

hydroo®

HDROO SERIES

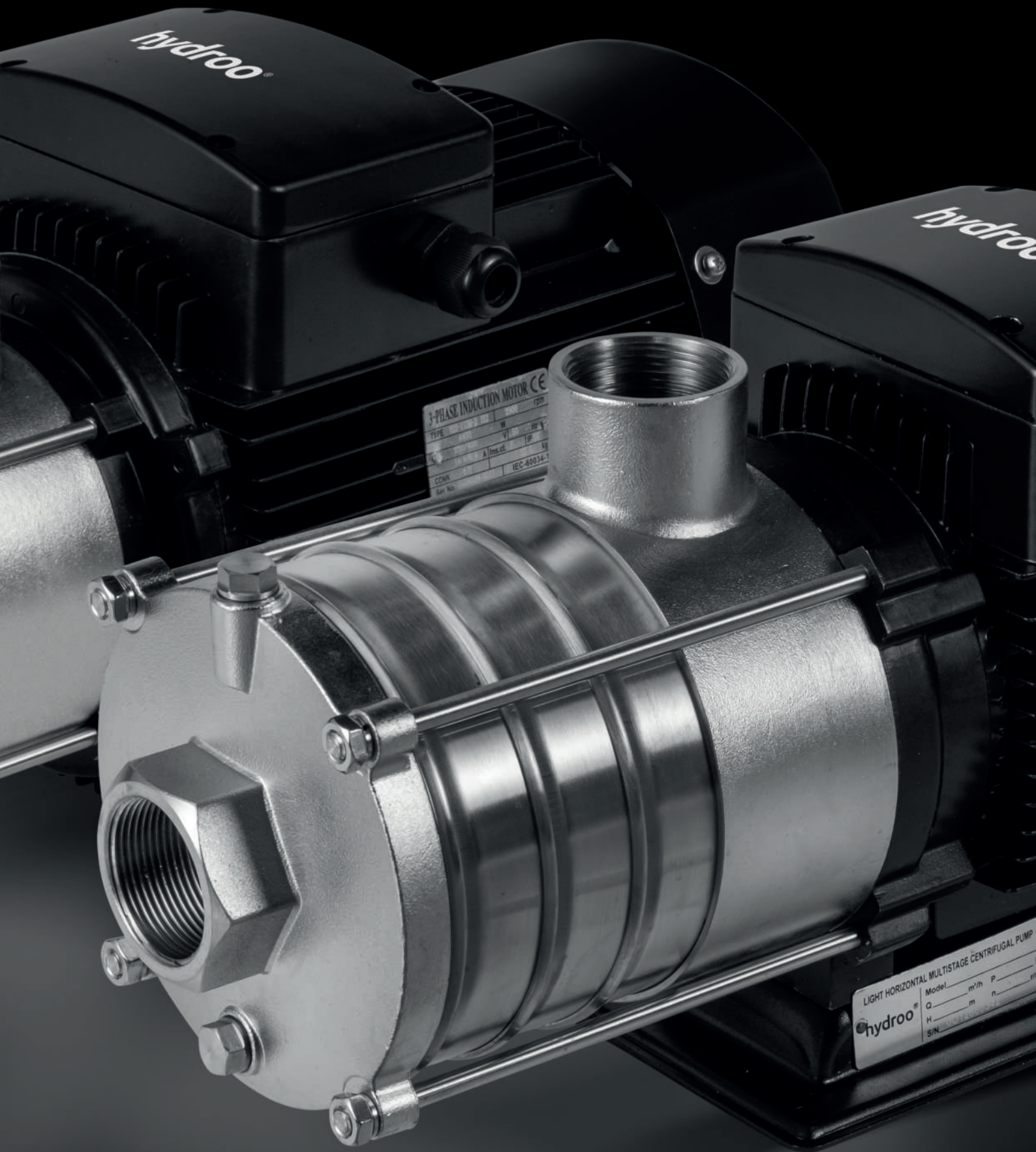
HF, HX, HN

Horizontal multi-stage centrifugal pumps

卧式多级离心泵

50Hz





3-PHASE INDUCTION MOTOR CE

TYPE	W	HP	V	IP
1.5	2.2	3	230	54
1.5	2.2	3	400	54
IEC-60034-1				

LIGHT HORIZONTAL MULTISTAGE CENTRIFUGAL PUMP

Model	m³/h	P
Q	m	n
H		
S/N		

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PRESENTATION

HYDROO has set up a worldwide distribution network together with key partners, providing value to our pump engineers and end users. Ours is a wide range product portfolio with high-end solutions for the pumping business in many applications including water supply, booster sets, fire-fighting sets, borehole wells, HVAC, drainage and sewage, utilities, irrigation, desalination and RO sets, OEM Integration among many others. We provide solutions for all the markets of 50 Hz and 60 Hz, including customized versions.

HYDROO has a factory in Palol de Revardit (Catalonia-Spain) seized to guarantee our reliable, long-term based, personalized treatment and best service to all our customers. We can provide a wide range of products in an extremely short delivery time from our factory, thanks to our Lean manufacturing processes and our qualified enthusiastic team.

We have compiled our commitment with ethics

and legislation in relation to third parties in a public document of principles. The document has been worked with the entire Hydroo team and its deployment has been started with a committee that will ensure compliance and strengthening in the business culture of the company.

The expansion of HYDROO by means of excellence in operations and successful business relationship with our partners is symbolized in the growth pace in the target markets and the valuable timely and effective service.

At HYDROO we bet on a high level service to our valued pump partners.

HF, HX, HN

**Horizontal multistage
stainless steel
centrifugal pump**

Applications

**Cooling water system
Aquiculture
Domestic water supply
General industrial services
Washing
Environment protection**

Description

Horizontal multistage stainless steel centrifugal pumps. Standard totally enclosed, fan cooled, insulation class F, IP 55 motors. Single phase motors up to 2.2 kW.

Standard versions are suitable for smart pumping of clean water with a temperature range between -15°C and 110°C.

