模型选择、模具的制作、水力部件的铸造工艺方面均有独特的方法，所有过流部件均采用精密铸造，保证流道尺寸与流道光洁度，比市场上普通的多级泵实测效率平均高出 2% 以上，具有很好的节能效果。

先进的工艺设备

我公司为保证产品的装配性能，从国外进口了先进的零件清洗设备，每个零件在最终装配前均进行认真清洗。除正常的材质检测、水静压试验、静平衡试验外，所有 6 级以上的泵转子部件均进行小装后检查轴的跳动，并控制跳动值在 5 丝内，然后按 G2.5 级做动平衡试验。总装后再次检查轴与联轴器的跳动和轴向窜动，保证产品的装配质量。

particles. Material, sealing methods, structure of the pump and motor model can be determined by medium, gravity, density, working temperature and the suction pressure.

DY type: Used for transmission of non-solid oily liquid and petroleum product with temperature below 80 °C and viscosity less than 120 cSt.

MD type: Used for transmission of neutral liquid from mining well or other similar liquid. The density and size of particles of the sewage shall be less than 1.5% and 0.5mm respectively. The temperature below 80°C.

Technical Features

High efficiency and Energy saving

We have developed our unique technology for manufacturing, model designing and making, foundry techniques of hydraulic parts in that we take advantage of precise foundry on all wet parts to assure their brightness, cleanliness, and accurate dimensions. So the actual efficiency are at least 2% higher than other general multistage centrifugal pumps.

Advanced process equipment

Every single processed part will have cleaned by means of advanced imported cleaning equipment for better assembling concern. Besides material inspection, hydraulic test, static balancing testing, all pump rotors beyond 6 grades will have axial movement tested controlled within 5 millisecond, and then the balancing test shall be made according to G2.5 grade. Recheck axial movements of all shafts after assembly to assure the quality of the pump.

结构独特

在平衡环与泵配合面加装 O 型密封圈，防止高压水进入平衡室影响平衡盘的平衡效果，减少平衡盘磨损，延长产品使用寿命。口径在 DN200 以上的泵，在轴端设置平衡盘磨损指示器，随时监视平衡盘或平衡环的磨损量，以便及时更换，保证设备的正常运行。

合理选择材质

根据不同用户需要，平衡盘及平衡环材质可采用堆焊硬质合金、合金钢或 QT600Mn2 合金球墨铸铁，表面硬度高，耐磨性好，提高产品使用寿命。MD 型泵流道采用高合金耐磨铸铁或高牌号耐磨球铁材质，具有很好的耐磨性。

表面质量好

采用精铸模铸造工艺及自动喷涂机喷涂油漆，表面质量好，外形美观。

性能范围

D、DF、DY、MD 型泵具有相同的性能参数和安装尺寸
泵吸人、排出口径 40–300mm

流量 $Q=3.75\sim 850\text{m}^3/\text{h}$

扬程 $H=19\sim 816\text{m}$

(注：本册中所列性能参数值为常温清水测试所得的值。)

Unique structure

A sealing O-ring is set between balancing ring and fitting surface of the pump to avoid high pressure water coming into balancing stage and wear and tear of the balancing plate to obtain better durability. Wear indicator of balancing plate is set at the end of the shaft for wear monitoring for pumps beyond DN200. This makes the replacement of balancing plate reasonably to assure fine operation.

Material choosing

Balancing plate and the area around can be made of welding alloy, alloy steel or ductile cast iron QT600Mn2 concerning their high surficial hardness and fine durability. Flowing-over part of MD pump is of abrasion resistant by using material of alloy wear resistant ductile cast iron or high-grade wear-resistant ductile cast iron.

Fine appearance

The appearance of the pump is fine taking advantage of precise mold casting procedures and automatic painting.

Performance Range

D, DF, DY, MD-type pump has the same performance parameters and installation size
Inlet and outlet diameter of the pump: 40~300mm
Capacity $Q=3.75\sim 850\text{m}^3/\text{h}$

Head $H=19\sim 816\text{m}$

Note: The performance parameters in this book and the normal temperature water testing values.

型号说明

如 D (DF、DY、MD) 600 – 60 × 6

D—表示多级清水离心泵

DF—表示矿用耐腐多级离心泵

DY—表示多级离心油泵

MD—表示矿用耐磨多级离心泵

600—表示设计点流量为 600m³/h

60—表示设计点单级扬程为 60m

6—表示级数为 6 级

如 150 MD 30 × 7

150—表示泵吸入口直径为 150mm

MD—表示矿用耐磨多级离心泵

30—表示泵设计点单级扬程为 30m

7—表示级数为 7 级

注: D (DF、DY、MD) 80–30 为习惯表示方法, 其中 80 表示泵吸入口直径为 80mm, 30 表示泵设计点单级扬程为 30m, 其它含义与上述表示方法相同。

配套电机

电机常规配置为 Y 系列电机。对用于含有可燃易爆气体的矿井下运行的泵, 必须采用防爆电机并要求具有相应的防护等级和防爆标志。

Model description

EX: D(DF、DY、MD)600—60×6

D—multi-stage clean water centrifugal pump

DF—corrosion-resistant multi-stage centrifugal mining pump

DY—multi-stage centrifugal oil pump

MD—wear-resistant multi-stage centrifugal mining pump

600—the design point of capacity is 600m³/h

60—the design point of single-stage head is 60m

6—the pump stage is 6

Ex: 150 MD 30×7

150—the pump inlet diameter is 150mm

MD—wear-resistant multi-stage centrifugal mining pump

30—the design point of single-stage head is 30m

7—the pump stage is 7

Note: D(DF, DY, MD)80–30 is the customary method, of which 80 means the inlet diameter is 80mm. 30 means single-stage pump design point head is 30m, others meaning is the same method as above.

Auxiliary Motor

Y series of motors are for common use. Explosive-proof motor is a must under circumstances of inflammable and explosive while insulation class and explosive-proof mark shall be indicated.

执行标准

GB/T 5657-2013《离心泵技术条件(III类)》

JB/T 1051-2006《多级离心泵型式与基本参数》

MT/T 114-2005《煤矿用多级离心泵》

GB/T 13006《离心泵、混流泵、轴流泵、汽蚀余量》

GB/T 13007《离心泵效率》

Executive Standard

GB/T5657-2013 Technical specification for centrifugal pumps (class III)

JB/T1051-2006 Multistage centrifugal pump-Types and basic parameters

MT/T114-2005 Multi-stage centrifugal pumps for coal mines

GB/T13006 NPSH for centrifugal, mixed flow and axial flow pumps

GB/T13007 Centrifugal pump -Effeciency

产品特点

D、DF、DY、MD 型泵系卧式、单吸、分段式多级离心泵, 吸入口为水平方向, 吐出口为垂直向上。泵的进水段、中段、出水段等泵壳体部分通过拉紧螺栓联结成一体, 两端设有轴承部件, 并根据泵的扬程选择泵的级数。

该系列泵转子部分主要由轴及安装在轴上的叶轮、轴套、平衡盘等零件组成, 其中叶轮的数量根据泵的级数而定。轴上零件通过平键和轴螺母紧固使之与轴联为一体。整个转子由两端滚动轴承或滑动轴承支承。轴承按型号不同而定, 均不承受轴向力, 其轴向力由平衡盘平衡, 并且在泵端安装有平衡盘磨损指示器, 以监视平衡盘磨损情况。

泵的进水段、中段、出水段之间的密封面均采用密封胶或“O”形圈密封, 转子部分与固定部分之间装有密封环、导叶套等进行密封, 当密封环和导叶套的磨损程度已影响泵的工作性能时应及时予以更换。

轴的密封形式有机械密封和填料密封两种。泵采用填料密封时, 填料环的位置安放要正确, 填料的松紧程度必须适当, 以液体能一滴一滴渗出为宜。泵的各种密封元件装在密封腔内, 腔内要通入一定压力的水, 起水

Product features

That suction inlet is set horizontally while discharging outlet vertically is one of peculiarities for D, DF, DY and MD horizontal, single suction, segmental multistage pumps. The segments of suction, middle, discharging are connected by means of bolt. The head employs the stages of the pump.

The rotor of the pump is mainly composed of shaft and impeller, bushing, and balancing plate, which are balanced and connected to the shaft by means of straight key and shaft nut. The stages of the pump employ the impeller. The whole rotor is supported by rolling contact bearing or sliding

bearing which varies themselves according to certain situation. The rotor does not sustain any axial force, which is balanced by balancing plate. Balancing plate wear indicator is set at the end of the pump for wearing monitoring to avoid any excessive abrasion.

Fluid sealants or O-ring sealing is set between sealing surfaces of segments of inlet, middle, and discharging, while sealing ring and guide

封、水冷或水润滑作用。在轴封处装有可更换的轴套，以保护泵轴。

泵在运行中允许转子在泵壳中轴向游动，该型泵一般采用滚动轴承、干油润滑结构（D85-67、D155-67型泵可采用滑动轴承、稀油润滑结构，也可采用滚动轴承、干油润滑结构）。

该系列泵通过弹性联轴器由原动机直接驱动。从原动机方向看，泵为顺时针方向旋转。

（用户如对泵的材料和结构有特殊要求，可与本公司协商解决，本公司可根据用户需求变换水泵进出口方向，并可实现该系列泵的多出口结构和功能。）

vane sleeve are set between rotor and stator. The sealing ring and guide vane are advised to be replaced when they decrease the pumping efficiency.

Mechanical sealing and material filling sealing are two options, in which tightness of material shall be filled properly to reach a performance of drop by drop leaking. All sealing parts are integrated in sealing housing which is under pressure of water used for water sealing, cooling and lubricating. A replaceable guide vane is necessary to protect the shaft.

The rotor of the pump during operation is allowed to swing axially. This series of pump often integrates with rolling contact bearing and grease lubricating construction. (D85-67 and D155-67 types however can adopt sliding bearing and thin oil lubricating structure or rolling contact bearing and grease lubricating structure.)

This series of pump is driven directly by prime motor by flexible COUpling. The pump rotates clockwise from perspective of prime motor.

(Special requirement in material and construction are all available on request, for example)

过流部件材质

D型：过流部件为铸铁，轴为45#钢；

DF型：过流部件按使用要求分为铸钢和铸不锈钢，根据输送介质温度及腐蚀性决定材质。

DY型：过流部件按使用要求分为铸铁、铸钢和铸不锈钢，根据输送介质温度决定材质。

MD型：过流部件材质为耐磨铸铁或球墨铸铁。

Material of wet Parts

D type: Cast iron material wet parts; 1045, 080M46 ASTM steel for shaft.

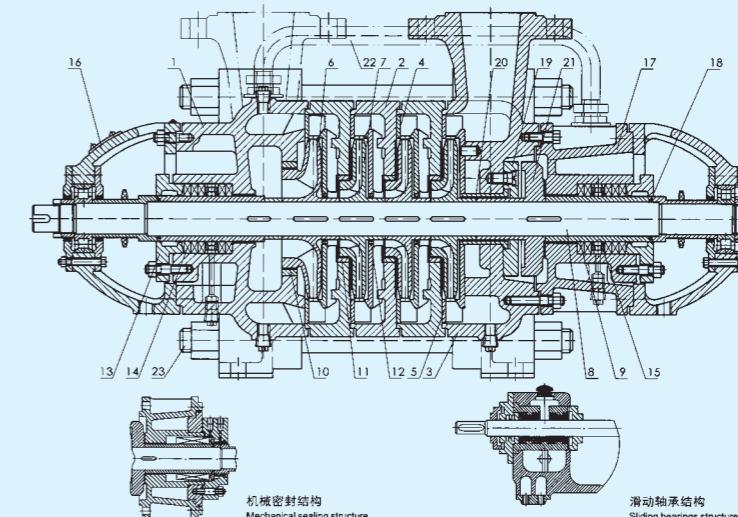
DF type: Availabilities of cast steel and stainless steel for wet parts are chosen according to temperature and corrosiveness of the medium

DY type: Availabilities of cast steel and stainless steel for wet parts are chosen according to temperature and corrosiveness of the medium.

MD type: Wear-resistant cast iron or ductile iron for wet parts.

结构图

Structure diagram



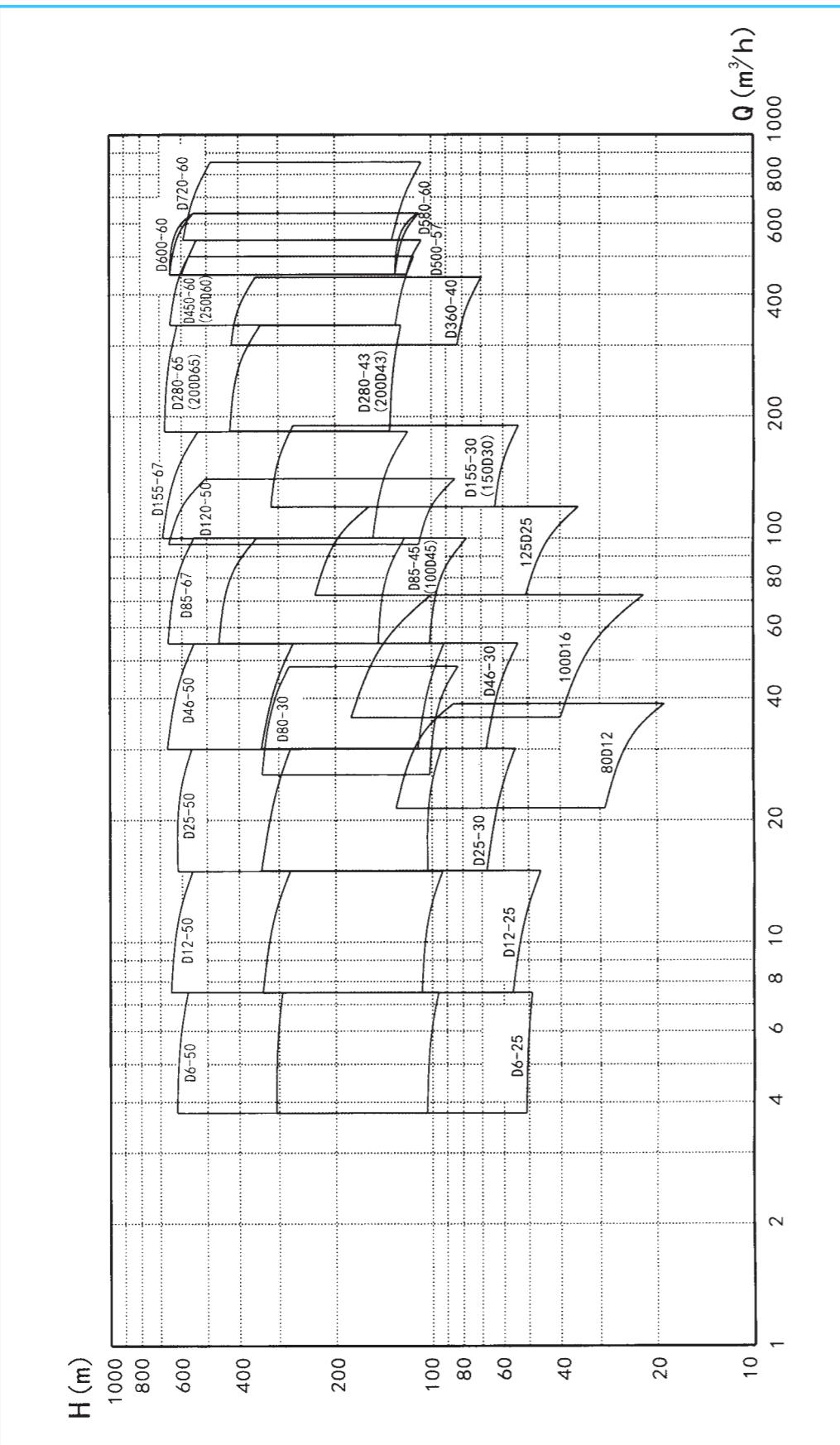
- | | |
|--------------------------------------|-------------------------------|
| 1 进水段 / Suction casing | 13 填料压盖 / Gland cover |
| 2 中段 / Stage casing | 14 填料 / Gland packing |
| 3 出水段 / Discharge casing | 15 填料环 / Seal cage |
| 4 导叶 / Guide vanes | 16 轴承部件 / Bearing components |
| 5 末导叶 / End of guide vanes | 17 尾盖 / End Gland |
| 6 前级叶轮 / Front-stage Impeller | 18 O形密封圈 / O-ring |
| 7 末级叶轮 / Last-stage Impeller | 19 平衡环 / Balancing ring |
| 8 轴 / Shaft | 20 平衡套 / Balancing sleeve |
| 9 轴套 / Shaft sleeve | 21 平衡盘 / Balancing disk |
| 10 前级密封环 / Front-stage Sealing rings | 22 平衡管部件 / Balance tube parts |
| 11 密封环 / Sealing rings | 23 拉紧螺栓 / Tie bolt |
| 12 导叶套 / Guide vane sleeve | |



