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WQ(F)/WQW(F)

SUBMERSIBLE SEWAGE PUMP

Performance Curve Catalog

1----- WQ Overview

5----- WQW-2P/WQWF-2P Premium

11-----WQW-4P Premium

16-----WQ/WQF Ordinary type

◆ Product Overview

The latest submersible sewage pump from Nanyuan Pump Industry Co., Ltd. is developed by screening and improving similar WQ series products at home and abroad, overcoming their shortcomings. It features optimized and innovative designs in hydraulic models, sealing technology, mechanical structure, and protection control, making it more reliable, safe, lightweight, practical, durable, and efficient in sewage handling. The entire product series has a reasonable model spectrum for convenient selection. It is equipped with a dedicated submersible sewage pump control cabinet to achieve protection and automatic control.

Model Screening: Performance optimization, dual-channel impeller, and two to three mechanical seals arranged in a way that ensures better lubrication and cooling, resulting in smooth, clog-free operation with excellent flow capacity.

Seal Improvement: Adopts a series mechanical seal for more reliable shaft sealing and a longer service life.

Structural Optimization: The design is conducive to seal performance, ensuring smooth operation, vibration resistance, and drop resistance for higher reliability. The optimized design makes the pump lighter, more practical, more corrosion-resistant, and more wear-resistant.

With an IPX8 motor protection rating, the submersible motor has better cooling performance, lower temperature rise compared to standard motors, and further enhanced durability. The F-class insulation ensures a longer motor life.

The motor is equipped with various protection devices, allowing users to easily optimize their selection.

◆ Main Applications

Suitable for discharging wastewater, rainwater, and sewage containing solid particles and long fibers in scenarios such as building complexes, hospitals, residential communities, municipal engineering, road traffic and its construction, engineering sewage discharge, and small-scale sewage treatment.

◆ Usage Conditions

1. Power supply: 380V, three-phase, 50Hz.
2. Medium temperature generally does not exceed 40°C, pH value 4-10, medium density $\leq 1100\text{kg/m}^3$.
3. The minimum liquid level shall comply with the minimum liquid level indication H1 in the installation dimension diagram.
4. It cannot be used for media containing strongly corrosive fluids and strongly abrasive solid particles.
5. The diameter of solid substances in the medium shall not be greater than the maximum allowable solid diameter for passage.
6. Altitude ≤ 2000 meters;
7. The environment is non-explosive, with no corrosive gases or dust sufficient to corrode metal and damage insulation, and the maximum monthly average humidity $\leq 90\%$ (at 25°C);
8. Vertical installation inclination $\leq 5^\circ$.

◆ Structural Description

1. Pump Body and Impeller

Carefully selected and matched pump body and impeller ensure excellent flow passage performance, high efficiency, flat power curve, and resistance to overload. The impeller is precisely balanced, resulting in minimal vibration and smooth rotation.

2. Motor

Dedicated submersible motors, with IPX8 protection and Class F insulation that allows for higher temperature rise. Under normal temperature rise conditions, the motor's insulation life is extended. Additionally, due to effective submersible cooling, the actual temperature rise is low, further prolonging the motor's insulation life.

3. Motor Cooling

The heat generated by the motor is dissipated through the motor housing. As long as the medium penetrates half of the stator housing of the motor, it can operate reliably and safely. The more the medium penetrates, the more beneficial it is for motor cooling.

4. Shaft Seal

The motor shaft seal employs two to three series-connected mechanical seals, forming multiple reliable sealing barriers. One is located within the pump medium, where the sealing face is pressed tighter as the medium pressure increases, effectively preventing water from entering the oil chamber. The other two are situated in the oil chamber, preventing oil from entering the motor. Even if the first seal fails, the remaining two can still prevent oil and water from entering the motor. The bellows-type mechanical seal, combined with an innovative structural cavity, further significantly enhances the reliability of the shaft seal. Under normal operating conditions, the trouble-free running time exceeds 9,000 hours.

5. Oil Chamber

The oil chamber is filled with appropriate mechanical oil and equipped with two mechanical seals. It serves as a barrier to prevent the medium from entering the motor through the pump shaft, blocking the medium from penetrating into the motor. When the first mechanical seal leaks, the oil chamber acts as a buffer, preventing the medium from directly entering the motor. Additionally, it lubricates and cools the friction surfaces of the two independent mechanical seals, ensuring more reliable operation of the seals. Furthermore, it dissipates heat generated by the lower bearing and some heat from the motor.

6. Bearings

The lower bearings provide a reliable support for the motor pump shaft. Considering the radial, axial forces, and pulsating loads generated during the operation of the sewage pump, the lower bearings can consist of two to three different types of bearings with varying load capacities. This ensures smooth operation of the unit and extends its service life.

7. Cables and Sealing

- The cable is a oil-resistant rubber-sheathed flexible cable. The cross-section of the cable core is designed for long-term reliable operation at an ambient temperature of 40°C and under full-load motor power. If the sewage pump operates with the motor running at less than full load or at an ambient temperature below 40°C, its service life will be longer.
- There is a sealed compression between the cable insulation sleeve and the motor pressure fitting to prevent the medium from seeping into the motor cavity through the interface between the cable and the motor cover.
- There is a rubber vulcanization between the cable sheath and the core. Even if the rubber outer sheath is torn, it can still effectively prevent the medium from entering the motor through the cable sheath.

8. Motor Housing

The motor housing is composed of components such as the frame, bearing seat, and end cover. Reliable static seals are present at the connection and mating surfaces of each part. Each assembly undergoes rigorous hydrostatic testing to ensure its watertightness.

9. Safety Protection within the Machine Pump (Operated via a Dedicated Electrical Control Cabinet)

- Oil-Water Probe: Installed inside the oil chamber, it detects leakage from the first mechanical seal (in the medium). When the leaked medium enters the oil chamber and reaches a certain proportion, an alarm signal is triggered.
- Water-In Probe: Installed inside the motor cavity, it detects leakage from the second mechanical seal. When oil (or oil-water mixture) enters the motor, the water-in probe will issue an alarm signal and shut down the pump.
- Thermistor: Installed within the motor stator winding. If the motor operates under long-term overload, or if the motor winding temperature rises to a certain value due to other reasons, an alarm signal is triggered and the pump is shut down.

10. External Control System

The accompanying dedicated control cabinet processes various signals from the pump to achieve control, protection, audible and visual alarm functions, as well as single-pump and multi-pump automated control. When users provide their own control cabinet, they should contact our company's electrical control cabinet department for guidance on installing the protection controller within the user-provided control cabinet.

The pump is equipped with dedicated handles for transportation. Absolutely do not pull on the cable when moving the pump (or use it as a lifting rope), as this may loosen the seal between the cable and the motor cover, causing water to enter the motor. It is also prohibited to lift the pump by pulling on the cable even after securing the cable to the handle.

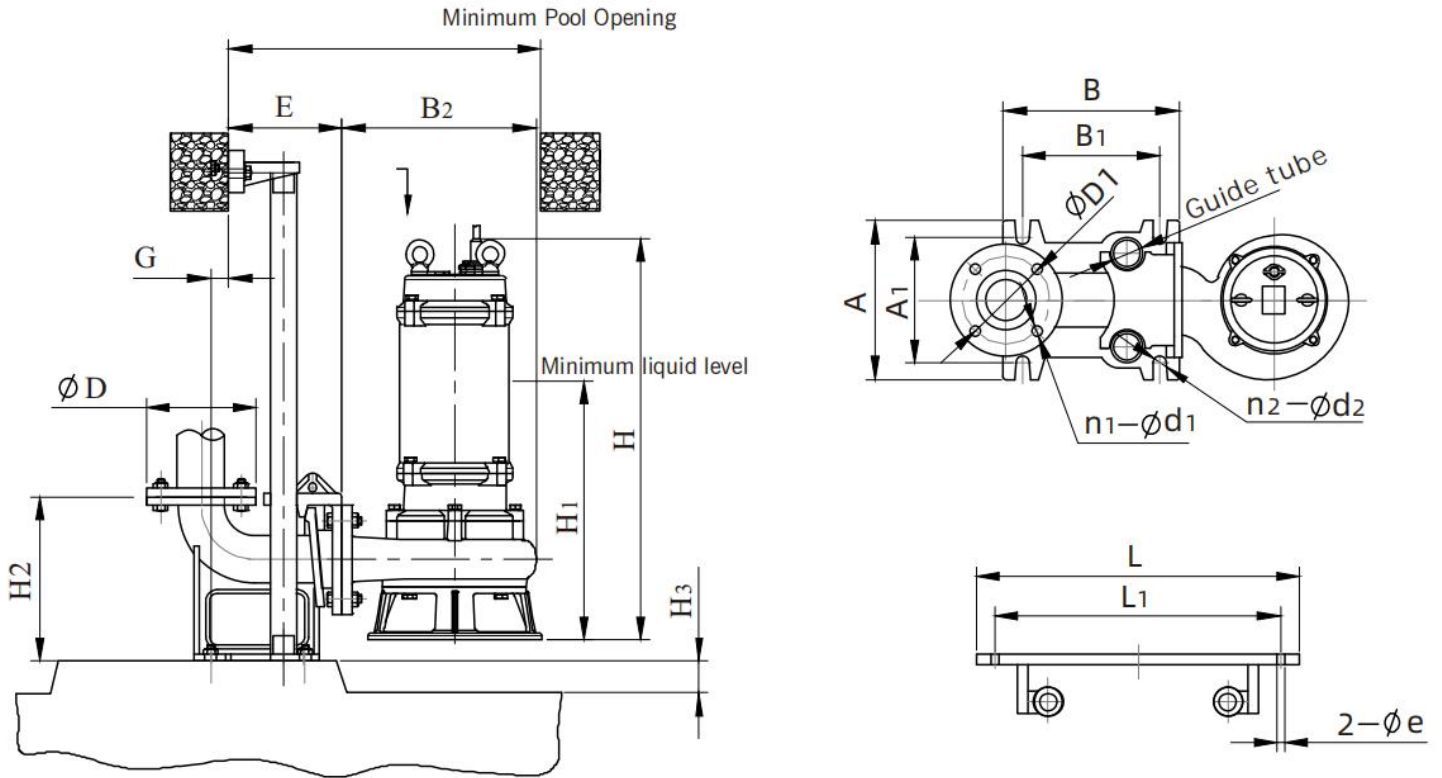
11. Performance Curves and Main Parameters

The curves on the performance curve diagram indicate the recommended operating range of the pump. When the flow rate of the medium handled by the pump changes, attention must be paid to ensuring that the shaft power during operation remains within the rated power range of the motor. If overload operation is detected, it may result in accidents such as burning out the submersible motor.

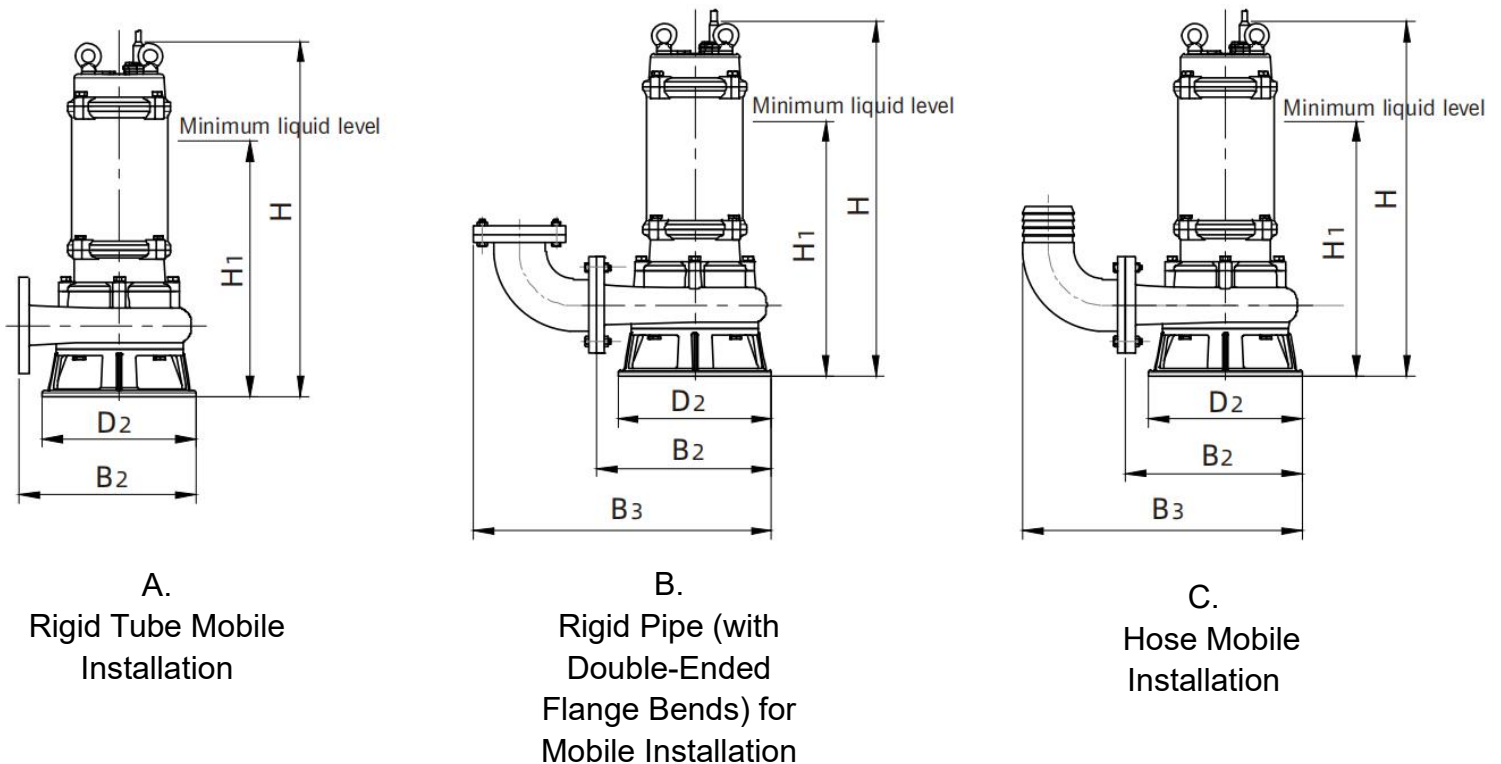
◆ Installation Methods

The WQ series small submersible sewage pumps are available in three installation methods: automatic coupling type (Z), rigid pipe mobile type (Y), and flexible hose mobile type (R). Regardless of the installation method, they are all easy to install.

WQ Fixed Automatic Coupling Installation Dimension Diagram



WQ Series Mobile Installation Dimensional Drawing



◆ **WQW、WQWF、WQ、JYWQ Series Submerged Sewage Pump Coupling Installation Dimensions**

NO.	Type	Flange Connection Dimensions PN0.6MPa mm			Coupling Chassis Dimensions mm					G	H ₂	L	L ₁	Guide rod dimensions	φ e	E
		D	D1	N1-φ d1	A	A ₁	B	B ₁	N2-φ d2							
1	DN40	130	100	4-φ 14	108	69	138	69	4-φ 16	2	210	226	186	1	12	147
2	DN50	140	110	4-φ 14	138	120	212	130	4-φ 16	56	210	220	178	1	12	127
3	DN65	160	130	4-φ 14	160	140	203	140	4-φ 16	66	240	230	188	1	12	132
4	DN80	190	150	4-φ 18	180	160	223	160	4-φ 18	76	280	250	204	1.5	12	146
5	DN100	210	170	4-φ 18	220	200	263	200	4-φ 18	116	320	270	224	1.5	12	157
6	DN150	265	225	8-φ 18	360	285	408	300	4-φ 20	128	482	388	250	1.5	12	271
7	DN200	320	280	8-φ 18	397	302	452	350	4-φ 20	168	550	388	250	1.5	16	276
NO.	Type	Flange Connection Dimensions PN1.0MPa mm			Coupling Chassis Dimensions mm					G	H ₂	L	L ₁	Guide rod dimensions	φ e	E
		D	D1	N1-φ d1	A	A ₁	B	B ₁	N2-φ d2							
1	DN250	395	350	12-φ 22	460	360	560	430	4-φ 30	242	632	388	250	1.5	16	298
2	DN300	445	400	12-φ 22	550	410	570	410	4-φ 30	235	738	480	305	2	16	334
3	DN350	505	460	16-φ 22	580	420	615	402	4-φ 30	241	858	500	318	2	16	346
4	DN400	565	515	16-φ 26	627	490	680	510	4-φ 40	325	958	500	318	2	16	409
5	DN500	670	620	20-φ 26	732	570	752	550	4-φ 40	361	1158	748	658	2.5	24	369
6	DN600	780	725	20-φ 30	830	720	850	700	4-φ 40	479	1320	830	740	2.5	24	387

◆ **Materials of the main parts of the pump**

Component	Pump body, impeller, lower cover	Motor Housing	Axis	Mechanical seal friction material	
				Motor side	Pump body side
Ductile Iron Pump Materials	HT200/QT600	HT200	45#/20Cr13	Graphite/Silicon Carbide	Graphite/Silicon Carbide/Tungsten Carbide
Stainless Steel Pump Materials	304-316L	304-316L	45#/304-316L	Graphite/Silicon Carbide	Graphite/Silicon Carbide/Tungsten Carbide

◆ **WQW/WQWF Non-Clogging Cuttings Sewage Pump**

1. Appearance Image (Premium Type)



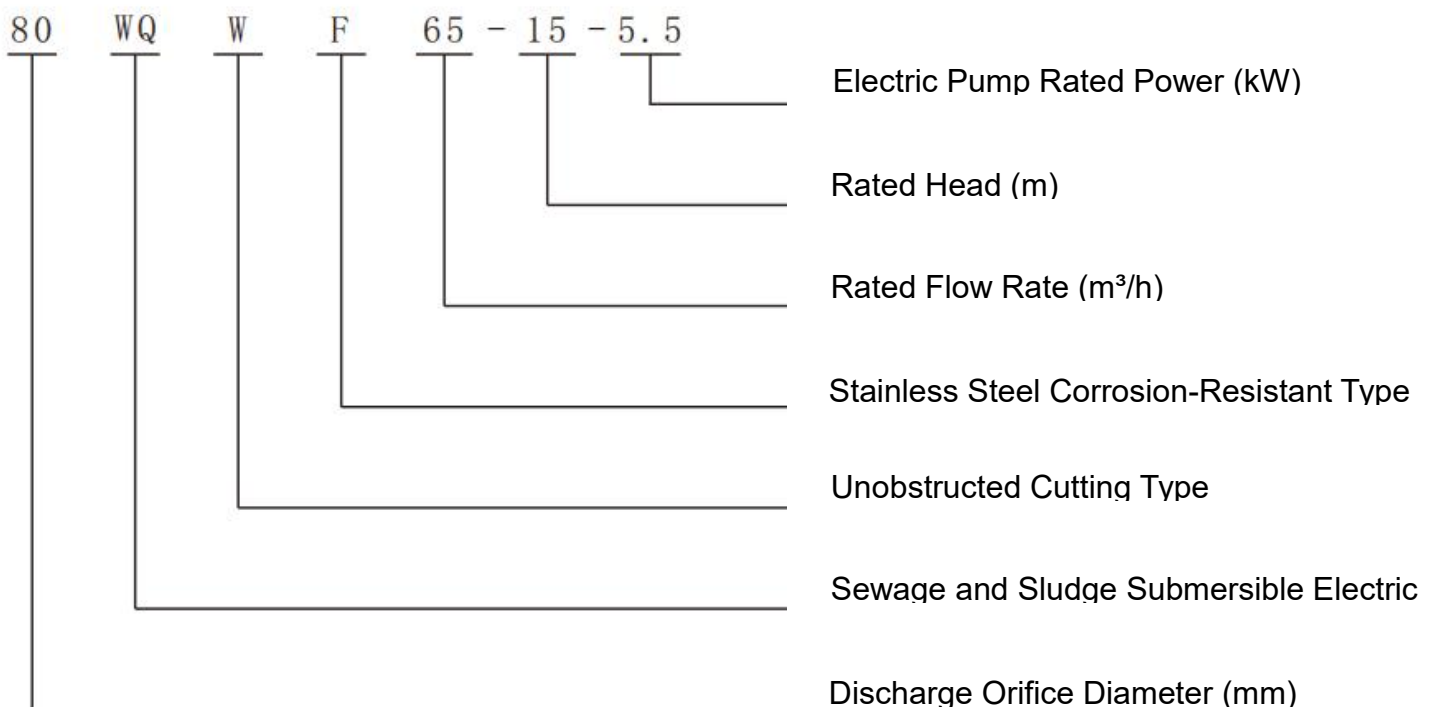
WQW Type



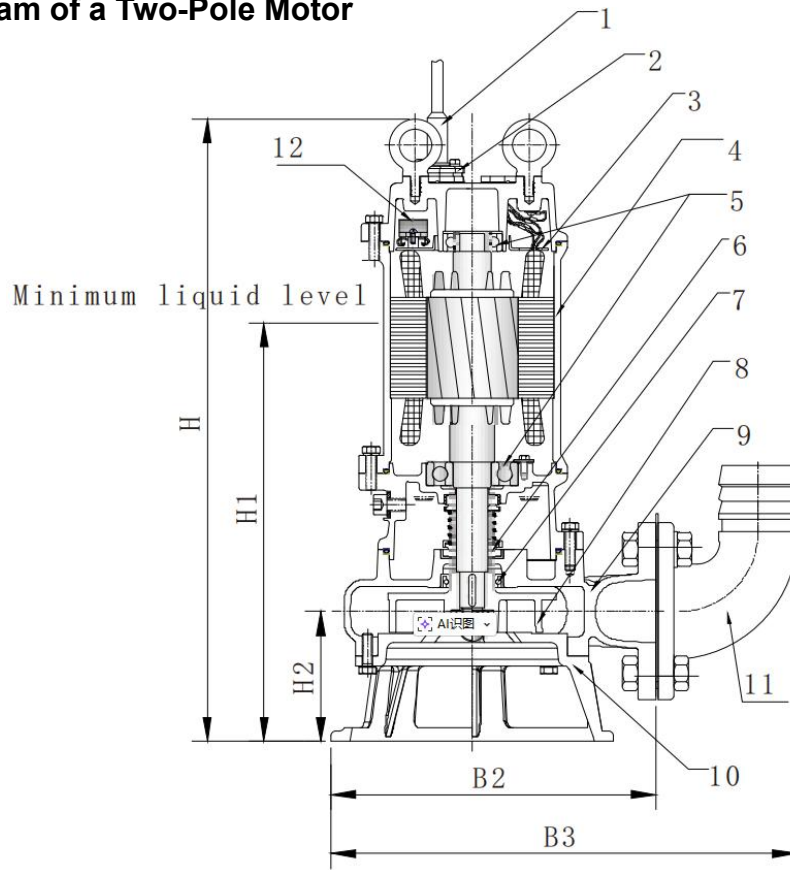
WQWF Type

This pump features the most reasonable cutting structure currently available on the market, perfectly preventing clogging of the water pump. It is equipped with a flow-limiting ring to prevent foreign object entanglement and a rotating impeller with cutting edges, which, in conjunction with an inlet base fixed in a blade-ring shape, form a powerful cutting function. When the impeller rotates, the edges of the blades move in the opposite direction to the blade-ring shaped inlet, enabling highly efficient cutting. The impeller and inlet base are cast and machined, which can enhance the flow rate, head, and efficiency of the cutting water pump.

2. Model Definition



◆ Structure Diagram of a Two-Pole Motor



1.WQW Ductile Iron Pump Structural Detail List

NO.	Part Name	Materials	NO.	Part Name	Materials
1	Cable	YZW	7	Skeleton Oil Seal	Nitrile Butadiene Rubber
2	Cable gland	Stainless Steel304	8	Impeller	QT600
3	Wire threading board	PA66	9	Pump body	HT200
4	Motor	Shell HT200	10	Base	QT600
5	Bearing	Standard parts	11	Flange Elbow (Optional Fitting)	HT200
6	Mechanical Seal	Graphite/Silicon Carbide/Tungsten Carbide	12	Thermal Protector	/

2.WQWF Detailed Structural List of Stainless Steel Pump

NO.	Part Name	Materials	NO.	Part Name	Materials
1	Cable	YZW	7	Skeleton Oil Seal	Nitrile Butadiene Rubber
2	Cable gland	Stainless Steel304-316L	8	Impeller	Stainless steel 304-316L
3	Wire threading board	PA66	9	Pump body	Stainless steel 304-316L
4	Motor	Shell 304-316L	10	Base	Stainless steel 304-316L
5	Bearing	Standard parts	11	Flange Elbow (Optional Fitting)	Stainless steel 304-316L
6	Mechanical Seal	Graphite/Silicon Carbide/Tungsten Carbide	12	Thermal Protector	/

◆ **Technical Parameters and External Dimensions (2-pole Motor)**

1. WQW Cast Iron Non-Clogging Cutting Submersible Sewage Pump Data (WQWF Stainless Steel Type has the same parameters)

Type	Caliber	Q	H	Rotational speed	Power	Electric current	Maximum diameter passing particles	Weight	External dimensions (mm)				
	mm	m ³ /h	m	rpm	kW	A	mm	kg	H	H1	H2	B2	B3
40WQW10-10-0.75	40	10	10	2900	0.75	1.8	20	23	400	300	93	217	312
40WQW10-15-1.1	40	10	15	2900	1.1	2.6	20	27	415	315	93	217	312
50WQW10-10-0.75	50	10	10	2900	0.75	1.8	20	23	400	300	93	217	312
50WQW10-15-1.1	50	10	15	2900	1.1	2.6	20	27	415	315	93	217	312
50WQW15-10-1.1	50	15	10	2900	1.1	2.6	20	27	415	315	93	217	312
50WQW15-15-1.5	50	15	15	2900	1.5	3.3	26	35	493	370	103	250	345
50WQW9-22-2.2	50	9	22	2900	2.2	4.6	26	39	518	390	103	250	345
50WQW15-20-2.2	50	15	20	2900	2.2	4.6	26	39	518	390	103	250	345
50WQW15-25-3	50	15	25	2900	3	6.1	23	47	535	405	120	291	386
50WQW15-32-4	50	15	32	2900	4	7.7	18	52	565	435	120	291	386
50WQW25-25-4	50	25	25	2900	4	7.7	23	52	565	435	120	291	386
50WQW15-40-5.5	50	15	40	2900	5.5	10.8	18	86	650	510	123	313	408
50WQW20-45-7.5	50	20	45	2900	7.5	14.3	18	86	690	550	123	313	408
50WQW20-55-11	50	20	55	2900	11	21.8	19	100	765	480	128	346	441
50WQW20-60-15	50	20	60	2900	15	29.3	19	116	805	520	128	346	441
65WQW15-7-0.75	65	15	7	2900	0.75	1.8	20	23	400	300	93	217	312
65WQW15-10-1.1	65	15	10	2900	1.1	2.6	20	29	415	315	93	217	312
65WQW25-10-1.5	65	25	10	2900	1.5	3.3	26	38	493	370	103	250	355
65WQW25-14-2.2	65	25	14	2900	2.2	4.6	26	42	518	390	103	250	355
65WQW25-18-3	65	25	18	2900	3	6.1	26	48	535	405	120	291	396
65WQW40-16-4	65	40	16	2900	4	7.7	26	67	565	435	120	291	396
65WQW30-25-5.5	65	30	25	2900	5.5	10.8	18	87	650	510	123	313	418
65WQW30-35-7.5	65	30	35	2900	7.5	14.3	18	87	690	550	123	313	418
65WQW40-45-11	65	40	45	2900	11	21.8	19	122	765	480	128	346	441
65WQW40-50-15	65	40	50	2900	15	29.3	19	130	805	520	128	346	441
80WQW35-7-1.5	80	35	7	2900	1.5	3.3	45	51	505	390	107	276	401
80WQW40-8-2.2	80	40	8	2900	2.2	4.6	45	55	530	415	107	276	401
80WQW35-13-3	80	35	13	2900	3	6.1	45	49	560	430	130	295	420
80WQW50-12-4	80	50	12	2900	4	7.7	45	43	590	460	130	295	420
80WQW40-22-5.5	80	40	22	2900	5.5	10.8	26	87	660	520	125	325	450
80WQW40-30-7.5	80	40	30	2900	7.5	14.3	26	87	700	560	125	325	450
80WQW60-35-11	80	60	35	2900	11	21.8	32	122	775	490	136	340	490
80WQW60-40-15	80	60	40	2900	15	29.3	32	130	815	530	136	340	490
100WQW50-10-3	100	50	10	2900	3	6.1	55	50	578	458	136	306	456
100WQW60-11-4	100	60	11	2900	4	7.7	55	55	608	488	136	306	456
100WQW65-15-5.5	100	65	15	2900	5.5	10.8	46	92	690	550	143	320	470
100WQW65-20-7.5	100	65	20	2900	7.5	14.3	46	100	730	590	143	320	470
100WQW80-25-11	100	80	25	2900	11	21.8	25	125	775	490	136	340	490
100WQW100-30-15	100	100	30	2900	15	29.3	25	133	815	530	136	340	490
150WQW100-10-5.5	150	100	10	2900	5.5	10.8	60	112	707	567	150	356	556
150WQW140-10-7.5	150	140	10	2900	7.5	14.3	60	120	747	607	150	356	556
150WQW140-15-11	150	140	15	2900	11	21.8	55	128	805	520	168	398	598
150WQW150-20-15	150	150	20	2900	15	29.3	55	136	845	560	168	398	598
200WQW180-10-11	200	180	10	2900	11	21.8	70	132	835	550	199	413	670
200WQW180-15-15	200	180	15	2900	15	29.3	70	140	875	590	199	413	670

