

 **CNP**

**MAKCGIL.COM**

**ZS** **50Hz/60Hz**

**Stainless Steel Horizontal Single-stage Centrifugal Pump**



**Nanfang Pump Industry Co.,Ltd.**

CNP Headquarter

Address: Renhe Town, Hangzhou China

PostCode: 311107

Tel: +86 571 86397810, 86397838

Fax: +86 571 86397809

E-mail: [info@nanfang-pump.com](mailto:info@nanfang-pump.com)

<http://www.cnppump.com>

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subject to amendments



 **CNP**



## 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.

## Content

### General Data

Introduction	3
Definition of model	3
Application	3
Minimum inlet pressure NPSH	4
Installation requirements	5
Curves	5
Operating condition	5
Motor	5
Section drawing	6
Material	6
Scope of performance 50Hz	7
Scope of performance 60Hz	8
Product range 50Hz	9
Product range 60Hz	10

### Technical Data

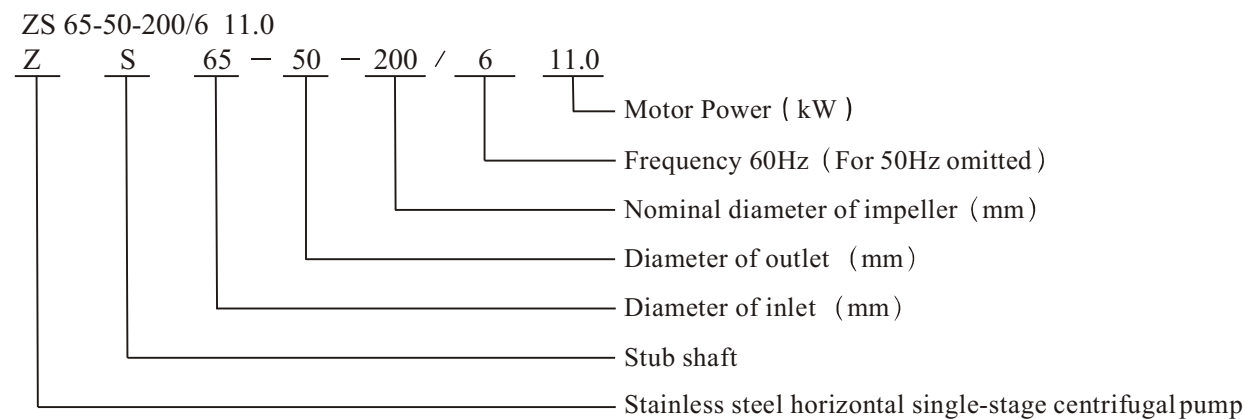
ZS50- 32- *** 50Hz	11
ZS65- 40- *** 50Hz	12
ZS65- 50- *** 50Hz	13
ZS80- 65- *** 50Hz	14
ZS100-80- *** 50Hz	15
ZS50- 32- *** 60Hz	16
ZS65- 40- *** 60Hz	17
ZS65- 50- *** 60Hz	18
ZS80- 65- *** 60Hz	19
ZS100-80- *** 60Hz	20
Installation Sketch	21
Size and weight 50Hz	21
Size and weight 60Hz	23



## ● Introduction

ZS Stainless steel horizontal single-stage centrifugal pump is made by advanced techniques such as pressing bulging welding of corrosion resistant plate. It is a new generation centrifugal pump initiated in China and may replace traditional IS pump and common corrosion proof pump. It features beautiful appearance, light and handy structure, high efficiency and energy saving, durable, corrosion proof, low noise, etc.

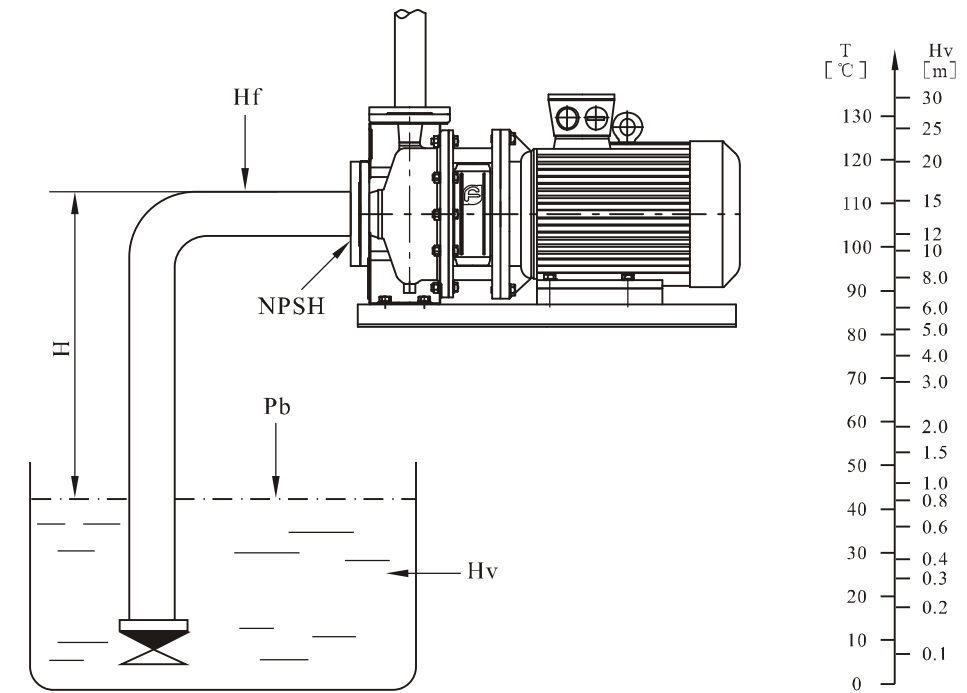
## ● Definition of model



## ● Application

ZS Stainless steel horizontal single-stage centrifugal pump is a sort of multifunction product with wide application. It may transmit various mediums including water or industrial liquid and is suitable for different temperature, flow rate and range of pressure. Its typical application mainly includes the following aspects:

- Water supply: filtration in water works, transportation and subarea water carriage, pressurization of main duct;
- Industrial pressurization: flow wetting system, cleaning system;
- Transportation of industrial liquid: water supply of boiler, condensed system, cooling and air conditioning system, machine tool support, light acid and alkali transportation;
- Water treatment: distilled water system or separator, swimming pool, etc.;
- Farmland irrigation, medicine and sanitation, etc.



## ● Minimum inlet pressure NPSH

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed. The maximum suction stroke can be calculated with following formula:

$$H = Pb \times 10.2 - NPSH - Hf - Hv - Hs$$

Pb – Atmosphere pressure (bar)

In a closed system, Pb means system pressure (bar)

NPSH – Net positive suction head (m)

It can be read from the point of Max. flow rate shown on NPSH curve.

Hf – Pipeline loss at the inlet (m)

It is in accordance with pipeline possible Max. Flow.

Hv – Steam pressure (m)

It depends on liquid temperature and steam pressure value.

Hs – Safety margin (m)

Minimum 0.5m delivery head.

If the calculated result H is negative, the pump may run under the Max. Suction head H. In case the calculated result H is negative, a delivery head of Min. Inlet pressure is necessary.

Note: Normally, the above calculation will not be done. H is calculated in the following conditions:

- 1、 The liquid temperature is comparatively higher;
- 2、 Liquid flow exceeds rated value;
- 3、 Suction head is comparatively large or inlet pipeline long;
- 4、 System pressure is too low;
- 5、 Bad inlet condition.



## ● Installation requirements

The shaft connection type of ZS pump is direct connection. The pump is composed of pump, shaft and standard motor.

- The pump shall be installed on the ventilating and anti-freezing place;
- The installation of the pump shall ensure that the pump will not be forced by the tension of the pipeline;
- If the pump is installed outdoor, suitable outer cover must be used to prevent electric elements from water inflow or coagulating dew;
- To facilitate inspection and maintenance, enough space must be left around the machine group;
- Electric wiring device shall guarantee that the pump will not be damaged by lack of phase, unstable voltage, current leakage and overload;
- The pump shall be installed on the base horizontally. Horizontal direction is the inlet for the pump, and vertical direction is the outlet for the pump;
- The flange connection dimension are in conformity with the related provisions PN16 in GB/T 17241.6 or ISO7005-2/DIN 2501.

## ● Curves

Following conditions are suitable for the performance curves shown bellow:

- 1、 Curve tolerance is in conformity with ISO9906 Annex A;
- 2、 All curves are based on the measured value of motor 3×380V, 50Hz: under the constant speed of 2900rpm or 2950rpm; 60Hz: under the constant speed of 3450rpm or 3500rpm;
- 3、 The test medium is clear 20°C water without any solid impurity;
- 4、 Pumps should not work if the flow is beyond the minimum or the maximum flow in the curves;
- 5、 The motor power shall be adjusted if the viscosity or density of medium is different from water.

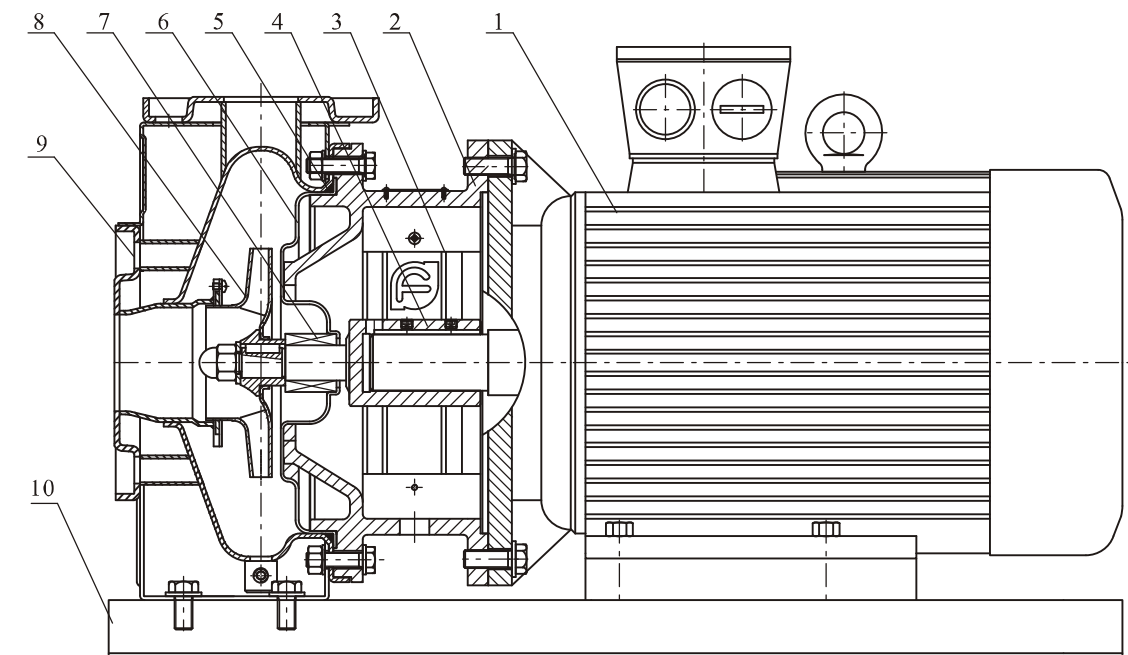
## ● Operating condition

- Clean, thin, non-flammable and explosive, not containing the liquid with solid particle and fibe;
- Liquid temperature: -20°C ~+100°C ;
- Ambient temperature: up to +40°C ;
- Altitude: up to 1000m;
- Max. pressure of the system is 10 bar.