Performance range

Capacity: Q up to 28 m³/h

Head: H up to 60 m

Temperature: T up to 110 °C

Speed: 2900/3500 rpm

Power: P2 up to 4 kW

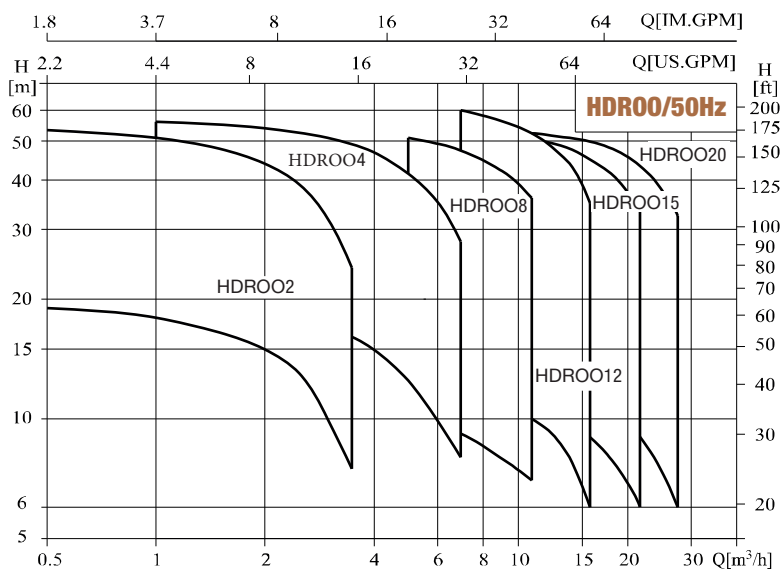
Standard material

HX, HN: standard version made in AISI304 or AISI316L stainless steel, suction and discharge in stainless steel.

HF: standard version made in AISI304 stainless steel, suction and discharge in cast iron.



Performance scope



Connection

Connection	HF, HX, HN2	HF, HX, HN4	HF, HX, HN8	HF, HX, HN12	HF, HX, HN15/20
Suction	G1	G1¼	G1½	G1½	G2
Discharge	G1	G1	G1¼	G1½	G2

Applicable medium

- Thin and clean non-flammable and non-explosive liquid without solid granules and bers.
- Mineral water, soft water, pure water, edible vegetable oil and other light chemical mediums.
- When the density or viscosity of to-be-conveyed liquid is larger than that of water, it is necessary to select driving motor of high power.
- Whether a specific liquid is suitable for the pump depends on many factors, among which the most important ones are chlorine content. PH value, temperature, solvent and oil content.

Application

- HF, HX, HN type pump are mainly used in industrial field:
- Air-conditioning system
 - Cooling system
 - Industrial cleaning
 - Water treatment (Water purification)
 - Aquiculture
 - Fertilizing / meeting system
 - Environmental application
 - Other special applications

Motor

- TEFC motor 2-pole
- Protection class: IP55
- Insulation class: F
- Standard voltage, 50Hz:
 - 1 x 220-240V
 - 3 x 220-240V / 380-415V
- Single phase motor (max): 2.2kW

Curve conditions

- Following conditions are suitable for the performance curves shown above.
- All curves are based on the measured values of constant motor speed 2900rpm;
 - Curve tolerance in conformity with ISO9906 Annex A.
 - Measurement is done with 20°C air-free water, kinematic viscosity of 1mm²/sec.
 - The operation of pump shall refer to the performance region described by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

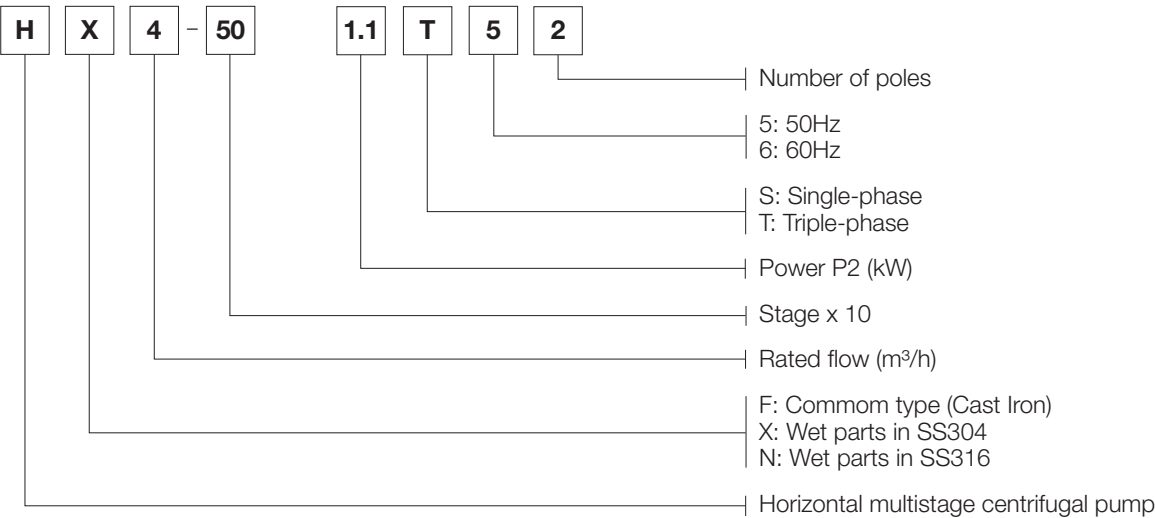
Operation conditions

- Liquid temperature: -15°C~+110°C
- Ambient temperature: up to +40°C
- Max. operation pressure: 10 bar
- Max. inlet pressure is limited by max. operation pressure.

