

**LAIKO** Laiko Pump (Zhejiang) Co., Ltd.

PUMP AND SYSTEM SOLUTION PROVIDER

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**LAIKO**



**AWZ**

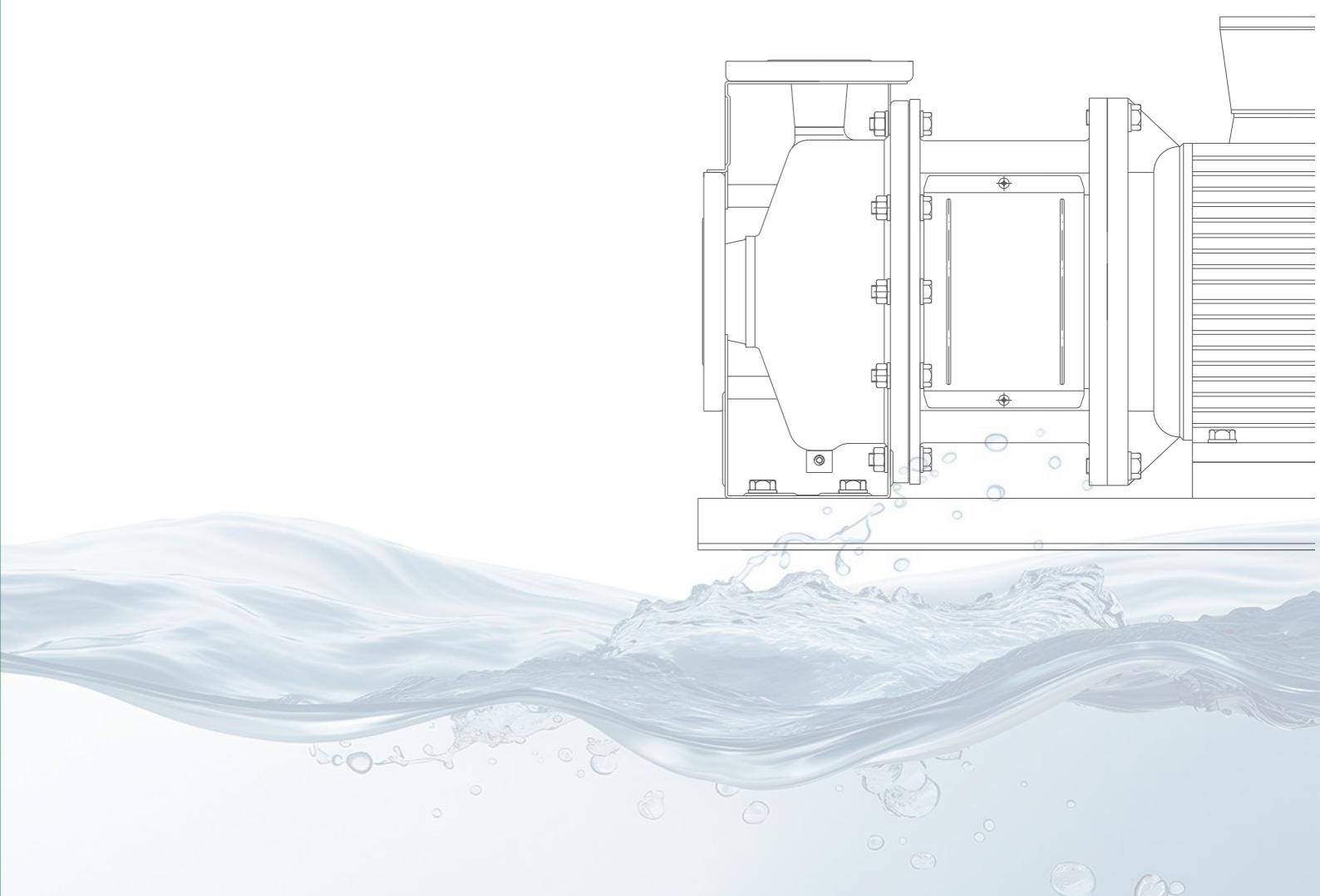
**Horizontal Stainless Steel  
Single-Stage Centrifugal Pump**

**LAIKO**

**AWZ**

HORIZONTAL STAINLESS STEEL SINGLE-STAGE CENTRIFUGAL PUMP

PUMP AND SYSTEM SOLUTION PROVIDER



Superior in Pump, Superior in Energy-Saving.

[www.Laikopump.com](http://www.Laikopump.com)



## Research and manufacturing of energy-saving pumps, providing pump and system solutions

With over 34 years of accumulated strength, we have formed an alliance with top domestic water pump research and development, production, sales, and technical teams,

Established Zhejiang Laiko Pump Industry Co., Ltd. (referred to as Zhejiang Leike), with comprehensive strength ranking among the top in the industry.

The second-generation green intelligent factory of Industry 4.0 standard covers an area of nearly 200 acres, with an annual output of over 7 million units and a total investment of over 1 billion yuan.

Zhejiang Laiko has established a comprehensive sales and service network nationwide, with direct offices in major cities. Our products are exported to multiple countries and regions in Europe, America, and Asia. China Laiko pumps globally.



## **LAIKO** Laiko Pump Pump and System Solution Provider

LAIKO Pump(Zhejiang) Co., Ltd. is a subsidiary of Zhejiang Dayuan Pumps Industrial Co., Ltd. (Stock code: 603757), focusing on the research and manufacturing of energy-saving pumps.

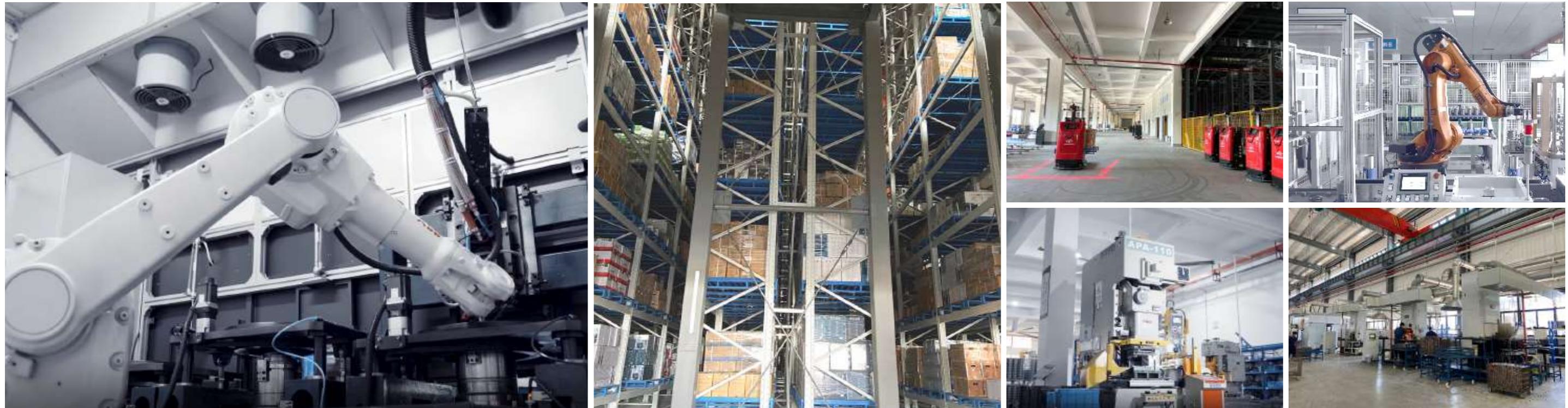
LAIKO's applications cover the fields of construction, municipal, and industrial sectors. Currently, we have product lines including Inline Multistage Pumps, Inline Circulation Pumps, Horizontal Multistage Pumps, Cold and Hot Water Circulation Pipeline Pumps, Single-Stage Centrifugal Pumps, Standard Centrifugal Pumps, Stainless steel Horizontal Single-Stage Centrifugal Pumps, Submersible Sewage Pumps, and Immersed Multistage Centrifugal Pumps. Our products are exported to many countries and regions in Europe, America, and Asia, meeting local legal requirements and obtaining recognition from clients.

A standard research and development, production, sales, and service system has laid the core competitiveness and sustainable development space for LAIKO. Reliable product quality and thoughtful after-sales service have earned LAIKO widespread reputation.

LAIKO maintains a pioneering spirit, always adheres to the concept of technological innovation, and never stops exploring energy-saving endeavors!



Dayuan Pump Group and its subsidiary Laiko Pump Industry have implemented a significant strategic layout. Covering an area of nearly 200 acres with a total investment of approximately 1 billion RMB, the facility has an annual production capacity of 7 million units. It is a modern integrated factory that combines production, research and development, manufacturing, and logistics.



## R&D STRENGTH

<b>346</b>	<b>29</b>	<b>242</b>	<b>75</b>	<b>6</b>
Domestic patents	Invention Patent	New utility patent	Appearance patent	Overseas patents

As a brand under Dayuan Pump Group, we have a strong foundation with over 177 R&D personnel and more than 352 patents. Our products have been honored with titles such as "Zhejiang Famous Brand Product" and "Zhejiang Export Famous Brand," and are exported to multiple countries and regions across Europe, America, and Asia. Our comprehensive strength ranks among the top in the industry. Through years of continuous investment in research and development, we have established a significant technological innovation advantage.

## SERVICE COOPERATION

We have established offices in major cities across the country, supported by a professional and efficient service team. From consultation, purchase, after-sales, to maintenance, we provide high-quality, professional, timely, and attentive services at every stage.

Guided by the principle of "wholehearted dedication and customer-first," we respond quickly to customer needs, offering precise product recommendations and tailored solutions. Our comprehensive and full-cycle services ensure a worry-free experience for our customers.

**SERVICE TENET:** With all our heart and soul, Putting customers first

**SERVICE TENET:** Rapid response, Precise solution

**SERVICE OBJECTIVES:** Efficient O&M, Win-Win Cooperation



# LAIKO

## AWZ

Horizontal Stainless Steel Single-Stage Centrifugal Pump



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**LAIKO** Laiko Pump (Zhejiang) Co., Ltd.

## AWZ

Horizontal Stainless Steel Single-Stage Centrifugal Pump

The AWZ horizontal stainless steel single-stage centrifugal pump is made using advanced processes such as stainless steel plate stamping, bulging, and welding, which can replace traditional corrosion-resistant pumps. It has the characteristics of beautiful appearance, lightweight structure, high efficiency and energy saving, durability, light corrosion resistance, low noise, etc.

The AWZ horizontal stainless steel single-stage centrifugal pump is a versatile product with a wide range of applications. It can transport various media, including water or industrial liquids, and is suitable for different temperature, flow rate, and pressure ranges.

Its typical applications mainly include the following aspects: Clean, thin, non flammable and non explosive liquid, free of solid particles and fibers.