Note: WQWF stainless steel type without 40 outlet diameter model

2. WQW Cast Iron Non-Clogging Cutting Submersible Sewage Pump Performance Data (WQWF Stainless Steel Type has the same parameters)

Type	Q(m ³ /h)	5	10	15	20	25	30	35	40	45	50	55
40WQW10-10-0.75	H (m)	11.5	10	8	6							
40WQW10-15-1.1		17	15	12.7	9	4						
40WQW15-10-1.1		14.5	12	10	7.5	4.8						
50WQW10-10-0.75		11.5	10	8	6							
50WQW10-15-1.1		17	15	12.7	9	4						
50WQW15-10-1.1		14.5	12	10	7.5	4.8						
50WQW15-15-1.5		18	16.5	15	13.3	11.5						
50WQW15-20-2.2		23.3	21.8	20	18.2	16.3						
50WQW15-25-3		28.5	27	25	23.2	21.3	19.3					
50WQW15-32-4		36	34	32	30	28	26.5					
50WQW25-25-4		31	29.8	28.4	26.5	25	23	21				
50WQW15-40-5.5		42.5	41.7	40	38	36	34					
50WQW20-45-7.5		49.5	48.5	47	45	43	41					
50WQW20-55-11		58	57.4	56	55	53	52	50				
50WQW20-60-15		63	62.2	60.7	60	58.3	57	55				
65WQW15-7-0.75		9.7	9	7	5.3	3.7						
65WQW15-10-1.1		12.8	11.5	10	8	6.5						
65WQW25-10-1.5		15.5	14.4	13.4	11.7	10	8	5.9	3			
65WQW25-14-2.2		17.2	16.7	15.2	14.7	14	13	11.2	9.5	7.6	5.5	
65WQW25-18-3		23	22	20.9	19.6	18	16.5	14.3	12.5	10.2	7.4	
65WQW40-16-4		25.3	24	22.8	21.5	20.2	19	17.5	16.2	14.2	12.6	10.5
65WQW30-25-5.5		31.5	30.5	29	28	26.5	25	23	21.7	19.9	18	16.2
65WQW30-35-7.5		42	41	40	38.7	37.2	35	33	30.7	28	24.7	21
65WQW40-45-11		53	52.5	51.3	50.6	49.5	48	47	45	43.8	42	40.2
65WQW40-50-15		59	57.6	57	55	54.5	52.6	51	50	48	46	44.9

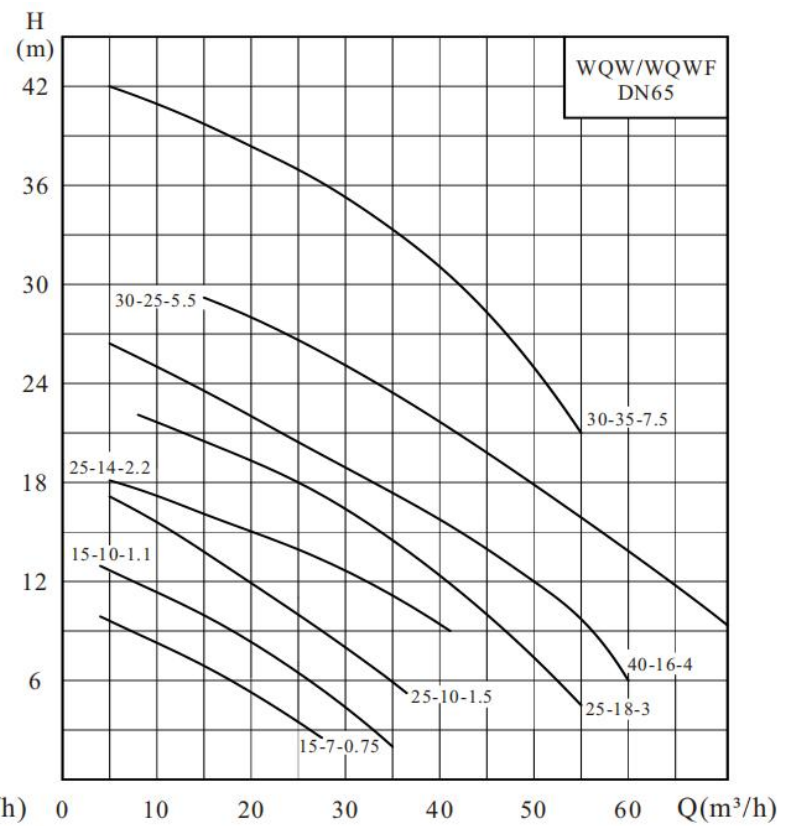
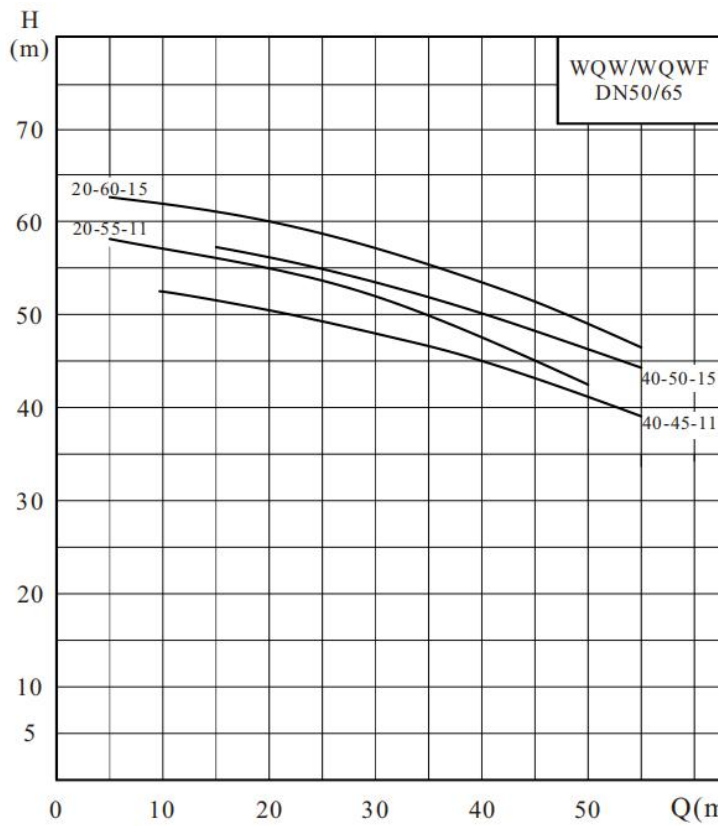
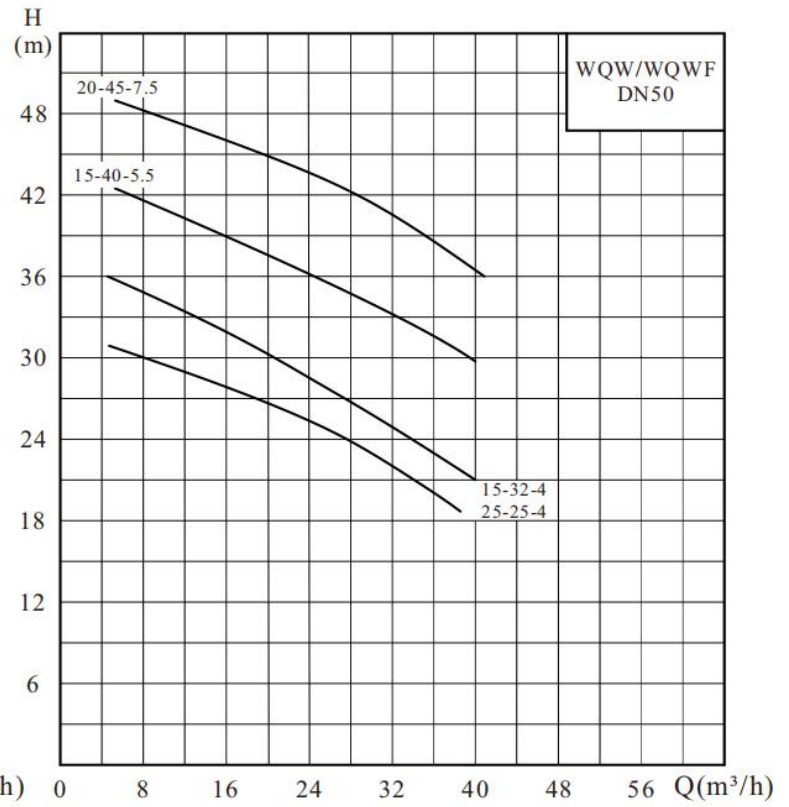
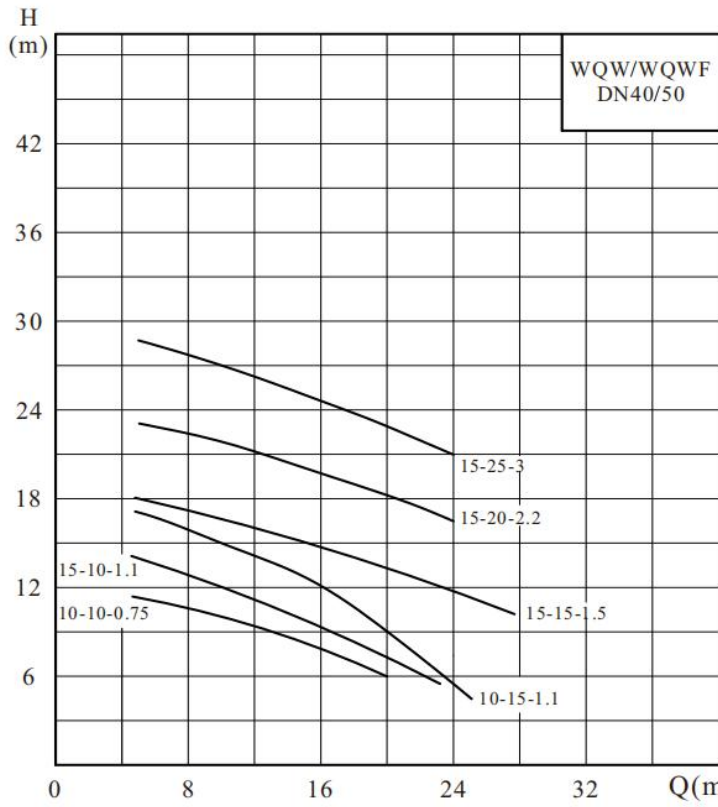
Type	Q(m ³ /h)	10	20	30	40	50	60	70	80	90	100	110
80WQW35-7-1.5	H (m)	10	8.9	7.6	6	4.4	2.5					
80WQW40-8-2.2		12	10.8	9.6	8	6.5	4.6					
80WQW35-13-3		17	15.5	14	12	9.7	6.7					
80WQW50-12-4		21	19.5	17.2	15	12	9	5.5				
80WQW40-22-5.5		30.8	28.2	25	22	17	12.1	7				
80WQW40-30-7.5		37	35	33	30	27.3	24.5	20.5	14			
80WQW60-35-11		42	41.2	40.2	39.7	37.3	35	33	30.6	27.6	23.8	
80WQW60-40-15		47	46.4	45	43.5	42	40	37.7	35	32	28.4	
100WQW50-10-3		15.5	14.2	13	10.8	10	7.5	5.8				
100WQW60-11-4		20.5	19	17.5	16	14	11	8	5			
100WQW65-15-5.5		21.8	21	20	19	18	16.5	14.5	12	8		
100WQW65-20-7.5		25.5	24.5	23.5	22.5	21.5	20.5	19.5	18.5	17	15	12.5

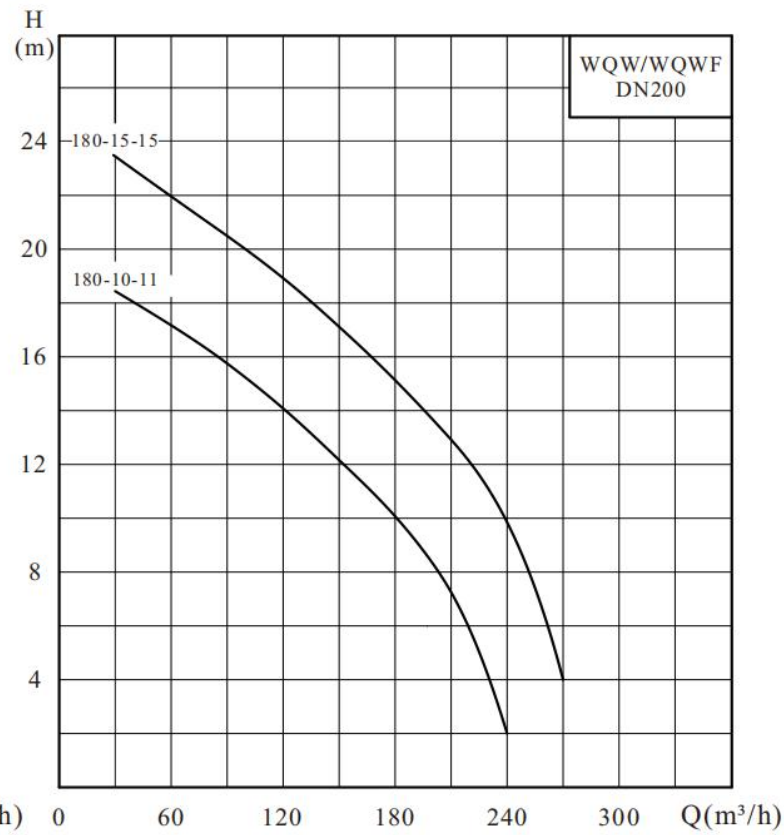
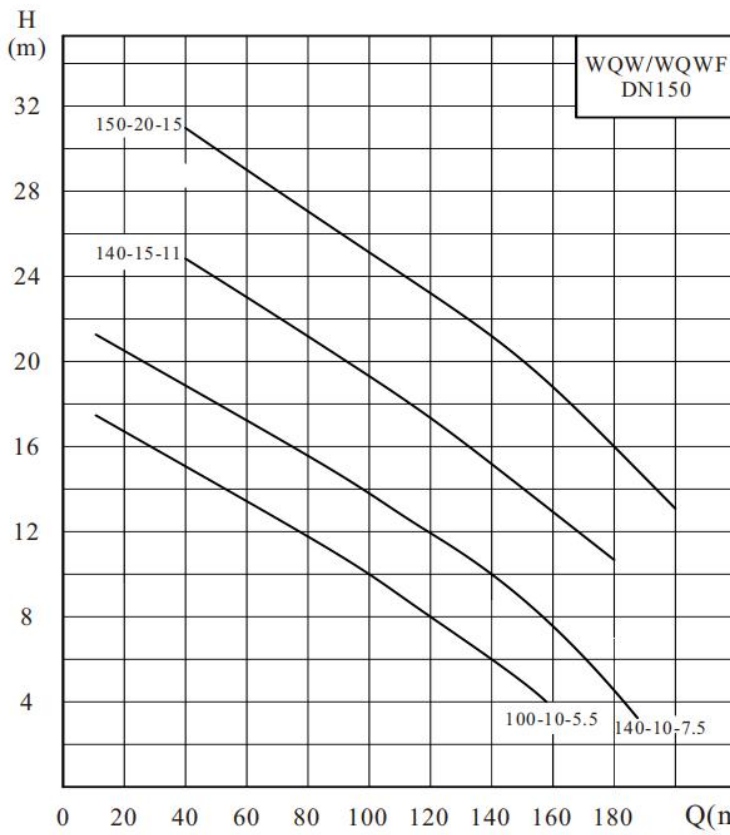
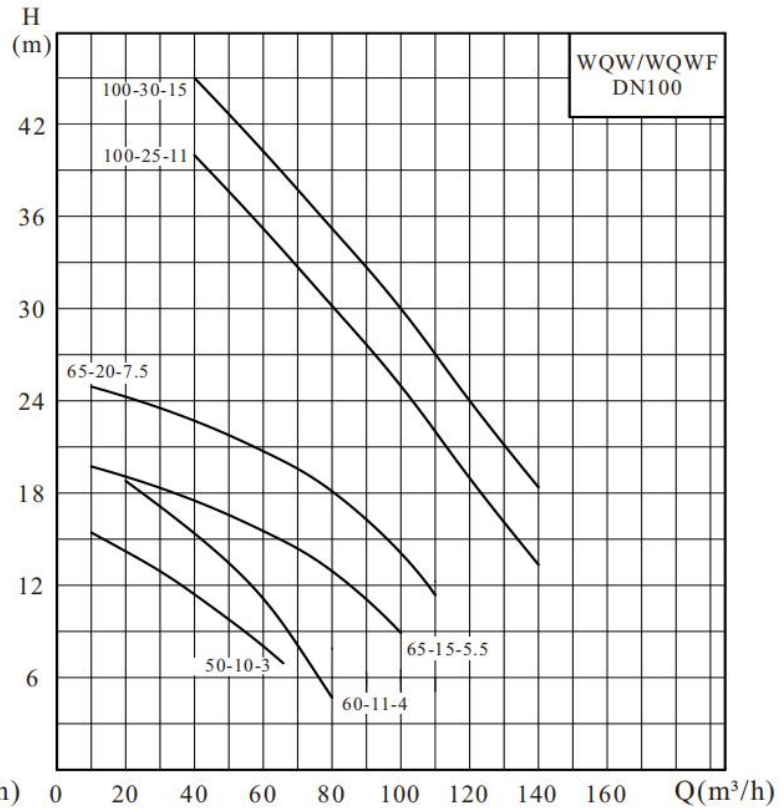
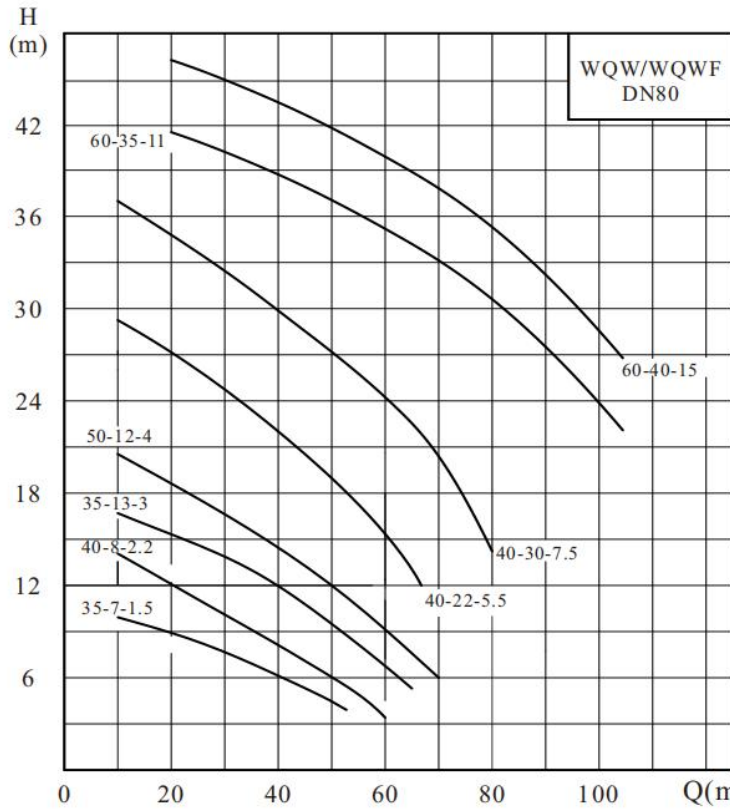
Type	Q(m ³ /h)	20	40	60	80	100	120	140	160	180	200	220
100WQW80-25-11	H (m)		35	30	25	19	12	3				
100WQW100-30-15			45	40	35	30	24	17				
150WQW100-10-5.5		16.5	15.5	13.7	12	10	8	5.8	3.5			
150WQW140-10-7.5		19	18.3	17	15.5	14	12	10	7.8	5.2		
150WQW140-15-11		27	25	23	21	19	17	15	13	11		
150WQW150-20-15		33	31	29	27.5	25.5	23	21	19	16	13	

Type	Q(m ³ /h)	30	60	90	120	150	180	210	240	270	300	330
200WQW180-10-11	H (m)	18.5	17	15.5	14	12.2	10	7	2			
200WQW180-15-15		23.5	22	20.5	19	17.2	15	13	10	4		

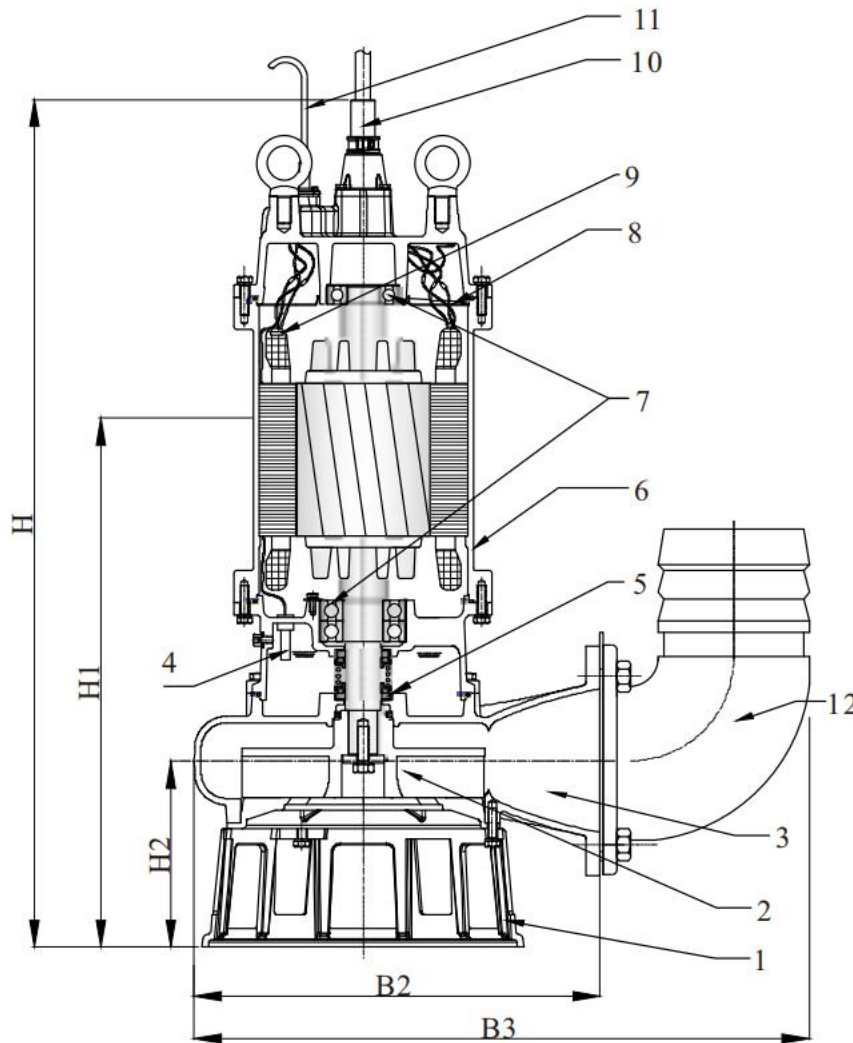
Note: WQWF stainless steel type without 40mm discharge port model

◆ performance curve





◆ WQW Blockage-Free Cutting Sewage Pump
 1. Structure Diagram of a Four-Pole Motor (Premium Type)



2. WQW Four-Pole Motor Cast Iron Pump Structural Diagram Item List

NO.	Part Name	Materials	NO.	Part Name	Materials
1	Base	HT200	7	Bearing	Standard parts
2	Impeller	QT600	8	Wire threading plate	PA66
3	Pump body	HT200	9	Miniature Thermal Protector	/
4	Water Inlet Sensing Electrode	/	10	Power cable	YZW
5	Mechanical Seal	Graphite/Silicon Carbide/Tungsten Carbide	11	Inductive cable	YZW
6	Motor	/	12	Flanged Elbow	HT200 (Select accessories)

◆ **Technical Parameters and External Dimensions (4-pole Motor)**

1. WQW Cast Iron Non-Clogging Cutting Sewage and Debris Submersible Pump

Type	Caliber	Q	H	Rotational speed	Power	Electric current	Maximum diameter passing particle	Weight	External dimensions (mm)				
	mm	m ³ /h	m	rpm	kW	A	mm	kg	H	H1	H2	B2	B3
100WQW80-35-18.5	100	80	35	1450	18.5	35.6	30	290	1100	710	244	545	696
100WQW100-38-22	100	100	38	1450	22	43.2	30	300	1100	710	244	545	696
100WQW100-45-30	100	100	45	1450	30	57.5	30	320	1150	750	244	545	696
150WQW180-20-18.5	150	180	20	1450	18.5	35.6	50	295	1140	750	258	523	725
150WQW200-22-22	150	200	22	1450	22	43.2	50	305	1140	750	258	523	725
150WQW200-28-30	150	200	28	1450	30	57.5	55	325	1190	800	258	523	725
150WQW150-35-37	150	150	35	1450	37	72	55	590	1300	900	280	622	825
150WQW200-37-45	150	200	37	1450	45	87	55	630	1300	900	280	622	825
150WQW200-40-55	150	200	40	1450	55	106	55	790	1300	900	280	620	825
200WQW300-12-18.5	200	300	12	1450	18.5	35.6	60	300	1150	750	260	566	826
200WQW300-15-22	200	300	15	1450	22	43.2	60	310	1150	750	260	566	826
200WQW250-22-30	200	250	22	1450	30	57.5	45	330	1200	810	260	566	826
200WQW300-25-37	200	300	25	1450	37	72	45	610	1300	900	358	699	960
200WQW400-22-45	200	400	22	1450	45	87	60	650	1300	900	258	699	960
200WQW400-30-55	200	400	30	1450	55	106	60	810	1300	900	258	699	960
250WQW300-12-18.5	250	300	12	1450	18.5	35.6	60	320	1200	750	260	632	962
250WQW300-15-22	250	300	15	1450	22	43.2	60	330	1200	750	260	632	962
250WQW400-15-30	250	400	15	1450	30	57.5	60	342	1250	550	262	632	962
250WQW500-15-37	250	500	15	1450	37	72	60	630	1350	950	300	750	1080
250WQW600-15-45	250	600	15	1450	45	87	60	670	1350	950	300	750	1080
250WQW500-23-55	250	500	23	1450	55	106	60	810	1350	950	300	750	1080
300WQW400-9-18.5	300	400	9	1450	18.5	35.6	60	340	1200	750	270	687	
300WQW500-9-22	300	500	9	1450	22	43.2	60	350	1200	750	270	687	
300WQW500-11-30	300	500	11	1450	30	57.5	60	380	690	550	262	687	
300WQW600-12-37	300	600	12	1450	37	72	60	650	1370	970	292	720	
300WQW800-12-45	300	800	12	1450	45	87	60	690	1370	970	292	720	
300WQW600-20-55	300	600	20	1450	55	106	55	830	1370	970	292	720	

2. WQWF Sewage Pump Automatic Coupling Installation Dimension Table

Project	Caliber								
	50	65	80	100	150	200	250	300	
Stainless Steel Guide Tube Dimensions for Water Supply Pipes / Seamless Steel Pipes	1"×(φ30×2)			1.5"×(φ45×2)				2"×(φ55×2.5)	
Guide tube length mm	Pool depth-80								
Expansion Bolt Specifications and Quantity	M12×80×2				M14×100×2		M16×120×2		
Specifications and Quantity of Anchor Bolts	M16×250×4						M20×300×4		
Dimension of reserved hole for anchor bolt	80×80×300						100×100×350		
Nominal Inner Diameter of Hose mm	50	65	80	100	150	200	250	300	

