



# SO,SC

**Stainless Steel Horizontal Single-stage Centrifugal Pump  
50Hz/60Hz**



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subject to amendments



# Company Profile



Founded in 1991, Nanfang Pump Industry Co., Ltd. (hereinafter referred to as CNP) has been listed on the Shenzhen Stock Exchange on 9th December 2010; Stock name: CNP; Stock code: 300145.

As the first enterprise specializing in the research and large-scale production of stainless steel stamping welded centrifugal pump in China, CNP is currently the professional manufacturer with the highest volume of production and marketing in that industry. It ranks first in the country in terms of product scope, sales volume, and production quality. The company has set up a complete network of marketing services to meet the requirements of overseas markets as well as domestic needs. The products have seen a wide range of application in the area of pressurization, industry, living water, cycling of air-conditioning water, heat supply, fire extinguishing system, pumping of underground water, treatment of sewage and waste water, chemical industry and desalination of sea water etc.

CNP has now entered into the fast track of development and has taken a major step forward in forging China Strong Pump Enterprise and World's famous brand in the Pump Industry. In order to better meet the client's needs and requirements for expansion, it has set up a wide network of selling and service, as well as offices and service centers in major cities in China, which are aimed at providing timely and effective services for our clients. Meanwhile, our company has successfully penetrated into the world market by forging a good business relationship with more than 50 countries and regions in the Europe, Northern American, and Southeast Asia etc.

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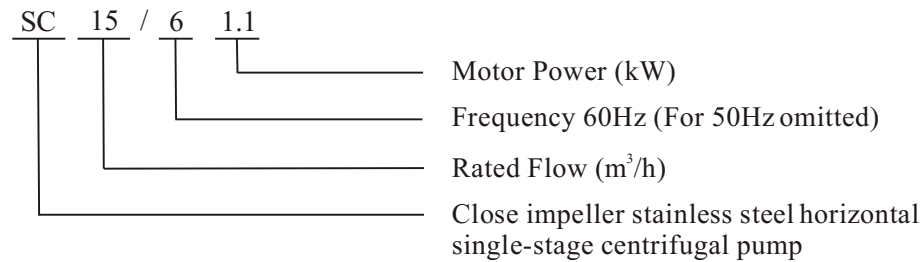
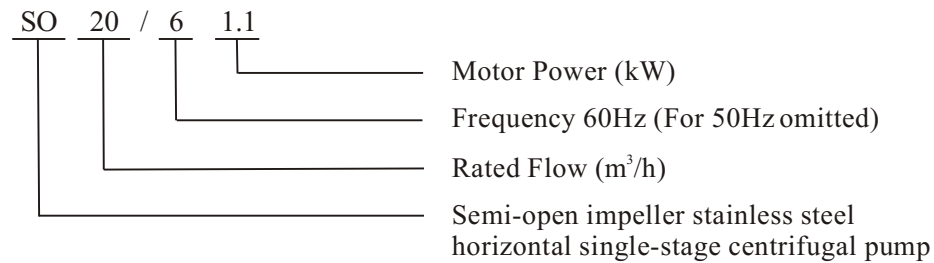
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## ● Definition of model



## ● Structure features

- SO is semi-open impeller stainless steel horizontal single-stage centrifugal pump. SC is close impeller stainless steel horizontal single-stage centrifugal pump. They are axial suction and radial discharge.
- Compact structure, the pump is connected with motor directly and fit with same shaft.
- Easy for connection. They are thread and cutting ferrule connection for inlet and outlet.
- Light weight, casing is welded by punching thin plate. SO impeller is investment casting part. SC impeller is welded by punching thin plate.
- A little corrosion proof. Wet parts are in AISI304 or AISI316 stainless steel.

## ● Applications

SO

- Domestic water;
- Water supply for industrial washing machine;
- Water supply and drainage;
- Washing and surface cleaning for households;

SC

- Cooling, air condition and heating system;
- Cooling device;
- Washing device;
- Pressurization and transportation of water for domestic and industry;

## ● Operating condition

- Liquid temperature: -10°C~+90°C;
- Ambient temperature: up to +40°C;
- Altitude: up to 1000m;
- Max. pressure of the system is 8 bar.

## ● Motor

- TEFC motor, 2 poles;
- Protection class: IP55;
- Insulation class: F;
- Standard voltage: 1 × 220V  
3 × 220V/380V
- Max. power of 1ph motor: 2.2kW.

## ● Installation requirement

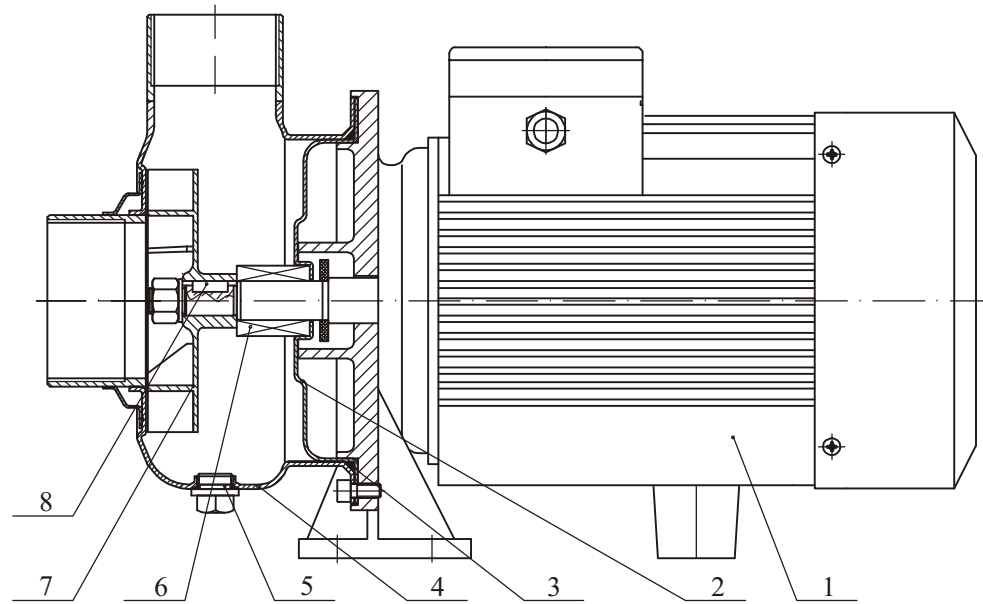
- The pump shall be installed on the base horizontally, When installing, please ensure the pump will not be forced by tension of the pipeline.
- The pump shall be installed on the ventilating and anti-freezing place. The pump shall not be damaged by lack of phase, unstable voltage, current leakage and overload when electrical connection.