Liquids with temperatures between -20 °C and +100 °C

Environmental temperature: maximum +40 °C

Highest altitude: 1000m

Maximum system pressure: 10 bar

#### APPLICATION FIELD

- Water Supply
- Industrial Turbocharging
- Industrial Liquid Transportation
- Weak Acid and AlkaliConveying System, Machine Tool Matching
- Water Treatment
- Irrigation of Farmland
- Medical Science

#### TECHNICAL DATA

Flow range: 12.5~160m<sup>3</sup>/h

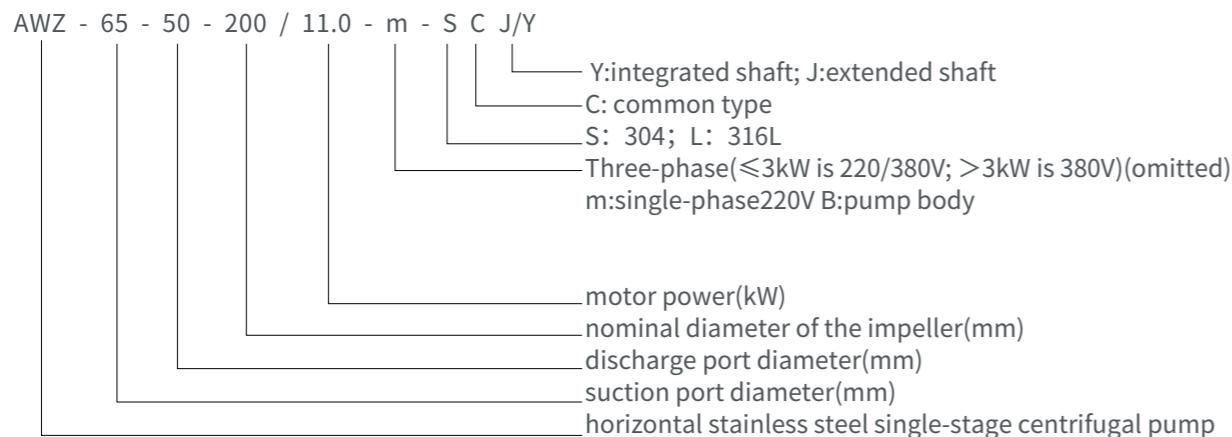
Head range: 13.5~66 m

Maximum working pressure: 10bar

## Product Overview

The AWZ horizontal stainless steel single-stage centrifugal pump is made by advanced processes such as stamping, bulging and welding of stainless steel plates. It's a new generation of centrifugal pump and can replace traditional corrosion-resistant pumps. It has the characteristics of beautiful appearance, light structure, high efficiency, energy conservation, durability, resistance to mild corrosion, and low noise.

## Model Description



## Application

The AWZ horizontal stainless steel single-stage centrifugal pump is a multi-functional product with a wide range of applications. It can transport various media, including water or industrial liquids, and is suitable for different temperature, flow rate and pressure ranges. Its typical applications mainly include the following aspects:

Water supply: filtration, transportation, sectional water supply, and main pipeline pressure boosting in the water treatment plant.

Industrial pressure boosting: process water system, cleaning system.

Industrial liquid transportation: boiler feed water system, condensate system, cooling and air-conditioning system, machine tool matching, transportation of weak acids and alkalis

Water treatment: distillation systems or separators, swimming pools, etc.

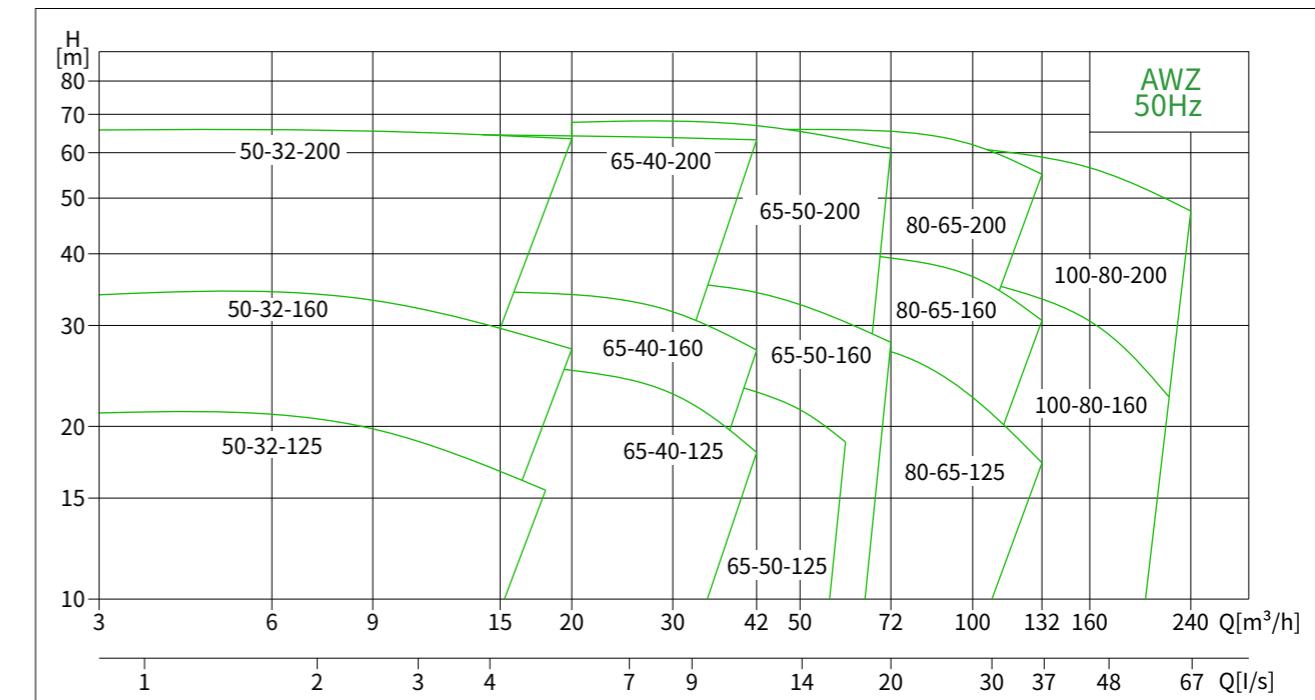
Farmland irrigation and medical and health care, etc.

## Installation Conditions

The AWZ horizontal stainless steel single-stage centrifugal pump is of a direct-coupled type with the pump shaft, consisting of a pump, a pump shaft, and a standard motor.

1. The pump should be installed in a well-ventilated and frost-proof place.
2. The installation of the pump should ensure that it is not affected by the tension of the system pipeline during use.
3. If the pump is installed outdoors, a suitable outer cover must be provided to prevent water ingress or condensation on the electrical components.
4. Sufficient space must be reserved around the unit to facilitate inspection and maintenance.
5. The electrical wiring device should ensure that the pump is protected from damage caused by phase loss, unstable voltage, electric leakage, and overload.
6. The pump should be horizontally installed on the base. The suction port of the pump is in the horizontal direction, and the discharge port is in the vertical direction.

## Performance Range



## Performance Parameter

NO.	Model	Q[m³/h]	H[m]	n[r/min]	Standard motor voltage[[V]]	
					1×220V	3×380V
					P[kW]	P[kW]
1	AWZ50-32-125/1.1	12.5	18.5	2900	1.1	1.1
2	AWZ50-32-160/1.5	12.5	24.5		1.5	1.5
3	AWZ50-32-160/2.2	12.5	32		2.2	2.2
4	AWZ50-32-200/3	12.5	37.5		3	
5	AWZ50-32-200/4	12.5	45		4	
6	AWZ50-32-200/5.5	12.5	55		5.5	
7	AWZ50-32-200/7.5	12.5	62		7.5	
8	AWZ65-40-125/1.5	25	15		1.5	1.5
9	AWZ65-40-125/2.2	25	20		2.2	2.2
10	AWZ65-40-125/3	25	24		3	
11	AWZ65-40-160/3	25	25		3	
12	AWZ65-40-160/4	25	33		4	
13	AWZ65-40-200/5.5	25	40		5.5	
14	AWZ65-40-200/7.5	25	50		7.5	
15	AWZ65-40-200/9.2	25	56		9.2	
16	AWZ65-40-200/11	25	64	2950		11
17	AWZ65-50-125/2.2	42	13.5	2900	2.2	2.2
18	AWZ65-50-125/3	42	17.5			3
19	AWZ65-50-125/4	42	23			4
20	AWZ65-50-160/5.5	50	25.5			5.5
21	AWZ65-50-160/7.5	50	33			7.5
22	AWZ65-50-200/9.2	50	40			9.2
23	AWZ65-50-200/11	50	48	2950		11
24	AWZ65-50-200/15	50	58			15
25	AWZ65-50-200/18.5	50	66			18.5
26	AWZ80-65-125/4	72	14			4
27	AWZ80-65-125/5.5	72	18	2900		5.5
28	AWZ80-65-125/7.5	72	24.5			7.5
29	AWZ80-65-125/9.2	72	27			9.2
30	AWZ80-65-160/11	100	28			11
31	AWZ80-65-160/15	100	36.5			15
32	AWZ80-65-200/18.5	100	45	2950		18.5
33	AWZ80-65-200/22	100	53			22
34	AWZ80-65-200/30	100	62			30
35	AWZ100-80-160/11	160	17.5			11
36	AWZ100-80-160/15	160	26			15
37	AWZ100-80-160/18.5	160	30.5			18.5
38	AWZ100-80-200/22	160	38			22
39	AWZ100-80-200/30	160	49			30
40	AWZ100-80-200/37	160	56.5			37

## Minimum Inlet Pressure

If the pressure in the pump is lower than the vapor pressure of the conveyed liquid, cavitation may occur. To avoid cavitation, a minimum pressure on the inlet side of the pump should be ensured. The maximum suction lift H (m) can be calculated using the following formula:

$$H = Pb \times 10.2 - NPSH - H_f - Hv - H_s$$

Pb-atmospheric pressure(bar)

In a closed pipeline, it can be considered the system pressure of the closed system(bar).

NPSH-Net Positive Suction Head(m)

It can be read from the NPSH curve at the point corresponding to the maximum flow on the performance curve.

Hf-pipeline losses at the inlet(m)

It's the value corresponding to the maximum possible flow rate in the pipeline.

Hv-vapor pressure of the liquid(m)

Its value depends on the temperature of the liquid and its vapor pressure.

Hs-safety margin(m)

Minimum of 0.5 meters head.

If, through calculation, "H" is a positive value, it indicates that the pump can operate with the maximum suction lift "H"; If "H" is a negative value, it indicates that the pump must have a minimum inlet pressure with a head of "H" meters to operate normally.

Note: Generally, the above calculation is not performed. The calculation of "H" is only necessary when using the pump under the following conditions:

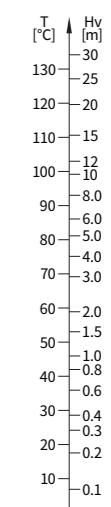
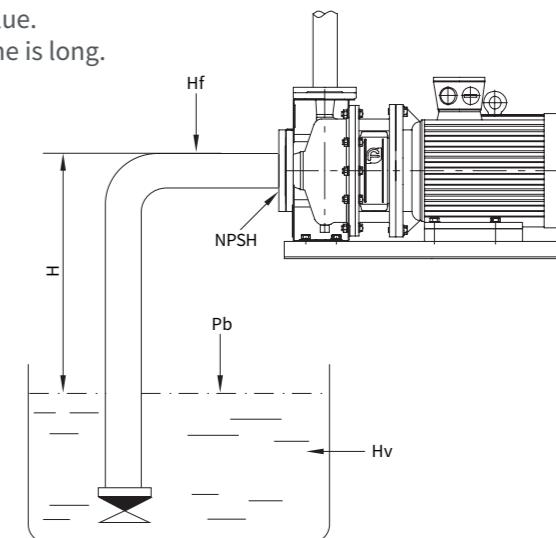
1. The liquid temperature is high.