WQW Non-Clogging Cutting Pump Cast Iron Type 4-Pole Motor Data

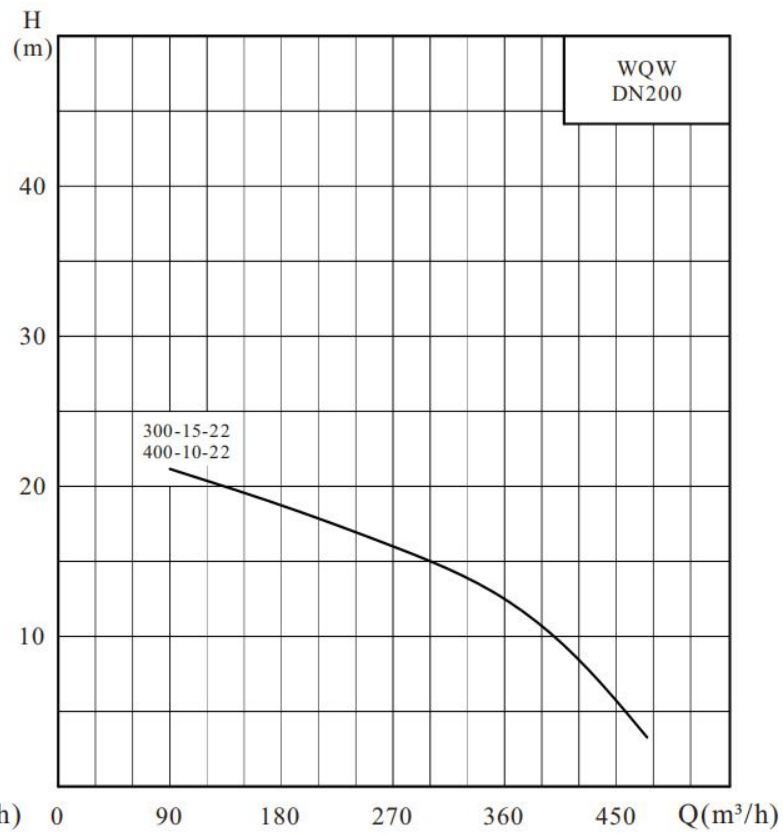
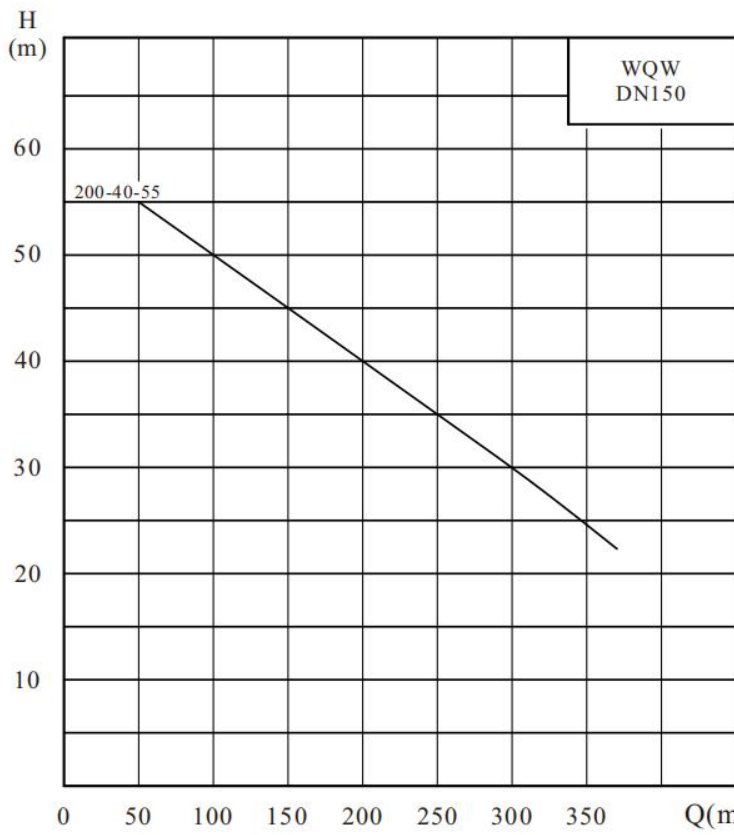
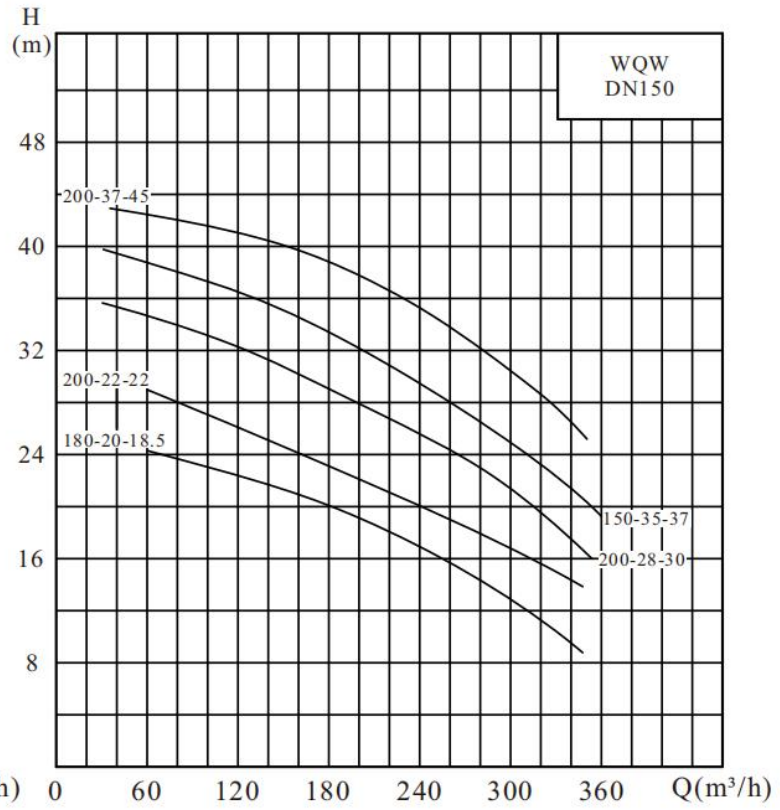
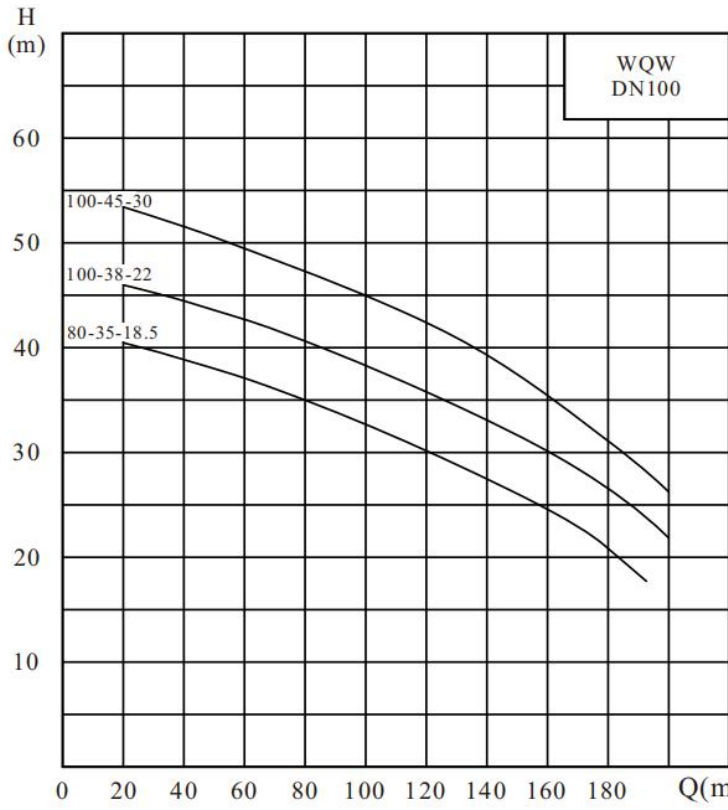
Type	Q(m ³ /h)	20	40	60	80	100	120	140	160	180	200	220
100WQW80-35-18.5	H (m)	41	39	37	35	33	31	28	25			
100WQW100-38-22		46	44	42	40	38	35.8	33	30			
100WQW100-45-30		53	51	49	47	45	42.3	39.2	35.5	31		

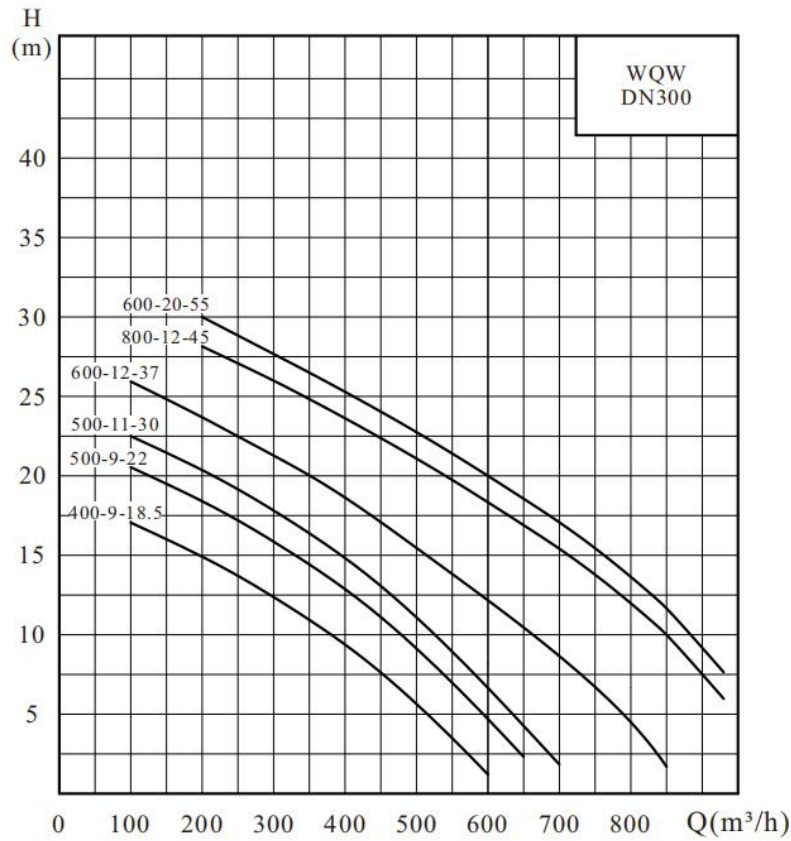
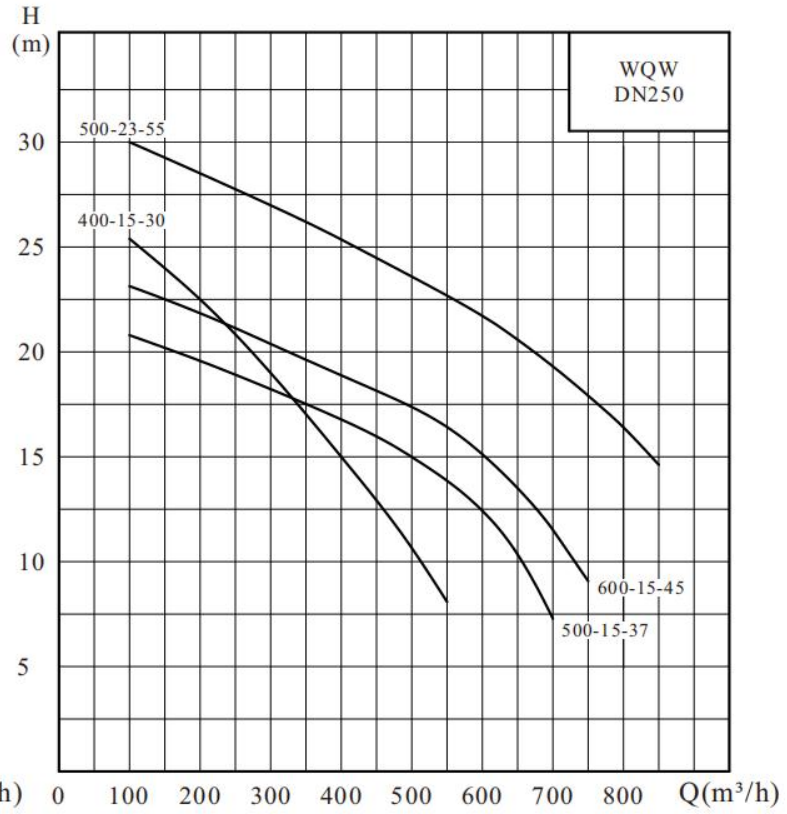
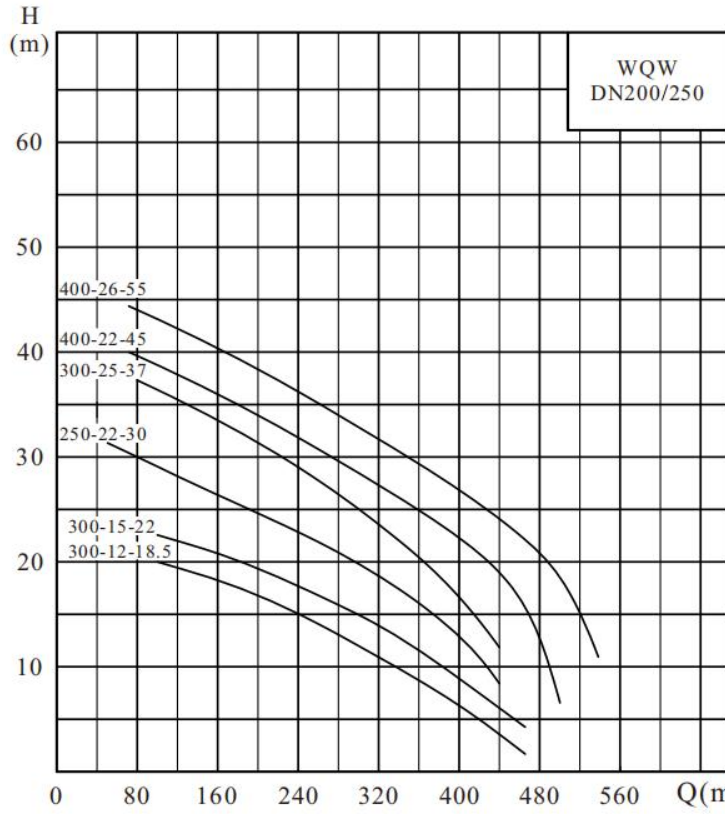
Type	Q(m ³ /h)	50	100	150	200	250	300	350	400	450	500	550
150WQW180-20-18.5	H (m)	25	23	21	19	17	14.5	9				
150WQW200-22-22		29	27	25	22	20	17	13				
150WQW200-28-30		35.5	33.5	30.8	28	25	21.5	16				
150WQW150-35-37		39.8	37.6	35	31.8	28	23.3	18				
150WQW200-37-45		44	42	40	37	33	28	20				
150WQW200-40-55		55	50	45	40	35	30	25				
200WQW300-12-18.5		20.5	19.5	17.5	17	14.8	12	9	7	3		
200WQW300-15-22		21	20	19	18	17	15	12.4	10	3		

Type	Q(m ³ /h)	100	150	200	250	300	350	400	450	500	550	600
200WQW250-22-30	H (m)	29	26.5	24	22	20	17.5	13	8			
200WQW300-25-37		37	34	31	28	25	21	17	13			
200WQW400-25-45		40.5	38.5	36	33.5	31	28	25	21.5	17.8	14	10
200WQW400-30-55		48.8	46	43	39.5	36.3	33.2	30	25.8	22.5	18	12.5
250WQW300-12-18.5		20	18.5	17	14.5	12	9.5	7	4.5	2		
250WQW300-15-22		23	21.5	20	17.5	15	12.5	10	6	2		
250WQW400-15-30		25.5	24	22.5	20.7	19	17	15	12.5	10.5	8	

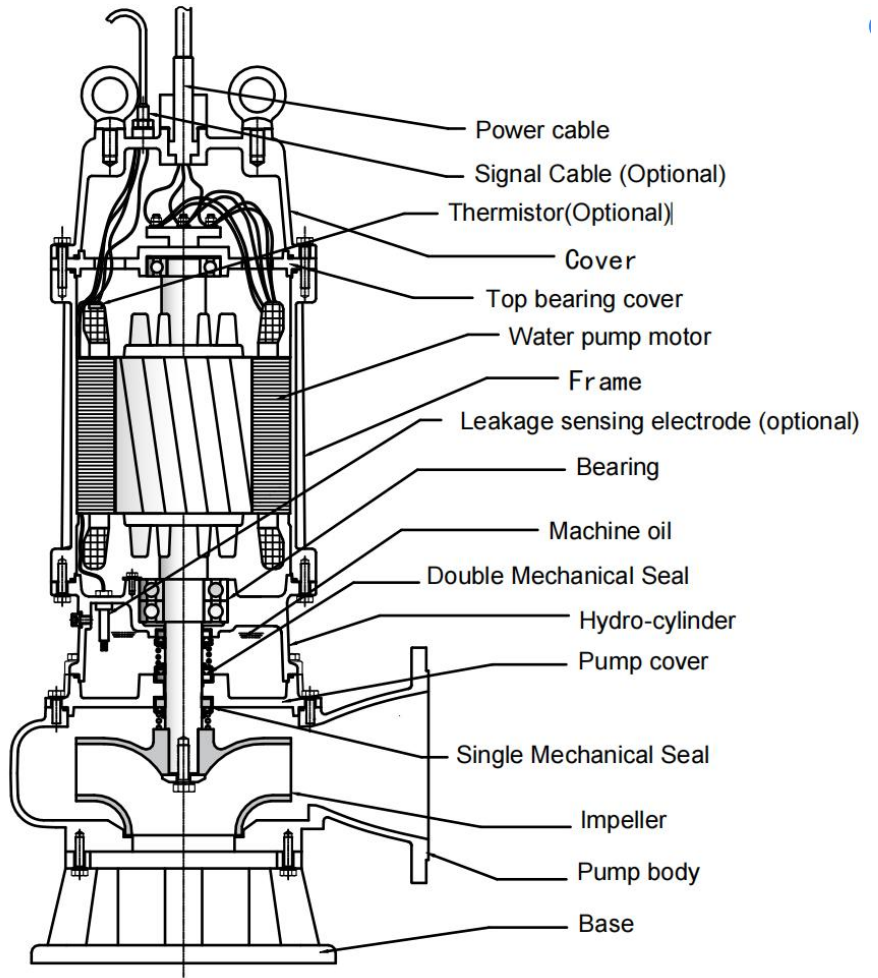
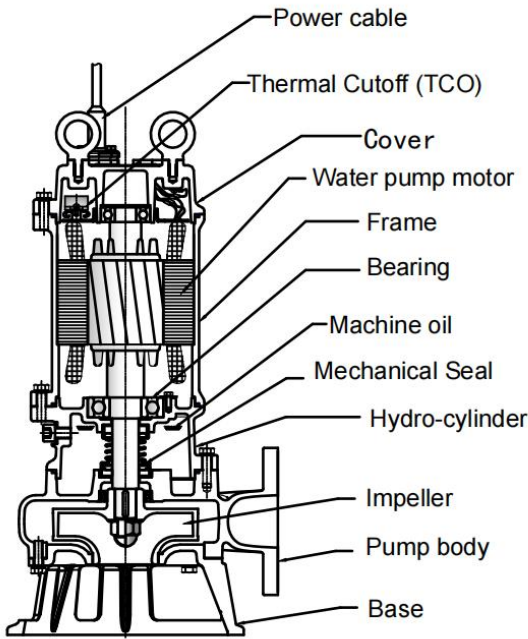
Type	Q(m ³ /h)	100	200	300	400	500	600	700	800	900	1000	1100
250WQW500-15-37	H (m)	20.8	19.5	18	16.7	15	11.5	6				
250WQW600-15-45		23	22	20.5	19	17	15	11	7			
250WQW500-23-55		29	28	27	25	23	21	19	17	11		
300WQW400-9-18.5		17	15	12.5	9	5.5	1.5					
300WQW500-9-22		20.5	18.5	16	13	9	4					
300WQW500-11-30		22.5	20.5	18	15	11	6	2				
300WQW600-12-37		26	23.5	21.2	17.8	15.6	12	8.9	4.5			
300WQW800-12-45			28	26	23.5	21	18.5	15.3	12	7.5	2.5	
300WQW600-20-55			30	27.5	25.5	23	20	17	13.7	8.5	3	

◆ Performance curve





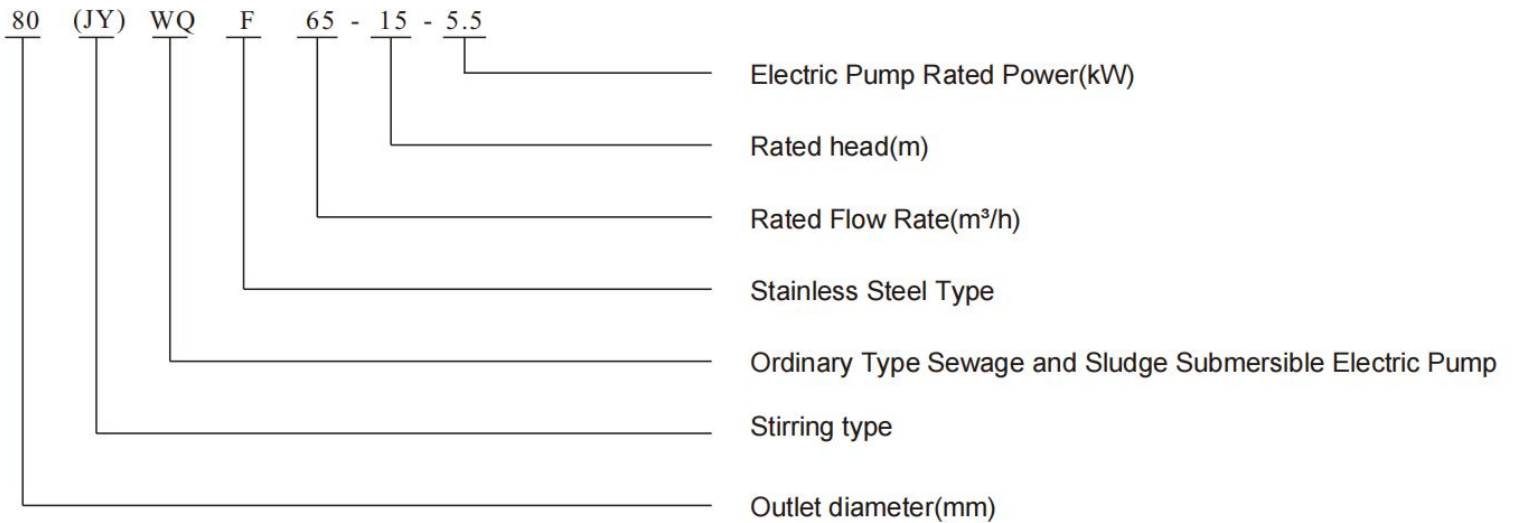
◆ **WQ Ordinary Type Sewage Pump**
1、 Structure Diagram



7.5kW or below
 (with physical appearance identical to WQW)

Above 11kW

2. Model Definition



◆ **Technical Parameters and External Dimensions**

WQ Ordinary Type Sewage and Debris Submersible Pump Data (WQF Stainless Steel Type has the same parameters).

The external dimensions are shown in Figure on Page 3.

Caliber (mm)	Type	Flow (m3/h)	Head (m)	Rotational speed (rpm)	Power (kW)	External dimensions (mm)				
						H	H1	H2	B2	B3
50	50WQ10-10-0.75	10	10	2900	0.75	400	300	93	217	312
	50WQ15-10-1.1	15	10	2900	1.1	415	315	93	217	312
	50WQ10-15-1.1	10	15	2900	1.1	415	315	93	217	312
	50WQ15-15-1.5	15	15	2900	1.5	493	370	103	250	345
	50WQ15-20-2.2	15	20	2900	2.2	518	390	103	250	345
	50WQ15-25-3	15	25	2900	3	535	405	120	291	386
	50WQ15-32-4	15	32	2900	4	565	435	120	291	386
	50WQ15-40-5.5	15	40	2900	5.5	650	510	123	313	408
	50WQ20-42-7.5	20	42	2900	7.5	690	550	123	313	408
	50WQ20-50-11	20	50	2900	11	765	480	131	372	467
	50WQ20-60-15	20	60	2900	15	805	520	131	372	467
	50WQ20-70-18.5	20	70	2900	18.5	900	680	150	407	502
50WQ20-80-22	20	80	2900	22	950	700	150	407	502	
65	65WQ15-7-0.75	15	7	2900	0.75	400	300	93	217	312
	65WQ15-10-1.1	15	10	2900	1.1	415	315	93	217	312
	65WQ25-10-1.5	25	10	2900	1.5	493	370	103	250	345
	65WQ25-14-2.2	25	14	2900	2.2	518	390	103	250	345
	65WQ25-18-3	25	18	2900	3	535	405	120	291	386
	65WQ40-16-4	40	16	2900	4	565	435	120	291	396
	65WQ30-25-5.5	30	25	2900	5.5	650	510	123	313	408
	65WQ30-30-7.5	30	30	2900	7.5	690	550	123	313	418
	65WQ30-40-11	30	40	2900	11	765	480	131	372	467
	65WQ30-60-15	30	60	2900	15	805	520	131	372	467
	65WQ30-65-18.5	30	65	2900	18.5	900	680	150	407	502
	65WQ30-75-22	30	75	2900	22	950	700	150	407	502
80	80WQ35-7-1.5	35	7	2900	1.5	505	390	107	276	401
	80WQ40-10-2.2	40	10	2900	2.2	530	415	107	276	401
	80WQ40-12-3	40	12	2900	3	560	430	130	295	420
	80WQ50-12-4	50	12	2900	4	590	460	130	295	420
	80WQ40-22-5.5	40	22	2900	5.5	660	520	125	325	450
	80WQ40-30-7.5	40	30	2900	7.5	700	560	125	325	450
	80WQ60-30-11	60	30	2900	11	810	550	160	400	525
	80WQ60-36-15	60	36	2900	15	860	600	160	400	525
	80WQ60-45-18.5	60	45	2900	18.5	960	700	165	407	532
	80WQ60-50-22	60	50	2900	22	1010	780	165	407	532

Caliber (mm)	Type	Flow (m3/h)	Head (m)	Rotational speed (rpm)	Power (kW)	External dimensions (mm)				
						H	H1	H2	B2	B3
100	100WQ50-10-3	50	10	2900	3	580	450	136	306	456
	100WQ60-11-4	60	11	2900	4	608	488	136	306	456
	100WQ65-15-5.5	65	15	2900	5.5	690	550	143	320	470
	100WQ65-20-7.5	65	20	2900	7.5	730	590	143	320	470
	100WQ110-10-5.5	110	10	1450	5.5	810	550	180	400	550
	100WQ100-15-7.5	100	15	1450	7.5	860	600	180	400	550
	100WQ80-25-11	80	25	2900	11	810	550	180	400	550
	100WQ80-35-15	80	35	2900	15	860	600	180	400	550
	100WQ100-25-11	100	25	1450	11	910	630	185	480	630
	100WQ100-30-15	100	30	1450	15	950	650	185	480	630
	100WQ80-37-18.5	80	37	2900	18.5	960	650	173	407	557
	100WQ80-44-22	80	44	2900	22	1001	680	173	407	557
	100WQ100-35-18.5	100	35	1450	18.5	1263	950	250	550	700
	100WQ100-40-22	100	40	1450	22	1290	980	250	550	700
	100WQ100-45-30	100	45	1450	30	1340	1000	272	602	752
	100WQ100-48-37	100	48	1450	37	1408	1050	272	602	752
	100WQ100-50-45	100	50	1450	45	1490	1100	270	675	825
	100WQ100-60-55	100	60	1450	55	1622	1200	270	675	825
	100WQ100-75-75	100	75	1450	75	1520	1150	150	750	900
	100WQ140-80-90	140	80	1450	90	1630	1200	150	750	900
100WQ140-88-110	140	88	1450	110	1760	1300	150	750	900	
150	150WQ100-11-5.5	100	11	2900	5.5	707	550	150	356	556
	150WQ140-10-7.5	140	10	2900	7.5	747	600	150	356	556
	150WQ140-15-11	140	15	2900	11	860	630	171	380	580
	150WQ150-20-15	150	20	2900	15	910	650	171	380	580
	150WQ180-11-11	180	11	1450	11	939	670	206	525	725
	150WQ180-15-15	180	15	1450	15	979	700	206	525	725
	150WQ200-18-18.5	200	18	2900	18.5	981	700	185	366	566
	150WQ200-22-22	200	22	2900	22	1011	730	185	366	566
	150WQ250-15-18.5	250	15	1450	18.5	1238	900	223	567	767
	150WQ200-20-22	200	20	1450	22	1264	930	223	567	767
	150WQ200-25-30	200	25	1450	30	1300	1000	235	647	847
	150WQ200-30-37	200	30	1450	37	1368	1050	235	647	847
	150WQ200-35-45	200	35	1450	45	1453	1200	236	647	875
	150WQ200-40-55	200	40	1450	55	1622	1300	355	675	875
	150WQ200-58-75	200	58	1450	75	1609	1300	258	764	964
	150WQ200-60-90	200	60	1450	90	1684	1350	258	764	964
	150WQ200-74-110	200	74	1450	110	1796	1400	245	732	932
	150WQ200-80-132	200	80	1450	132	1795	1400	203	884	1084
	150WQ300-90-160	300	90	1450	160	1795	1400	203	884	1084
	150WQ400-88-185	400	88	1450	185	1795	1400	203	884	1084