零件名称
Part name

性能参数

Performance parameters

型谱图
Type Spectrum

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m^3/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 6-25x (2~12)	2	3.75	1.04	51	2950	35	1.49	3	Y100L-2	2.0	Φ 139.5	77.2	33	
		6.3	1.75	50		46.5	1.84			2.0				
		7.5	2.08	49		48	2.08			2.5				
	3	3.75	1.04	76.5	2950	35	2.23	5.5	Y132S1-2	2.0	Φ 139.5	85.5	64	
		6.3	1.75	75		46.5	2.77			2.0				
		7.5	2.08	73.5		48	3.12			2.5				
	4	3.75	1.04	102	2950	35	2.98	7.5	Y132S2-2	2.0	Φ 139.5	94.4	70	
		6.3	1.75	100		46.5	3.69			2.0				
		7.5	2.08	98		48	4.16			2.5				
	5	3.75	1.04	127.5	2950	35	3.73	7.5	Y132S2-2	2.0	Φ 139.5	102.9	70	
		6.3	1.75	125		46.5	4.61			2.0				
		7.5	2.08	122.5		48	5.20			2.5				
	6	3.75	1.04	153	2950	35	4.47	11	Y160M1-2	2.0	Φ 139.5	111.5	117	
		6.3	1.75	150		46.5	5.53			2.0				
		7.5	2.08	147		48	6.24			2.5				
	7	3.75	1.04	178.5	2950	35	5.22	11	Y160M1-2	2.0	Φ 139.5	120.0	117	
		6.3	1.75	175		46.5	6.45			2.0				
		7.5	2.08	171.5		48	7.28			2.5				
	8	3.75	1.04	204	2950	35	5.96	15	Y160M2-2	2.0	Φ 139.5	128.6	125	
		6.3	1.75	200		46.5	7.37			2.0				
		7.5	2.08	196		48	8.32			2.5				
	9	3.75	1.04	229.5	2950	35	6.71	15	Y160M2-2	2.0	Φ 139.5	137.1	125	
		6.3	1.75	225		46.5	8.29			2.0				
		7.5	2.08	220.5		48	9.36			2.5				
	10	3.75	1.04	255	2950	35	7.45	18.5	Y160L-2	2.0	Φ 139.5	145.7	147	
		6.3	1.75	250		46.5	9.21			2.0				
		7.5	2.08	245		48	10.40			2.5				
	11	3.75	1.04	280.5	2950	35	8.20	18.5	Y160L-2	2.0	Φ 139.5	154.2	147	
		6.3	1.75	275		46.5	10.13			2.0				
		7.5	2.08	269.5		48	11.44			2.5				
	12	3.75	1.04	306	2950	35	8.94	18.5	Y160L-2	2.0	Φ 139.5	162.8	147	
		6.3	1.75	300		46.5	11.05			2.0				
		7.5	2.08	294		48	12.48			2.5				

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 6-50x(2~14)	2	3.75 6.3 7.5	1.04 1.75 2.08	104 100 96	2950	28 30 29	3.79 5.72 6.76	11	Y160M1-2	3.0 3.0 3.5	Φ198	142.0	117	
	3	3.75 6.3 7.5	1.04 1.75 2.08	156 150 144	2950	28 30 29	5.69 8.58 10.1	15	Y160M2-2	3.0 3.0 3.5	Φ198	156.0	125	
	4	3.75 6.3 7.5	1.04 1.75 2.08	208 200 192	2950	28 30 29	7.58 11.4 13.5	18.5	Y160L-2	3.0 3.0 3.5	Φ198	170.0	147	
	5	3.75 6.3 7.5	1.04 1.75 2.08	260 250 240	2950	28 30 29	9.48 14.3 16.9	22	Y180M-2	3.0 3.0 3.5	Φ198	183.6	180	
	6	3.75 6.3 7.5	1.04 1.75 2.08	312 300 288	2950	28 30 29	11.4 17.2 20.3	30	Y200L1-2	3.0 3.0 3.5	Φ198	197.2	240	
	7	3.75 6.3 7.5	1.04 1.75 2.08	364 350 336	2950	28 30 29	13.3 20.0 23.7	30	Y200L1-2	3.0 3.0 3.5	Φ198	210.9	240	
	8	3.75 6.3 7.5	1.04 1.75 2.08	416 400 384	2950	28 30 29	15.2 22.9 27.0	37	Y200L2-2	3.0 3.0 3.5	Φ198	224.5	260	
	9	3.75 6.3 7.5	1.04 1.75 2.08	468 450 432	2950	28 30 29	17.1 25.7 30.4	37	Y200L2-2	3.0 3.0 3.5	Φ198	238.1	260	
	10	3.75 6.3 7.5	1.04 1.75 2.08	520 500 480	2950	28 30 29	19.0 28.6 33.8	45	Y225M-2	3.0 3.0 3.5	Φ198	251.7	325	
	11	3.75 6.3 7.5	1.04 1.75 2.08	572 550 528	2950	28 30 29	20.8 31.4 37.2	45	Y225M-2	3.0 3.0 3.5	Φ198	265.3	325	
	12	3.75 6.3 7.5	1.04 1.75 2.08	624 600 576	2950	28 30 29	22.7 34.3 40.6	55	Y250M-2	3.0 3.0 3.5	Φ198	279.0	395	
	13	3.75 6.3 7.5	1.04 1.75 2.08	676 650 624	2950	28 30 29	24.6 37.1 43.9	55	Y250M-2	3.0 3.0 3.5	Φ198	293.0	395	

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 12-25x(2~12)	D (DF, DY, MD) 6-50x(2~14)	14	3.75 6.3 7.5	1.04 1.75 2.08	728 700 672	2950	28 30 29	26.5 40.0 47.4	55	Y250M-2	3.0 3.0 3.5	Φ198	308.0	395
	2	7.5 12.5 15	2.08 3.47 4.17	56.4 50 46	2950	44 54 53	2.62 3.15 3.55	5.5	Y132S1-2	2.0 2.0 2.5	Φ146	78.7	64	
	3	7.5 12.5 15	2.08 3.47 4.17	84.6 75 69	2950	44 54 53	3.93 4.73 5.32	7.5	Y132S2-2	2.0 2.0 2.5	Φ146	87.3	70	
	4	7.5 12.5 15	2.08 3.47 4.17	112.8 100 92	2950	44 54 53	5.24 6.30 7.09	11	Y160M1-2	2.0 2.0 2.5	Φ146	95.9	117	
	5	7.5 12.5 15	2.08 3.47 4.17	141 125 115	2950	44 54 53	6.55 7.88 8.86	11	Y160M1-2	2.0 2.0 2.5	Φ146	104.4	117	
	6	7.5 12.5 15	2.08 3.47 4.17	169.2 150 138	2950	44 54 53	7.85 9.46 10.64	15	Y160M2-2	2.0 2.0 2.5	Φ146	113.0	125	
	7	7.5 12.5 15	2.08 3.47 4.17	197.4 175 161	2950	44 54 53	9.16 11.0 12.41	15	Y160M2-2	2.0 2.0 2.5	Φ146	121.5	125	
	8	7.5 12.5 15	2.08 3.47 4.17	225.6 200 184	2950	44 54 53	10.47 12.61 14.18	18.5	Y160L-2	2.0 2.0 2.5	Φ146	130.1	147	
	9	7.5 12.5 15	2.08 3.47 4.17	253.8 225 207	2950	44 54 53	11.78 14.18 15.95	18.5	Y160L-2	2.0 2.0 2.5	Φ146	138.6	147	
	10	7.5 12.5 15	2.08 3.47 4.17	282 250 230	2950	44 54 53	13.09 15.76 17.73	22	Y180M-2	2.0 2.0 2.5	Φ146	147.2	180	
	11	7.5 12.5 15	2.08 3.47 4.17	310.2 275 253	2950	44 54 53	14.4 17.34 19.5	22	Y180M-2	2.0 2.0 2.5	Φ146	155.7	180	
	12	7.5 12.5 15	2.08 3.47 4.17	338.4 300 276	2950	44 54 53	15.7 18.9 21.3	30	Y200L1-2	2.0 2.0 2.5	Φ146	164.3	240	

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 12-50x(2~14)	2	7.5 12.5 15	2.08 3.47 4.17	108 100 93	2950	37.8 45 45.9	5.8 7.6 8.3	11	Y160M1-2	2.0 2.0 2.5	Φ198	142.0	117	
	3	7.5 12.5 15	2.08 3.47 4.17	162 150 139.5	2950	37.8 45 45.9	8.8 11.3 12.4	18.5	Y160L-2	2.0 2.0 2.5	Φ198	156.0	147	
	4	7.5 12.5 15	2.08 3.47 4.17	216 200 186	2950	37.8 45 45.9	11.7 15.1 16.6	22	Y180M-2	2.0 2.0 2.5	Φ198	170.0	180	
	5	7.5 12.5 15	2.08 3.47 4.17	270 250 232.5	2950	37.8 45 45.9	14.6 18.9 20.7	30	Y200L1-2	2.0 2.0 2.5	Φ198	183.6	240	
	6	7.5 12.5 15	2.08 3.47 4.17	324 300 279	2950	37.8 45 45.9	17.5 22.7 24.8	30	Y200L1-2	2.0 2.0 2.5	Φ198	197.2	240	
	7	7.5 12.5 15	2.08 3.47 4.17	378 350 325.5	2950	37.8 45 45.9	20.4 26.5 29.0	37	Y200L2-2	2.0 2.0 2.5	Φ198	210.9	260	
	8	7.5 12.5 15	2.08 3.47 4.17	432 400 372	2950	37.8 45 45.9	23.3 30.3 33.1	45	Y225M-2	2.0 2.0 2.5	Φ198	224.5	325	
	9	7.5 12.5 15	2.08 3.47 4.17	486 450 418.5	2950	37.8 45 45.9	26.3 34.0 37.3	45	Y225M-2	2.0 2.0 2.5	Φ198	238.1	325	
	10	7.5 12.5 15	2.08 3.47 4.17	540 500 465	2950	37.8 45 45.9	39.2 37.8 41.4	55	Y250M-2	2.0 2.0 2.5	Φ198	251.7	395	
	11	7.5 12.5 15	2.08 3.47 4.17	594 550 511.5	2950	37.8 45 45.9	32.1 41.6 45.5	55	Y250M-2	2.0 2.0 2.5	Φ198	265.3	395	
	12	7.5 12.5 15	2.08 3.47 4.17	648 600 558	2950	37.8 45 45.9	35.0 45.4 50.0	75	Y280S-2	2.0 2.0 2.5	Φ198	279.0	500	
	13	7.5 12.5 15	2.08 3.47 4.17	702 650 604.5	2950	37.8 45 45.9	37.9 49.2 54.2	75	Y280S-2	2.0 2.0 2.5	Φ198	293.0	500	

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 25-30x(2~10)	D (DF, DY, MD) 12-50x(2~14)	14	7.5 12.5 15	2.08 3.47 4.17	756 700 651	2950	37.8 45 45.9	40.8 52.9 58.3	75	Y280S-2	2.0 2.0 2.5	Φ198	307.0	500
	2	15 25 30	4.17 6.94 8.33	68 60 55	2950	50	5.56 6.58 7.14	11	Y160M1-2	2.2 2.2 2.4	Φ160	150.7	117	
	3	15 25 30	4.17 6.94 8.33	102 90 82.5	2950	50	8.33 9.88 10.7	15	Y160M2-2	2.2 2.2 2.4	Φ160	166.3	125	
	4	15 25 30	4.17 6.94 8.33	136 120 110	2950	50	11.11 13.1 14.26	18.5	Y160L-2	2.2 2.2 2.4	Φ160	181.8	147	
	5	15 25 30	4.17 6.94 8.33	170 150 137.5	2950	50	13.89 16.47 17.83	22	Y180M-2	2.2 2.2 2.4	Φ160	197.3	180	
	6	15 25 30	4.17 6.94 8.33	204 180 165	2950	50	16.67 19.77 21.4	30	Y200L1-2	2.2 2.2 2.4	Φ160	212.9	240	
	7	15 25 30	4.17 6.94 8.33	238 210 192.5	2950	50	19.44 23.1 24.96	30	Y200L1-2	2.2 2.2 2.4	Φ160	228.4	240	
	8	15 25 30	4.17 6.94 8.33	272 240 220	2950	50	22.22 26.4 28.53	37	Y200L2-2	2.2 2.2 2.4	Φ160	244.0	260	
	9	15 25 30	4.17 6.94 8.33	306 270 247.5	2950	50	25.0 29.65 32.1	37	Y200L2-2	2.2 2.2 2.4	Φ160	259.5	260	
	10	15 25 30	4.17 6.94 8.33	340 300 275	2950	50	27.8 32.9 35.7	45	Y225M-2	2.2 2.2 2.4	Φ160	275.0	325	
D (DF, DY, MD) 25-50x(2~12)	2	15 25 30	4.17 6.94 8.33	103 100 93	2950	44 54 53	9.6 12.6 14.3	18.5	Y160L-2	2.4 2.7 2.8	Φ196	261.2	147	
	3	15 25 30	4.17 6.94 8.33	154.5 150 139.5	2950	44 54 53	14.3 18.9 21.5	22	Y180M-2	2.4 2.7 2.8	Φ196	280.0	180	

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 25-50x (2~12)	80D (DF, DY, MD) 12x (2~9)	4	15 25 30	4.17 6.94 8.33	206 200 186	2950	44 54 53	19.1 25.2 28.7	30	Y200L1-2	2.4 2.7 2.8	Φ196	298.8	240
		5	15 25 30	4.17 6.94 8.33	257.5 250 232.5	2950	44 54 53	23.9 31.5 35.8	45	Y225M-2	2.4 2.7 2.8	Φ196	317.7	260
		6	15 25 30	4.17 6.94 8.33	309 300 279	2950	44 54 53	28.7 37.8 43.0	55	Y250M-2	2.4 2.7 2.8	Φ196	336.5	325
		7	15 25 30	4.17 6.94 8.33	360.5 350 325.5	2950	44 54 53	33.5 44.1 50.2	55	Y250M-2	2.4 2.7 2.8	Φ196	355.3	395
		8	15 25 30	4.17 6.94 8.33	412 400 372	2950	44 54 53	38.3 50.4 57.3	75	Y280S-2	2.4 2.7 2.8	Φ196	374.2	500
		9	15 25 30	4.17 6.94 8.33	463.5 450 418.5	2950	44 54 53	43.0 56.7 64.5	75	Y280S-2	2.4 2.7 2.8	Φ196	393.0	500
		10	15 25 30	4.17 6.94 8.33	515 500 465	2950	44 54 53	47.8 63.0 71.7	90	Y280M-2	2.4 2.7 2.8	Φ196	411.8	500
		11	15 25 30	4.17 6.94 8.33	566 550 511.5	2950	44 54 53	52.5 69.3 78.8	90	Y280M-2	2.4 2.7 2.8	Φ196	430.7	550
		12	15 25 30	4.17 6.94 8.33	618 600 558	2950	44 54 53	57.4 75.6 86.0	110	Y315S-2	2.4 2.7 2.8	Φ196	449.5	875
		2	21.6 34.6 39.6	6.0 9.6 11	28.8 22.8 19.0	2950	69 75 72	2.46 2.84 2.82	4	Y112M-2	3.2 3.3 3.4	Φ110	102.1	45
		3	21.6 34.6 39.6	6.0 9.6 11	43.2 34.2 28.5	2950	69 75 72	3.69 4.26 4.23	5.5	Y132S1-2	3.2 3.3 3.4	Φ110	118.1	64
		4	21.6 34.6 39.6	6.0 9.6 11	57.6 45.6 38.0	2950	69 75 72	4.92 5.69 5.64	7.5	Y132S2-2	3.2 3.3 3.4	Φ110	134.1	70