## ● Curve conditions

The guidelines below apply to the curves shown on the next pages;

- All curves are based on the measured value of motor 3 × 380V, 50Hz: under the constant speed of 2900 rpm, 60Hz: under the constant speed of 3450 rpm.
- Tolerances to ISO 9906, Annex A, if indicated;
- Measurements were made with airless water at a temperature of 20°C;
- The curves apply to a kinematic viscosity of  $\mu = 1\text{mm}^2/\text{s}$  (1 cSt).
- The bold curves indicate the recommended performance range. Do not operate pump exceeding the performance scope to prevent from motor overload.

## ● Section Drawing of SO

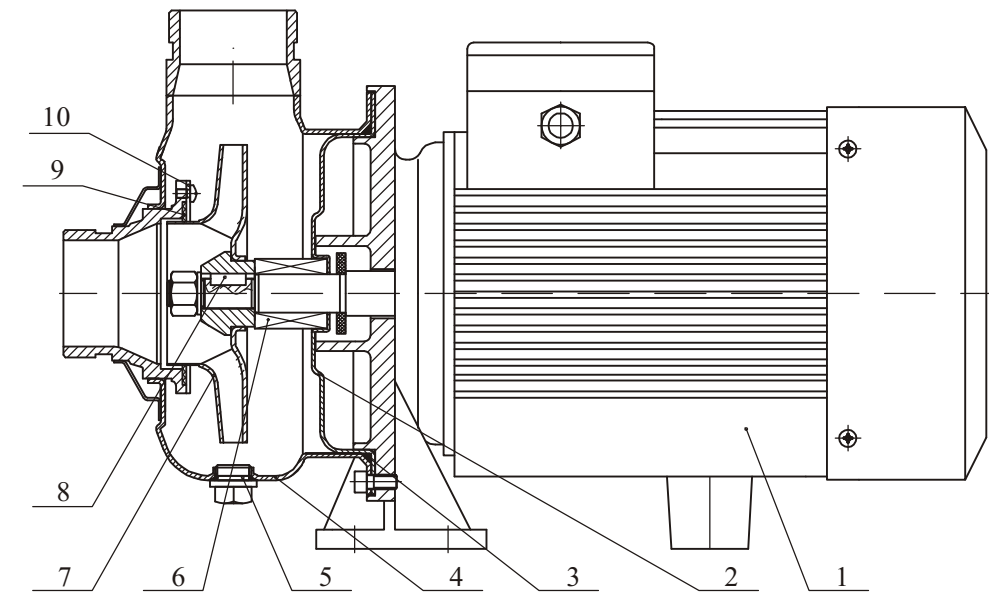


## ● Material of SO

NO.	Parts	Material	AISI
1	Motor		
2	Seal base plate	Stainless steel	AISI304
3	O ring	NBR	
4	Casing	Stainless steel	AISI304
5	Plug	Stainless steel	AISI304
6	Mechanical seal	Carbon / Silicon Fluoride	
7	Impeller	Stainless steel	AISI304
8	Key	Stainless steel	AISI304

The material for mechanical seal can be Sic/Sic or Tc/Tc on request.

