

LAIKO



AWHY

**HORIZONTAL CONSTANT PRESSURE VARIABLE
FREQUENCY WATER SUPPLY SYSTEM**

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HORIZONTAL CONSTANT PRESSURE VARIABLE FREQUENCY WATER SUPPLY SYSTEM

PUMP AND SYSTEM SOLUTION PROVIDER



Superior in Pump, Superior in Energy-Saving.

www.laikopump.com



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!

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.



Wenling, Zhejiang, China

GREEN SMART FACTORY

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

346	29	242	75	6
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

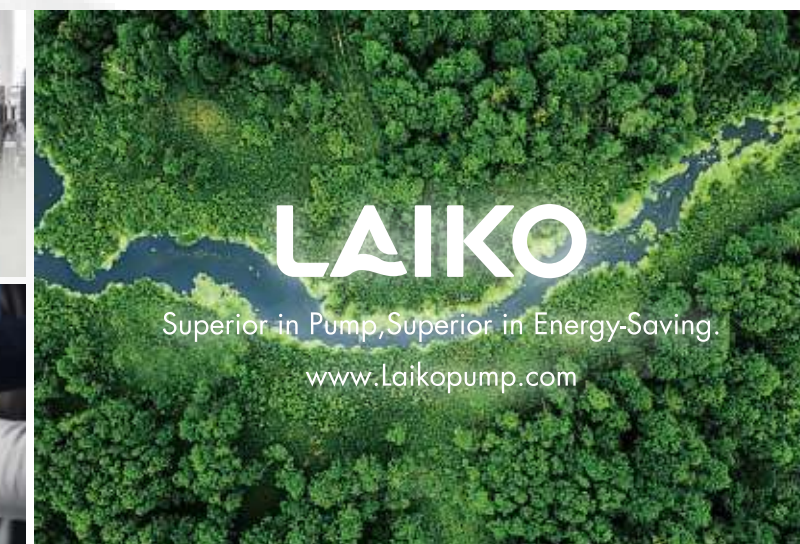
We have established offices in major cities across the country, supported by a professional and efficient service team. From consultation, purchase, after-sales, to maintenance, we provide high-quality, professional, timely, and attentive services at every stage.

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

AWHY

Horizontal Constant Pressure Variable Frequency Water Supply System



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LAIKO Laiko Pump (Zhejiang) Co., Ltd.

AWHY

Horizontal Constant Pressure Variable Frequency Water Supply System

The AWHY series horizontal constant pressure variable frequency water supply system adopts the technology of variable frequency speed regulation and automatic control, with the efficient and energy-saving AWD non self suction lightweight horizontal multi-stage centrifugal pump. The main components of the system include the AWD pump controller, sensor, pressure tank, five-way check valve, and pressure gauge. It features stable performance, high efficiency, energy saving, fully automatic intelligent control, noise, corrosion resistance, compact structure, beautiful appearance, small size, and light weight.

It is suitable for liquids with low viscosity, thin, clean, nonrosive, non-flammable, non-explosive, and free of solid particles and fibers. When the density of the transported medium is greater than that of water, a high-power motor needs to be equipped. For details, consult us please.

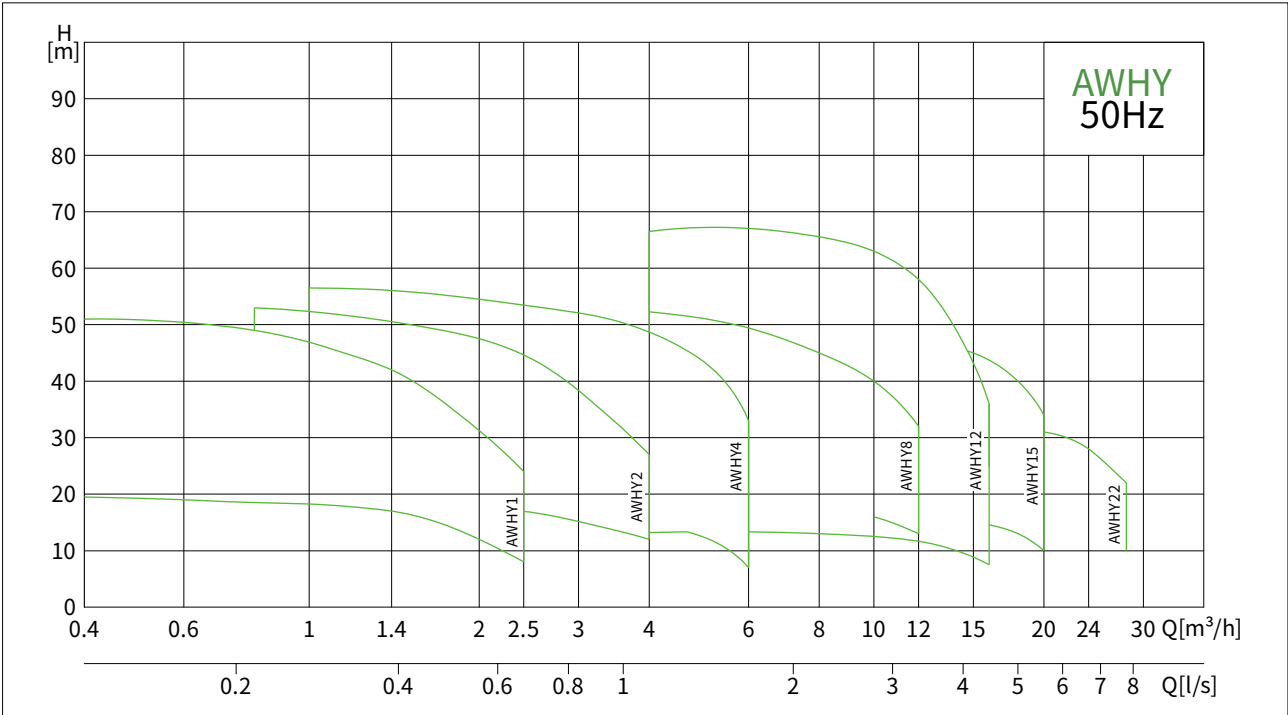
APPLICATION FIELD

Boiler Feedwater System
Industrial Water Circulation System
Cooling Water System
Urban Residential Household Water Supply System

TECHNICAL DATA

Flow range: 0.8~17m³/h
Head range: 6.2~64m
Power: 0.37~2.2kW
Protection level: IP55
Input power supply: 50Hz 3*380V±5%
Output frequency range: 30~50Hz