## ● Motor

- TEFC motor, 2-pole;
- Protection class: IP55;
- Insulation class : F;
- Standard voltage: 50Hz 1 × 220V  
3 × 380V
- Standard voltage: 60Hz 1 × 220V  
3 × 220V  
3 × 380V  
3 × 460V

## ● Section drawing

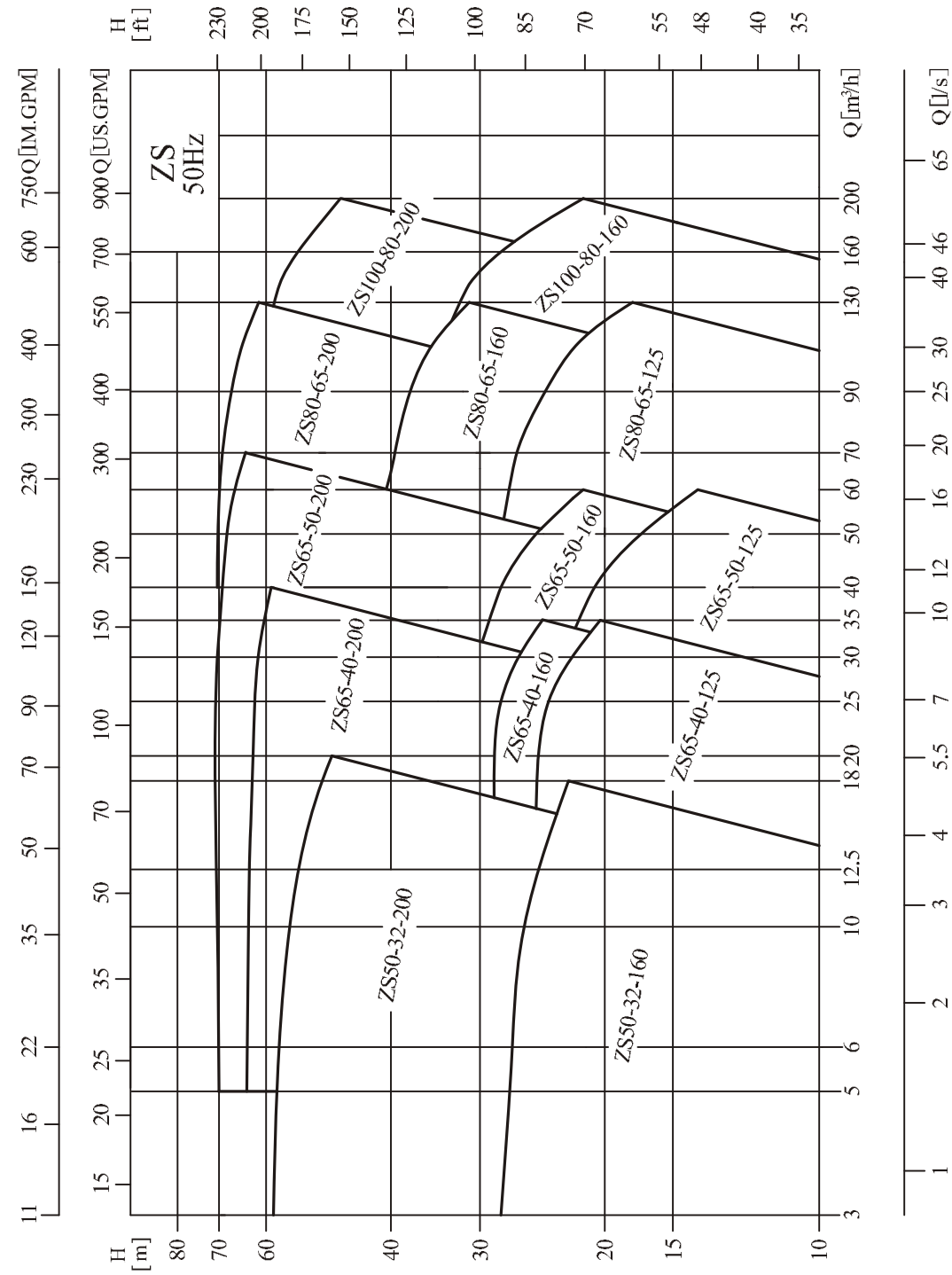


## ● Material

NO.	Parts	Material	AISI/ASTM
1	Motor		
2	Pump head	HT 200	ASTM25B
3	Guard plate	0Cr18Ni9	AISI304
4	Shaft	2Cr13/0Cr18Ni9	AISI420/ AISI304
5	O ring	NBR	
6	Lining of pump head	0Cr18Ni9	AISI304
7	Mechanical seal	Carbon/Silicon Carbide	
8	Impeller	0Cr18Ni9	AISI304
9	Casing	0Cr18Ni9	AISI304
10	Base plate	Q235	ASTMA570

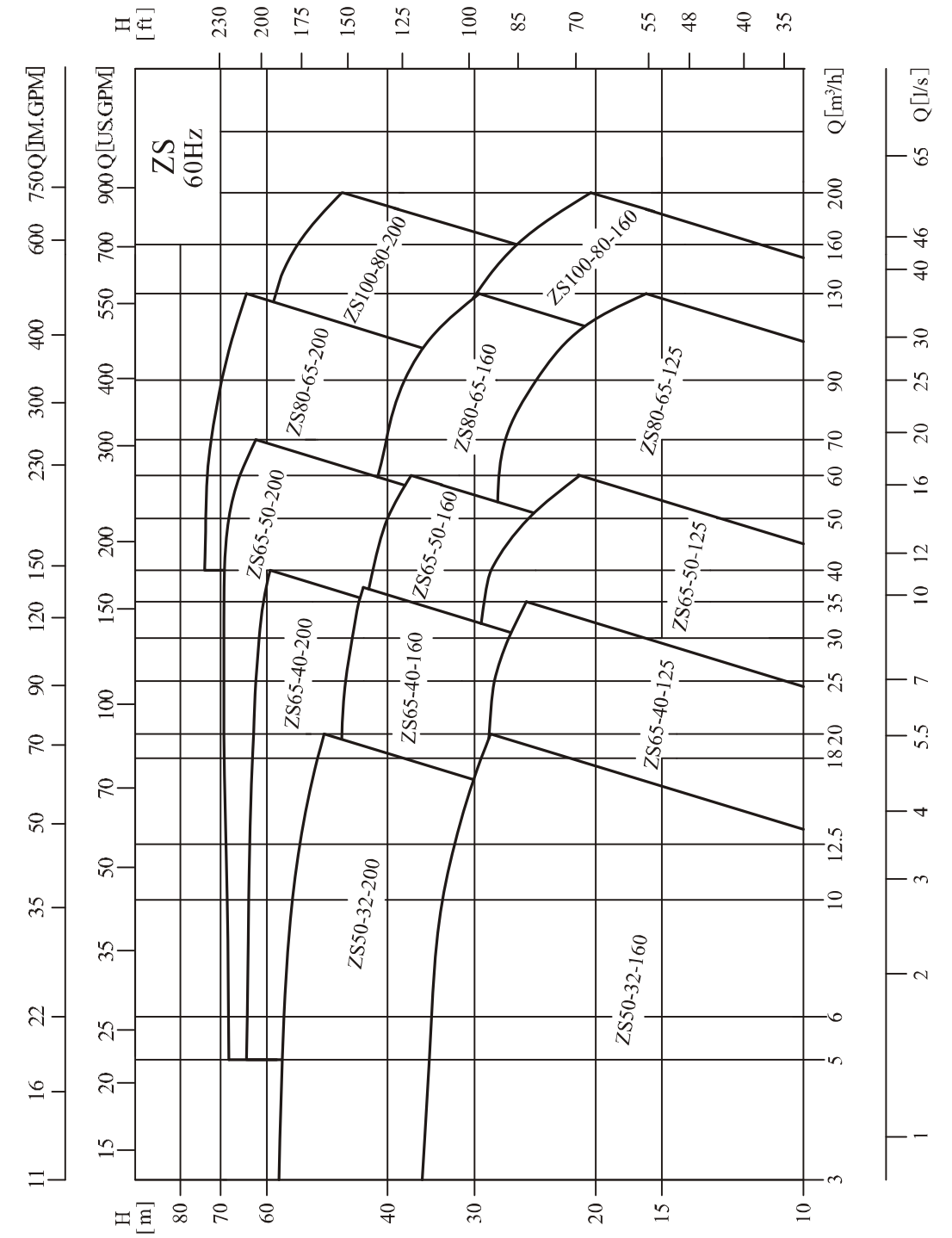
● Scope of performance

50Hz



● Scope of performance

60Hz



## ● Product range

50Hz

NO.	Model	Q (m <sup>3</sup> /h)	H (m)	n (r/min)	Standard voltage ( V )	
					1×220V	3×380V
					P <sub>2</sub> ( kW )	P <sub>2</sub> ( kW )
1	ZS50-32-160/1.1	6.3	18	2900	1.1	1.1
2	ZS50-32-160/1.5	12.5	20		1.5	1.5
3	ZS50-32-160/2.2	12.5	25		2.2	2.2
4	ZS50-32-200/3.0	12.5	32			3
5	ZS50-32-200/4.0	12.5	42			4
6	ZS50-32-200/5.5	12.5	54			5.5
7	ZS65-40-125/1.5	25	13	2950	1.5	1.5
8	ZS65-40-125/2.2	25	18		2.2	2.2
9	ZS65-40-125/3.0	25	24			3
10	ZS65-40-160/4.0	25	28			4
11	ZS65-40-200/5.5	25	36			5.5
12	ZS65-40-200/7.5	25	46			7.5
13	ZS65-40-200/11.0	25	62	2950		11
14	ZS65-50-125/3.0	50	13	2900		3
15	ZS65-50-125/4.0	50	18			4
16	ZS65-50-160/5.5	50	25			5.5
17	ZS65-50-200/7.5	50	32			7.5
18	ZS65-50-200/9.2	50	40			9.2
19	ZS65-50-200/11.0	50	48			11
20	ZS65-50-200/15.0	50	58	2950		15
21	ZS65-50-200/18.5	50	68			18.5
22	ZS80-65-125/5.5	100	13			5.5
23	ZS80-65-125/7.5	100	18	2900		7.5
24	ZS80-65-125/9.2	100	23			9.2
25	ZS80-65-160/11.0	100	27			11
26	ZS80-65-160/15.0	100	36	2950		15
27	ZS80-65-200/18.5	100	45			18.5
28	ZS80-65-200/22.0	100	53			22
29	ZS80-65-200/30.0	100	66			30
30	ZS100-80-160/11.0	160	15			11
31	ZS100-80-160/15.0	160	22			15
32	ZS100-80-160/18.5	160	28		18.5	
33	ZS100-80-200/22.0	160	33		22	
34	ZS100-80-200/30.0	160	45		30	
35	ZS100-80-200/37.0	160	54		37	