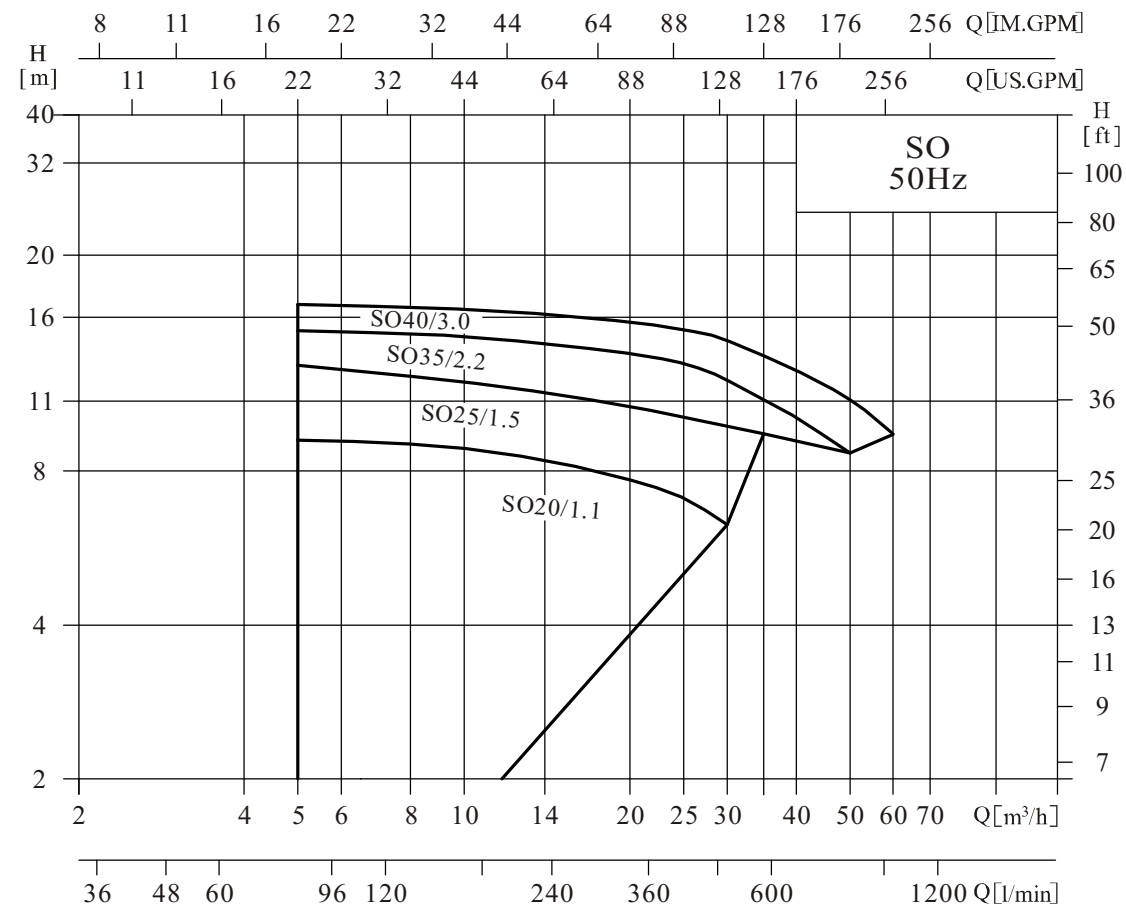
## ● Section drawing of SC



## ● Material of SC

NO.	Parts	Material	AISI
1	Motor		
2	Seal base plate	Stainless steel	AISI304
3	O ring	NBR	
4	Casing	Stainless steel	AISI304
5	Plug	Stainless steel	AISI304
6	Mechanical seal	Carbon / Silicon Fluoride	
7	Impeller	Stainless steel	AISI304
8	Key	Stainless steel	AISI304
9	Neck ring	F4	
10	Neck ring cover	Stainless steel	AISI304

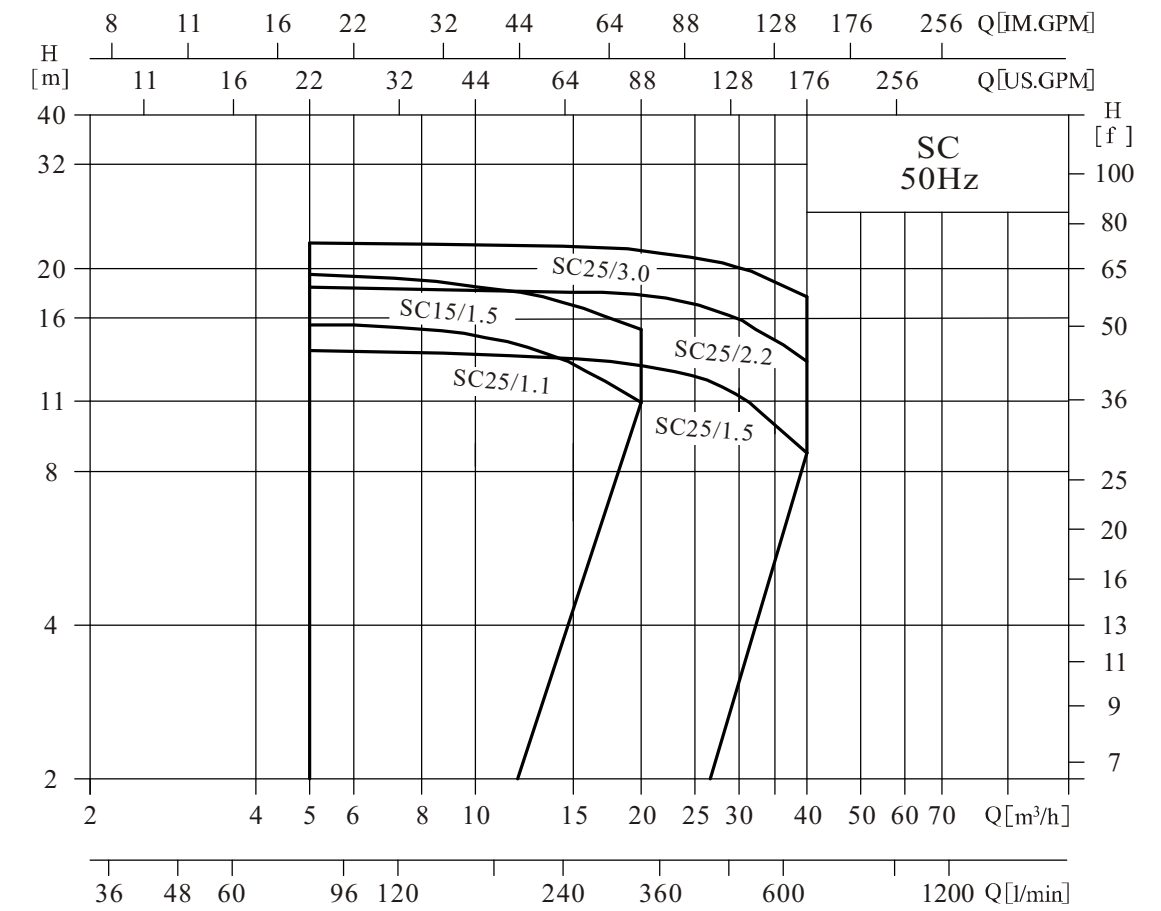
## ● Scope of performance SO 50Hz



## ● Performance table SO 50Hz

Model	Motor (kW)	Q (m³/h)	5	10	20	25	30	35	40	50	60
SO20/1.1	1.1	H (m)	9.2	8.9	7.5	7.1	6.3				
SO25/1.5	1.5		12.5	11.9	11	10	9.5	9			
SO35/2.2	2.2		15.1	14.7	13.6	13	12.2	11	10.2	8.7	
SO40/3.0	3.0		17	16.6	15.7	15.2	14.5	13.5	12.5	11.3	9.5