2. The liquid flow rate exceeds the rated value.

3. The suction lift is large or the inlet pipeline is long.

4. The system pressure is too low.

5. The inlet conditions are poor.



**Curve Conditions**

The following notes apply to the performance curves shown later:

1. The curve tolerances comply with ISO 9906:2012, grade 3B.
2. All curves are based on measurements at 3×380V with the motor running at constant speeds of 2900rpm or 2950rpm.
3. The test medium is clean water at a temperature of 20°C, free of any solid impurities.
4. The pump should not be operated at a flow rate lower than the minimum flow rate specified in the curve or higher than the maximum flow rate specified in the curve.
5. If the viscosity or density of the pumped liquid differs from that of water, motor performance adjustments are required.

**Operating Conditions**

Clean, thin, non-flammable and non-explosive liquids without solid particles and fibers

Liquids with a temperature between -20°C and +100°C

Ambient temperature: up to +40°C

Maximum altitude: 1000m

Maximum system pressure: 10bar

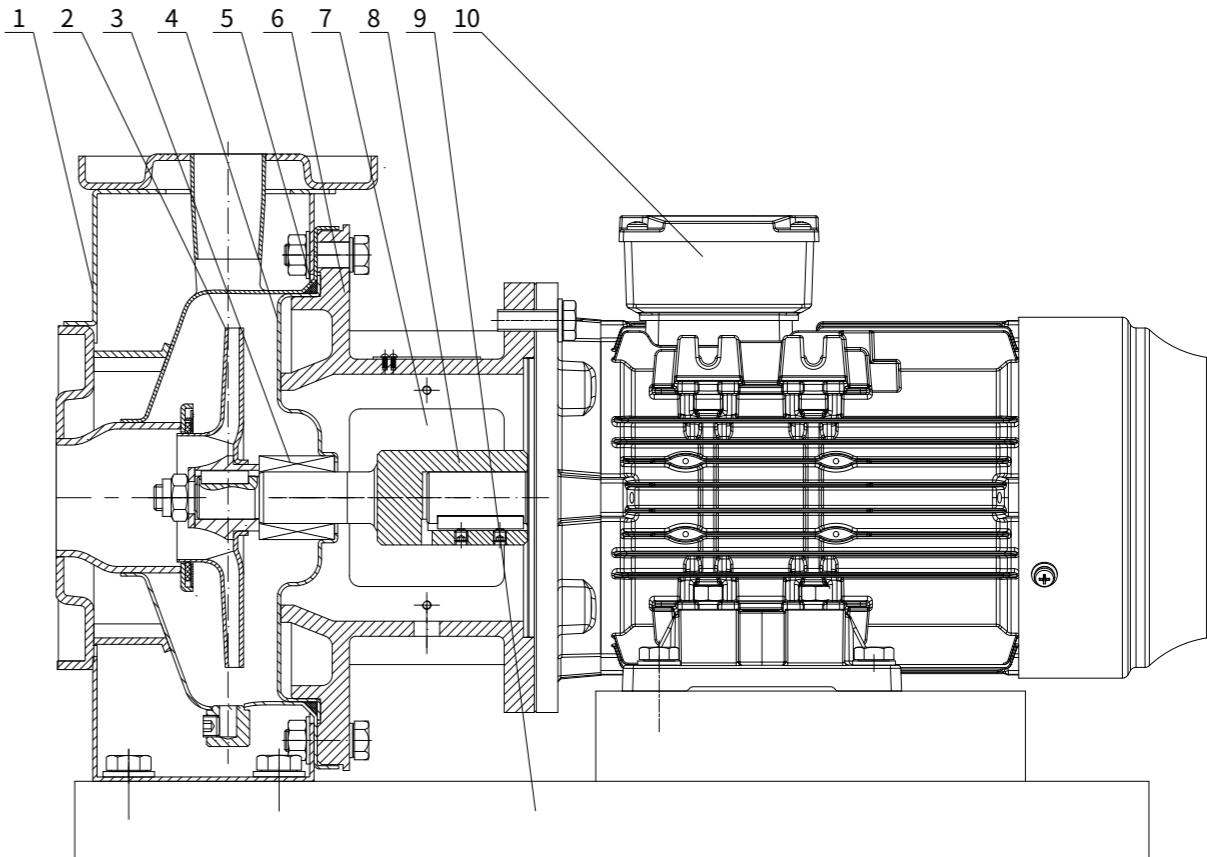
**Motor**

The motor is a fully enclosed, air-cooled two-pole standard motor.

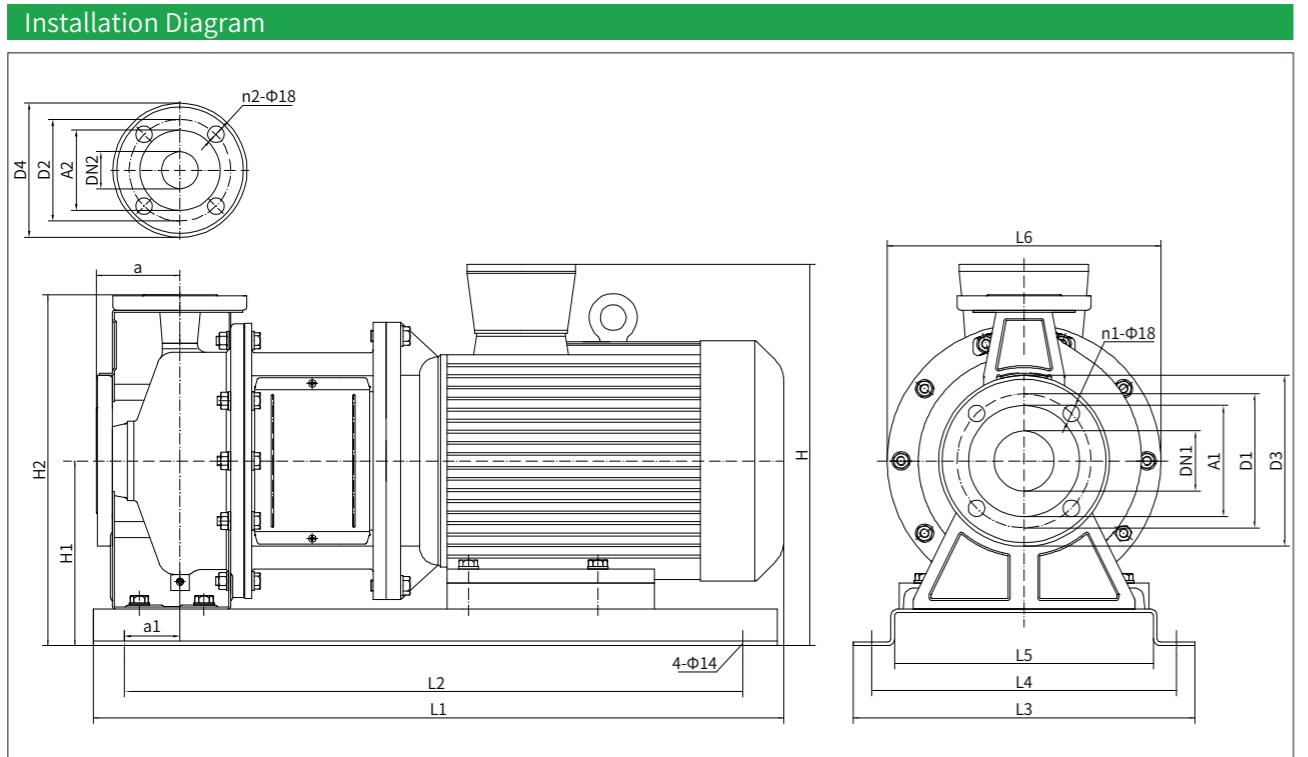
Protection level: IP55

Insulation level: F

Standard voltage: 50Hz 1×220V 3×220/380V

**Sectional View**

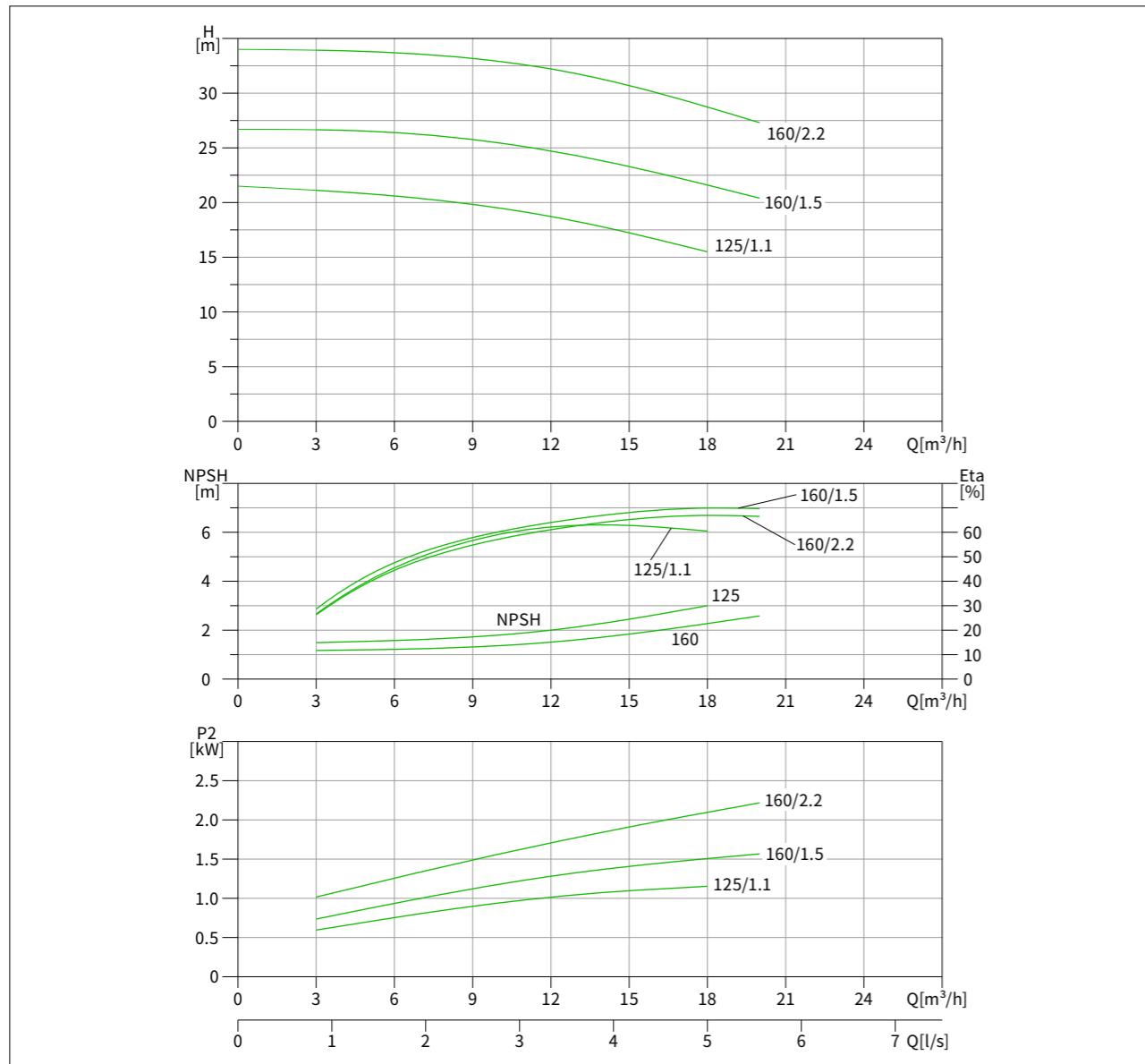
NO.	Parts	Materials	GB	AISI/ASTM
1	Pump body	Stainless steel	GB/T 20878-06Cr19Ni10	AISI304
2	Impeller	Stainless steel	GB/T 20878-06Cr19Ni10	AISI304
3	Mechanical seal	Silicon carbide/silicon carbide + carbon	/	/
4	water baffle	Stainless steel	GB/T 20878-06Cr19Ni10	AISI304
5	O-ring	EPDM	/	/
6	Motor base	Cast iron	GB/T 9439-HT200	ASTM-A84 25B
7	Guarding plate	Stainless steel	GB/T 20878-06Cr19Ni10	AISI304
8	Sleeve shaft	45# + stainless steel	GB/T 20878-06Cr19Ni10	AISI304
9	Baseplate	Carbon steel	GB/T 700-Q235	ASTM A283GRC
10	Motor	/	/	/