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 80-30x (3~10)	80D (DF, DY, MD) 12x (2~9)	5	21.6 34.6 39.6	6.0 9.6 11	72.0 57.0 47.5	2950	69 75 72	6.15 7.10 7.05	11	Y160M1-2	3.2 3.3 3.4	Φ110	150.1	117
		6	21.6 34.6 39.6	6.0 9.6 11	86.4 68.4 57.0	2950	69 75 72	7.38 8.52 8.46	11	Y160M1-2	3.2 3.3 3.4	Φ110	166.2	117
		7	21.6 34.6 39.6	6.0 9.6 11	100.8 79.8 66.5	2950	69 75 72	8.61 9.94 9.87	15	Y160M2-2	3.2 3.3 3.4	Φ110	182.2	125
		8	21.6 34.6 39.6	6.0 9.6 11	115.2 91.2 76.0	2950	69 75 72	9.84 11.36 11.28	15	Y160M2-2	3.2 3.3 3.4	Φ110	198.2	125
		9	21.6 34.6 39.6	6.0 9.6 11	129.6 102.6 85.5	2950	69 75 72	11.07 12.78 12.69	18.5	Y160L-2	3.2 3.3 3.4	Φ110	214.2	147
		3	26 43 48	7.22 11.94 13.33	102 90 83	2950	60 70 69	12.0 15.1 15.7	18.5	Y160L-2	3.0 3.9 4.3	Φ162	119.1	147
		4	26 43 48	7.22 11.94 13.33	136 120 111	2950	60 70 69	16.0 20.1 20.96	22	Y180M-2	3.0 3.9 4.3	Φ162	132.0	180
		5	26 43 48	7.22 11.94 13.33	170 150 139	2950	60 70 69	20.1 25.2 26.2	30	Y200L1-2	3.0 3.9 4.3	Φ162	144.9	240
		6	26 43 48	7.22 11.94 13.33	204 180 167	2950	60 70 69	24.1 30.2 31.44	37	Y200L2-2	3.0 3.9 4.3	Φ162	157.9	260
		7	26 43 48	7.22 11.94 13.33	238 210 195	2950	60 70 69	28.1 35.2 36.68	45	Y225M-2	3.0 3.9 4.3	Φ162	170.8	325
		8	26 43 48	7.22 11.94 13.33	272 240 222	2950	60 70 69	32.1 40.2 41.96	55	Y250M-2	3.0 3.9 4.3	Φ162	183.8	395
		9	26 43 48	7.22 11.94 13.33	306 270 250	2950	60 70 69	36.1 45.3 47.16	55	Y250M-2	3.0 3.9 4.3	Φ162	196.7	395

参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 80-30x(3~10)	10	26 43 48	7.22 11.94 13.33	340 300 278	2950	60 70 69	40.1 50.3 53.0	55	Y250M-2	3.0 3.9 4.3	Φ162	209.6	395
D (DF, DY, MD) 46-30x(2~10)	2	30 46 55	8.33 12.8 15.3	68 60 54	2950	64 70 68	8.68 10.74 11.89	15	Y160M2-2	2.4 3.0 4.6	Φ162	152.2	125
	3	30 46 55	8.33 12.8 15.3	102 90 81	2950	64 70 68	13.02 16.11 17.84	22	Y180M-2	2.4 3.0 4.6	Φ162	167.8	180
	4	30 46 55	8.33 12.8 15.3	136 120 108	2950	64 70 68	17.36 21.48 23.79	30	Y200L1-2	2.4 3.0 4.6	Φ162	183.3	240
	5	30 46 55	8.33 12.8 15.3	170 150 135	2950	64 70 68	21.7 26.85 29.74	37	Y200L2-2	2.4 3.0 4.6	Φ162	198.8	260
	6	30 46 55	8.33 12.8 15.3	204 180 162	2950	64 70 68	26.04 32.21 35.68	37	Y200L2-2	2.4 3.0 4.6	Φ162	214.4	260
	7	30 46 55	8.33 12.8 15.3	238 210 189	2950	64 70 68	30.38 37.58 41.63	45	Y225M-2	2.4 3.0 4.6	Φ162	229.9	325
	8	30 46 55	8.33 12.8 15.3	272 240 216	2950	64 70 68	34.72 42.95 47.58	55	Y250M-2	2.4 3.0 4.6	Φ162	245.5	395
	9	30 46 55	8.33 12.8 15.3	306 270 243	2950	64 70 68	39.06 48.32 53.53	55	Y250M-2	2.4 3.0 4.6	Φ162	261.0	395
	10	30 46 55	8.33 12.8 15.3	340 300 270	2950	64 70 68	43.4 53.69 59.47	75	Y280S-2	2.4 3.0 4.6	Φ162	276.5	500
D (DF, DY, MD) 46-50x(2~12)	2	30 46 55	8.33 12.78 15.28	111 100 92	2950	54 63 64	16.78 19.88 21.52	30	Y200L1-2	2.5 2.8 3.2	Φ208	262.7	240
	3	30 46 55	8.33 12.78 15.28	166.5 150 138	2950	54 63 64	25.19 29.83 32.28	37	Y200L2-2	2.5 2.8 3.2	Φ208	281.5	260

参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 46-50x(2~12)	4	30 46 55	8.33 12.78 15.28	222 200 184	2950	54 63 64	33.59 39.77 43.04	45	Y225M-2	2.5 2.8 3.2	Φ208	300.3	325
	5	30 46 55	8.33 12.78 15.28	277.5 250 230	2950	54 63 64	41.98 49.71 53.80	75	Y280S-2	2.5 2.8 3.2	Φ208	319.2	395
	6	30 46 55	8.33 12.78 15.28	333 300 276	2950	54 63 64	50.38 59.65 64.56	75	Y280S-2	2.5 2.8 3.2	Φ208	338.0	500
	7	30 46 55	8.33 12.78 15.28	388.5 350 322	2950	54 63 64	58.78 69.60 75.32	90	Y280M-2	2.5 2.8 3.2	Φ208	356.8	550
	8	30 46 55	8.33 12.78 15.28	444 400 368	2950	54 63 64	67.20 79.52 86.08	90	Y280M-2	2.5 2.8 3.2	Φ208	375.7	550
	9	30 46 55	8.33 12.78 15.28	499.5 450 414	2950	54 63 64	75.56 89.48 96.84	110	Y315S-2	2.5 2.8 3.2	Φ208	394.5	875
	10	30 46 55	8.33 12.78 15.28	555 500 460	2950	54 63 64	83.97 99.42 107.60	132	Y315M-2	2.5 2.8 3.2	Φ208	412.3	950
	11	30 46 55	8.33 12.78 15.28	610.5 550 506	2950	54 63 64	92.37 109.36 118.36	132	Y315M-2	2.5 2.8 3.2	Φ208	432.2	950
	12	30 46 55	8.33 12.78 15.28	666 600 552	2950	54 63 64	100.8 119.28 129.12	160	Y315L1-2	2.5 2.8 3.2	Φ208	451.0	1070
100D (DF, DY, MD) 16x(2~9)	2	36 54.0 72.0	10 15 20	40 32 22	2950	66 73 66	5.94 6.44 6.53	7.5	Y132S2-2	3.7 3.9 4.3	Φ134	158.4	70
	3	36 54.0 72.0	10 15 20	60 48 34	2950	66 73 66	8.91 9.67 9.80	15	Y160M2-2	3.7 3.9 4.3	Φ134	179.9	125
	4	36 54.0 72.0	10 15 20	80 64 45	2950	66 73 66	11.88 12.89 13.07	18.5	Y160L-2	3.7 3.9 4.3	Φ134	201.3	147

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
100D (DF, DY, MD) 16×(2~9)		5	36 54.0 72.0	10 15 20	100 80 56	2950	66 73 66	14.85 16.11 16.33	22	Y180M-2	3.7 3.9 4.3	Φ134	222.7	180
		6	36 54.0 72.0	10 15 20	120 96 67	2950	66 73 66	17.82 19.33 19.60	22	Y180M-2	3.7 3.9 4.3	Φ134	244.1	180
		7	36 54.0 72.0	10 15 20	140 112 78	2950	66 73 66	20.79 22.55 22.87	30	Y200L1-2	3.7 3.9 4.3	Φ134	265.6	240
		8	36 54.0 72.0	10 15 20	160 128 90	2950	66 73 66	23.76 25.78 26.13	30	Y200L1-2	3.7 3.9 4.3	Φ134	287.0	240
		9	36 54.0 72.0	10 15 20	180 144 101	2950	66 73 66	26.73 29.00 29.40	37	Y200L2-2	3.7 3.9 4.3	Φ134	308.4	260
		2	55 85 100	15.3 23.6 27.8	102 90 78	2950	63 72 70	24.25 28.92 30.35	37	Y200L2-2	3.2 4.2 5.2	Φ200	210.7	260
		3	55 85 100	15.3 23.6 27.8	153 135 117	2950	63 72 70	36.38 43.37 45.52	55	Y250M-2	3.2 4.2 5.2	Φ200	232.0	395
		4	55 85 100	15.3 23.6 27.8	204 180 156	2950	63 72 70	48.5 57.82 60.7	75	Y280S-2	3.2 4.2 5.2	Φ200	253.3	500
		5	55 85 100	15.3 23.6 27.8	255 225 195	2950	63 72 70	60.63 72.28 75.86	90	Y280M-2	3.2 4.2 5.2	Φ200	274.6	550
D (DF, DY, MD) 85-45×(2~9)		6	55 85 100	15.3 23.6 27.8	306 270 234	2950	63 72 70	72.75 86.73 91.04	110	Y315S-2	3.2 4.2 5.2	Φ200	295.9	875
		7	55 85 100	15.3 23.6 27.8	357 315 273	2950	63 72 70	84.88 101.2 106.2	132	Y315M-2	3.2 4.2 5.2	Φ200	317.2	950
		8	55 85 100	15.3 23.6 27.8	408 360 312	2950	63 72 70	97.0 115.6 121.4	132	Y315M-2	3.2 4.2 5.2	Φ200	338.5	950

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 85-67×(2~9)		9	55 85 100	15.3 23.6 27.8	459 405 351	2950	63 72 70	109.1 130.1 136.6	160	Y315L1-2	3.2 4.2 5.2	Φ200	359.8	1070
		2	55 85 100	15.3 23.6 27.8	148 134 122	2950	58 68 68	38.2 45.6 48.9	55	Y250M-2	3.3 4.0 4.4	Φ235	428	395
		3	55 85 100	15.3 23.6 27.8	222 201 183	2950	58 68 68	57.3 68.4 73.3	90	Y280M-2	3.3 4.0 4.4	Φ235	498	550
		4	55 85 100	15.3 23.6 27.8	296 268 244	2950	58 68 68	76.4 91.2 97.7	110	Y315S-2	3.3 4.0 4.4	Φ235	568	875
		5	55 85 100	15.3 23.6 27.8	370 335 305	2950	58 68 68	95.6 114 122.2	132	Y315M-2	3.3 4.0 4.4	Φ235	638	950
		6	55 85 100	15.3 23.6 27.8	444 402 366	2950	58 68 68	114.7 136.9 146.6	160	Y315L1-2	3.3 4.0 4.4	Φ235	708	1070
		7	55 85 100	15.3 23.6 27.8	518 469 427	2950	58 68 68	133.8 159.6 171	185	Y315L2-2	3.3 4.0 4.4	Φ235	778	915
		8	55 85 100	15.3 23.6 27.8	592 536 488	2950	58 68 68	152.9 182.4 195.4	220	Y355M1-2	3.3 4.0 4.4	Φ235	848	1350
		9	55 85 100	15.3 23.6 27.8	666 603 549	2950	58 68 68	172 205.2 219.9	250	Y355M2-2	3.3 4.0 4.4	Φ235	918	1450
D (DF, DY, MD) 120-50×(2~12)		2	96 120 140	26.7 33.3 38.9	110 100 84.6	2950	73 73.3 67.5	39.44 44.54 48.8	55	Y250M-2	3.2 5.1 6.7	Φ213	312	395
		3	96 120 140	26.7 33.3 38.9	165 150 126.9	2950	73 73.3 67.5	50.09 66.88 71.68	90	Y280M-2	3.2 5.1 6.7	Φ213	377	550
		4	96 120 140	26.7 33.3 38.9	220 200 169.2	2950	73 73.3 67.5	78.79 89.17 95.57	110	Y315S-2	3.2 5.1 6.7	Φ213	442	875

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 120-50x (2~12)	125D (DF, DY, MD) 25x(2~9)	5	96 120 140	26.7 33.3 38.9	275 250 211.5	2950	73 73.3 67.5	98.49 111.46 119.46	132	Y315M-2	3.2 5.1 6.7	Φ 213	507	950
		6	96 120 140	26.7 33.3 38.9	330 300 253.8	2950	73 73.3 67.5	118.18 133.75 143.36	160	Y315L1-2	3.2 5.1 6.7	Φ 213	572	1070
		7	96 120 140	26.7 33.3 38.9	385 350 296.1	2950	73 73.3 67.5	137.88 156.04 167.25	200	Y315L2-2	3.2 5.1 6.7	Φ 213	637	1190
		8	96 120 140	26.7 33.3 38.9	440 400 338.4	2950	73 73.3 67.5	157.58 178.33 191.14	220	Y355M1-2	3.2 5.1 6.7	Φ 213	702	1190
		9	96 120 140	26.7 33.3 38.9	495 450 380.7	2950	73 73.3 67.5	177.28 200.63 215.03	250	Y355M2-2	3.2 5.1 6.7	Φ 213	767	1350
		10	96 120 140	26.7 33.3 38.9	550 500 423	2950	73 73.3 67.5	196.97 222.92 238.93	280	Y355L1-2	3.2 5.1 6.7	Φ 213	832	1550
		11	96 120 140	26.7 33.3 38.9	605 550 465.3	2950	73 73.3 67.5	216.67 245.21 262.82	280	Y355L1-2	3.2 5.1 6.7	Φ 213	897	1550
		12	96 120 140	26.7 33.3 38.9	660 600 507.6	2950	73 73.3 67.5	236.37 267.50 287.71	315	Y355L2-2	3.2 5.1 6.7	Φ 213	962	1650
		2	72 101 119	20 28 33	51.2 43.0 35.0	2950	70.5 77.5 77.0	14.20 15.20 15.30	22	Y180M-2	3.2 3.6 4.3	Φ 156	183	180
		3	72 101 119	20 28 33	76.8 64.5 52.5	2950	70.5 77.5 77.0	21.30 22.80 22.90	30	Y200L1-2	3.2 3.6 4.3	Φ 156	219	240
		4	72 101 119	20 28 33	102.4 86.0 70.0	2950	70.5 77.5 77.0	28.40 30.40 30.60	37	Y200L2-2	3.2 3.6 4.3	Φ 156	256	260
		5	72 101 119	20 28 33	128.0 107.5 87.5	2950	70.5 77.5 77.0	35.50 38.00 38.25	45	Y225M-2	3.2 3.6 4.3	Φ 156	292	325

