

hydroo[®]

WDROO SERIES

WF

**Cast Iron Submersible
Electric Pump
50Hz**



PRESENTATION

Hydroo Pump Industries SL is an enterprise specialised in the research, development and large-scale production of Stainless Steel centrifugal pumps. We have a vertical integration of the production processes, standing out stamping, welding and motor wiring in 6 value centers and production units. All of them with a high performance management on pump engineering and production quality.

HYDROO has set up a wide range of pumping solutions for many applications as building services, industry, irrigation and industrial process. Customers enjoy of the highest performance in booster sets and pressurization, fire-fighting sets, pumping of underground water, HVAC, drainage and sewage, utilities, desalination and OEM integrations. Versions in 50 Hz and 60 Hz are available, as well as any modification on materials, on request.

Global water challenges require excellence in pumping technologies

and close cooperation between pump designers, manufacturers and pump engineers. In order to better meet the customers' needs and requirements our company is facing an expansion of its operations worldwide, providing timely and effective services in more than 30 countries. With tight relationships in many regions, we're proud to introduce a new regional value center for Europe. We are based near Barcelona at the Girona industrial area. Hydroo is a trademark to forge excellent and successful business relationships with our value customers by means of an operative assembling unit and an application engineering unit. HYDROO trademark wants to symbolize the firm commitment for a high level service to our value partners.

At Hydroo we bet on a high level service to our value pump partners.

WF

Submersible sewage pump

Applications

- Raw water
- Municipal and industrial waster water
- Rain water
- Sewage works
- General industrial services
- Construction

Description

Robust and reliable submersible pumps for waste water applications. Pumps with double and multiple channel impellers. Autocoupling devices and hard pipe elbows available on request for all the models.

Performance range

- Flow range: up to 1800 m³/h
- Head: up to 66 m
- Temperature: up to 40 °C
- Speed: 2900/1450 rpm
- 3500/1750 rpm
- Power: up to 90 kW

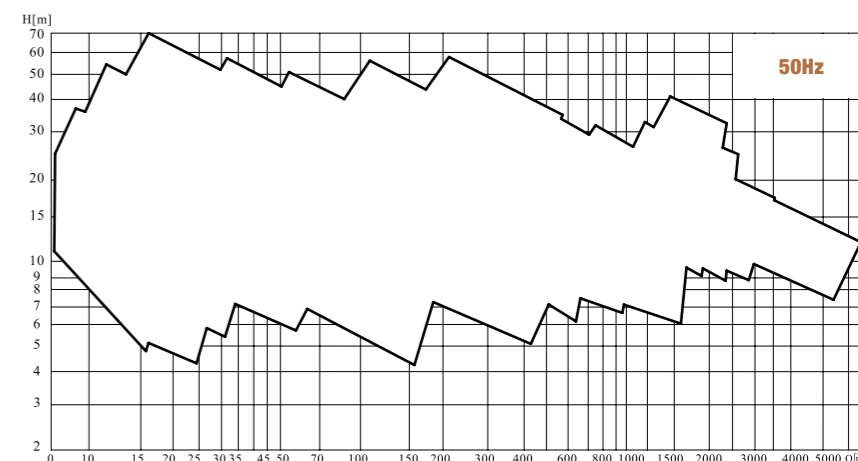
Standard material

WF: Cast iron

Section drawing



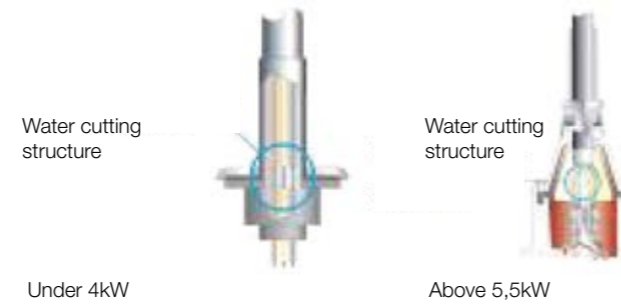
Performance scope



Summary

WF series new generation submersible sewage pump has the following features:

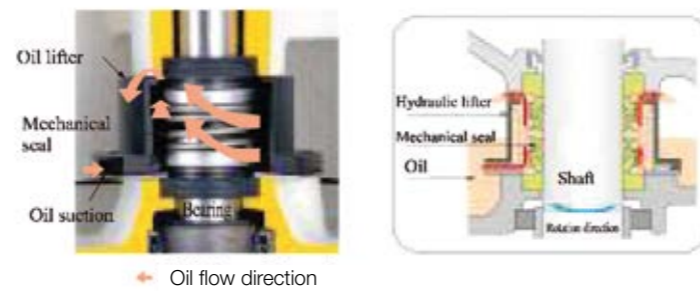
1- The special cable production process can prevent water leak to motor cabinet when cable cover is broken or the front of cable is submersed.



2- Specially designed submersible motor with the protection level of IPX8, insulation class F. Compling with UL 778 requirements. The allowed temperature rise is high, submerged cooling effect is good, the actual temperature rise is low, motor insulation life is long, it ensures that the motor can automatically cut off the power supply in abnormal condition.



3- The product is fitted with outside frameworks oil seal and double-mechanical seal. The hydraulic lifter which is installed inside oil chamber ensures the lubrication of mechanical seal when the oil level is low. Prolong the service life of the seal, the sealing performance is more reliable, effectively ensuring the continuous safe operation of product.



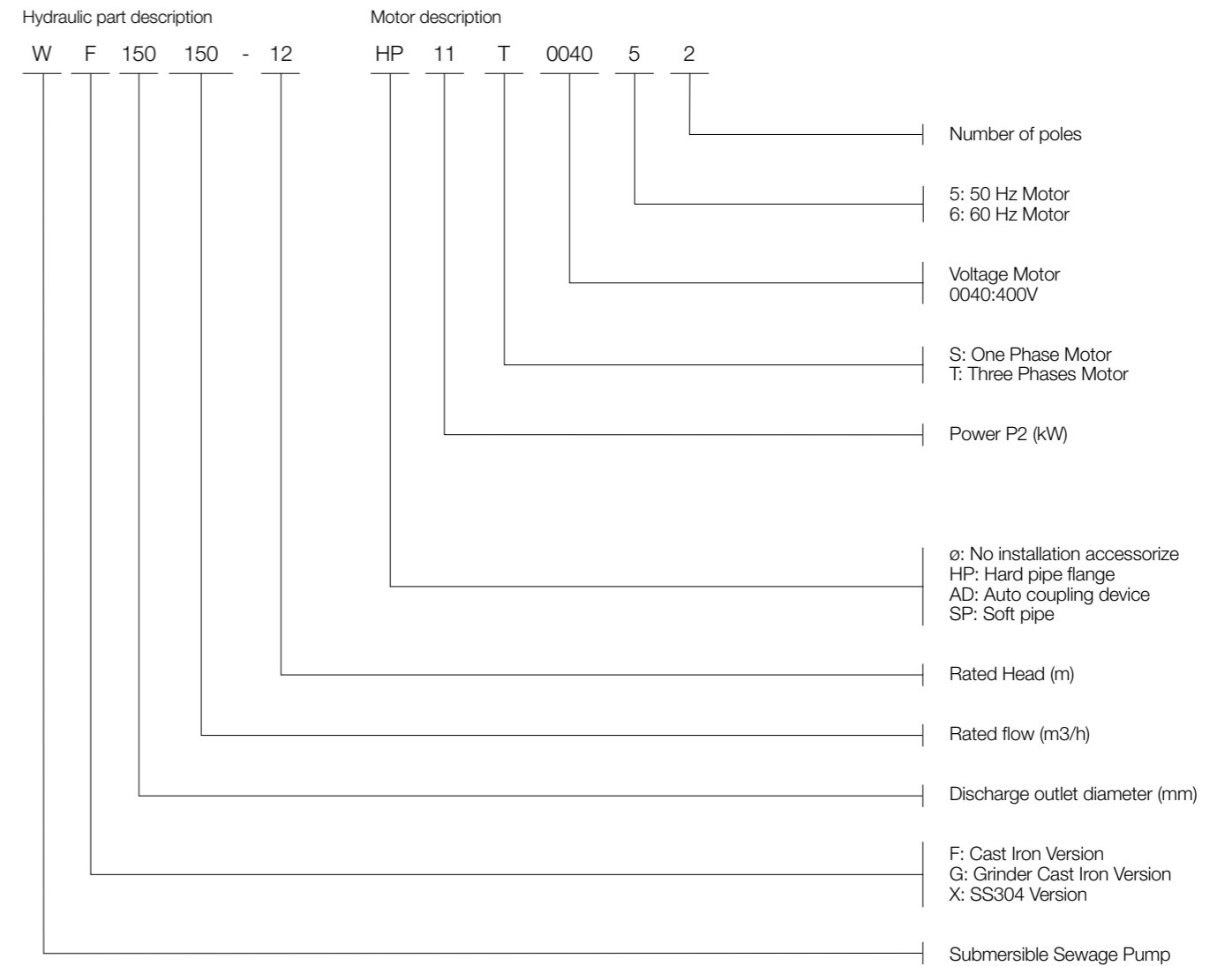
4- The design of automatic vent valve enables the pump to exhaust air automatically when pumping water.



5- The impeller adopts semi-closed and open shape of double-channel design. Because of symmetric channel, it is well balanced, stable running, small vibration, long service life and energy saving.

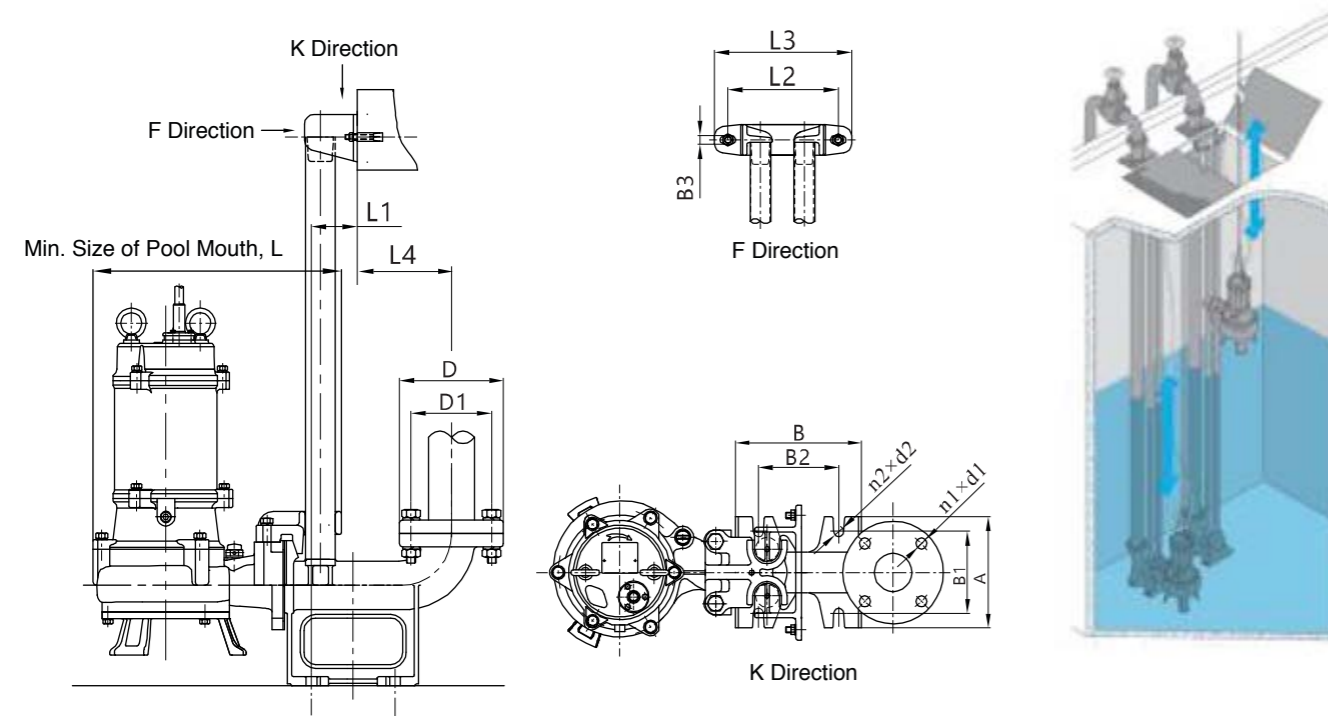


Definition of model

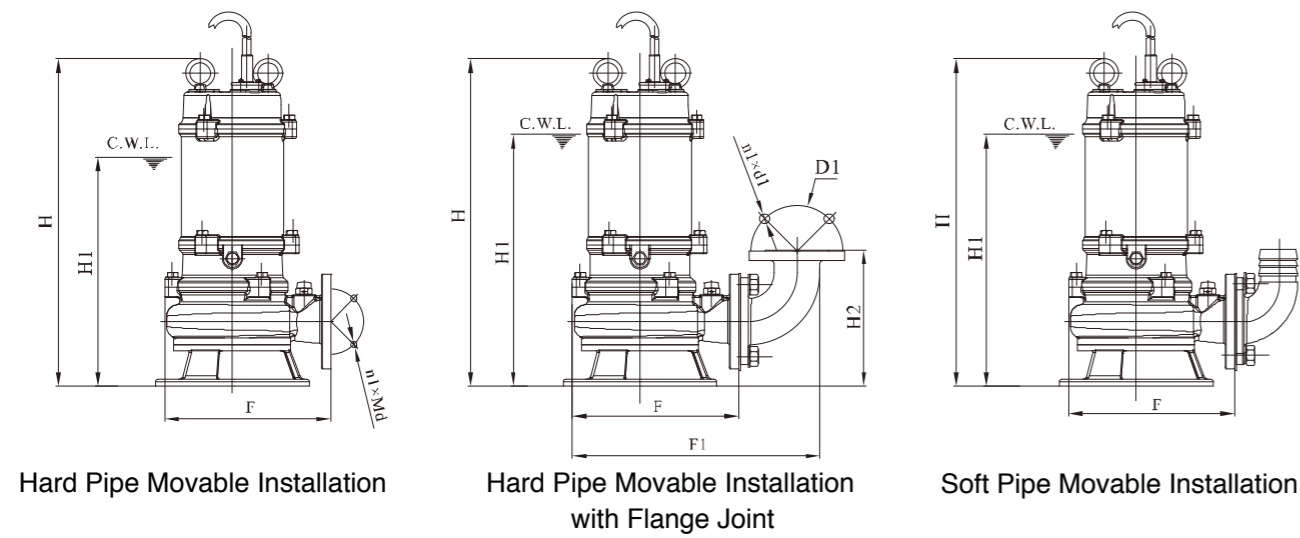


Installation types

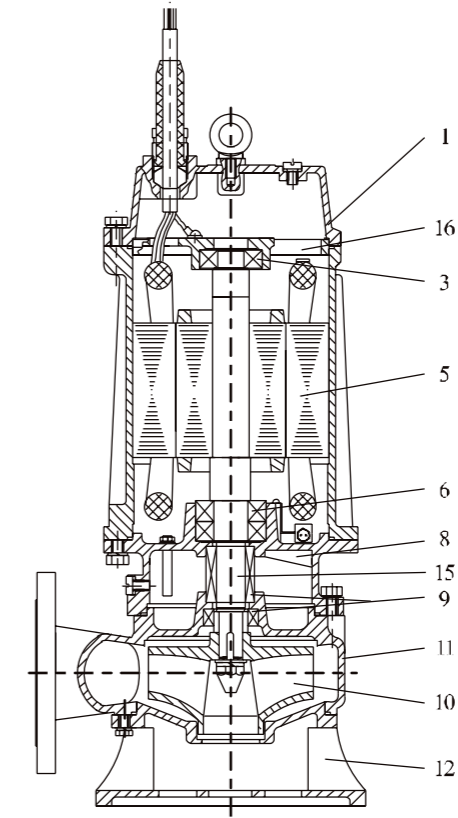
Fixed auto Coupling Device Installation



Movable Installation



Construction materials



No.	Part	Material	ISO Spec.	ASTM Spec.
1	Pump Cover	Cast Iron	ISO 185 Grade 200	ASTM A48 Class 30
3	Bearing			
5	Motor			
6	Bearing			
8	Oil Chamber	Cast Iron	ISO 185 Grade 200	ASTM A48 Class 30
9	Mechanical Seal	Sic/Tungsten Carbide		
10	Impeller	Cast Iron	ISO 185 Grade 200	ASTM A48 Class 30
11	Casing	Cast Iron	ISO 185 Grade 200	ASTM A48 Class 30
12	Base	Cast Iron	ISO 185 Grade 200	ASTM A48 Class 30
15	Shaft	Stainless Steel	AISI 304	AISI 304
16	Thermal Protector			

Coupling Device Dimensions

N°	Diameter	Flange connection size PN6				Coupling base dimension (mm)						L	L1	L2	L3	L4
		D	D1	n1xd1	n1xMd	A	B	B1	B2	B3	n2xd2					
1	DN40	130	100	4-ø14	4-M12	140	149	100	95	2-ø14	4-ø18	400	73	185	230	57
2	DN50	140	110	4-ø14	4-M12	160	200	120	120	2-ø14	4-ø18	400	60	185	230	175
3	DN65	160	130	4-ø14	4-M12	190	220	140	140	2-ø14	4-ø18	415	75	195	230	130
4	DN80	190	150	4-ø18	4-M16	220	250	170	170	2-ø14	4-ø18	415	75	195	230	165
5	DN100	210	170	4-ø18	4-M16	250	290	200	200	2-ø15	4-ø18	480	114	245	300	176
6	DN150	265	225	8-ø18	8-M16	400	410	300	300	3-ø15	4-ø24	925	190	260	380	190
7	DN200	320	280	8-ø19	8-M16	400	450	300	350	3-ø15	4-ø24	1048	200	260	380	229
8	DN250	375	335	12-ø19	12-M16	460	560	360	430	3-ø15	4-ø24	1205	200	280	380	300
9	DN300	440	395	12-ø23	12-M20	600	630	500	470	3-ø18	4-ø28	1078	270	400	700	300

Dimensions

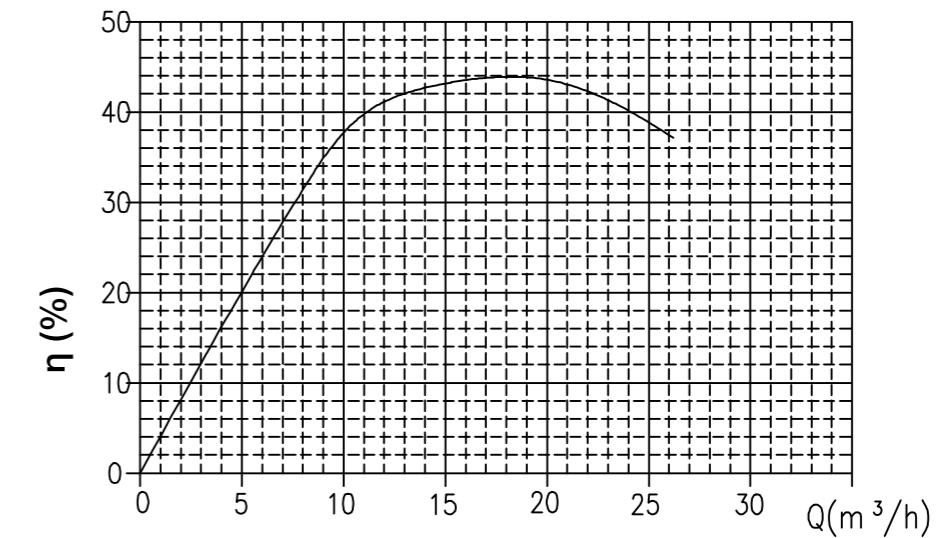
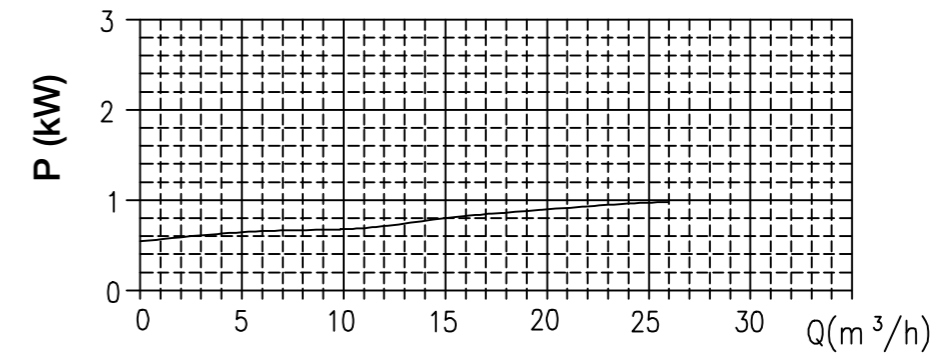
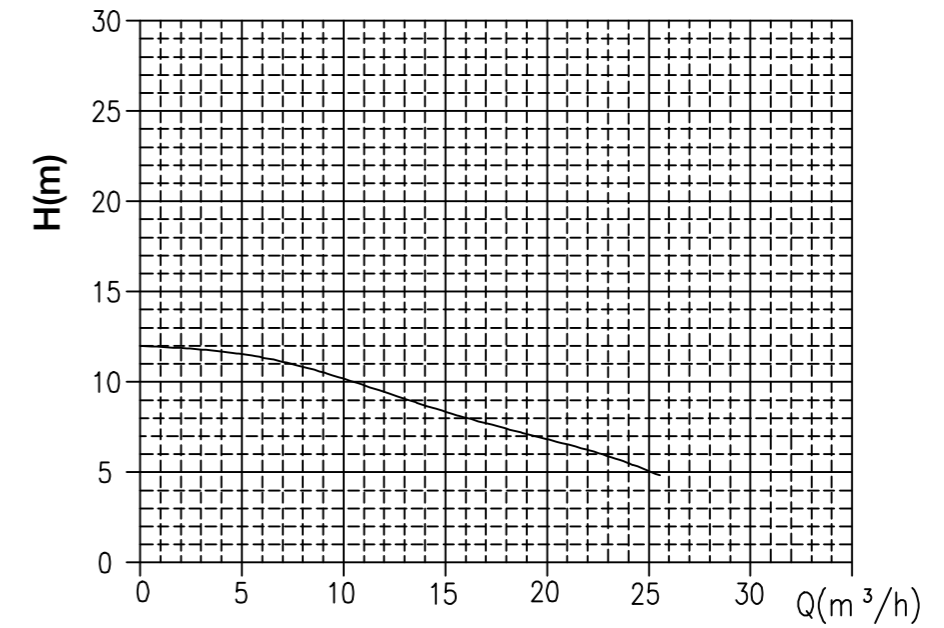
Measure:mm (Except inch)

Diameter	DN40	DN50	DN65	DN80	DN100	DN150	DN200	DN250	DN300
Guide rod tap pipe/ Seamless steel pipe	1"/33X3.0		1-1/4"/42X3.0		2"/60X3.25	1-1/2"/48X3.25		2-1/2"/75X4	
Guide rod length	Pool depth -245	Pool depth -285	Pool depth -300	Pool depth -320	Pool depth -365	Pool depth -100		Pool depth -150	
Quantity of expansion bolt and specification	2-M10X120				2-M12X125			2-M16X150	
Quantity of bolt and specification	4-M16X250				4-M20X300			4-M24X350	
Footer bolt hole size	80X80X300				100X100X350			120X120X400	
Dia. of soft pipe	1-1/2"/40	2"/50	2-1/2"/65	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300

WF50 10-10/0,75

Performance curve

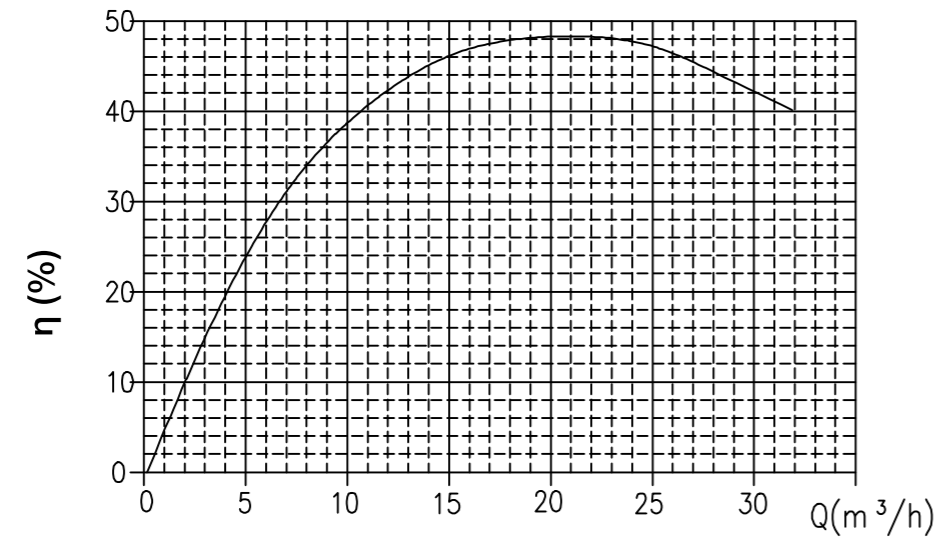
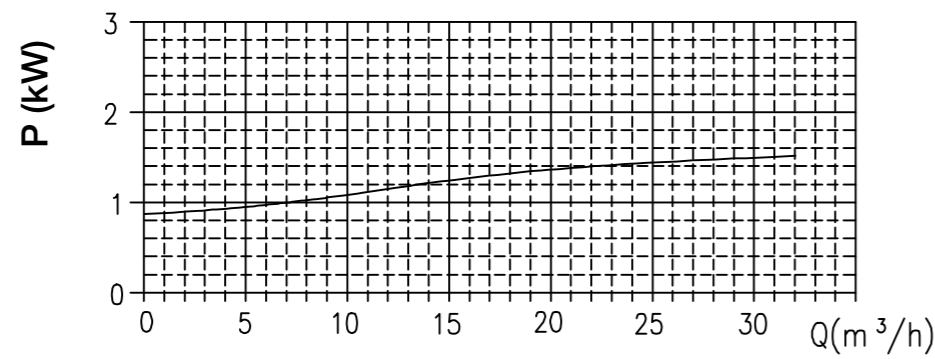
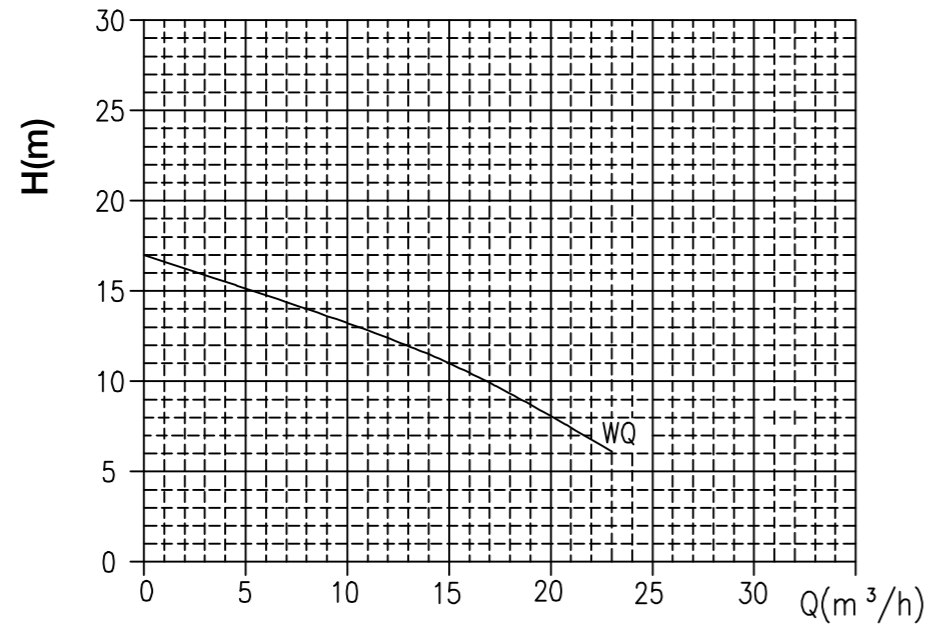
2900 r/min