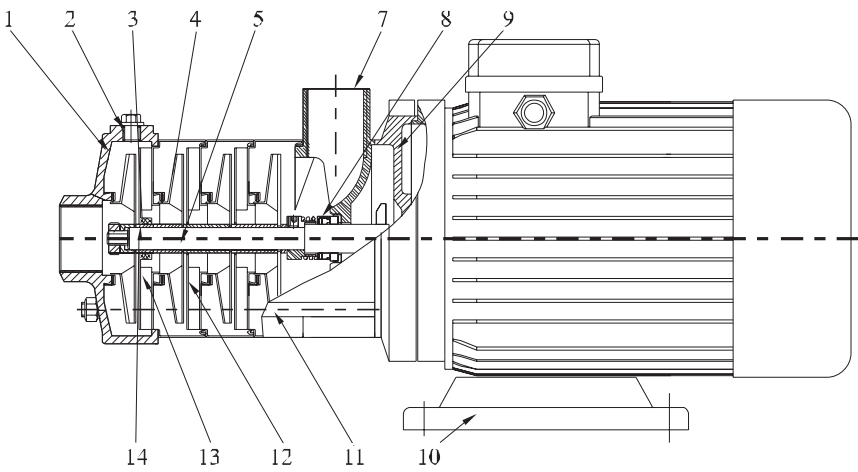
Pump

- Horizontal multistage non-self-priming centrifugal pump, attached with long shaft electric motor.
- Compact structure renders small size of pump; axial inlet and radial outlet.

Definition of model
HF, HX, HN 2, 4, 6, 8, 12, 15, 20



Construction



Material

N°	Name	Material	AISI/ASTM
2	Plug	Stainless steel	AISI304/AISI316
3	Bearing	Tungsten carbide	
4	Impeller	Stainless steel	AISI304/AISI316
5	Shaft	Stainless steel	AISI304/AISI316
8	Mechanical seal	Graphite/Silicon carbide	
9	Motor end cover	Aluminum Alloy	
10	Base plate	Steel plate	AISI1015
11	Staybolt	Stainless steel	AISI304
12	Diffuser	Stainless steel	AISI304/AISI316
13	Support diffuser	Stainless steel	AISI304/AISI316
14	Impeller sleeve	Stainless steel	AISI304/AISI316
HX/HN			
1	Suction	Stainless steel	AISI304/AISI316
7	Discharge	Stainless steel	AISI304/AISI316
HF			
1	Suction	Cast Iron	ASTM25B
7	Discharge	Cast Iron	ASTM25B

公司简介

HYDROO建立了一个全球性的销售服务网络，为各类泵工程和水泵终端用户提供专业可靠的产品和服务。HYDROO拥有完善的产品系列，在包括供水、增压、消防、地下水抽取、暖通、排水、污水、市政、灌溉、海水淡化和反渗透等诸多领域，为客户提供各类高端泵产品和泵解决方案。HYDROO的产品满足市场上50Hz/60Hz不同需求，并为客户提供个性化定制服务。

HYDROO位于西班牙巴塞罗那的生产、研发总部和位于中国杭州的工厂，是我们为客户提供长期可靠、专业的个性化定制服务的有力保障。得益于我们精益化的生产流程和专业高效的运营团队，HYDROO保证在极短的时间内将产品交付到客户手上。

在一份由全体员工参与的公开文件中，我们列明了对第三方道德与立法的承诺，并有相应的监督委员会监督并确保其执行。

营之有道，良好的客户关系，高效专业的服务，为客户创造最大价值的同时，推动着HYDROO在全球市场的快速发展。

HYDROO的宗旨是始终致力于为全球范围内的合作伙伴提供高端泵产品和泵解决方案，为客户创造更大的价值。

HF, HX, HN

卧式多级离心泵

应用范围

冷却水系统
水产养殖
建筑供水
工业引用
清洗系统
环境保护
通用工业应用

描述

卧式多级离心泵，不锈钢材质，标准全封闭、风冷、防护等级IP55、绝缘等级F电机。单相电机最大功率2.2kW。

标准配置适用于输送温度在 -15°C 到 110°C 之间的清水。

性能范围

流量: 最大28m³/h

扬程: 最高60m

温度: 最高110°C

转速: 2900/3500rpm

功率: 最大4kW

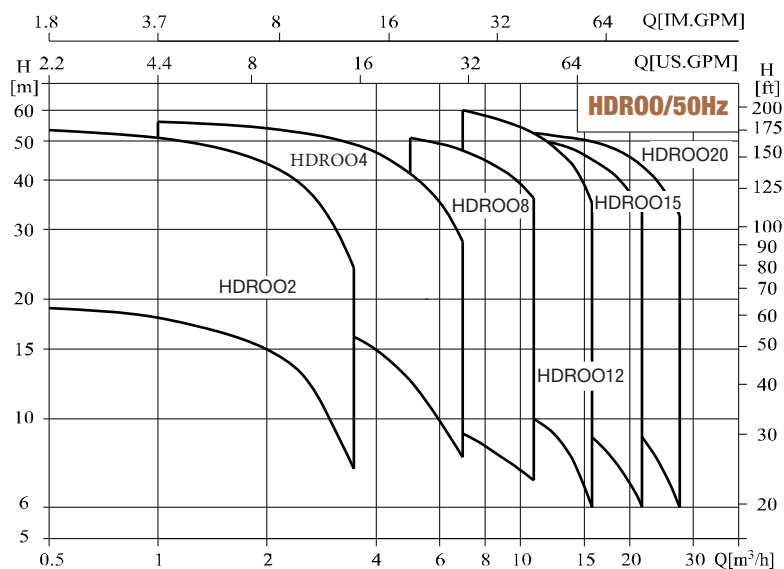
标准材质

HX/HN: 水力部件AISI304/AISI316L不锈钢: 泵的进、出口为不锈钢。

HF: 水力部件AISI304不锈钢, 泵的进出口为铸铁。



性能范围



连接方式

连接方式	HF, HX, HN2	HF, HX, HN4	HF, HX, HN8	HF, HX, HN12	HF, HX, HN15/20
进水口	G1	G1¼	G1½	G1½	G2
出水口	G1	G1	G1¼	G1½	G2

适用介质

- 稀薄，清洁，非易燃、易爆介质，无固体颗粒和杂质。
- 清水、软水、纯水、食用植物油和其他轻化学介质。
- 当输送介质的密度或粘度大于水时，必须选用大功率的驱动电机。
- 特定的介质是否适合泵取决于许多因素，其中最重要的是氮含量、PH值、温度、溶剂和油含量。