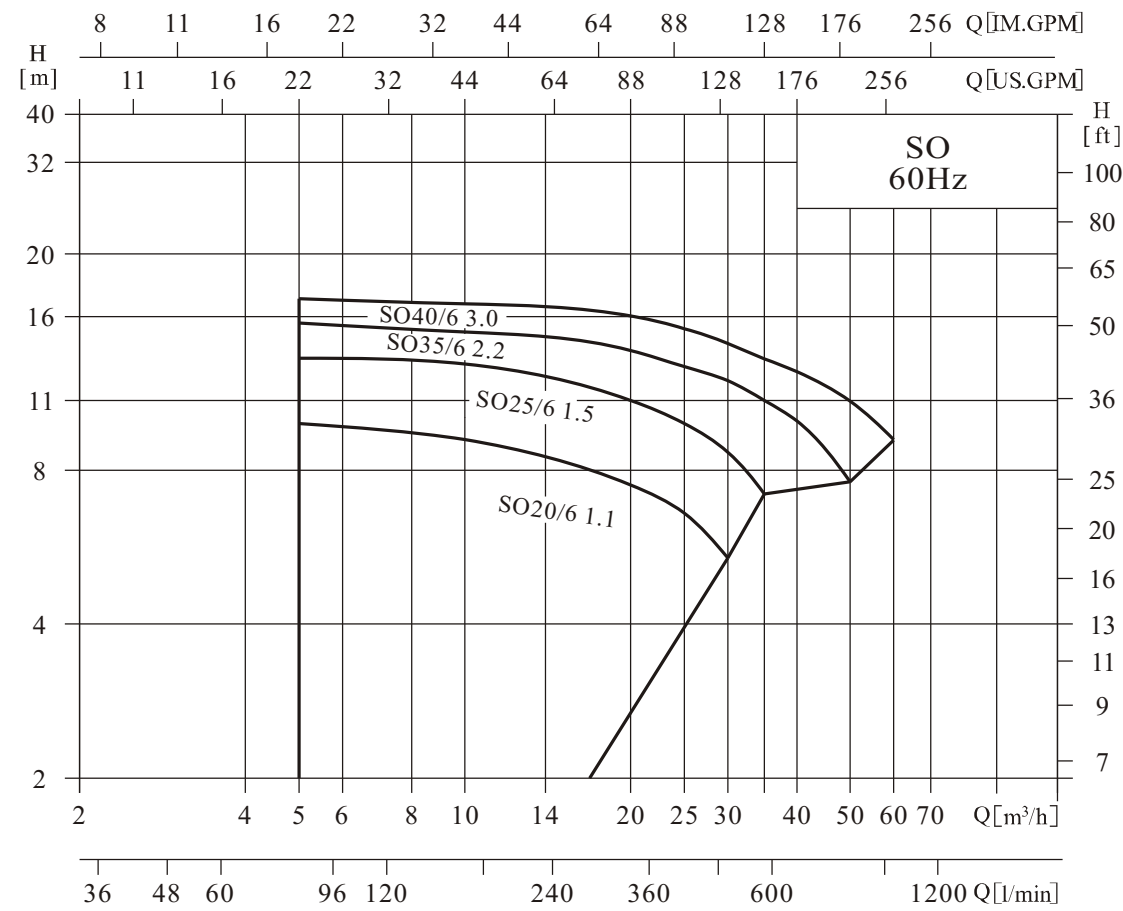
## ● Scope of performance SC 50Hz



## ● Performance table SC 50Hz

Model	Motor (kW)	Q (m³/h)	5	10	15	20	25	30	35	40
SC15/1.1	1.1	H (m)	15.5	14.8	13	10.9				
SC15/1.5	1.5		19.5	18.5	17	15.2				
SC25/1.5	1.5		13.8	13.6	13.3	12.9	12	11.3	9.9	8.7
SC25/2.2	2.2		18.4	18.1	18	17.8	17	15.9	14.5	13.1
SC25/3.0	3.0		22.4	22.3	22.1	21.7	21	20.1	18.8	17.6