Performance Curves



Product Scope

Characteristic/Model	AWHY						
Rated flow[m³/h]	1	2	4	8	12	15	22
Rated flow[l/s]	0.28	0.56	1.11	2.22	3.33	4.17	6.11
Flow range[m³/h]	0.4-2.4	0.8-4	1-6	4-12	4-16	4-22	8-28
Flow range[l/s]	0.11~0.67	0.22~1.11	0.28~1.67	1.11~3.33	1.11~4.44	1.11~6.11	2.22~7.78
Motor power[kW]	0.37	0.37~0.75	0.55~1.1	0.75~2.2	0.75~3	1.1~4	2.2~4
Medium temperature[°C]	-20~+105						
Highest efficiency[%]	31.5	41	51	57	57	66	58
Inlet pipeline/Outlet pipeline	25/25	25/25	32/25	40/40	50/50	50/50	50/50

Product Overview

The AWHY series horizontal constant-pressure variable-frequency water supply system is paired with the energy-efficient AWD horizontal multi-stage centrifugal pump and adopts the technology that combines variable-frequency speed regulation and automatic control to achieve constant-pressure variable-frequency adjustment of the water supply system. The whole machine is mainly composed of the AWD pump, controller, sensor, pressure tank, five-way check valve, axial seismic-resistant pressure gauge and so on. It features stable performance, high efficiency and energy conservation, fully automatic intelligent control, low noise, corrosion resistance, compact structure, beautiful appearance, small size, light weight and other advantages.

Controller

Protection level: IP54
Input power supply: 1×220V 50/60Hz
3×380V 50/60Hz

Operating Conditions

It's suitable for liquids with low viscosity, being thin, clean, non-corrosive, non-flammable, non-explosive, and free of solid particles and fibers. The liquid should not have a chemical reaction with the materials of the system. When the temperature of the conveyed liquid is higher than 70°C, consult us please.

Liquid temperature: common temperature type: -20°C~+70°C
hot water type: -20°C~+105°C
Maximum ambient temperature: +40°C
Altitude: Up to 1000m
Maximum operating pressure: 10bar
Medium pH range: 5~9

Application

- Boiler feed water system
- Industrial water circulation system
- Cooling water system
- Urban residential household water supply system

Functional Features

Fully automatic operation: It can start and stop fully automatically according to requirements, and can also automatically adjust the speed according to the amount of water used to ensure constant pressure and energy conservation.

Constant pressure: Through the principle of differential compensation of the pressure tank, the constant pressure of the pipeline is ensured.

Electrical protection: The controller is equipped with protections such as overcurrent, overload, and phase loss. When the controller detects an electrical fault, a frequency converter fault signal will appear on the display screen, and at the same time, the pump will be automatically controlled to stop for protection.

Self-set pressure: Within the performance range of the pump, the pressure can be set by oneself through the control panel.

High efficiency and energy conservation: When the water consumption of users decreases, the controller drives the motor to run at a low speed, reducing the actual output power of the pump. Compared with traditional power frequency motors (with a constant rotation speed), it can greatly reduce the power consumption of the pump, thus enabling users to save electricity and achieve the effect of high efficiency and energy conservation.

Model Description

AWHY 3 - 5 - L - S - W - S - C

C: common temperature type

S: 304; L: 316L

W: 50Hz; L:60Hz

three-phase($\leq 3\text{kW}$ is 220/380V; $>3\text{kW}$ is 380V)(omitted)

threaded connection

impeller stages

rated flow(m^3/h)

horizontal constant-pressure variable-frequency water supply system

Curve Conditions

The following notes apply to the performance curves shown later:

1. All curves are based on measurements at constant speeds of 2900rpm.

2. The curve tolerances comply with ISO9906:2012.

3. The test uses 20°C cold water without air and the kinematic viscosity is 1 mm²/s.

4. The pump's usage should refer to the performance range of the bold curve to prevent issues such as overheating due to too low flow or motor overload due to too high flow.