电机

- TEFC 电机2极
- 防护等级：IP55
- 绝缘等级 F
- 标准电压 50Hz:
1 x 220-240V
3 x 220-240V / 380-415V
- 单相电机(最大): 2.2kW

运行条件

- 介质温度：-15°C~+110°C
- 环境温度：最高+40°C
- 最大工作压力：10 bar
- 最大进口压力受最大工作压力限制。

应用领域

- HF, HX, HN 泵主要用于工业领域：
- 空调系统
 - 冷却系统
 - 工业清洗
 - 水处理
 - 水产养殖
 - 施肥
 - 环境应用
 - 其他特殊应用

曲线条件

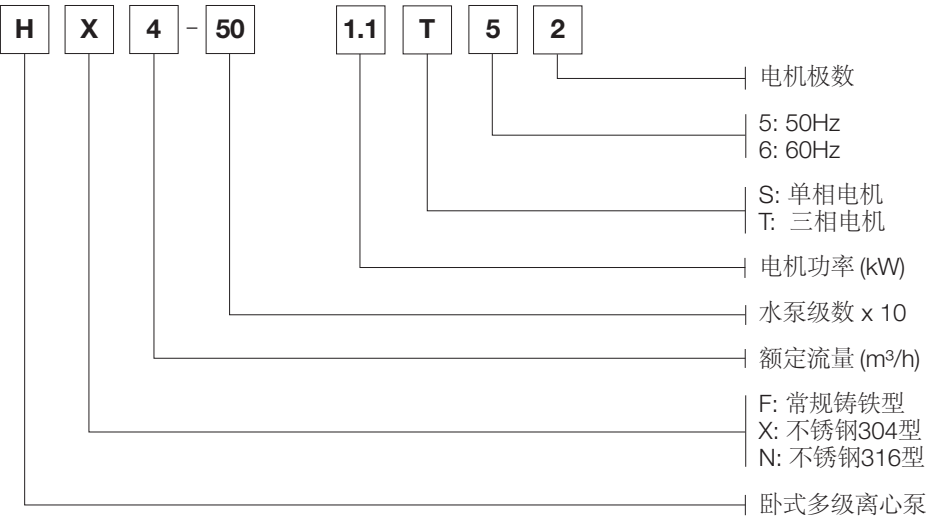
- 以下条件适用于上述性能曲线：
- 所有曲线均以恒速2900rpm的测量值为基础，
 - 符合ISO9906附录A标准，
 - 使用20℃不含空气的清水进行测量，运动粘度为1mm²/sec，
 - 泵的运用应参考加粗曲线所描述的性能区域，以防止因流量过低或流量过大引起的发热或者过载。

泵

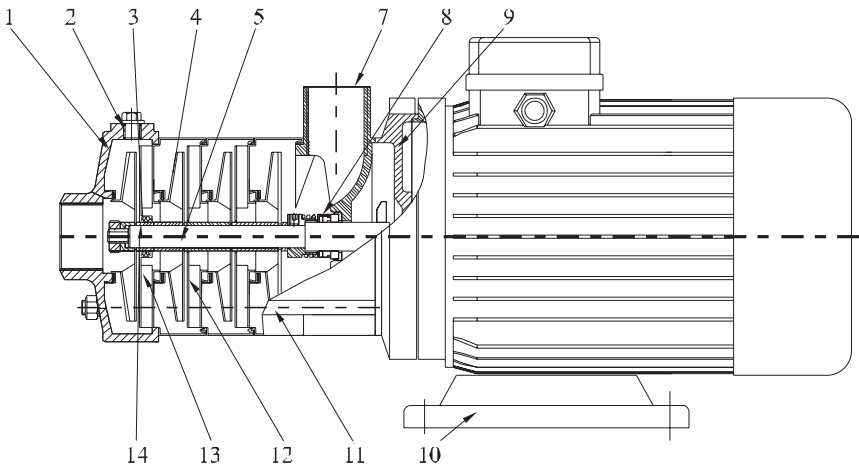
- 卧式多级离心泵，配长加轴电机，
- 结构紧凑，体积小，轴向入口和径向出口。

型号说明

HF, HX, HN 2, 4, 6, 8, 12, 15, 20



结构图



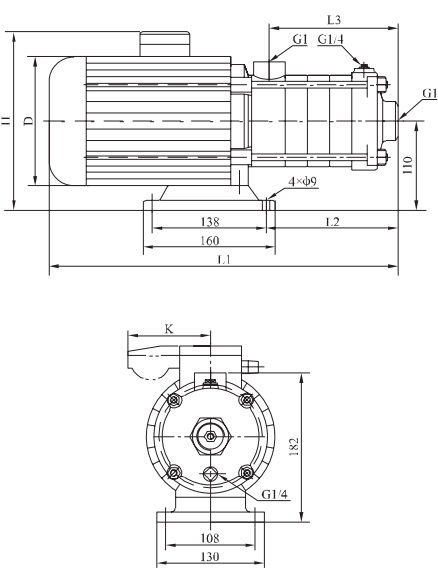
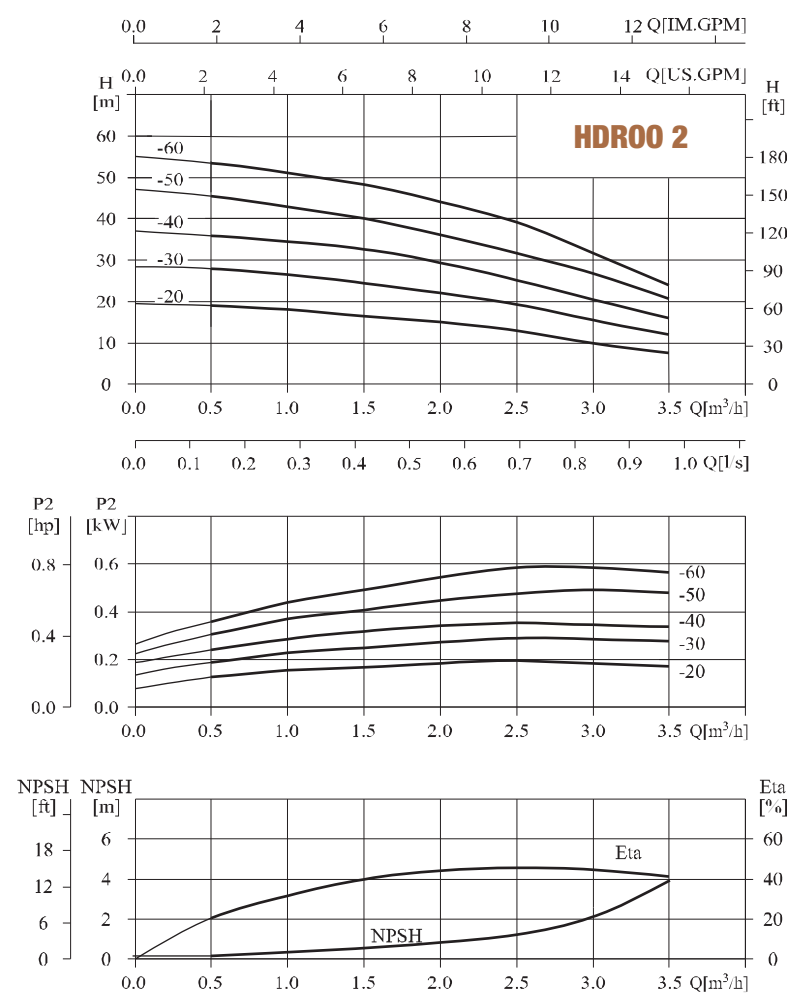
材质