WF50 15-10/1,1

Performance curve

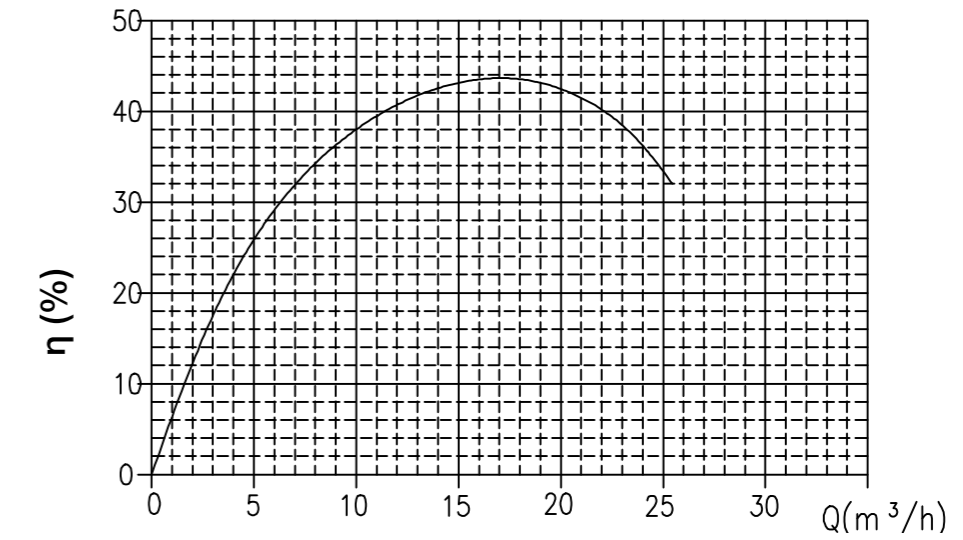
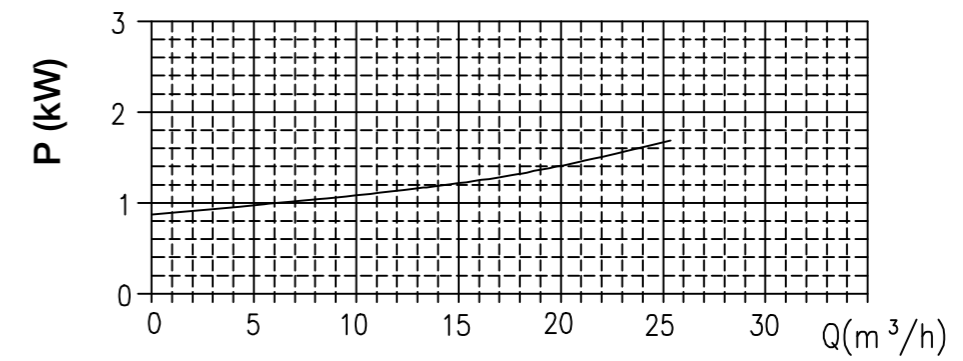
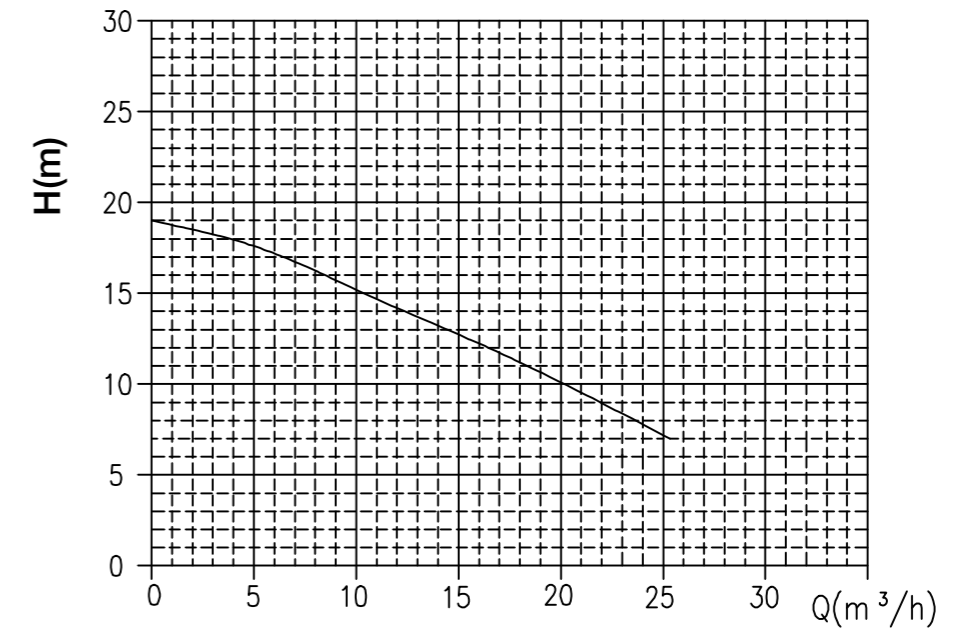
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WF50 10-15/1,5

Performance curve

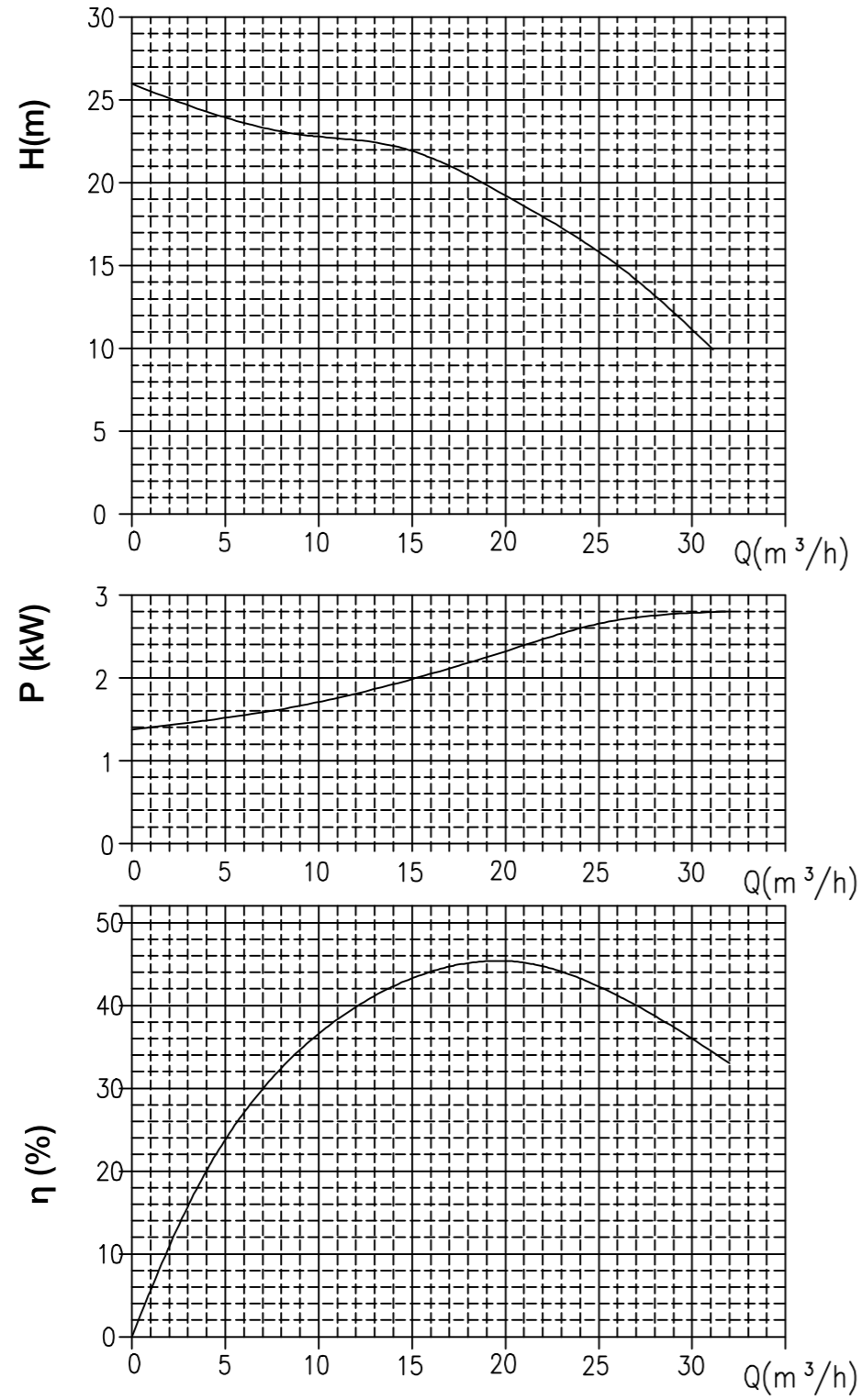
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WF50 9-22/2,2

Performance curve

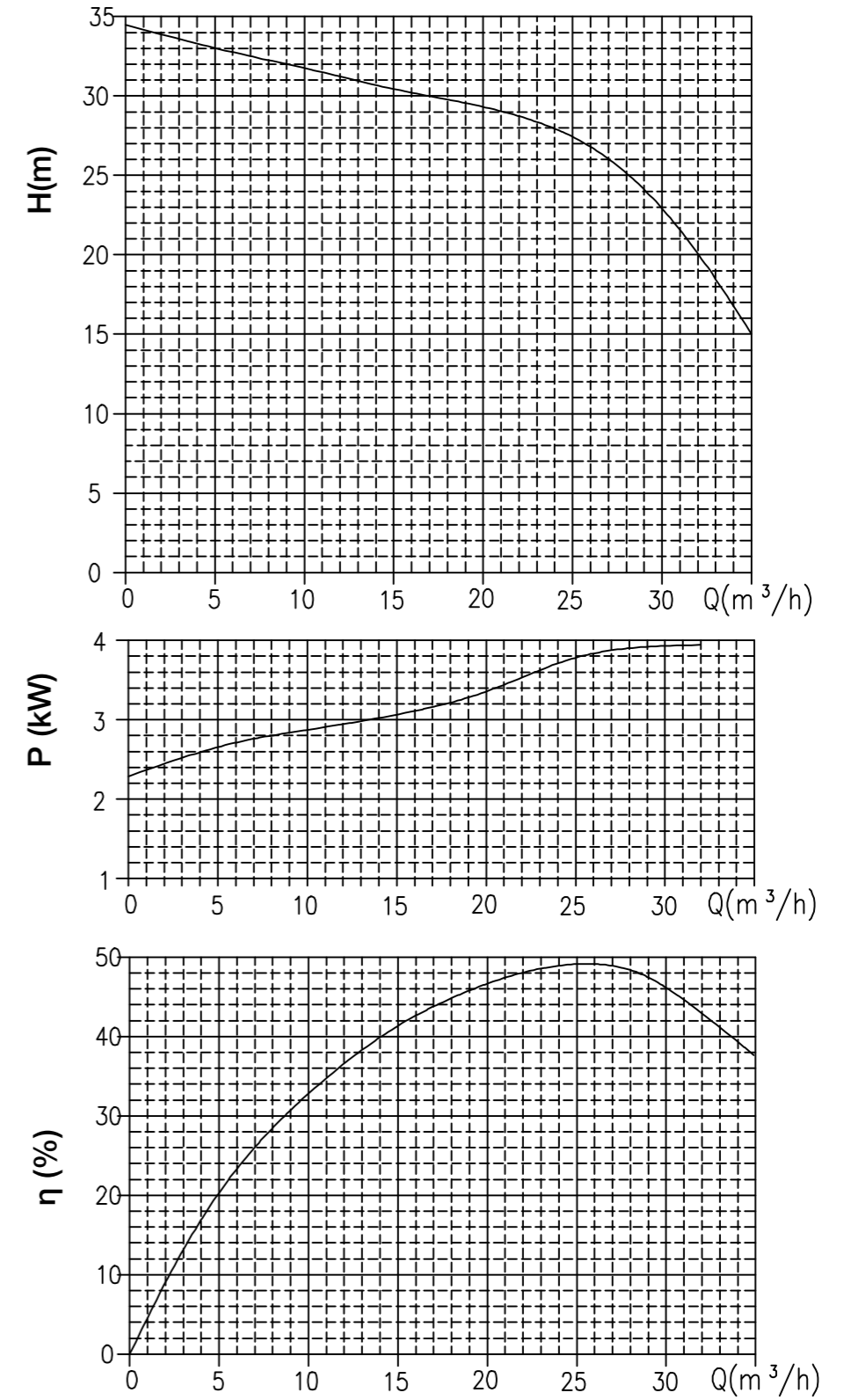
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WF50 15-30/3

Performance curve

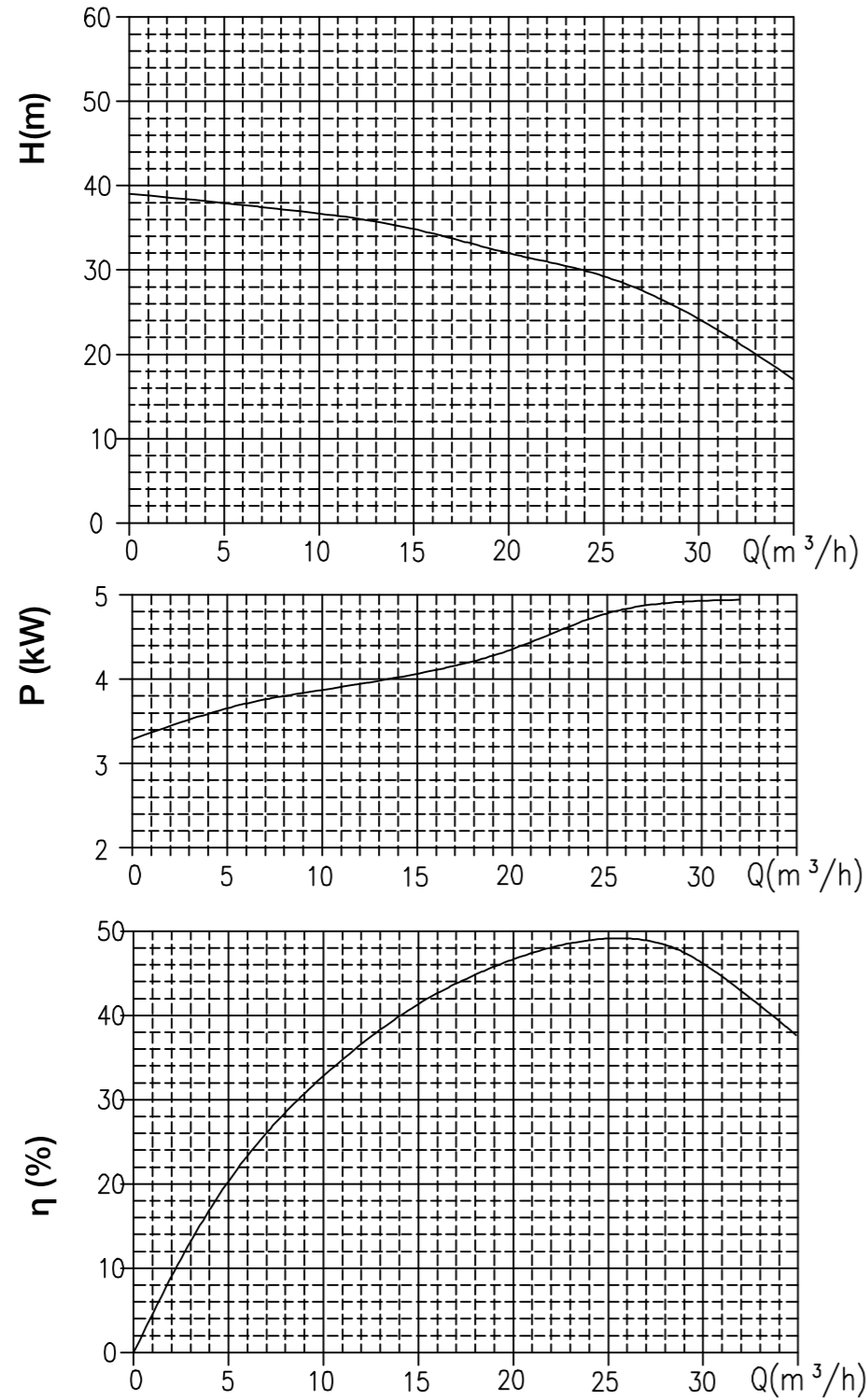
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WF50 15-35/4

Performance curve

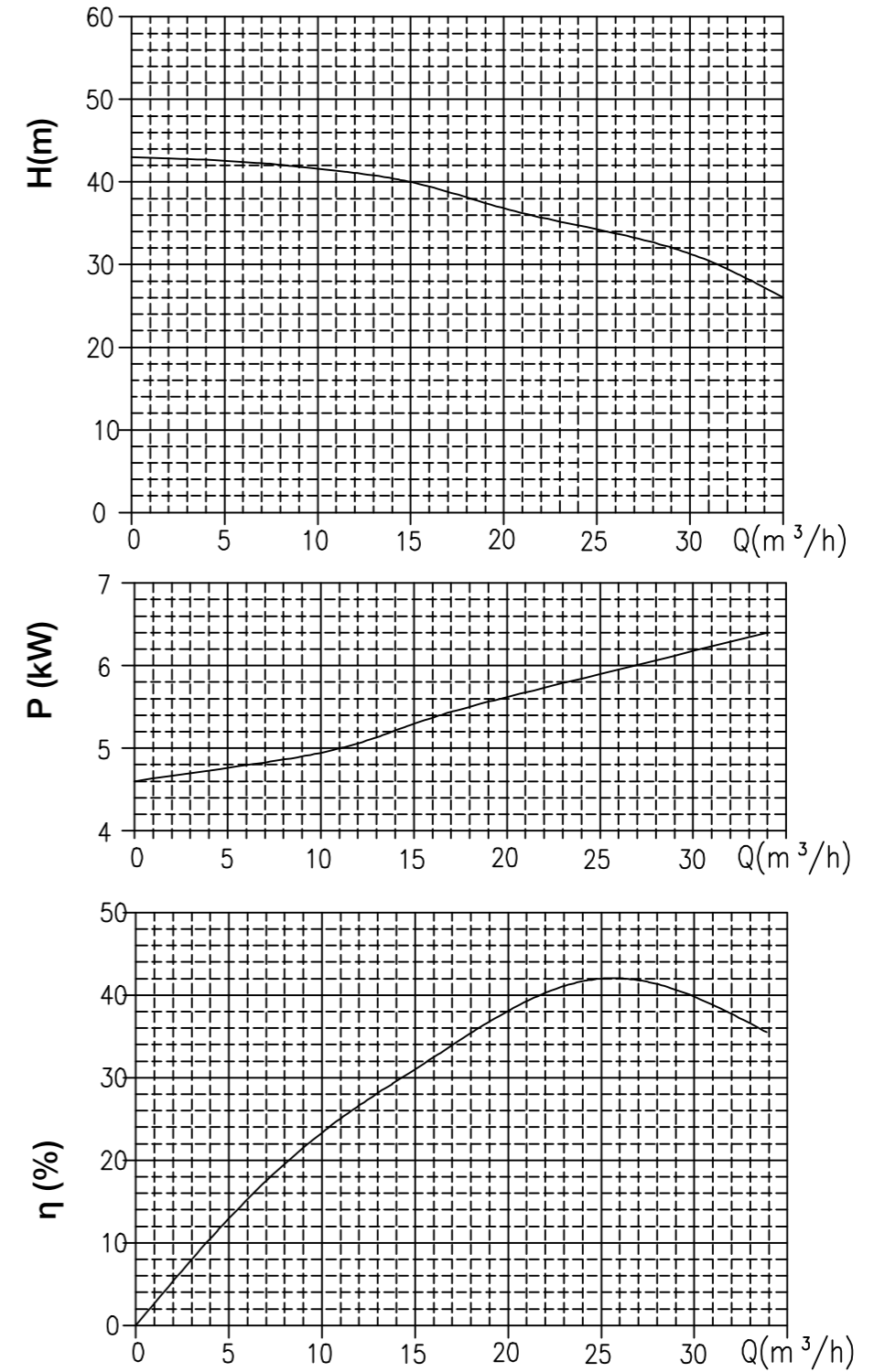
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WF50 15-40/5,5

Performance curve

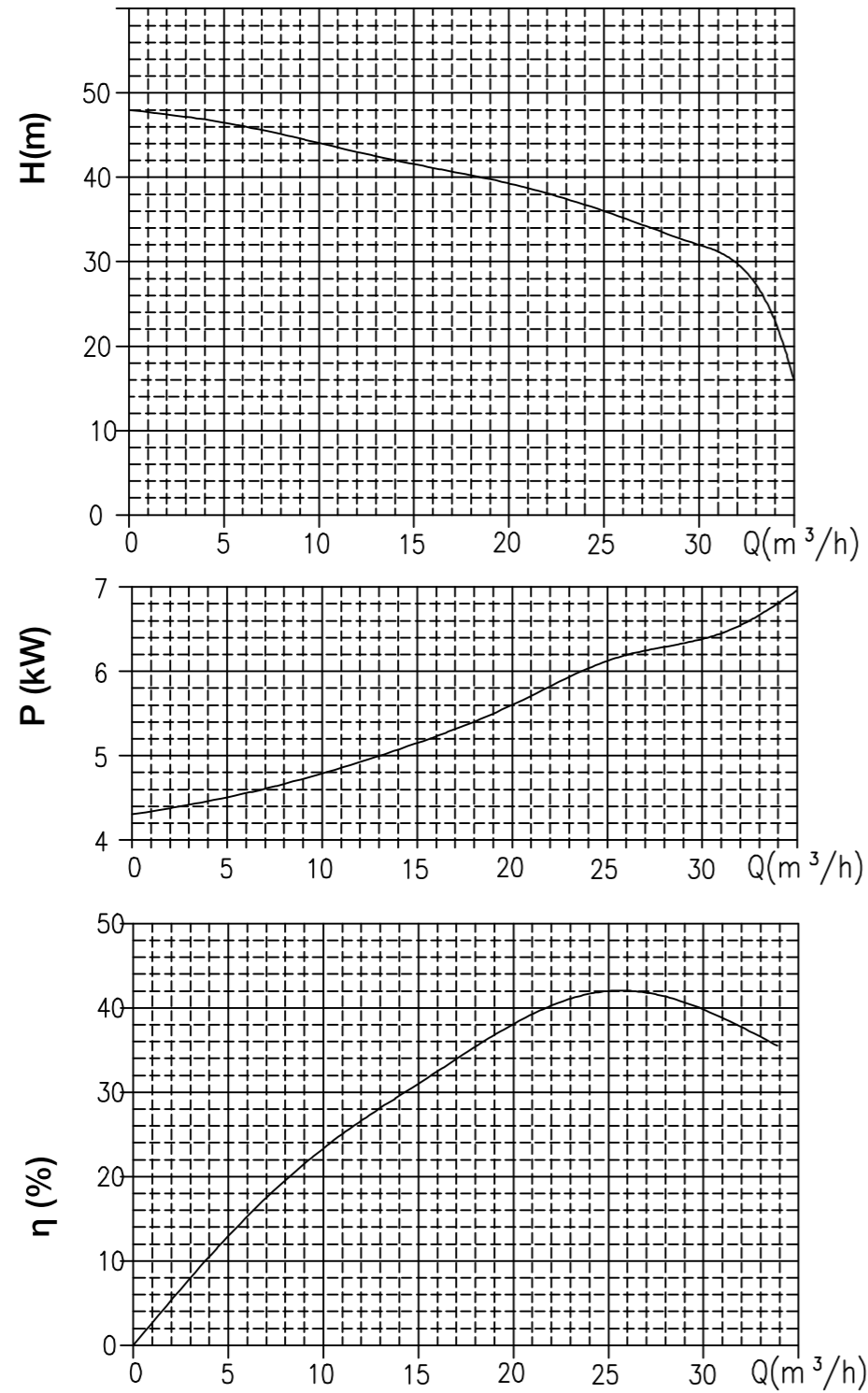
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WF50 20-40/7,5