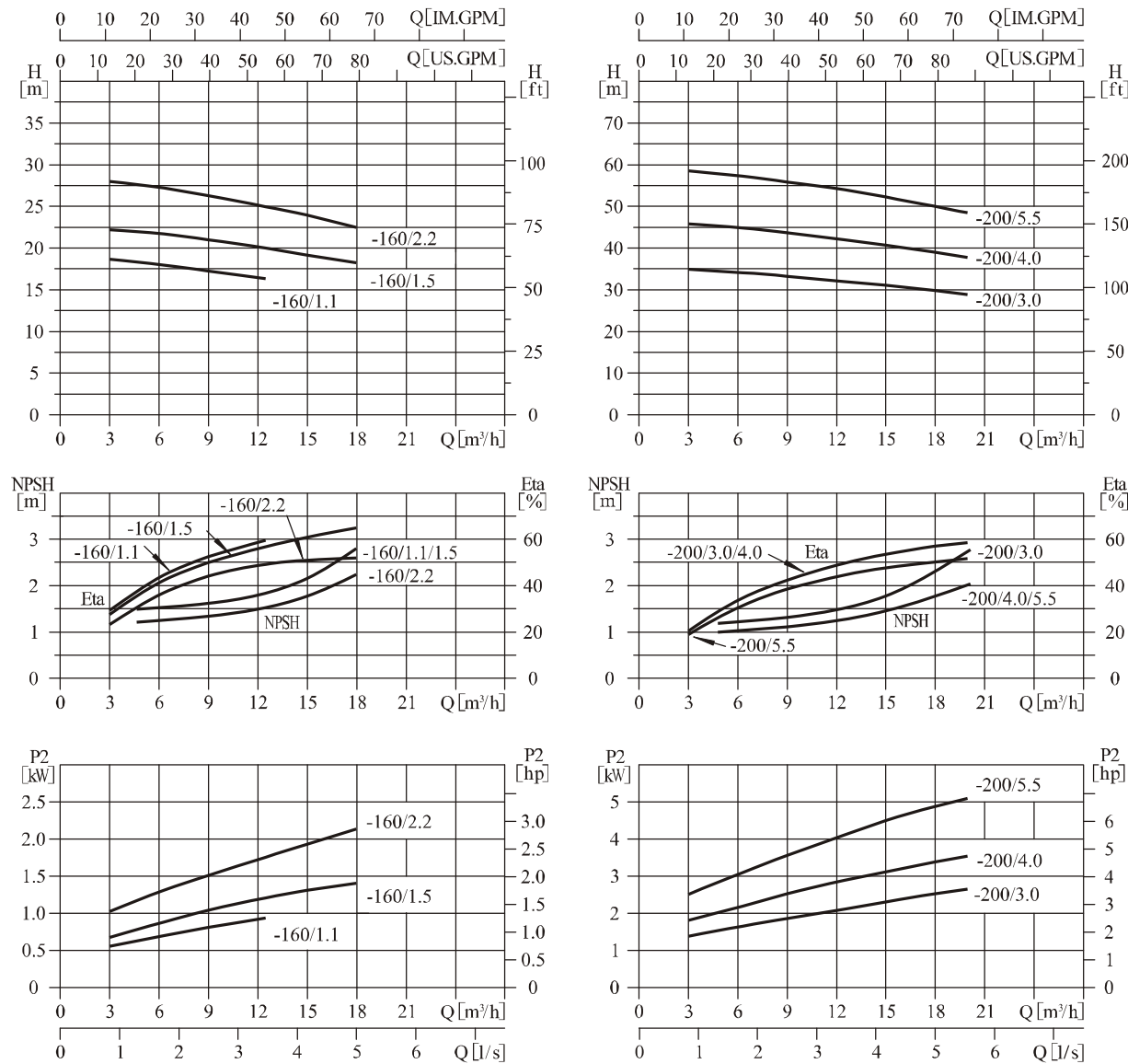
## ● Product range

60Hz

NO.	Model	Q (m <sup>3</sup> /h)	H (m)	n (r/min)	Standard voltage ( V )		
					1×220V	3×380V	
					P <sub>2</sub> ( kW )	P <sub>2</sub> ( kW )	
1	ZS50-32-160/6 1.1	6.3	18	3450	1.1	1.1	
2	ZS50-32-160/6 1.5	12.5	20		1.5	1.5	
3	ZS50-32-160/6 2.2	12.5	25		2.2	2.2	
4	ZS50-32-160/6 3.0	12.5	32			3	
5	ZS50-32-200/6 4.0	12.5	42			4	
6	ZS50-32-200/6 5.5	12.5	54			5.5	
7	ZS65-40-125/6 1.5	25	13			1.5	1.5
8	ZS65-40-125/6 2.2	25	18			2.2	2.2
9	ZS65-40-125/6 3.0	25	24				3
10	ZS65-40-125/6 4.0	25	28				4
11	ZS65-40-160/6 5.5	25	36				5.5
12	ZS65-40-160/6 7.5	25	46				7.5
13	ZS65-40-200/6 11.0	25	62	3500		11	
14	ZS65-50-125/6 3.0	50	13	3450		3	
15	ZS65-50-125/6 4.0	50	18			4	
16	ZS65-50-125/6 5.5	50	25			5.5	
17	ZS65-50-160/6 7.5	50	32			7.5	
18	ZS65-50-160/6 9.2	50	40			9.2	
19	ZS65-50-200/6 11.0	50	48			11	
20	ZS65-50-200/6 15.0	50	58	3500		15	
21	ZS65-50-200/6 18.5	50	68			18.5	
22	ZS80-65-125/6 5.5	100	12.5		3450		5.5
23	ZS80-65-125/6 7.5	100	18			7.5	
24	ZS80-65-125/6 9.2	100	23			9.2	
25	ZS80-65-160/6 11.0	100	27			11	
26	ZS80-65-160/6 15.0	100	36			15	
27	ZS80-65-200/6 18.5	100	45			18.5	
28	ZS80-65-200/6 22.0	100	53	3500		22	
29	ZS80-65-200/6 30.0	100	68			30	
30	ZS100-80-160/6 15.0	160	20			15	
31	ZS100-80-160/6 18.5	160	26			18.5	
32	ZS100-80-200/6 22.0	160	33			22	
33	ZS100-80-200/6 30.0	160	45			30	
34	ZS100-80-200/6 37.0	160	54			37	

## ZS50-32-\*\*\*:

### 50Hz ISO9906 Annex A

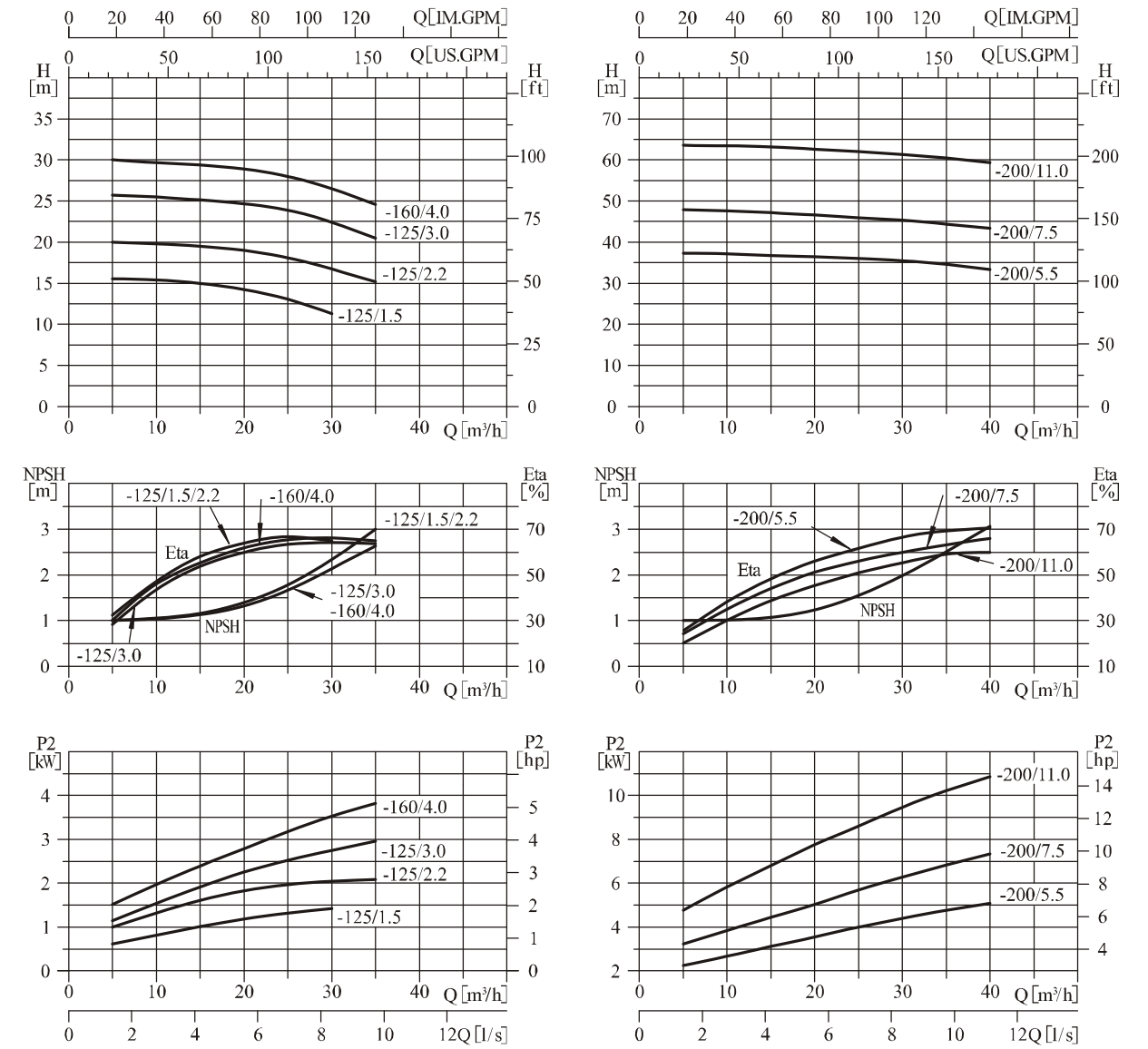


### Performance table

Model	Driving motor		Q (m³/h)	3	6.3	9	12.5	15	18	20
	(kW)	(hp)								
ZS50-32-160/1.1	1.1	1.5	H (m)	18.7	18	17.2	16.4			
ZS50-32-160/1.5	1.5	2		22.5	22	21	20	19	18	
ZS50-32-160/2.2	2.2	3		28	27	26.3	25	24	22.5	
ZS50-32-200/3.0	3	4		34.9	34.1	33.3	32	31	29.8	28.9
ZS50-32-200/4.0	4	5.5		45.7	44.8	43.7	42	40.7	39	37.7
ZS50-32-200/5.5	5.5	7.5		58.5	57.2	56	54	52.5	50	48.5