N°	零件	材质	AISI/ASTM
2	螺堵	不锈钢	AISI304/AISI316
3	轴承	碳化钨	
4	叶轮	不锈钢	AISI304/AISI316
5	轴	不锈钢	AISI304/AISI316
8	机械密封	石墨/碳化硅	
9	电机端盖	铝合金	
10	底座	钢板	AISI1015
11	拉杆	不锈钢	AISI304
12	导叶	不锈钢	AISI304/AISI316
13	支撑导叶	不锈钢	AISI304/AISI316
14	叶轮隔套	不锈钢	AISI304/AISI316
HX/HN			
1	进水体	不锈钢	AISI304/AISI316
7	出水体	不锈钢	AISI304/AISI316
HF			
1	进水体	铸铁	ASTM25B
7	出水体	铸铁	ASTM25B

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Performance curve ISO9906 Annex A
性能曲线 ISO9906 Annex A

Installation sketch
安装尺寸图



Performance table 性能表

Model 型号	Motor (kW) 电机		Q (m³/h)	0.5	1	1.5	2	2.5	3	3.5
	(kW)	(hp)								
HF, HX, HN2-20	0.37	0.5	H (m)	19	18	16.5	15	13	10	7.5
HF, HX, HN2-30	0.37	0.5		28	26.5	24.5	22	19	15.5	12
HF, HX, HN2-40	0.55	0.75		36	34.5	33	29	25	20.5	16
HF, HX, HN2-50	0.55	0.75		45.5	43	40	36	31.5	26.5	20.5
HF, HX, HN2-60	0.75	1		53.5	51	48	44	39	32	24

Size and weight 尺寸和重量

Motor 电机	Model 型号	Size (mm) 尺寸						Weight 重量(kg)
		L1	L2	L3	D	H	K	
Triple-phase/ Single-phase 三相/单相	HF, HX, HN2-20	305	87	84	141	215/230	/62	9
	HF, HX, HN2-30	323	105	102	141	215/230	/62	10
	HF, HX, HN2-40	341	123	120	141	215/230	/62	11
	HF, HX, HN2-50	359	141	138	141	215/230	/62	12
	HF, HX, HN2-60	422	159	156	151/161	225/245	/91	15

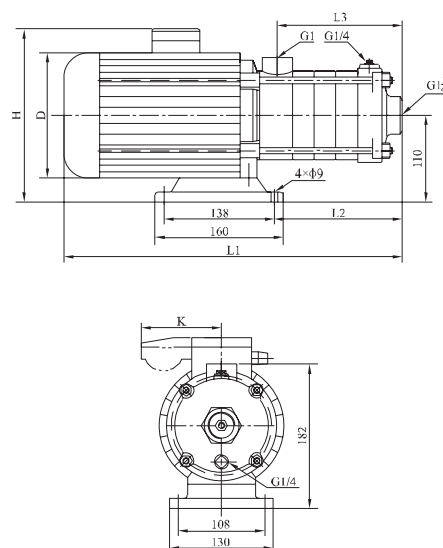
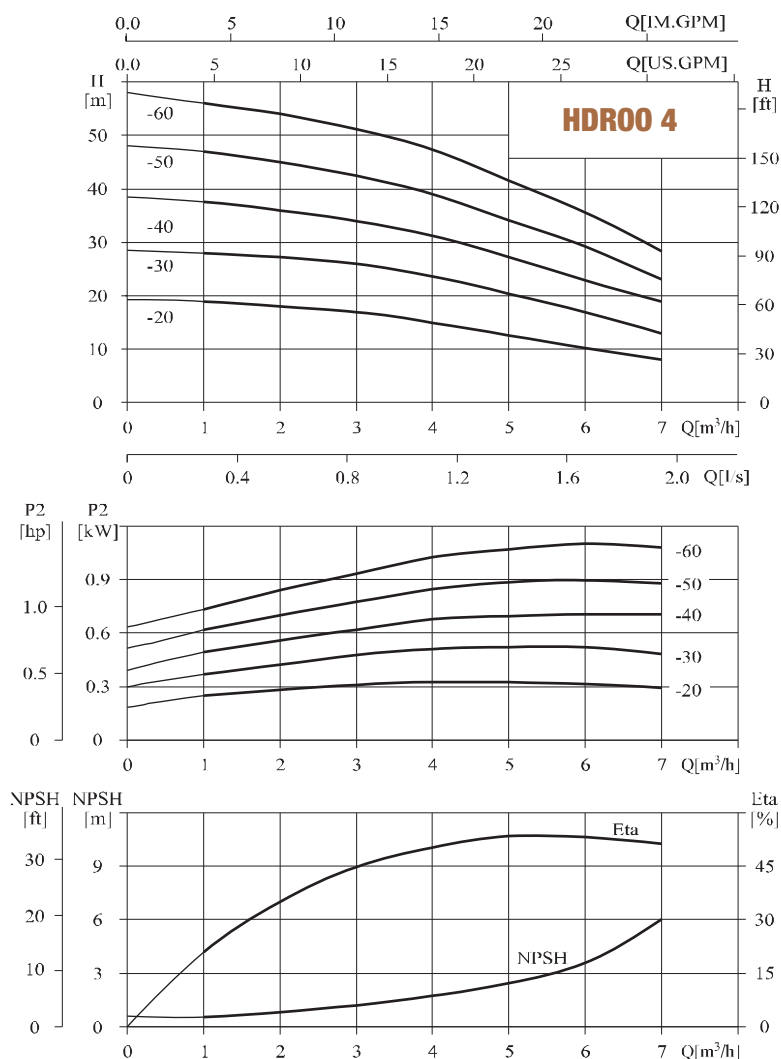
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Performance curve ISO9906 Annex A