Performance curve

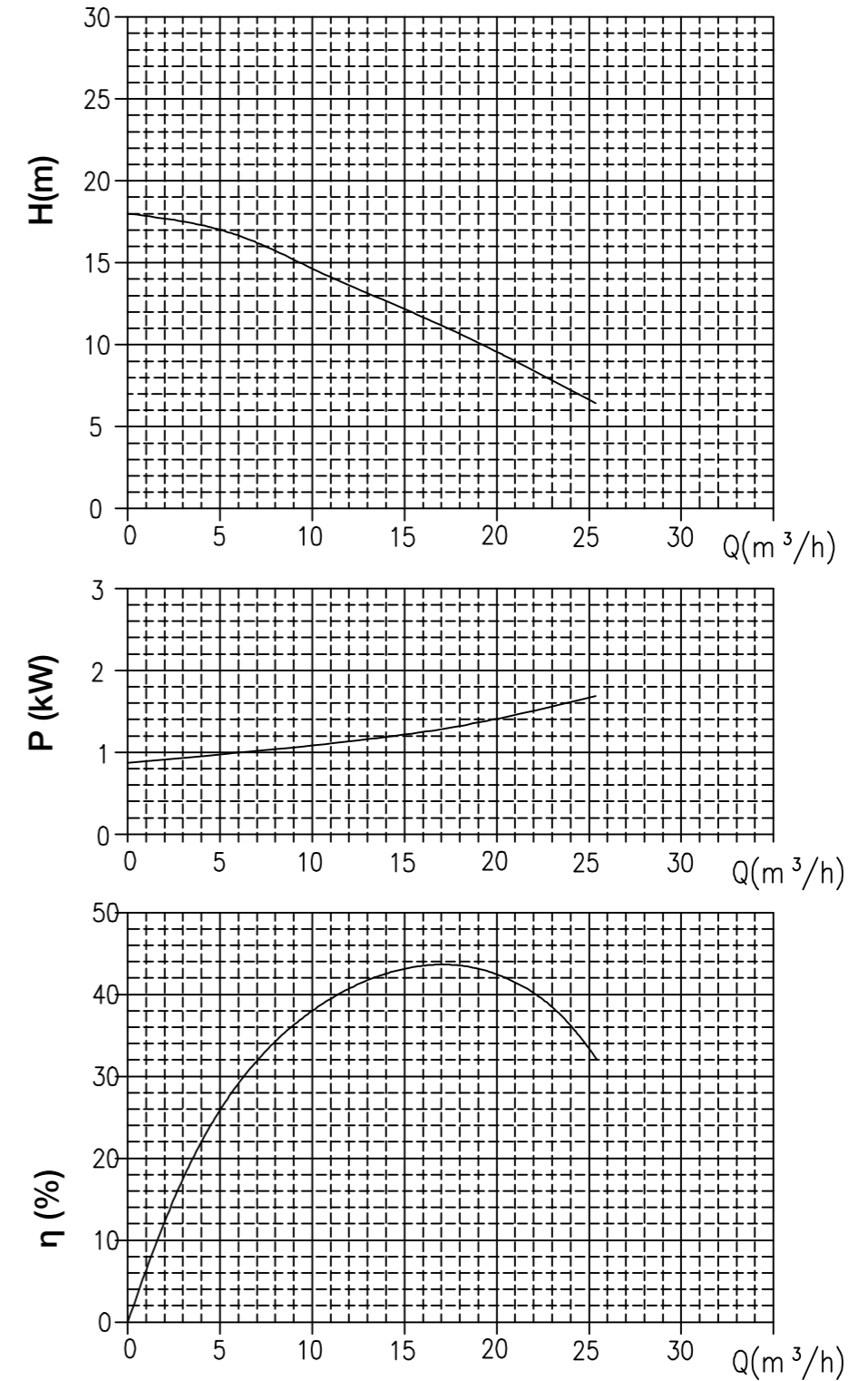
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WF65 15-10/1,5

Performance curve

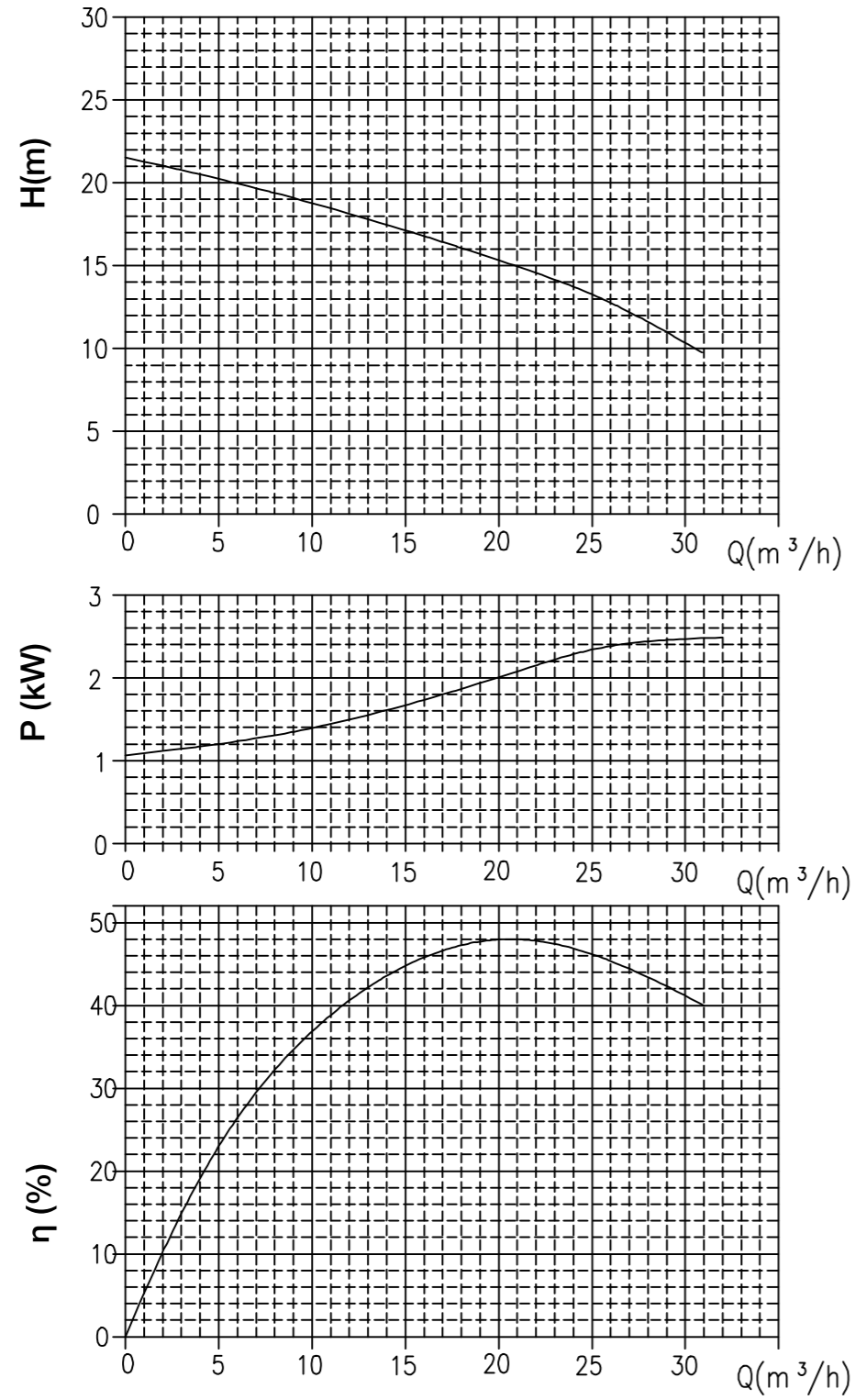
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WF65 25-10/2,2

Performance curve

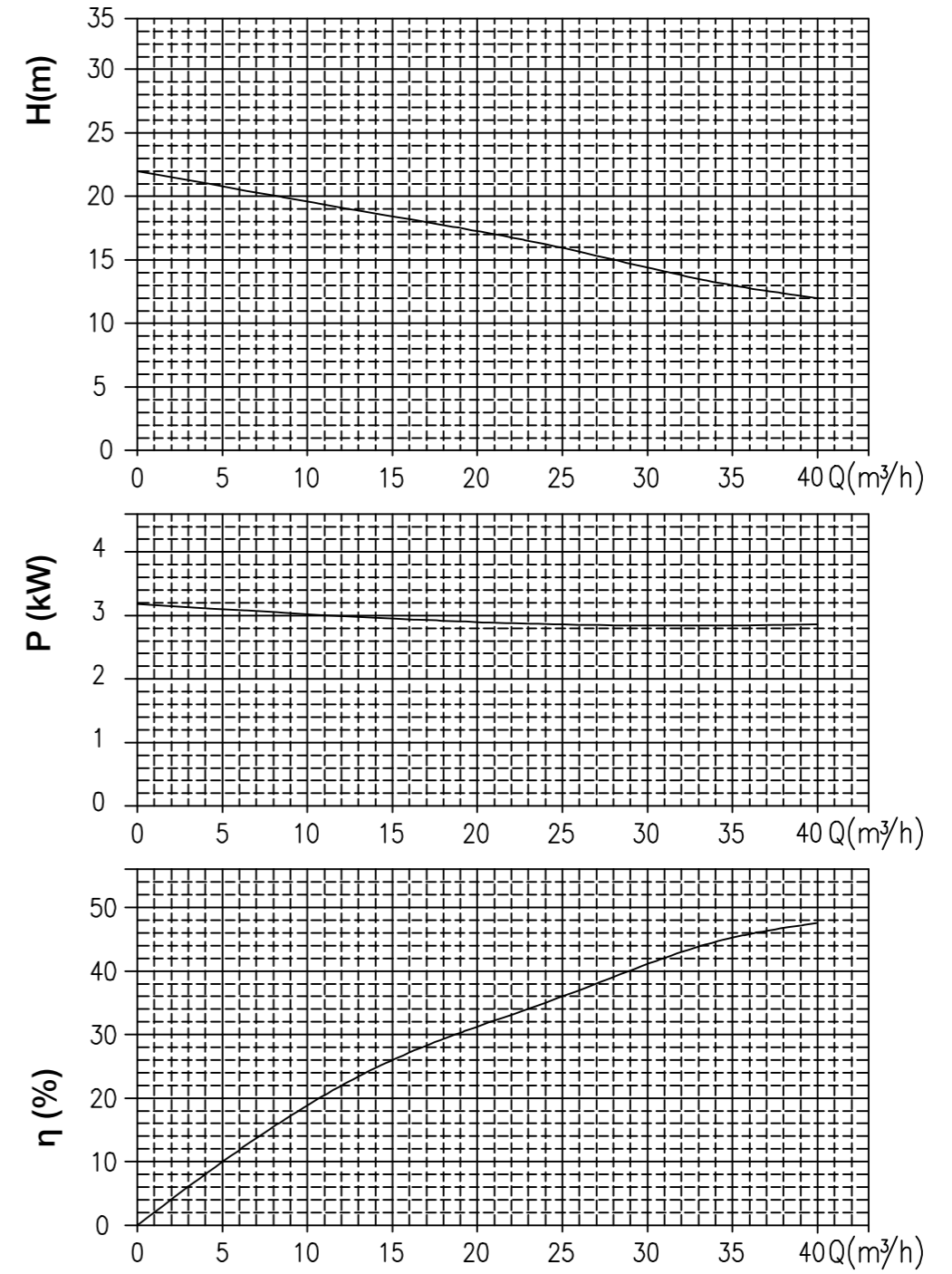
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WF65 25-15/3

Performance curve

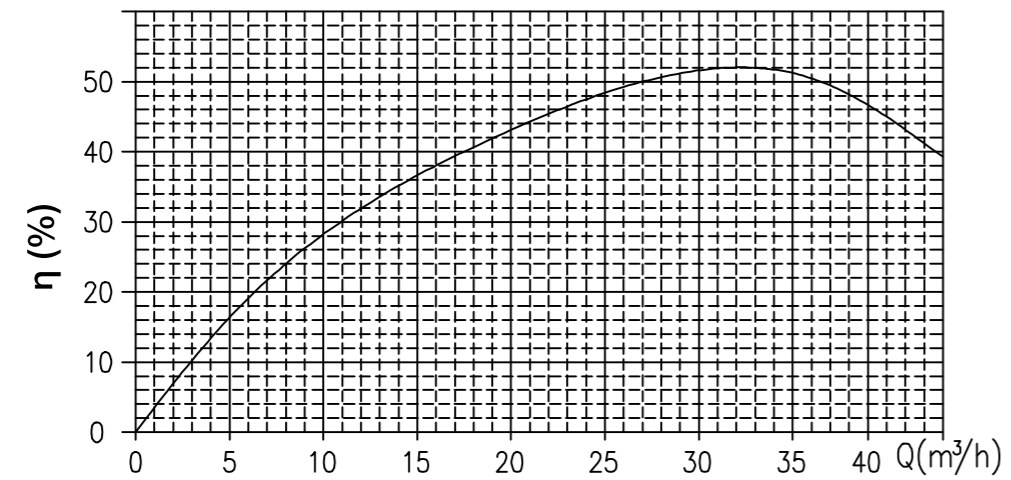
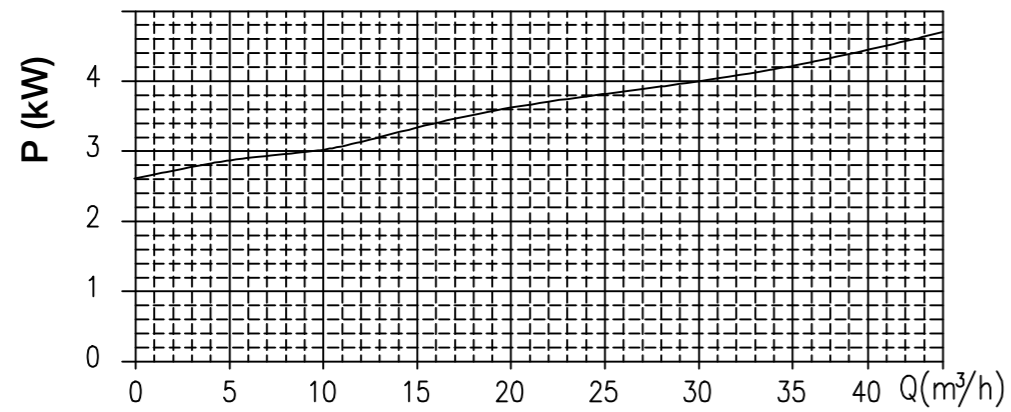
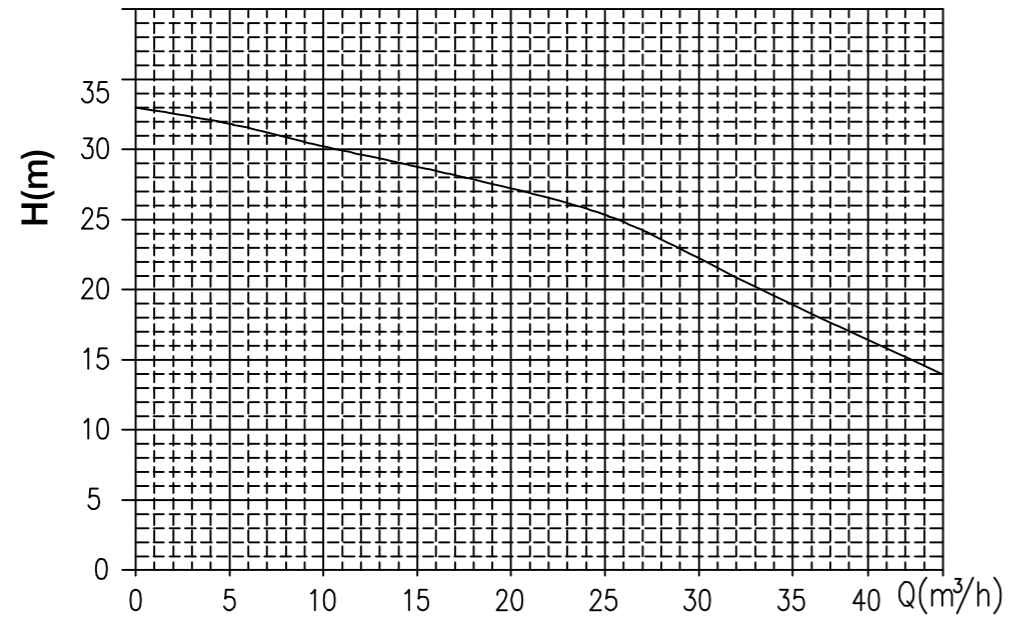
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WF65 20-25/4

Performance curve

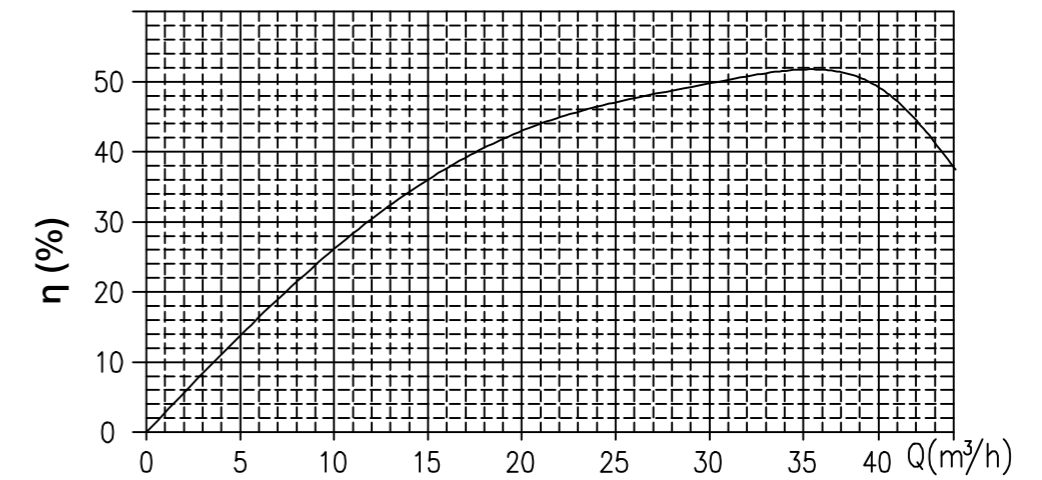
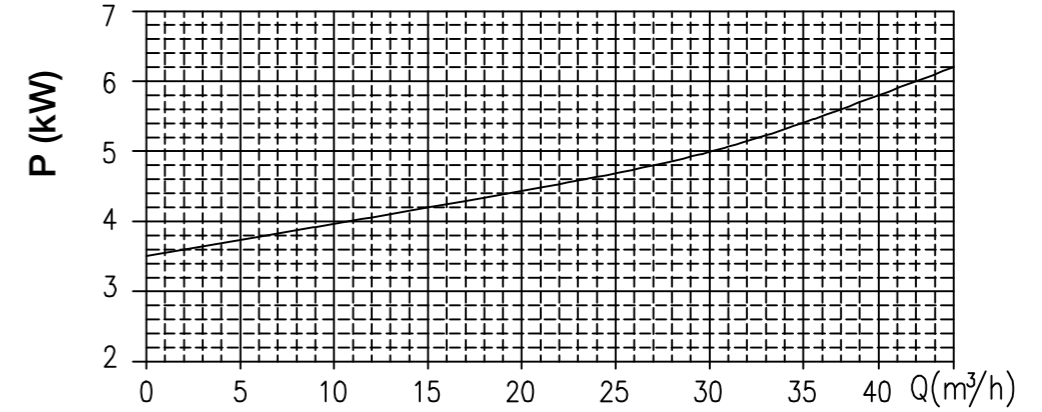
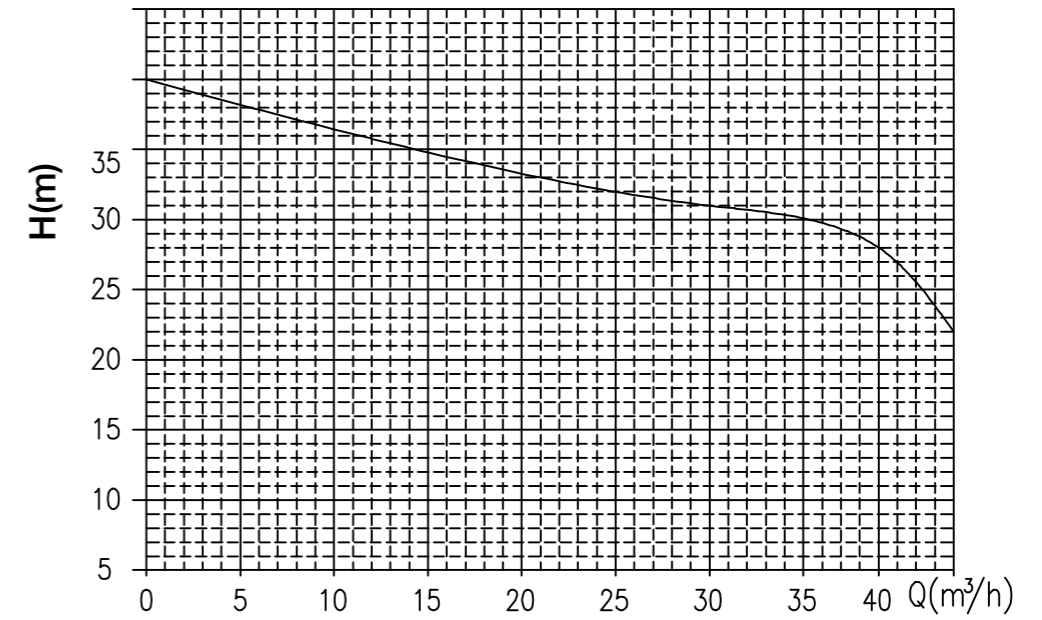
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WF65 30-30/5,5

Performance curve

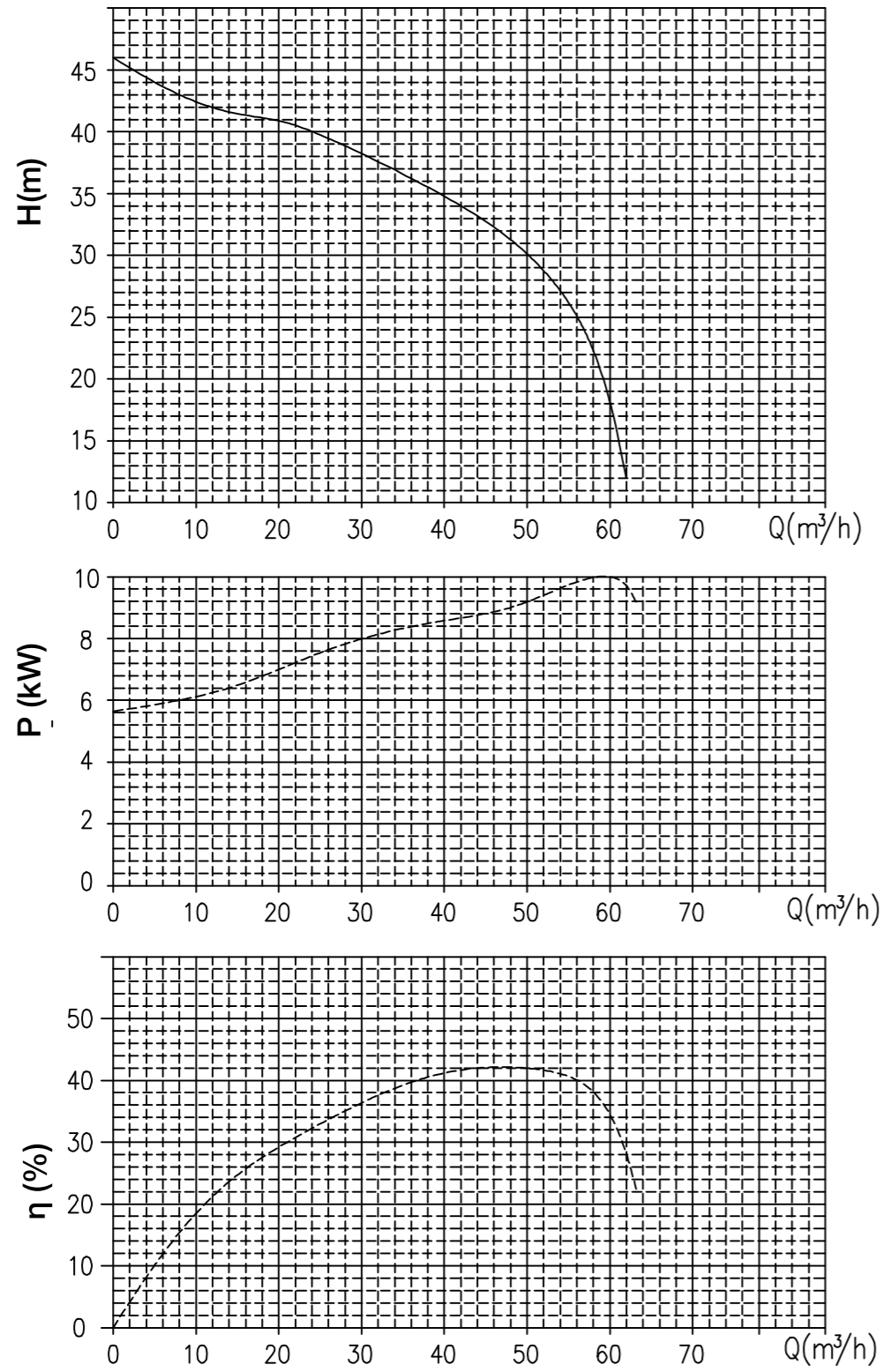
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WF65 40-35/7,5