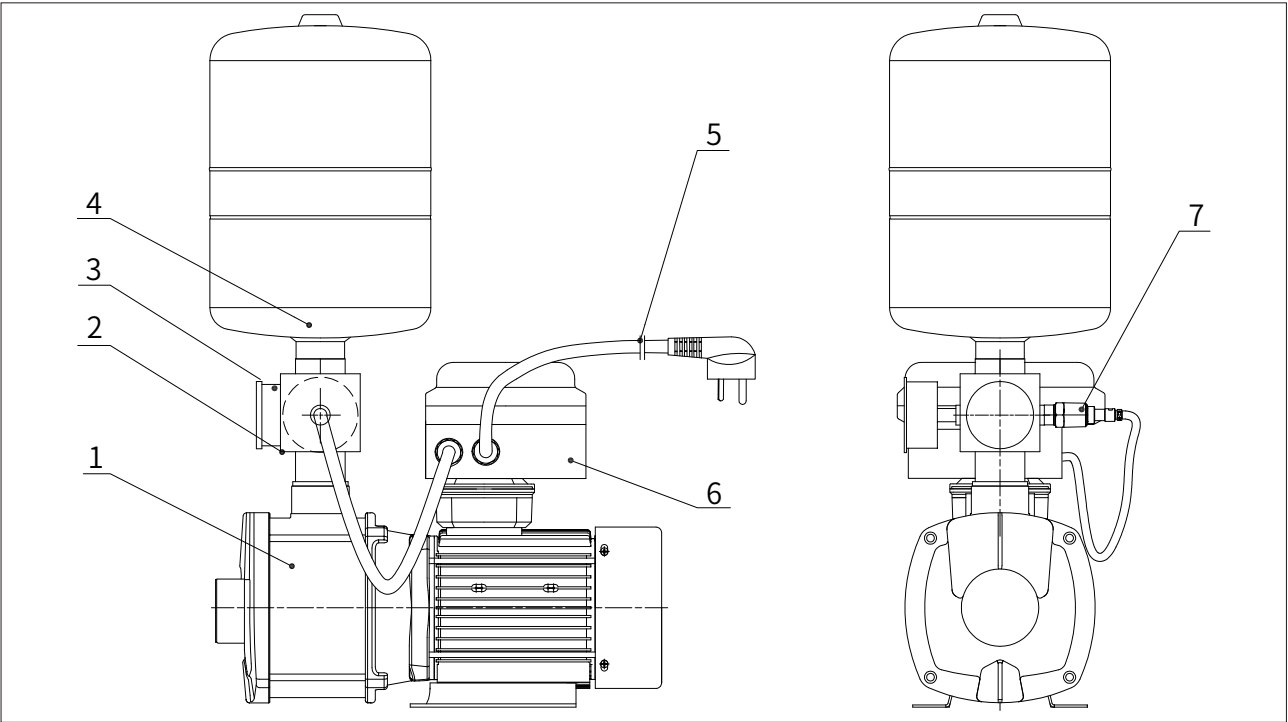
Motor

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

Protection level: IP55

Insulation level: F

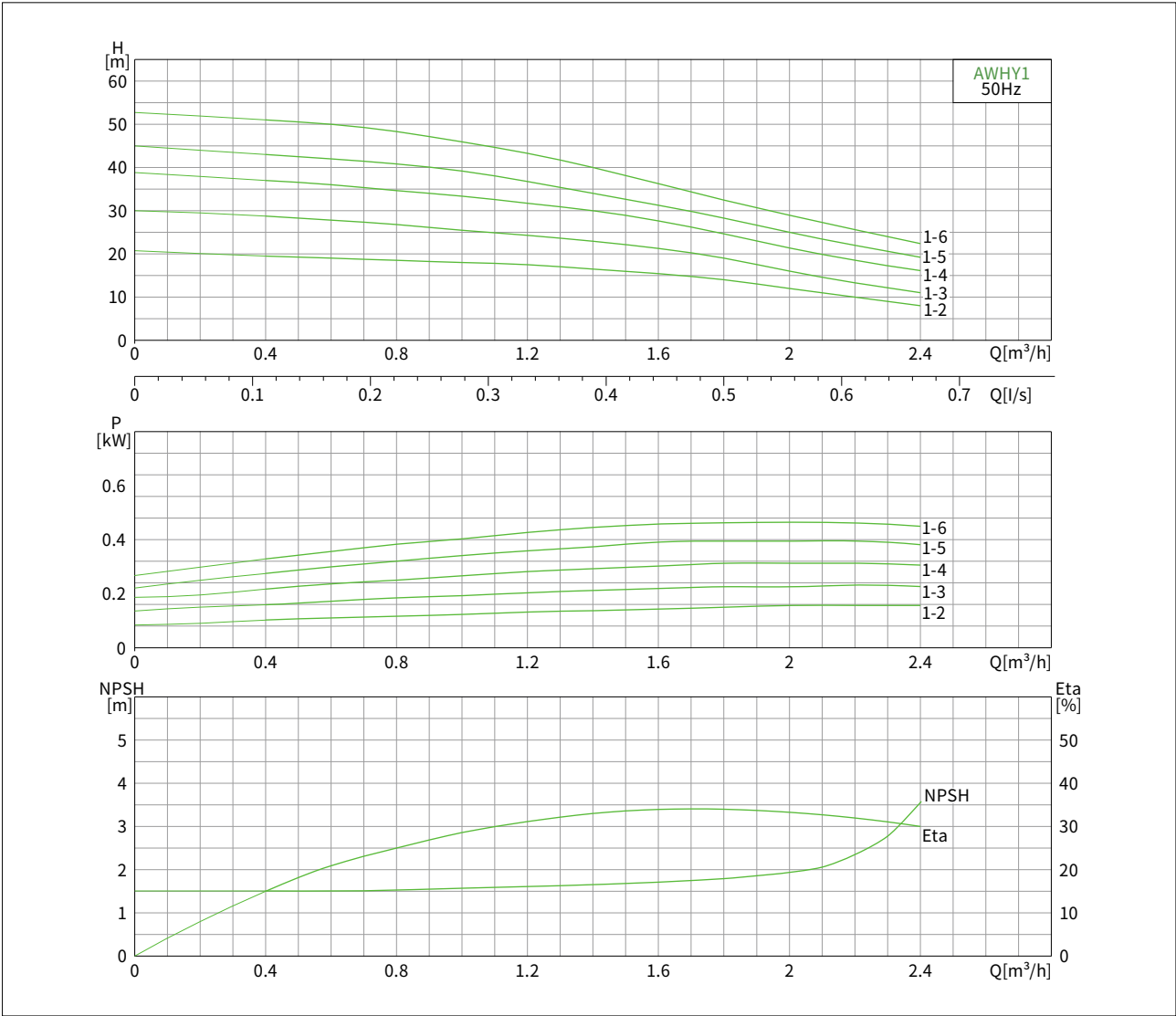
Appearance Diagram(HME Appearance Diagram)



Parts List

NO.	Parts	Notes
1	AWD pump	Horizontal multi-stage centrifugal pump
2	Axial seismic-resistant pressure gauge	0~1.0MPa
3	Five-way check valve	Nickel-plated copper
4	Pressure tank	Single diaphragm pressure tank
5	Plug power cord	10A~250V
6	Controller	0.37~4kW
7	Pressure sensor	0~1.0MPa