Caliber (mm)	Type	Flow (m3/h)	Head (m)	Rotational speed (rpm)	Power (kW)	External dimensions (mm)				
						H	H1	H2	B2	B3
200	200WQ220-6-7.5	220	6	1450	7.5	910	600	205	450	700
	200WQ180-11-11	180	11	2900	11	890	600	185	430	680
	200WQ180-15-15	180	15	2900	15	922	600	185	430	680
	200WQ300-7-11	300	7	1450	11	979	650	206	525	775
	200WQ250-11-15	250	11	1450	15	979	650	206	525	775
	200WQ180-18-18.5	180	18	2900	18.5	974	600	185	424	674
	200WQ200-20-22	200	20	2900	22	1004	650	185	424	674
	200WQ300-12-18.5	300	12	1450	18.5	1238	900	223	567	817
	200WQ300-15-22	300	15	1450	22	1264	930	223	567	817
	200WQ250-22-30	250	22	1450	30	1321	1000	253	648	898
	200WQ250-27-37	250	27	1450	37	1390	1050	253	648	898
	200WQ350-23-37	350	23	1450	37	1390	1050	253	648	898
	200WQ250-30-45	250	30	1450	45	1578	1250	353	650	900
	200WQ360-26-45	360	26	1450	45	1578	1250	353	650	900
	200WQ400-30-55	400	30	1450	55	1647	1300	353	650	900
	200WQ350-45-75	350	45	1450	75	1609	1300	258	764	1014
	200WQ300-53-90	300	53	1450	90	1684	1350	258	764	1014
	200WQ380-50-90	380	50	1450	90	1684	1350	258	764	1014
	200WQ320-65-110	320	65	1450	110	1814	1450	258	764	1014
	200WQ400-75-132	400	75	1450	132	1795	1400	203	884	1134
200WQ360-90-160	360	90	1450	160	1795	1400	203	884	1134	
200WQ450-85-185	450	85	1450	185	1926	1520	203	884	1134	
250	250WQ400-5-11	400	5	1450	11	987	650	239	592	892
	250WQ400-6-15	400	6	1450	15	1028	700	239	592	892
	250WQ400-10-18.5	400	10	1450	18.5	1265	930	230	636	936
	250WQ500-9-22	500	9	1450	22	1291	1000	230	636	936
	250WQ500-12-30	500	12	1450	30	1349	1050	276	740	1040
	250WQ500-17-37	500	17	1450	37	1420	1100	276	740	1040
	250WQ600-15-45	600	15	1450	45	1504	1150	276	740	1040
	250WQ600-20-55	600	20	1450	55	1571	1200	243	710	1010
	250WQ600-26-75	600	26	1450	75	1647	1250	294	807	1107
	250WQ600-32-90	600	32	1450	90	1720	1350	294	807	1107
	250WQ600-38-110	600	38	1450	110	1852	1450	294	807	1107
	250WQ600-46-132	600	46	1450	132	1928	1520	309	890	1190
	250WQ600-60-160	600	60	1450	160	1928	1520	309	890	1190
	250WQ600-65-185	600	65	1450	185	2137	1730	387	970	1270
300	300WQ650-5-18.5	650	5	1450	18.5	1294	1000	244	712	1062
	300WQ650-7-22	650	7	1450	22	1320	1000	244	712	1062
	300WQ800-7-30	800	7	1450	30	1347	1050	243	712	1062
	300WQ800-9-37	800	9	1450	37	1417	1120	243	712	1062
	300WQ800-12-45	800	12	1450	45	1500	1200	243	712	1062
	300WQ600-20-55	600	20	1450	55	1571	1250	243	712	1062
	300WQ800-20-75	800	20	1450	75	1620	1300	243	760	1110
	300WQ800-26-90	800	26	1450	90	1694	1350	243	760	1110
	300WQ800-32-110	800	32	1450	110	1824	1450	243	760	1110
	300WQ800-37-132	800	37	1450	132	1896	1500	243	865	1215
	300WQ800-40-160	800	40	1450	160	1896	1500	243	865	1215
	300WQ900-40-185	900	40	1450	185	2027	1600	243	865	1215
	300WQ900-45-200	900	45	1450	200	2027	1600	243	865	1215
	300WQ1000-45-250	1000	45	1450	250	2386	1950	376	1100	1450
300WQ1000-63-315	1000	63	1450	315	2415	2000	376	1100	1450	

Caliber (mm)	Type	Flow (m3/h)	Head (m)	Rotational speed (rpm)	Power (kW)	External dimensions (mm)				
						H	H1	H2	B2	B3
350	350WQ1000-6-30	1000	6	980	30	1500	1200	268	907	1307
	350WQ1200-6-37	1200	6	980	37	1500	1200	268	907	1307
	350WQ1200-8-45	1200	8	980	45	1584	1300	268	907	1307
	350WQ1100-7-45	1100	7	1450	45	1554	1250	273	870	1270
	350WQ1100-10-55	1100	10	1450	55	1623	1300	273	870	1270
	350WQ1000-12-75	1000	12	1450	75	1685	1350	273	870	1270
	350WQ1200-14-75	1200	14	980	75	1794	1450	273	1000	1400
	350WQ1200-17-90	1200	17	980	90	1924	1550	273	1000	1400
	350WQ1000-20-90	1000	20	1450	90	1752	1400	273	870	1270
	350WQ1000-23-110	1000	23	1450	110	1932	1550	303	920	1320
	350WQ1500-16-110	1500	16	980	110	1924	1550	273	1000	1400
	350WQ1500-18-132	1500	18	980	132	2218	1800	411	1230	1630
	350WQ1100-30-132	1100	30	1450	132	1924	1550	273	1000	1400
	350WQ1500-26-160	1500	26	1450	160	1924	1550	273	1000	1400
	350WQ1200-30-185	1200	30	1450	185	2055	1650	273	1000	1400
	350WQ2000-20-200	2000	20	980	200	2258	1850	303	1190	1590
	350WQ1500-35-250	1500	35	1450	250	2277	1850	273	1000	1400
350WQ1500-45-315	1500	45	1450	315	2378	1950	273	1170	1570	
400	400WQ1000-8-37	1000	8	980	37	1529	1200	298	950	1400
	400WQ1200-8-45	1200	8	980	45	1614	1300	298	950	1400
	400WQ1300-8-55	1300	8	1450	55	1714	1350	303	920	1370
	400WQ1200-10-55	1200	10	980	55	1683	1350	298	1000	1450
	400WQ1500-10-75	1500	10	980	75	1824	1450	303	1025	1475
	400WQ1500-16-90	1500	16	980	90	1954	1550	303	1025	1475
	400WQ1600-15-110	1600	15	980	110	1954	1550	303	1025	1475
	400WQ2000-13-132	2000	13	980	132	2135	1800	303	1216	1666
	400WQ2000-18-160	2000	18	980	160	2135	1800	303	1216	1666
	400WQ1500-22-160	1500	22	1450	160	1954	1550	303	1025	1475
	400WQ1600-25-185	1600	25	1450	185	2085	1650	303	1025	1475
	400WQ2000-20-185	2000	20	980	185	2143	1800	302	1206	1656
	400WQ2000-22-200	2000	22	980	200	2258	1850	303	1191	1641
	400WQ2000-28-250	2000	28	980	250	2496	2100	322	1300	1750
	400WQ1500-35-250	1500	35	1450	250	2311	1900	303	1025	1475
	400WQ2000-36-315	2000	36	1450	315	2311	1900	303	1025	1475
	500	500WQ2200-5-55	2200	5	980	55	1796	1450	355	1190
500WQ2000-8-75		2000	8	980	75	1871	1500	355	1190	1740
500WQ1800-12-90		1800	12	980	90	2001	1600	355	1190	1740
500WQ2500-10-110		2500	10	740	110	2166	1800	355	1375	1925
500WQ2500-12-132		2500	12	740	132	2544	2100	355	1425	1975
500WQ2500-13-160		2500	13	980	160	2187	1800	335	1246	1796
500WQ2500-18-185		2500	18	740	185	2604	2200	355	1425	1975
500WQ2500-15-185		2500	15	980	185	2336	1900	355	1375	1925
500WQ2500-18-200		2500	18	980	200	2336	1900	355	1375	1925
500WQ3000-18-250		3000	18	980	250	2544	2100	355	1425	1975
500WQ3000-25-315		3000	25	980	315	2604	2200	355	1425	1975
600	600WQ3100-7.5-132	3100	7.5	740	132	2251	1850	410	1590	2240
	600WQ3300-10-160	3300	10	740	160	2544	2100	355	1425	2075
	600WQ2500-14-185	2500	14	980	185	2518	2100	410	1276	1926
	600WQ2500-16-200	2500	16	980	200	2518	2100	410	1276	1926
	600WQ3200-13-200	3200	13	980	200	2518	2100	410	1276	1926
	600WQ4000-18-250	4000	18	980	250	2544	2100	355	1425	2075
	600WQ4500-20-315	4500	20	980	315	2421	2000	410	1590	2240

Note: The WQF stainless steel pump can be produced with a maximum diameter of 300mm and a maximum power of 132kW.

WQ Ordinary Type Sewage and Debris Submersible Pump Performance Data (WQF Stainless Steel Type Pump has the same parameters)

Type	Q(m ³ /h)	5	10	15	20	25	30	35	40	45	50	55
50WQ10-10-0.75	H (m)	11.5	10	8.5	7							
50WQ10-13-1.1		15	13	11.5	10	8						
50WQ15-10-1.1		14	12	10	7.5	5						
50WQ15-15-1.5		18	16.5	15	13.3	11.5						
50WQ15-18-2.2		21.5	20	18	17	16						
50WQ15-25-3		27	26	25	23.5	22	20					
50WQ15-32-4		36	34	32	30	28	26.5					
50WQ15-40-5.5		42.5	41.7	40	38	36	34					
50WQ20-42-7.5		46	44.5	43.5	42	40	38					
50WQ20-50-11		54	53	51.5	50	48.5	47	45.5				
50WQ20-60-15		63	62.2	60.7	60	59	57.5	56				
65WQ15-7-0.75		9.7	9	7	5.3	3.7						
65WQ15-10-1.1		13	11.5	10	8	6						
65WQ25-10-1.5		14.5	13	12	11	10	8					
65WQ25-14-2.2		18	17	16	15	14	12	10				
65WQ25-18-3		23	22	20.9	19.6	18	17	16	14.5			
65WQ40-16-4		27	25.5	24	22.5	21	19.5	18	16	14.7	12.6	10.5
65WQ30-25-5.5		31	30	29	28	26.5	25	23	21.5	19.5	16	
65WQ30-30-7.5		35	34	33	32	31	30	29	27.5	26	25	23
65WQ40-45-11		53	52	51	50	48.5	47.5	46	45	43	41	38
65WQ40-50-15	58	57	56	55	53.5	52.5	51	50	48	46	44	

Type	Q(m ³ /h)	10	20	30	40	50	60	70	80	90	100	110	120
80WQ35-7-1.5	H (m)	10	8.9	7.6	6	4.4							
80WQ40-10-2.2		14	13	11.5	10	8	6						
80WQ40-12-3		17	15	13.5	12	11	9.5						
80WQ50-15-4		20	18.5	17.2	16	15	13	11					
80WQ40-20-5.5		25	23.5	22	20	18	16	12					
80WQ40-30-7.5		36	34	32	30	27	23	17					
80WQ60-30-11		43	40	37	35	33	30	27	23				
80WQ60-36-15		42	41	40	39	38	36	34.5	33	31.5	30	27	
100WQ50-10-3		14	13	12	11	10	9	8	7	6			
100WQ60-11-4		16	15	14	13	12	11	10	9	8	7		
100WQ65-15-5.5		20.5	19.5	18.5	17.5	16.5	15.5	14.5	13.5	12.5	11	10	9
100WQ100-15-7.5		23	22	21	20	19	18	17.5	17	16	15	14	13
100WQ100-25-11		36	35	34	32.5	31	30	28.5	27	26	25	21	17
100WQ100-30-15		42	41	40	39	37.5	36	35	34	32	30	27	23
100WQ80-37-18.5		44	43	42	41	40	39	38	37	36	35	33	20
100WQ80-44-22		51	50.5	49.5	49	48	47	46	44	42	40	39	21

Type	Q(m ³ /h)	40	60	80	100	120	140	160	180	200	220	240	260
150WQ100-11-5.5	H (m)	14	12	12	11	10	8.5	7	6	4	2		
150WQ140-10-7.5		16	15	14	13	11.5	10	8.5	7	5.5	4		
150WQ180-11-11		18	17.5	17	16.5	15.5	14.5	13	11	10.2	8.5	6.5	4.5
150WQ180-15-15		23.5	22.5	21.5	20.5	19.5	18.2	17	15	14	13	11	9
150WQ200-18-18.5		27.5	26.5	25.5	24.5	23.5	22.5	21.5	20	18	16	14	11
150WQ200-22-22		32.5	31.5	30.5	29.5	28.3	27	25.5	24	22	20	17.5	15

Type	Q(m ³ /h)	80	100	120	140	160	180	200	220	240	260	280
150WQ200-25-30	H (m)	31	30	29	28	27	26	25	23	21.5	20	
150WQ200-30-37			35	34	33	32	31	30	29	27.5	26.5	24
150WQ200-35-45		42	41	39	38	37	36	35	34	32.5	31.5	30
150WQ200-40-55		46	45	44	43	42	41	40	38.5	36	34	31
150WQ200-58-75		64	63	62	61	60	59	58	57	56	55	54
150WQ300-55-90		61	60	59	58	57	56	55	54	53	52	51
150WQ200-74-110		82	80.5	79	77.5	76	75	74	72	70	68	66
150WQ200-80-132		86	85	84	83	82	81	80	79	78	77	76
200WQ220-6-7.5		12	11.5	11	10.5	10	8.5	7.5	6	4.5	3	2

Type	Q(m ³ /h)	150	200	250	300	350	400	450	500	550	600	650
200WQ300-7-11	H (m)	15	13	10	7	3						
200WQ250-11-15		16	14	11	7	2						
200WQ300-12-18.5		18	16	14	12	8	5					
200WQ300-15-22		23	20	18	15	12	10	3				
200WQ250-22-30		25.5	24	22	20	18	15	11				
200WQ300-20-30		25.5	24	22	20	18	15	11	4			
200WQ300-25-37			28.5	27	25	23	20.5	17.5	8			
200WQ300-28-45		33	31.5	30	28	26	24	20	7.5			
200WQ300-37-55		42	41	39	37	34.5	32	20				
200WQ350-40-75		49	47	45	43	40	35	25				
200WQ300-53-90		58	56.5	55	53	51	48	20				
200WQ300-65-110		72	70	67.5	65	62.5	58.5	31				
200WQ400-75-132		87	84.5	82	79.5	77.5	75	70	64			
200WQ300-95-160		100	99	97	95	92	85.5					
200WQ450-85-185		100	98	96	94	91	88	85	80	75	69	
250WQ400-6-15		12	11	10	9	7.5	6	4.8	3.5	1.5		
250WQ400-10-18.5		15.5	14.5	13.5	12.5	11.2	10	8	6	2.5		
250WQ500-9-22		18.5	17.5	16.5	15.5	14	12.5	11	9	8	6	4

Type	Q(m ³ /h)	200	300	400	500	600	700	800	900	1000	1100	1200
250WQ600-9-30	H (m)	17.5	16.5	14.5	12.5	9	5.5					
250WQ600-12-37		20	19	17	15	12	5.8					
250WQ600-15-45		24	22.5	21	19.5	15	10.8					
250WQ600-20-55		27	26	24.8	23	20	14	3				
250WQ600-26-75		34	32	30	28.5	26	24	17				
250WQ500-34-90		39	37.5	36	34	32	18	2				
250WQ600-38-110		45	43	41	39.5	38	35	33	29	24		
250WQ600-46-132		54	52	50	48	46	41	26				
250WQ600-60-160		70	67.5	65	62.5	60	56					
250WQ600-65-185		72.5	72	70	68	65	62	27				
300WQ800-9-37		23	21	19	16	13.5	11.5	9	6.2	2		
300WQ800-12-45			24	23	20.5	18	15	12	9	4		
300WQ600-20-55			24.5	23	21.3	20	18	15	11	8		
300WQ800-20-75		30.5	29	27.5	25.8	22.4	22	20	17	14	8	
300WQ800-26-90		37	35.5	33.8	32	30	28	26	22.5	16	3	
300WQ800-32-110		44	42.5	41	40	39.5	35.5	32	29.5	27	22	
300WQ1000-45-250		60	59	58	57	56	55	54	52	48	20	
300WQ1000-63-315		71	70	69	68	67	66	65	64	63	60	54

Type	Q(m ³ /h)	200	300	400	500	600	700	800	900	1000	1100	1200
300WQ800-37-132	H (m)	47	46	45	43	41	39	37	33	29	18	
300WQ800-40-160		52	51	50	47.5	45	42.5	40	36	32	22	
300WQ900-40-185		58	55	52.5	50.5	48	45	42.5	40	37	12	
300WQ900-45-200		63	60	57.5	55.5	53	50	47.5	45	42	17	
350WQ1000-6-30						11	10	9	8	7	6	5

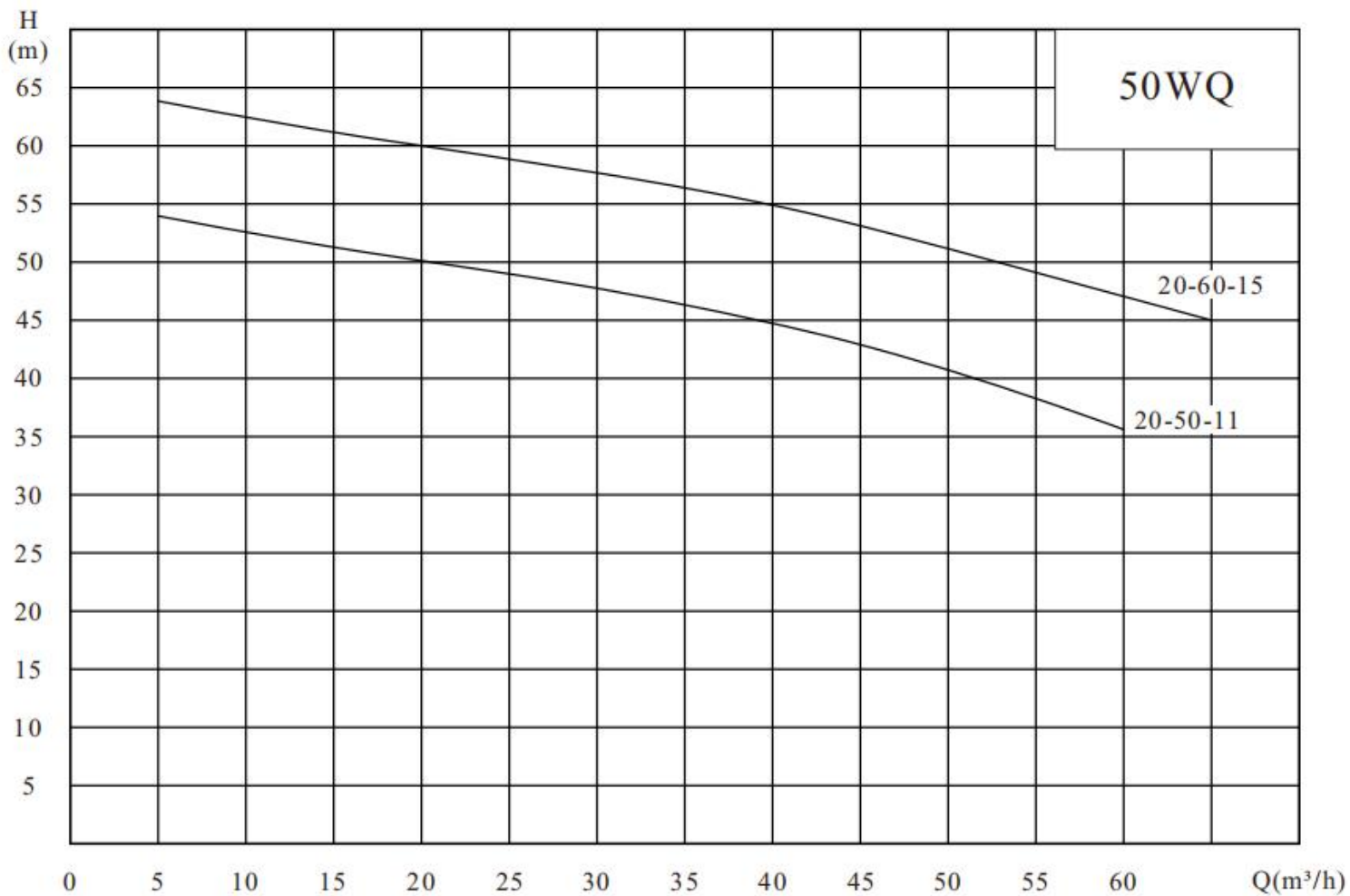
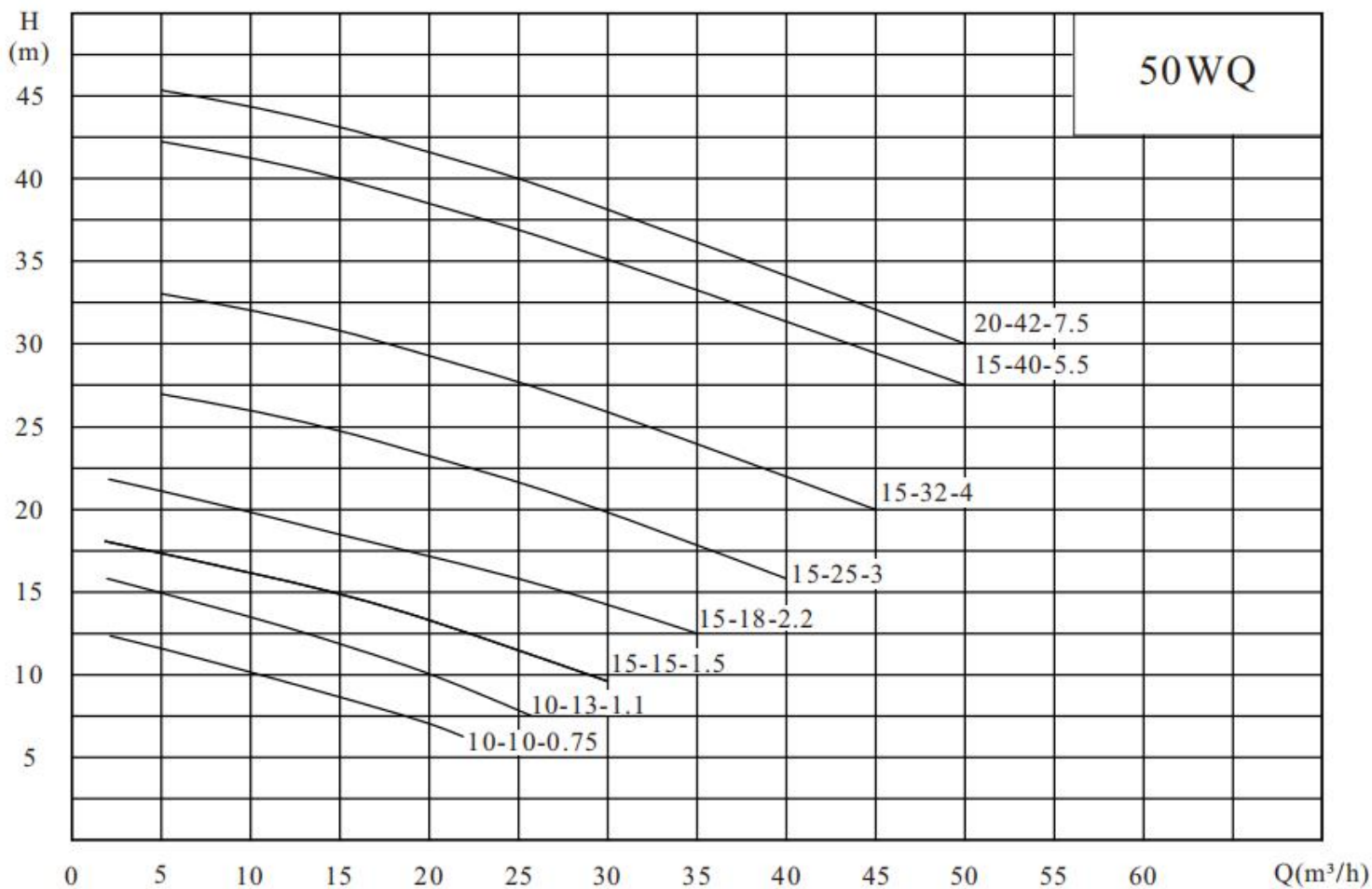
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350WQ1200-6-37	H (m)	11	10	9	8	7	6	4.5	2.5			
350WQ1100-7-45		14	13	11	9	7	5	2.5				
350WQ1200-8-45		13.5	12.7	12	11	9.5	8	6	4.5	2.3		
350WQ1100-10-55		15.5	14.5	13	11.8	10	8	6	3.8	2		
350WQ1000-12-75		21	18	15	12	9.5	6					
350WQ1200-17-90		22.1	21.5	21	19.7	18.3	17	15.5	14	12	10	
350WQ1000-23-110		29	27	25	23	21	19	13				
350WQ1500-16-110		21	20	19.5	19	18.5	18	17.5	16.7	16	15	14
350WQ1100-30-132		36	34.8	33.3	32	30	27	18.5				
350WQ1500-18-132			22	21.5	21	20.5	20	19	18.5	18	17	16
350WQ1500-26-160			34.7	33.5	32.5	31.5	30	28.7	27.5	26	24.7	23.5
350WQ1200-30-185		37.5	36.8	35	33	31.5	30	28	24	18		
350WQ1500-35-250		47	45.5	44	42.5	41	39.5	38	36.5	35	31	27
350WQ1500-45-315		57	55.5	54	52.5	51	49.5	48	46.5	45	42	39
400WQ1000-8-37		11	10	9	8	6.8	5.5	4.3	3	1.5		
400WQ1200-8-45		13.5	12.7	12	11	9.5	8	6	4.5	2.3		
400WQ1200-10-55		15.5	14.7	14	13	11.5	10	8	6.5	4.5		
400WQ1500-10-75		18.5	17.5	16.8	15.5	14.5	14	12.2	11	10	8	