## ZS65-40-\*\*\*:

### 50Hz ISO9906 Annex A



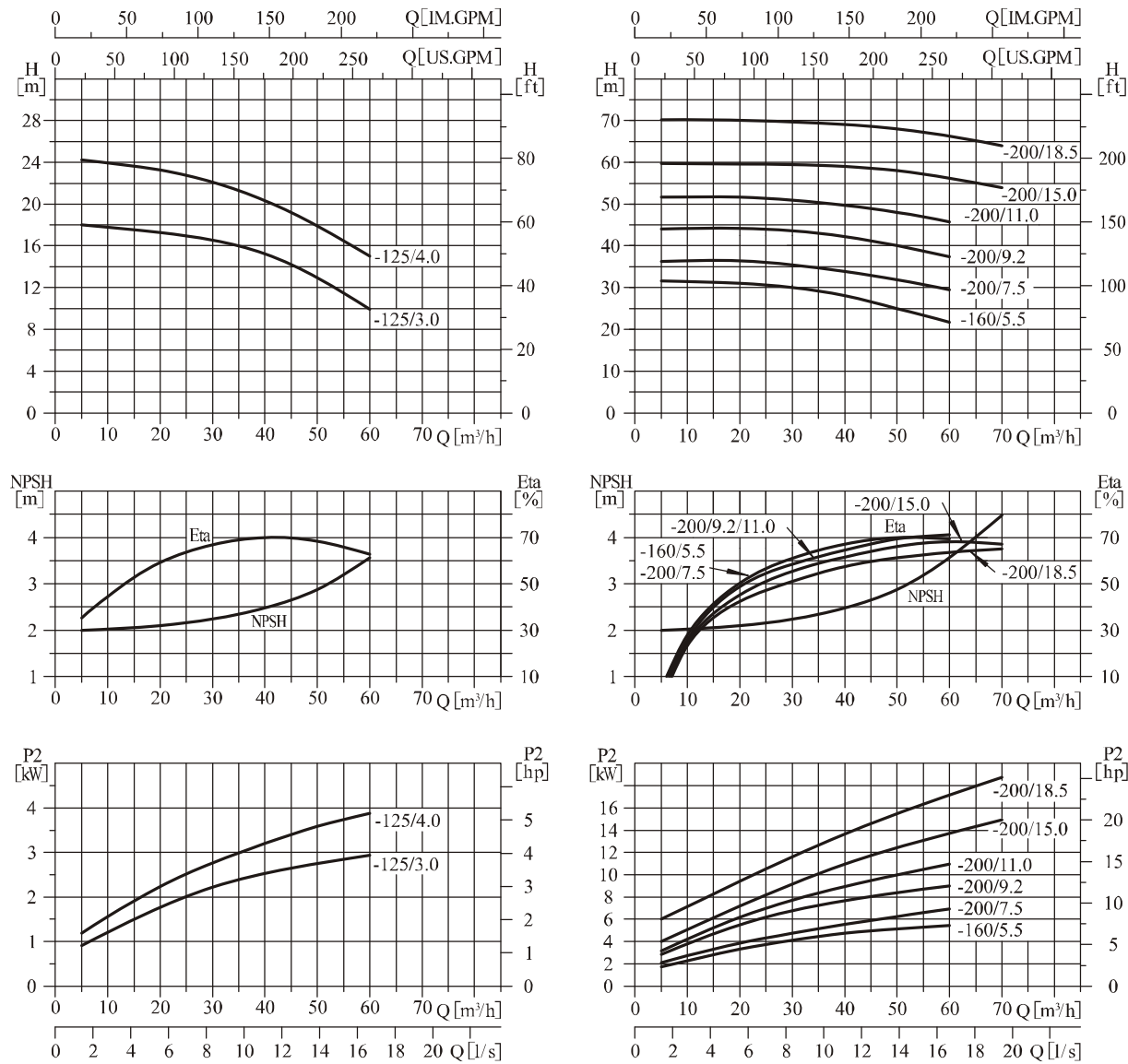
### Performance table

Model	Driving motor		Q (m³/h)	5	10	15	20	25	30	35	40
	(kW)	(hp)									
ZS65-40-125/1.5	1.5	2	H (m)	15.5	15.4	15	14.4	13	11.3		
ZS65-40-125/2.2	2.2	3		20	19.7	19.5	19	18	16.7	15.2	
ZS65-40-125/3.0	3	4		25.7	25.3	25.1	24.8	24	22.3	20.3	
ZS65-40-160/4.0	4	5.5		30	29.7	29.3	28.9	28	26.5	24.5	
ZS65-40-200/5.5	5.5	7.5		37.4	37.2	36.7	36.4	36	35.5	34.6	33.3
ZS65-40-200/7.5	7.5	10		48	47.5	47	46.6	46	45.2	44.5	43.3
ZS65-40-200/11.0	11	15		64	63.5	63	62.5	62	61.5	60.5	59



## ● ZS65-50-\*\*\*:

## 50Hz ISO9906 Annex A

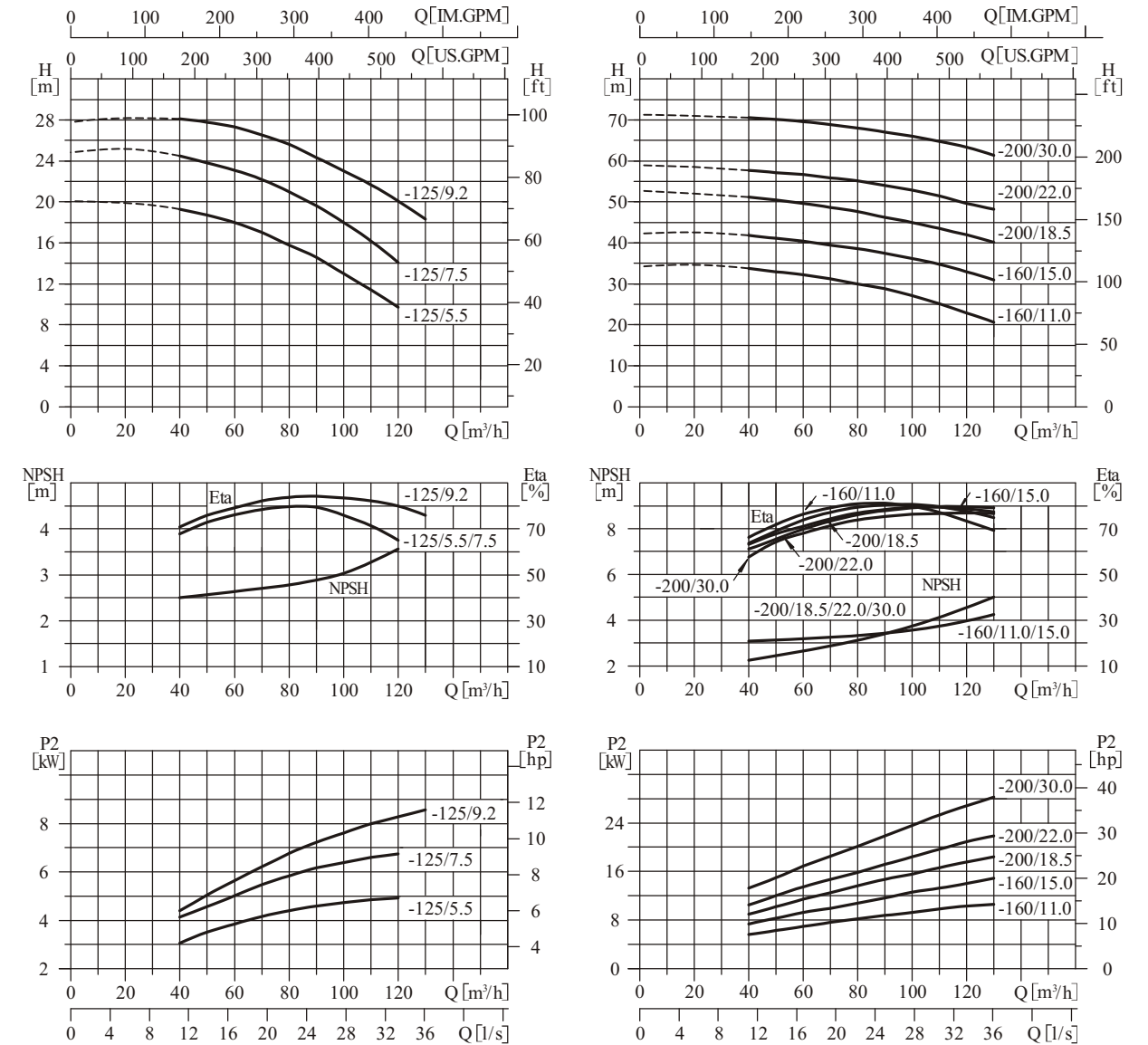


## ● Performance table

Model	Driving motor		Q (m³/h)	Flow Rate (m³/h)							
	(kW)	(hp)		5	10	20	30	40	50	60	70
ZS65-50-125/3.0	3	4	H (m)	18	17.8	17.2	16.4	15.1	13	10	
ZS65-50-125/4.0	4	5.5		24.2	24.2	23.6	22.6	20.7	18	14.8	
ZS65-50-160/5.5	5.5	7.5		31.6	31.5	31	30	28	25	21.5	
ZS65-50-200/7.5	7.5	10		36.3	36.6	36.4	35.6	34.1	32	29.6	
ZS65-50-200/9.2	9.2	12.5		43.5	43.5	43.5	43	42	40	37.5	
ZS65-50-200/11.0	11	15		51.5	51.5	51	50	49.3	48	45.6	
ZS65-50-200/15.0	15	20		59.7	59.7	59.6	59.5	59	58	56.2	53
ZS65-50-200/18.5	18.5	25		70.2	70.2	70.1	70	69.1	68	66.4	64