性能曲线 ISO9906 Annex A

Installation sketch

安装尺寸图



Performance table 性能表

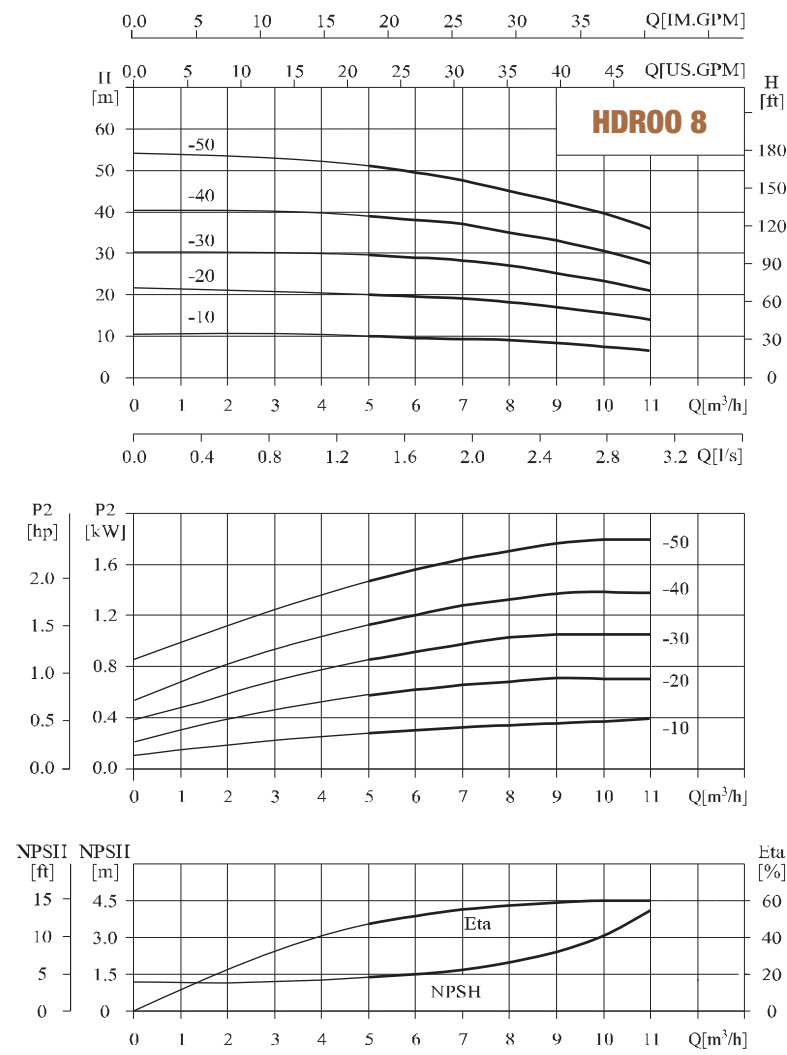
Model 型号	Motor (kW) 电机		Q (m³/h)	1	2	3	4	5	6	7
	(kW)	(hp)								
HF, HX, HN4-20	0.37	0.5	H (m)	19	18	17	15	12.5	10	8
HF, HX, HN4-30	0.55	0.75		28	27	26	23.5	20.5	17	13
HF, HX, HN4-40	0.75	1		37.5	36	34	31	27	23	19
HF, HX, HN4-50	1.1	1.5		47	45	42.5	39	34	29	23
HF, HX, HN4-60	1.1	1.5		56	54	51	47	41.5	35.5	28

Size and weight 尺寸和重量

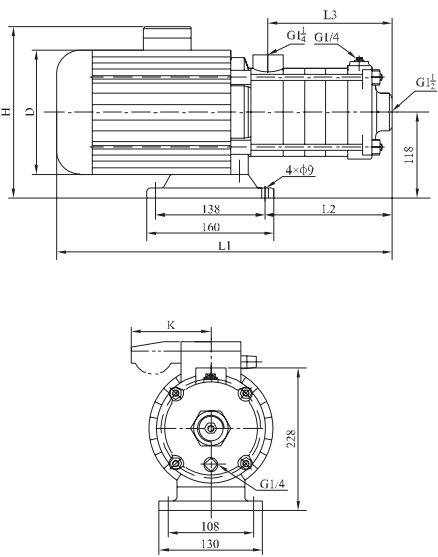
Motor 电机	Model 型号	Size (mm) 尺寸						Weight 重量(kg)
		L1	L2	L3	D	H	K	
Triple-phase/ Single-phase 三相/单相	HF, HX, HN4-20	329	105	102	141	215/230	/62	10
	HF, HX, HN4-30	356	132	129	141	215/230	/62	11
	HF, HX, HN4-40	416	162	156	151/161	225/245	/91	14
	HF, HX, HN4-50	455	188	183	151/161	225/245	/91	16
	HF, HX, HN4-60	482	213	210	151/161	225/245	/91	17