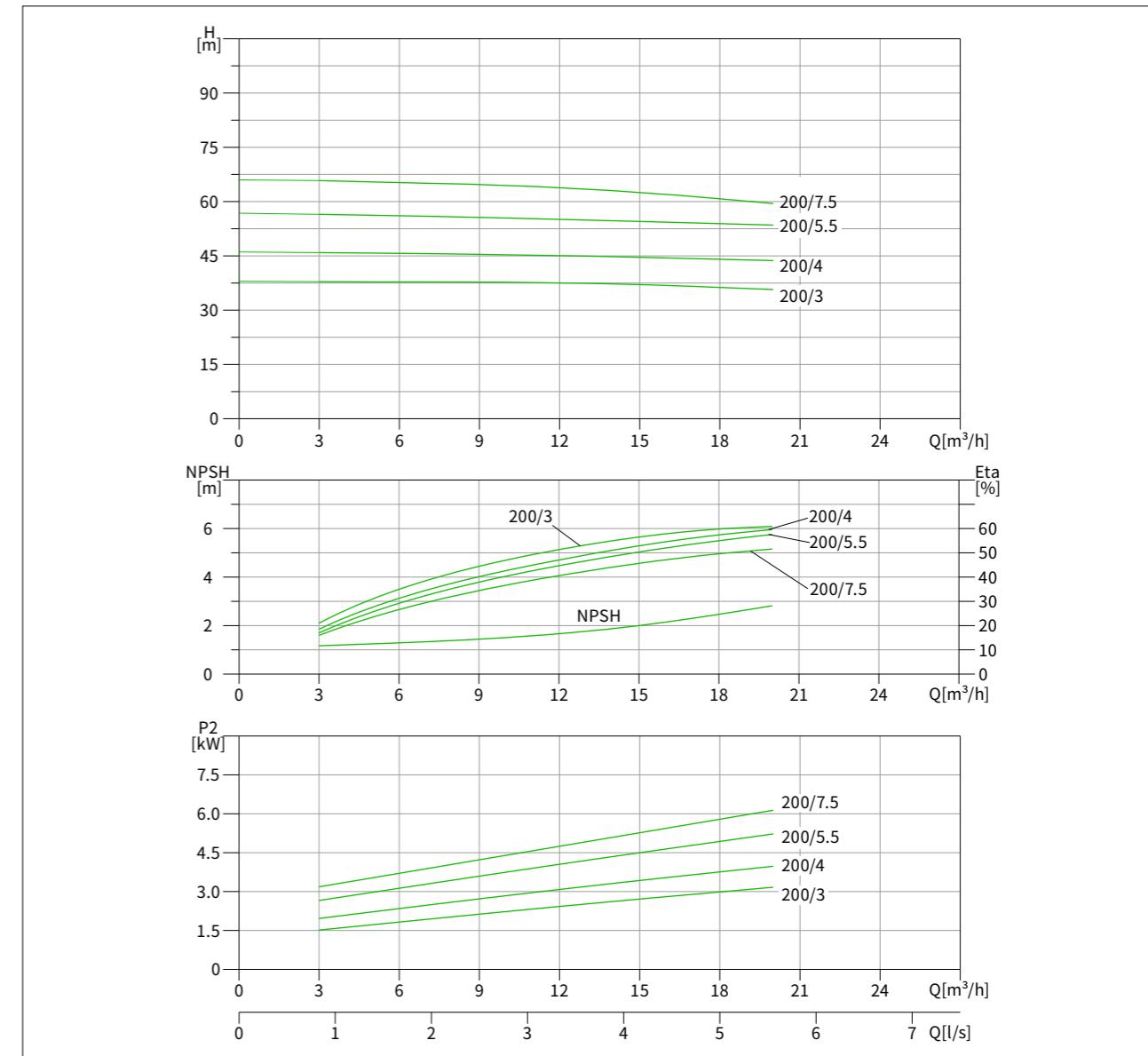
Model	Dimensions[mm]																		Weight[kg]			
	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	H	H1	H2	L1	L2	L3	L4	L5	L6	
AWZ80-65-125/4	80	65	130	118	160	145	200	185	8	4	100	50	370	200	380	651	510	370	330	280	260	74
AWZ80-65-125/5.5	80	65	130	118	160	145	200	185	8	4	100	50	389	200	380	701	590	370	330	280	300	82
AWZ80-65-125/7.5	80	65	130	118	160	145	200	185	8	4	100	50	389	200	380	701	590	370	330	280	300	93
AWZ80-65-125/9.2	80	65	130	118	160	145	200	185	8	4	100	50	389	200	380	731	590	370	330	280	300	105
AWZ80-65-160/11	80	65	130	118	160	145	200	185	8	4	100	50	433	200	400	850	690	420	380	330	350	138
AWZ80-65-160/15	80	65	130	118	160	145	200	185	8	4	100	50	433	200	400	850	690	420	380	330	350	151
AWZ80-65-200/18.5	80	65	130	118	160	145	200	185	8	4	100	50	453	220	445	906	730	420	380	330	350	175
AWZ80-65-200/22	80	65	130	118	160	145	200	185	8	4	100	50	490	220	445	869	780	455	415	365	350	238
AWZ80-65-200/30	80	65	130	118	160	145	200	185	8	4	100	50	550	260	485	965	850	495	455	405	350	308
AWZ100-80-160/11	100	80	150	130	180	160	220	200	8	8	125	75	453	220	445	862	730	420	380	330	350	137
AWZ100-80-160/15	100	80	150	130	180	160	220	200	8	8	125	75	453	220	445	862	730	420	380	330	350	150
AWZ100-80-160/18.5	100	80	150	130	180	160	220	200	8	8	125	75	453	220	445	906	770	420	380	330	350	165
AWZ100-80-200/22	100	80	150	130	180	160	220	200	8	8	125	75	490	220	470	881	810	455	415	365	350	239
AWZ100-80-200/30	100	80	150	130	180	160	220	200	8	8	125	75	550	260	510	977	880	495	455	405	350	311
AWZ100-80-200/37	100	80	150	130	180	160	220	200	8	8	125	75	550	260	510	977	880	495	455	405	350	332

Dimensions[mm]																				Weight[kg]		
Model	DN1	DN2	A1	A2	D1	D2	D3	D4	n1	n2	a	a1	H	H1	H2	L1	L2	L3	L4	L5	L6	
AWZ50-32-125/1.1	50	32	98	75	125	100	160	139	4	4	80	32	275	152	296	519	370	280	240	192	210	35
AWZ50-32-160/1.5	50	32	98	75	125	100	160	139	4	4	80	46	302	172	332	540	430	280	240	192	260	39
AWZ50-32-160/2.2	50	32	98	75	125	100	160	139	4	4	80	46	302	172	332	565	430	280	240	192	260	44
AWZ50-32-200/3	50	32	98	75	125	100	160	139	4	4	80	50	356	200	386	623	460	330	290	242	300	65
AWZ50-32-200/4	50	32	98	75	125	100	160	139	4	4	80	50	370	200	386	617	480	330	290	242	300	72
AWZ50-32-200/5.5	50	32	98	75	125	100	160	139	4	4	84	50	389	200	386	677	580	370	330	280	300	84
AWZ50-32-200/7.5	50	32	98	75	125	100	160	139	4	4	84	50	389	200	386	677	580	370	330	280	300	87
AWZ65-40-125/1.5	65	40	118	84	145	110	185	145	4	4	80	45	282	152	294	533	430	280	240	192	210	39
AWZ65-40-125/2.2	65	40	118	84	145	110	185	145	4	4	80	45	282	152	294	558	430	280	240	192	210	44
AWZ65-40-125/3	65	40	118	84	145	110	185	145	4	4	80	45	308	152	294	621	460	300	260	212	250	60
AWZ65-40-160/3	65	40	118	84	145	110	185	145	4	4	80	45	328	172	332	614	460	300	260	212	260	62
AWZ65-40-160/4	65	40	118	84	145	110	185	145	4	4	80	45	342	172	332	620	480	330	290	242	260	70
AWZ65-40-200/5.5	65	40	118	84	145	110	185	145	4	4	100	50	389	200	380	698	580	370	330	280	300	85
AWZ65-40-200/7.5	65	40	118	84	145	110	185	145	4	4	100	50	389	200	380	698	580	370	330	280	300	97
AWZ65-40-200/9.2	65	40	118	84	145	110	185	145	4	4	100	50	389	200	380	728	580	370	330	280	300	108
AWZ65-40-200/11	65	40	118	84	145	110	185	145	4	4	100	50	433	200	380	848	690	420	380	330	350	138
AWZ65-50-125/2.2	65	50	118																			