## ● ZS80-65-\*\*\*:

## 50Hz ISO9906 Annex A

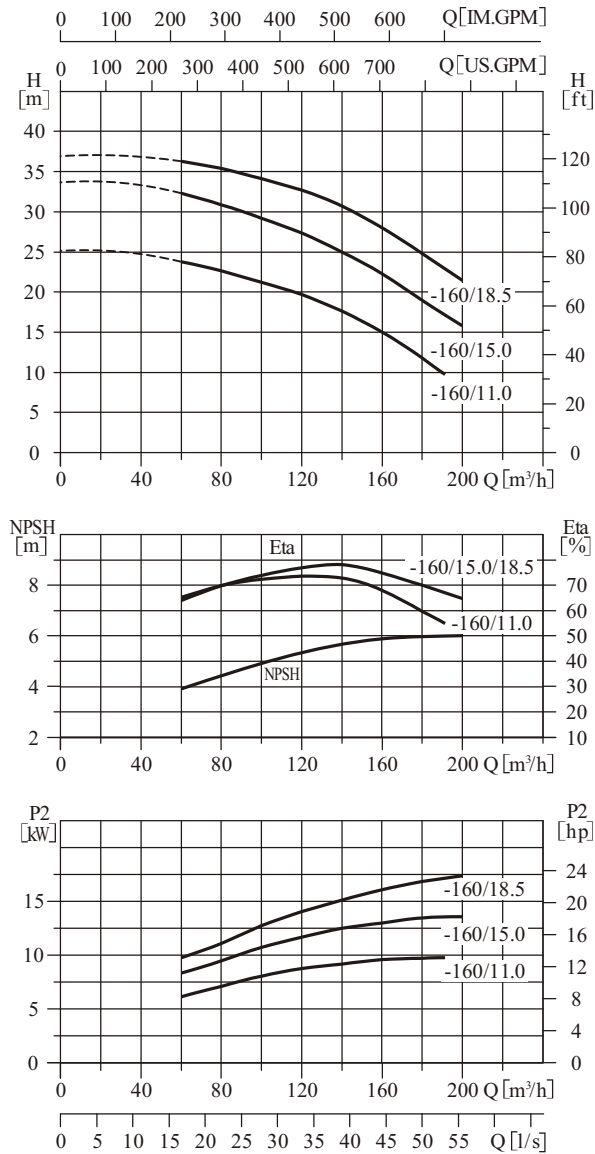


## ● Performance table

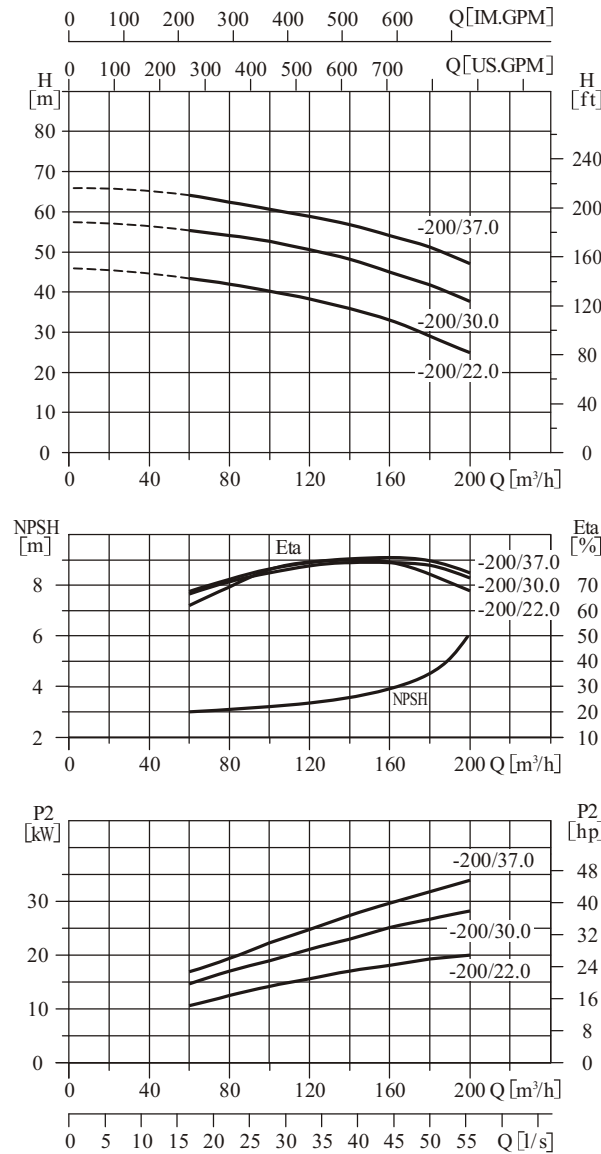
Model	Driving motor		Q (m³/h)	Flow Rate (m³/h)										
	(kW)	(hp)		40	50	60	70	80	90	100	110	120	130	
ZS80-65-125/5.5	5.5	7.5	H (m)	19.3	18.7	18	17	15.8	14.8	13	11.4	9.7		
ZS80-65-125/7.5	7.5	10		24.5	23.8	23.1	22.2	21	19.6	18	16.2	14.1		
ZS80-65-125/9.2	9.2	12.5		28.1	27.8	27.3	26.6	25.7	24.3	23	21.8	20.1	18.3	
ZS80-65-160/11.0	11	15		33.9	33	32.2	31.3	29.9	28.8	27	25.1	22.9	20.7	
ZS80-65-160/15.0	15	20		41.8	41.1	40.4	39.5	38.6	37.6	36	34.8	33	31	
ZS80-65-200/18.5	18.5	25		51	50.5	49.6	48.7	47.6	46.3	45	43.5	42.2	40.2	
ZS80-65-200/22.0	22	30		57.7	57.2	56.8	55.9	55.1	54	53	51.6	49.7	48.2	
ZS80-65-200/30.0	30	40		70.2	70.2	69.6	68.9	68.2	67.1	66	64.6	63.3	61.4	



## ZS100-80-\*\*\*:



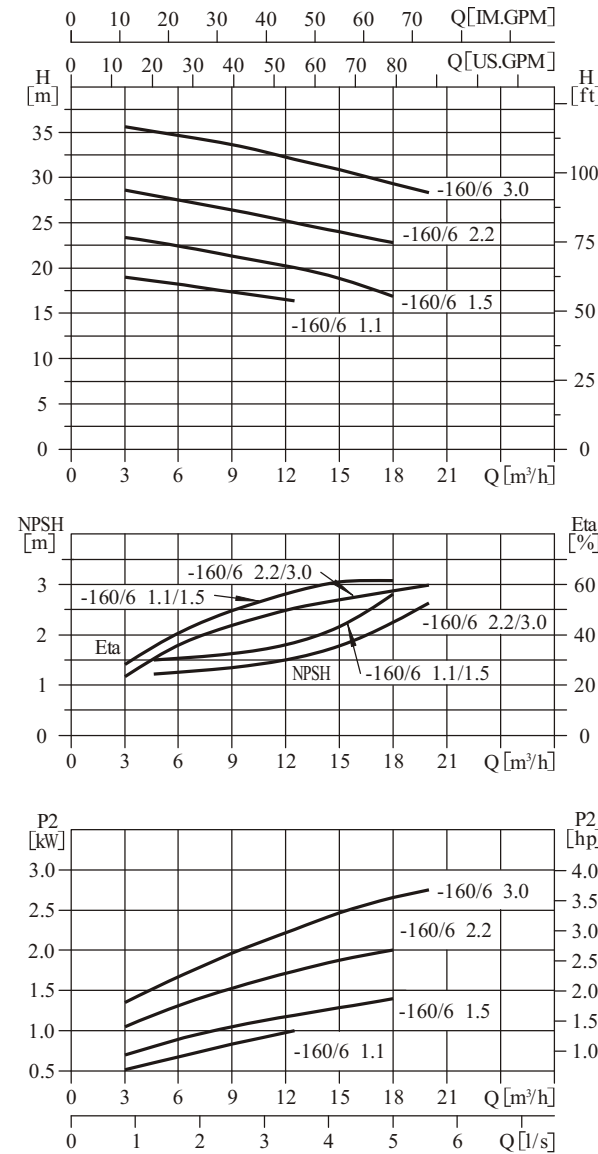
## 50Hz ISO9906 Annex A



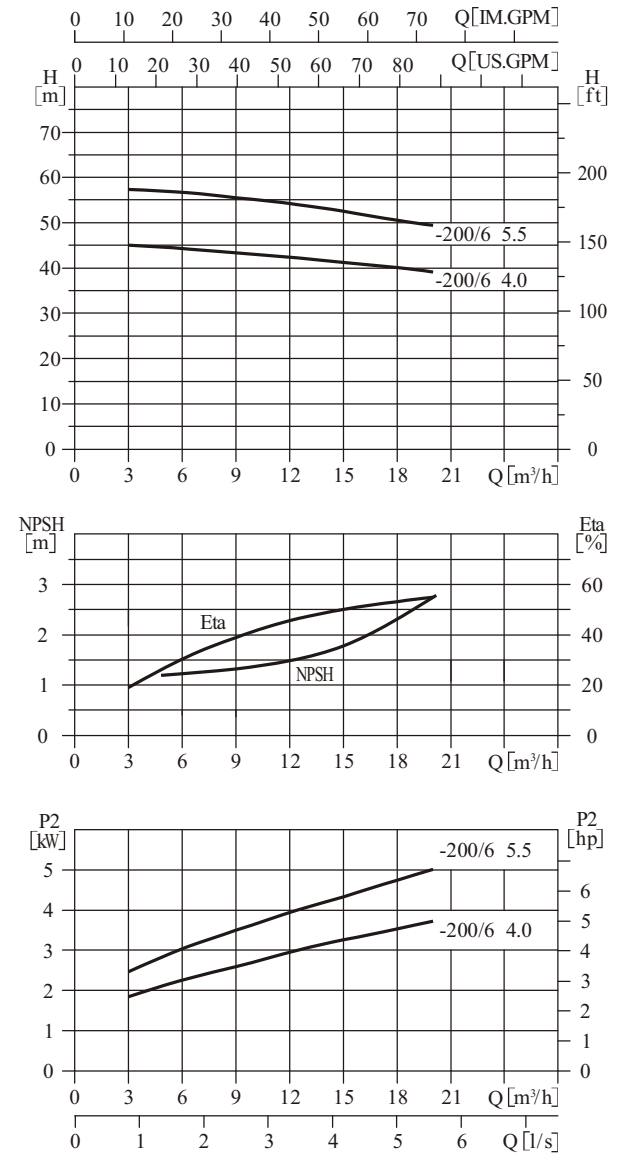
### Performance table

Model	Driving motor		Q (m³/h)	H (m)								
	(kW)	(hp)		60	80	100	120	140	160	180	192	200
ZS100-80-160/11.0	11	15	H (m)	23.8	22.7	21.1	19.7	17.6	15	11.8	9.7	
ZS100-80-160/15.0	15	20		32.3	30.8	29.1	27.2	25.1	22	18.8		16.1
ZS100-80-160/18.5	18.5	25		36.2	35.2	33.8	32.7	31	28	24.8		21.5
ZS100-80-200/22.0	22	30		43.5	42	39.7	38.3	35.9	33	29		24.9
ZS100-80-200/30.0	30	40		55.4	54.1	52.6	50.5	48.2	45	41.9		37.6
ZS100-80-200/37.0	37	50		64.1	62.5	61	59	57.4	54	51.2		47.1

## ZS50-32-\*\*\*:



## 60Hz ISO9906 Annex A

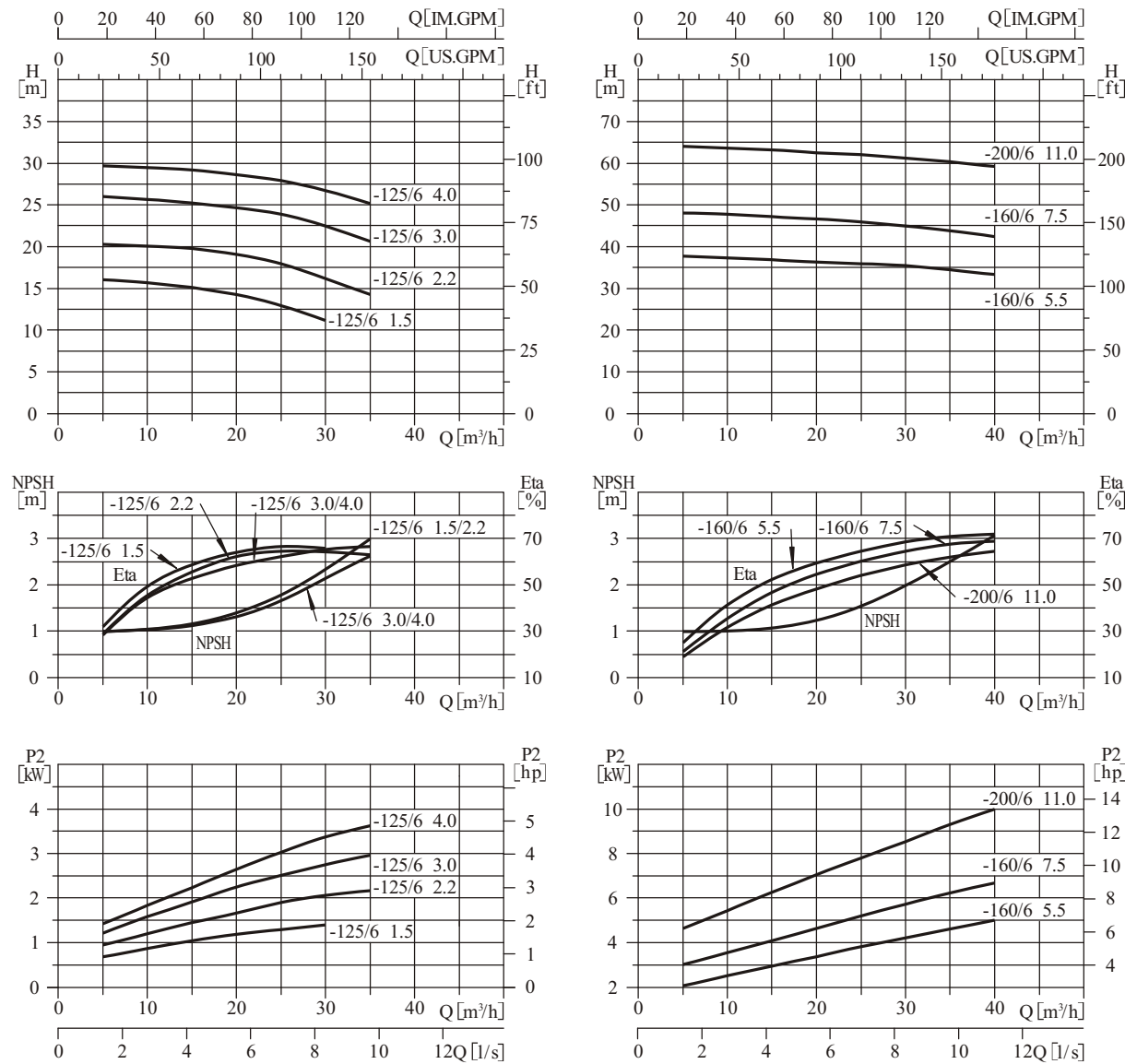


### Performance table

Model	Driving motor		Q (m³/h)	H (m)							
	(kW)	(hp)		3	6.3	9	12.5	15	18	20	
ZS50-32-160/6 1.1	1.1	1.5	H (m)	19	18	17.3	16.4				
ZS50-32-160/6 1.5	1.5	2		23.4	22.2	21.2	20	18.8	16.8		
ZS50-32-160/6 2.2	2.2	3		28.6	27.4	26.4	25	24	22.8		
ZS50-32-160/6 3.0	3.0	4		35.6	34.5	33.7	32	30.8	29.3	28.4	
ZS50-32-200/6 4.0	4.0	5.5		45	44.1	43.3	42	41.2	40	39.1	
ZS50-32-200/6 5.5	5.5	7.5		57.5	56.5	55.7	54	52.5	50.5	49.4	