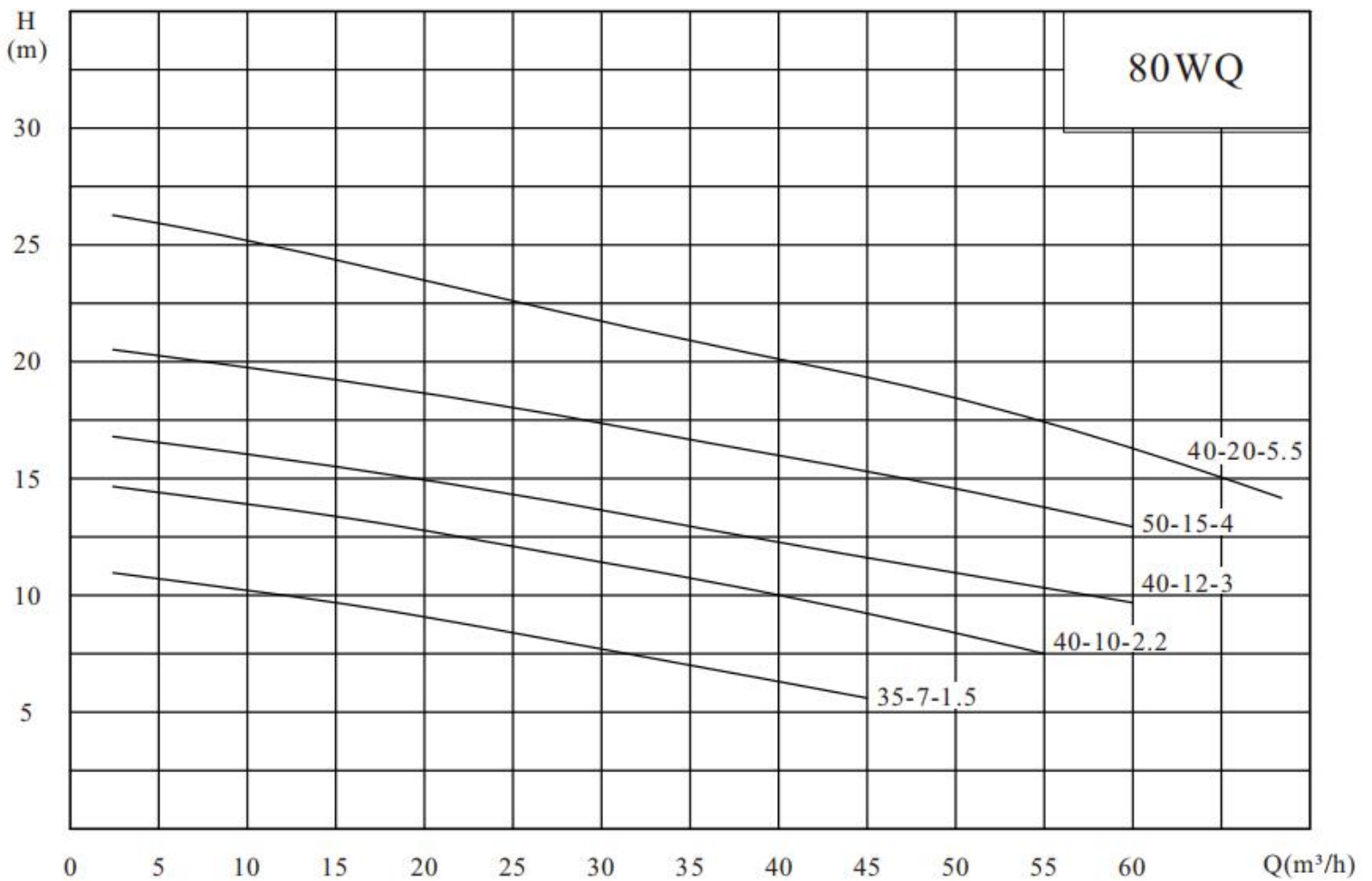
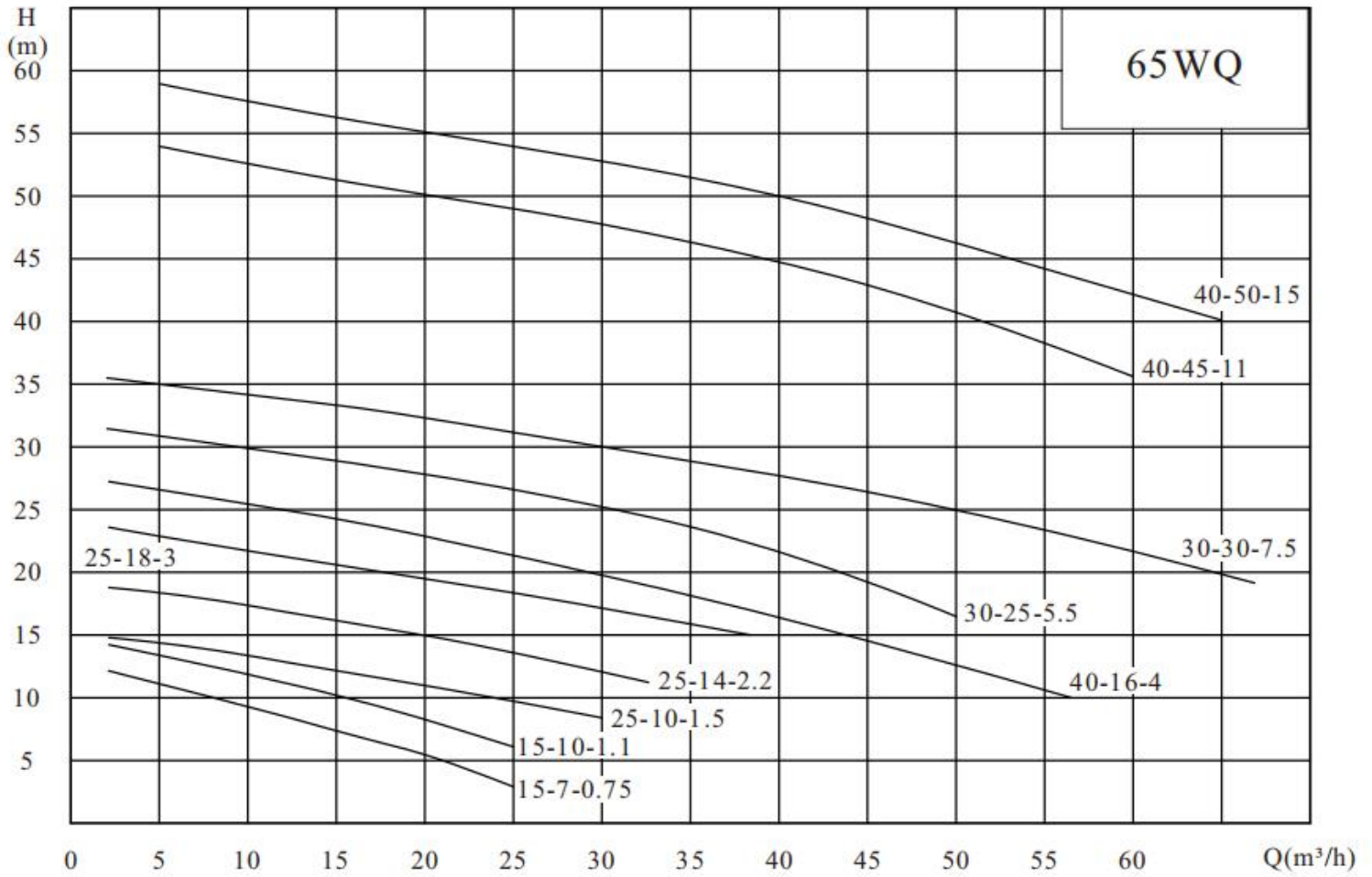
Type	Q(m ³ /h)	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400
400WQ1200-15-75	H (m)	17	16	15	12.6	10.7	9	5				
400WQ1500-16-90			21.5	19.5	18	16	13.5	3.5				
400WQ1600-15-110				16.7	16	15.3	14.7	13.4	12	10	8	6
400WQ2000-13-132		22	21	20	19	18	16.5	15	13.3	12	10.5	9
400WQ1500-22-160		31	28.8	26.5	24	22	19.5	10				
400WQ2000-18-160			25	24.5	23.5	22.5	21.6	20.2	18.7	16.8	15.5	8.5
400WQ2000-20-185		30.5	29.5	28.4	27.5	25.5	24	22	20.3	19.5	18	15
400WQ2000-22-200		32	31	30	29	28	26.5	25	23.5	22	20	18
400WQ1500-35-250		44	42	40	37.5	35	32	25				

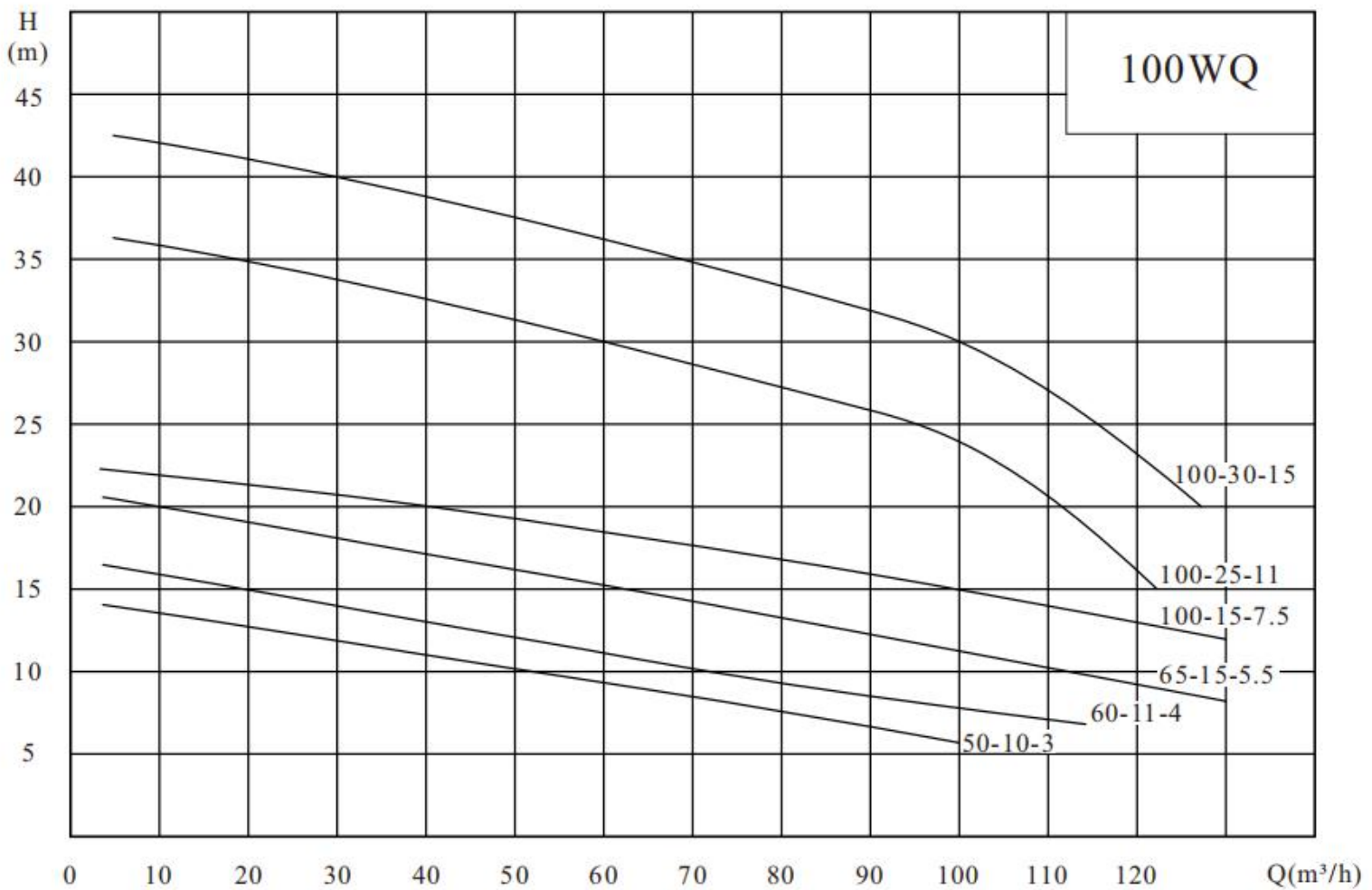
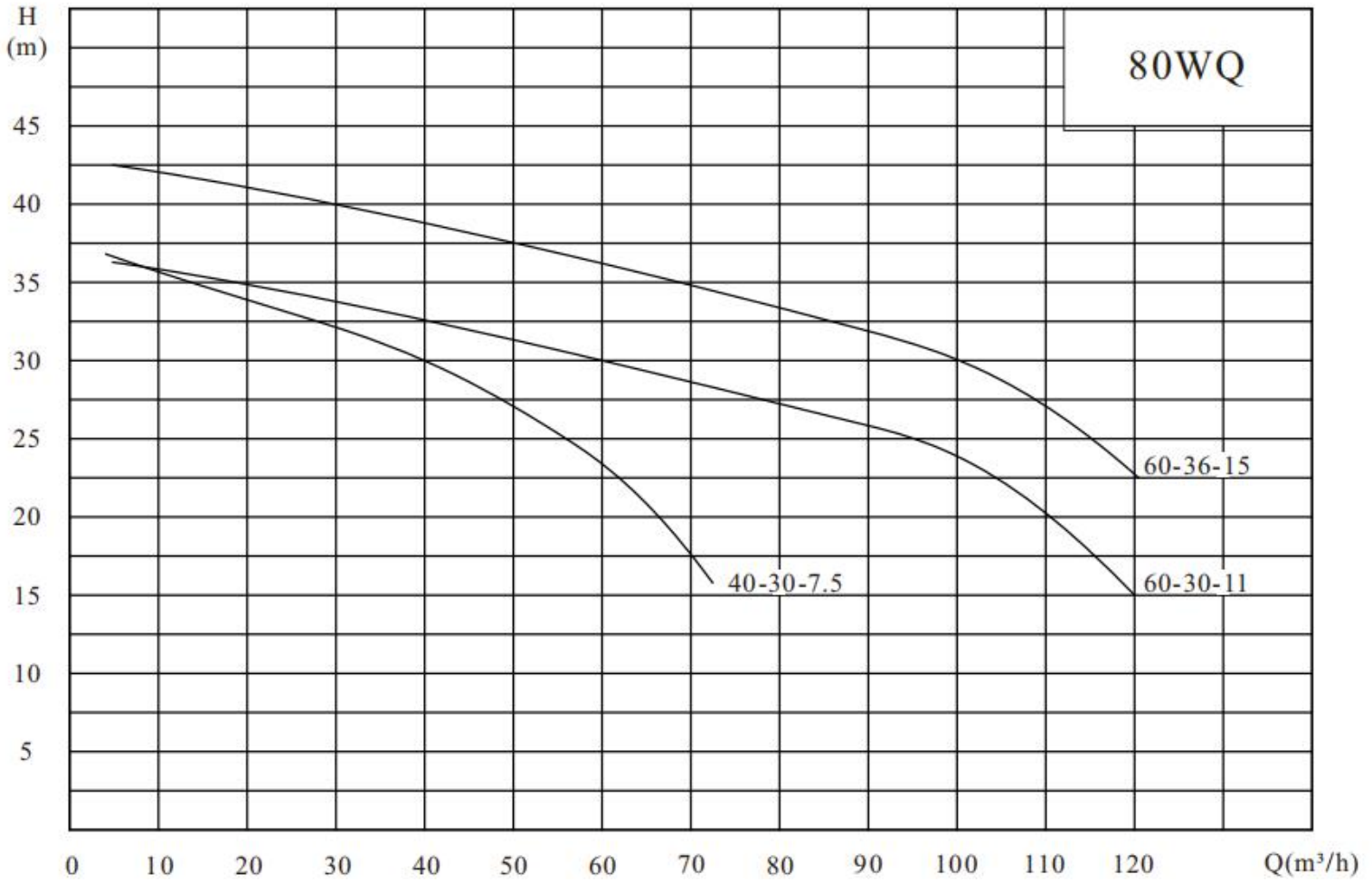
Type	Q(m ³ /h)	700	1000	1300	1600	1900	2200	2500	2800	3100	3400	3700
500WQ1800-12-90	H (m)	18.5	17	15.5	13.5	11.3	8.8	6	3			
500WQ2500-10-110		16	15.2	14.2	13.2	12.2	11.2	10	8.7	7.1	6	4.5
500WQ2500-12-132		24	23	21	18.8	17	14.5	12	9	7	2	
500WQ2500-13-160		26	24.4	22.5	20.5	18	15.6	13	10	7	3	
500WQ2500-14-185		23.5	22	20.5	19	17.5	15.8	14	12	9.5	7	4
500WQ2500-16-200		25.5	24	22.5	21	19.5	17.8	16	14	11.5	9	6
500WQ2500-18-185		25.5	24.5	23.8	22.5	21	19.5	18	16	13.5	10.5	7.5
500WQ3000-25-315		38.7	37	35.3	33.5	31.8	30	28.2	26.5	24.3	21	18.3

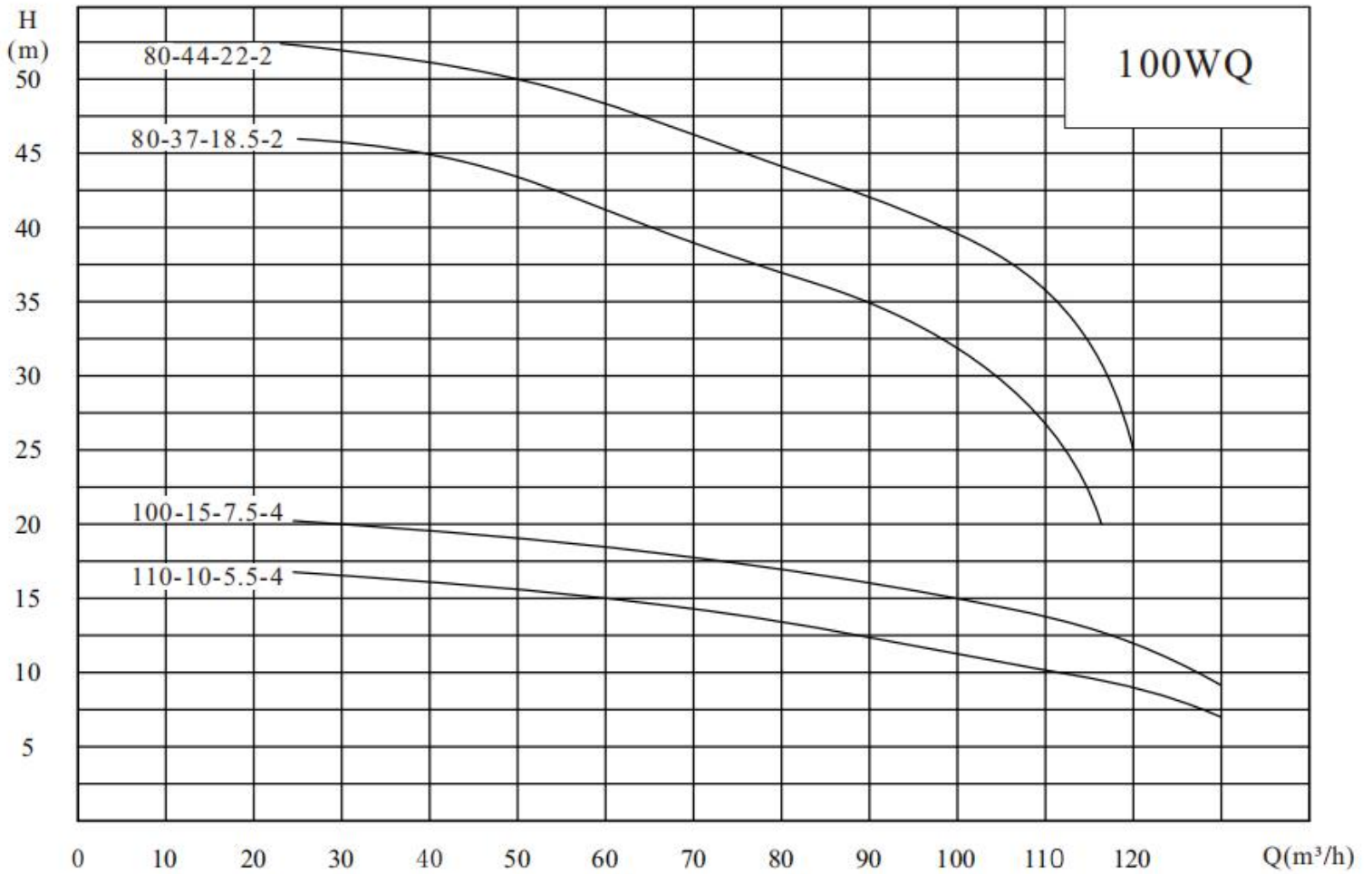
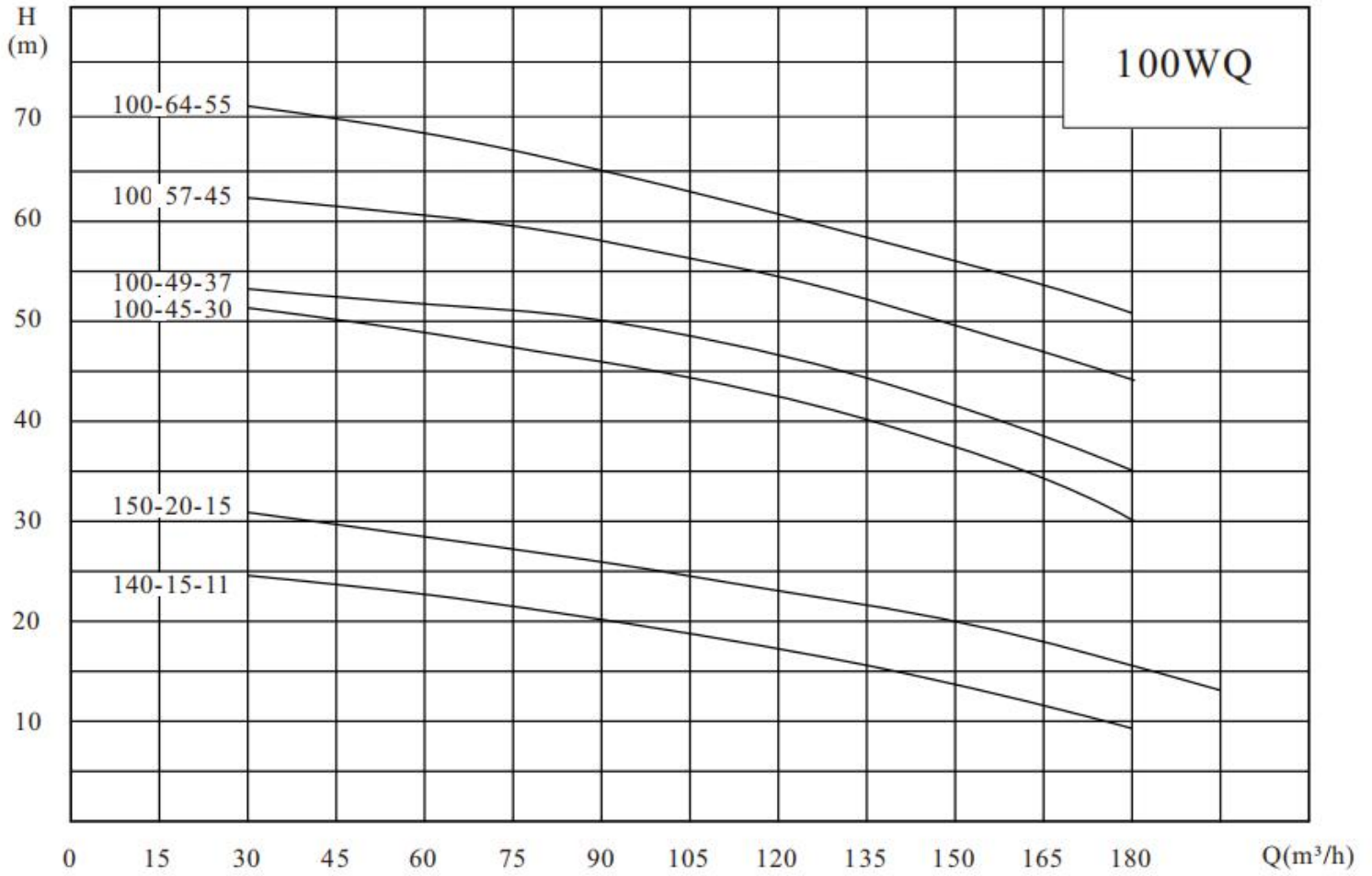
Type	Q(m ³ /h)	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
600WQ2500-14-185	H (m)	23	21	19	17	15	12	8	4			
600WQ2500-16-200		25	23	21	19	17	14	10.5	6			
600WQ3200-13-185		26	25	23	21	18.8	16	13	9	5		

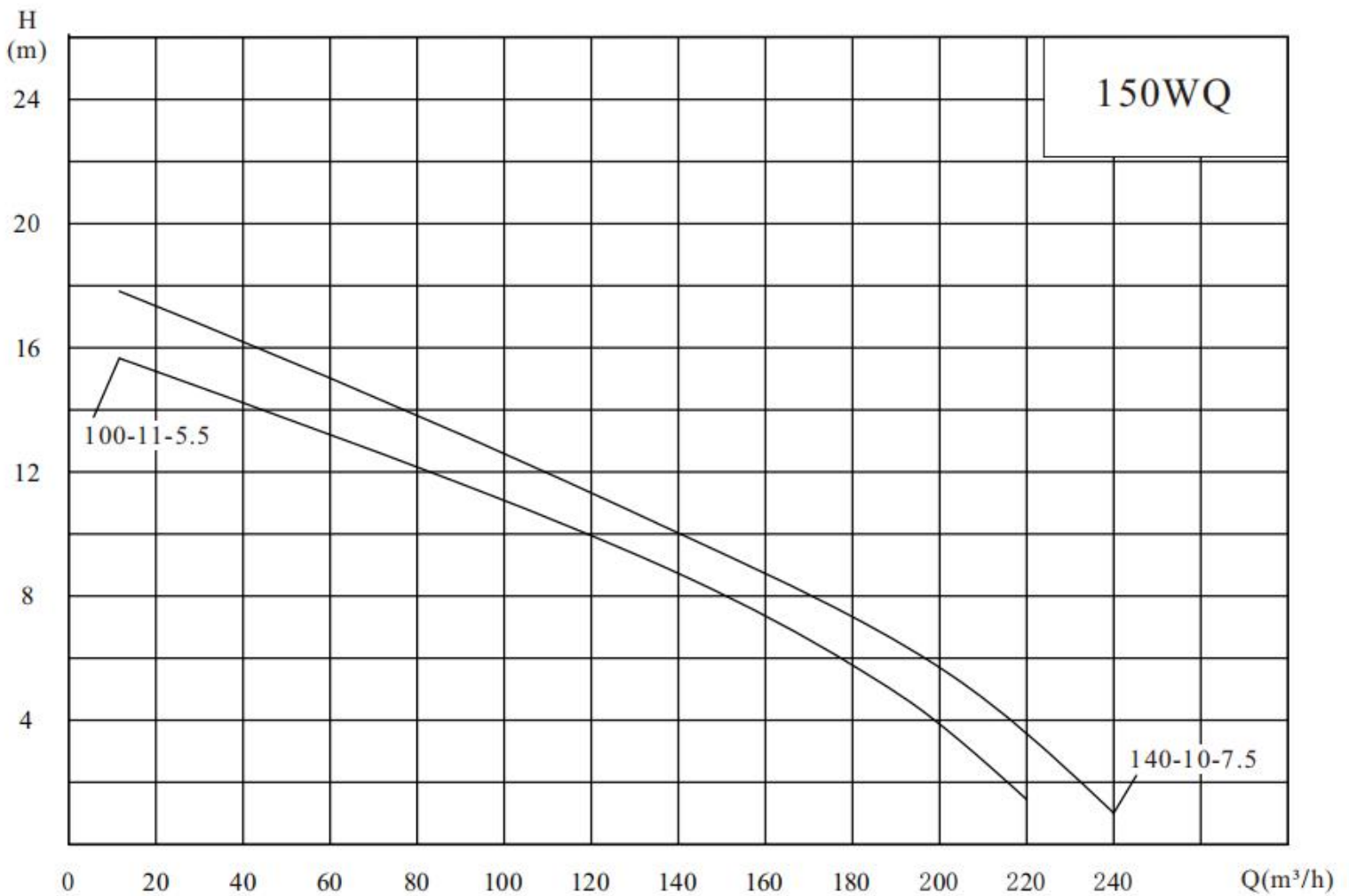
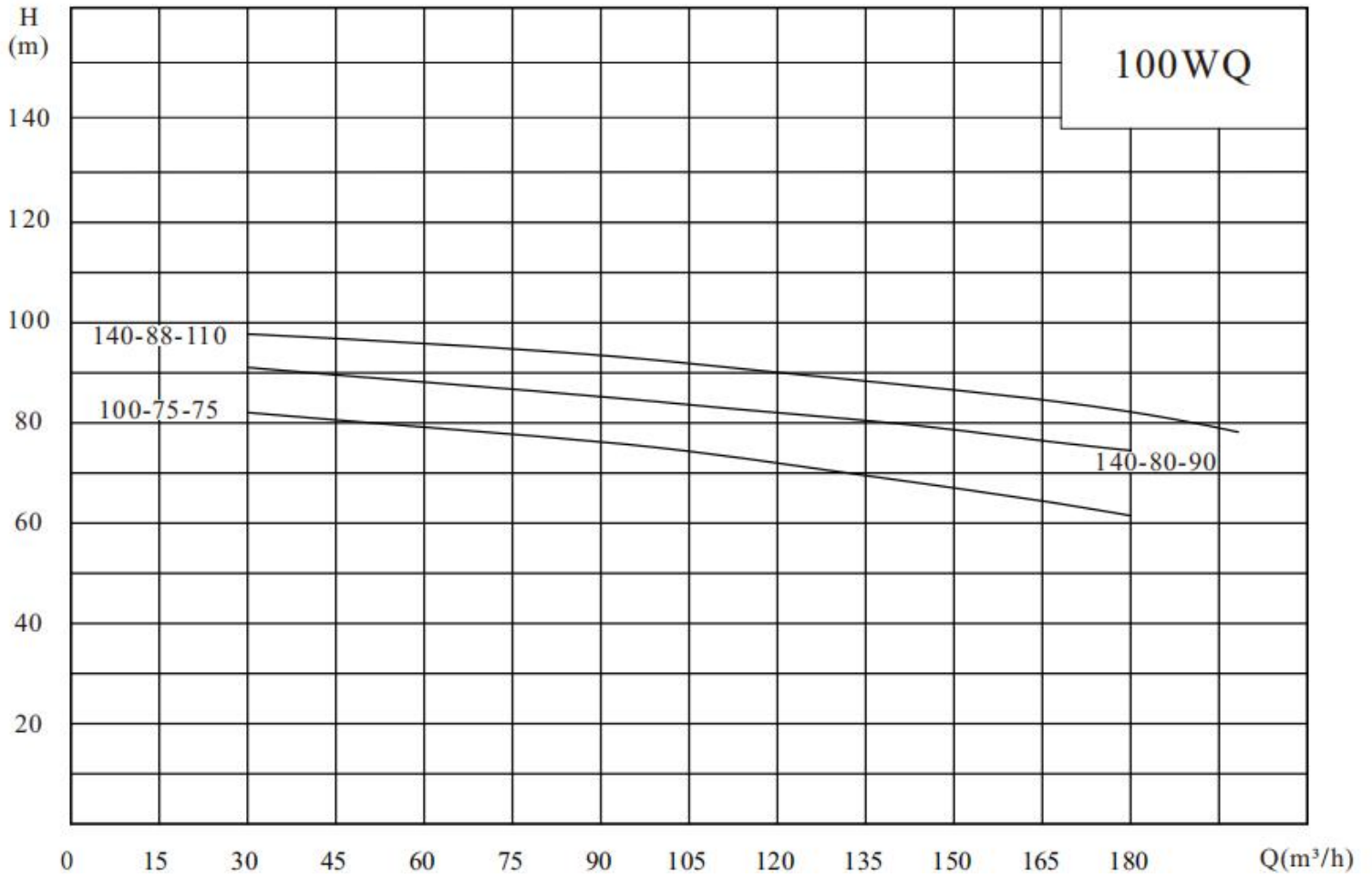
◆ Performance curve