## AWZ50-32-Series



## AWZ50-32-Series



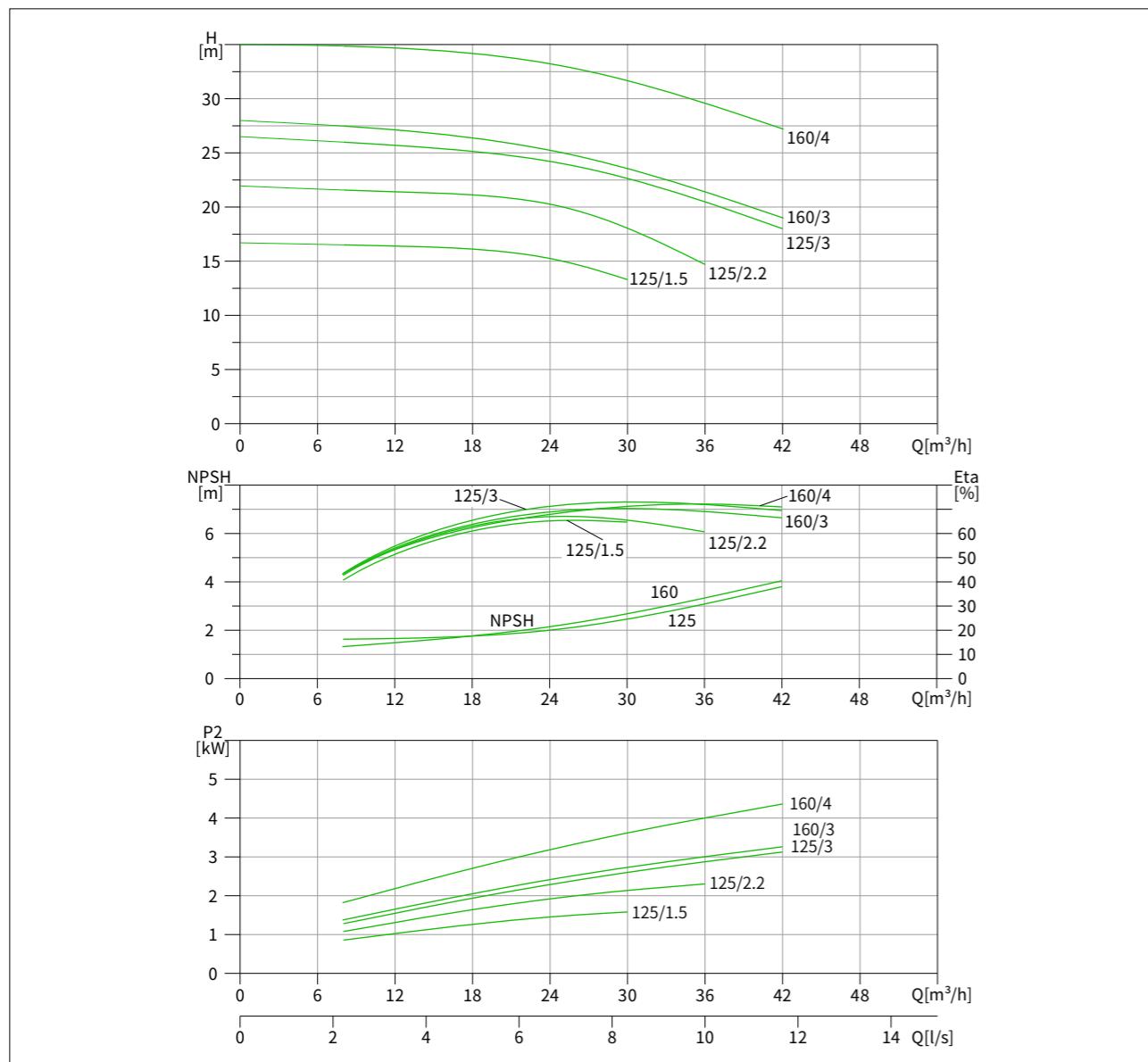
## Performance Form

Model	Motor power[kW]	Q[m³/h]	3	6	9	12.5	15	18	20
AWZ50-32-125/1.1	1.1	H[m]	21.1	20.6	19.8	18.5	17.2	15.5	
AWZ50-32-160/1.5	1.5		26.6	26.4	25.8	24.5	23.3	21.6	20.4
AWZ50-32-160/2.2	2.2		33.9	33.7	33.2	32	30.7	28.9	27.3

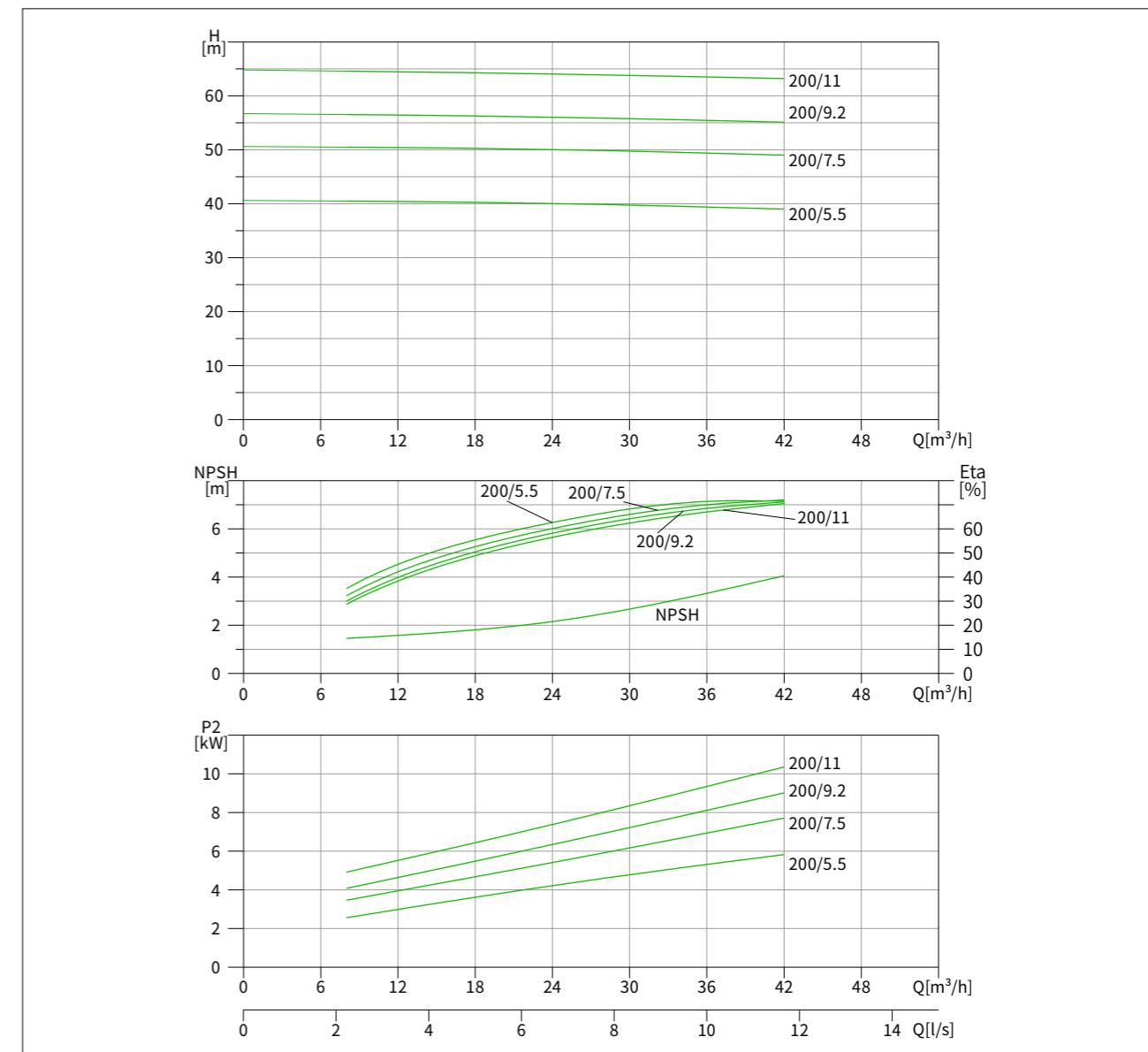
## Performance Form

Model	Motor power[kW]	Q[m³/h]	3	6	9	12.5	15	18	20
AWZ50-32-200/3	3	H[m]	37.9	37.8	37.7	37.5	37.2	36.5	35.7
AWZ50-32-200/4	4		45.9	45.7	45.4	45	44.6	44.1	43.7
AWZ50-32-200/5.5	5.5		56.5	56.1	55.7	55	54.5	53.9	53.5
AWZ50-32-200/7.5	7.5		65	64	63	62	61	60	59