Performance curve

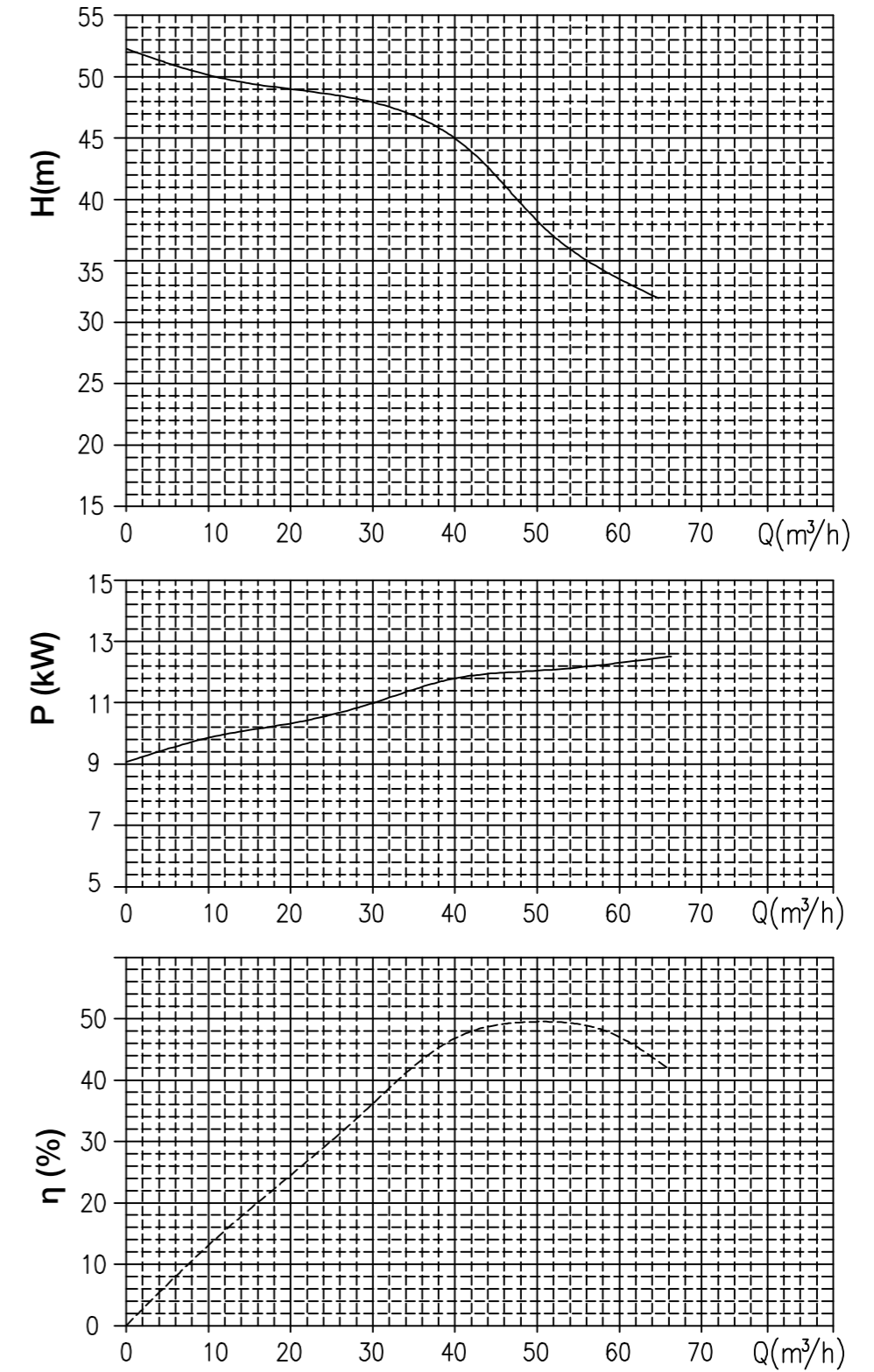
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WF65 40-45/11

Performance curve

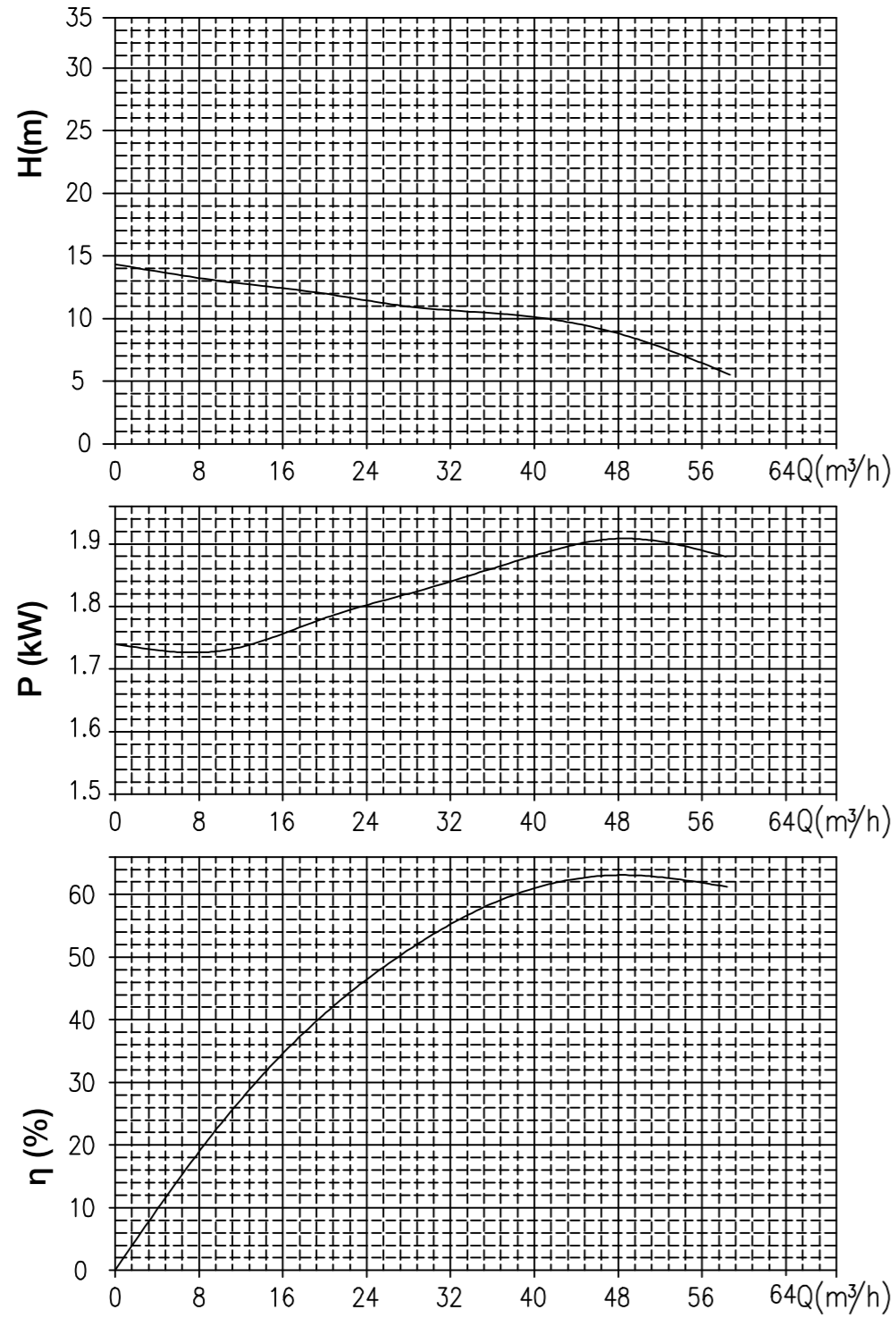
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WF80 40-10/2,2

Performance curve

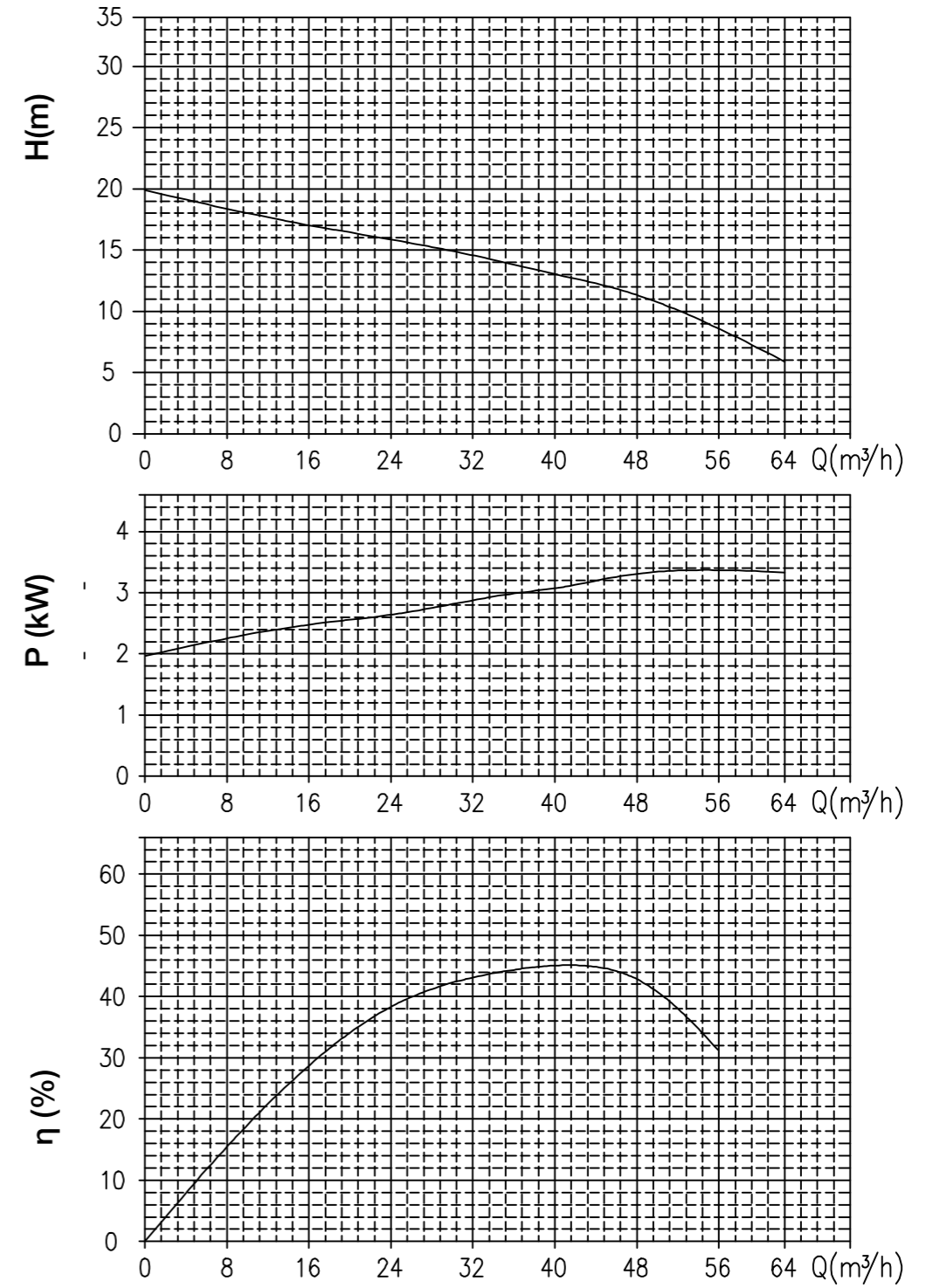
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WF80 40-12/3

Performance curve

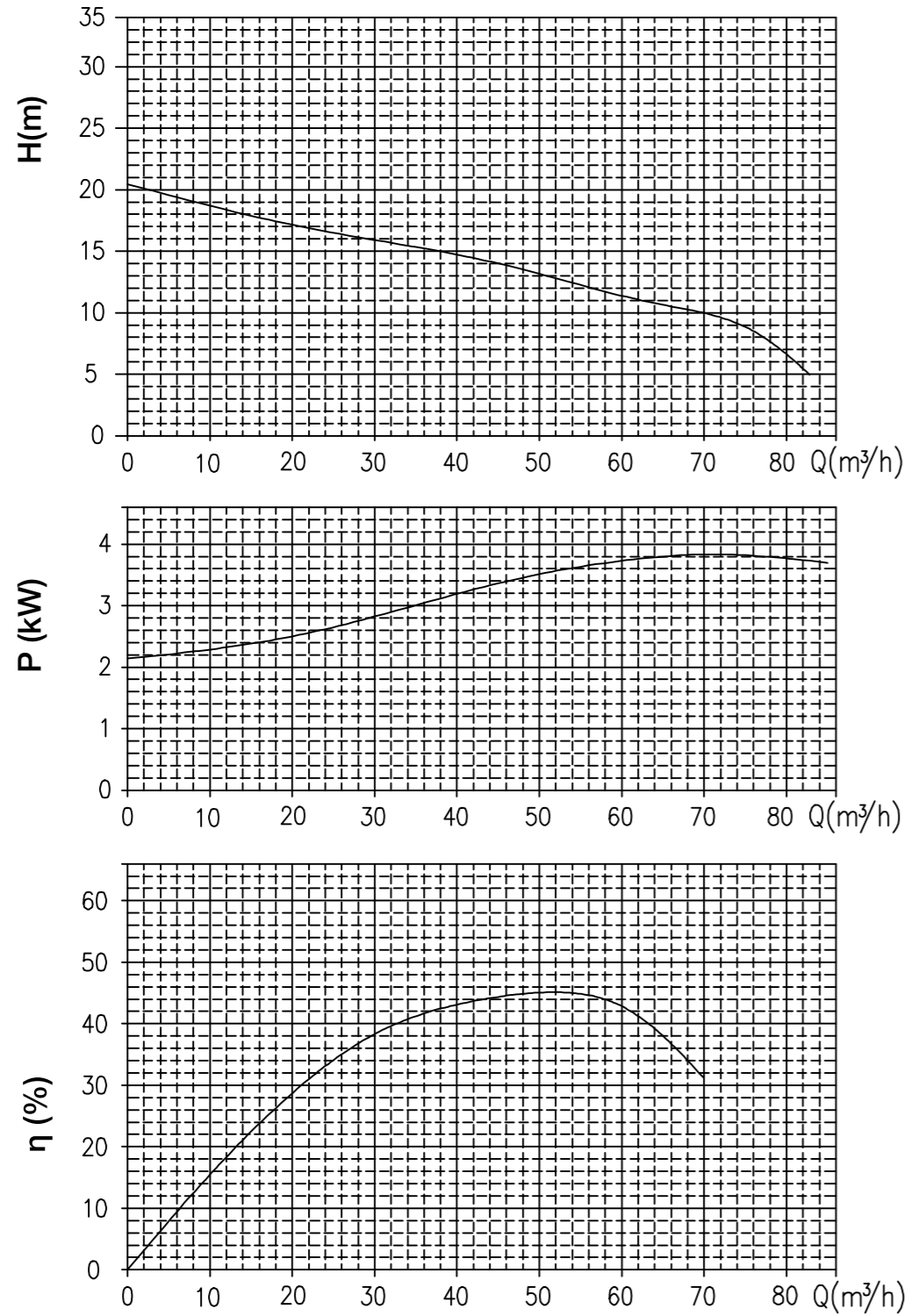
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WF80 60-12/4

Performance curve

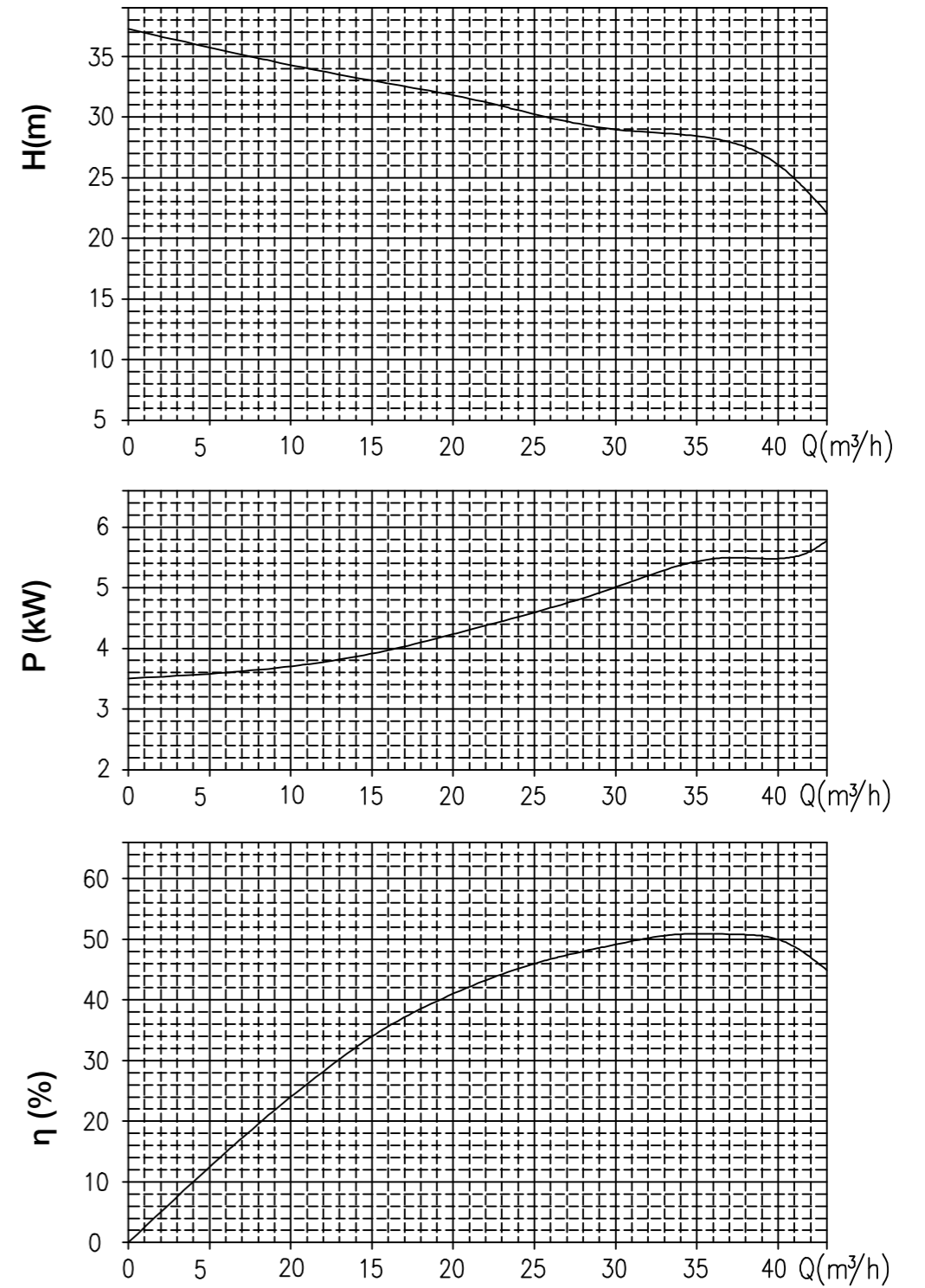
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WF80 30-30/5,5

Performance curve

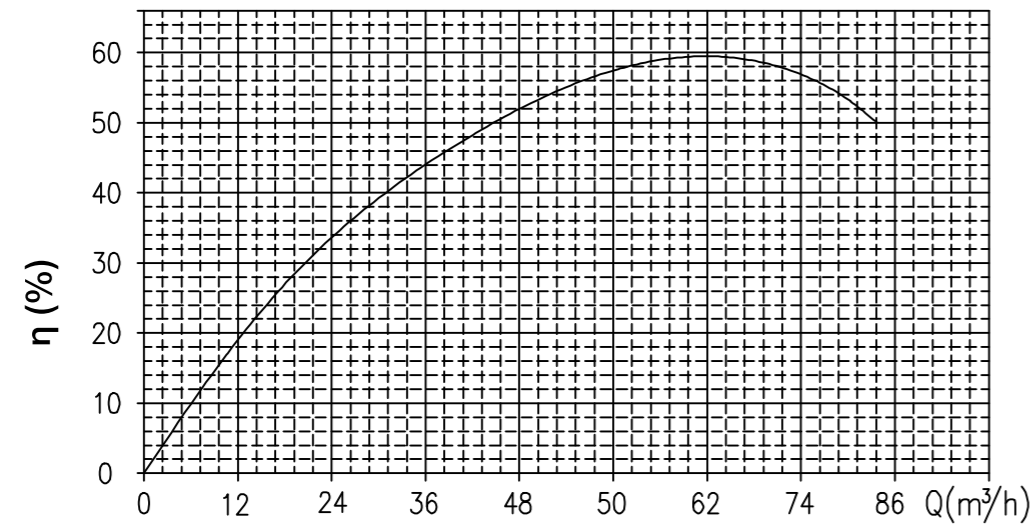
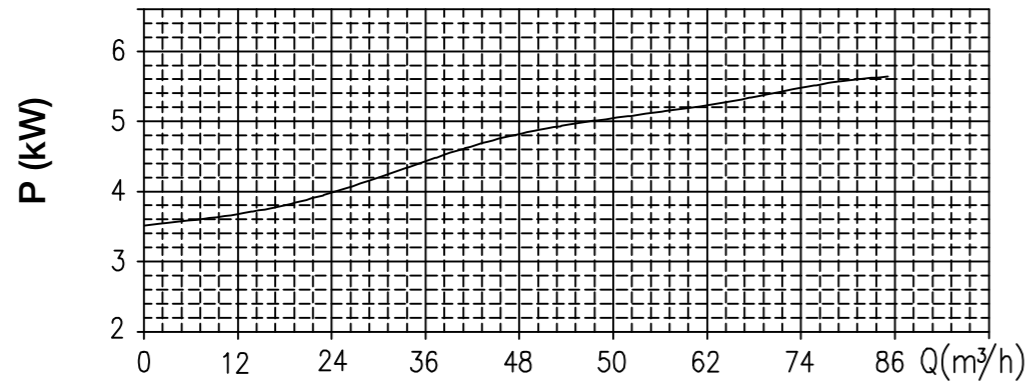
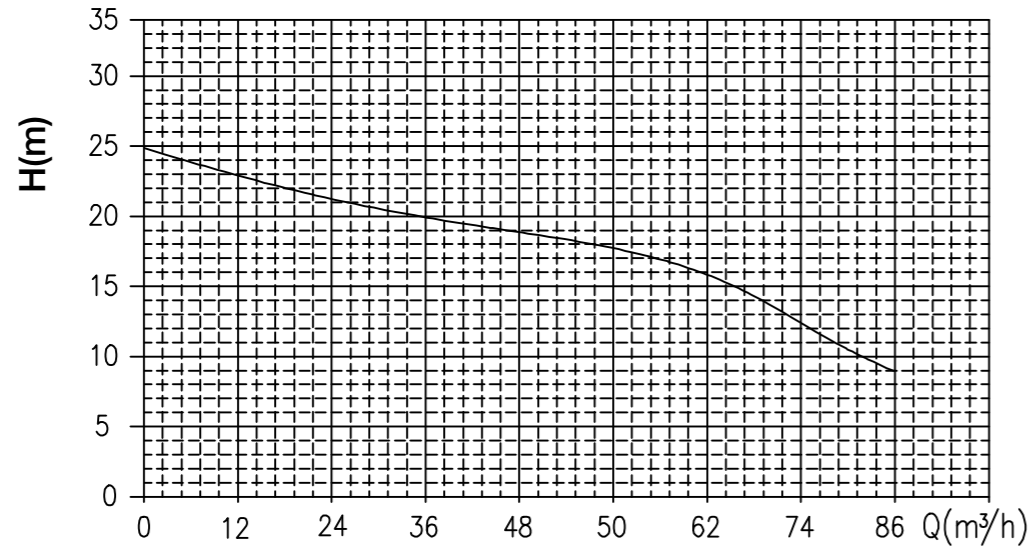
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WF80 65-15/5,5

Performance curve

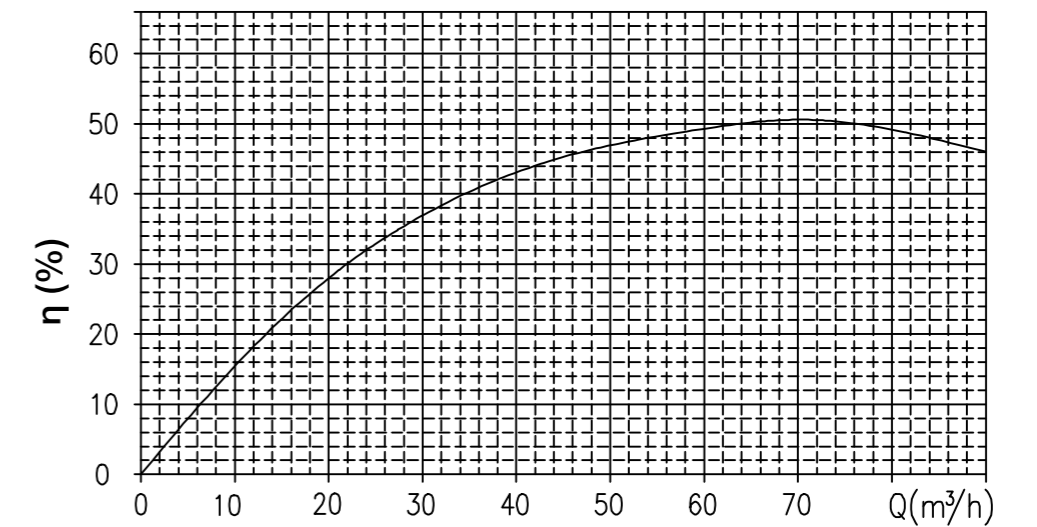
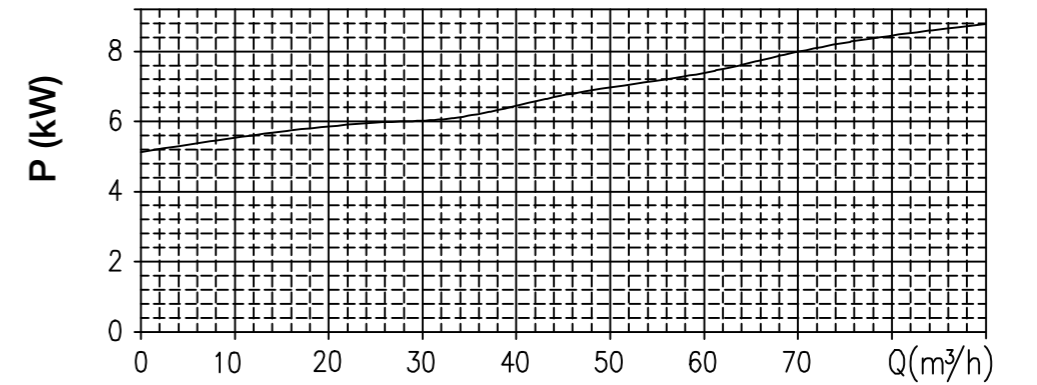
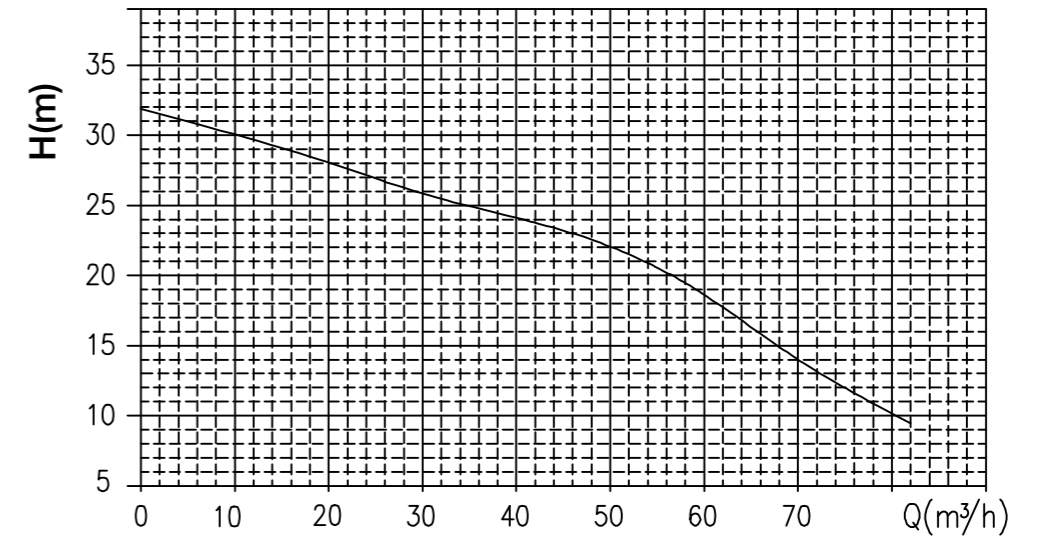
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WF80 70-15/7,5