## ZS65-40-\*\*\*:

### 60Hz ISO9906 Annex A

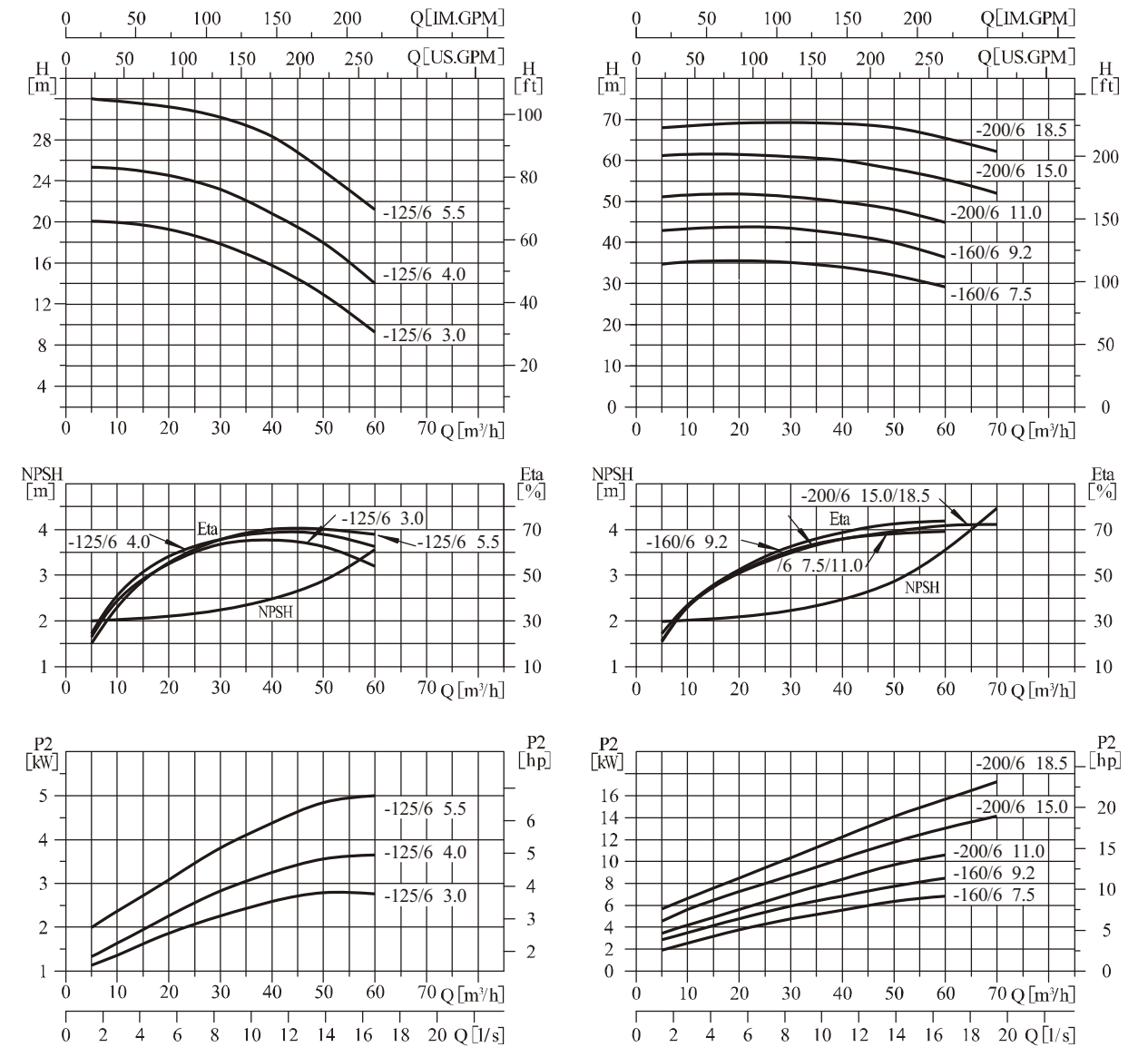


## Performance table

Model	Driving motor		Q (m³/h)	5	10	15	20	25	30	35	40	
	(kW)	(hp)										
ZS65-40-125/6 1.5	1.5	2	H (m)	16.1	15.6	15.1	14.2	13	11.2			
ZS65-40-125/6 2.2	2.2	3		20.3	20	19.7	19.1	18	16.2	14.3		
ZS65-40-125/6 3.0	3	4		26	25.6	25.2	24.6	24	22.5	20.7		
ZS65-40-125/6 4.0	4	5.5		29.6	29.4	29.1	28.5	28	26.7	25.2		
ZS65-40-160/6 5.5	5.5	7.5		37.8	37.3	36.8	36.3	36	35.5	34.5	33.2	
ZS65-40-160/6 7.5	7.5	10		48	47.8	47.2	46.6	46	45	44	42.5	
ZS65-40-200/6 11.0	11	15		64	63.6	63.2	62.6	62	61.3	60.5	59.2	

## ZS65-50-\*\*\*:

### 60Hz ISO9906 Annex A

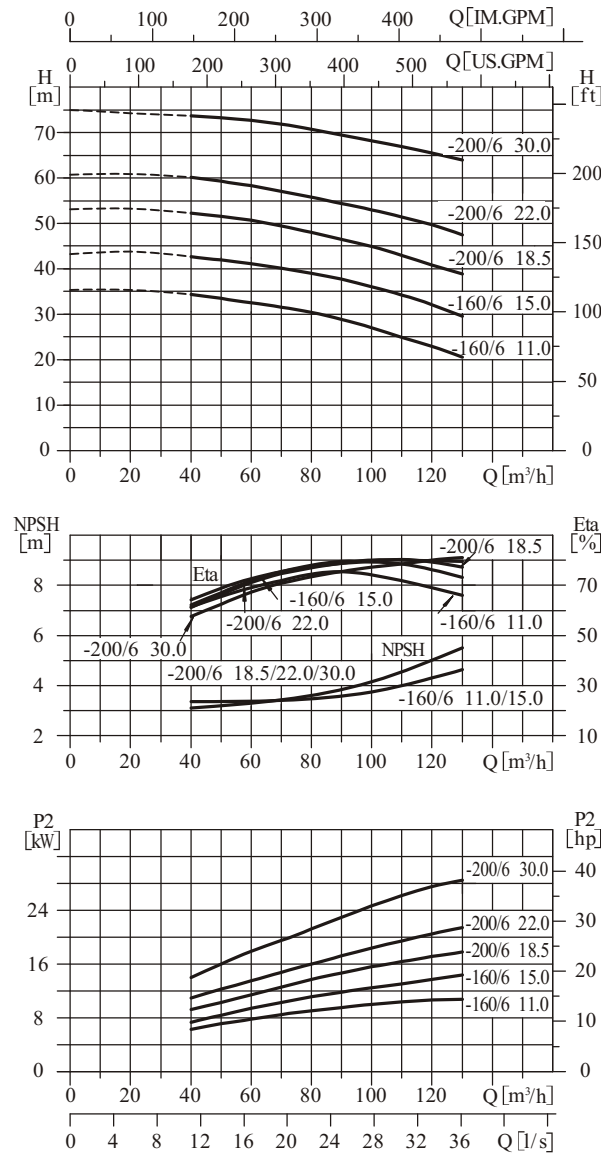
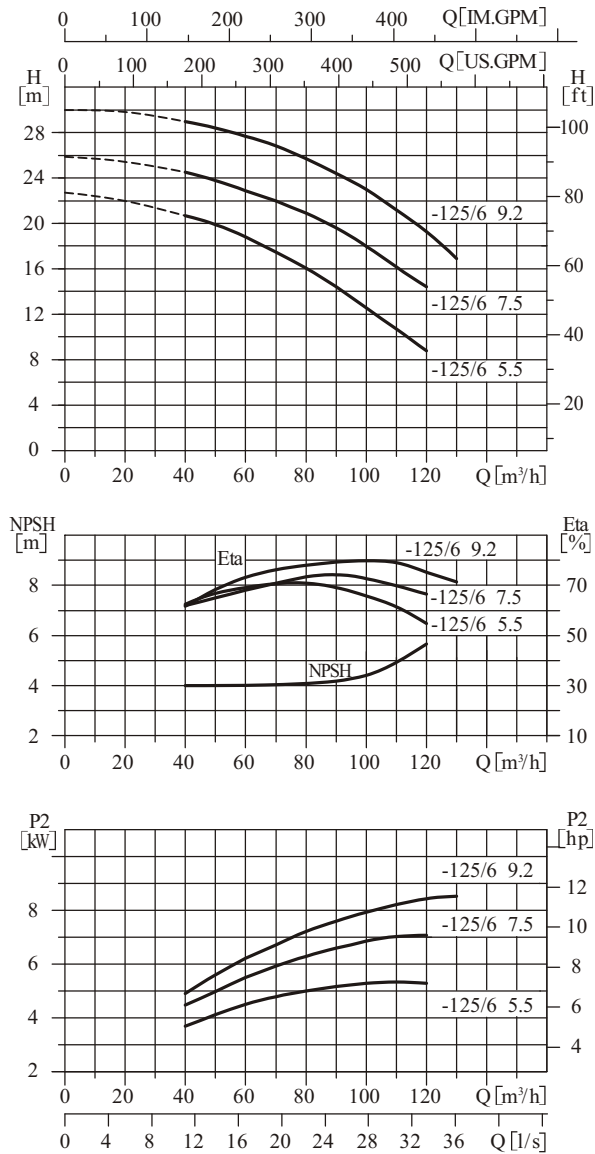


## Performance table

Model	Driving motor		Q (m³/h)	5	10	20	30	40	50	60	70
	(kW)	(hp)									
ZS65-50-125/6 3.0	3	4	H (m)	20.1	20	19.3	17.9	15.8	13	9.3	
ZS65-50-125/6 4.0	4	5.5		25.3	25.2	24.5	23.2	20.8	18	14.1	
ZS65-50-125/6 5.5	5.5	7.5		32	31.7	31.2	30.2	28.3	25	21.1	
ZS65-50-160/6 7.5	7.5	10		35	35.3	35.8	35.5	34.2	32	29.3	
ZS65-50-160/6 9.2	9.2	12.5		43	43.2	44	43.5	42	40	37	
ZS65-50-200/6 11.0	11	15		51.2	51.6	51.8	51.2	50	48	45	
ZS65-50-200/6 15.0	15	20		61	61.5	61.5	61.3	60	58	55.5	52
ZS65-50-200/6 18.5	18.5	25		68	68.3	69	69.2	68.9	68	65.4	62