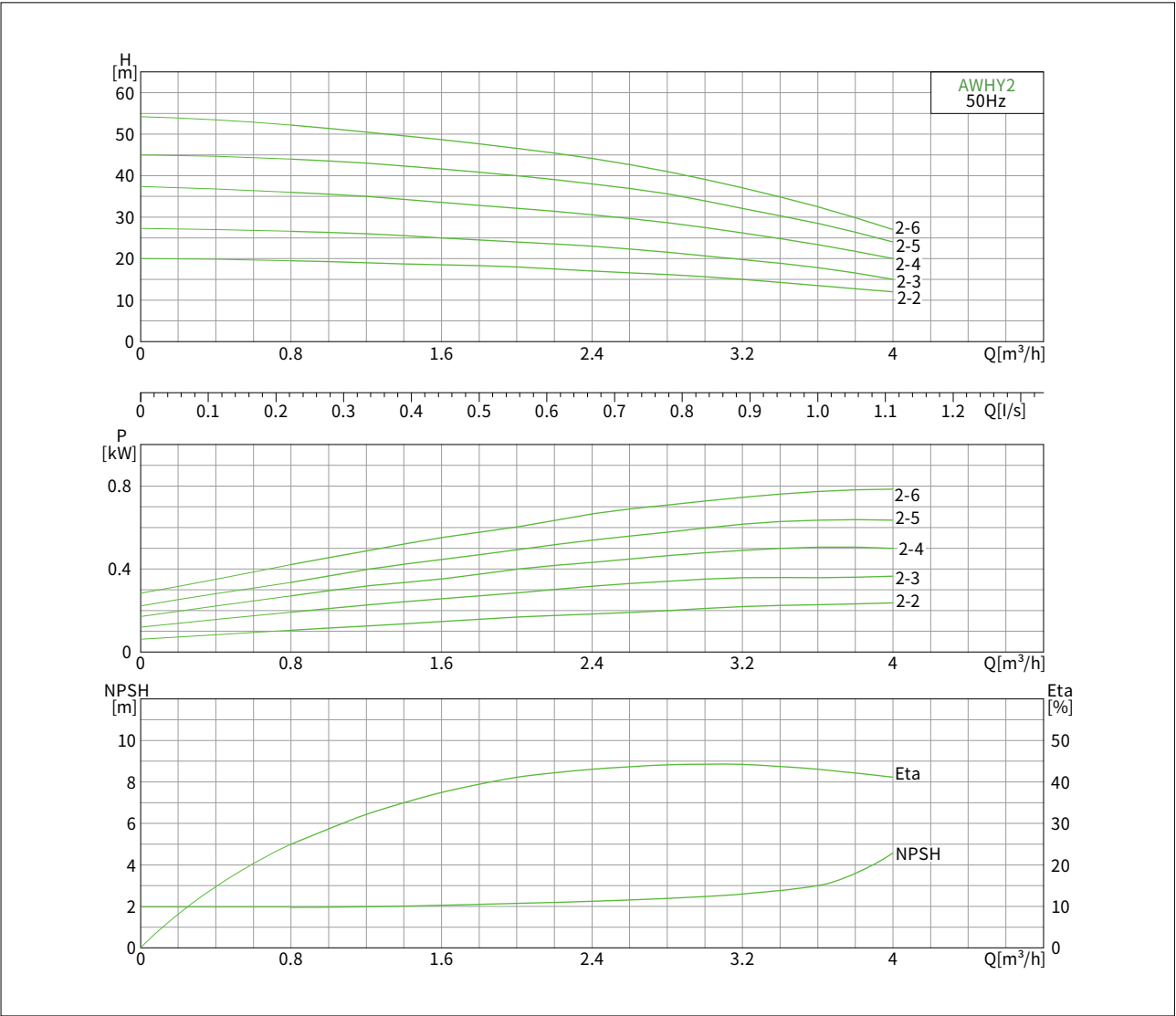
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h) l/min	0.4	0.6	0.8	1	1.2	1.4	1.8	2	2.4
	(kW)	(HP)		7	10	13	17	20	23	30	33	40
AWHY1-2	0.37	0.5	H(m)	19.5	19	18.5	18	17.5	17	14	12	8
AWHY1-3	0.37	0.5		29	28.5	26	25	24.5	23.5	19	16	11
AWHY1-4	0.37	0.5		37	36	35	33	32	30	26	20	17
AWHY1-5	0.37	0.5		43	42	41	40	36	34	27	22	20
AWHY1-6	0.37	0.5		51	50	49	46	44	42	32	26	24

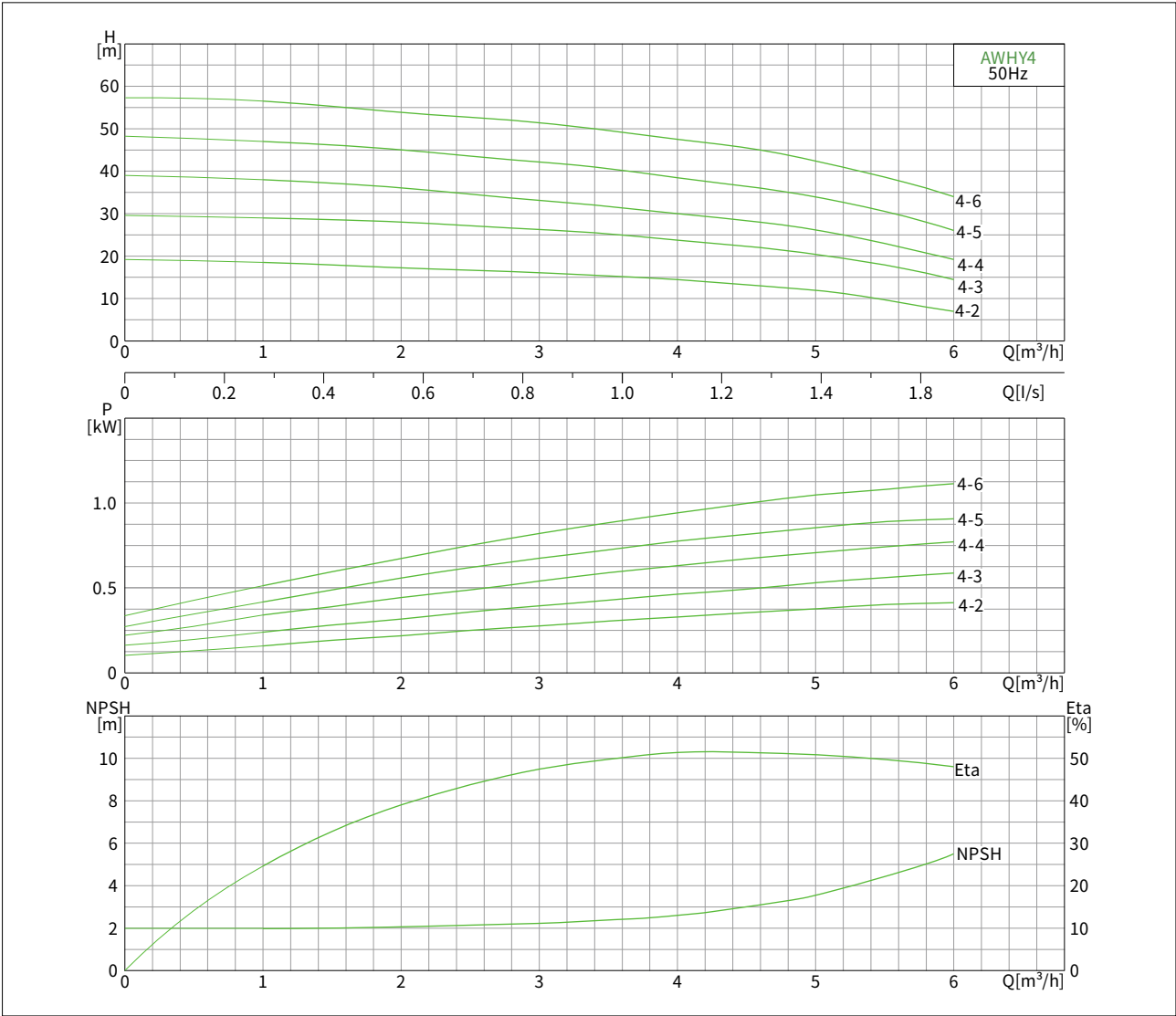
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h) l/min	0.8	1.2	1.6	2	2.4	2.8	3.2	3.6	4
	(kW)	(HP)		13	20	27	33	40	47	53	60	67
AWHY2-2	0.37	0.5	H(m)	19.5	19	18.5	18	17	16.5	14.5	13.5	12
AWHY2-3	0.37	0.5		27	26	25	24	23	22	20	17	15
AWHY2-4	0.55	0.75		36	35	34	32	31	29	27	23	20
AWHY2-5	0.55	0.75		44	43	42	40	38	36	33	28.5	24
AWHY2-6	0.75	1		53	51.5	48	47	45	41	36	31.5	27