Performance curve

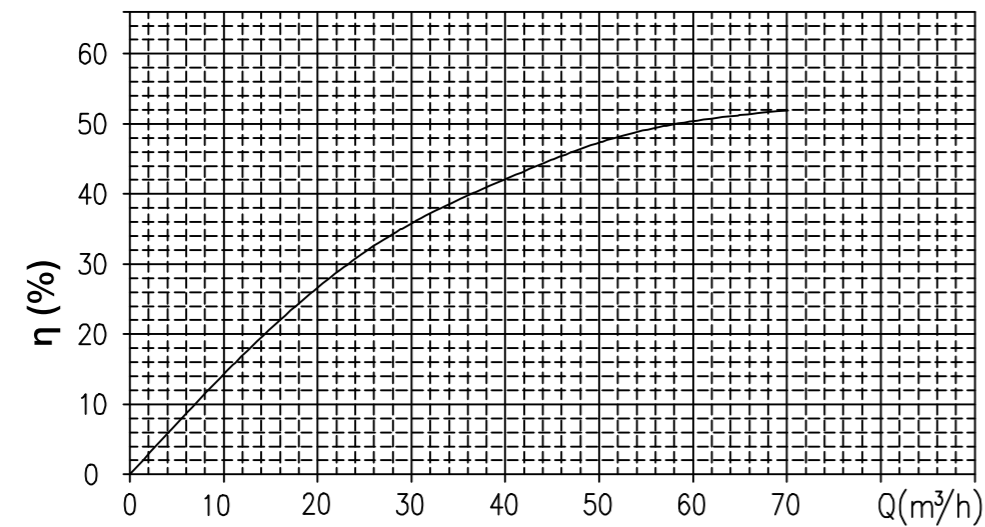
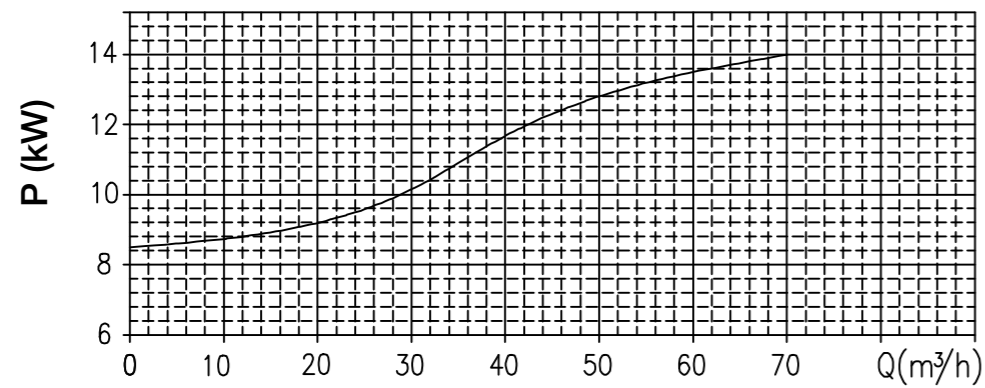
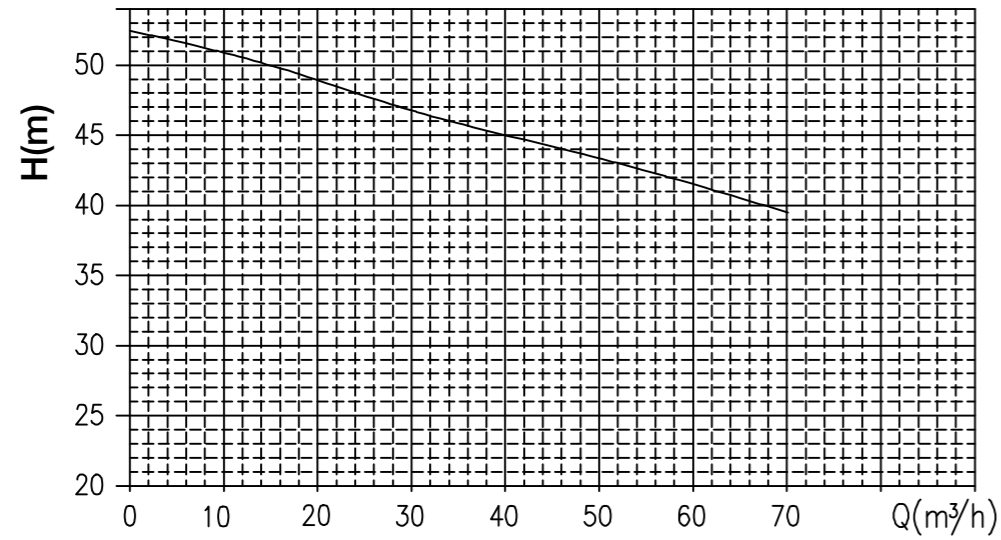
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WF80 40-45/11

Performance curve

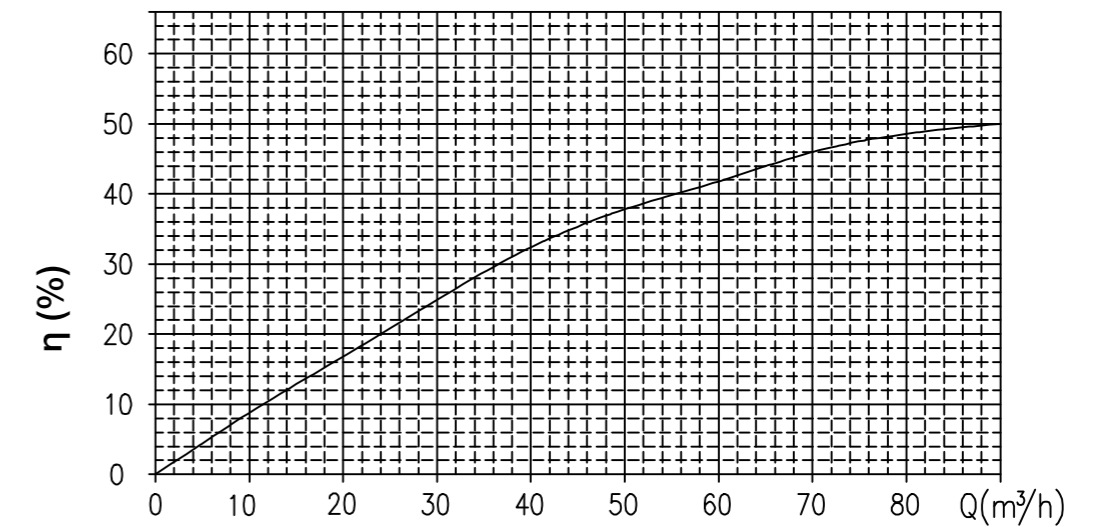
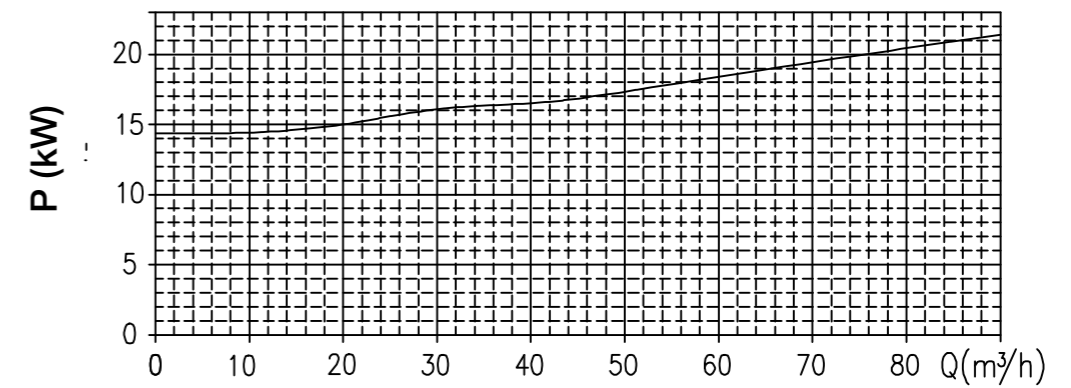
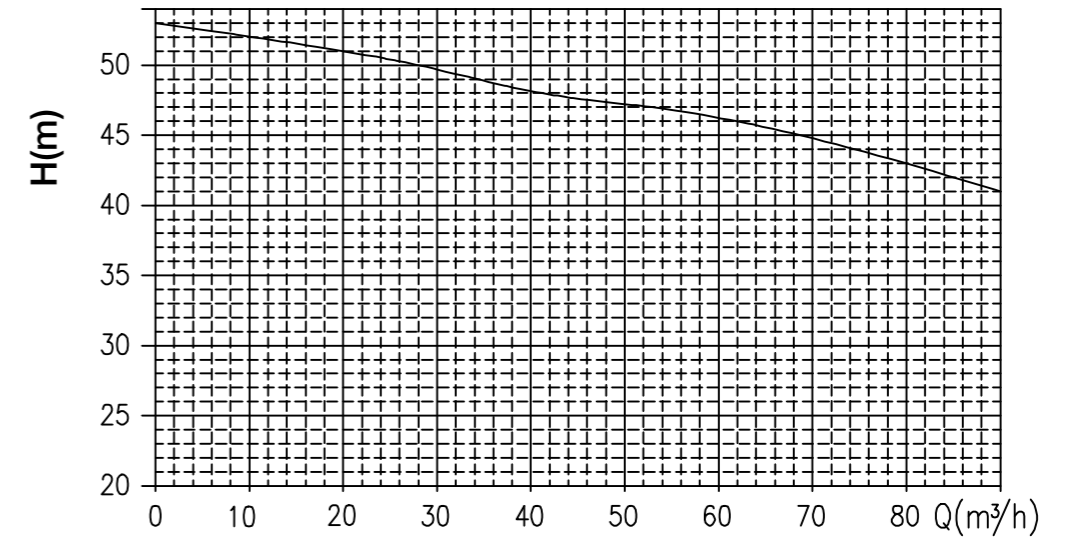
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WF80 50-45/15

Performance curve

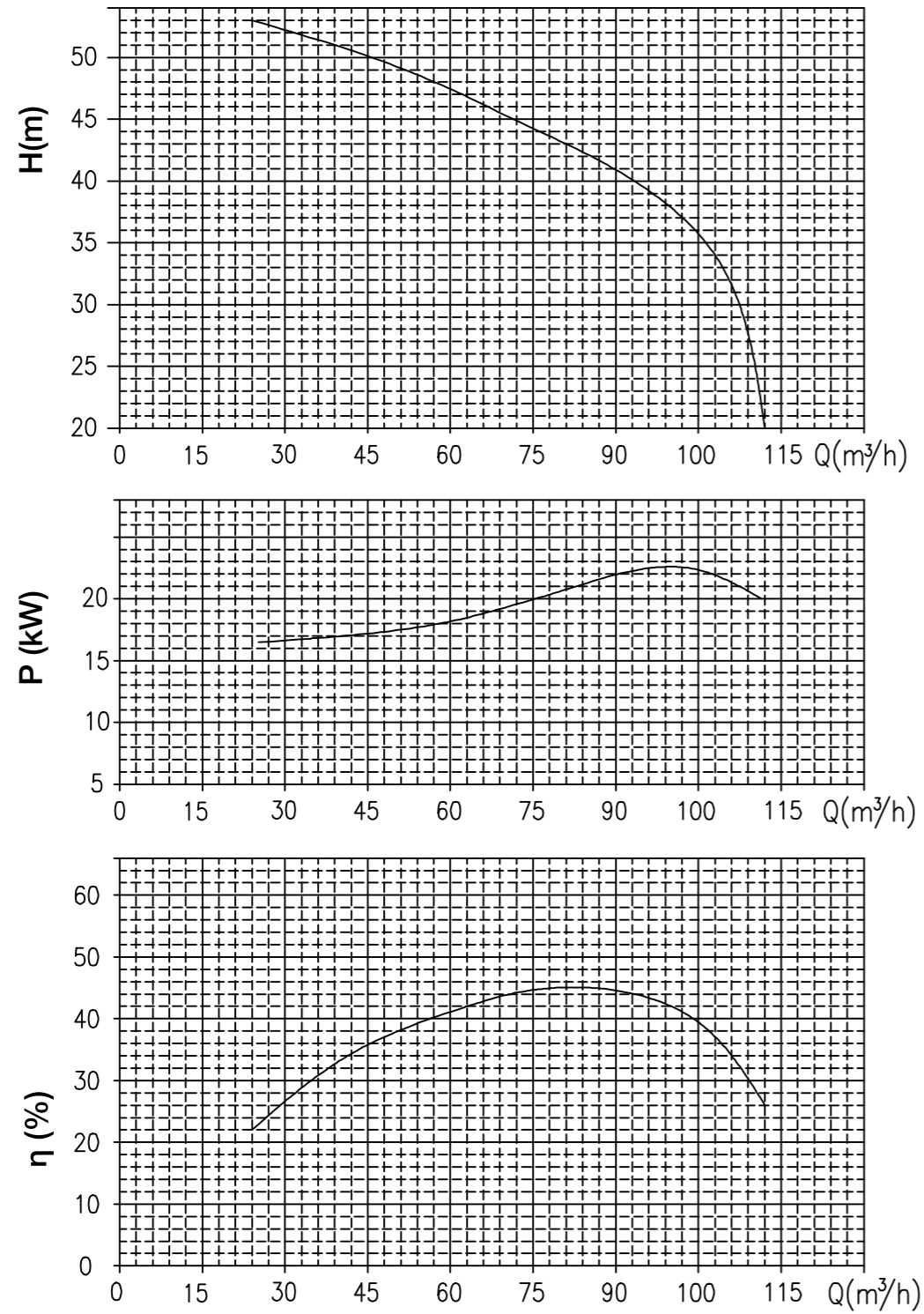
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WF80 90-40/22

Performance curve

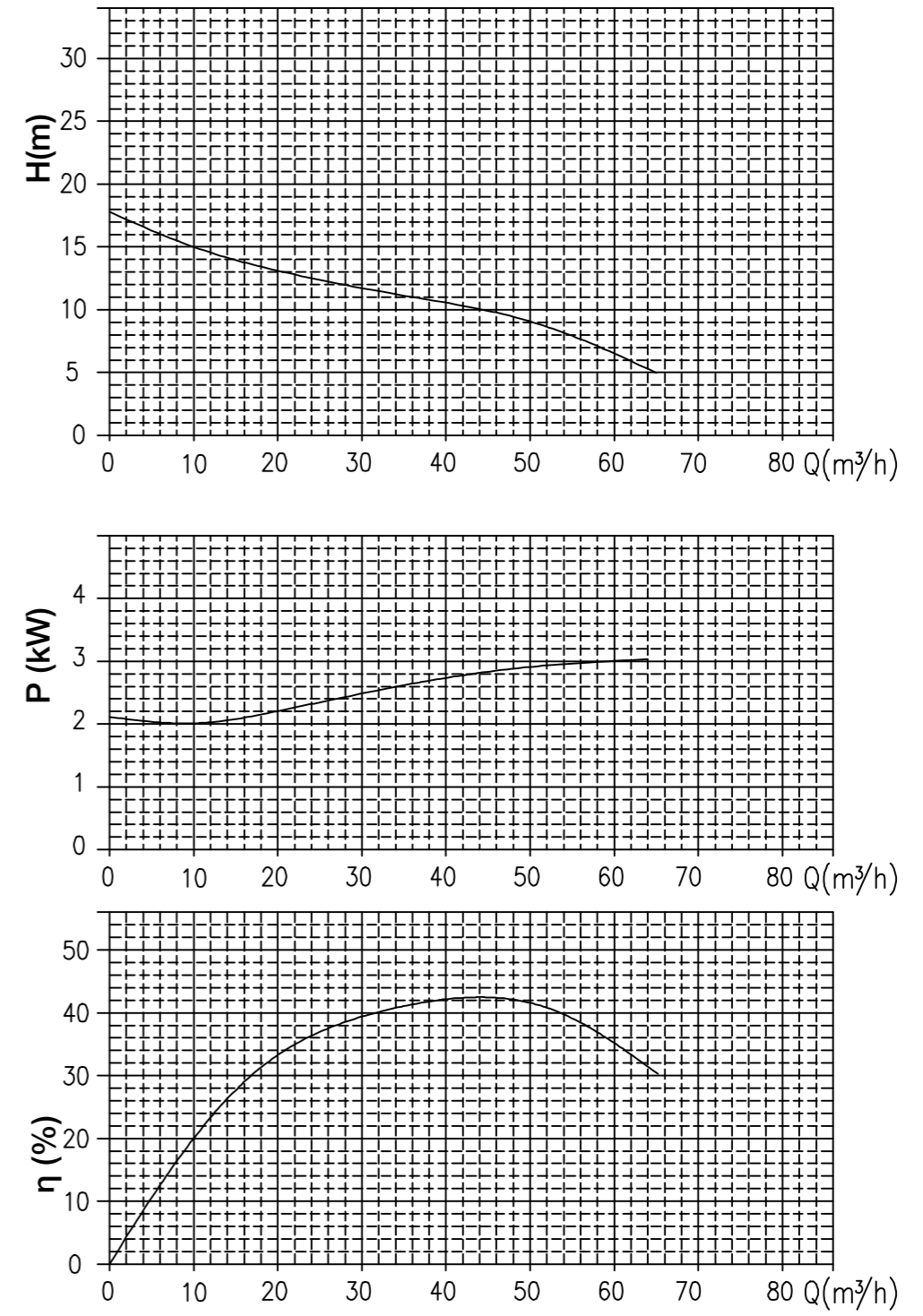
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WF100 50-10/2,2

Performance curve

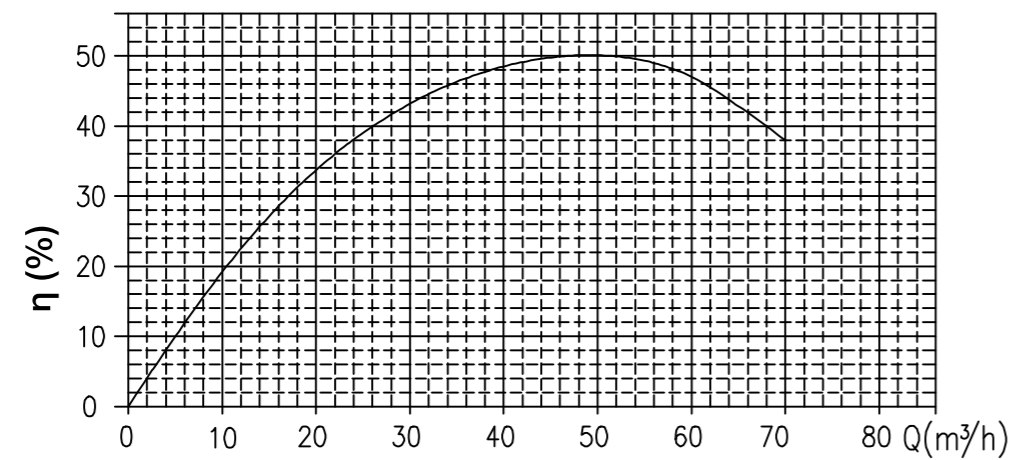
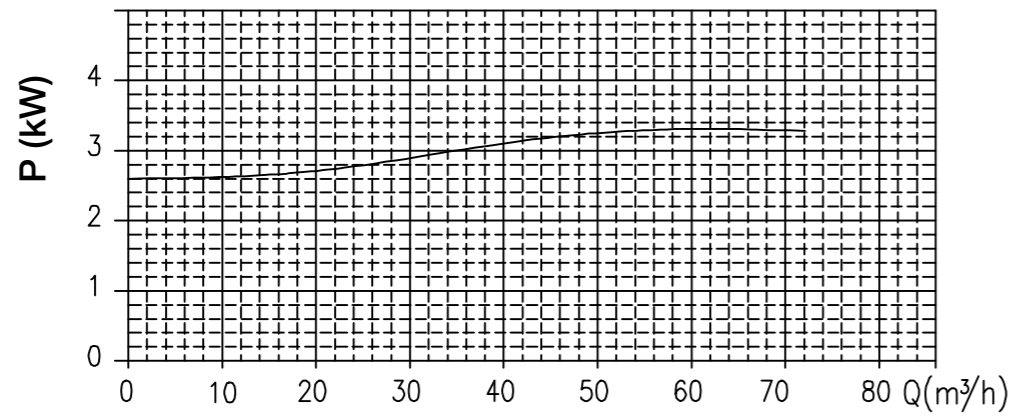
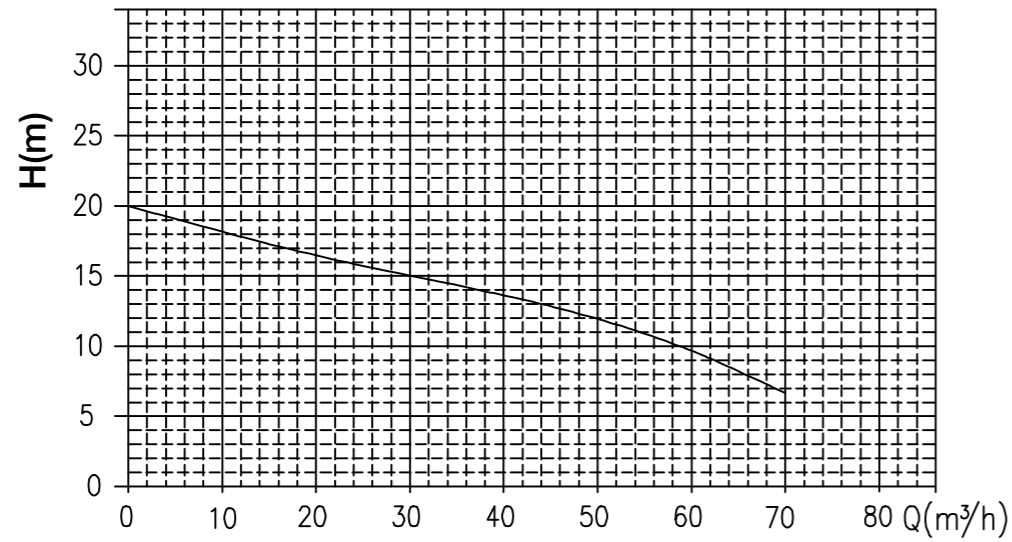
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WF100 60-10/3