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Performance curve ISO9906 Annex A
性能曲线 ISO9906 Annex A



Installation sketch
安装尺寸图



Performance table 性能表

Model 型号	Motor (kW) 电机		Q (m³/h)	5	6	7	8	9	10	11
	(kW)	(hp)								
HF, HX, HN8-10	0.75	1	H (m)	10	9.5	9.3	9	8	7.5	7
HF, HX, HN8-20	0.75	1		20	19.5	19	18	17	15.5	14
HF, HX, HN8-30	1.1	1.5		29.5	29	28	27	25	23	21
HF, HX, HN8-40	1.5	2		39	38	37	35	33	30.5	27.5
HF, HX, HN8-50	2.2	3		51	49.5	47.5	45	42.5	39.5	36

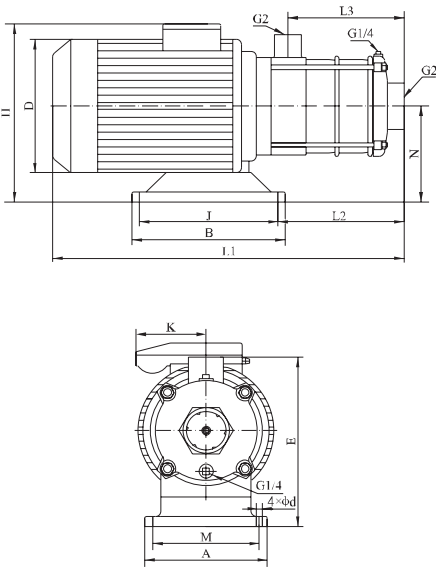
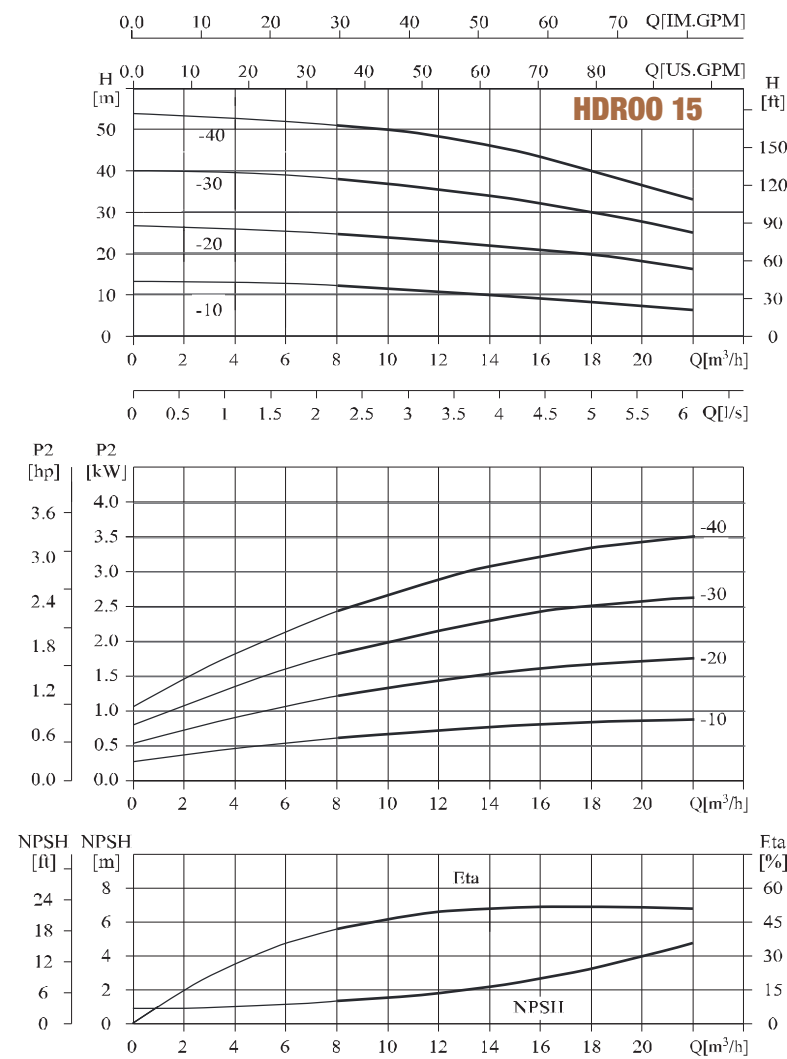
Size and weight 尺寸和重量

Motor 电机	Model 型号	Size (mm) 尺寸						Weight 重量(kg)
		L1	L2	L3	D	H	K	
Triple-phase/ Single-phase 三相/单相	HF, HX, HN8-10	395	128	108	151/161	230/265	/91	17
	HF, HX, HN8-20	395	128	108	151/161	230/265	/91	17
	HF, HX, HN8-30	425	158	138	151/161	230/265	/91	19
	HF, HX, HN8-40	490	188	168	171/176	240/270	/91	22
	HF, HX, HN8-50	520	218	198	171/176	240/270	/91	25

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Performance curve ISO9906 Annex A
性能曲线 ISO9906 Annex A

Installation sketch
安装尺寸图



Performance table 性能表

Model 型号	Motor (kW) 电机		Q (m³/h)	8	10	12	14	15	16	18	20	22
	(kW)	(hp)										
HF, HX, HN15-10	1.1	1.5	H (m)	12	11	10.5	9.5	9	8.5	7.5	6.5	6
HF, HX, HN15-20	2.2	3		24.5	24	23	22	21	20.5	19	18	16
HF, HX, HN15-30	3	4		38	37	35.5	34	33	32	30	28	25
HF, HX, HN15-40	4	5.5		51	50	48	46	45	43	40	37	33