## AWZ65-40-Series



## AWZ65-40-Series



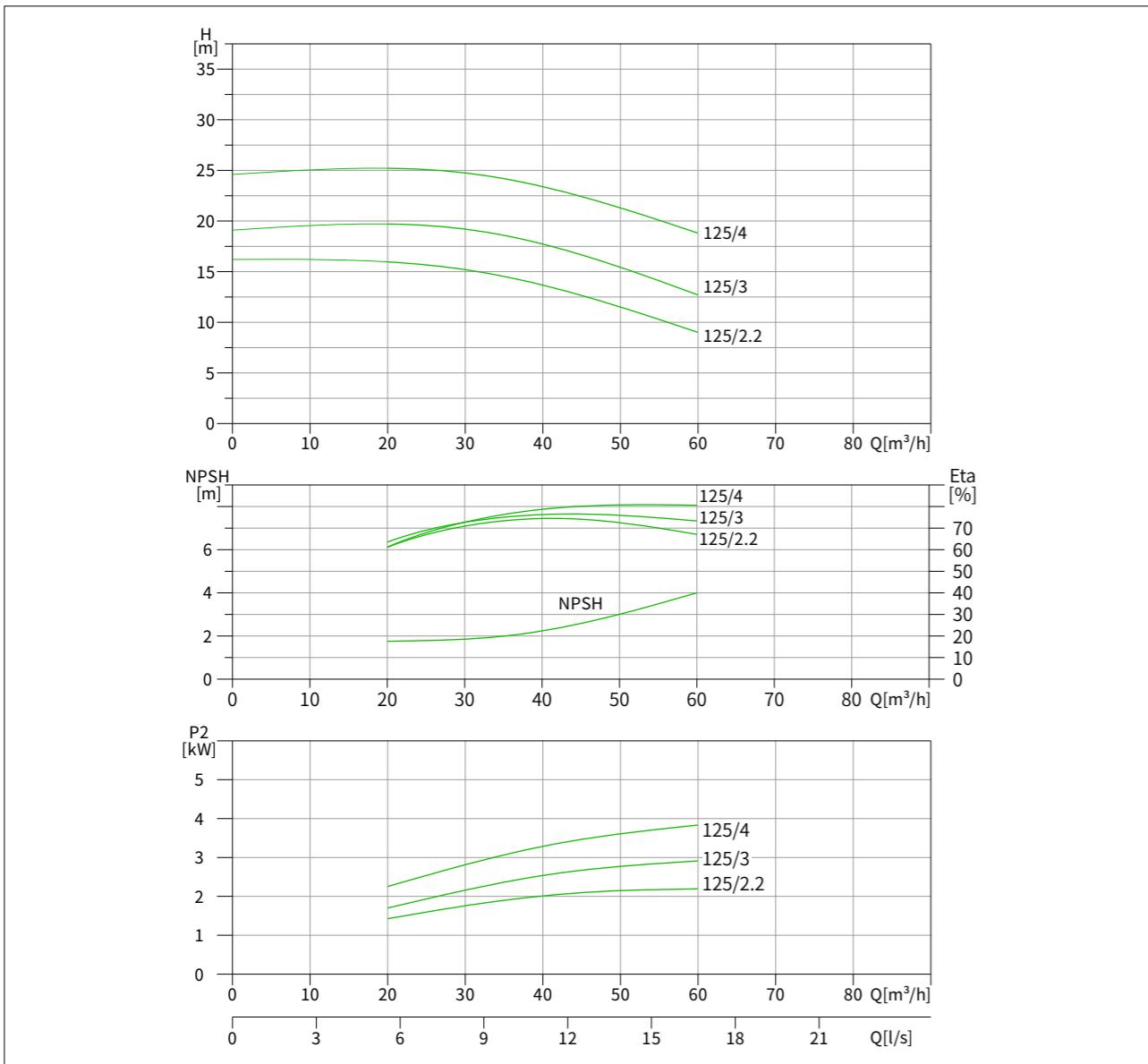
## Performance Form

Model	Motor power[kW]	Q[m³/h]	8	12	15	18	21	25	30	36	42
AWZ65-40-125/1.5	1.5	H[m]	16.6	16.4	16.2	16	15.6	15	13.3		
AWZ65-40-125/2.2	2.2		21.6	21.3	21.1	20.9	20.6	20	17.8	14.7	
AWZ65-40-125/3	3		26.1	25.7	25.4	25	24.6	24	22.8	20.7	18
AWZ65-40-160/3	3		27.6	27.2	26.7	26.2	25.7	25	23.6	21.4	19
AWZ65-40-160/4	4		34.8	34.6	34.3	34	33.6	33	31.7	29.5	27.2

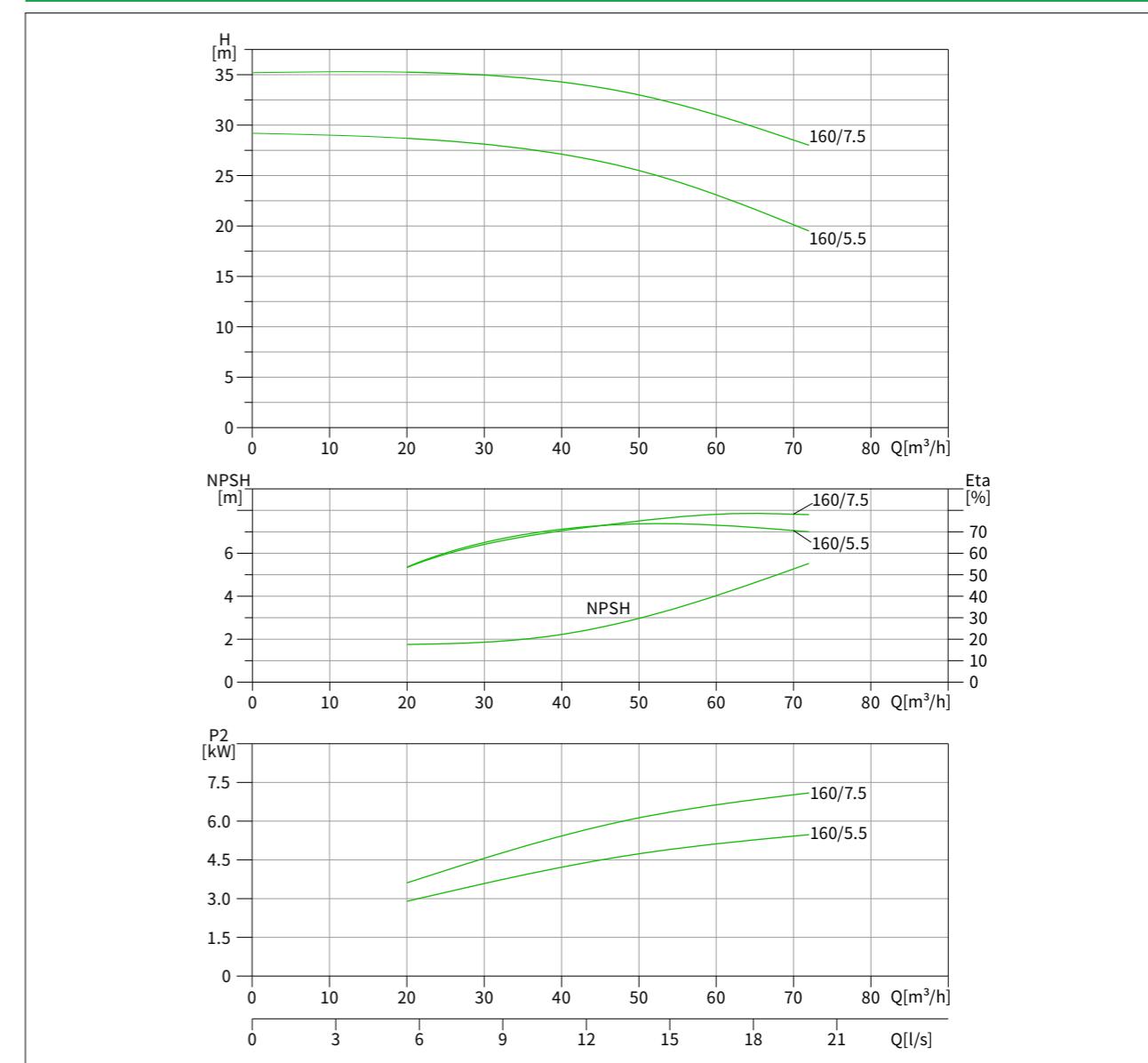
## Performance Form

Model	Motor power[kW]	Q[m³/h]	8	12	15	18	21	25	30	36	42
AWZ65-40-200/5.5	5.5	H[m]	40.5	40.4	40.3	40.2	40.1	40	39.8	39.5	39
AWZ65-40-200/7.5	7.5		50.5	50.4	50.3	50.2	50.1	50	49.8	49.5	49
AWZ65-40-200/9.2	9.2		56.6	56.5	56.4	56.3	56.2	56	55.8	55.5	55.1
AWZ65-40-200/11	11		64.7	64.6	64.5	64.4	64.2	64	63.8	63.5	63.2

## AWZ65-50-Series



## AWZ65-50-Series



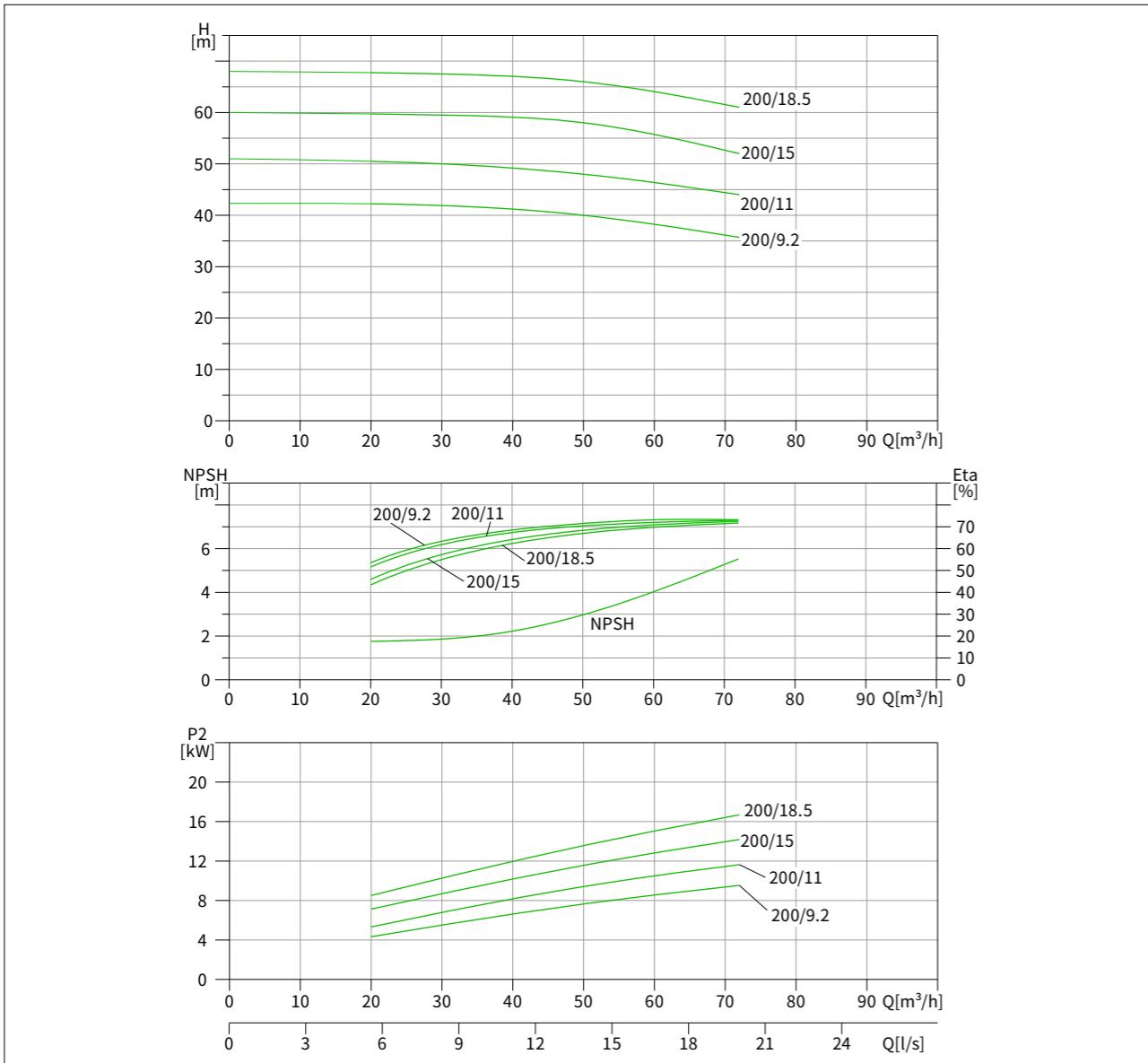
## Performance Form

Model	Motor power[kW]	Q[m³/h]	20	30	35	42	50	55	60
AWZ65-50-125/2.2	2.2	H[m]	16	15.2	14.6	13.5	11.7	10.4	9
AWZ65-50-125/3	3		19.6	19.2	18.6	17.5	15.6	14.2	12.7
AWZ65-50-125/4	4		25.2	24.6	24	23	21.4	20.2	18.8