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 155-30x (2~10) /150D (DF, DY, MD) 30x(2~10)	D (DF, DY, MD) 155-30x (2~10) /150D (DF, DY, MD) 30x(2~10)	6	72 101 119	20 28 33	153.6 129.0 105.0	2950	70.5 77.5 77.0	42.60 45.60 45.90	55	Y250M-2	3.2 3.6 4.3	Φ 156	328	395
		7	72 101 119	20 28 33	179.2 150.5 122.5	2950	70.5 77.5 77.0	49.70 53.20 53.55	75	Y280S-2	3.2 3.6 4.3	Φ 156	365	500
		8	72 101 119	20 28 33	204.8 172.0 140.0	2950	70.5 77.5 77.0	56.80 60.80 61.20	75	Y280S-2	3.2 3.6 4.3	Φ 156	401	500
		9	72 101 119	20 28 33	230.4 193.5 157.5	2950	70.5 77.5 77.0	63.90 68.40 68.85	90	Y280M-2	3.2 3.6 4.3	Φ 156	438	550
		2	119 155 190	33 43 52.8	64 60 54	1480	69.5 75 76	29.8 33.71 36.95	45	Y225M-4	3.2 3.9 4.8	Φ 305	476	325
		3	119 155 190	33 43 52.8	96 90 81	1480	69.5 75 76	44.7 50.57 55.42	75	Y280S-4	3.2 3.9 4.8	Φ 305	546	500
		4	119 155 190	33 43 52.8	128 120 108	1480	69.5 75 76	59.6 67.42 73.9	90	Y280M-4	3.2 3.9 4.8	Φ 305	617	550
		5	119 155 190	33 43 52.8	160 150 135	1480	69.5 75 76	74.5 84.28 92.37	110	Y315S-4	3.2 3.9 4.8	Φ 305	687	875
		6	119 155 190	33 43 52.8	192 180 162	1480	69.5 75 76	89.4 101.1 110.8	132	Y315M-4	3.2 3.9 4.8	Φ 305	757	950
		7	119 155 190	33 43 52.8	224 210 189	1480	69.5 75 76	104.3 118.0 129.3	160	Y315L1-4	3.2 3.9 4.8	Φ 305	827	1070
		8	119 155 190	33 43 52.8	256 240 216	1480	69.5 75 76	119.2 134.8 147.8	200	Y315L2-4	3.2 3.9 4.8	Φ 305	897	1190
		9	119 155 190	33 43 52.8	288 270 243	1480	69.5 75 76	134.1 151.7 166.3	200	Y315L2-4	3.2 3.9 4.8	Φ 305	968	1190

参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 155-30x(2~10) /150D (DF, DY, MD) 30x(2~10)	10	119 155 190	33 43 52.8	320 200 270	1480	69.5 75 76	149 168.6 184.7	220	Y355M1-4	3.2 3.9 4.8	Φ 305	1038	1350
D (DF, DY, MD) 155-67x(2~9)	2	100 155 185	27.8 43.1 51.4	152 134 118	2950	64 74 72	64.7 76.5 82.6	90	Y280M-2	3.2 5.0 6.6	Φ 235	432	550
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	3	100 155 185	27.8 43.1 51.4	228 201 177	2950	64 74 72	97.0 114.7 123.9	132	Y315M-2	3.2 5.0 6.6	Φ 235	502	950
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	4	100 155 185	27.8 43.1 51.4	304 268 236	2950	64 74 72	129.4 152.9 165.1	185	Y315L2-2	3.2 5.0 6.6	Φ 235	572	915
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	5	100 155 185	27.8 43.1 51.4	380 335 295	2950	64 74 72	161.7 191.2 206.4	220	Y355M1-2	3.2 5.0 6.6	Φ 235	642	1350
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	6	100 155 185	27.8 43.1 51.4	456 402 354	2950	64 74 72	194 229.5 247.7	280	Y355L1-2	3.2 5.0 6.6	Φ 235	712	1550
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	7	100 155 185	27.8 43.1 51.4	532 469 413	2950	64 74 72	226.4 267.7 288.9	315	Y355L2-2	3.2 5.0 6.6	Φ 235	782	1650
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	8	100 155 185	27.8 43.1 51.4	608 536 472	2950	64 74 72	258.8 305.9 330.2	355	Y3555-2 (IP23/6k V)	3.2 5.0 6.6	Φ 235	852	1545
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	9	100 155 185	27.8 43.1 51.4	684 603 531	2950	64 74 72	291.1 344.2 371.5	450	Y4001-2 (IP23/6k V)	3.2 5.0 6.6	Φ 235	922	2750
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	2	185 280 335	51.4 77.8 93.1	94 86 76	1480	69 77 75	68.6 85.2 92.5	110	Y315S-4	3.0 4.7 6.0	Φ 360	667	875
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	3	185 280 335	51.4 77.8 93.1	141 129 114	1480	69 77 75	102.9 127.7 138.8	160	Y315L1-4	3.0 4.7 6.0	Φ 360	787	1135
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	4	185 280 335	51.4 77.8 93.1	188 172 152	1480	69 77 75	137.7 170.3 185.0	200	Y315L2-4	3.0 4.7 6.0	Φ 360	908	1255

参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
		m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	5	185 280 335	51.4 77.8 93.1	235 215 190	1480	69 77 75	171.6 212.9 231.3	250	Y355M2-4	3.0 4.7 6.0	Φ 360	1028	1450
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	6	185 280 335	51.4 77.8 93.1	282 258 228	1480	69 77 75	205.9 255.5 277.5	315	Y355L2-4	3.0 4.7 6.0	Φ 360	1149	1650
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	7	185 280 335	51.4 77.8 93.1	329 301 266	1480	69 77 75	240.2 298.1 323.8	355	Y4001-4 (IP23/6k V)	3.0 4.7 6.0	Φ 360	1271	2480
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	8	185 280 335	51.4 77.8 93.1	376 344 304	1480	69 77 75	274.5 340.7 370.0	450	Y4003-4 (IP23/6k V)	3.0 4.7 6.0	Φ 360	1391	2640
D (DF, DY, MD) 280-43x(2~9) /200D (DF, DY, MD) 43x(2~9)	9	185 280 335	51.4 77.8 93.1	423 387 342	1480	69 77 75	308.8 383.3 416.3	450	Y4003-4 (IP23/6k V)	3.0 4.7 6.0	Φ 360	1512	2640
D (DF, DY, MD) 280-65x(2~12)	2	185 280 335	51.4 77.8 93.1	136 130 124	1480	67 73 71	102.2 135.8 159.3	185	Y315L2-4	2.8 3.7 5.0	Φ 430	824	915
D (DF, DY, MD) 280-65x(2~12)	3	185 280 335	51.4 77.8 93.1	204 195 186	1480	67 73 71	153.4 203.7 238.9	280	Y3555-4 (IP23/6k V)	2.8 3.7 5.0	Φ 430	1006	1890
D (DF, DY, MD) 280-65x(2~12)	4	185 280 335	51.4 77.8 93.1	272 260 248	1480	67 73 71	204.5 271.6 318.6	355	Y4001-4 (IP23/6k V)	2.8 3.7 5.0	Φ 430	1188	2480
D (DF, DY, MD) 280-65x(2~12)	5	185 280 335	51.4 77.8 93.1	340 325 310	1480	67 73 71	255.7 339.5 398.3	450	Y4003-4 (IP23/6k V)	2.8 3.7 5.0	Φ 430	1370	2640
D (DF, DY, MD) 280-65x(2~12)	6	185 280 335	51.4 77.8 93.1	408 390 372	1480	67 73 71	306.6 407.4 477.8	500	Y4004-4 (IP23/6k V)	2.8 3.7 5.0	Φ 430	1552	2730
D (DF, DY, MD) 280-65x(2~12)	7	185 280 335	51.4 77.8 93.1	476 455 434	1480	67 73 71	357.9 475.3 557.7	630	Y4501-4 (IP23/6k V)	2.8 3.7 5.0	Φ 430	1734	3550
D (DF, DY, MD) 280-65x(2~12)	8	185 280 335	51.4 77.8 93.1	544 520 496	1480	67 73 71	409.1 543.2 637.3	710	Y4502-4 (IP23/6k V)	2.8 3.7 5.0	Φ 430	1916	3670

参数 Parameter	型号 Type	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg	
			m³/h	L/s					功率 Power kW	型号 Type					
D (DF, DY, MD) 280-65×(2~12)	9	185	51.4	612	585	1480	67	460.2	Y4503-4 (IP23/6kV)	2.8	3.7	Φ 430	2098	3930	
		280	77.8	585	558		73	611.1		5.0					
	10	185	51.4	680	650	1480	67	511.3	Y4504-4 (IP23/6kV)	2.8	3.7	Φ 430	2280	3960	
		280	77.8	650	620		73	678.9		5.0					
	11	185	51.4	748	715	1480	67	562.5	Y4504-4 (IP23/6kV)	2.8	3.7	Φ 430	2460	3960	
		280	77.8	715	682		73	746.9		5.0					
	12	185	51.4	816	780	1480	67	613.6	Y5001-4 (IP23/6kV)	2.8	3.7	Φ 430	2645	4660	
		280	77.8	780	744		73	814.8		5.0					
	D (DF, DY, MD) 360-40×(2~10)	2	300	83.3	84	80	1480	77	89.1	Y315M-4	4.65	4.7	Φ 360	676	1025
		360	100	80	71		80	98.1							
		440	122.2				77	110.5							
		3	300	83.3	126	120	1480	77	133.7	Y315L2-4	4.65	4.7	Φ 360	807	915
		360	100	120	106.5		80	147.2							
		440	122.2				77	165.8							
		4	300	83.3	168	160	1480	77	178.2	Y355M2-4	4.65	4.7	Φ 360	938	1450
		360	100	160	142		80	196.2							
		440	122.2				77	221.1							
		5	300	83.3	210	200	1480	77	222.8	Y355L2-4	4.65	4.7	Φ 360	1069	1650
		360	100	200	177.5		80	245.3							
		440	122.2				77	276.3							
	D (DF, DY, MD) 360-40×(2~10)	6	300	83.3	252	240	1480	77	257.4	Y4002-4 (IP23/6kV)	4.65	4.7	Φ 360	1200	2560
		360	100	240	213		80	294.1							
		440	122.2				77	331.5							
		7	300	83.3	294	280	1480	77	311.9	Y4003-4 (IP23/6kV)	4.65	4.7	Φ 360	1331	2640
		360	100	280	248.5		80	343.1							
		440	122.2				77	386.7							
		8	300	83.3	336	320	1480	77	356.5	Y4004-4 (IP23/6kV)	4.65	4.7	Φ 360	1462	2730
		360	100	320	284		80	392.2							
		440	122.2				77	441.9							
	9	300	83.3	378	360	1480	77	401.1	Y4005-4 (IP23/6kV)	4.65	4.7	Φ 360	1593	2880	
		360	100	360	319.5		80	441.2							
		440	122.2				77	497.2							

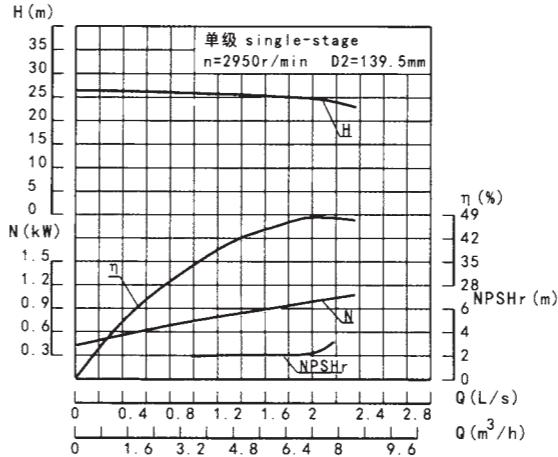
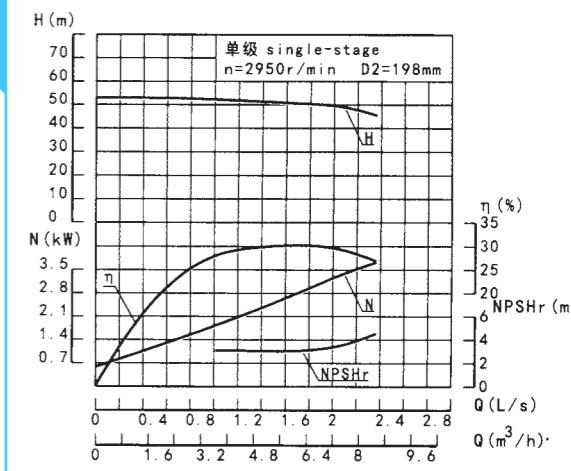
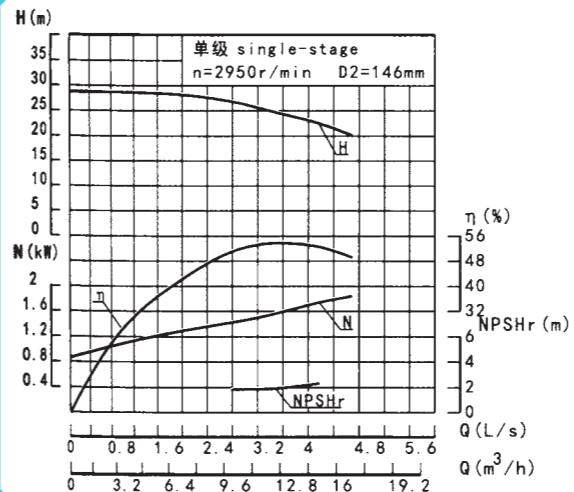
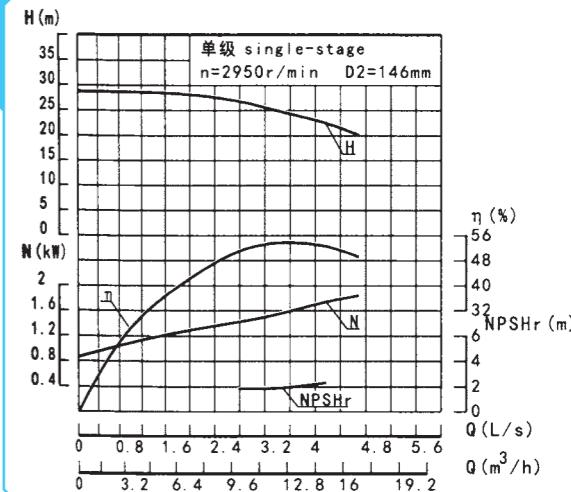
参数 Parameter	型号 Type	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 450-60×(2~10)	10	300	83.3	420	400	1480	77	445.6	Y4501-4 (IP23/6kV)	4.65	4.7	Φ 360	1724	3550
		360	100	400	355		80	490.2						
	2	335	93.1	130	120	1480	72	164.7	Y3554-4 (IP23/6kV)	4.1	5.2	Φ 430	1500	1820
		450	125	120	113		79	186.1						
	3	335	93.1	195	180	1480	72	247.1	Y4001-4 (IP23/6kV)	4.1	5.2	Φ 430	1750	2480
		450	125	180	171		79	279.2						
	4	335	93.1	260	240	1480	72	329.5	Y4003-4 (IP23/6kV)	4.1	5.2	Φ 430	2000	2730
		450	125	240	228		79	372.2						
	5	335	93.1	325	300	1480	72	411.8	Y4501-4 (IP23/6kV)	4.1	5.2	Φ 430	2250	3550
		450	125	300	285		79	465.4						
	6	335	93.1	390	360	1480	72	494.2	Y4502-4 (IP23/6kV)	4.1	5.2	Φ 430	2500	3670
		450	125	360	342		79	558.3						
	7	335	93.1	455	420	1480	72	576.5	Y4503-4 (IP23/6kV)	4.1	5.2	Φ 430	2750	3930
		450	125	420	399		79	651.5						
	8	335	93.1	520	480	1480								