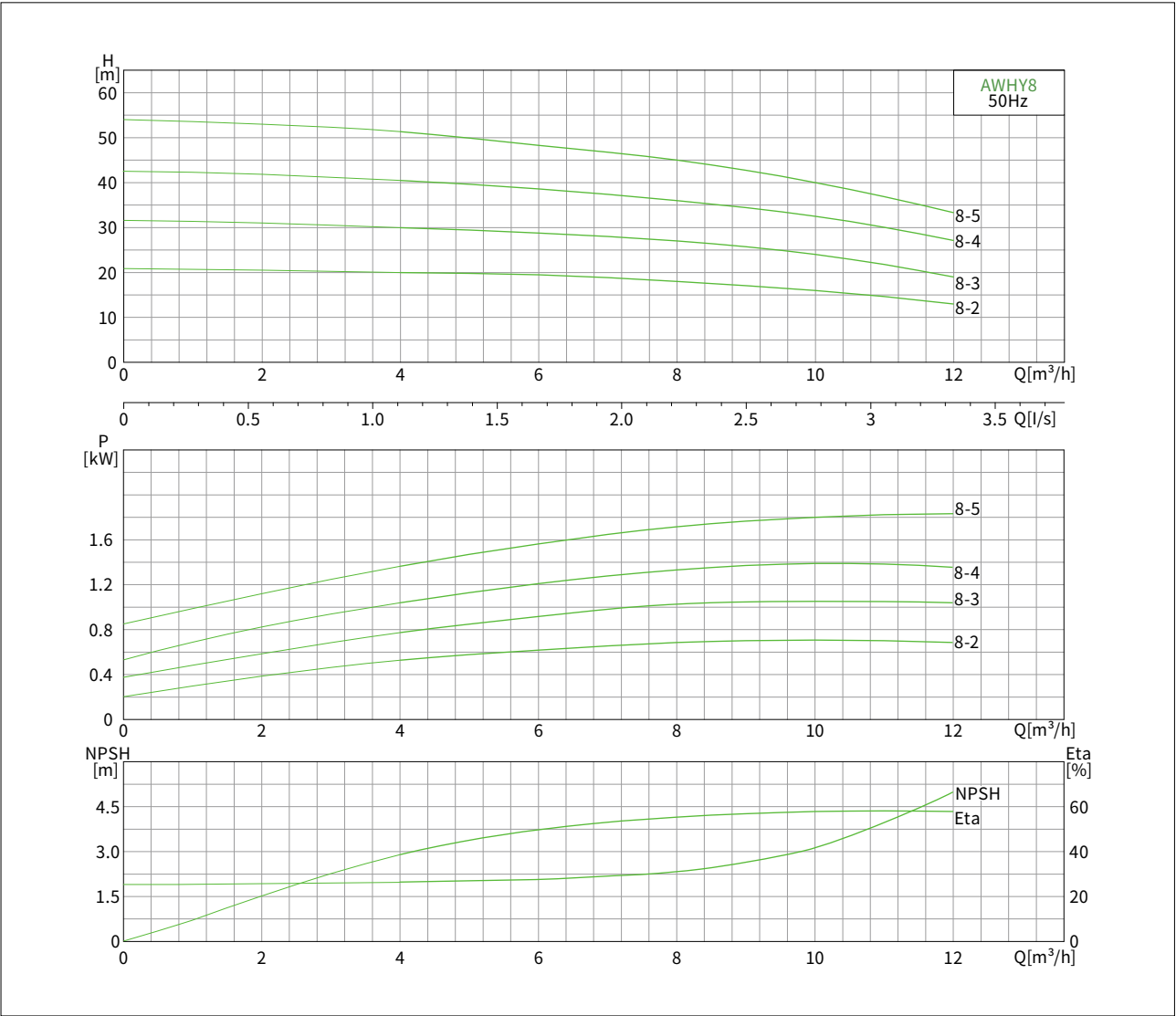
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h)	1	1.6	2.2	2.8	3.4	4	4.6	5.2	5.8	6
	(kW)	(HP)	l/min	17	27	37	47	57	67	77	87	97	100
AWHY4-2	0.55	0.75	H(m)	18.5	18	17	16	15.5	15	13.5	12	8	7
AWHY4-3	0.55	0.75		29	28.5	28	26	25.5	25	23	21	16	14
AWHY4-4	0.75	1		38	37	36	33	32	30	28	26	20	18
AWHY4-5	1.1	1.5		47	46	45	43	41	40	36	34	28	25
AWHY4-6	1.1	1.5		56.5	55	54	52	51	49	45	42	36	33