Performance curve

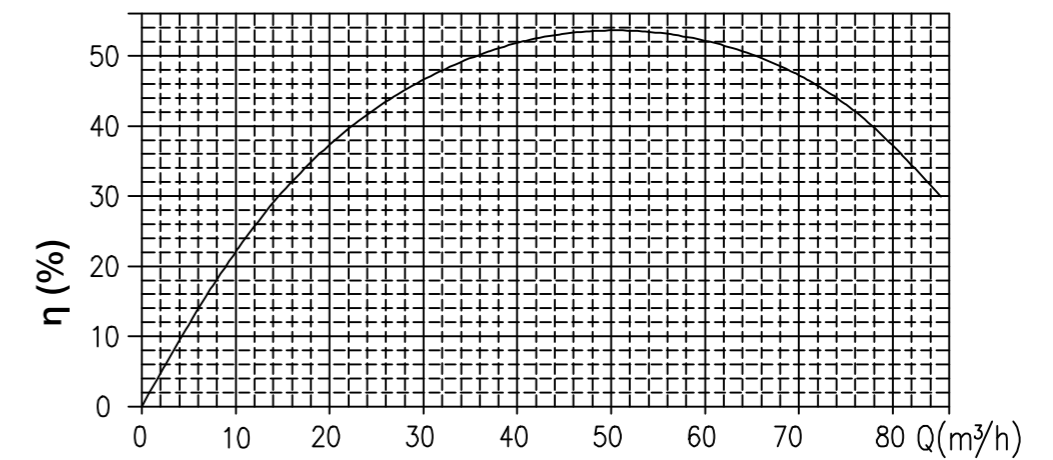
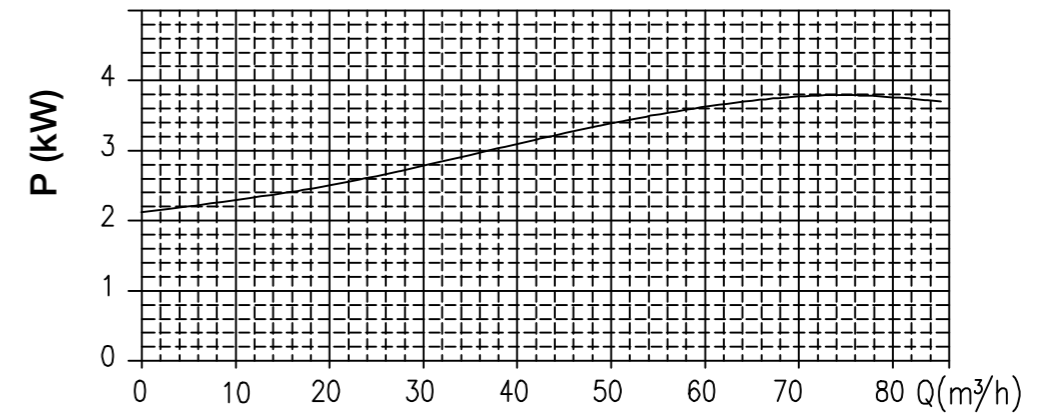
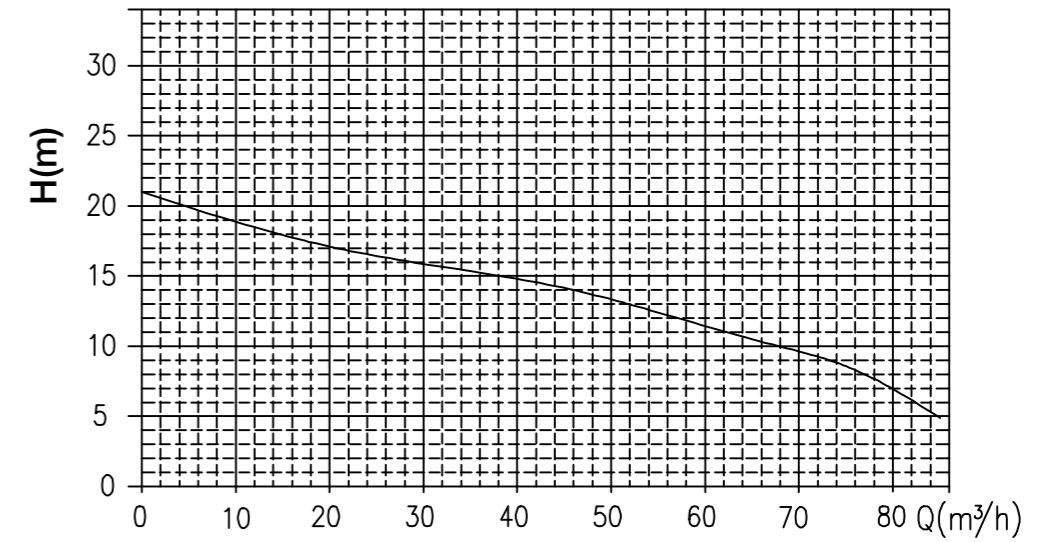
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WF100 70-10/4

Performance curve

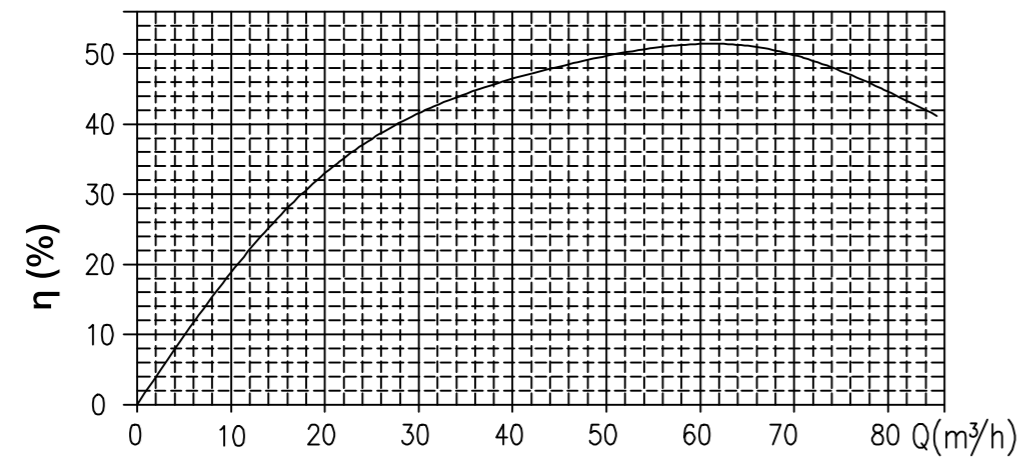
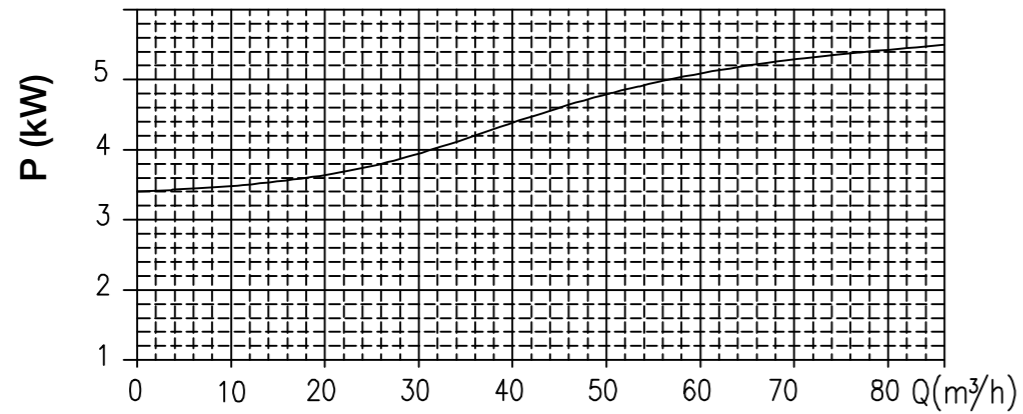
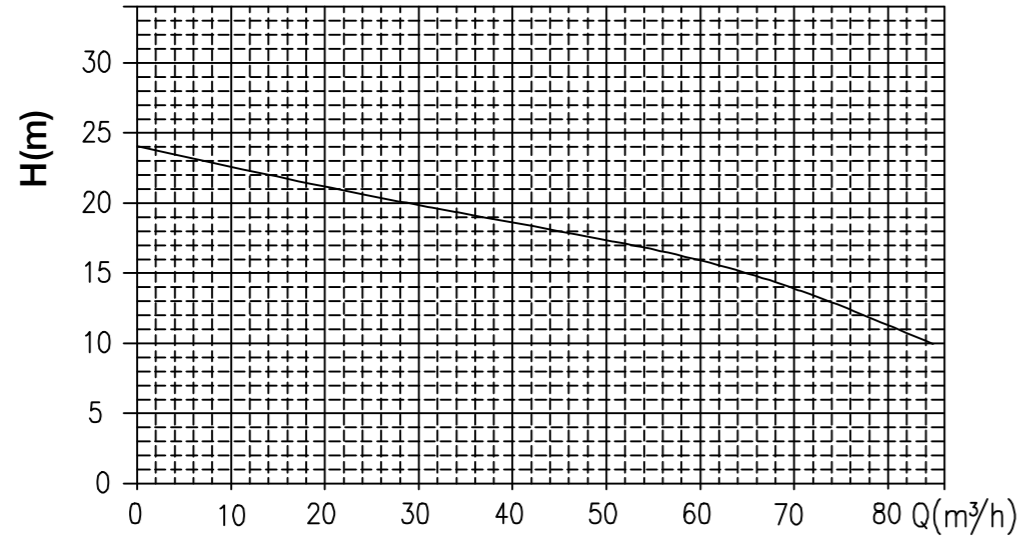
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WF100 65-15/5,5

Performance curve

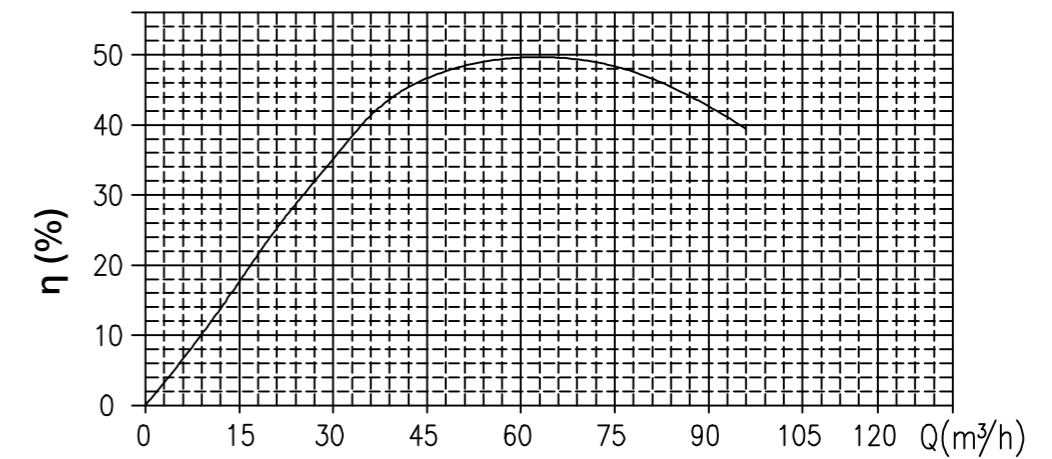
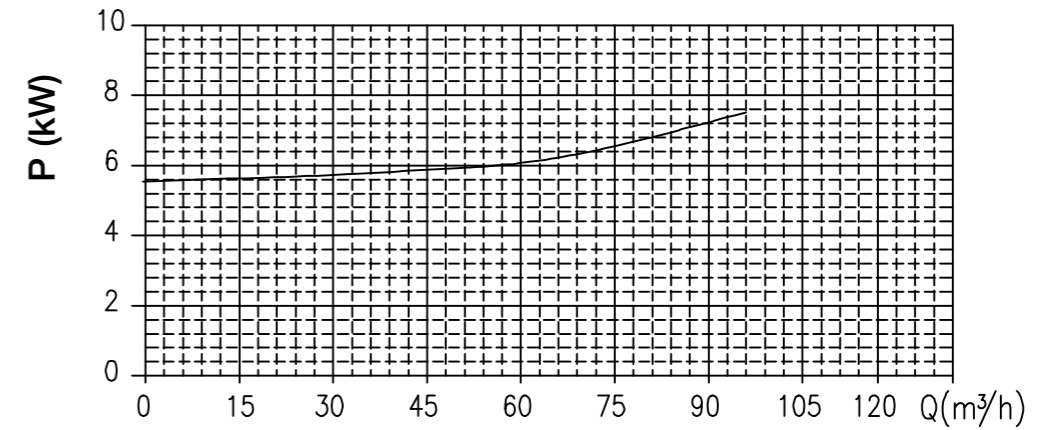
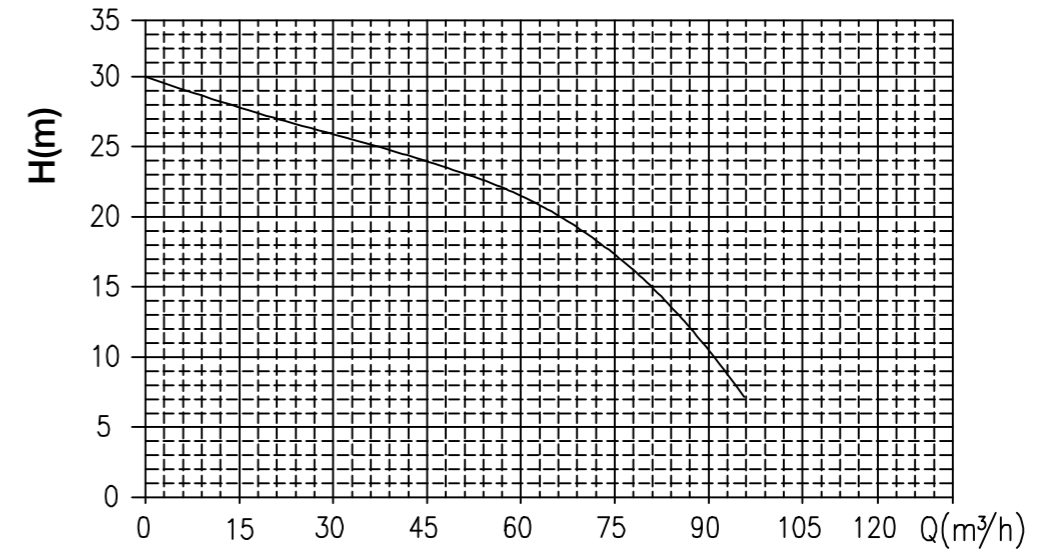
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WF100 80-15/7,5

Performance curve

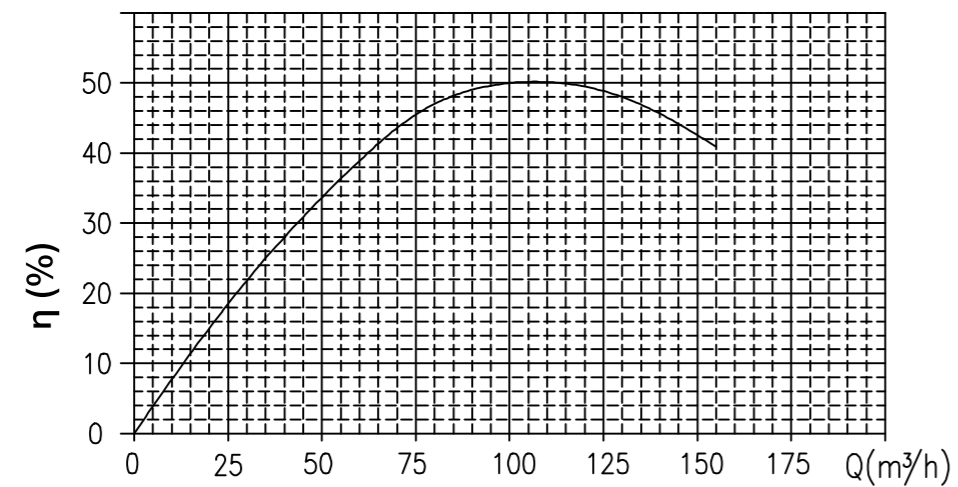
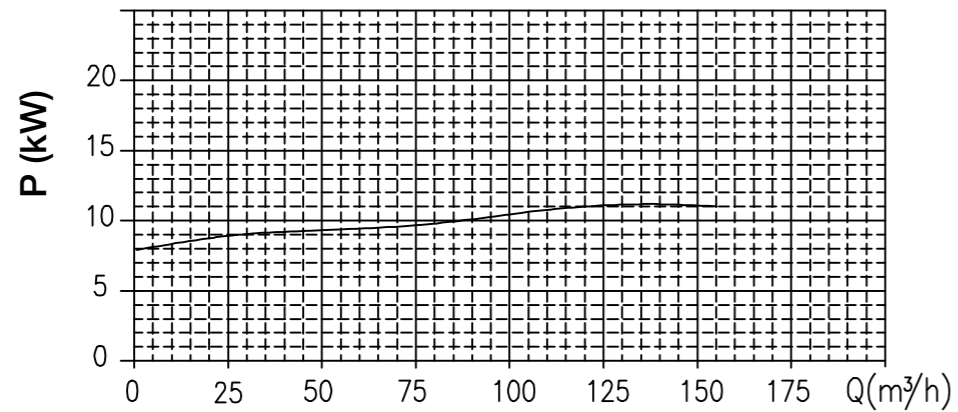
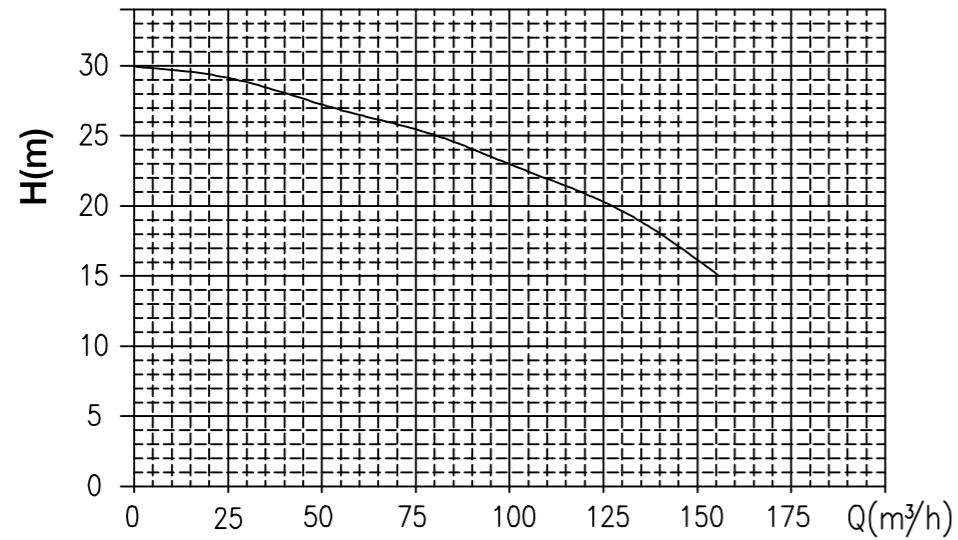
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WF100 80-25/11

Performance curve

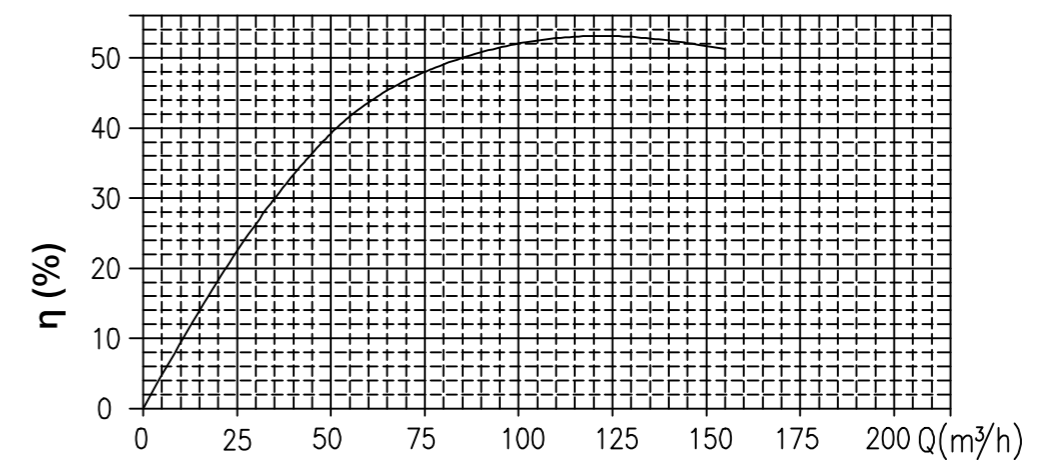
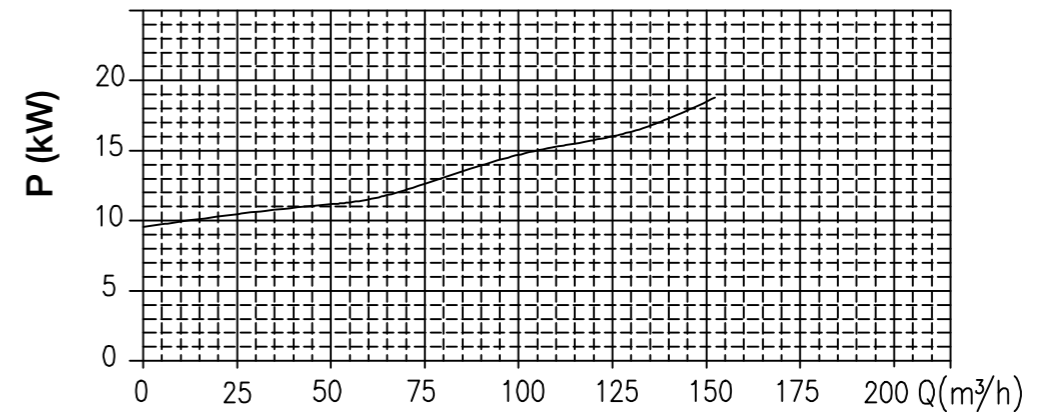
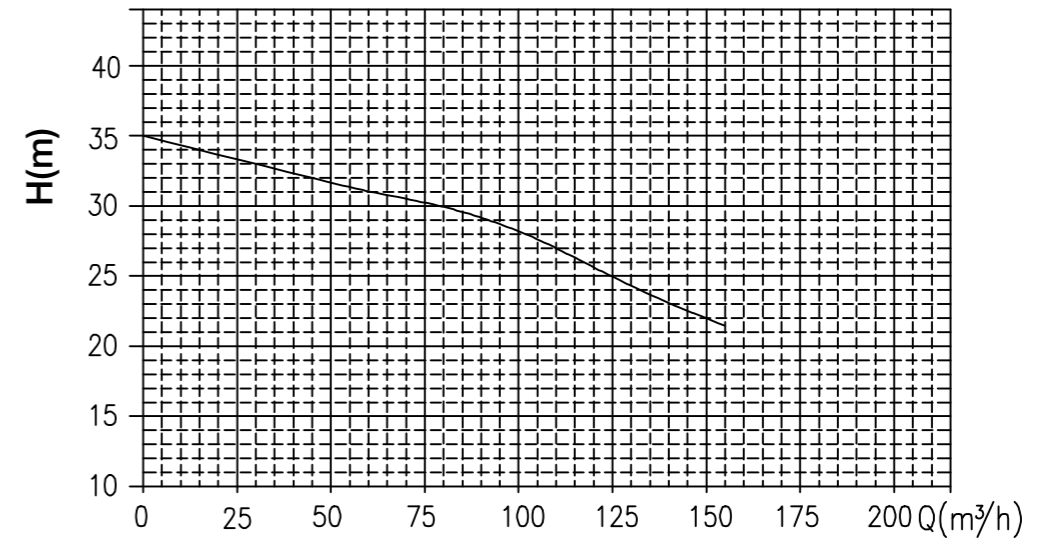
1450 r/min