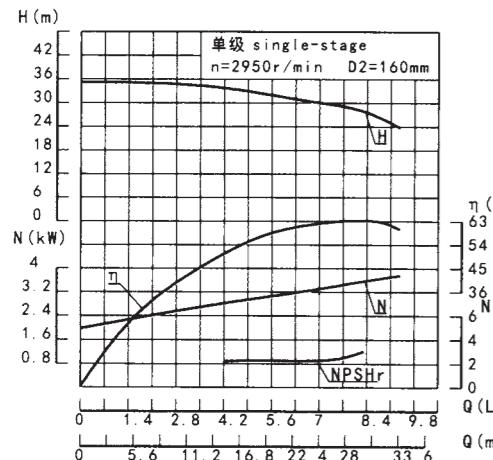
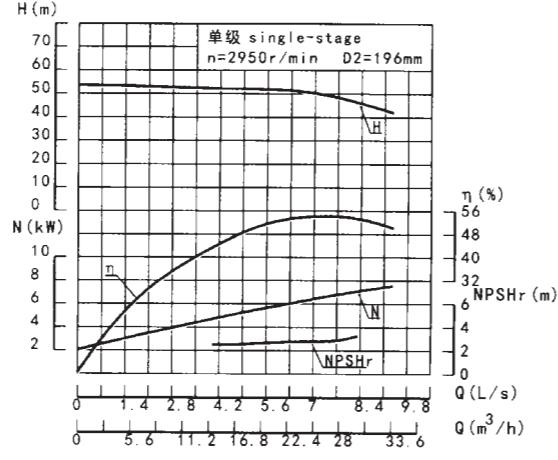
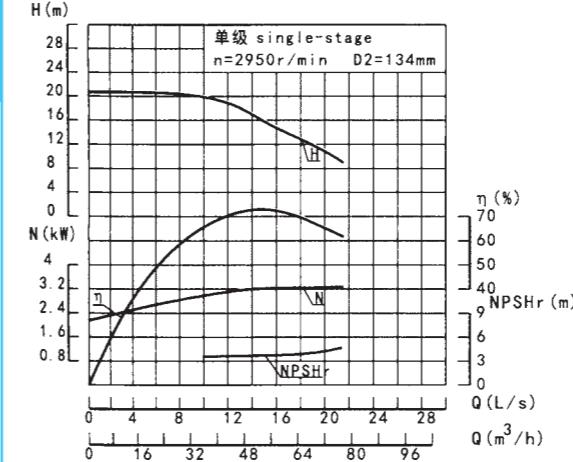
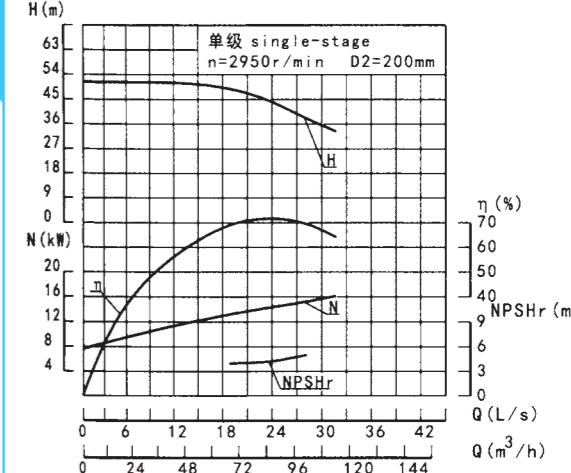
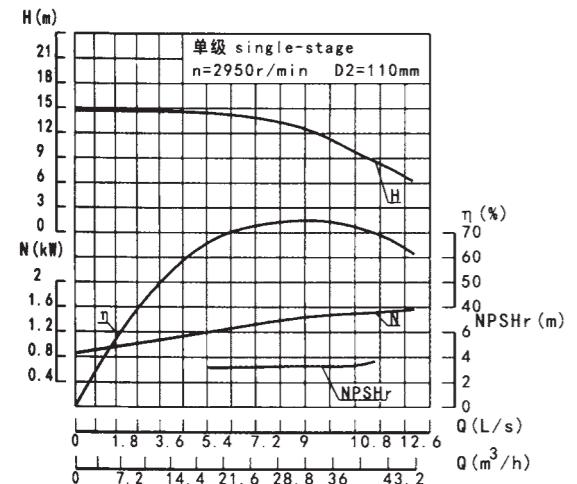
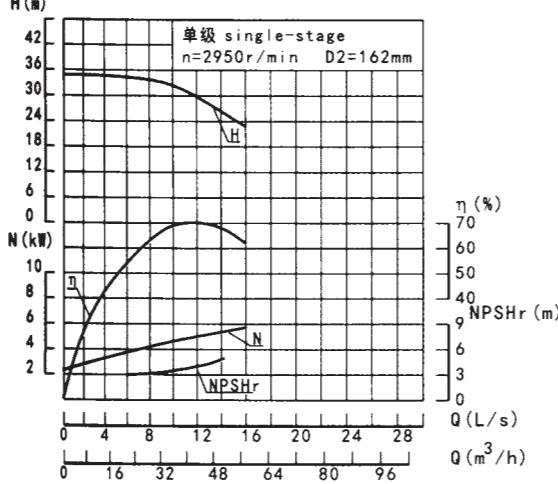
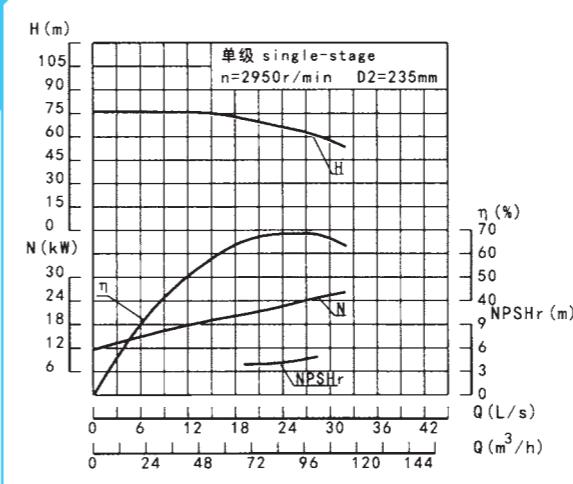
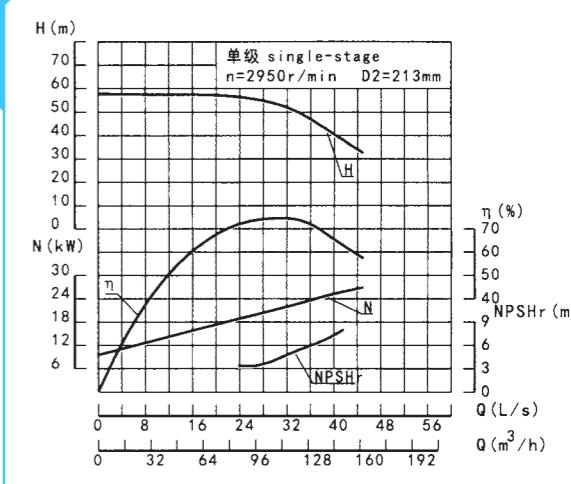
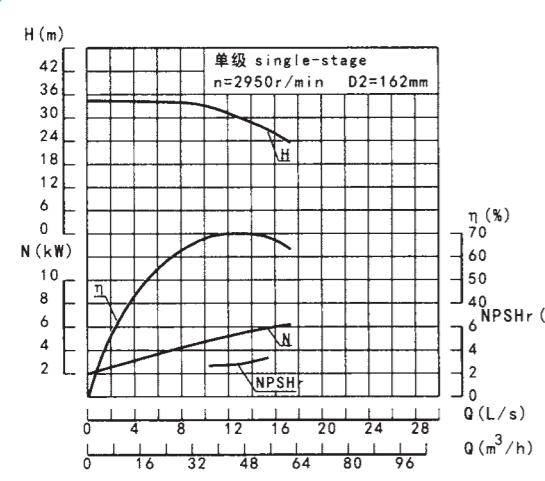
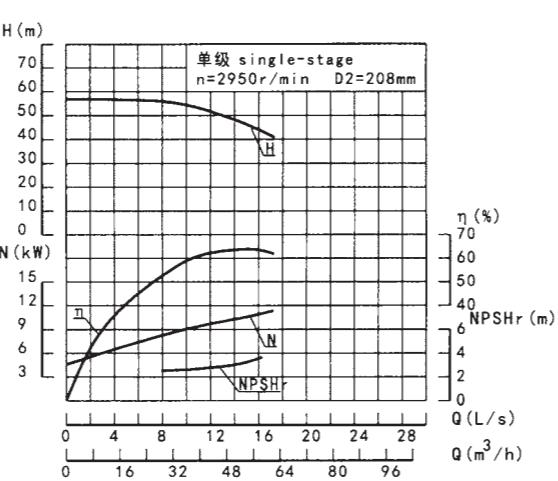
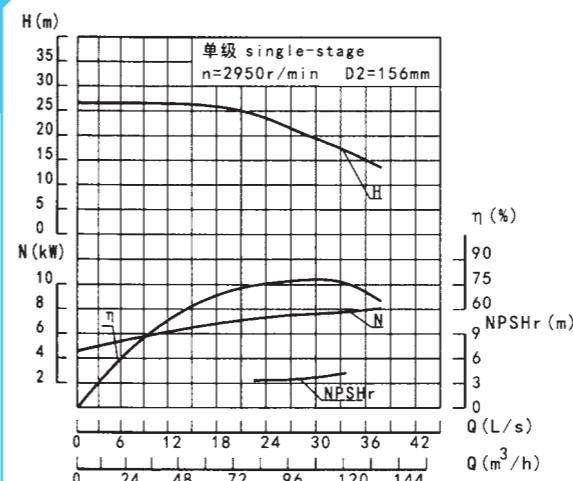
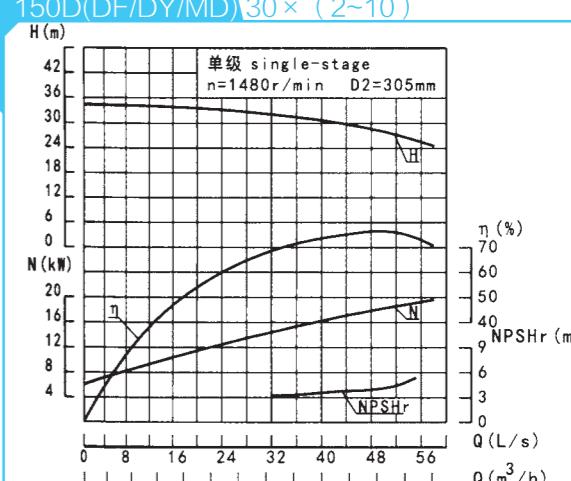
型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 500-57x(2~10)	4	450	125	240	1480	80	368	4.4	Φ 430	2000	2730			
		500	138.9	228		81	383.5	5						
		550	152.7	216		79	410	5.8						
	5	450	125	300	1480	80	460	4.4	Φ 430	2250	3550			
		500	138.9	285		81	479.5	5						
		550	152.7	270		79	512	5.8						
	6	450	125	360	1480	80	551.5	4.4	Φ 430	2500	3670			
		500	138.9	342		81	575	5						
		550	152.7	324		79	614.5	5.8						
	7	450	125	420	1480	80	643.5	4.4	Φ 430	2750	3930			
		500	138.9	399		81	671	5						
		550	152.7	378		79	716.7	5.8						
D (DF, DY, MD) 580-60x(2~10)	8	450	125	480	1480	80	735.5	4.4	Φ 430	3000	4660			
		500	138.9	456		81	767	5						
		550	152.7	432		79	819	5.8						
	9	450	125	540	1480	80	827.5	4.4	Φ 430	3250	4830			
		500	138.9	513		81	862.5	5						
		550	152.7	486		79	921.5	5.8						
	10	450	125	600	1480	80	919.5	4.4	Φ 430	3500	4930			
		500	138.9	570		81	958.5	5						
		550	152.7	540		79	1024	5.8						
D (DF, DY, MD) 580-60x(2~10)	2	450	125	130	1480	79	202	3.16	Φ 455	1750	1890			
		580	161.1	120		82	231	4.84						
		638	177.2	110		80	239	5.16						
	3	450	125	195	1480	79	302	3.16	Φ 455	1950	2640			
		580	161.1	180		82	346	4.84						
		638	177.2	165		80	359	5.16						
	4	450	125	260	1480	79	403	3.16	Φ 455	2260	2880			
		580	161.1	240		82	462	4.84						
		638	177.2	220		80	479	5.16						
D (DF, DY, MD) 600-60x(2~10)	5	450	125	325	1480	79	504	3.16	Φ 455	2570	3670			
		580	161.1	300		82	578	4.84						
		638	177.2	275		80	599	5.16						
	6	450	125	390	1480	79	605	3.16	Φ 455	2880	3930			
		580	161.1	360		82	694	4.84						

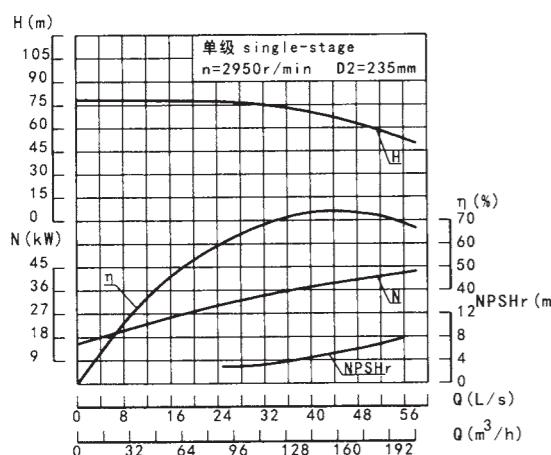
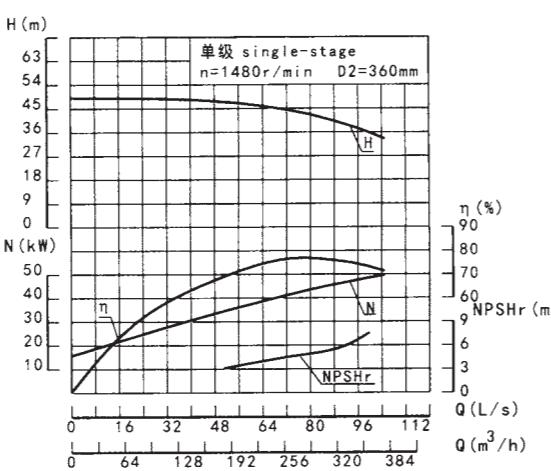
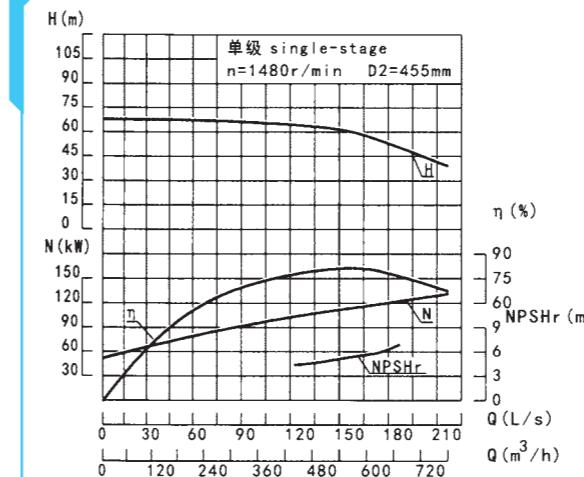
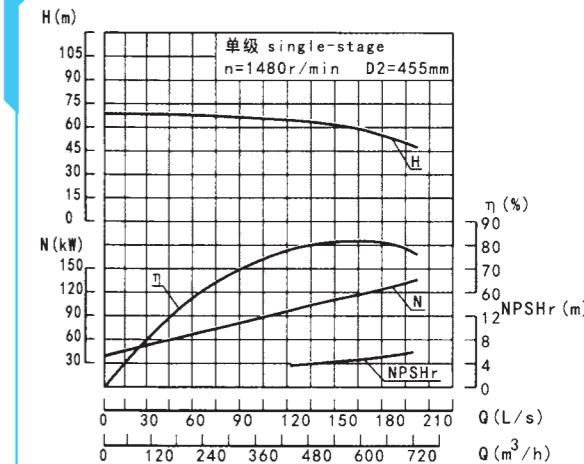
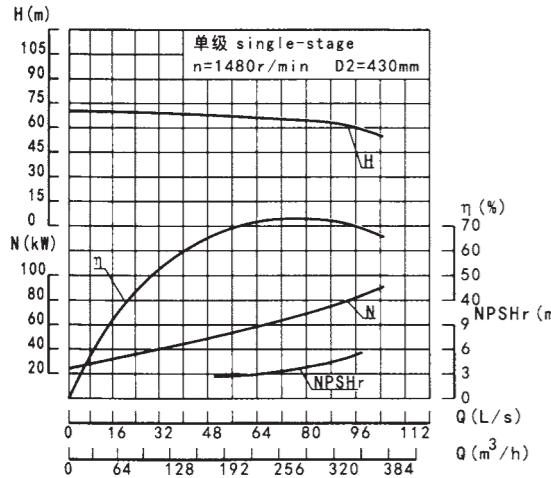
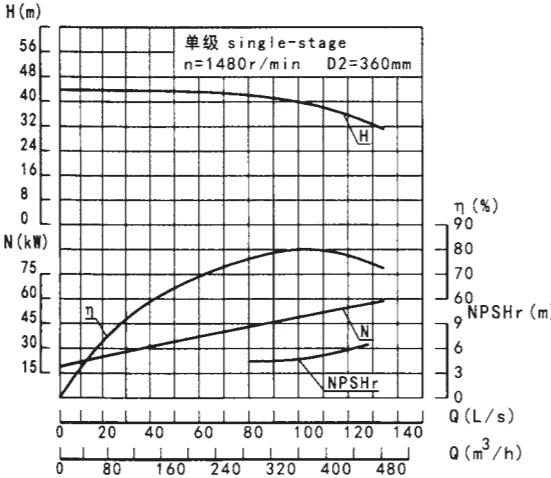
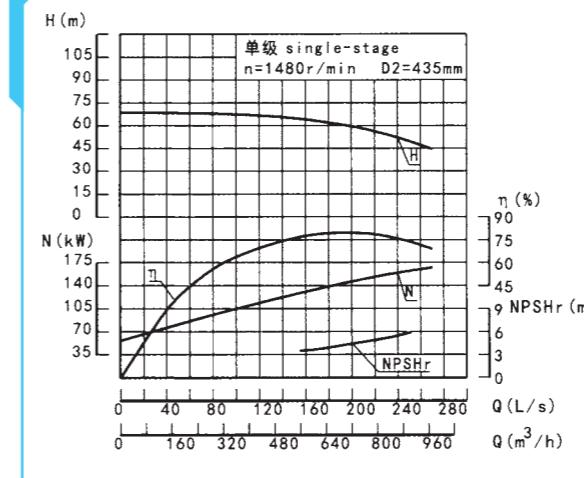
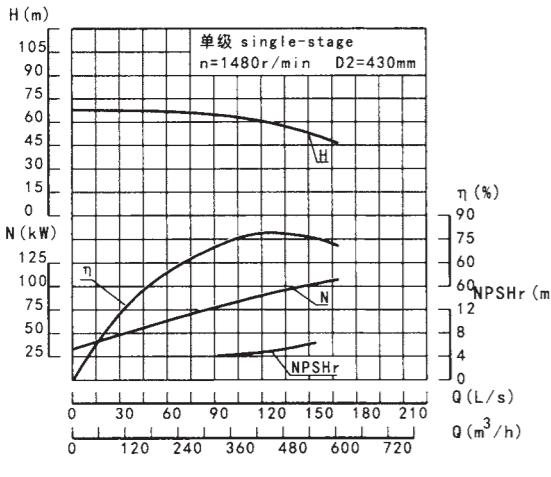
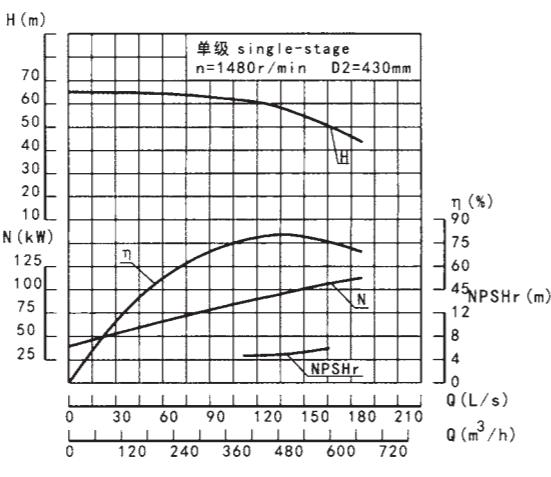
型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg	
			m³/h	L/s					功率 Power kW	型号 Type					
D (DF, DY, MD) 580-60x(2~10)	7	450	125	161.1	1480	79	706	3.16	Φ 455	3190	3960				
		580	161.1	1420		82	809	4.84							
		638	177.2	138.2		80	838	5.16							
	8	450	125	161.1	1480	79	806	3.16	Φ 455	3500	4830				
		580	161.1	1480		82	924	4.84							
		638	177.2	1440		80	958	5.16							
	9	450	125	161.1	1480	79	907	3.16	Φ 455	3810	4930				
		580	161.1	1540		82	1040	4.84							
		638	177.2	1495		80	1077	5.16							
	10	450	125	161.1	1480	79	1008	3.16	Φ 455	4120	4930				
		580	161.1	1600		82	1155	4.84							
		638	177.2	1550		80	1197	5.16							
D (DF, DY, MD) 600-60x(2~10)	2	450	125	166.6	1480	79	201.7	3.2	Φ 455	1750	1890				
		600	166.6	120		82	239.1	4.1							
		705	195.8	108		79	262.5	5.8							
	3	45													