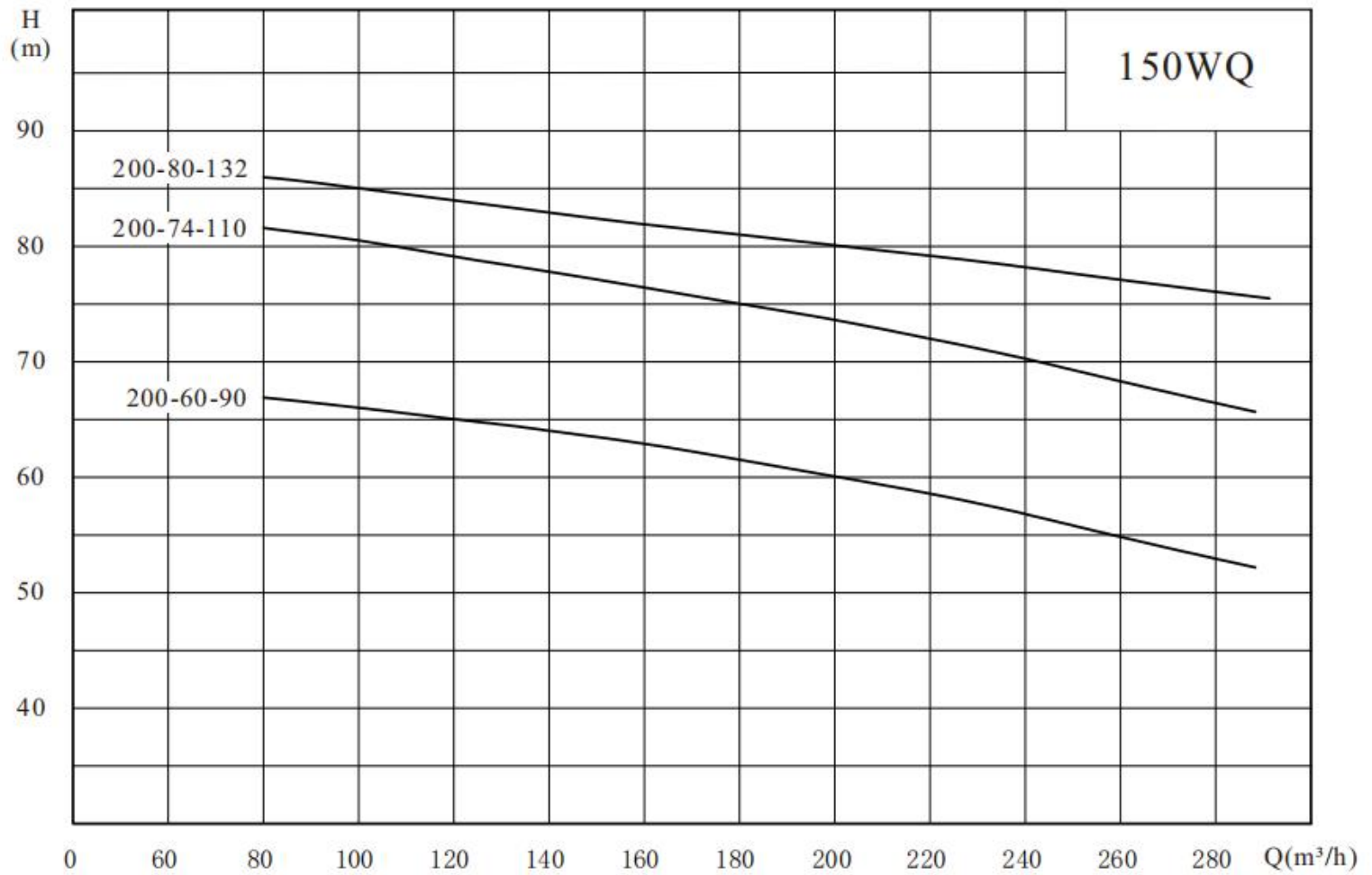
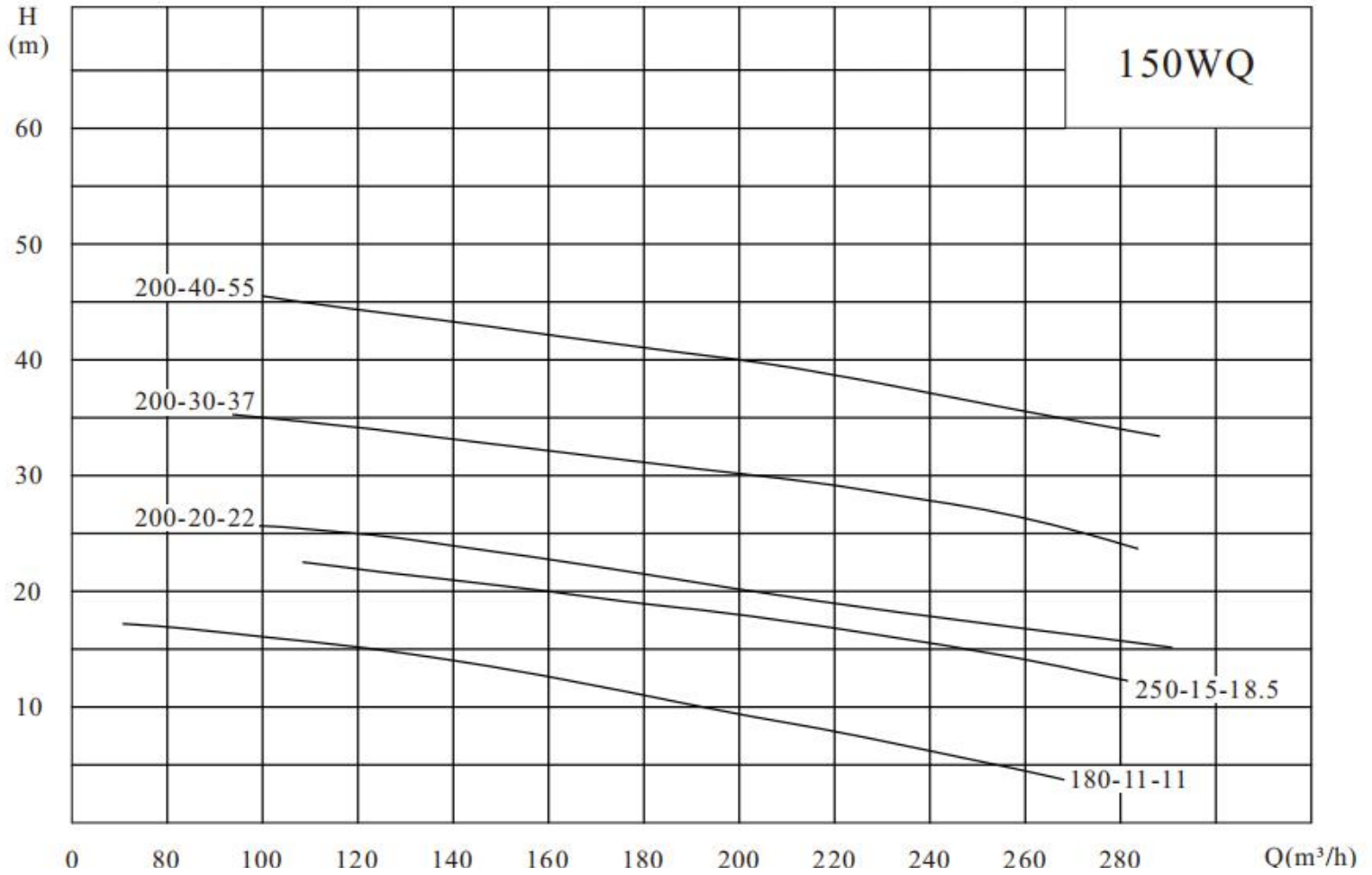


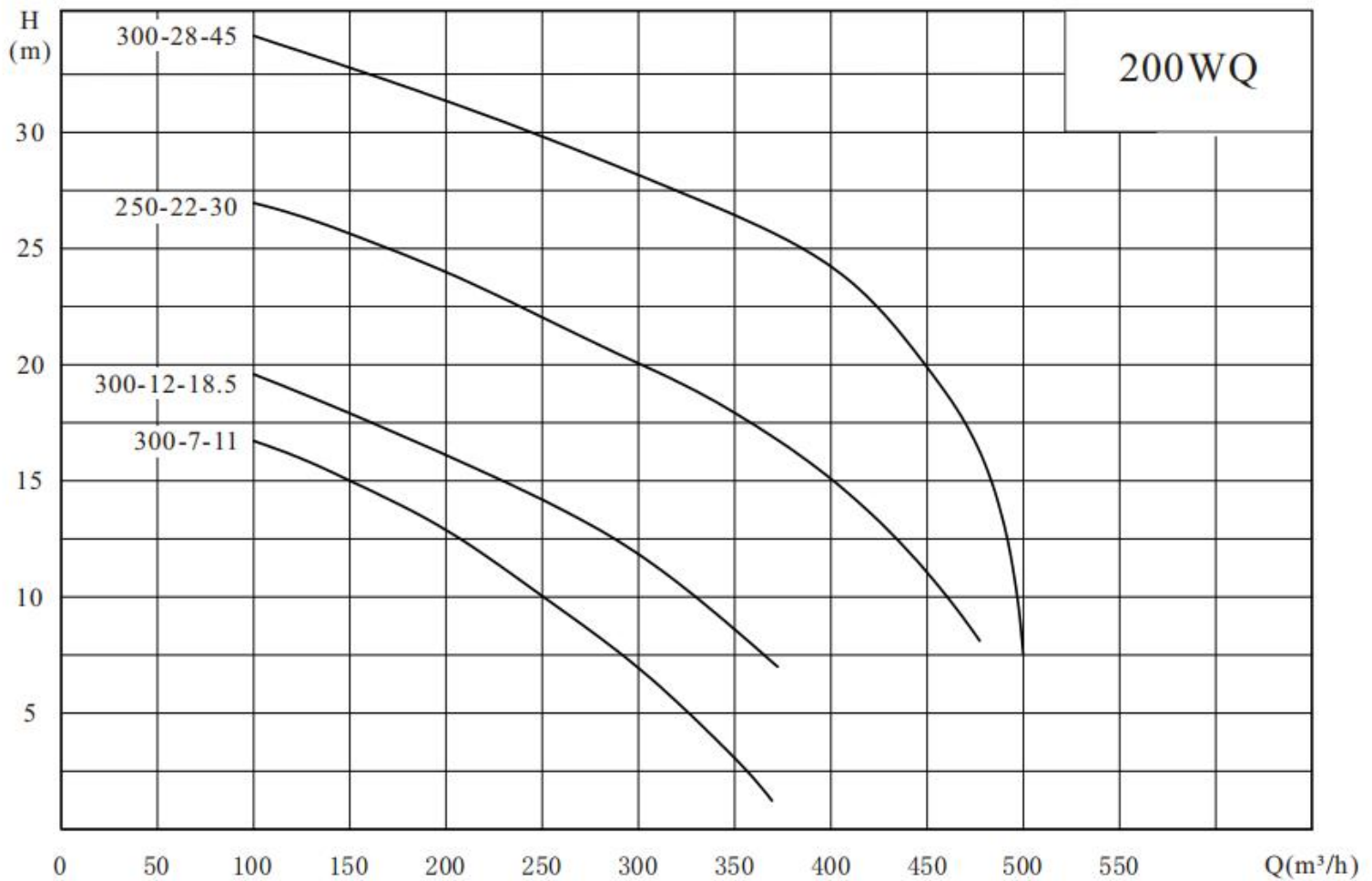
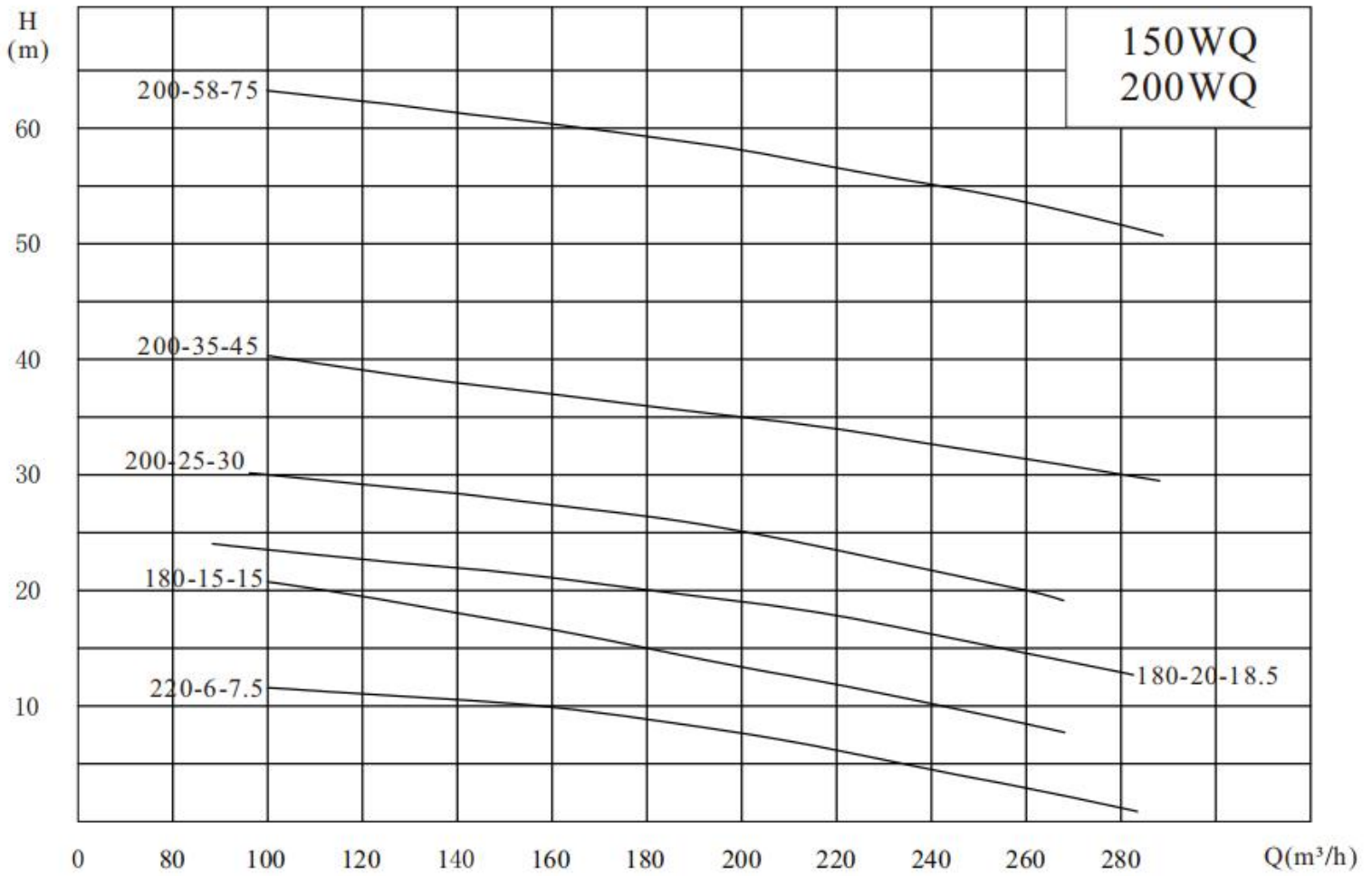


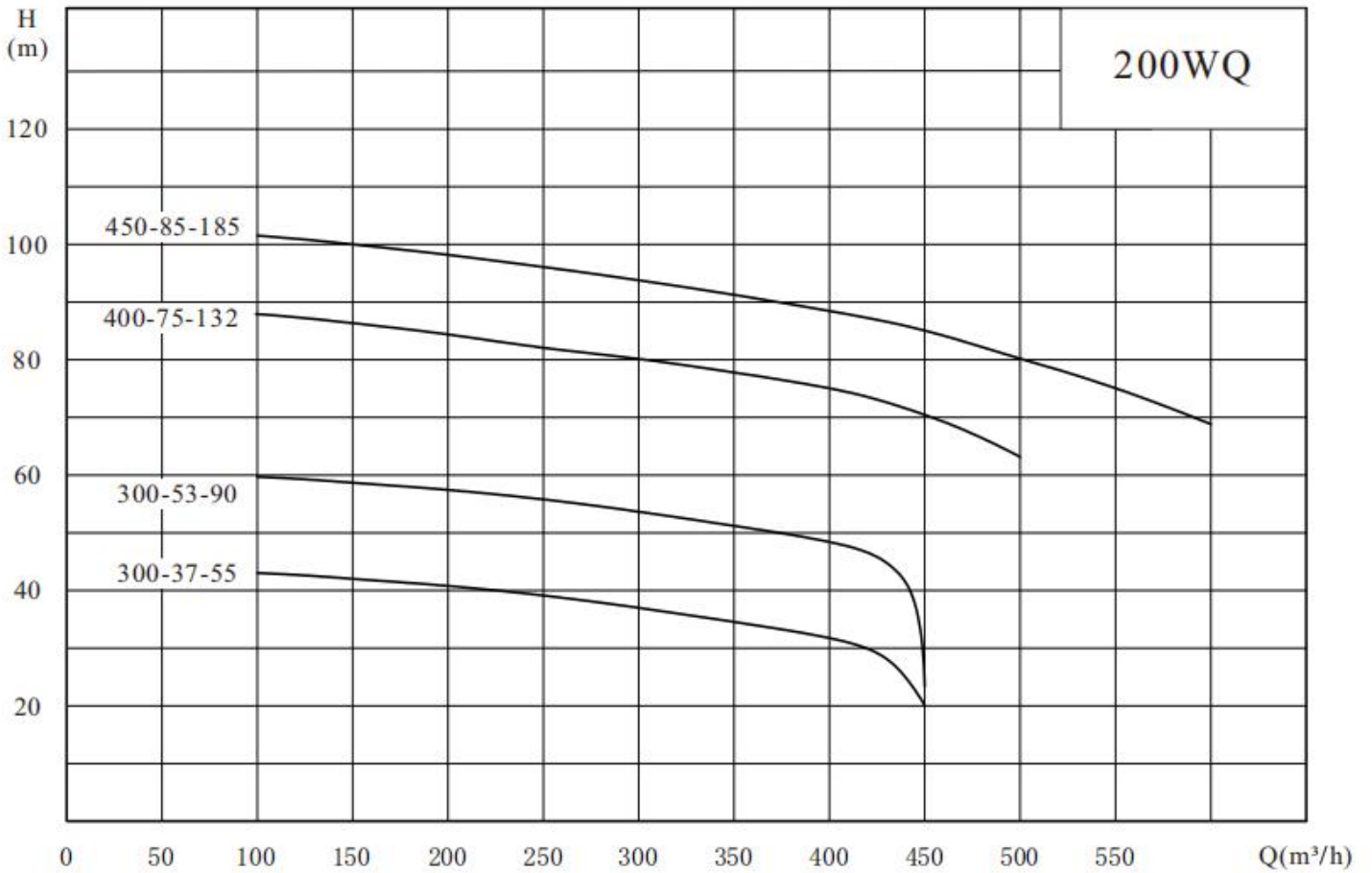
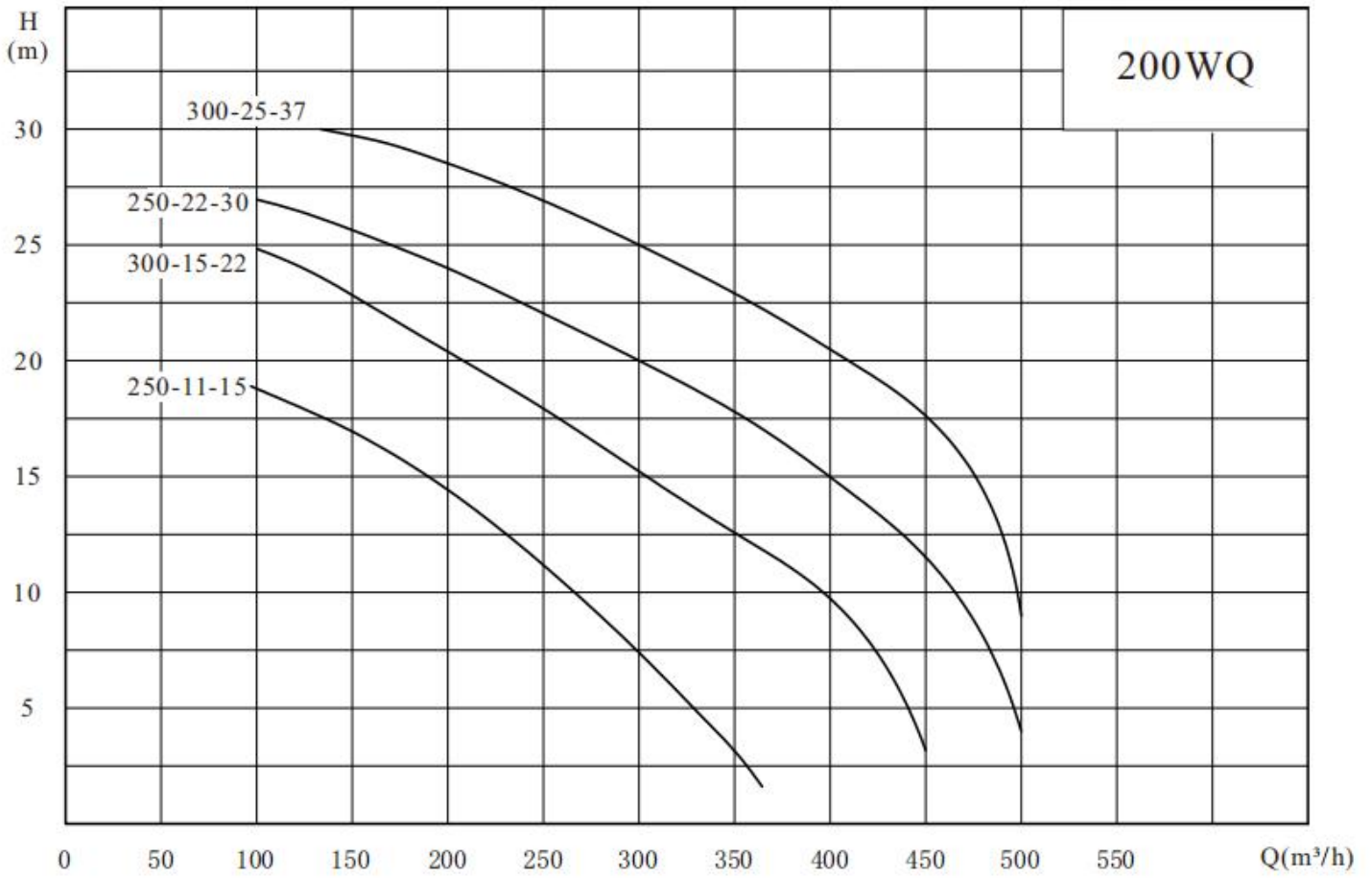


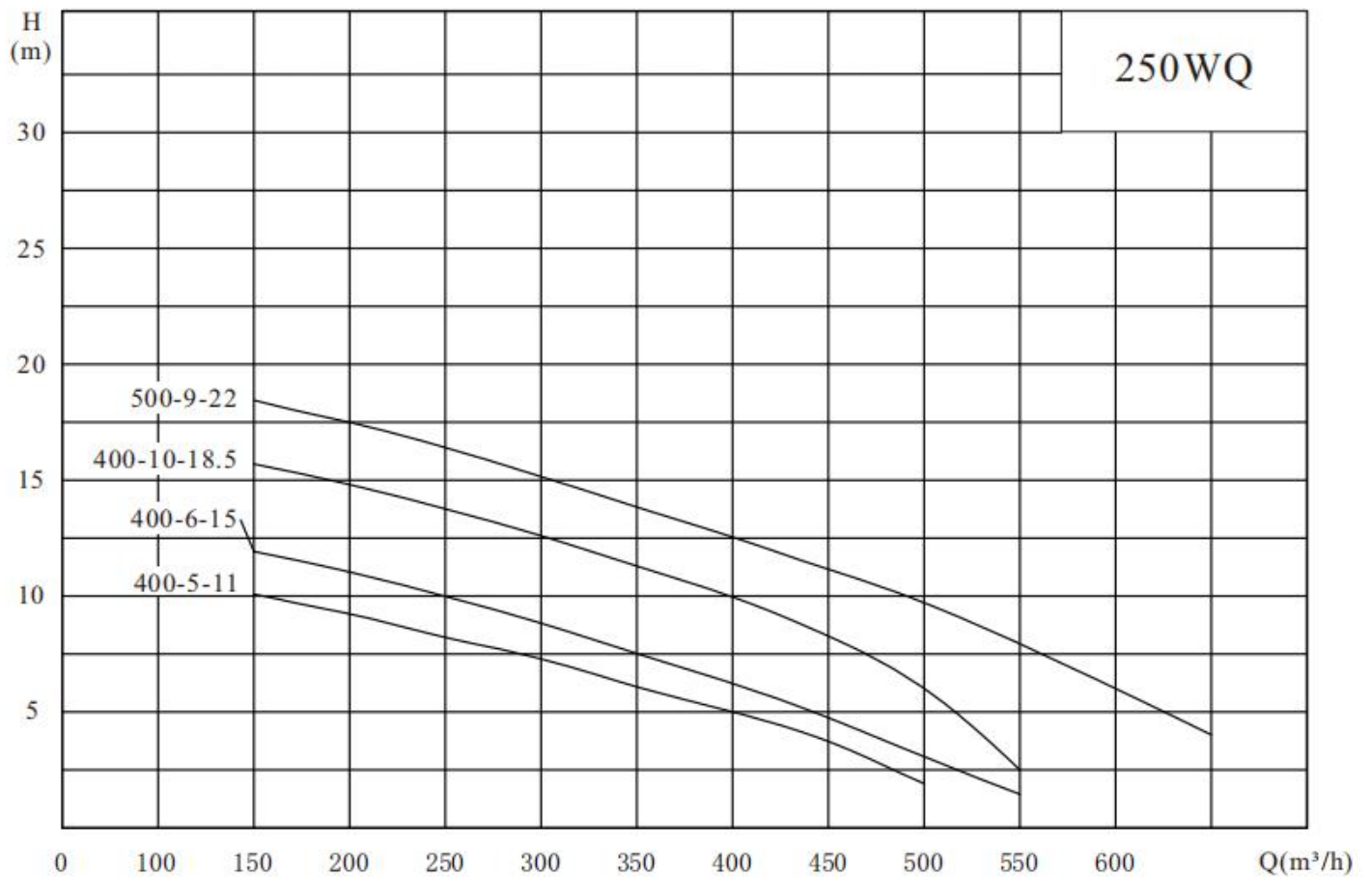
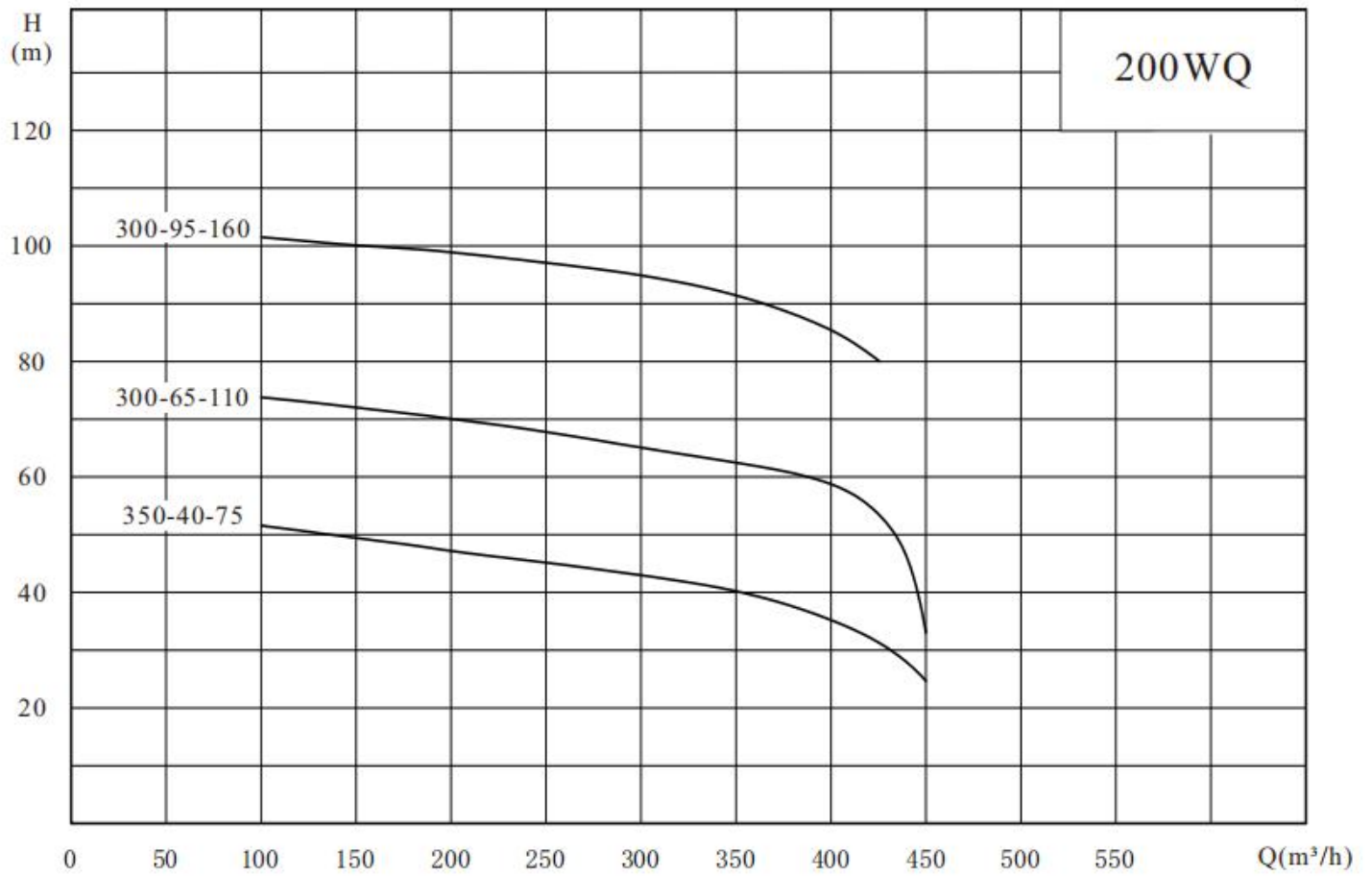