## ZS80-65-\*\*\*:

## 60Hz ISO9906 Annex A

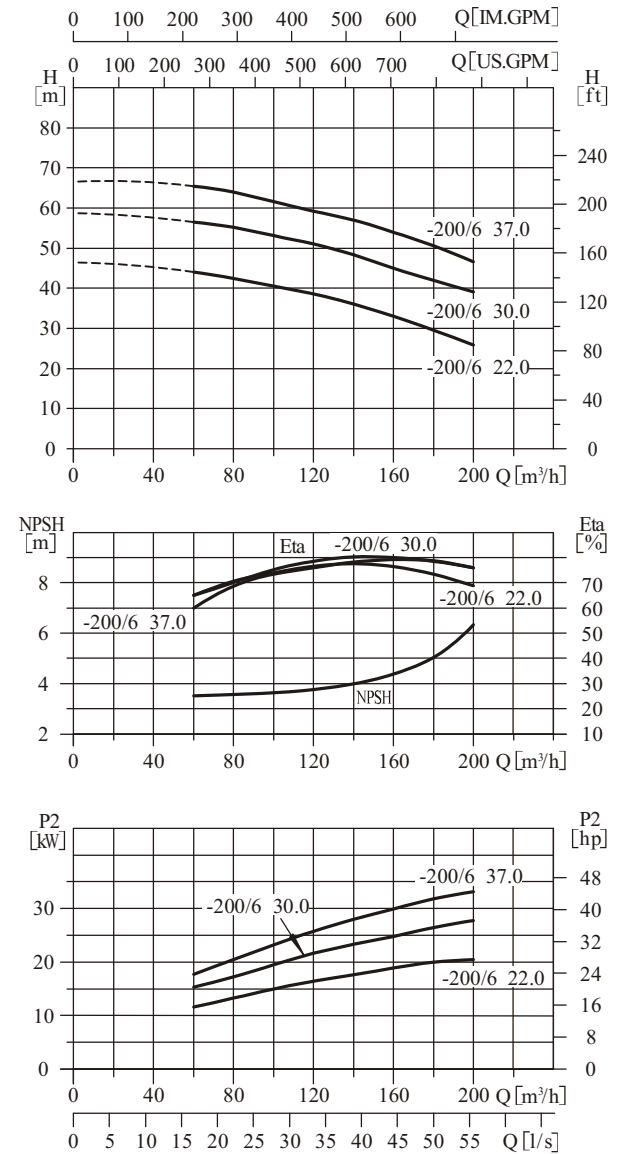
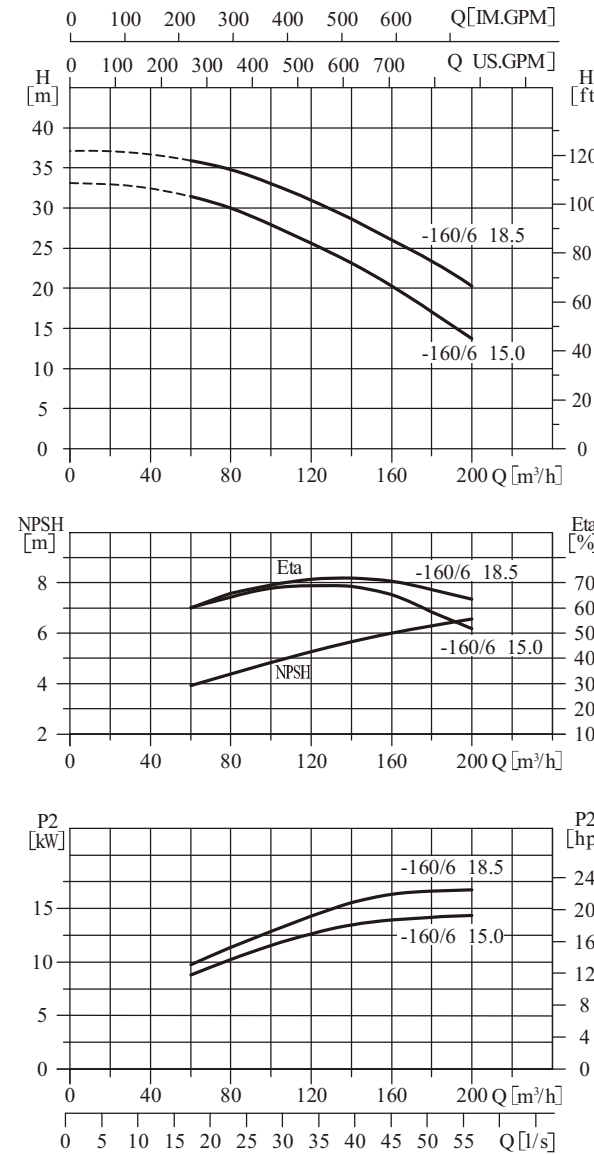


### Performance table

Model	Driving motor		Q (m³/h)	H (m)												
	(kW)	(hp)		40	50	60	70	80	90	100	110	120	130			
ZS80-65-125/6 5.5	5.5	7.5	H (m)	20.6	20	18.8	17.4	16.1	14.4	12.5	11	8.8				
ZS80-65-125/6 7.5	7.5	10		24.5	23.7	22.9	22	20.9	19.5	18	15.8	14.4				
ZS80-65-125/6 9.2	9.2	12.5		29	28.4	27.7	27	25.8	24.4	23	21.3	19.3	16.9			
ZS80-65-160/6 11.0	11	15		34.3	33.5	32.5	31.6	30.6	29	27	24.7	22.9	20.5			
ZS80-65-160/6 15.0	15	20		42.7	41.8	41	40.2	38.8	37.8	36	34.1	32.2	29.5			
ZS80-65-200/6 18.5	18.5	25		52.2	51.6	50.8	49.2	47.7	46.3	45	43	40.9	38.9			
ZS80-65-200/6 22.0	22	30		60.1	59.2	58.3	57	55.8	54.4	53	51.4	49.7	47.5			
ZS80-65-200/6 30.0	30	40		73.7	73.3	73	72.1	70.7	69.5	68	66.8	65.5	64			

## ZS100-80-\*\*\*:

## 60Hz ISO9906 Annex A

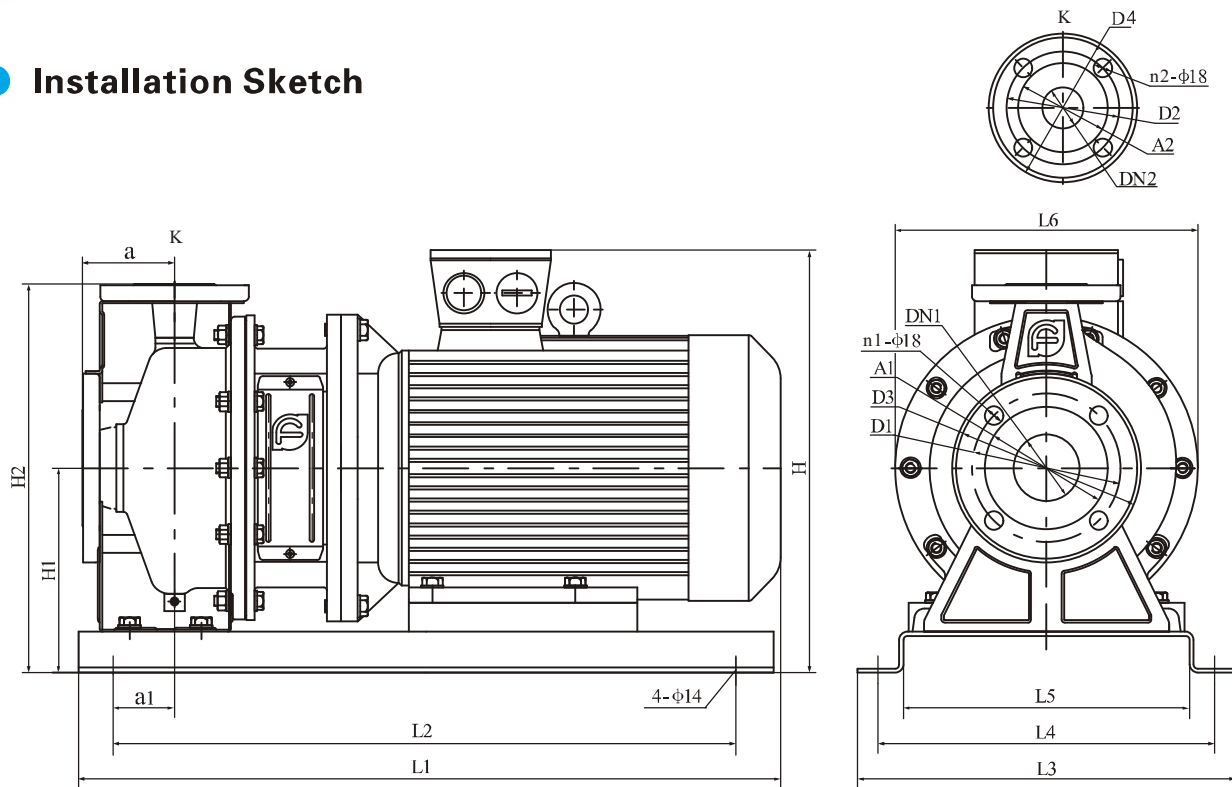


### Performance table

Model	Driving motor		Q (m³/h)	H (m)								
	(kW)	(hp)		60	80	100	120	140	160	180	200	
ZS100-80-160/6 15.0	15	20	H (m)	31.5	30	28.4	25.3	23.4	20	16.5	13.7	
ZS100-80-160/6 18.5	18.5	25		35.9	34.8	33.1	31	28.6	26	23.5	20.3	
ZS100-80-200/6 22.0	22	30		44.1	42.5	40.3	38.5	35.8	33	29.6	25.8	
ZS100-80-200/6 30.0	30	40		56.5	55.2	52.7	50.6	48.7	45	42	39.1	
ZS100-80-200/6 37.0	37	50		65.5	63.9	61.6	59	57	54	50.5	46.6	