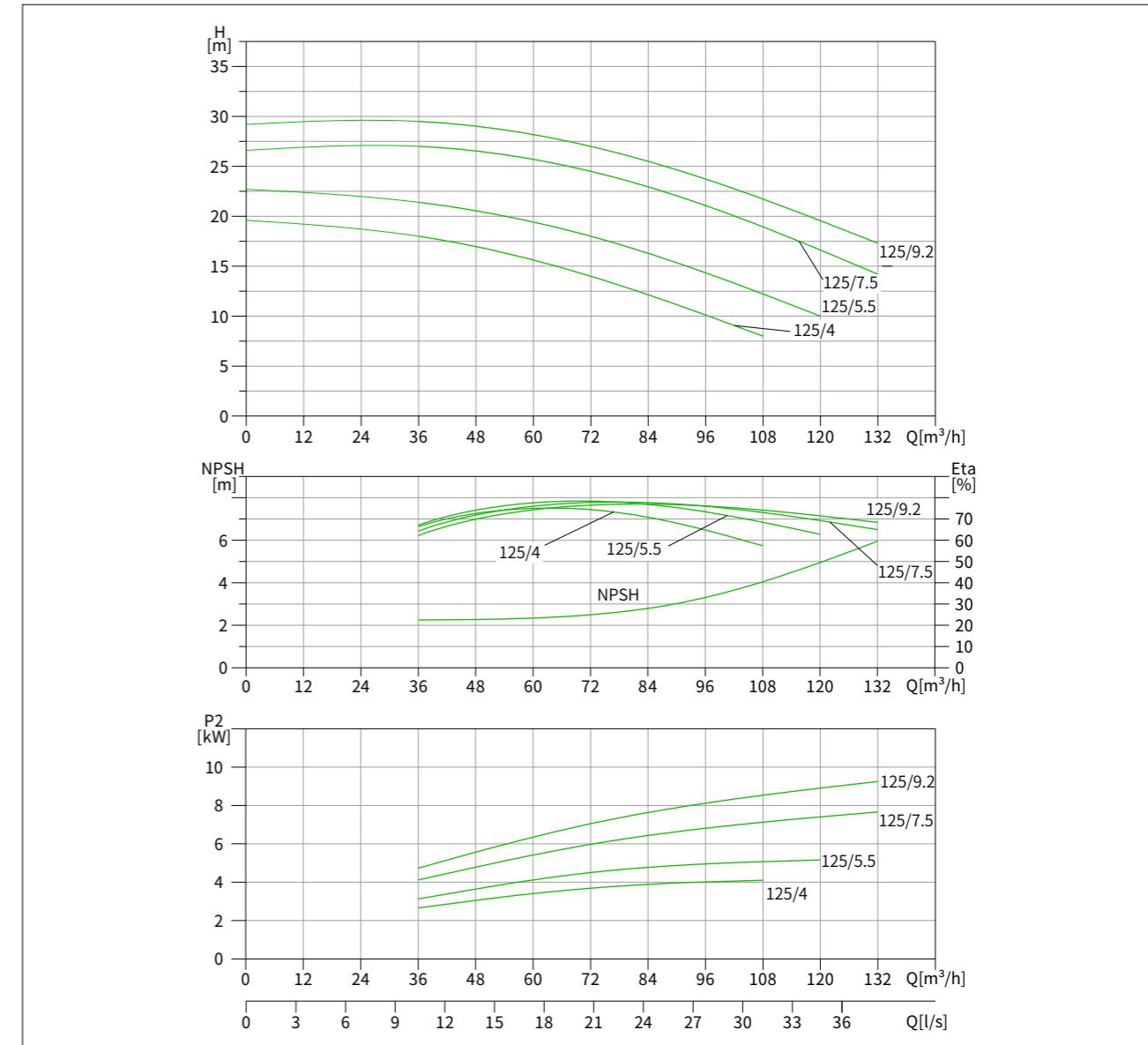
## Performance Form

Model	Motor power[kW]	Q[m³/h]	20	30	35	42	50	55	60	65	72
AWZ65-50-160/5.5	5.5	H[m]	28.8	28.3	27.8	27	25.5	24.4	23	21.6	19.5
AWZ65-50-160/7.5	7.5		35.4	35.1	34.9	34.2	33	32.2	31.3	30.1	28

## AWZ65-50-系列 AWZ65-50-Series



## AWZ80-65-Series



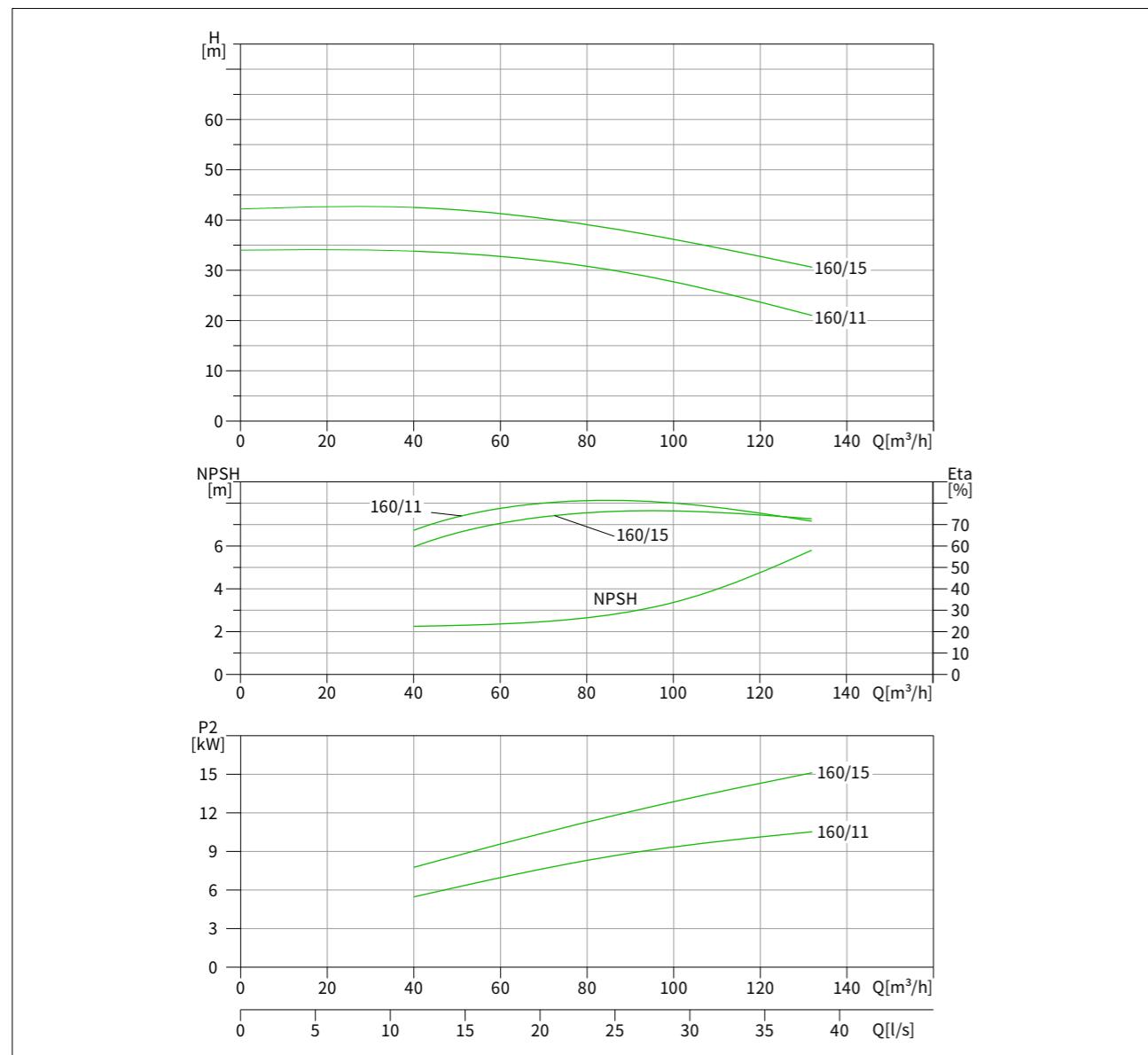
## Performance Form

Model	Motor power[kW]	Q[m³/h]	20	30	35	42	50	55	60	65	72
AWZ65-50-200/9.2	9.2	H[m]	42	41.8	41.6	41.2	40	39.2	38.3	37.2	35.7
AWZ65-50-200/11			50.8	50.6	50.2	49.4	48	47.2	46.2	45.3	44
AWZ65-50-200/15			59.7	59.5	59.3	58.8	58	57	55.6	54.2	52
AWZ65-50-200/18.5			67.8	67.5	67.3	66.9	66	65.3	64.4	63	61

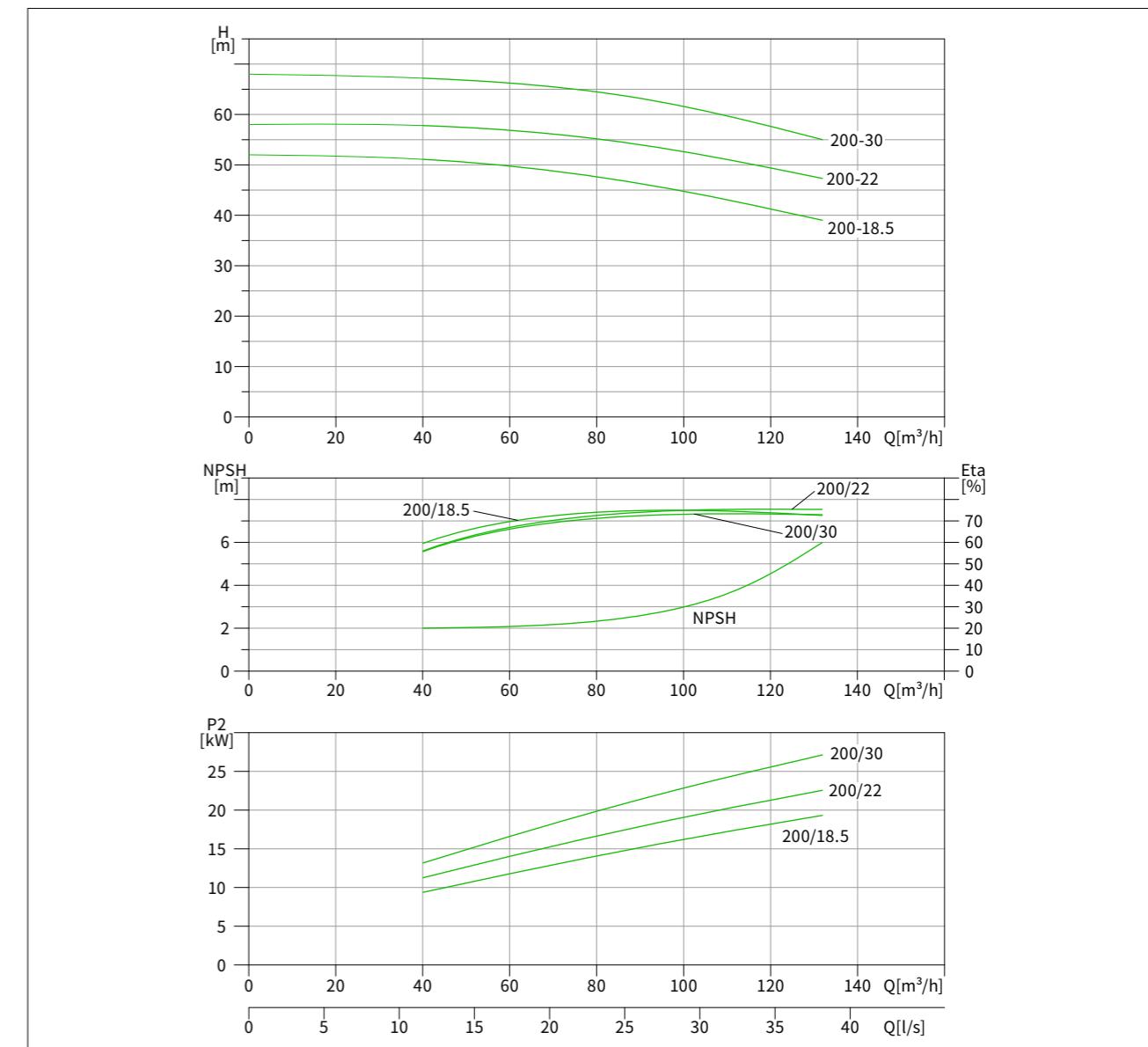
## Performance Form

Model	Motor power[kW]	Q[m³/h]	36	48	60	72	84	96	108	120	132
AWZ80-65-125/4	4	H[m]	18	17.2	15.8	14	12.2	10.2	8		
AWZ80-65-125/5.5			21.4	20.7	19.6	18	16.2	14.3	12.2	10	
AWZ80-65-125/7.5			27	26.5	25.6	24.5	22.8	20.6	18.4	16.3	14.2
AWZ80-65-125/9.2			29.5	29	28.1	27	25.5	23.7	21.8	19.6	17.3