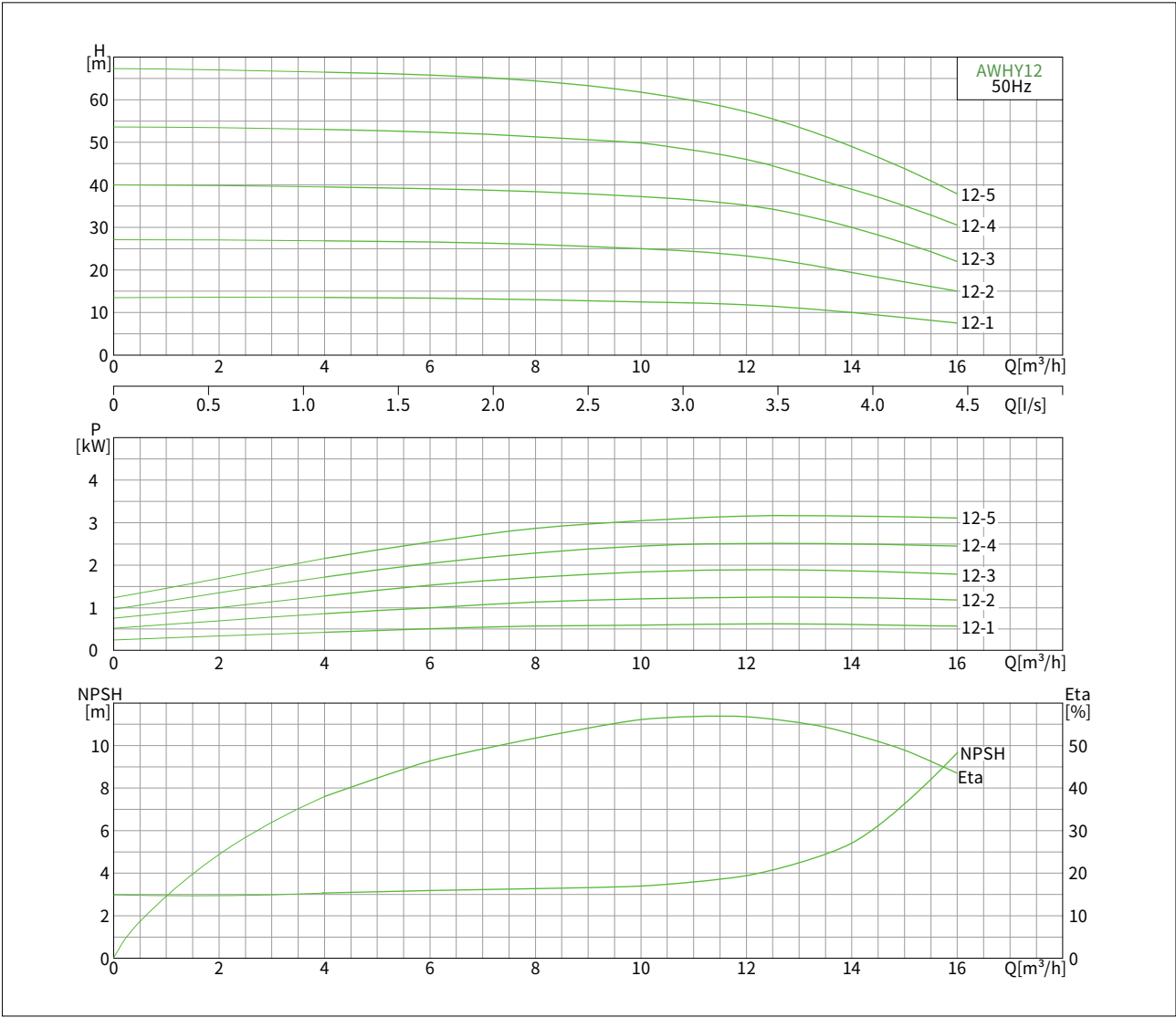
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h)	4	6	7	8	9	10	12
	(kW)	(HP)	l/min	67	100	117	133	150	167	200
AWHY8-2	0.75	1	H(m)	20	19.5	19	18	17	16	13
AWHY8-3	1.1	1.5		30	29.5	28	27	26	24	19
AWHY8-4	1.5	2		40.5	39.5	37	36	34	32	26
AWHY8-5	2.2	3		51	50	48	45	43	40	32

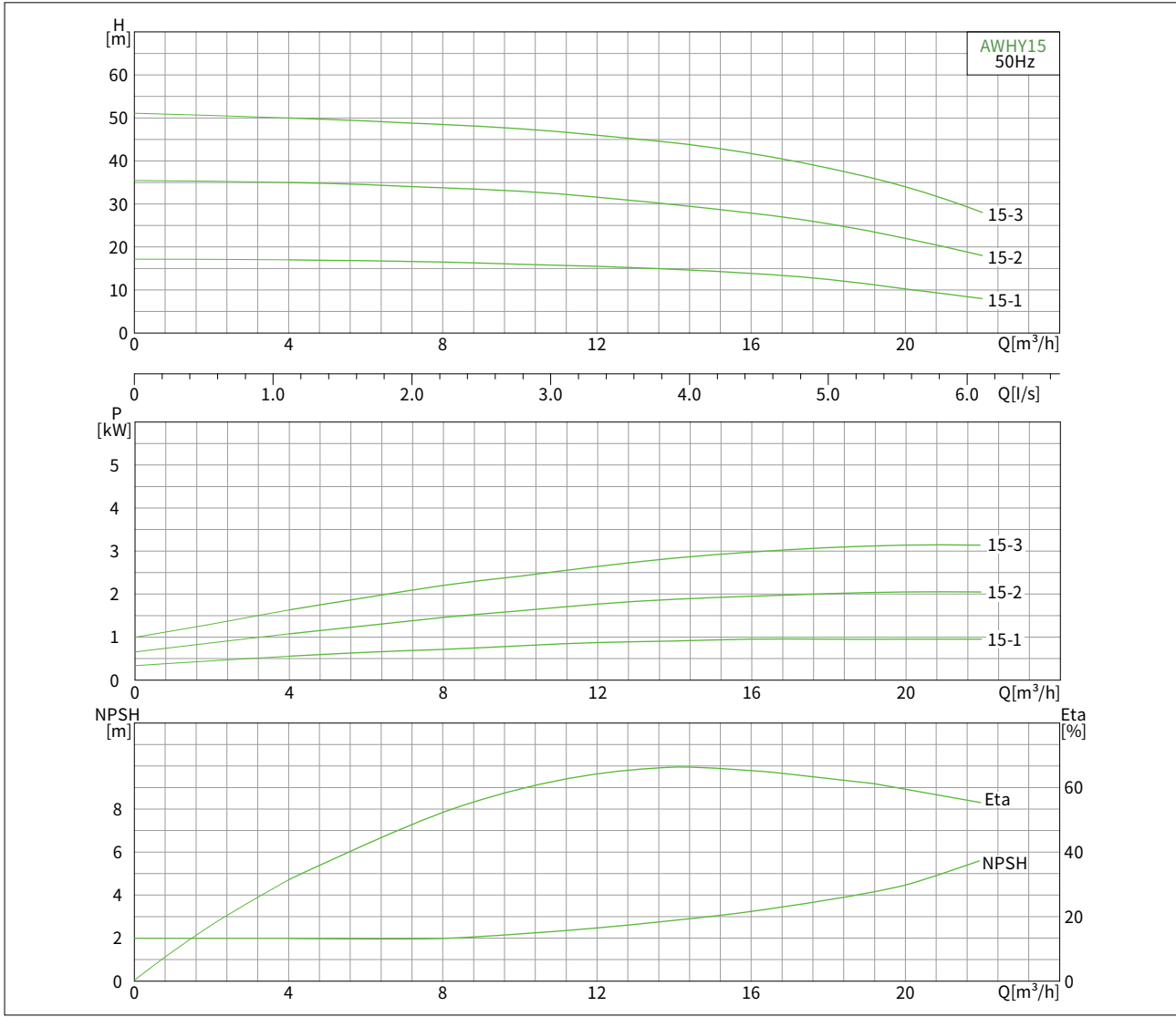
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h)	4	8	10	12	14	16
	(kW)	(HP)	l/min	67	133	167	200	233	266
AWHY12-1	0.75	1	H(m)	13.2	13	12.5	12	10	7.5
AWHY12-2	1.1	1.5		26.5	26	25.5	24	20	15
AWHY12-3	2.2	3		39.5	39	38	36	30	22
AWHY12-4	3	4		53	52	50	47	39	29
AWHY12-5	3	4		66.5	65	63	58	49	36