WF100 80-30/15

Performance curve

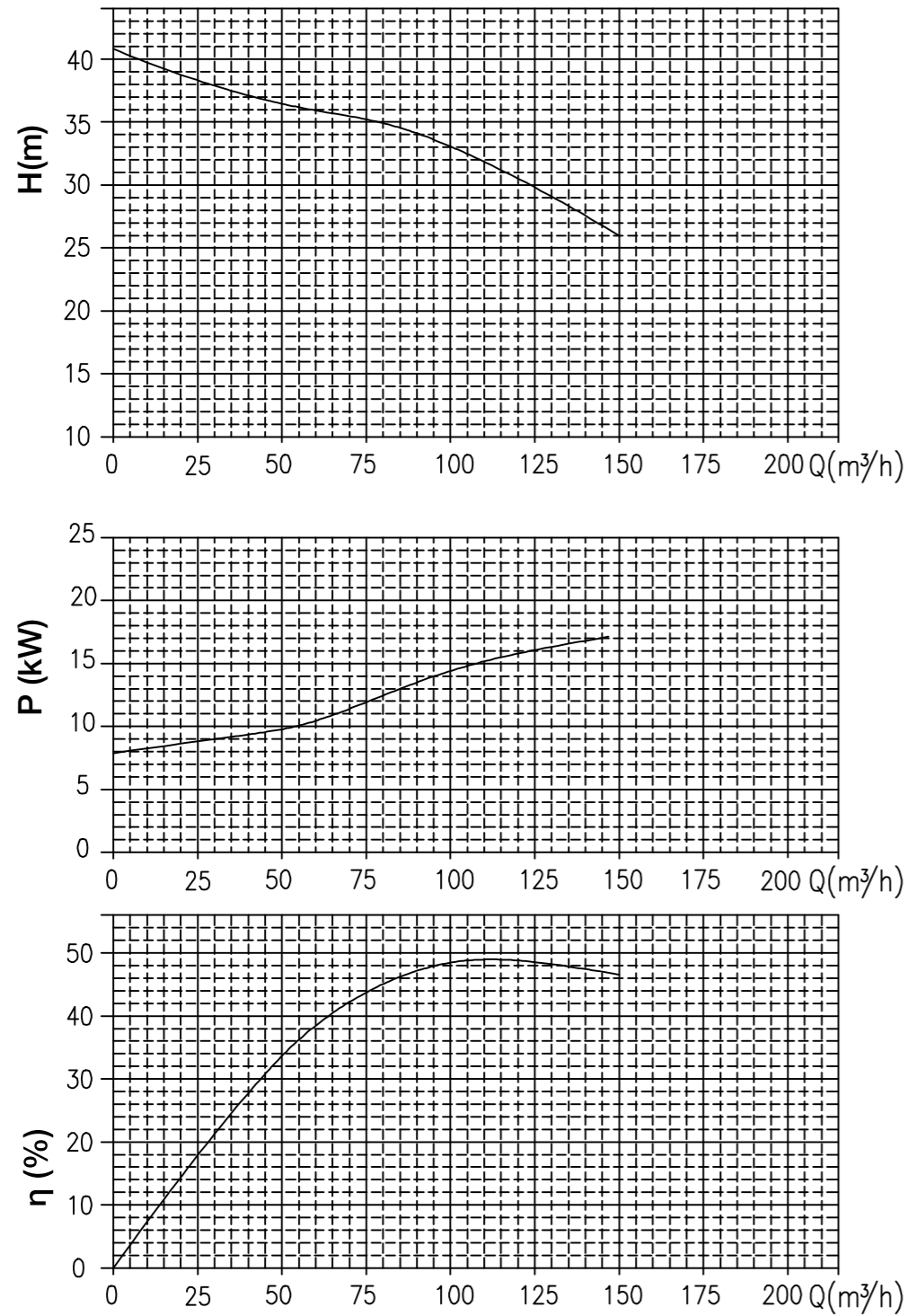
1450 r/min



WF100 80-35/18,5

Performance curve

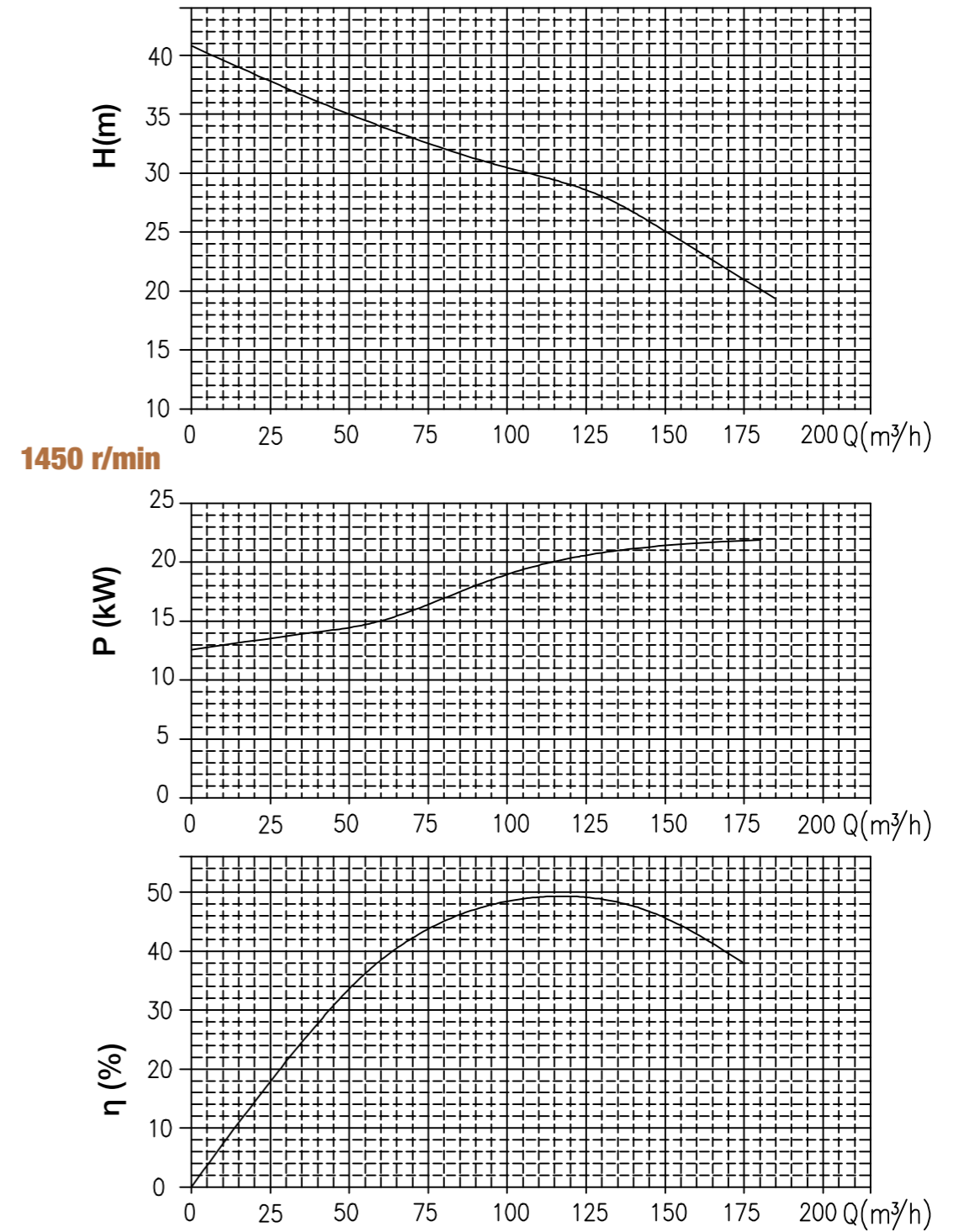
1450 r/min



WF100 100-30/22

Performance curve

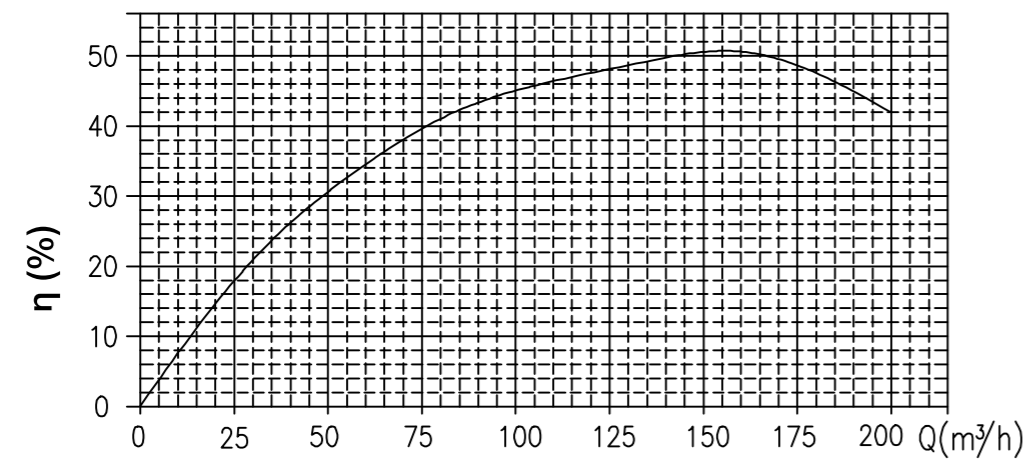
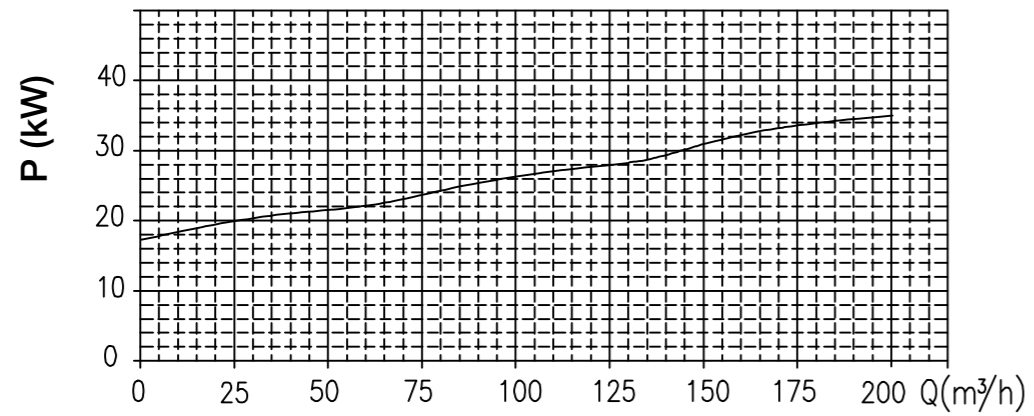
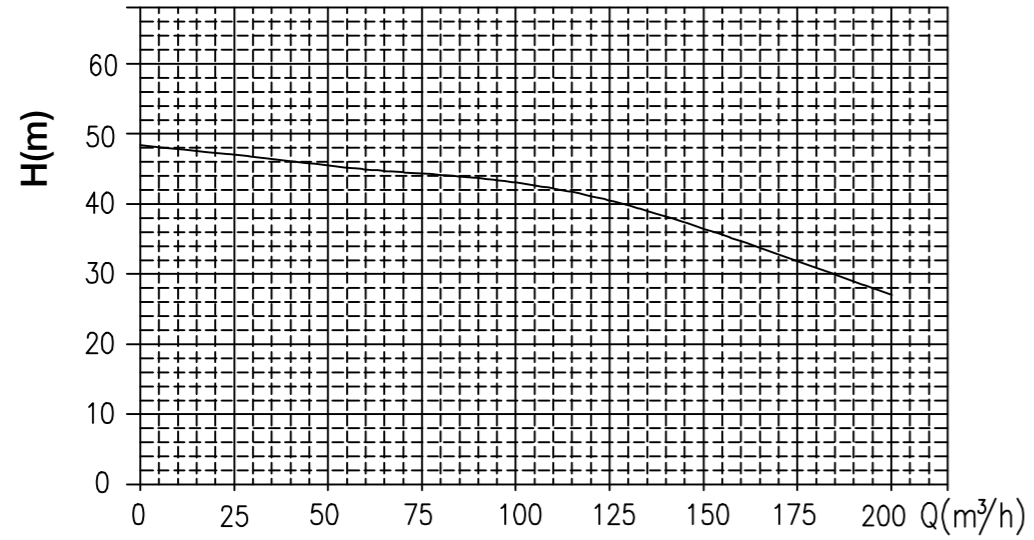
1450 r/min



WF100 100-40/30

Performance curve

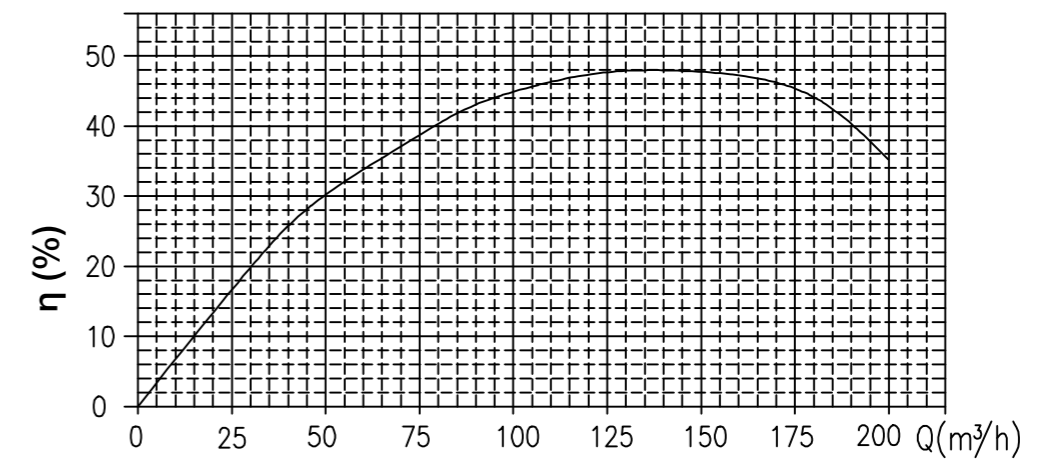
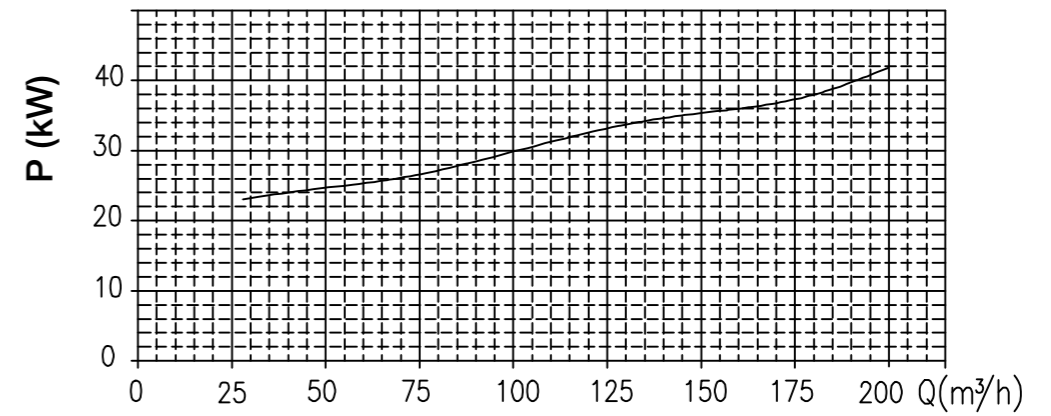
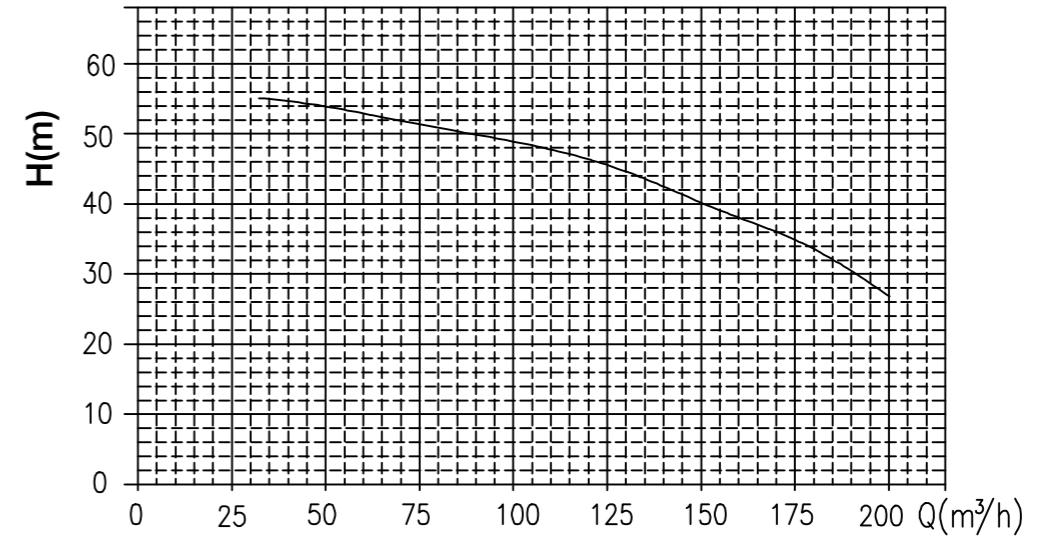
1450 r/min



WF100 100-50/37

Performance curve

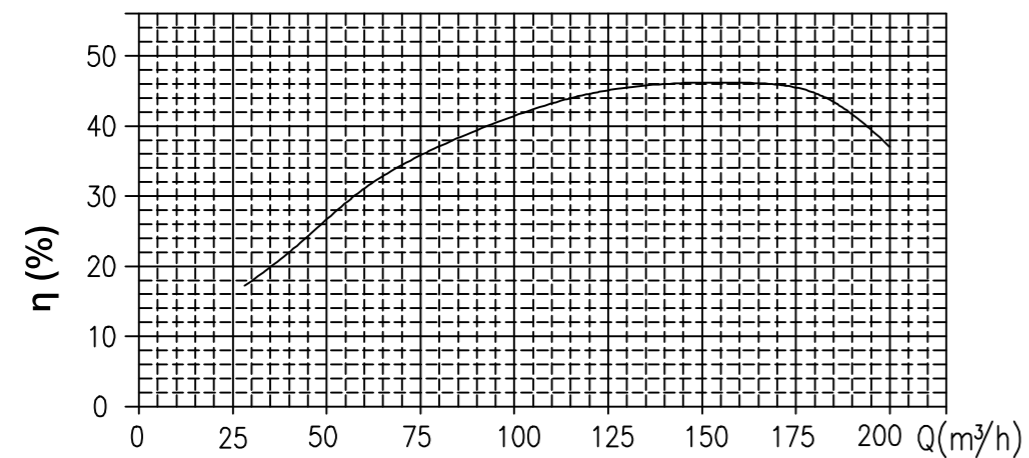
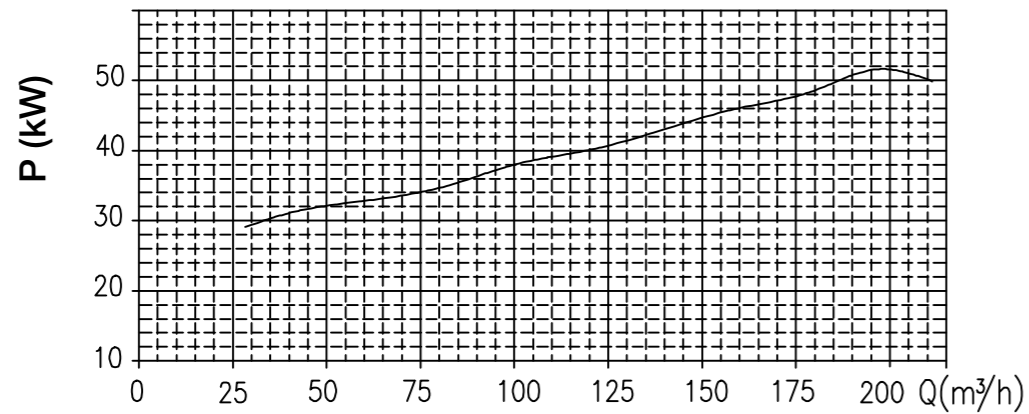
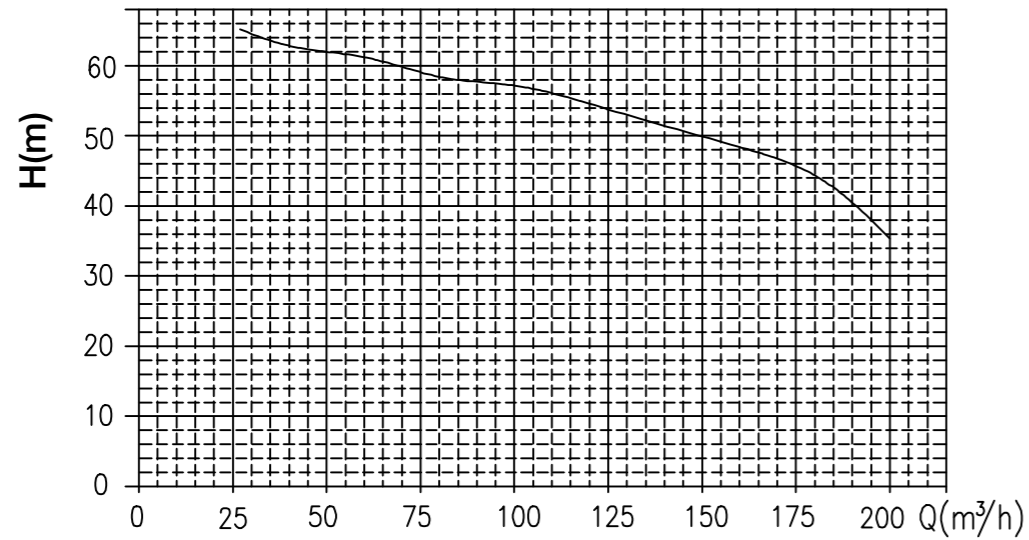
1450 r/min



WF100 100-60/45

Performance curve

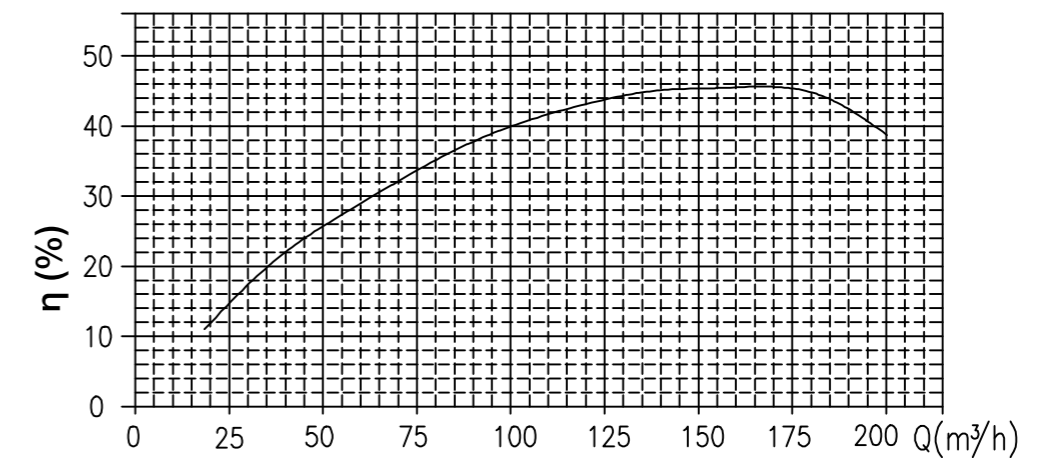
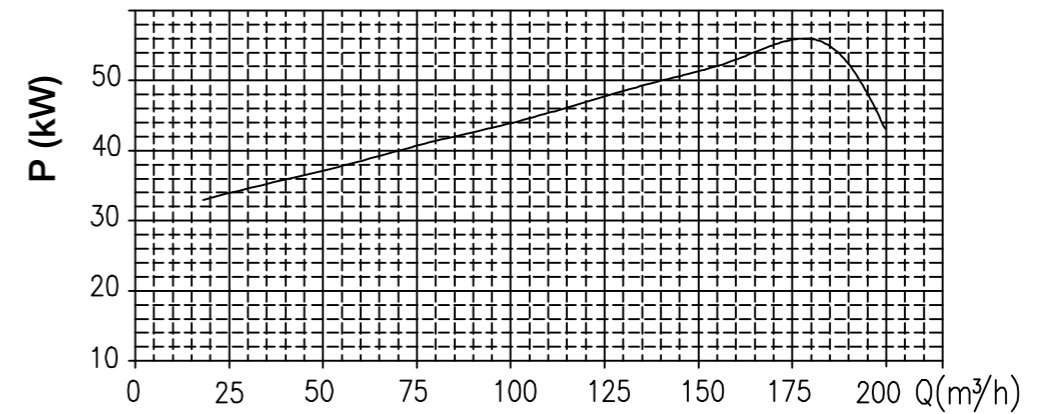
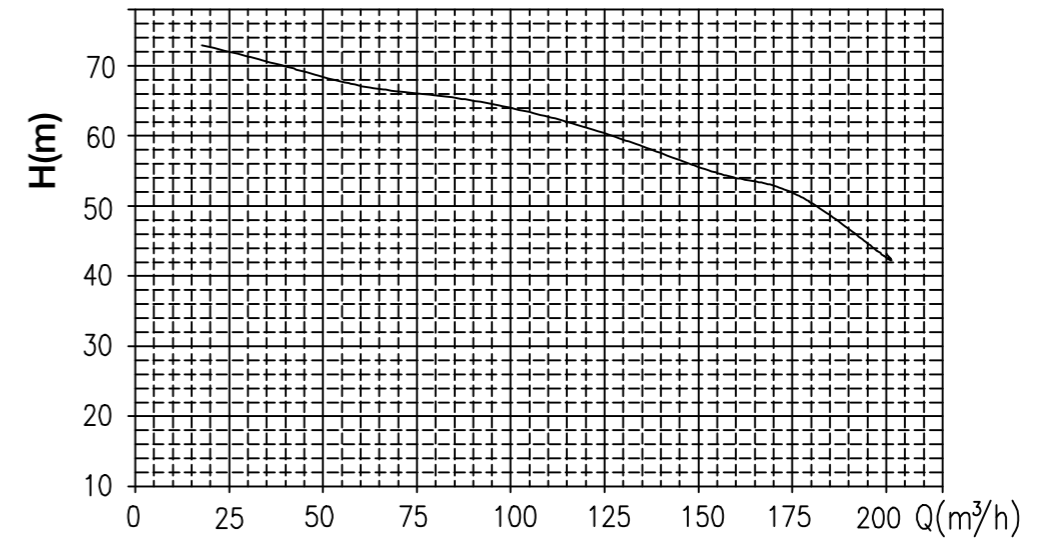
1450 r/min



WF100 160-50/55

Performance curve

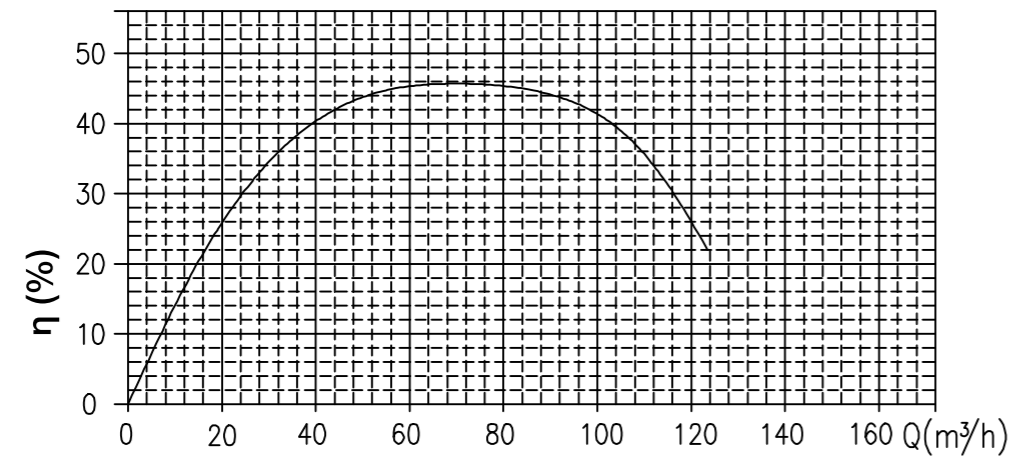
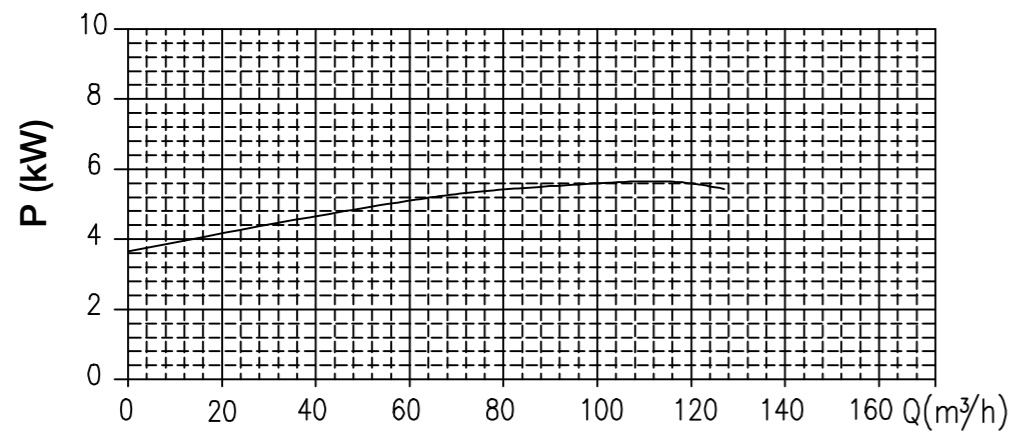
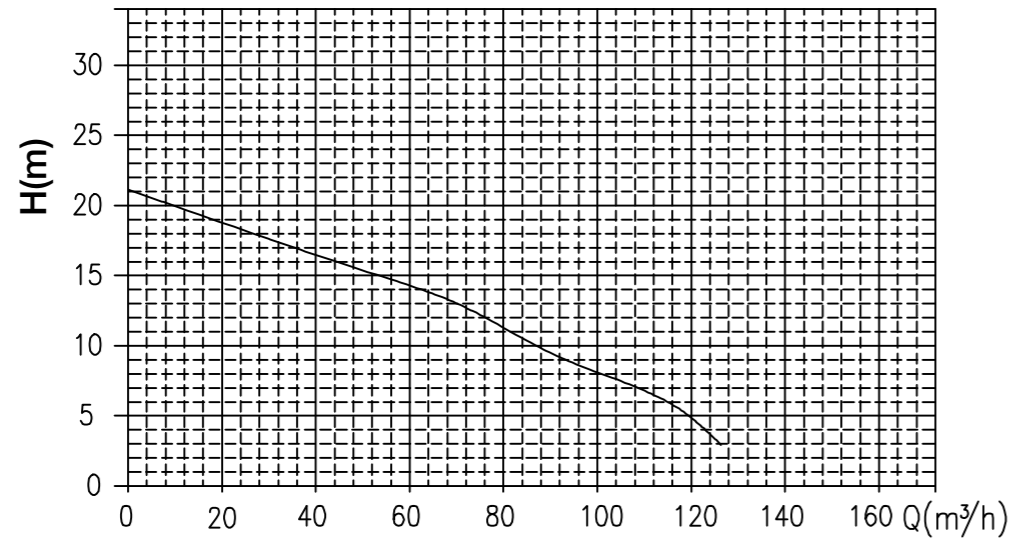
1450 r/min