## AWZ80-65-Series



## AWZ80-65-Series



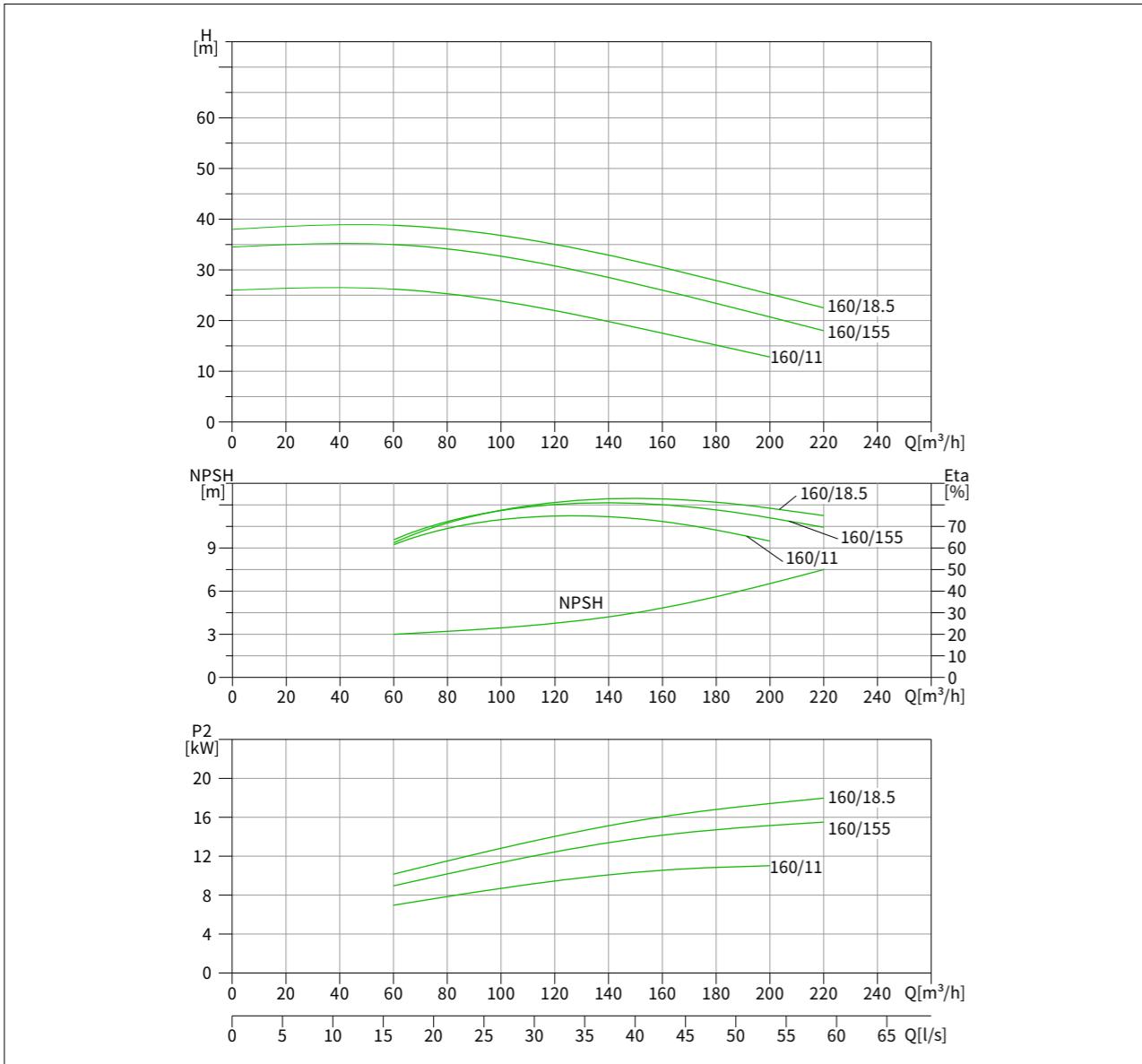
## Performance Form

Model	Motor power [kW]	Q [m³/h]	40	60	70	80	90	100	110	120	132
AWZ80-65-160/11	11	H [m]	33.8	32.5	31.6	30.6	29.4	28	26	24	21
AWZ80-65-160/15	15		42.5	41	39.9	38.8	37.7	36.5	35	33	30.6

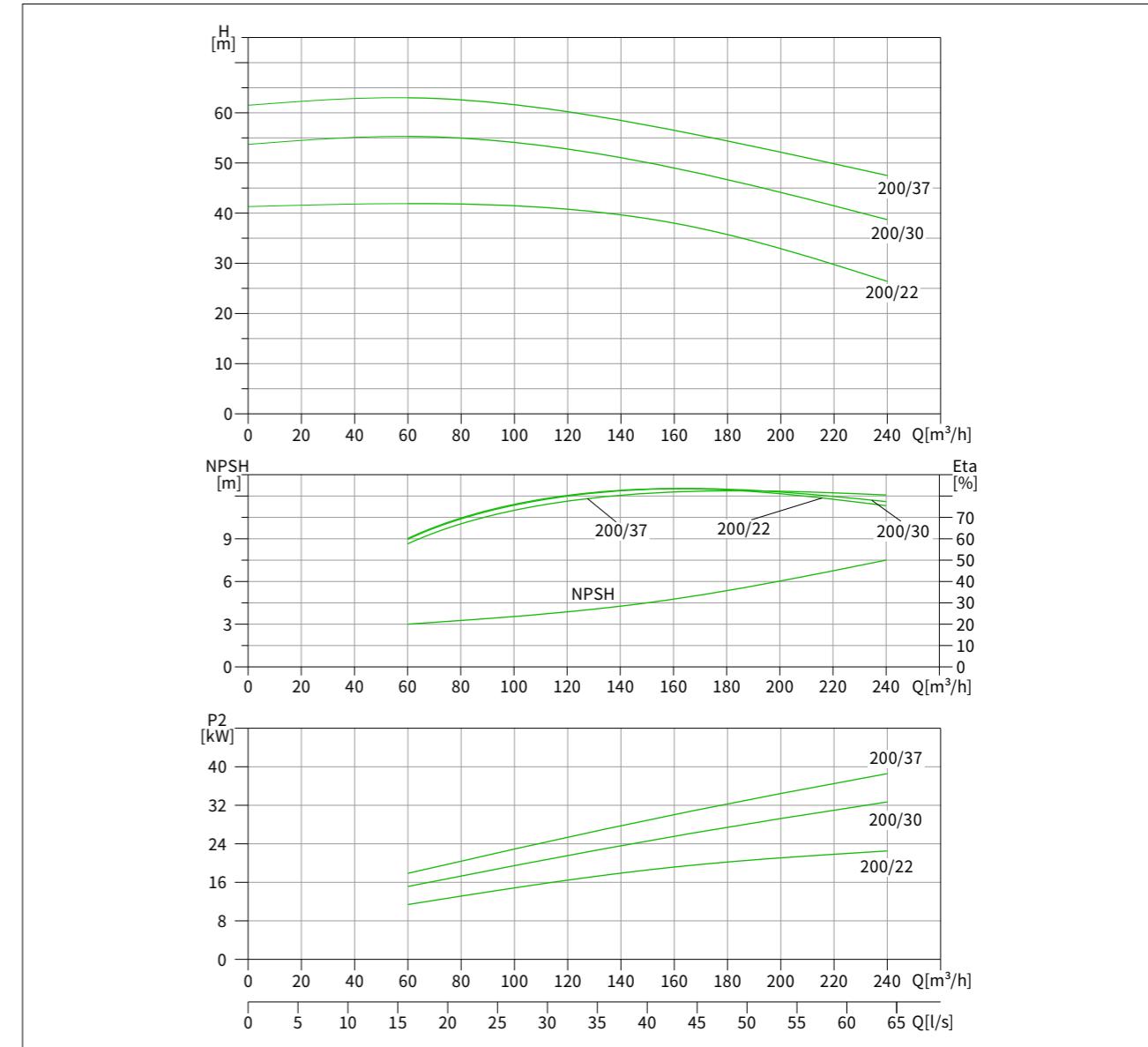
## Performance Form

Model	Motor power [kW]	Q [m³/h]	40	60	70	80	90	100	110	120	132
AWZ80-65-200/18.5	18.5	H [m]	51.1	49.6	48.7	47.6	46.3	45	43.5	41.6	39
AWZ80-65-200/22	22		57.8	56.8	55.9	55.1	54	53	51.6	49.8	47.3
AWZ80-65-200/30	30		67.2	66	65.2	64.3	63.2	62	60	58	55

## AWZ100-80-Series



## AWZ100-80-Series



## Performance Form

Model	Motor power[kW]	Q[m³/h]	60	80	100	120	140	160	180	200	220
AWZ100-80-160/11	11	H[m]	26.2	25.3	23.9	22.1	19.8	17.5	15.2	12.8	
AWZ100-80-160/15			35	33.8	32.2	30.6	28	26	24	20.8	18.0
AWZ100-80-160/18.5			38.8	37.7	36.1	34.6	32.7	30.5	27.8	25.2	22.5

## Performance Form

Model	Motor power[kW]	Q[m³/h]	60	80	100	120	140	160	180	200	220	240
AWZ100-80-200/22	22	H[m]	41.9	42	41.4	40.5	39.5	38	35.5	32.5	29.6	26.4
AWZ100-80-200/30			55.3	54.2	53	51.8	50.4	49	47.2	44.8	41.8	38.7
AWZ100-80-200/37			63	62.2	61.1	59.8	58.3	56.5	55.1	53.2	50.7	47.5