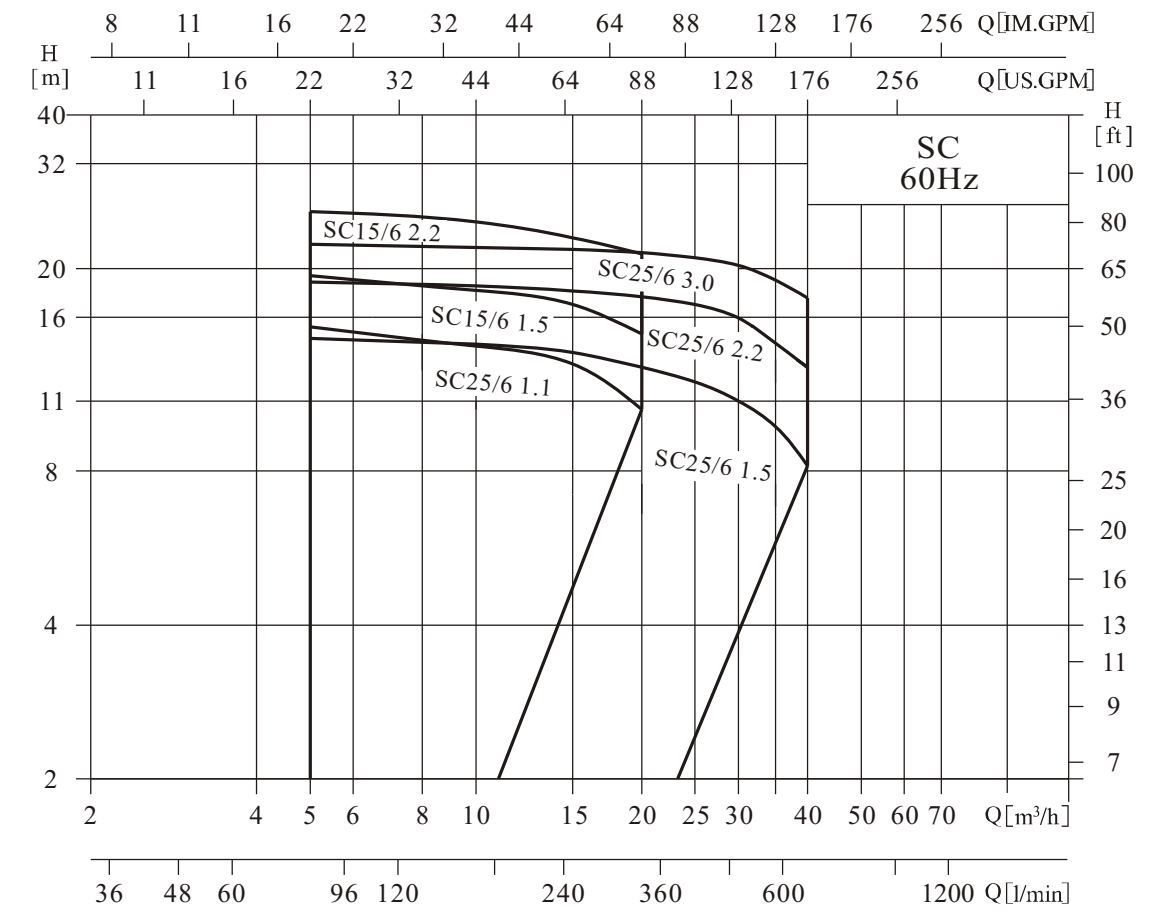
## ● Scope of performance SO 60Hz



## ● Performance table SO 60Hz

Model	Motor (kW)	Q (m³/h)	5	10	20	25	30	35	40	50	60
SO20/6 1.1	1.1	H (m)	9.9	9.2	7.5	6.6	5.4				
SO25/6 1.5	1.5		13.3	12.6	10.8	10	8.7	7.2			
SO35/6 2.2	2.2		15.6	15	13.8	12.8	12	11	10	7.6	
SO40/6 3.0	3.0		17.4	17	16	15.2	14.2	13.2	12.5	11	9.2

## ● Scope of performance SC 60Hz

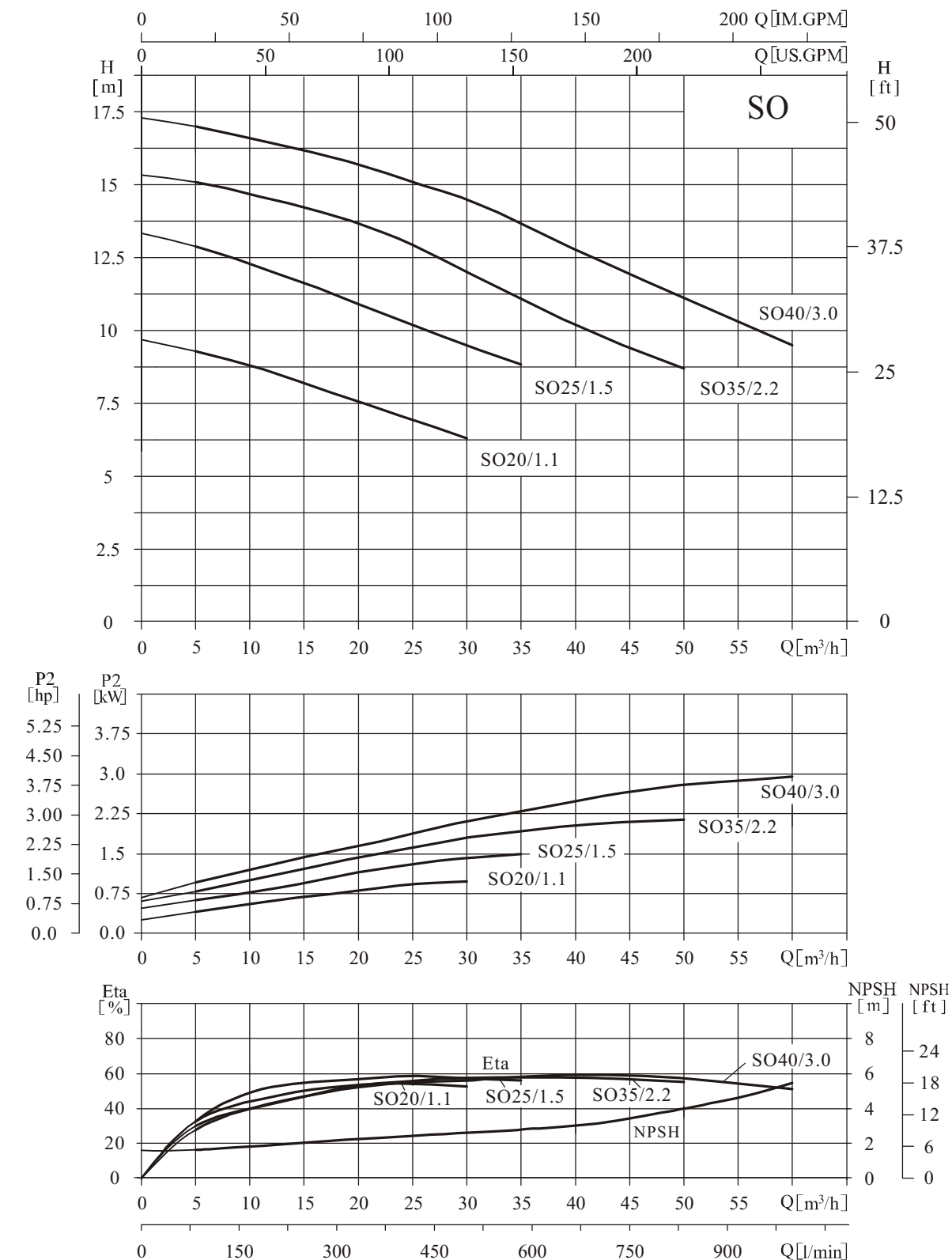


## ● Performance table SC 60Hz

Model	Motor (kW)	Q (m³/h)	5	10	15	20	25	30	35	40
SC15/6 1.1	1.1	H (m)	15.4	14.1	13	10.6				
SC15/6 1.5	1.5		19.4	18.4	17	14.9				
SC15/6 2.2	2.2		25.9	24.7	23	21.4				
SC25/6 1.5	1.5		14.6	14.2	13.7	12.8	12	11	9.8	8.2
SC25/6 2.2	2.2		18.8	18.5	18.1	17.6	17	16	14.3	12.8
SC25/6 3.0	3.0		22.3	22	21.8	21.5	21	20.3	19	17.5