型号 Type	参数 Parameter	级数 Stage	流量 Q Capacity		扬程 Head H m	转速 Speed n r/min	效率 Eff. η %	轴功率 Shaft power kW	配带电动机 Motor		必需汽 蚀余量 NPSHr m	叶轮名 义直径 Impeller Dia mm	泵重 Weight t kg	电机重 Moter Weight kg
			m³/h	L/s					功率 Power kW	型号 Type				
D (DF, DY, MD) 600-60×(2~10)	10	450 600 705	125 166.6 195.8	650 600 540	1480	79 82 79	1008.3 1195.6 1312.4	1400	Y5004-4 (IP23/6kV)	3.2 4.1 5.8	Φ 455	4120	5100	
D (DF, DY, MD) 720-60×(2~9)	2	550 720 850	152.8 200 236.1	132 120 108	1480	76 80 78.5	260 294 318.4	355	Y4001-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	1830	2480	
	3	550 720 850	152.8 200 236.1	198 180 162	1480	76 80 78.5	390 441 477.6	560	Y4005-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	2040	2880	
	4	550 720 850	152.8 200 236.1	264 240 216	1480	76 80 78.5	520 588 636.8	710	Y4502-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	2350	3670	
	5	550 720 850	152.8 200 236.1	330 300 270	1480	76 80 78.5	640 735 796	900	Y4504-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	2650	3930	
	6	550 720 850	152.8 200 236.1	396 360 324	1480	76 80 78.5	780 882 955.2	1120	Y5002-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	2960	4660	
	7	550 720 850	152.8 200 236.1	462 420 378	1480	76 80 78.5	910 1029 1114.4	1250	Y5003-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	3280	4930	
	8	550 720 850	152.8 200 236.1	528 480 432	1480	76 80 78.5	1040 1176 1273.6	1400	Y5004-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	3595	5100	
	9	550 720 850	152.8 200 236.1	594 540 486	1480	76 80 78.5	1170 1323 1432.8	1600	Y5601-4 (IP23/6kV)	3.5 4.5 5.5	Φ 435	3900	5900	

性能曲线
performance curve

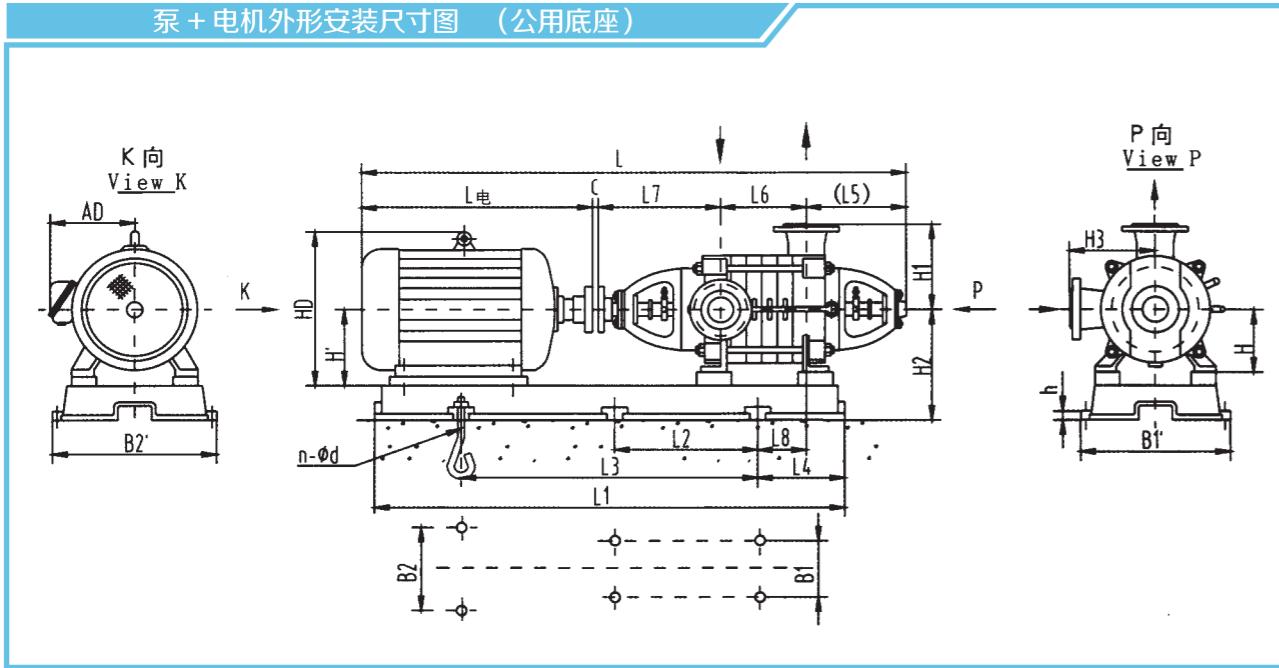
D (DF/DY/MD) 6-25 × (2~12)

D (DF/DY/MD) 6-50 × (2~14)

D (DF/DY/MD) 12-25 × (2~12)

D (DF/DY/MD) 12-50 × (2~14)


D (DF/DY/MD) 25-30 × (2~10)

D (DF/DY/MD) 25-50 × (2~12)

100D (DF/DY/MD) 16 × (2~9)

D (DF/DY/MD) 85-45 × (2~9)

80D (DF/DY/MD) 12 × (2~9)

D (DF/DY/MD) 12 × (3~10)

D (DF/DY/MD) 85-67 × (2~9)

D (DF/DY/MD) 120-50 × (2~12)

D (DF/DY/MD) 46-30 × (2~10)

D (DF/DY/MD) 46-50 × (2~12)

D (DF/DY/MD) 25 × (2~9)

**D (DF/DY/MD) 155-30 × (2~10)
150D(DF/DY/MD)30 × (2~10)**


D (DF/DY/MD) 155-67 × (2~9)

**D (DF/DY/MD) 280-43 × (2~9)
200D(DF/DY/MD) 43 × (2~9)**

D (DF/DY/MD) 580-60 × (2~10)

D (DF/DY/MD) 600-60 × (2~10)

D (DF/DY/MD) 280-65 × (2~12)

D (DF/DY/MD) 360-40 × (2~10)

D (DF/DY/MD) 720-60 × (2~9)

D (DF/DY/MD) 450-60 × (2~10)

D (DF/DY/MD) 500-57 × (2~10)


外形安装尺寸图、表

Overall Installation Dimension Diagram and Table



泵型号 Pump Model	泵 + 电机外形安装尺寸表 (公用底座) Pump+Motor Overall Installation Dimension Table (Common Base)																									
	级数 stage	L	L _电	L ₁	L ₂	L ₃	L ₄	(L ₅)	L ₆	L ₇	L ₈ *	C	H	H ₁	H ₂	H ₃	H'	HD	AD	B ₁	B _{1'}	h	B ₂	B _{2'}	n-Φ d	
25-30	2	1414	605	1170		840	190		165	40																
	3	1479							230	105																
	4	1589	650	1275		845	220		295	125																
	5	1674	670	1325	--	880	240		360	180																
	6	1848		1520		930	310	285	425	204	2	170	210												4-Φ 24	
	7	1913	775						490	150																
	8	1978		1685		1075	350		555	344	215															
	9	2043							620	280																
	10	2148	815	1765		1105	440		685	374																
									3																	
25-50	2	1552	650	1180		665	280		183	179																
	3	1632	670	1240	--				243	194																
	4	1801	775	1430		900	250		303	114															4-Φ 24	
	5	1861							363	174																
	6	1961	815	1570	530	1060	235		423	103																
	7	2136	930	1760	555	1125	270	356	483	100	2	210	270												6-Φ 24	
	8	2266							325	100																
	9	2326	1000		2060	725	1470	380	543	100																
	10	2386							603	160																
	11	2446	1050						663	220																
	12	2752	1240	2230	745	1490	360		723	280																
									783	274	260															
80D12	2	1133	400						192	-40																
	3	1278	475		1100	785	180		262	14																
	4	1348							332	84																
	5	1554							402	14																
	6	1624	605		1340	1060	165	254	472	277	2	160	210											4-Φ 24		
	7	1694							542	134																
	8	1764	1580			1065	345		612	204																
	9	1834	650			420			682	274																
	10	1904		1660					752	340																
									270																	
80-30	3	1465	650	1160		785	200		229	115																
	4	1546	670	1225	--				290	125																
	5	1716	775	1440		1010	195	245	351	46.5	2	200	205												4-Φ 24	
	6	1777							412	102.5																
	7	1878	815	1515		995	265		345	182.5																
	8	2045							534	31.5																
	9	2106	930	1810	665	1330	240		350	92.5															6-Φ 24	
	10	2167							656	153.5																
46-30	2	1414	605	1170		840	190		165	40																
	3	1544	670	1325	--	880	240		230	50																
	4	1718							295	74																
	5	1783	775	1520	--				310	139																
	6	1848							280	475	315															
	7	1953</																								

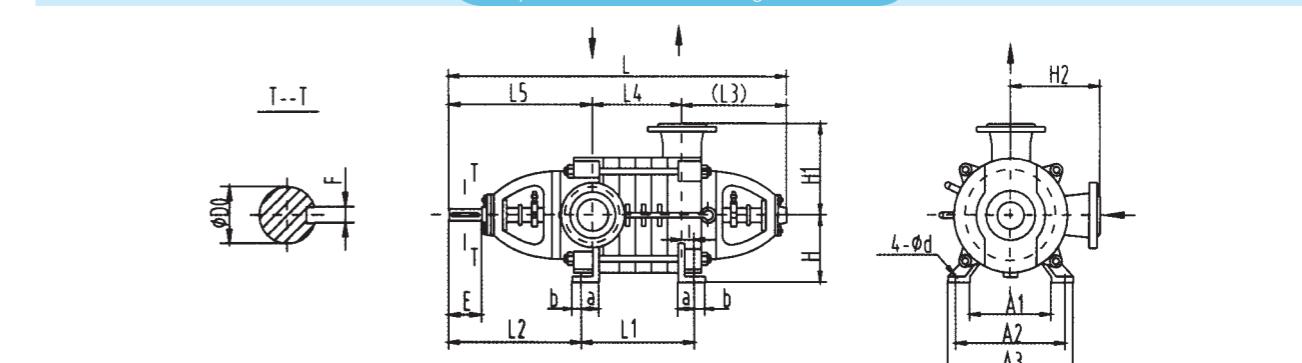
泵型号		泵+电机外形安装尺寸表 (单独底座) Pump+Motor Overall installation dimensions table (Pump' own base)																											
Pump Model	级数 stage	L	L _电	L ₁	L ₂	L ₃	L ₄	(L ₅)	L ₆	L ₇	L ₈ *	C	H	H ₁	H ₂	H ₃	H'	HD	AD	B ₁	B' ₁	h	n-Φ d	A	AA	B	BB	4-Φ K	EC
85-45	6	2284	1258	750	380	795		499	58														406	609					
	7	2428	1328	900	525	798		303	95	4	210	250	345	250	315	865	576	540	600	40	4-Φ 26	508	628	457	660	28	392		
	8	2502	1328	900	525	837			647	58													508	711					
	9	2576							721	95																			
	2	2268	930						283	-58.5								250	575	385			406	490	349	455	24	308	
	3	2476	1050	765	400	880.5			371	-14								280	640	410			457	550	419	581		330	
85-67	4	2754	1240						459	29.5														406	609				
	5	2912	1310						547	73.5	4	270	350	420	350	315	865	576	600	670	50	4-Φ 30	508	628	508	711	28	356	
	6	3000	1222	945	580	948.5			635	27.5								740	532					457	600				
	7	3000							723	71.5																			
	8	3408	1540	1125	760	986.5				811	25.5							355	1035	680									
	9	3496							899	69.5														610	740	560	830	394	
155-30	2	1937	858						629		315	-70						225	530	345			356	435	311	393	19	302	
	3	2181	1000	730	450	718.5				430	388	-12.5						280	640	410			457	550	419	581	24	330	
	4	2346	1050						776	545	45																		
	5	2711	1270						743	660	-70	4	280	350	400	350	315	865	576					406	609				
	6	2896	1075	795	800.5	140			355	775								600	680	50	4-Φ 26	508	628	508	711	28	386		
	7	3011	1340						862		890	418	45					315	740	532			508	628	457	660	600	356	
155-67	8	3126	1310	765	400	950.5			722		1005	-70						280	640	410			457	550	419	581	24	330	
	9	3242	1420	1165	780.5					1120		-12.5						355	1035	680			406	609					
	10	3587	1570						876	1235	45							280	640	410			457	550	419	581	24	330	
	2	2388	1050						836.5		283	-58.5						315	865	576			406	609					
	3	2736	1310	765	400	950.5				906	371	-14						280	640	410			457	550	419	581	24	330	
	8	3277	1410						985.5		811	25.5						315	740	532			406	609					
120-50	9	4045	2090						1180.5		899	69.5						400	1200	790			406	609					
	7	3319							1031		723	71.5						355	1035	680			406	609					
	8	3277	1410						1125	760								270	52.5				406	609					
	9	4045	2090						987.5		635	27.5						315	740	532			406	609					
	6	3230	1540	945	580				987.5		547	73.5						280	640	410			406	609					
	7	3319							1031		811	25.5						315	740	532			406	609					
280-65	8	3277	1410						985.5		899	69.5						280	640	410			406	609					
	9	3962	1900	1385	1060	1100.5			1035.5		1283	90.5						315	740	532			406	609					
	2	2736	1260	555	235	1076.5	160				345	52.5						315	1070	740			406	609					
	3	3444	1800	670	310	1243				475		6						355	1070	740			406	609					
	4	3674	1900	1060	700	1133				605		735						315	740	532			406	609					
	5	3804	1900	1060	700	1133				536	865	623	80					400	1200	790			406	609					
360-40	6	3935							1263	180	995	99.5						450	1350</td										