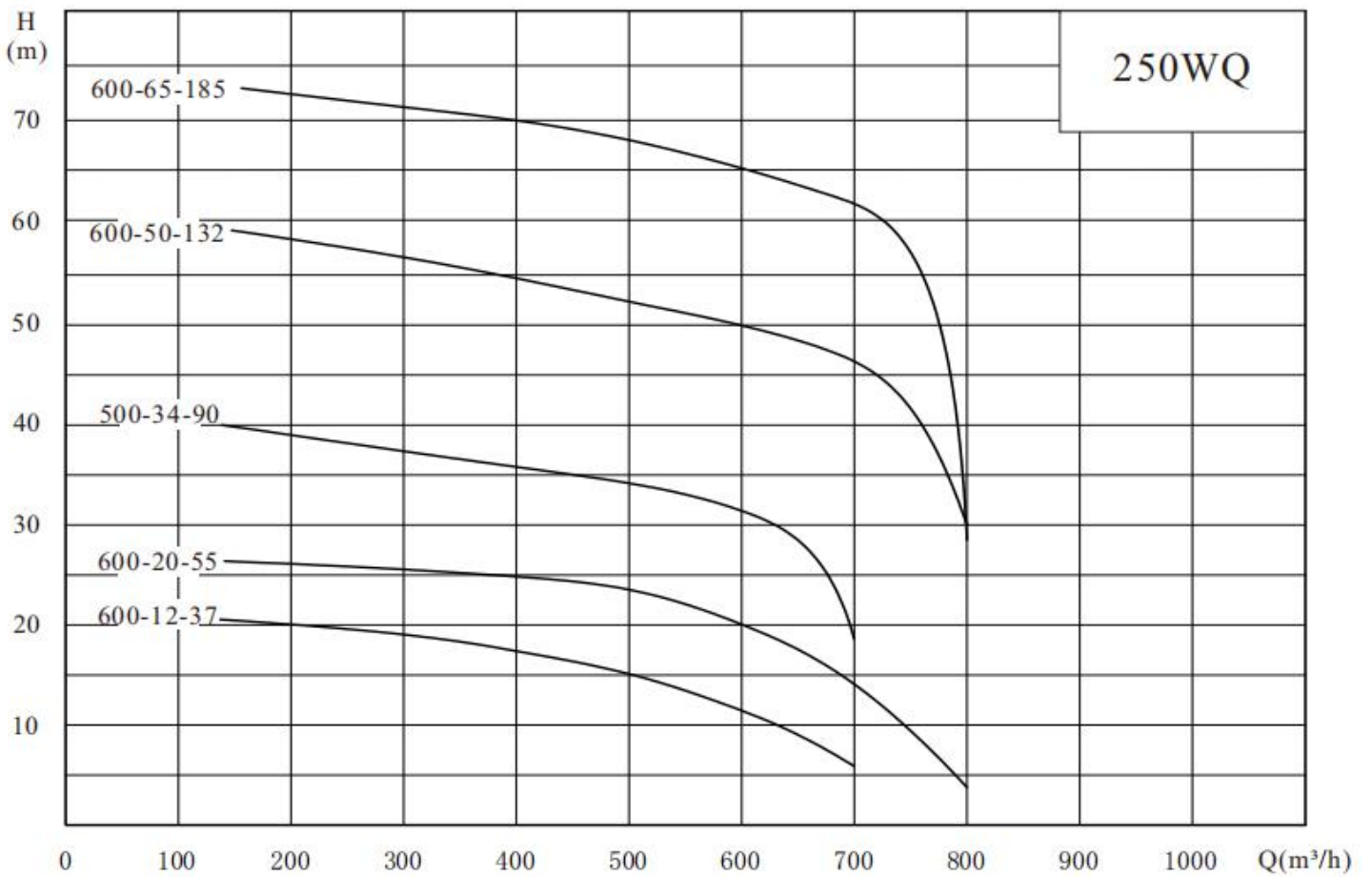
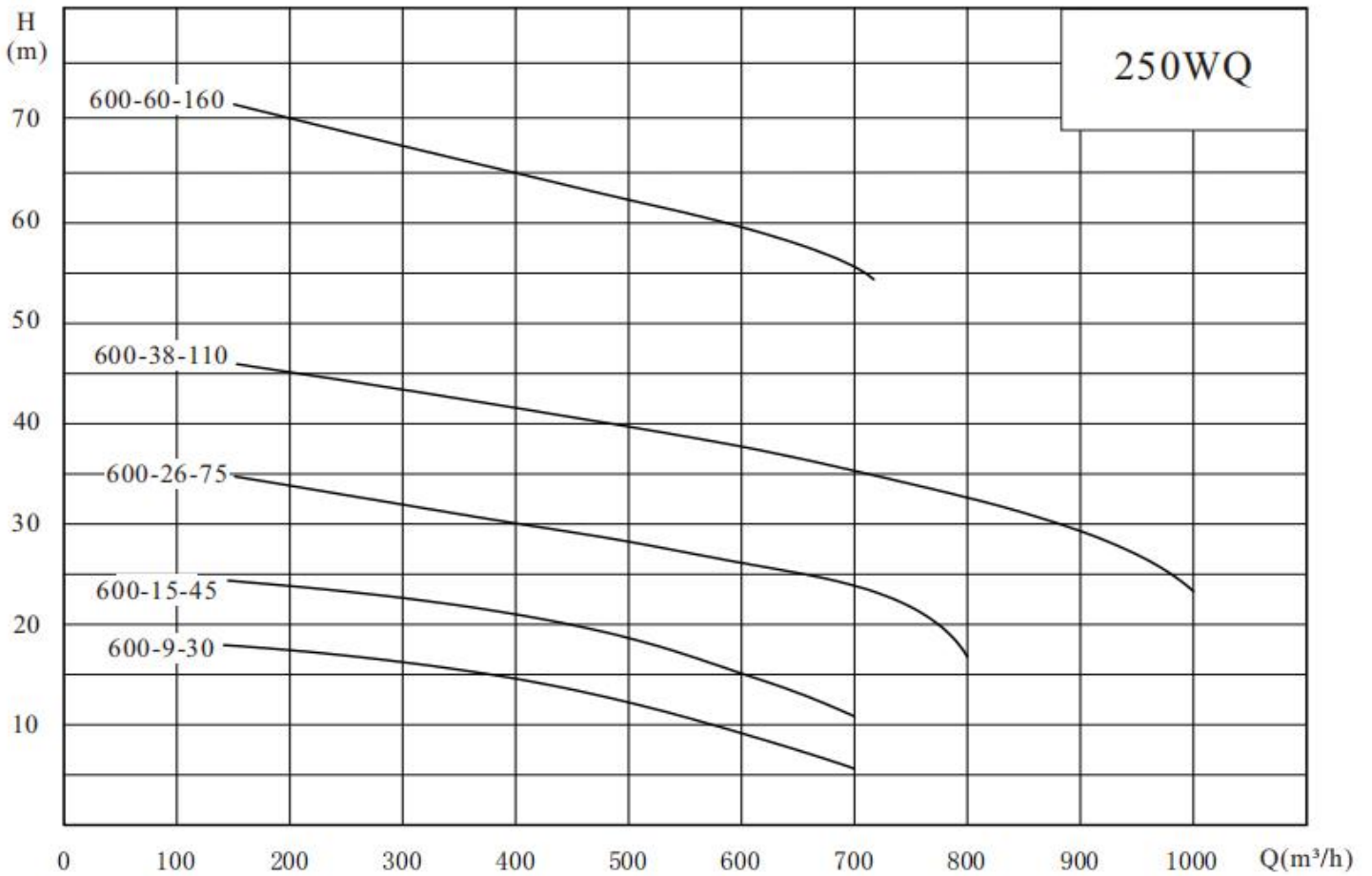


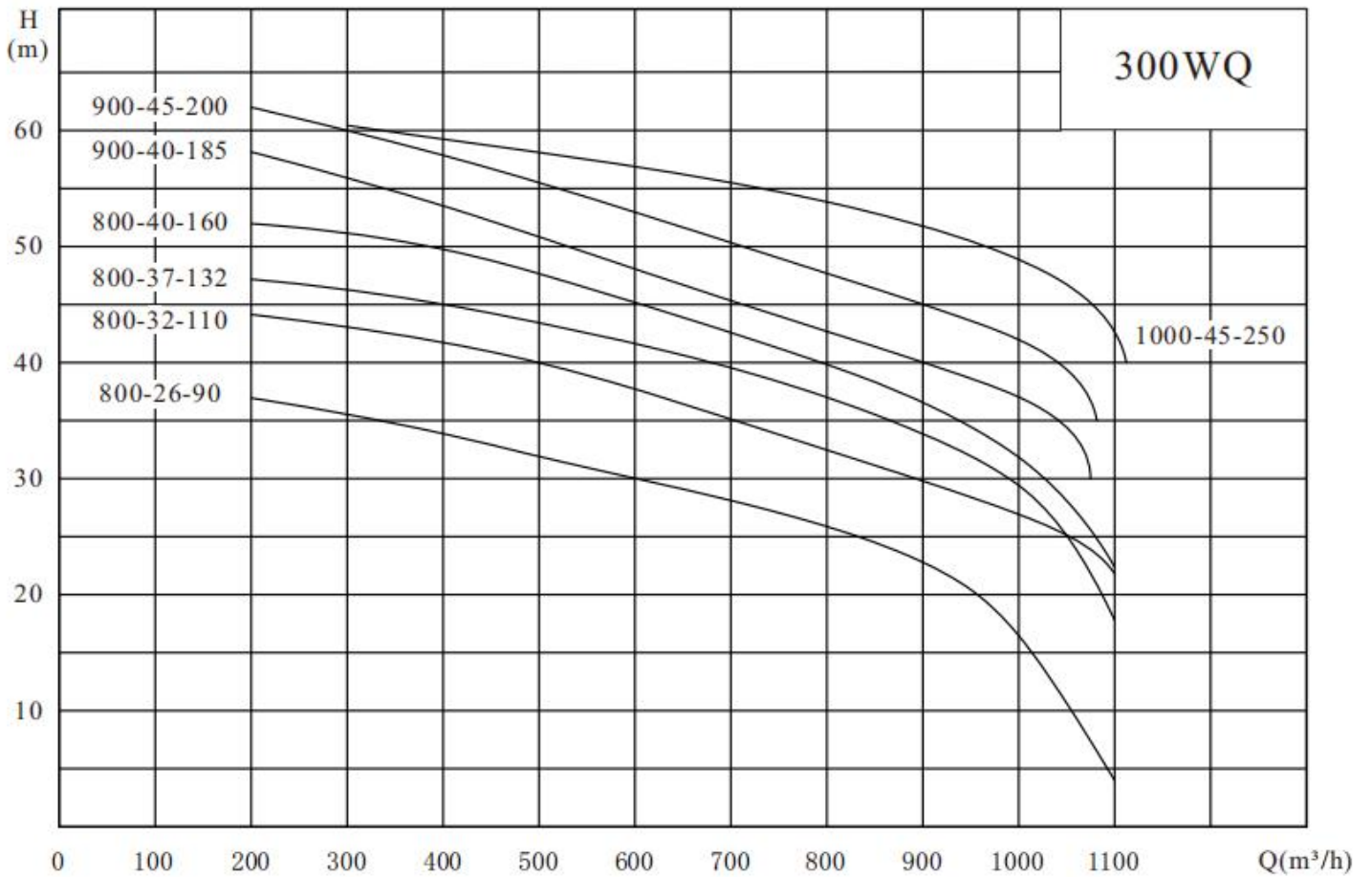
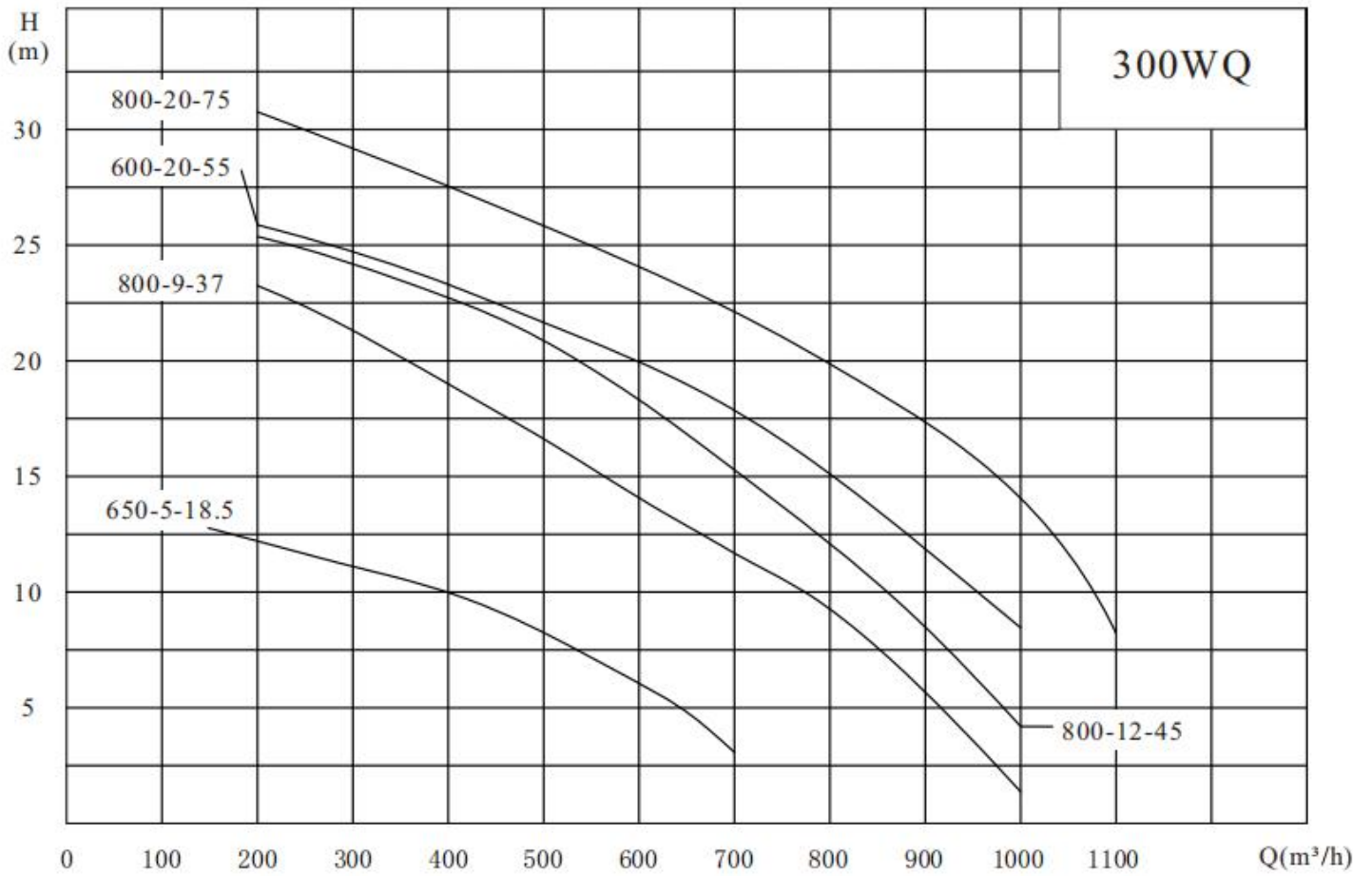


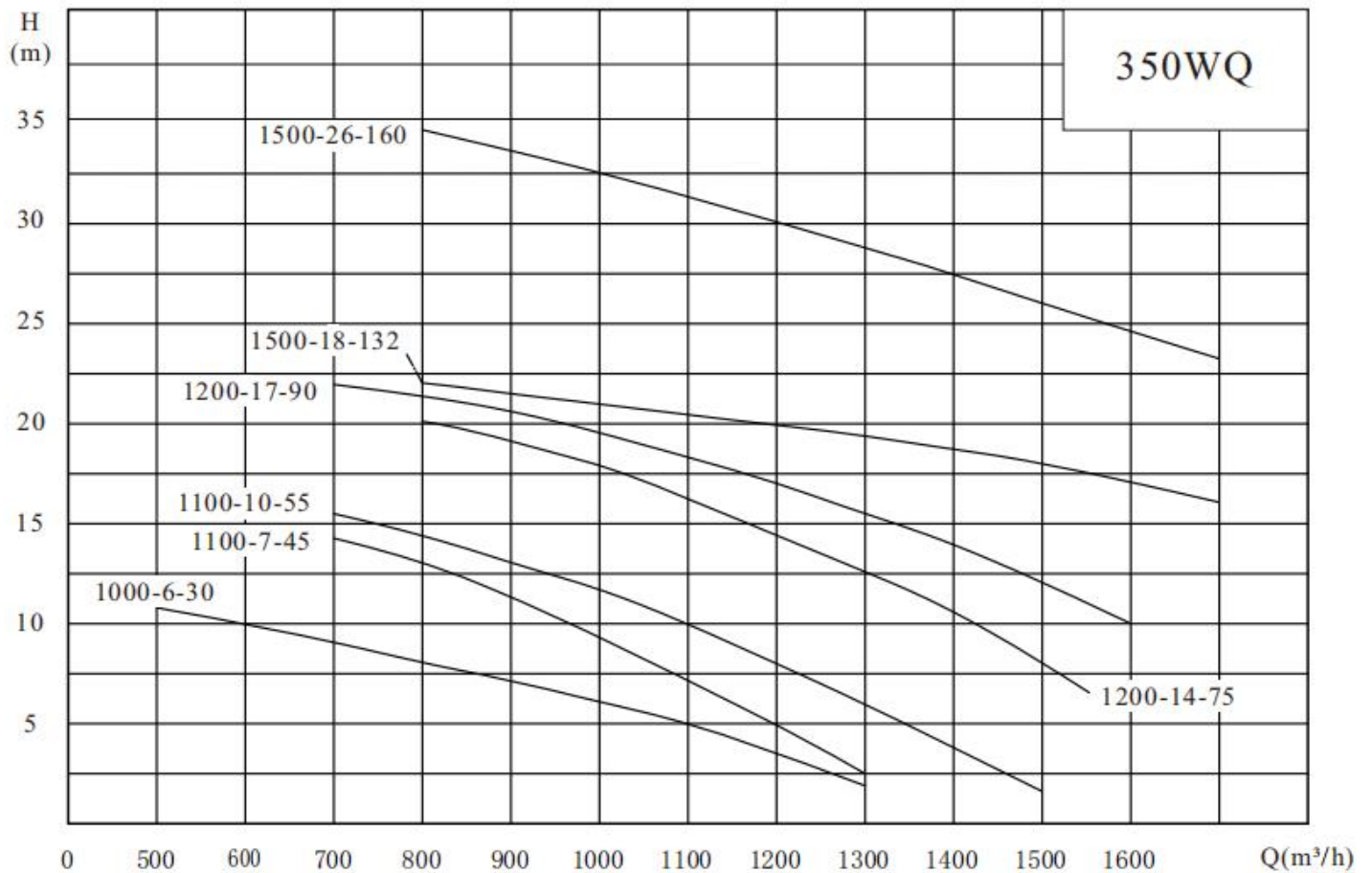
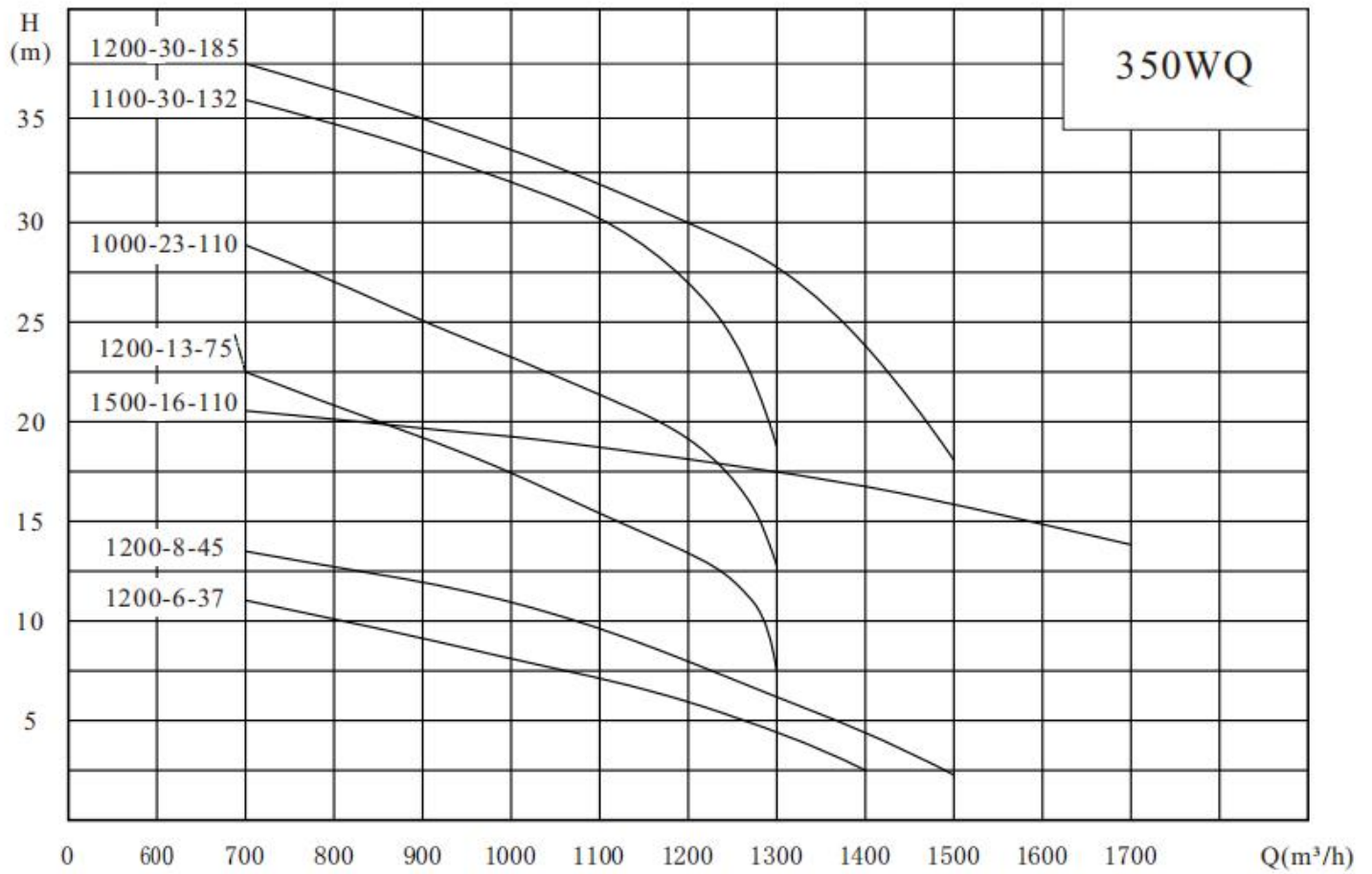


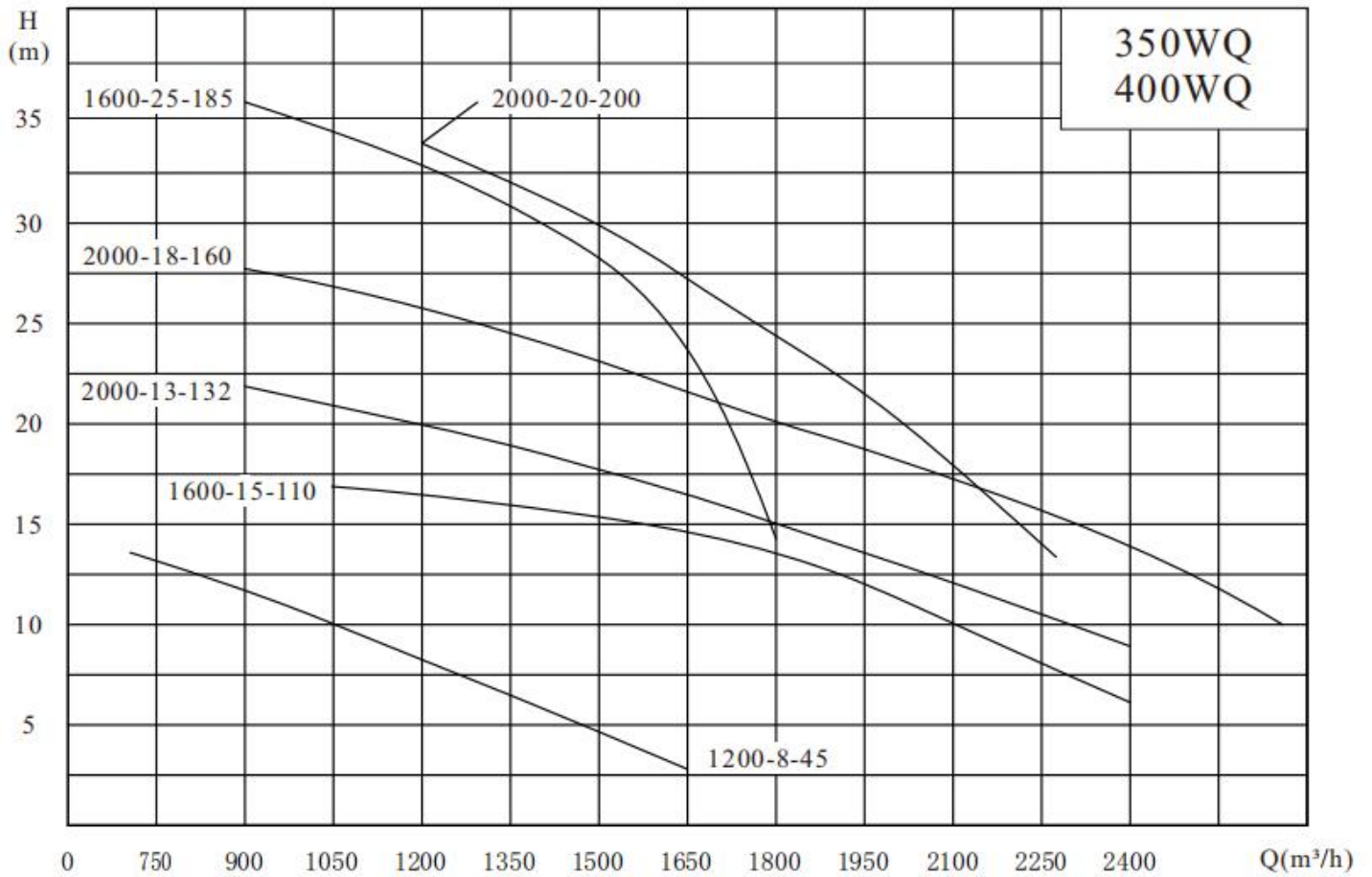
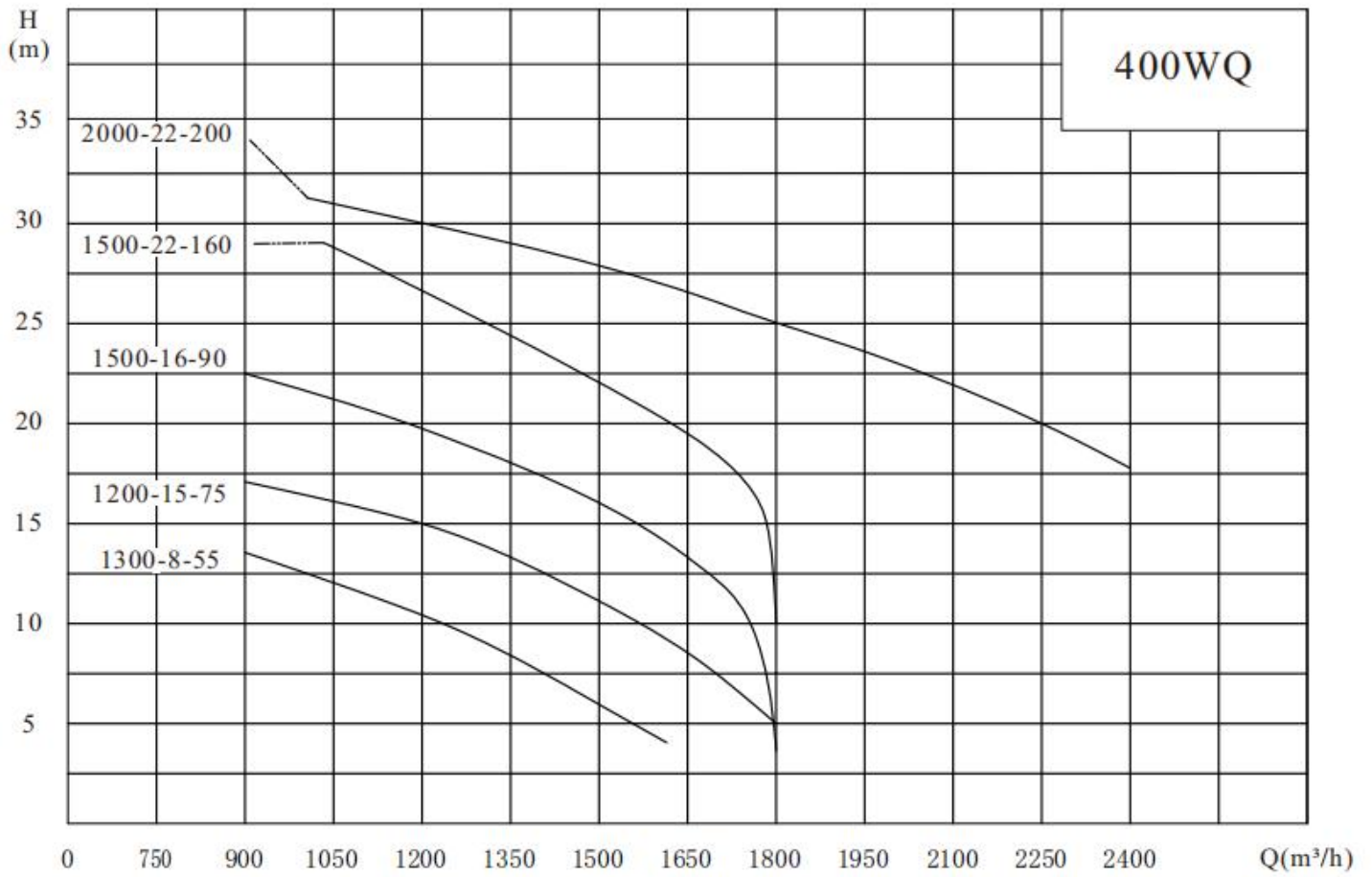