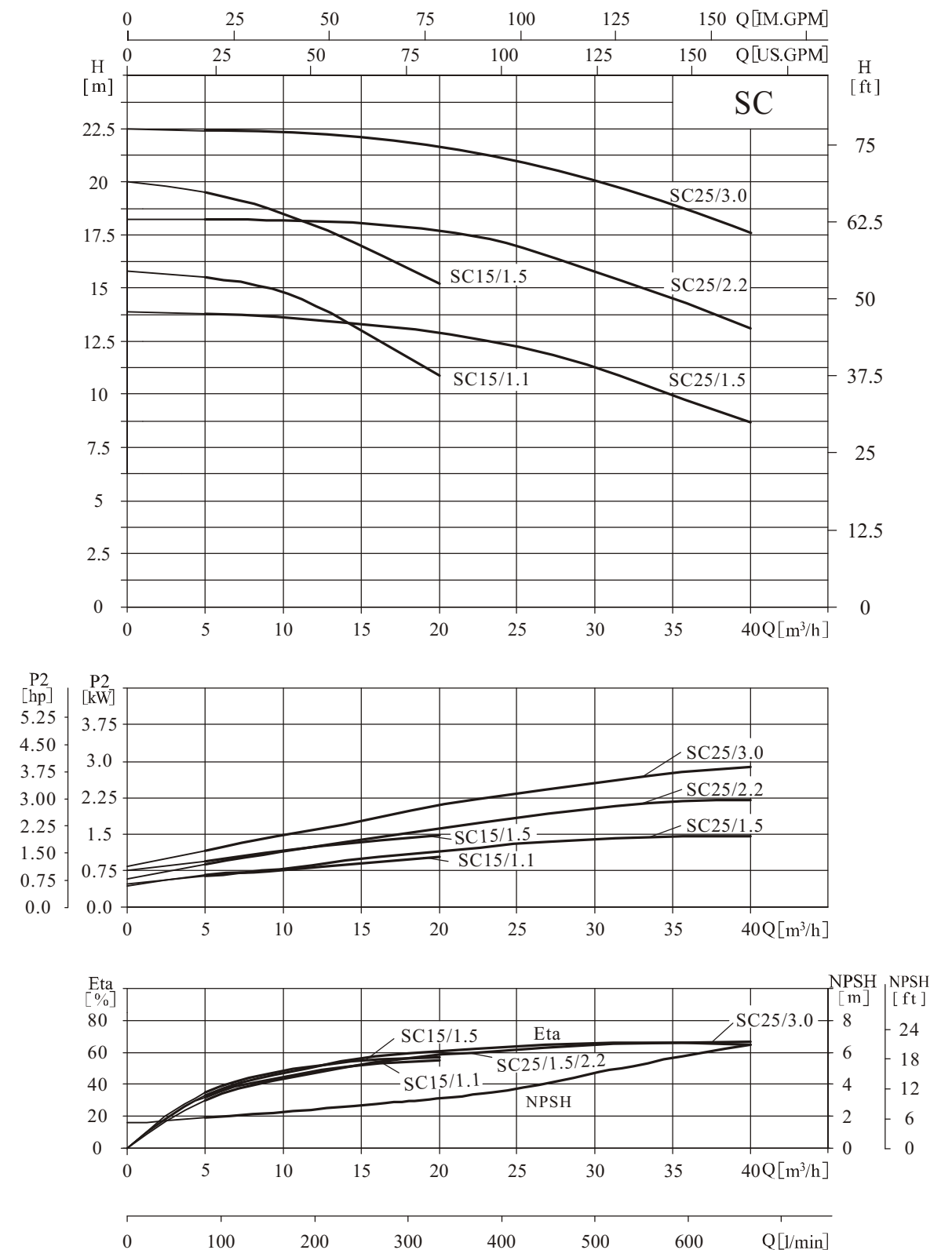
● Performance curve

50Hz ISO9906 Annex A



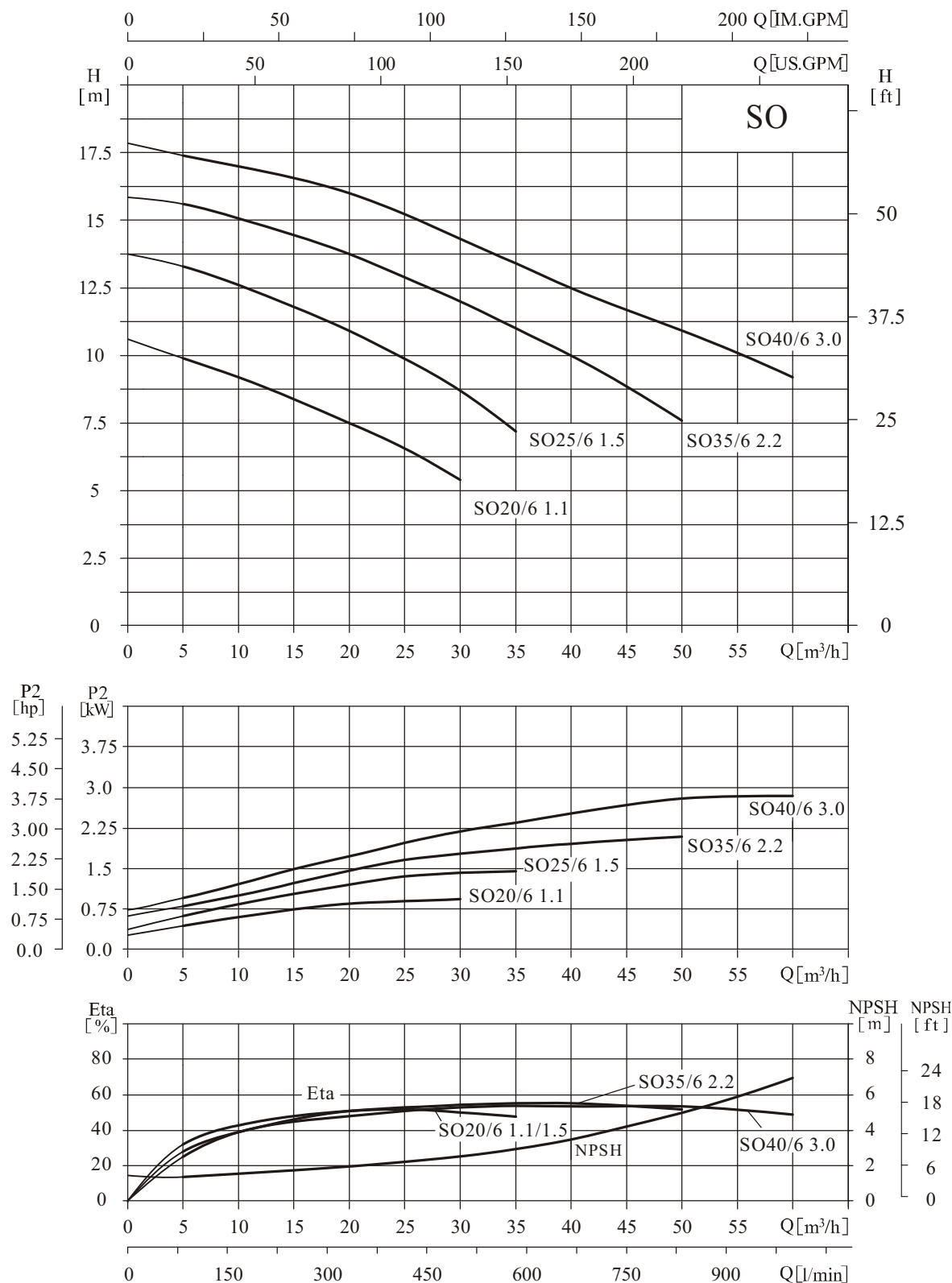
● Performance curve

50Hz ISO9906 Annex A



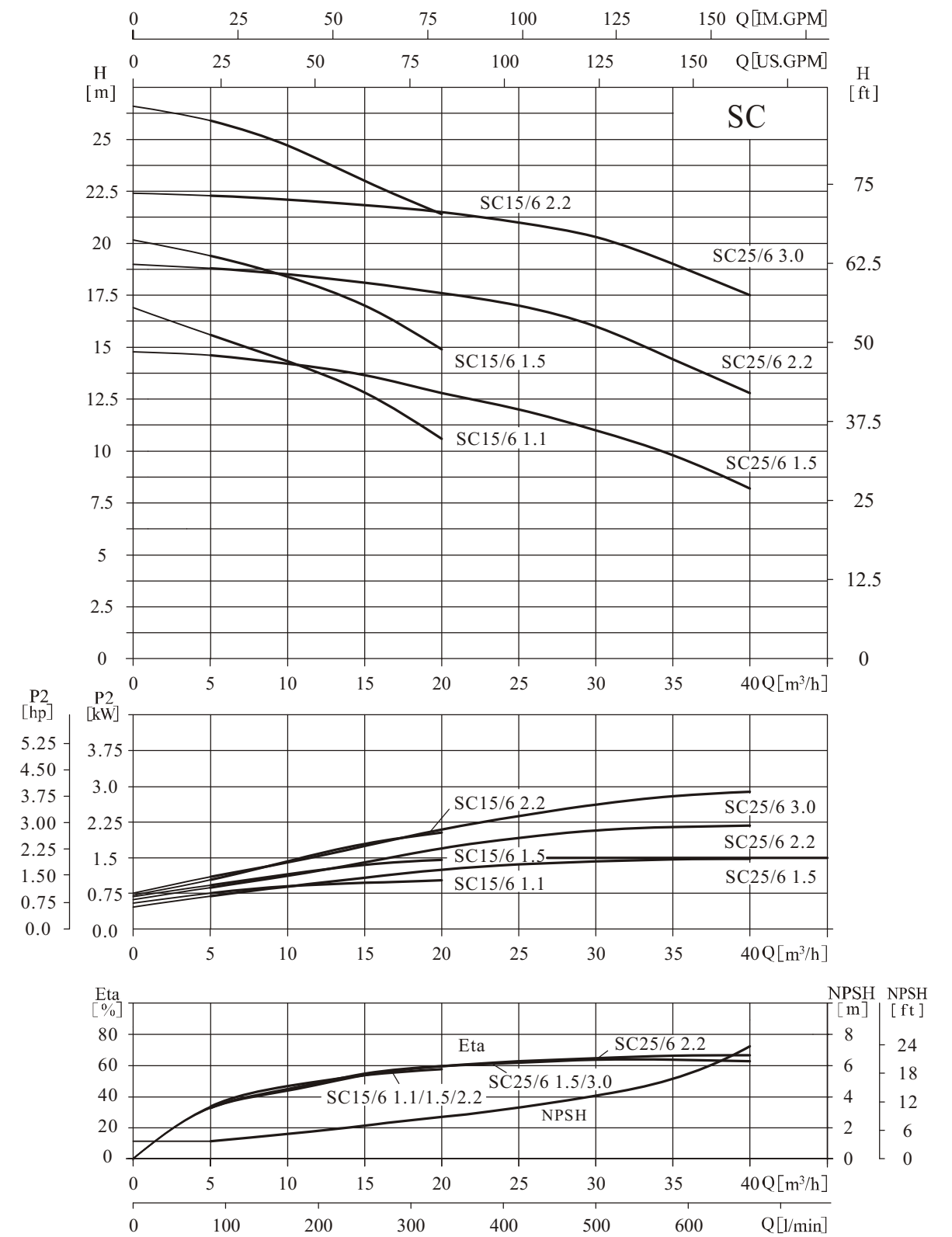
## ● Performance curve

### 60Hz ISO9906 Annex A



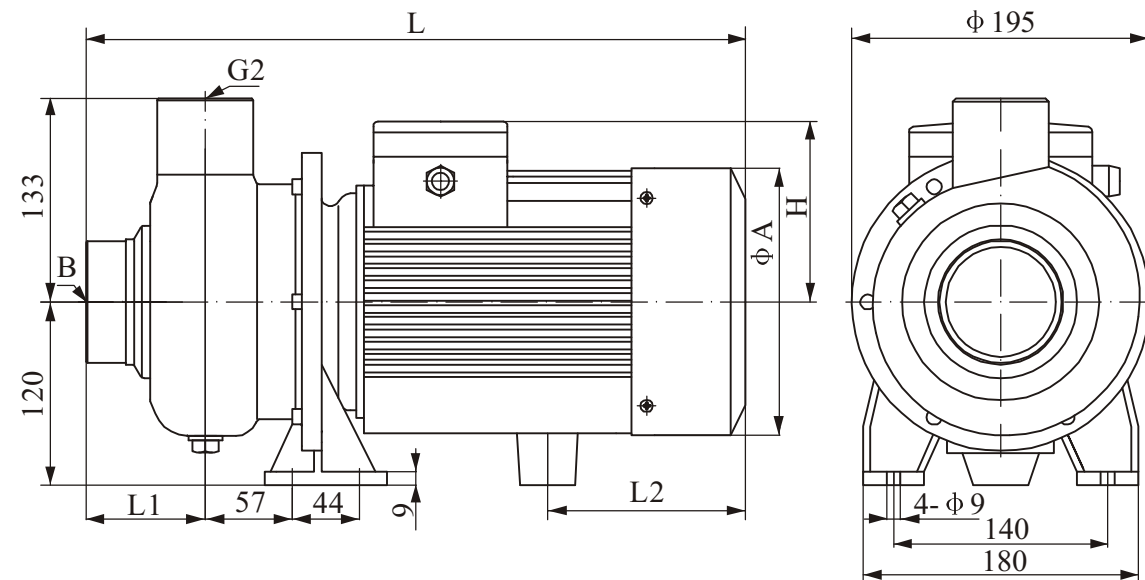
## ● Performance curve

### 60Hz ISO9906 Annex A





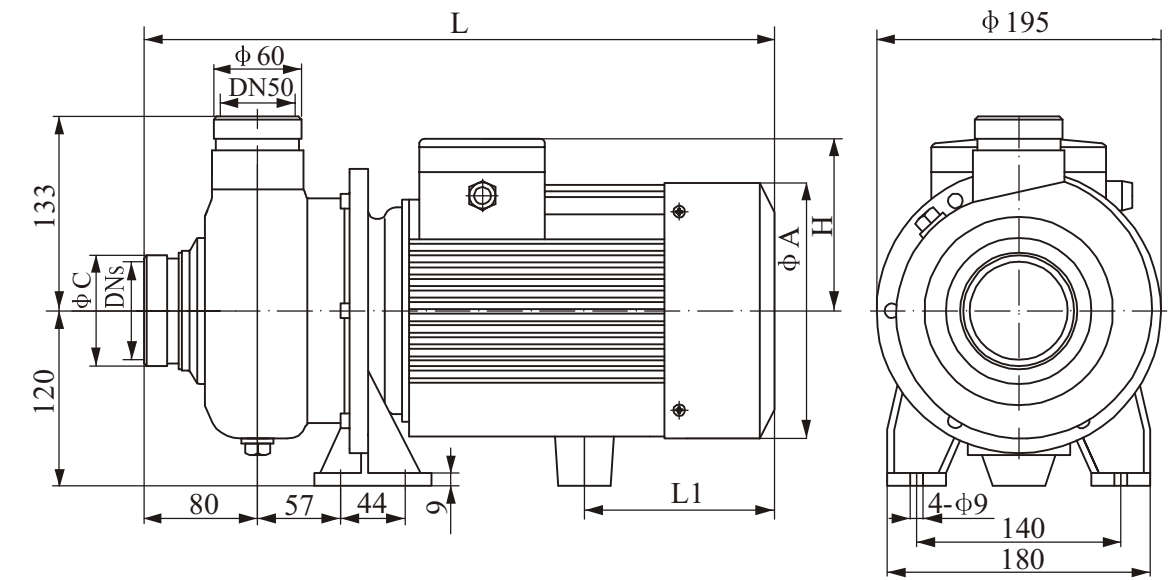
## ● installation drawing (thread connection)



## ● size and weight (thread connection)

Model	L	L1	L2	φ A	B	H		Weight (kg)