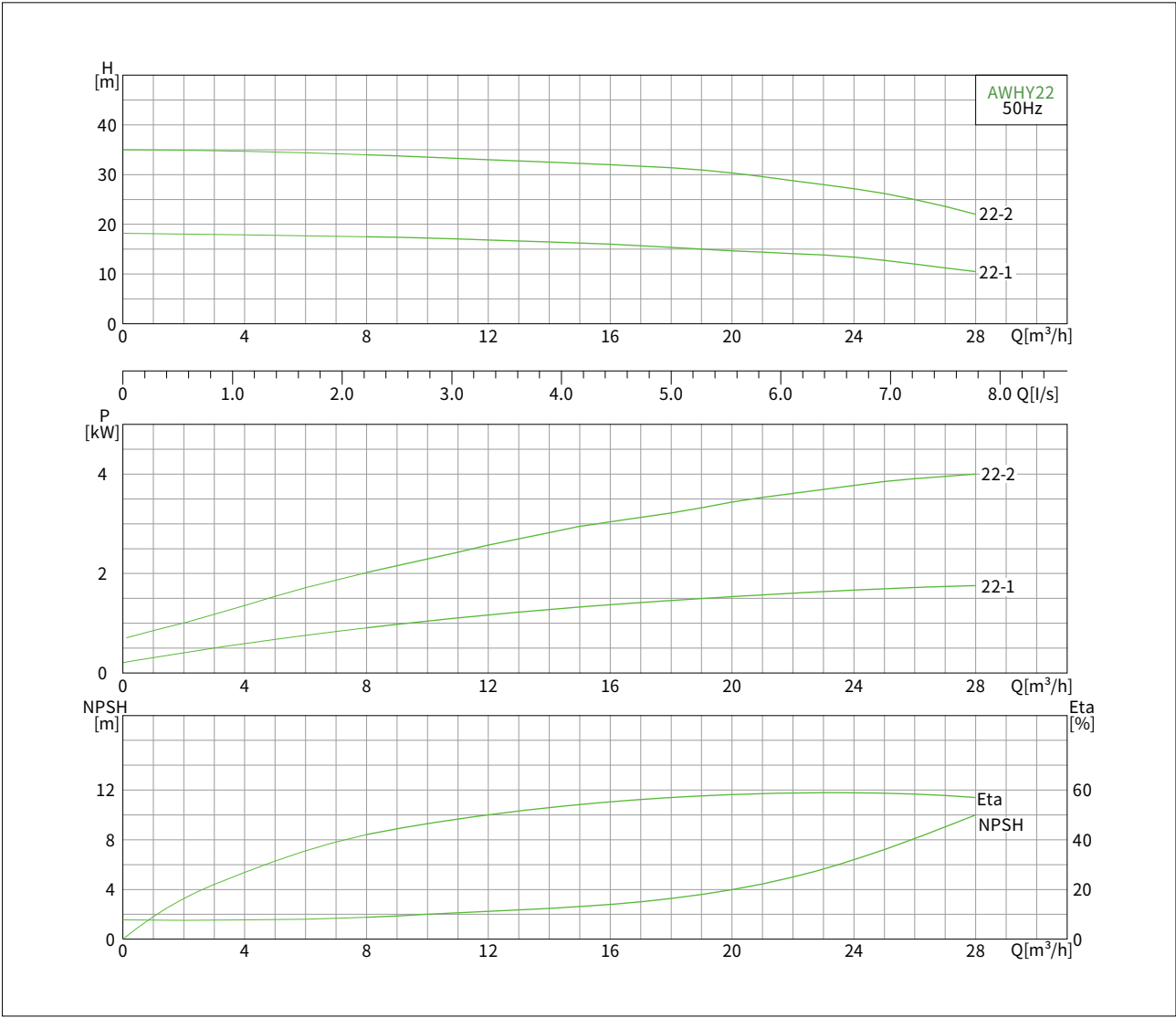
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h)	4	6	8	10	12	15	18	20	22
	(kW)	(HP)	l/min	67	100	133	167	200	250	300	333	367
AWHY15-1	1.1	1.5	H(m)	17	16.8	16.5	16	15.5	15	13	10	8
AWHY15-2	2.2	3		35	34.5	34	33.5	32	30	26	22	18
AWHY15-3	4	5.5		50	49	48	47.5	46	45	40	34	28