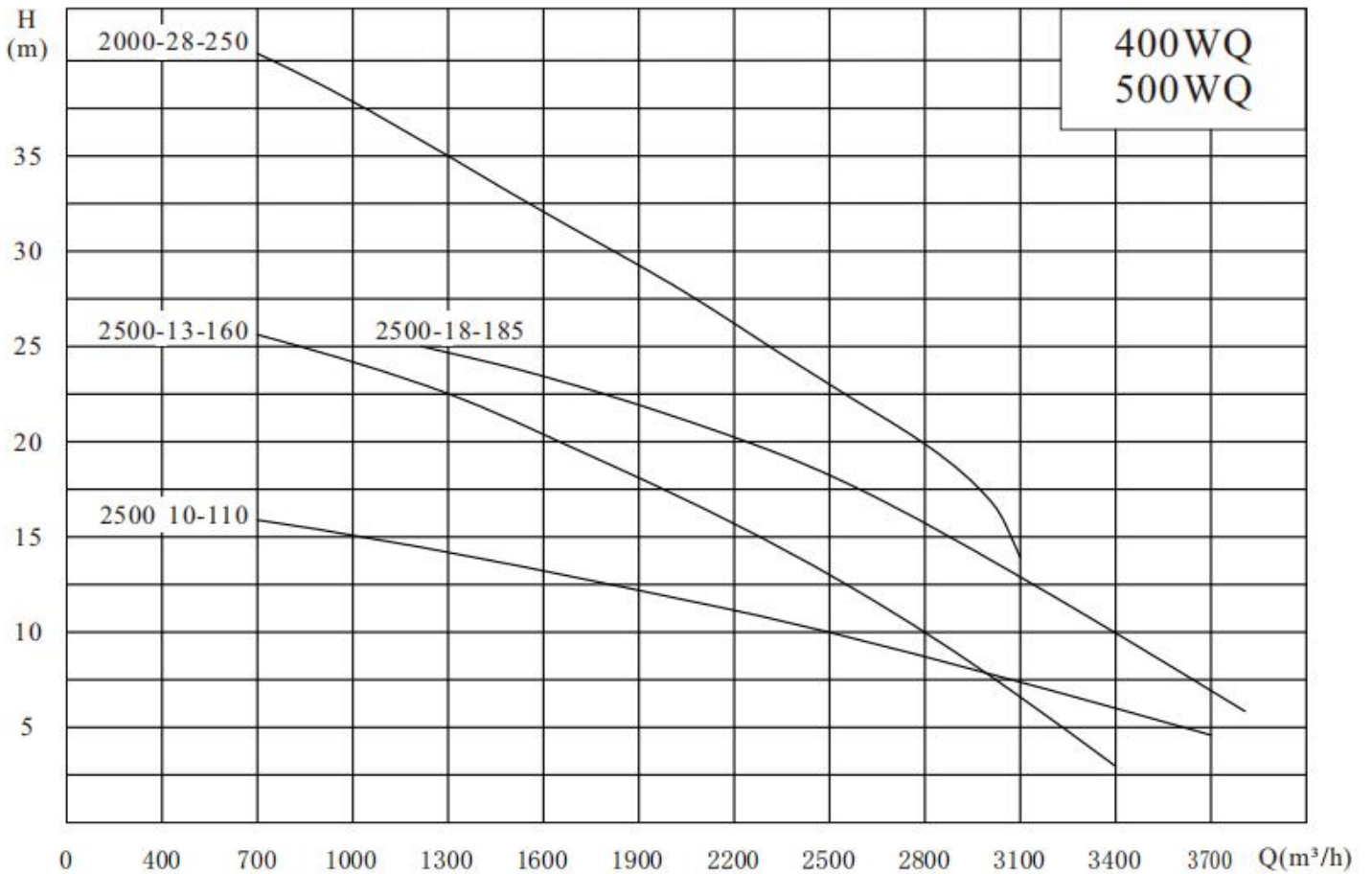
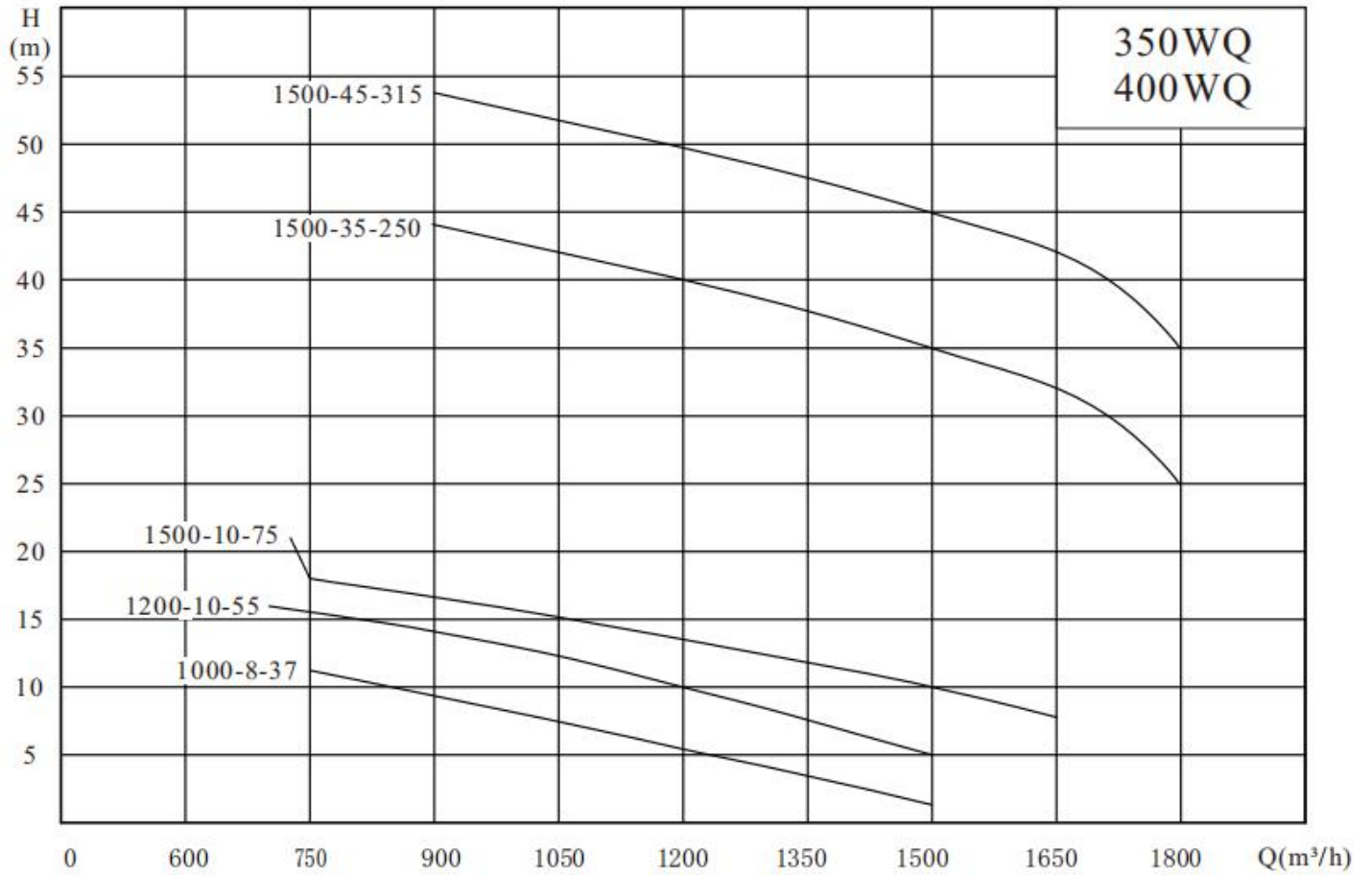


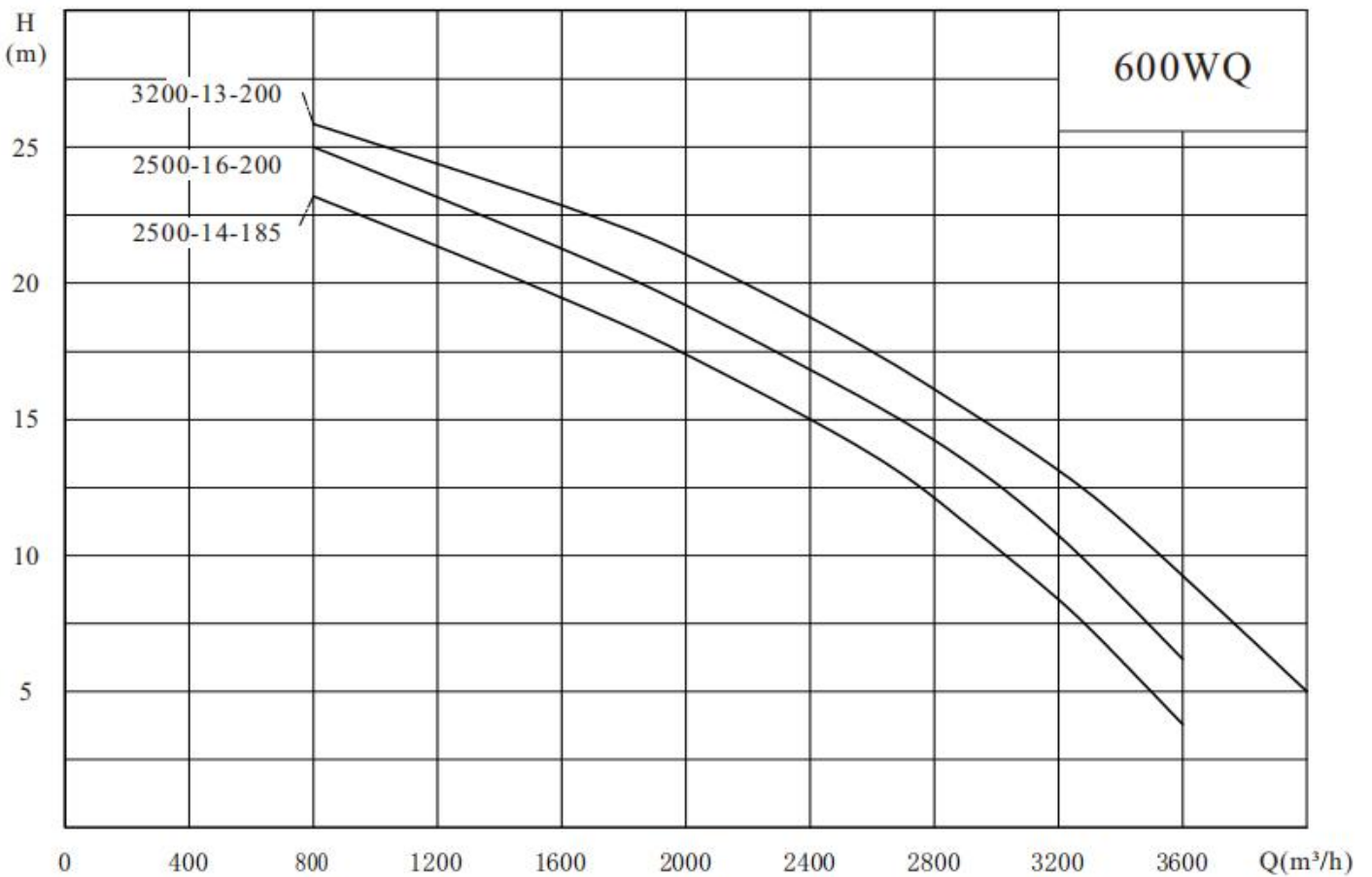
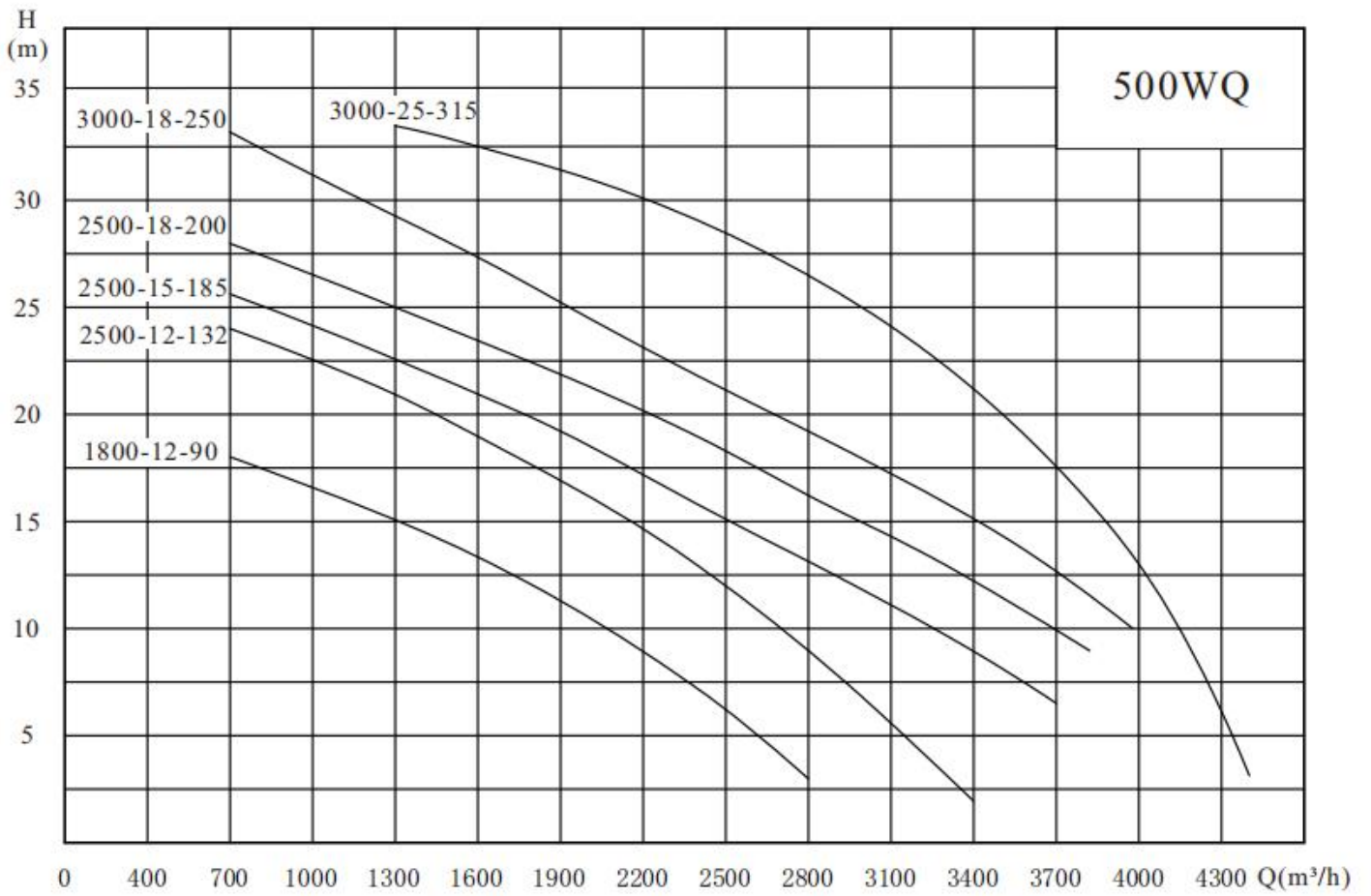












◆ **Scope of supply, relevant dimensions**

1. Scope of Supply Table

Installation method	Complete set of supplies	Optional accessories		Spare Parts
Mobile Hose Installation	Main pump, rubber hose fitting	Hose	Electric Control Cabinet ★, Terminal Box Gate (Butterfly Valve), Check Valve, Chain (for Pump Lifting), Trash Rack (Customized), Gate Valve (Customized), Rectangular Valve (Customized)	Impeller Sealing Ring Bearing Mechanical Seal
Mobile Hard Tube Installation	Main pump, Flange	Double Flange Elbow		
Automatic Coupling Installation	Main pump, automatic coupling device	Guide rod anchor bolt expansion bolt		

*A control cabinet must be equipped with a control system that is compatible with components such as internal leakage detection and thermal protection of the main pump to ensure the reliable and safe operation of the main pump. The sewage discharge pump control cabinets of our company are specially developed products for the WQ series sewage discharge pumps, which can more effectively protect the safe operation of the main pump and achieve automated control.

2. Relevant dimensions for cast iron automatic coupling installation and dimensions of the movable mounting spare hose Unit: mm (except inches)

Project	Pump Port Size	50	65	80	100	150	200	250	300	350	400	500
Guide tube dimensions / Water supply pipe / Seamless steel pipe		1 "/32×3		1.5 "/48×3				2 "/60×3			2.5 "/76×4	
Guide tube length mm		Deep pool-30			-30 0	-350	-40 0	-50 0	-60 0	-70 0	Deep pool-850	
Expansion Bolt Specifications and Quantity		M12×80×2				M14×100×2				M20×120×2		
Specifications and Quantity of Anchor Bolts		M16×250×4				M20×300×4				M24×350×4		
Foundation bolt reserved hole dimensions		80×80×300				100×100×350				120×120×40 0		
Nominal inner diameter of hose mm		50	65	75	100	150	200	250	300	350	400	500

◆ **Ordering Instructions**

1. When placing an order, please specify the product model, name, performance parameters (flow, head), installation method, wetted material, and optional accessories/spare parts.

- **Note:** Consider specific gravity of the medium for power impact and corrosivity for material selection. Consult our technical department if needed.

2. Special requirements (e.g., oil/water probes, thermal sensors) must be declared at order stage.

- **For control cabinets:** Specify control method (e.g., pump quantity, level control) and automation level.

3. Standard cable length: 8m. Longer cables require explicit confirmation.

4. Coupling guide rods: Use standard water pipes/steel pipes per our sample calculations.

- **Exclusion:** Guide rods are sold separately as optional accessories.

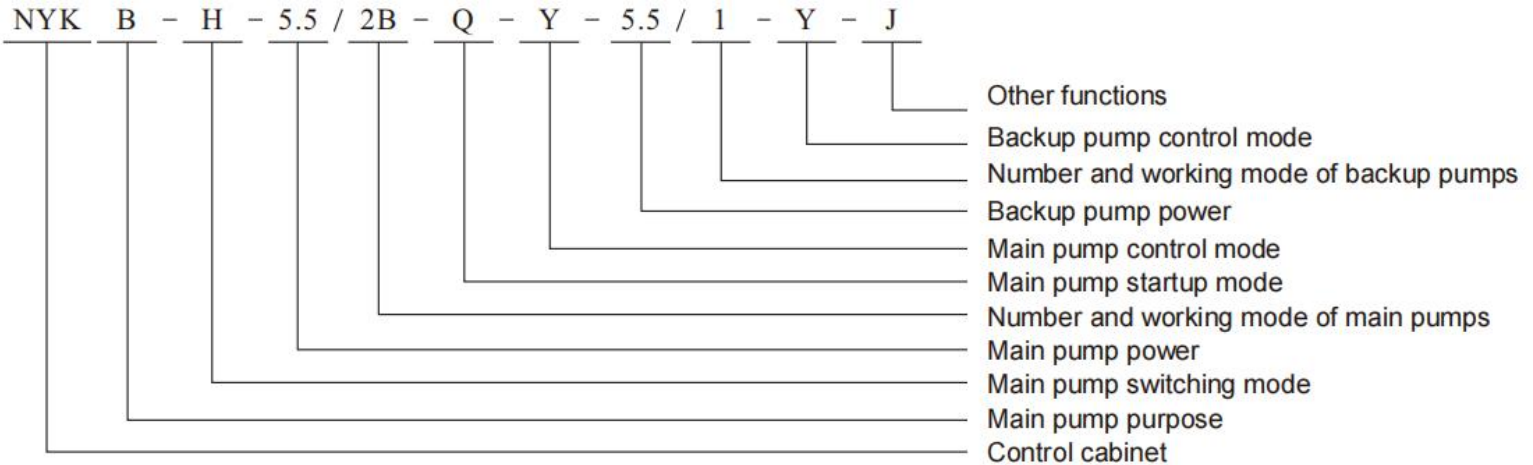
5. Complete supply: Includes installation-specific components.

- **Optional items:** must be ordered additionally.

◆ Product Overview

The pump control system is the dedicated control unit for our company's fully automatic water supply and drainage equipment. To ensure reliable operation of the pumps, the NYK and NYB fully automatic control cabinets can be categorized into liquid level control, pressure (constant pressure) control, time control, temperature control, air conditioning linkage control, and fire-fighting special types based on different user requirements, while also featuring main circuit protections against short circuit, phase loss, overload, and overcurrent.

◆ Meaning of Model Number



◆ Model Text Description

Category	Code	Meaning
Control Cabinet	NYK	Relay-type Control Cabinet
Control Cabinet	NYB	Variable Frequency Speed Control Cabinet
Purpose	P	For production and domestic water supply
	B	Submersible sewage pump for
	X	Firefighting, Sprinkler Pump Usage
	C	Air conditioning, circulating water pump use
Switching method	H	Manual alternating switching
	AC	Automatic alternate switching
	AS	Scheduled automatic switching

Category	Code	Meaning
	1	Once used
	2	Two used
	3	Three used
	4	Four used
	2B	One in operation plus one standby
	3B	Two in operation plus one standby
	4B	Three in operation plus one standby
		Q
Y		Star delta voltage reduction starting
Z		Self coupling voltage reduction starting
R		Electronic soft start
B		Variable frequency starting

Category	Code	Meaning
Control method	Y	Level control
	P	Pressure control
	T	Temp control
	S	Time control
	R	Human machine interface control
	YC	Remote Interface
	X	Fire sprinkler inspection
	C	Air conditioning water pump control
	H	Separation of living and fire protection
	E	Special control method
Function	J	Alarm function

◆ Function Description

1. Control Types:

(1) NYK - Ordinary Relay Control: The start and stop of the water pump motor are controlled by an AC contactor, and the water pump motor operates at full speed in the power frequency state.

(2) NYB - Variable Frequency Speed Regulation Control: According to the instantaneous changes of a certain parameter of the system (such as pressure, pressure difference, temperature, flow rate, etc.), the AC variable frequency speed regulator adjusts the water pump motor steplessly to achieve the purpose of energy saving.

2. Main and Standby Pump Switching Methods:

(1) H - Manual Switching: Manually switch between the main pump and the standby pump. When the main pump fails, the standby pump will automatically start working.

(2) AC - Automatic Alternating Switching: Suitable for scenarios where the main pump and standby pump need to work alternately. Each time a pump is started, the main and standby pumps alternate. When automatic alternating switching is not required, the switch can be turned to manual switching mode for selection. This type may also have the function of automatic standby pump activation in case of failure (to be noted at the time of ordering);

(3) AS - Timed Automatic Switching: Suitable for scenarios where the main pump and standby pump need to be rotated on a schedule. After the main pump has operated for a preset period, the timer automatically stops the main pump and starts the standby pump to balance the operating time of the main and standby pumps. The main pump and standby pump can be selected manually. This function is a basic function of variable frequency speed control.

3. Pump Operation Modes

(1) One in Use, One on Standby:

Control of two pumps, Pump 1 and Pump 2. In automatic mode, it can operate in either "Pump 1 in use, Pump 2 on standby" or "Pump 2 in use, Pump 1 on standby" states. When the main pump fails, the standby pump will automatically start. In manual mode, operation is controlled via panel buttons. If the user requires an additional "two in use" operation mode (i.e., both pumps can be used simultaneously), this must be clearly specified at the time of ordering.

(2) Two in Use, One on Standby:

Control of three pumps, Pump 1, Pump 2, and Pump 3. It can operate in three states: "Pumps 1 and 2 in use, Pump 3 on standby", "Pumps 1 and 3 in use, Pump 2 on standby", or "Pumps 2 and 3 in use, Pump 1 on standby". When a main pump fails, the standby pump will automatically start. In manual mode, operation is controlled via panel buttons. If one main pump is turned off, it becomes a "one in use, one on standby" configuration. If the user requires an additional "three in use" operation mode (i.e., all three pumps can be used simultaneously), this must be clearly specified at the time of ordering.

(3) Three in Use, One on Standby:

Control of four pumps, Pump 1, Pump 2, Pump 3, and Pump 4. It can operate in four states: "Pumps 1, 2, and 3 in use, Pump 4 on standby", "Pumps 2, 3, and 4 in use, Pump 1 on standby", "Pumps 1, 3, and 4 in use, Pump 2 on standby", or "Pumps 1, 2, and 4 in use, Pump 3 on standby". When a main pump fails, the standby pump will automatically start. In manual mode, operation is controlled via panel buttons. If one main pump is turned off, it becomes a "two in use, one on standby" configuration; if two main pumps are turned off, it becomes a "one in use, one on standby" configuration. If the user requires an additional "four in use" operation mode (i.e., all four pumps can be used simultaneously), this must be clearly specified at the time of ordering.

4. Starting Methods:

(1) R - Direct On-Line Starting: Full-voltage starting and full-voltage operation, with a relatively large starting current;

(2) Y - Star-Delta Voltage Reduction Starting: During starting, the motor stator winding is connected in a 'Y' shape to reduce the voltage and current per phase winding; during operation, the motor stator winding is connected in a ' Δ ' shape;

(3) Z - Auto-transformer Voltage Reduction Starting: During starting, an auto-transformer is used to reduce the voltage and current; during operation, it is restored to full voltage;

(4) R - Soft Starting: Initiated by an electronic soft starter for voltage reduction starting. The starting process involves contactless switching, with voltage and current rising smoothly, thus avoiding significant impact on the power grid and pipeline network.

◆ Control Method

1、Y-Level Control: The water pump uses liquid level as the control target. In conventional relay control, the start and stop of the water pump are controlled based on the liquid level in a certain water container (such as a water tank or water tower). In variable frequency speed regulation control, the speed of the water pump motor is adjusted or the start and stop of the water pump are controlled based on the liquid level in a certain water container (such as a water tank or water tower).

2、P-Pressure Control: The water pump uses pressure as the control target. In conventional relay control, the start and stop of the water pump are controlled based on the pressure level in the pipeline network. In variable frequency speed regulation control, the speed of the water pump motor is adjusted or the start and stop of the water pump are controlled based on the pressure level in the pipeline network to achieve the purpose of stabilizing the pipeline network pressure.

3、E-Special Control Method: The water pump uses other parameters as the control target, such as temperature, pressure difference, temperature difference, etc. The control process is the same as above.

◆ Other Functions

1. YC - Remote Interface: The electrical control cabinet is equipped with remote monitoring terminal blocks, which can transmit the pump operating conditions to a duty room at a relatively distant location for monitoring;

2. SD - Dual Power Supply: The electrical control cabinet has dual power supply input interfaces, allowing automatic and manual switching between two power sources;

3. I - Human-Machine Interface: The electrical control cabinet is fitted with a touch-screen programmable terminal. System operating parameters are set via animated mimic diagrams, and the real-time operating status of the equipment is displayed;
4. S - Special Design: Non-standard electrical control cabinet, specially designed according to user requirements.