						1th	3th	
SO20/1.1 SO20/6 1.1	410	74	115	160	G2	147	113	18
SO25/1.5 SO25/6 1.5	420					78	123	175
SO35/2.2 SO35/6 2.2		420	80	123	175			
SO40/3.0 SO40/6 3.0	420					123	175	G2
SC15/1.1 SC15/6 1.1		410	80	115	160			
SC15/1.5 SC15/6 1.5	420	123				175	G2	157
SC25/1.5 SC15/6 1.5			420	123	175			
SC15/6 2.2 SC25/2.2 SC25/6 2.2	420	123				175	G2	157
SC25/3.0 SC25/6 3.0			420	123	175			

## ● installation drawing (cutting ferrule connection)



## ● size and weight (cutting ferrule connection)

Model	L	L1	φ A	DNs	φ C	H		Weight (kg)
						1th	3th	
SO20/1.1 SO20/6 1.1	410	115	160	50	60	147	113	18
SO25/1.5 SO25/6 1.5	420	123	175			65	76	157
SO35/2.2 SO35/6 2.2				420	123			175
SO40/3.0 SO40/6 3.0	420	123	175			65	76	
SC15/1.1 SC15/6 1.1				410	115			160
SC15/1.5 SC15/6 1.5	420	123	175	50	60	157	121	22
SC25/1.5 SC15/6 1.5								420
SC15/6 2.2 SC25/2.2 SC25/6 2.2	420	123	175	50	60	157	121	
SC25/3.0 SC25/6 3.0								420