泵型号 Pump Model		泵+电机外形安装尺寸表 (单独底座) Pump+Motor Overall installation dimensions table (Pump' own base)																												
泵级数 stage	L L _电	L ₁	L ₂	L ₃	L ₄	(L ₅)	L ₆	L ₇	L _{8'}	C	H	H ₁	H ₂	H ₃	H' H''	HD	AD	B ₁	B _{1'}	h	n-Φd	A	AA	B	BB	4-ΦK	EC			
500-57	2	3357	1800	615	235	1223		421		88					355	1070	740			630	800	900	1420	28	525					
	3	3610	1900	770	390	1241		574							400	1200	790			710	900	1000	1500		545					
	4	3763		920	540	1244		727																						
	5	4166		1230	850	1185		880	10	1033	589	88	7	410	550	560	450	1350	840	850	950	50	4-Φ42	800	1000	1120	1760	565		
	6	4319	2150		1260	190	36																							
	7	4472		1530	1150	1188																								
	8	4625				1422																								
	9	5048	2420		1840	1460	1343																							
	10	5201				1418																								
	11																													
580-60 600-60	2	3605	1880	757	377	1205		490												355	1070	740			630	800	900	1420	28	525
	3	3825		957	577	1225																								
	4	4025		1157	777																									
	5	4475		1357	977	1245	190																							
	6	4675	2150	1557	1177	190	599	1290	625	65	7	430	550	580	550	450	1350	840	930	1030	50	4-Φ42	800	1000	1120	1760	565			
	7	4875		1757	1377																									
	8	5345		1957	1577	1405																								
	9	5545	2420	2157	1777																									
	10	5745		2357	1977																									
	11																													
720-60	2	3655	1900	712	412	1226																								
	3	3840		897	597																									
	4	4275	2150	1082	782	1246	150																							
	5	4460		1267	967																									
	6	4915		1452	1152																									
	7	5100	2420	1637	1337	1406																								
	8	5285		1822	1522																									
	9																													
	10																													
	11																													

* 注：“L8”尺寸中带“-”号者表示尺寸在另一侧。

Note: the dimensions "L8" has "-", indicating the dimensions is in the other side.

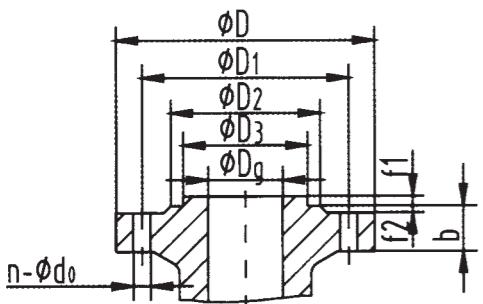
泵安装尺寸图、表
Pump Installation Dimensions Figure and Table



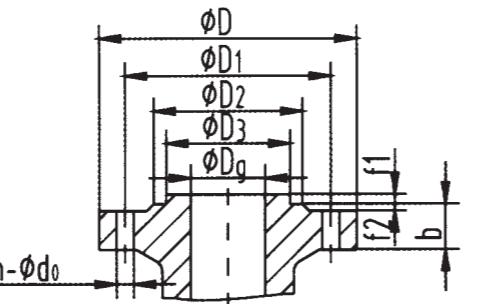
泵型号 Pump Model	泵安装尺寸表 Pump Installation Dimensions Table																										
	级数 Stage	L	L ₁	L ₂	L ₃	L ₄	(L ₅)	L ₆	L ₇	L _{8'}	C	H	H ₁	H ₂	I	A ₁	A ₂	A ₃	a	b	4-Φd	E	F	D ₀			
6-25 12-25	2	630	135									130															
	3	680	185									180															
	4	730	235									230															
	5	780	285									280															
	6	830	335									330															
	7	880	385									380	262	150	170	170	5	140	210	250	35	20	Φ14.5				

泵型号 Pump Moded	泵安装尺寸表 Pump Installation Dimensions Table																			
	级数 stage	L	L ₁	L ₂	L ₃	L ₄	L ₅	H	H ₁	H ₂	I	A ₁	A ₂	A ₃	a	b	4-Φd	E	F	D ₀
25-50 46-50	8	1230	609	298	356	543	331	210	270	300	33	170	320	360	45	25	Φ 23	62	10	Φ 35
	9	1290	669			603														
	10	1350	729			663														
	11	1410	789			723														
	12	1470	849			783														
	13	1530	909			843														
	14	1590	969			903														
80D12	2	707	177	291	254	192	261	160	210	170	15	200	275	320	40	22	Φ 18	45	8	Φ 28
	3	777	247			262														
	4	847	317			332														
	5	917	387			402														
	6	987	457			472														
	7	1057	527			542														
	8	1127	597			612														
	9	1197	667			682														
	10	1267	737			752														
80-30	3	760	285	258	245	229	300	200	205	200	28	210	284	330	40	24	Φ 18	58	8	Φ 30
	4	821	346			290														
	5	882	407			351														
	6	943	468			412														
	7	1004	529			473														
	8	1065	590			534														
	9	1126	651			595														
	10	1187	712			656														
100D16	2	743.5	224	277.5	263	229	185	230	220	21	250	315	355	35/33	26/18	Φ 18	40	8	Φ 30	
	3	820.5	301			306														
	4	897.5	378			383														
	5	984.5	455			460														
	6	1061.5	532			537														
	7	1138.5	609			614														
	8	1225.8	686			691														
	9	1302.5	763			768														
85-45 (100D45)	2	828	249	305	303	203	322	210	250	250	29	280	345	385	40	20	Φ 18.5	78	10	Φ 35
	3	902	323			277														
	4	976	397																	

泵进、出口法兰尺寸图、表
Pump Inlet and Outlet Dimensions Diagram and Table



进口法兰
Inlet Flange



出口法兰
Outlet Flange

泵型号 Pump Model	进口法兰 Inlet Flange							出口法兰 Outlet Flange								
	Dg	D	D ₁	D ₂	D ₃	b	f _{1/f₂}	n-Φd ₀	Dg	D	D ₁	D ₂	D ₃	b	f _{1/f₂}	n-Φd ₀
D、DF、MD6-25	40	130	100	80	-	18	-/3	4-13.5	40	150	110	88	75	20	4/3	4-17.5
D、DF、MD6-50	50	160	110	90	-	30	-/3	4-13.5	50	175	135	105	87	28	4/3	4-23
D、DF、MD12-25	50	140	110	90	-	18	-/3	4-13.5	40	150	110	88	75	20	4/3	4-17.5
D、DF、MD12-50	50	160	110	90	-	30	-/3	4-13.5	50	175	135	105	87	28	4/3	4-23
D、DF、MD25-30	65	160	130	110	-	20	-/3	4-13.5	65	185	145	122	109	28	4/3	8-17.5
D、MD25-50	80	190	150	128	-	18	-/3	4-17.5	80	210	170	140	120	30	4/3	8-23
DF25-50	80	210	170	140	120	30	4/3	8-23	80	210	170	140	120	30	4/3	8-23
D、DF、MD46-30	80	190	150	128	-	22	-/3	4-17.5	65	185	145	122	109	28	4/3	8-17.5
D、MD46-50	80	190	150	128	-	18	-/3	4-17.5	80	210	170	140	120	30	4/3	8-23
DF46-50	80	210	170	140	120	30	4/3	8-23	80	210	170	140	120	30	4/3	8-23
D、DF、MD80-30	80	195	160	135	-	22	-/3	4-17.5	80	195	160	135	-	26	-/3	8-17.5
D、DF、MD85-45	100	210	170	148	-	24	-/3	4-17.5	100	235	190	160	149	30	4.5/3	8-22
D、MD85-67	150	265	225	202	-	33	-/3	8-18	150	345	280	242	203	38	4.5/3	8-33
DF85-67	150	345	280	242	203	38	4.5/3	8-33	150	345	280	242	203	38	4.5/3	8-33
D、DF、MD120-50	125	270	220	184	175	30	4.5/3	8-26	125	295	240	184	175	30	4.5/3	8-30
D、MD155-67	150	265	225	202	-	33	-/3	8-18	150	345	280	242	203	38	4.5/3	8-33
DF155-67	150	345	280	242	203	38	4.5/3	8-33	150	345	280	242	203	38	4.5/3	8-33
D、DF、MD280-43	200	340	295	268	-	28	-/3	8-22	200	375	320	285	259	38	4.5/3	12-30
D、DF、MD280-65	200	340	295	268	-	30	-/3	12-22	200	415	345	285	259	44	4.5/3	12-36
D、DF、MD360-40	200	340	295	268	-	28	-/3	8-22	200	375	320	285	259	38	4.5/3	12-30
D、DF、MD450-60	250	405	355	320	-	32	-/3	12-26	250	470	400	345	312	48	4.5/3	12-36
D、DF、MD500-57	250	405	355	320	-	32	-/3	12-26	250	470	400	345	312	48	4.5/3	12-36
D、DF、MD580-60	300	460	410	370	-	32	-/3	12-26	250	470	400	352	312	48	4.5/3	12-36
D、DF、MD600-60	300	460	410	370	-	32	-/3	12-26	250	470	400	352	312	48	4.5/3	12-36
D、DF、MD720-60	300	460	410	370	-	34	-/4	12-26	300	530	460	412	363	54	4.5/4	16-36
80D、DF、MD12	80	190	150	125	-	18	-/3	4-17.5	80	195	160	135	-	26	-/3	8-17.5
100D、DF、MD16	100	210	170	148	-	18	-/3	4-17.5	100	220	180	158	-	24	-/3	8-17.5
125D、DF、MD25	125	240	200	178	-	20	-/3	8-17.5	125	270	220	184	175	30	4.5/3	8-26
150D、DF、MD30	150	285	240	212	-	26	-/3	8-22	150	300	250	212	-	34	-/3	8-26

装配与拆卸

(A) 泵的装配

泵的装配顺序一般与拆卸顺序相反。装配质量的好坏直接影响泵能否正常运行，并影响泵的使用寿命和性能参数。装配时应注意以下几点：

- 1) 应保护好零件的加工精度和表面粗糙度，不允许有碰伤、划伤等现象，作密封用的密封部件要干净，紧固螺钉和螺栓应受力均匀；
- 2) 叶轮出口流道与导叶进口流道的对中性是依各零件的轴向尺寸来保证，流道对中性的好坏直接影响泵的性能，故泵的尺寸不能随意调整。
- 3) 泵装配完毕后，在未装填料前，用手转动泵转子，检查转子在泵中旋转是否灵活，轴向窜动量是否达规定要求；
- 4) 检查合格后，压入填料，并注意填料环在填料腔的相对位置。

(B) 泵拆卸时应注意的事项

- 1) 按停车顺序停车；
- 2) 泵壳内液体（包括冷却水）应放掉：轴承部件是稀油润滑时，应放掉润滑油；
- 3) 拆去妨碍拆卸的附属管路，如平衡管、水封管等管路和引线；
- 4) 拆卸应严格保护零件的制造精度不受损伤，拆卸拉杆的同时应将各中段用垫块垫起，以免各中段止口松动下沉将轴压弯。

(A) The pump assembly

Assembly sequence reverses that of disassembly. Following points shall be concerned as they will have effect on normal operation, durability and performance of the pump:

- 1) Machining accuracy and surface roughness shall be checked and protected, Avoid any scratch and the sealing part shall be clean; Stress on bolts shall be even and well distributed.
- 2) Concentricity of discharging path of impeller and inlet path of guide vane depends on dimensions of all parts; It affects the performance of the pump, and therefore the dimension of it shall not be modified freely.
- 3) Rotate the rotor of the pump manually to check its flexibility before filling any material after assembly.
- 4) Press the filling material after qualification of axial movement during which position offilling ring shall be concerned.

(B) Precautions of disassembly:

- 1) Terminate the power of the pump accordingly;
- 2) Discharge any liquid inside the pump including cooling water thin lubricating oil;
- 3) Any pipelines and wires shall be dismantled or removed including balancing tube, water sealing tube and lead wire.
- 4) Any harm to producing precision shall be avoided to protect the parts; Cushion blocks are being used when the pulling bar is dismantled for the purpose of any segments loosening which may bend the shaft.

(C) 泵的拆卸顺序

- 1) 卸下联轴器后，拧下吐出侧轴承端盖上的螺栓和出水段、尾盖、轴承体三个部件之间的联接螺栓，卸下轴承端盖、轴承体等轴承部件；
- 2) 拧下轴上圆螺母并依次卸下轴承内圈、轴承压盖和挡圈后，卸下填料体（包括填料压盖、填料环、填料等在内）或机械密封部件；
- 3) 依次卸下轴上的O形密封圈、轴套、平衡盘和平键后，卸下出水段、末导叶、平衡环套等；
- 4) 卸下末级叶轮和平键后，卸下中段、导叶；按此依次卸下各级叶轮、中段和导叶，直到卸下前级叶轮为止；
- 5) 卸下泵联轴器后，拧下进水段和轴承体的联接螺母和轴承压盖上的螺栓后，卸下进水段侧轴承部件；
- 6) 将轴从进水段中抽出，拧下轴上的固定螺母，依次将轴承内圈、O形密封圈、轴套等卸下；
- 7) 采用滑动轴承的泵，其拆卸顺序基本相同，仅在拆卸轴承部件时略有不同。

(C) Pump disassembly sequence

- 1) Dismount the coupling joint and unscrew the bolts of bearing gland at the discharging side and between the segments of discharging, end gland and bearing part. Dismount bearing gland and bearing parts then;
- 2) Unscrew nuts of the shaft and dismount the internal ring, pressing gland of the bearing and the washer sequentially; And dismount filling material part(including filling gland, filling ring, filling material)or mechanical sealing part;
- 3) Dismount sealing O-ring, sleeve, balancing plate, and straight key of the shaft and then dismount the discharging part, end guide vane, and balancing sleeve and ring;
- 4) Dismount end guide vane and straight key and then middle segments, guide vane sequentially till front guide vane;
- 5) Unscrew the bolts between inlet segment and bearing part and then shaft pressing gland; Dismount the side bearing part then;
- 6) Withdraw the shafc from the inlet segment and unscrew nuts on the shaft: Then dismount internal bearing ring, sealing O-ring, and shaft sleeve sequentially;
- 7) Above dismantling sequences are applicable to the pump with sliding bearing, but it is only different when dismantling the bearing part.