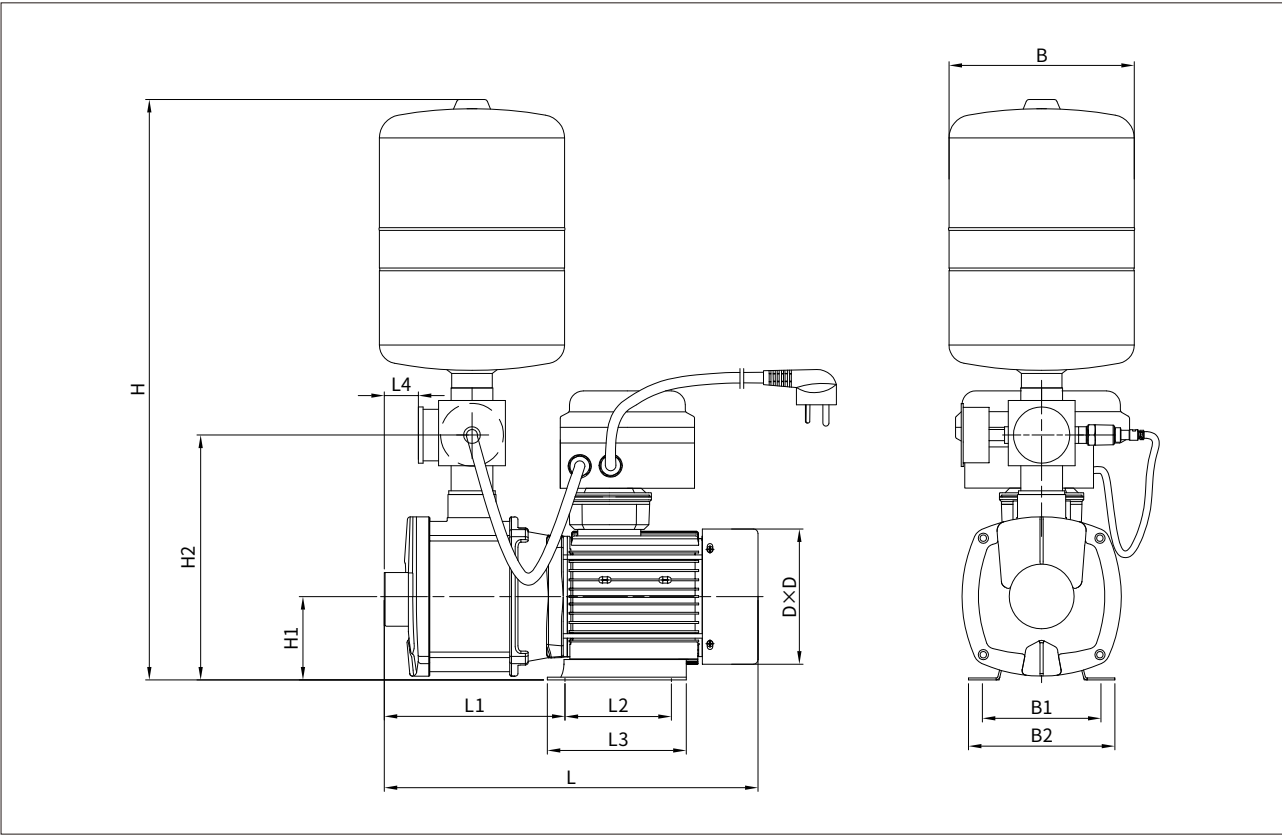
Performance Curve Description



Basic Parameters

Model	Power		Flow (m³/h)	8	10	12	16	20	22	24	26	28
	(kW)	(HP)	l/min	133	167	200	267	333	367	400	433	467
AWHY22-1	2.2	3	H(m)	17.5	17	16.5	16	15	14.5	14	12	10
AWHY22-2	4	5.5		34	33.5	33	32	31	30	28	25	22

Installation Dimension



Dimension and Weight

Model	Dimension														Weight(kg)
	L	L1	L2	L3	L4	B	B1	B2	H	H1	H2	D	Inlet pipeline	Outlet	
AWHY1-2	351	150	96	150	25	170	125	158	483	75	183	137	G1	G1	13.6
AWHY1-3	351	150	96	150	25	170	125	158	483	75	233	137	G1	G1	13.8
AWHY1-4	369	168	96	150	43	170	125	158	483	75	233	137	G1	G1	14.2
AWHY1-5	387	186	96	150	61	170	125	158	483	75	233	137	G1	G1	14.4
AWHY1-6	405	204	96	150	79	170	125	158	483	75	233	137	G1	G1	14.6
AWHY2-2	351	150	96	150	25	170	125	158	483	75	233	137	G1	G1	13.6
AWHY2-3	351	150	96	150	25	170	125	158	483	75	233	137	G1	G1	13.6
AWHY2-4	369	168	96	150	43	170	125	158	483	75	233	137	G1	G1	14.7
AWHY2-5	387	186	96	150	61	170	125	158	483	75	233	137	G1	G1	15.5
AWHY2-6	405	204	96	150	79	170	125	158	483	75	233	137	G1	G1	16.4
AWHY4-2	351	150	96	150	25	170	125	158	483	75	233	137	G1 1/4	G1	14.7
AWHY4-3	351	150	96	150	25	170	125	158	483	75	233	137	G1 1/4	G1	14.9
AWHY4-4	369	168	96	150	43	170	125	158	483	75	233	137	G1 1/4	G1	15.5
AWHY4-5	413	194	96	150	61	170	125	158	483	90	233	147	G1 1/4	G1	18.3
AWHY4-6	431	212	96	150	79	170	125	158	498	90	248	147	G1 1/4	G1	19.6
AWHY8-2	407	191	96	150	31	200	125	158	588	90	270	147	G1 1/2	G1 1/2	21.2
AWHY8-3	437	221	96	150	61	200	125	158	588	90	270	147	G1 1/2	G1 1/2	27.3
AWHY8-4	504	250	141	180	91	200	165	200	590	92	272	168	G1 1/2	G1 1/2	33.0
AWHY8-5	534	280	141	180	121	200	165	200	590	92	272	168	G1 1/2	G1 1/2	33.6
AWHY12-1	407	191	96	150	31	200	125	158	588	90	270	147	G1 1/2	G1 1/2	18.2
AWHY12-2	407	191	96	150	31	200	125	158	588	90	270	147	G1 1/2	G1 1/2	21.2
AWHY12-3	474	220	141	180	61	200	165	200	590	92	272	168	G1 1/2	G1 1/2	27.3
AWHY12-4	539	249	140	180	91	200	189	230	658	100	280	192	G1 1/2	G1 1/2	33.9
AWHY12-5	569	279	140	180	121	200	189	230	658	100	280	192	G1 1/2	G1 1/2	34.5
AWHY15-1	407	191	96	150	22	200	125	158	606	90	270	147	G2	G2	21.2
AWHY15-2	444	190	141	180	22	200	165	200	608	92	272	168	G2	G2	27.1
AWHY15-3	509	219	140	180	52	200	189	230	676	100	280	192	G2	G2	37.5
AWHY22-1	444	190	141	180	22	200	165	200	608	92	272	168	G2	G2	26.8
AWHY22-2	476	189	140	180	52	200	189	230	676	100	280	192	G2	G2	36.5