## ● Installation Sketch



## ● Size and weight

50Hz

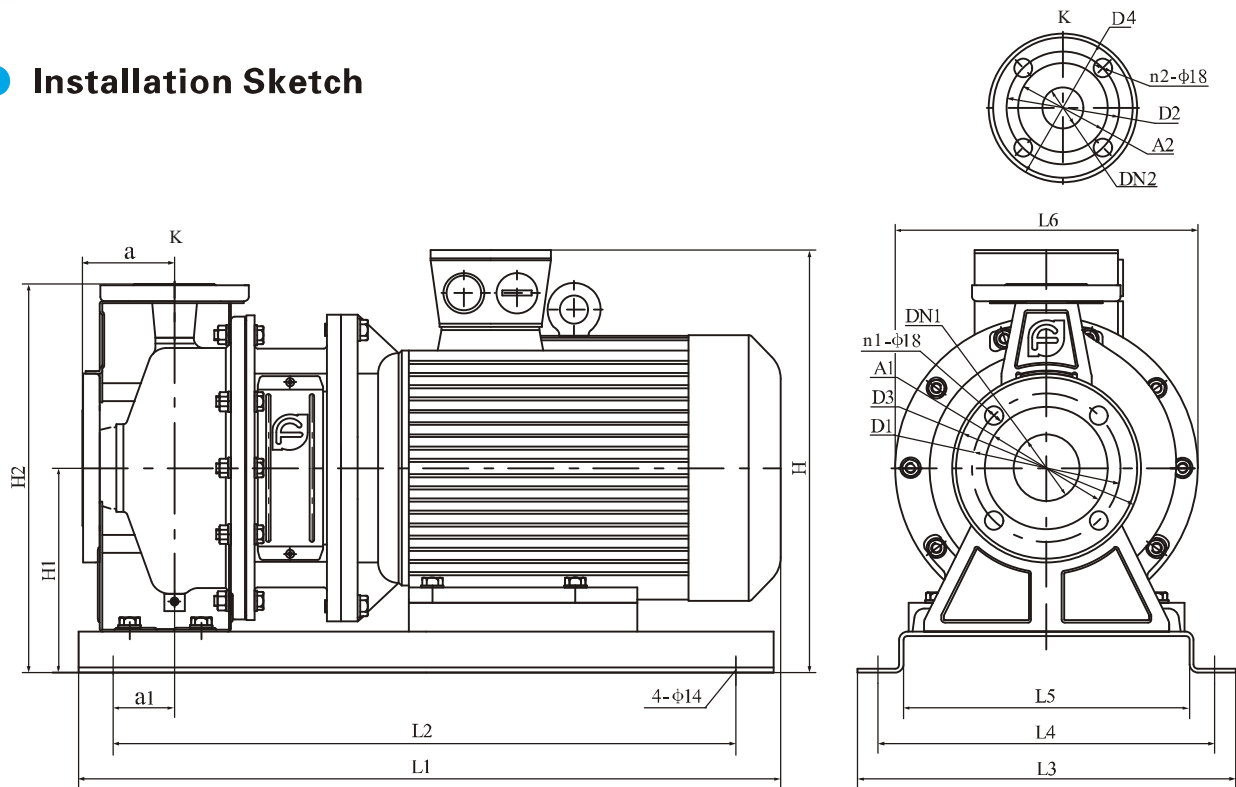
Model	Size (mm)																Weight (kg)					
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	H	H1	H2	L1		L2	L3	L4	L5	L6
ZS80-65-125/5.5	80	65	130	118	160	145	200	185	8	4	100	50	413	200	380	690	590	370	330	280	300	79
ZS80-65-125/7.5	80	65	130	118	160	145	200	185	8	4	100	50	413	200	380	690	590	370	330	280	300	83
ZS80-65-125/9.2	80	65	130	118	160	145	200	185	8	4	100	50	413	200	380	690	590	370	330	280	300	87
ZS80-65-160/11.0	80	65	130	118	160	145	200	185	8	4	100	50	456	200	400	790	690	420	380	330	350	163
ZS80-65-160/15.0	80	65	130	118	160	145	200	185	8	4	100	50	456	200	400	790	690	420	380	330	350	173
ZS80-65-200/18.5	80	65	130	118	160	145	200	185	8	4	100	50	476	220	445	830	730	420	380	330	350	190
ZS80-65-200/22.0	80	65	130	118	160	145	200	185	8	4	100	50	500	220	445	880	780	455	415	365	350	220
ZS80-65-200/30.0	80	65	130	118	160	145	200	185	8	4	100	50	550	240	465	950	850	495	455	405	400	292
ZS100-80-160/11.0	100	80	150	130	180	160	220	200	8	8	125	75	476	220	445	830	730	420	380	330	350	163
ZS100-80-160/15.0	100	80	150	130	180	160	220	200	8	8	125	75	476	220	445	830	730	420	380	330	350	173
ZS100-80-160/18.5	100	80	150	130	180	160	220	200	8	8	125	75	476	220	445	870	770	420	380	330	350	185
ZS100-80-200/22.0	100	80	150	130	180	160	220	200	8	8	125	75	500	220	470	915	810	455	415	365	350	223
ZS100-80-200/30.0	100	80	150	130	180	160	220	200	8	8	125	75	550	240	490	985	880	495	455	405	400	295
ZS100-80-200/37.0	100	80	150	130	180	160	220	200	8	8	125	75	550	240	490	985	880	495	455	405	400	315

## ● Size and weight

50Hz

Model	Size (mm)																Weight (kg)					
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	H	H1	H2	L1		L2	L3	L4	L5	L6
ZS50-32-160/1.1	50	32	98	75	125	100	160	139	4	4	80	32	290	152	296	470	370	280	240	192	210	31
ZS50-32-160/1.5	50	32	98	75	125	100	160	139	4	4	80	46	307	152	296	500	430	280	240	192	210	37
ZS50-32-160/2.2	50	32	98	75	125	100	160	139	4	4	80	46	307	152	296	500	430	280	240	192	210	39
ZS50-32-200/3.0	50	32	98	75	125	100	160	139	4	4	84	42	370	200	386	550	460	330	290	242	300	53
ZS50-32-200/4.0	50	32	98	75	125	100	160	139	4	4	84	47	393	200	386	560	480	330	290	242	300	58
ZS50-32-200/5.5	50	32	98	75	125	100	160	139	4	4	84	50	413	200	386	660	580	370	330	280	300	77
ZS65-40-125/1.5	65	40	118	84	145	110	185	145	4	4	80	45	307	152	294	502	430	280	240	192	210	33
ZS65-40-125/2.2	65	40	118	84	145	110	185	145	4	4	80	45	307	152	294	502	430	280	240	192	210	35
ZS65-40-125/3.0	65	40	118	84	145	110	185	145	4	4	80	45	322	152	294	532	460	300	260	212	250	47
ZS65-40-160/4.0	65	40	118	84	145	110	185	145	4	4	80	45	345	152	294	557	480	330	290	242	250	52
ZS65-40-200/5.5	65	40	118	84	145	110	185	145	4	4	100	50	413	200	380	680	580	370	330	280	300	78
ZS65-40-200/7.5	65	40	118	84	145	110	185	145	4	4	100	50	413	200	380	680	580	370	330	280	300	82
ZS65-40-200/11.0	65	40	118	84	145	110	185	145	4	4	100	50	456	200	380	790	690	420	380	330	350	161
ZS65-50-125/3.0	65	50	118	98	145	125	185	160	4	4	86	45	342	172	338	548	468	330	290	242	250	49
ZS65-50-125/4.0	65	50	118	98	145	125	185	160	4	4	86	45	365	172	338	570	490	330	290	242	250	54
ZS65-50-160/5.5	65	50	118	98	145	125	185	160	4	4	100	50	413	200	380	680	580	370	330	280	300	78
ZS65-50-200/7.5	65	50	118	98	145	125	185	160	4	4	100	50	413	200	380	680	580	370	330	280	300	82
ZS65-50-200/9.2	65	50	118	98	145	125	185	160	4	4	100	50	413	200	380	680	580	370	330	280	300	85
ZS65-50-200/11.0	65	50	118	98	145	125	185	160	4	4	100	50	456	200	380	790	690	420	380	330	350	161
ZS65-50-200/15.0	65	50	118	98	145	125	185	160	4	4	100	50	456	200	380	790	690	420	380	330	350	171
ZS65-50-200/18.5	65	50	118	98	145	125	185	160	4	4	100	50	456	200	380	830	730	420	380	330	350	188

## ● Installation Sketch



## ● Size and weight

60Hz

Model	Size (mm)																Weight (kg)					
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	H	H1	H2	L1		L2	L3	L4	L5	L6
ZS80-65-125/6 5.5	80	65	130	118	160	145	200	185	8	4	100	50	413	200	380	690	590	370	330	280	300	79
ZS80-65-125/6 7.5	80	65	130	118	160	145	200	185	8	4	100	50	413	200	380	690	590	370	330	280	300	83
ZS80-65-125/6 9.2	80	65	130	118	160	145	200	185	8	4	100	50	413	200	380	690	590	370	330	280	300	87
ZS80-65-160/6 11.0	80	65	130	118	160	145	200	185	8	4	100	50	456	200	400	790	690	420	380	330	350	163
ZS80-65-160/6 15.0	80	65	130	118	160	145	200	185	8	4	100	50	456	200	400	790	690	420	380	330	350	173
ZS80-65-200/6 18.5	80	65	130	118	160	145	200	185	8	4	100	50	476	220	445	830	730	420	380	330	350	190
ZS80-65-200/6 22.0	80	65	130	118	160	145	200	185	8	4	100	50	500	220	445	880	780	455	415	365	350	220
ZS80-65-200/6 30.0	80	65	130	118	160	145	200	185	8	4	100	50	550	240	465	950	850	495	455	405	400	292
ZS100-80-160/6 15.0	100	80	150	130	180	160	220	200	8	8	125	75	476	220	445	830	730	420	380	330	350	173
ZS100-80-160/6 18.5	100	80	150	130	180	160	220	200	8	8	125	75	476	220	445	870	770	420	380	330	350	185
ZS100-80-200/6 22.0	100	80	150	130	180	160	220	200	8	8	125	75	500	220	470	915	810	455	415	365	350	223
ZS100-80-200/6 30.0	100	80	150	130	180	160	220	200	8	8	125	75	550	240	490	985	880	495	455	405	400	295
ZS100-80-200/6 37.0	100	80	150	130	180	160	220	200	8	8	125	75	550	240	490	985	880	495	455	405	400	315

## ● Size and weight

60Hz

Model	Size (mm)																Weight (kg)					
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	H	H1	H2	L1		L2	L3	L4	L5	L6
ZS50-32-160/6 1.1	50	32	98	75	125	100	160	139	4	4	80	32	290	152	296	470	370	280	240	192	210	31
ZS50-32-160/6 1.5	50	32	98	75	125	100	160	139	4	4	80	46	307	152	296	500	430	280	240	192	210	37
ZS50-32-160/6 2.2	50	32	98	75	125	100	160	139	4	4	80	46	307	152	296	500	430	280	240	192	210	39
ZS50-32-160/6 3.0	50	32	98	75	125	100	160	139	4	4	80	46	322	152	296	532	460	300	260	212	250	47
ZS50-32-200/6 4.0	50	32	98	75	125	100	160	139	4	4	84	47	393	200	386	560	480	330	290	242	300	58
ZS50-32-200/6 5.5	50	32	98	75	125	100	160	139	4	4	84	50	413	200	386	660	580	370	330	280	300	77
ZS65-40-125/6 1.5	65	40	118	84	145	110	185	145	4	4	80	45	307	152	294	502	430	280	240	192	210	33
ZS65-40-125/6 2.2	65	40	118	84	145	110	185	145	4	4	80	45	307	152	294	502	430	280	240	192	210	35
ZS65-40-125/6 3.0	65	40	118	84	145	110	185	145	4	4	80	45	322	152	294	532	460	300	260	212	250	47
ZS65-40-125/6 4.0	65	40	118	84	145	110	185	145	4	4	80	45	345	152	294	557	480	330	290	242	250	52
ZS65-40-160/6 5.5	65	40	118	84	145	110	185	145	4	4	100	50	413	200	380	680	580	370	330	280	300	78
ZS65-40-160/6 7.5	65	40	118	84	145	110	185	145	4	4	100	50	413	200	380	680	580	370	330	280	300	82
ZS65-40-200/6 11.0	65	40	118	84	145	110	185	145	4	4	100	50	456	200	380	790	690	420	380	330	350	161
ZS65-50-125/6 3.0	65	50	118	98	145	125	185	160	4	4	86	45	342	172	338	548	468	330	290	242	250	49
ZS65-50-125/6 4.0	65	50	118	98	145	125	185	160	4	4	86	45	365	172	338	570	490	330	290	242	250	54
ZS65-50-125/6 5.5	65	50	118	98	145	125	185	160	4	4	86	37	385	172	338	680	580	370	330	280	300	78
ZS65-50-160/6 7.5	65	50	118	98	145	125	185	160	4	4	86	37	385	172	338	680	580	370	330	280	300	82
ZS65-50-160/6 9.2	65	50	118	98	145	125	185	160	4	4	86	37	385	172	338	680	580	370	330	280	300	85
ZS65-50-200/6 11.0	65	50	118	98	145	125	185	160	4	4	100	50	456	200	380	790	690	420	380	330	350	161
ZS65-50-200/6 15.0	65	50	118	98	145	125	185	160	4	4	100	50	456	200	380	790	690	420	380	330	350	171
ZS65-50-200/6 18.5	65	50	118	98	145	125	185	160	4	4	100	50	456	200	380	830	730	420	380	330	350	188