泵的安装

本型泵安装时除满足一般要求外，还应注意以下几点：

- 1) 安装泵的基础平面应当用水平仪找平。基础水泥凝固后，应检查底座和地脚螺栓孔是否松动；
- 2) 电机、泵和底座组装后，应严格检查泵轴和电机轴的同心度，保证两轴心线在同一轴线上；

Pump Installation

Additional points are advised apart from general requirements:

- 1) Horizontal instrument is advised for installation foundation. Assure the foundation bolts are tight sufficiently into thefoundation.

3) 电机和水泵组装时，应将泵联轴器端轴伸向外拉出，保证泵和电机两半联轴器端面的轴向间隙值；

- 4) 泵只能承受自身内力，不能承受任何外力，所以泵的吸入管路和压出管路应有各自的支架，以免将泵压坏；
- 5) 用于含有可燃易爆气体的矿井下运行的D、MD型泵，必须采用防爆电机并要求具有相应的防护等级和防爆标志。

- 2) Concentricity of shafts of pump and motor shall be checked strictly to make sure that these two shafts are on the same line after assembly of motor, pump and foundation.
- 3) Pull the shaft out from the coupling joint side during assembly of pump and motor to leave axial gap width of coupling joints of motor and pump.
- 4) Independent brackets for inlet pipelines and discharging pipelines are necessary in that the pump can sustain its own stress only. This avoids possible damage to the pump from external pressure.
- 5) Explosive-proof motor is a must for D and MD pump under circumstances of inflammable and explosive, mining well for instance, while insulation class and explosive-proof mark shall be indicated.

起动、运行与停止
(A) 起动

- 1) 泵起动前应转动泵转子，检查转子是否灵活；
- 2) 检查电机转向是否与泵转向一致；
- 3) 打开泵的吸人阀（如果装有吸人阀时），关闭泵出口管路闸阀及压力表旋塞，使泵内充满液体，或用真空系统排除吸人管路和泵内空气；
- 4) 检查泵和电机联接螺栓的松紧程度和泵周围的安全情况，使泵处于准备起动状态；
- 5) 起动电机，待泵运转正常后，打开压力表旋塞，慢慢开启泵出口闸阀，直到压力表指针指到所需压力为止（按出口压力表读数控制泵给定的扬程）。

Start-up、Operating and Halting
(A) Start-up

- 1) Rotate the rotor ofthe pump to make sure it is flexible;
- 2) Check and assure the rotation direction of the motor and the pump iS identical;
- 3) Open the suction valve, if any, and close the gate valve of outlet pipelines and faucet of the pressure meter to fill the pump with liquid; Or use vacuum to expel all air out of the pump and pipelines.
- 4) Make the pump ready for initializing after qualification of tightness of bolts between the pump and the motor and surroundings ofthe pump.
- 5) Open the faucet of the pressure meter after normal operation of the pump and open the

<p>(B) 运行</p> <p>1) 该泵靠泵内的平衡机构平衡轴向力，平衡装置内有平衡液体流出，平衡液体通过平衡水管接至进水段，或在平衡室外设计一短管，平衡液体经短管流向泵外。为保证泵正常运行，平衡水管绝对不允许堵塞；</p> <p>2) 在启动和运行过程中，必须注意观察仪表读数，轴承温度、填料漏水和温度及泵的振动和声音等是否正常，如发现异常情况，应及时处理；</p> <p>3) 轴承温升变化反映了泵的装配质量，轴承温升不得高于环境温度 35℃，轴承的最高温度不得高于 75℃；</p> <p>4) 泵转子在运行中存在一定的轴向游动，轴向窜动应在允许范围内，应保证电机和水泵两半联轴器端面间的间隙值；</p> <p>5) 泵在服役期间应定期检查叶轮、密封环、导叶套、轴套、平衡盘等零件的磨损情况，磨损过大时应及时更换。</p>
<p>(C) 停机</p> <p>1) 停机前应先关闭压力表的旋塞，慢慢关闭出口闸阀，待泵停稳后再关闭泵的吸入阀（如果装有吸入阀时）；</p> <p>2) 如长期停用，应将泵的进水段、中段、出水段下方的放水旋塞全部卸下，放掉余水，并将泵拆卸清洗上油，包装保管。</p>

gate valve slowly tillpointer of the pressure meter to the right value.(Control the head of the pump according to the discharging pressure)

(B)Operating

- 1) Axial force is balanced by balancing system inside the pump in which balancing fluid flows out. The balancing fluid connects to inlet segment by balancing pipe or a short pipe can be integrated outside of the balancing housing, and the balancing fluid can flow out by this means. Balancing pipe is not allowed to be blocked to keep normal operation of the pump.
- 2) Attention shall be made for all meters, temperature of bearing, leakage of filling, vibration and noise of the pump and immediate action shall be made if anything happens as following:
- 3) Temperature rise of bearing reflects assembly quality of the pump; Temperature shall not be 35°C higher than that of ambient while the max. temperature of the bearing is 75°C.
- 4) Axial movement of the rotor of the pump is possible and shall be within allowable range. Gap width between end surface of the coupling joints of the motor and the pump.
- 5) Impeller, sealing ring, guide vane, shaft sleeve and balancing plate shall be checked regularly during operation and immediate replacement shall be made if any wear is found.

(C)Halting

- 1) Close the faucet of the pressure meter and close the discharging gate valve slowly; Halt the motor till discharging valve is totally closed; Close the suction valve, if any, after halting of the pump.
- 2) For long time halting of the pump, all water shall be discharged by means of opening of all faucets of inlet segments, the middle, and the discharging; Disassemble the pump and oil all parts for long time keeping.

常见故障原因及其解决办法

Common fault causes and solutions

故障现象	原因分析	排除方法
泵不吸水，压力表、真空表指针剧烈震动，或真空表呈高度真空	1. 泵充水不够 2. 吸水管或表漏气 3. 底阀未开 4. 吸水管堵塞 5. 吸水高度过大	1. 注水放气 2. 上紧螺扣 3. 修理或更换底阀 4. 清洗吸水管 5. 降低吸水高度
压力表有压力，但不出水或流量过小	1. 流道有堵塞 2. 泵转速低于规定值 3. 系统总扬程高于泵设计扬程 4. 泵中进入气体 5. 泵转向不对 6. 零件磨损，内部泄漏过大	1. 清洗流道 2. 提高泵转速 3. 增加泵级数或减少管路损失 4. 堵塞进气部位 5. 电机重新接线 6. 更换磨损零件
电机电流过大	1. 系统总扬程大大低于泵的设计扬程 2. 管路破裂跑水 3. 启动时未关闭出口闸阀 4. 泵轴与电机轴不同心 5. 旋转件与固定件发生摩擦 6. 轴承磨损 7. 转子不平衡，产生振动 8. 电压过低	1. 关闭闸阀进行调节，或减少泵级数 2. 停泵，处理管路 3. 关闭闸阀，重新启动 4. 重新找正，避免系统力作用于泵上 5. 拆泵重新调整 6. 更换轴承 7. 拆卸转子做静平衡、动平衡检测 8. 提高电压
填料函泄漏多，填料发热冒烟，填料寿命短	1. 泵轴与电机轴不同心 2. 轴发生弯曲 3. 填料处轴套损伤，或填料安装不当，或填料型号不对 4. 填料与轴套间有杂质	1. 重新找正 2. 拆卸、矫正轴 3. 打磨或更换轴套，或重新安装填料、均匀压紧，或更换填料 4. 更换填料
泵震动或有噪音	1. 泵发生汽蚀 2. 流道有堵塞 3. 管路破裂跑水 4. 出口阀打开启动 5. 泵与电机轴不同心，或轴弯曲 6. 基础刚性不足 7. 旋转件与固定件发生摩擦 8. 叶轮缺损 9. 轴承内润滑脂过多或过少 10. 轴承磨损或内有脏物	1. 提高倒灌高度，减少吸水管阻力 2. 清理流道 3. 停泵处理管路 4. 关闭闸阀，重新启动 5. 重新找正，或检修、换轴 6. 加固基础 7. 拆卸、重新调整泵 8. 更换叶轮 9. 添加润滑脂要适量 10. 更换或清洗轴承，并注意密封轴承
轴承发热	1. 泵轴和电机轴不同心，或轴弯曲 2. 旋转件与固定件摩擦 3. 轴承损坏，或轴承内有脏物或进水 4. 轴承内润滑脂过多或过少	1. 重新找正，或检修、换轴 2. 拆卸、重新调整泵 3. 添加润滑脂要适量 4. 更换或清洗轴承，并注意密封轴承
中段等处结合面漏液	1. 穿杠螺栓紧固力不够或用力不均 2. 零件的制造精度（粗糙度，跳动或垂直度）未达到设计要求，或残余应力使零件变形 3. 结合面不洁或损坏	1. 重新紧固穿杠 2. 拆泵检查 3. 检修结合面

Failure Symptoms	Cause Analysis	Troubleshooting
No sucion. Pointer of pressure guage or vacuum gauge vibrates severely or vacuum gauge indicates high vacuum	a) Insufficient water filling into pump b) Leakage in suction pipe or gauge c) Bottom calve not open d) Suction pipe blocked e) Suction height too big	a) Fill water and exhaust air b) Fasten bolts c) Repair or replace bottom calve d) Clean suction pipe e) Reduce suction height
There is discharge pressure but on water discharge or flow too small	a) Flow channel blocked b) Pump speed lower than specified value c) Total system lift greater than design lift of pump d) Air in pump e) Incorrect pump direction f) Worn parts and too much internal leakage	a) Clean flow channel b) Increase pump speed c) Increase pump level or reduce pipeling loss d) Seal air leakage e) Re-connect motor f) Replace worn parts
Excessive current of motor	a) Total system lift far below design lift of pump b) pipeline breaks and leaks c) Outlet gate calves not closed during start-up d) Eccentric pump shaft and motor shaft e) Abrasion between rotating parts and fixed parts f) Worn bearings g) Unbalanced rotor causes vibration h) Voltage too low	a)Close gate calve for adjustment or reduce pump level b) Shut down pump and repair piping c) Close gate valve and start-up again d) Re-align to avoid system force on pump e) Disassemble pump and re-adjust f)Replace bearings g) Disassemble rotor for static and dynamic balance check h) Increase voltage
Excessive leakage of packing, packing becomes hot and smokes, short life of packing	a) Eccentric pump shaft and motor shaft b) Shaft bended c) Shfat sleeve damaged at packing location or packing installed improperly or packing type incorrect d) Impurities between packing and shaft	a) Re-align b) Disassemble shaft and straighten c) Machine or replace shaft sleeve or re-install packing, compact evenly or replace packing d) Replace packing

Failure Symptoms	Cause Analysis	Troubleshooting
Pump vibration or noise	a) Cavitation of pump b) Flow channel blocked c) Pipeline breaks and leaks d)Start –up with outlet valve opend e) Eccentric pump shaft and motor shaft of shaft bended f) Insufficient rigidity or foundation g) Abrasion between fixed parts and rotating parts h)Impller missing i) Too much or too little grease in bearings j) Bearings worn or impurities inside	a)Imorove the flow backward height, reduce resistance on sucton pipe b) Clear flow channel c) Shut down pump and repair pipeline d) Close gate calve and repair pipeline e) Re-align, repair or replace shaft f) Reinforce foundaton h) Replace impeller i) Apply adequate greaseonly j) Replace or clean brarings and seal bearings
Bearing becomes hot	a) Eccentric pump shaft and motor shaft or shaft bended b) Abrsion between fixed parts and rotating parts c) Damaged bearings or impurities or water in bearings d) Too much or too little grease in bearings	a)Re-align, repair or replace shaft b) Disassemble pump and re-adjust c) Apply aduquate grease only d) Replace or clesan bearings and seal bearings
Liquid leakage at junction ofmiddle sections	a) Pole bolt secured insufficiently or uneven forced b) Manufacturing accuracy (roughness, jumping or verticality) of parts not reaching design requirement, or remaining stress deforms parts c) Junction face not clean or damaged	a) Re-tinghen pole bolt b) Disassemble pump and check c) Repair junction face

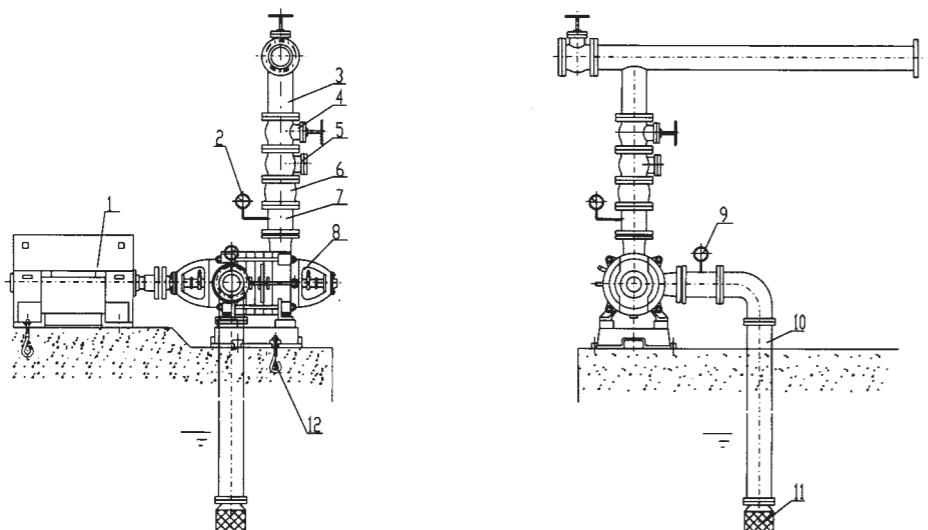
矿用泵配套电机表

Mining pump motor list

2 级电机 2 polws motor				4 级电机 4 polws motor			
功率 kW	型号 Model	功率 kW	型号 Model	功率 kW	型号 Model	功率 kW	型号 Model
3	YB2-100L-2	90	YB2-280M-2	45	YB2-225M-4	400	YB450S ₂ -4 (6kV)
4	YB2-112M-2	110	YB2-315S-2	75	YB2-280S-4	450	YB450M ₁ -4 (6kV)
5.5	YB2-132S ₁ -2	132	YB2-315M-2	90	YB2-280M-4	500	YB450M ₂ -4 (6kV)
7.5	YB2-132S ₂ -2	160	YB2-315L ₁ -2	110	YB2-315S-4	560	YB560S ₃ -4 (6kV)
11	YB2-160M ₁ -2	185	YB2-315M ₁ -2	132	YB2-315M-4	630	YB560M ₁ -4 (6kV)
15	YB2-160M ₂ -2	200	YB2-315L ₂ -2	160	YB2-315L ₁ -4	710	YB560M ₂ -4 (6kV)
18.5	YB2-160L-2	220	YB2-315M ₁ -2	185	YB2-315S ₁ -4	800	YB630S ₁ -4 (6kV)
22	YB2-180M-2	250	YB2-315M ₂ -2	200	YB2-315L ₂ -4	900	YB630S ₂ -4 (6kV)
30	YB2-200L ₁ -2	280	YB2-355L ₁ -2	220	YB2-355M ₁ -4	1000	YB630M ₁ -4 (6kV)
37	YB2-200L ₂ -2	315	YB2-355L ₂ -2	250	YB2-355M ₂ -4	1120	YB630M ₂ -4 (6kV)
45	YB2-225M-2	355	YB450S ₂ -2 (6kV)	280	YB2-355L ₁ -4	1250	YB710S ₁ -4 (6kV)
55	YB2-250M-2	450	YB450M ₁ -2 (6kV)	315	YB2-355L ₂ -4	1400	YB710S ₂ -4 (6kV)
75	YB2-280S-2			355	YB450S ₂ -4 (6kV)	1600	YB710M ₁ -4 (6kV)

管路安装示意图

Pipeline installation diagram



序号	零件名称	序号	零件名称	序号	零件名称	序号	零件名称
1	电机	4	闸阀	7	出水短管	10	进水管路
2	压力表	5	止回阀	8	水泵	11	滤网
3	出水管路	6	伸缩节	9	真空表	12	地脚螺栓