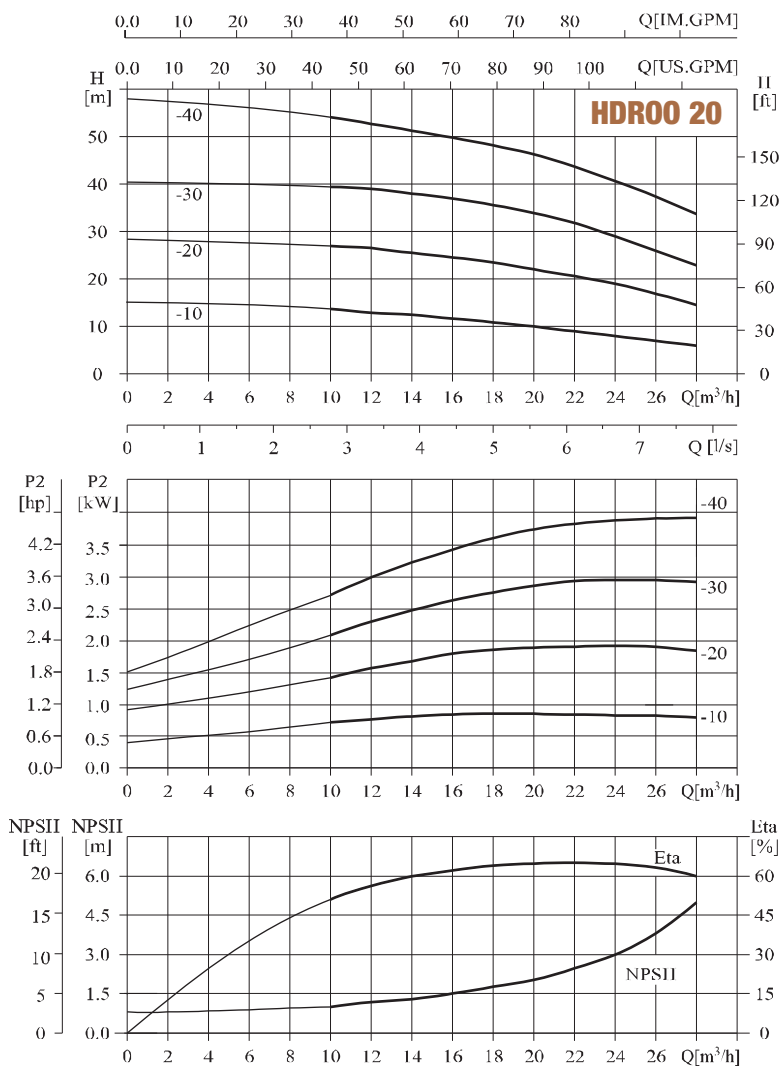
Size and weight 尺寸和重量

Motor 电机	Model 型号	Size (mm) 尺寸													Weight 重量(kg)
		L1	L2	L3	H	D	E	N	A	M	B	J	d	K	
Triple-phase/ Single-phase 三相/单相	HF, HX, HN15-10	400/420	150	126	230/265	151/161	227	117	130	108	160	138	9	/91	19
	HF, HX, HN15-20	440/455	150	126	240/270	171/176	228	118	130	108	160	138	9	/91	27
	HF, HX, HN15-30	544/	195	171	259/	197/	238	128	130	108	160	138	9		34
	HF, HX, HN15-40	595/	336	216	270/	213/	230	120	221	190	170	140	12		41

HDROO 20

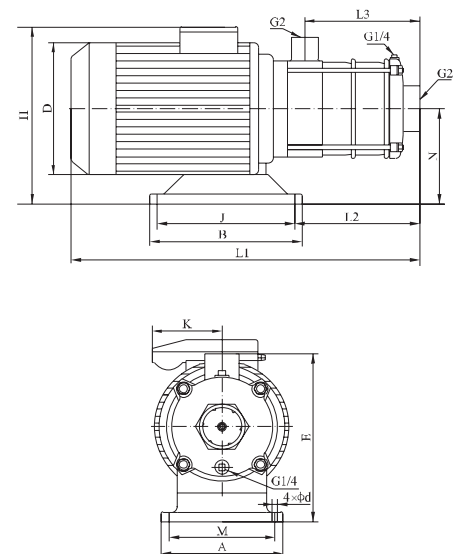
Performance curve ISO9906 Annex A

性能曲线 ISO9906 Annex A



Installation sketch

安装尺寸图



Performance table 性能表

Model 型号	Motor (kW) 电机		Q (m³/h)	10	12	14	16	18	20	22	24	26	28
	(kW)	(hp)											
HF, HX, HN20-10	1.1	1.5	H (m)	13.5	13	12.5	12	11	10	9	8	7	6
HF, HX, HN20-20	2.2	3		27	26.5	25.5	25	23.5	22	20.5	18.5	17	14.5
HF, HX, HN20-30	4	5.5		39.5	39	38	37.5	35.5	34	31.5	29	26	23
HF, HX, HN20-40	4.4	6		53	52	51	50	48.5	46.5	43	40	36	32.5

Size and weight 尺寸和重量

Motor 电机	Model 型号	Size (mm) 尺寸													Weight 重量(kg)
		L1	L2	L3	H	D	E	N	A	M	B	J	d	K	
Triple-phase/ Single-phase 三相/单相	HF, HX, HN20-10	400/420	150	126	230/265	151/161	227	117	130	108	160	138	9	/91	19
	HF, HX, HN20-20	440/451	150	126	240/270	171/176	228	118	130	108	160	138	9	/91	27
	HF, HX, HN20-30	547/	291	171	270/	213/	230	120	221	190	170	140	12		40
	HF, HX, HN20-40	621/	336	216	270/	220/	230	120	221	190	170	140	12		42

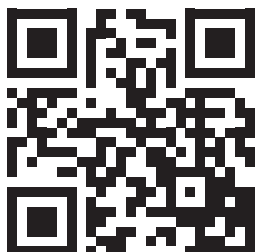
Notes

Handwriting practice lines consisting of multiple rows of dotted lines on a white background.

Handwriting practice lines consisting of 30 horizontal dotted lines.

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