WF150 100-7/5,5

Performance curve

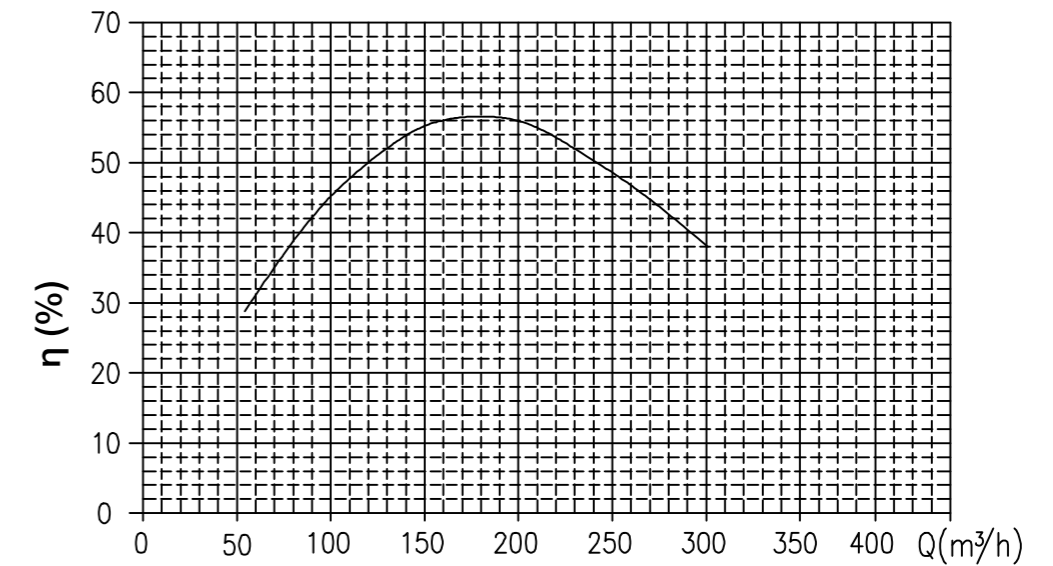
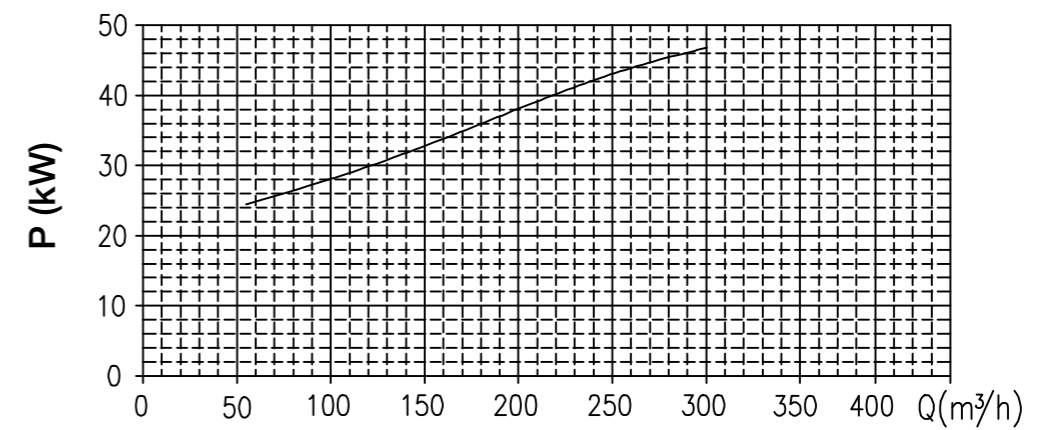
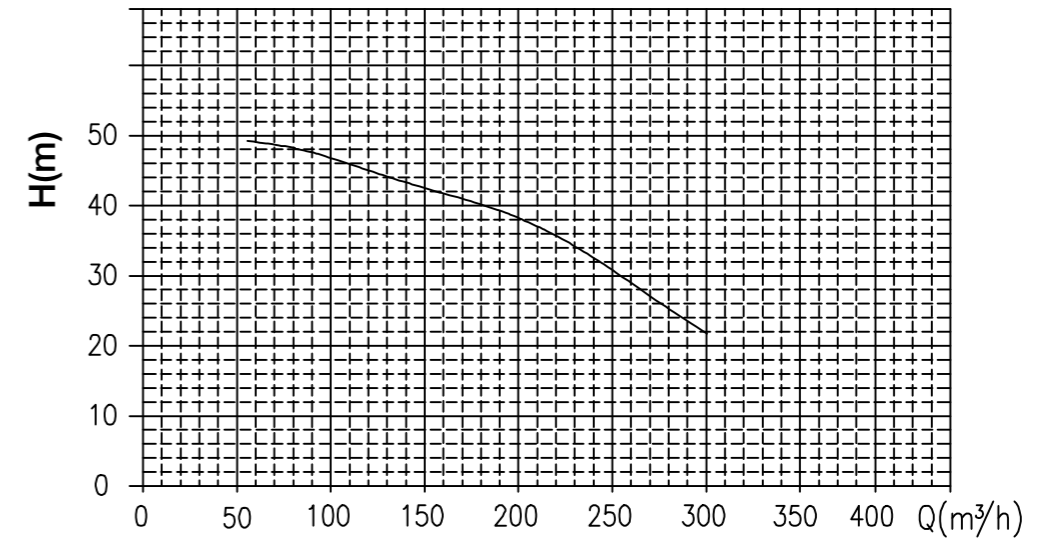
2900 r/min



WF150 80-15/7,5

Performance curve

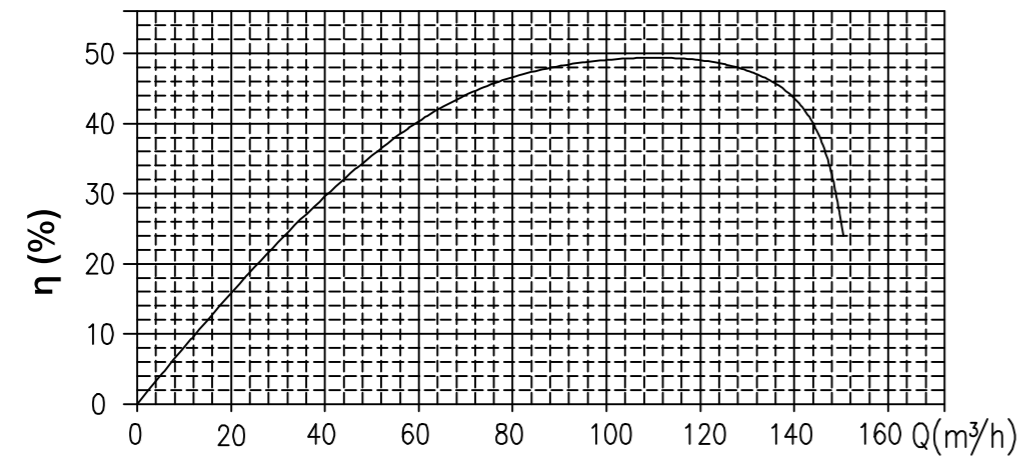
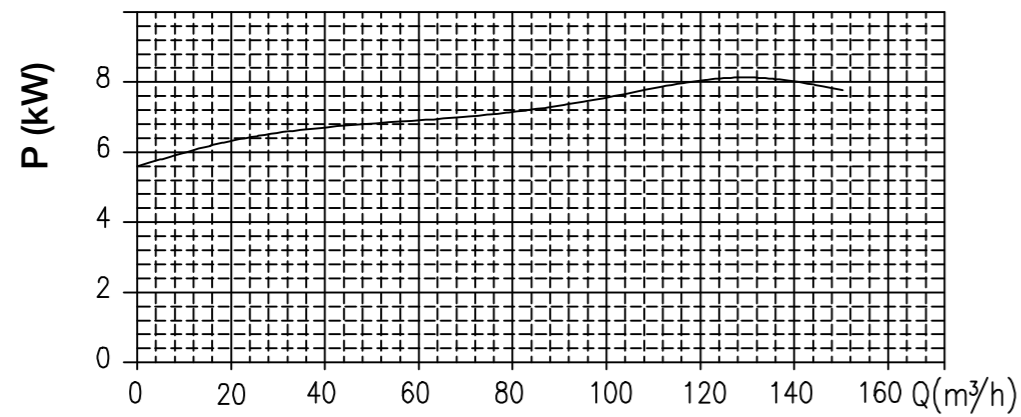
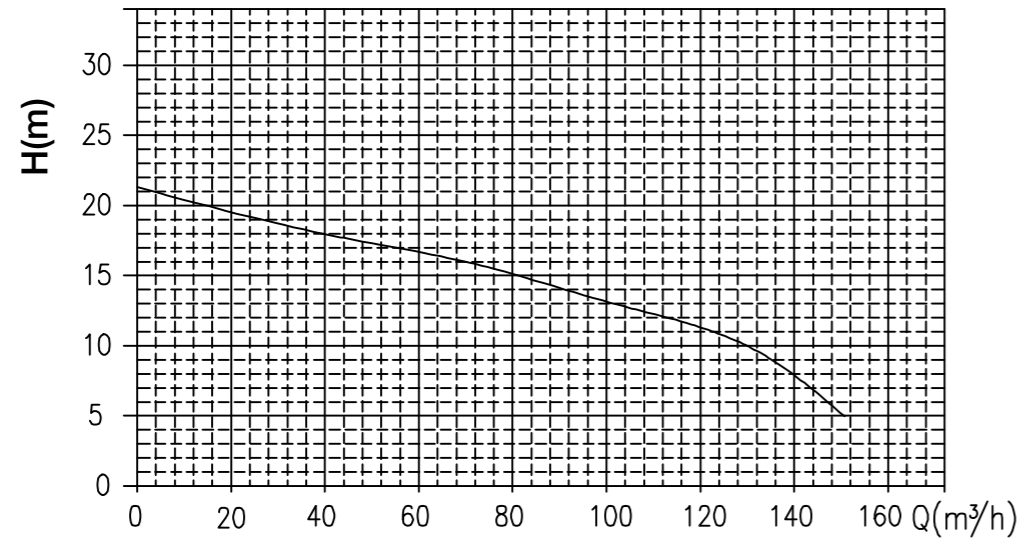
2950 r/min



WF150 120-10/7,5

Performance curve

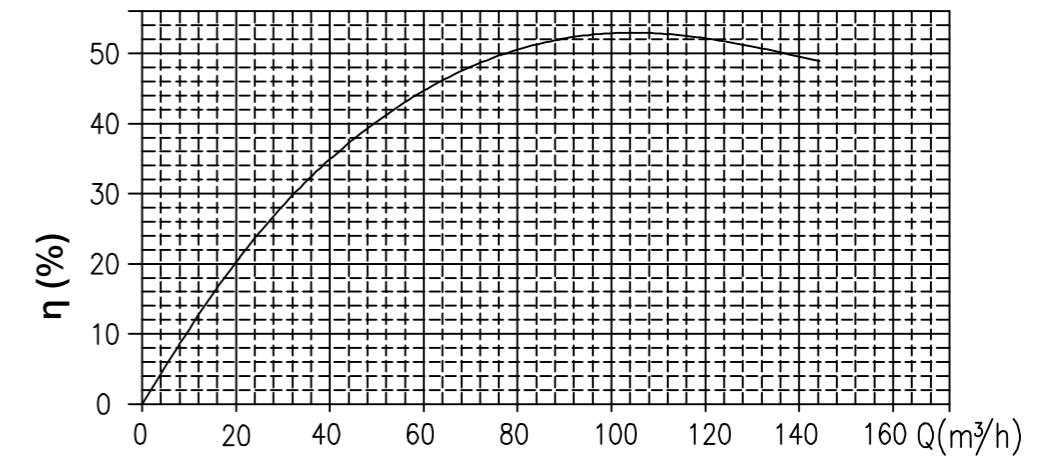
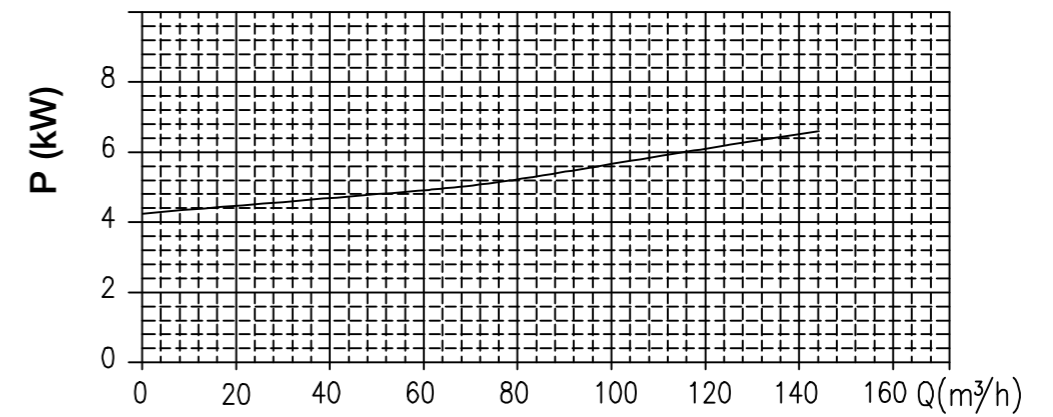
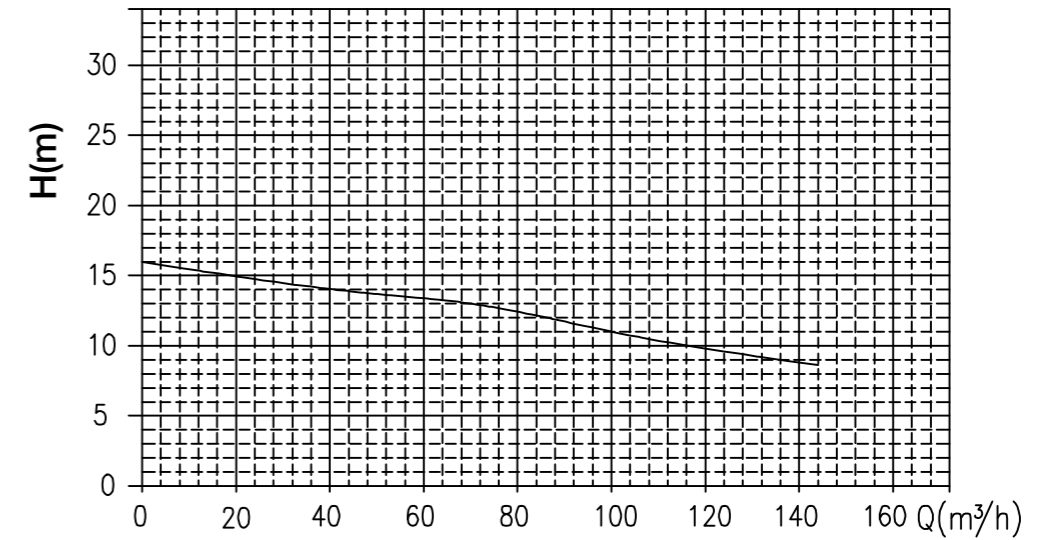
1450 r/min



WF150 150-14/11

Performance curve

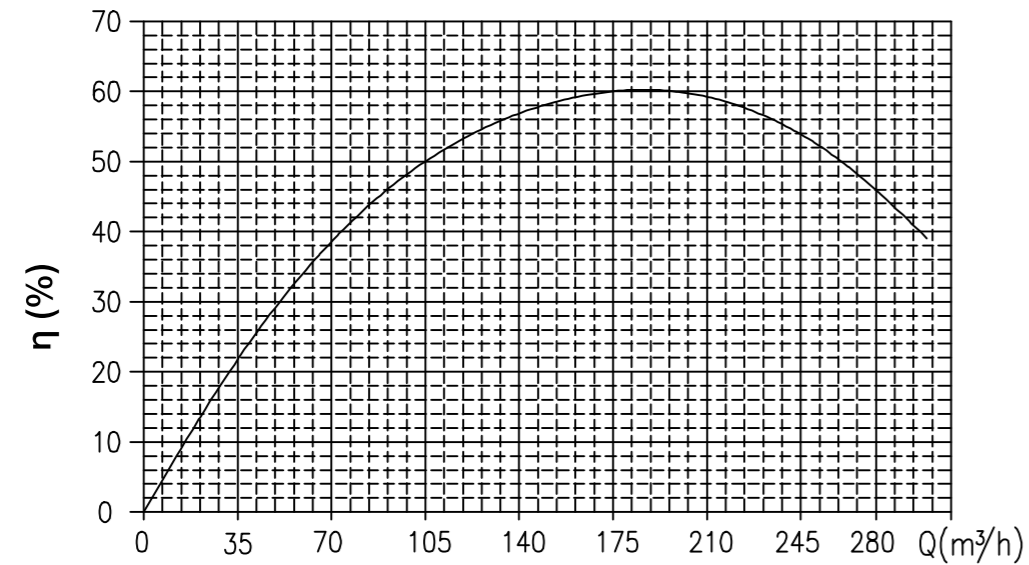
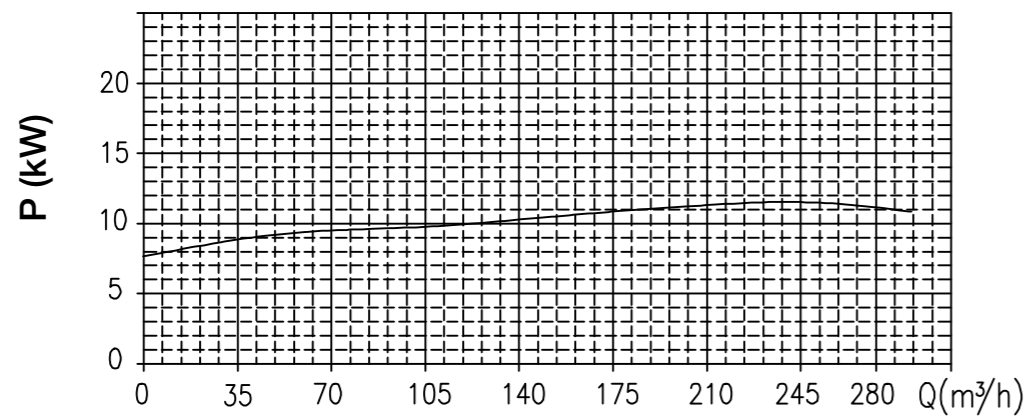
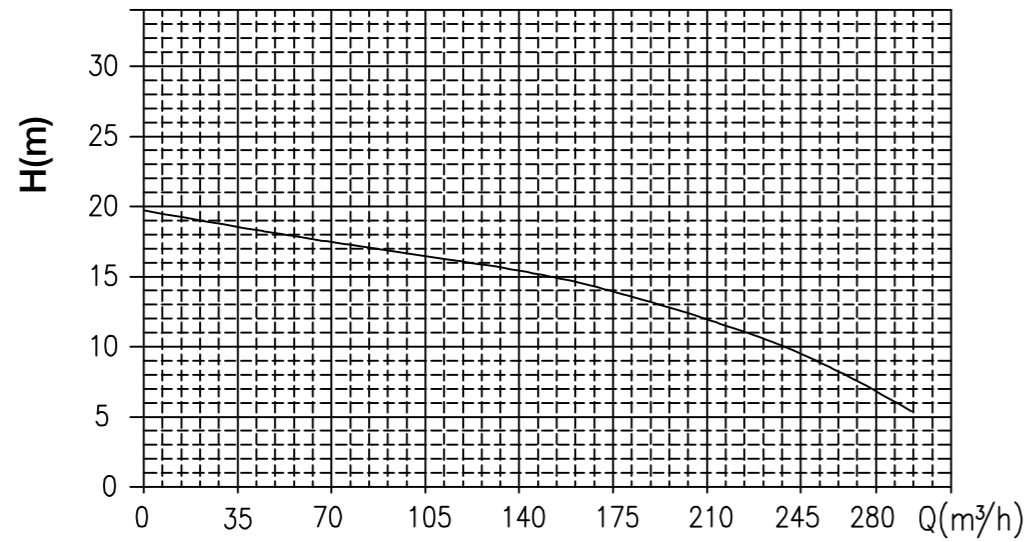
1450 r/min



WF150 180-15/15

Performance curve

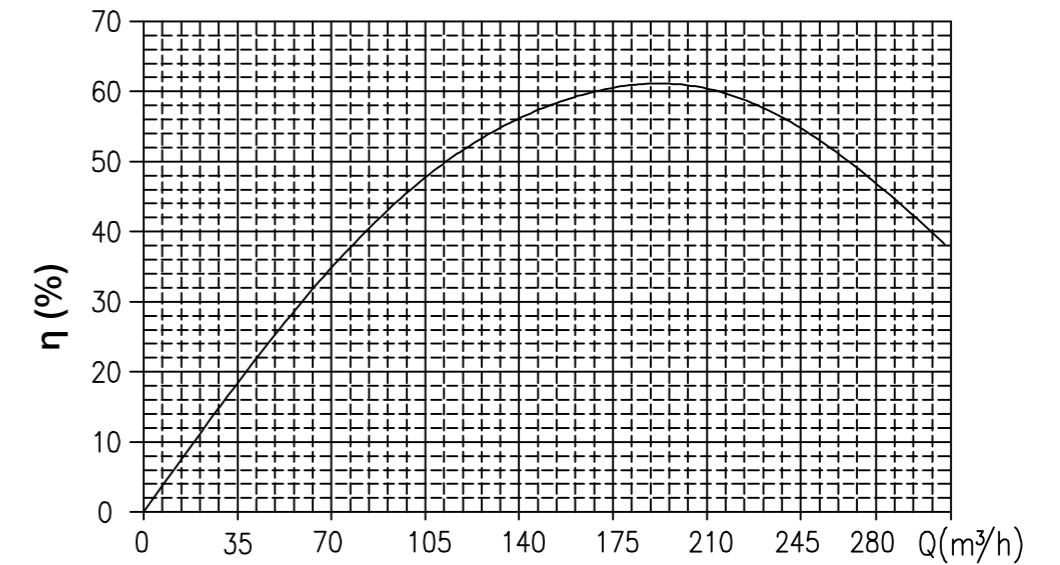
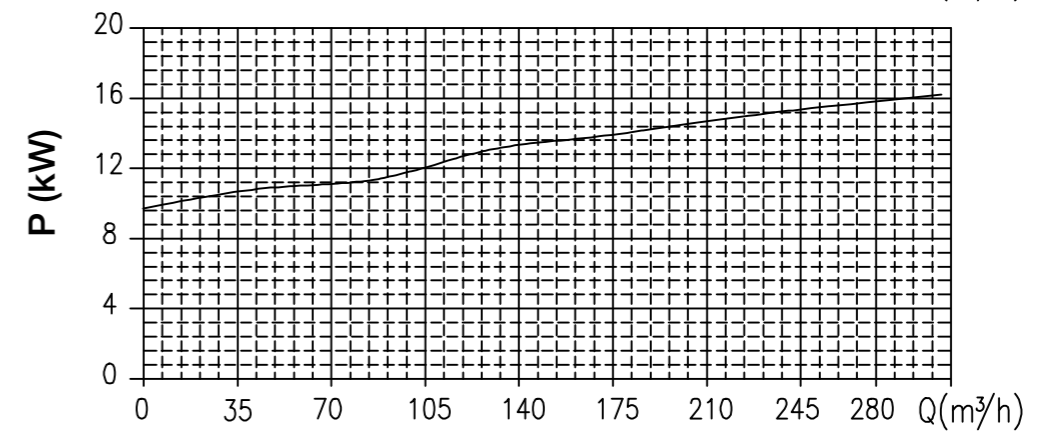
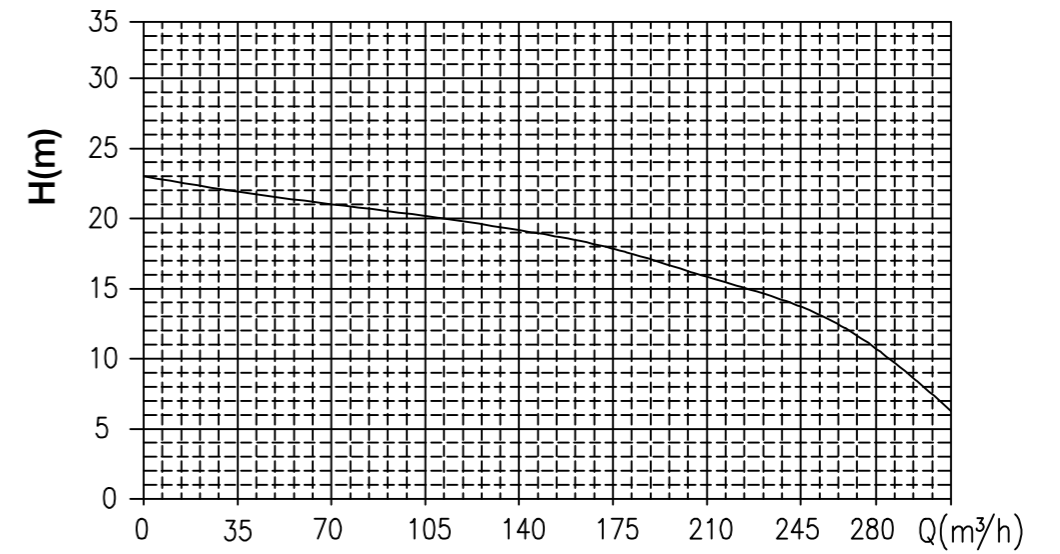
1450 r/min



WF150 180-20/18,5

Performance curve

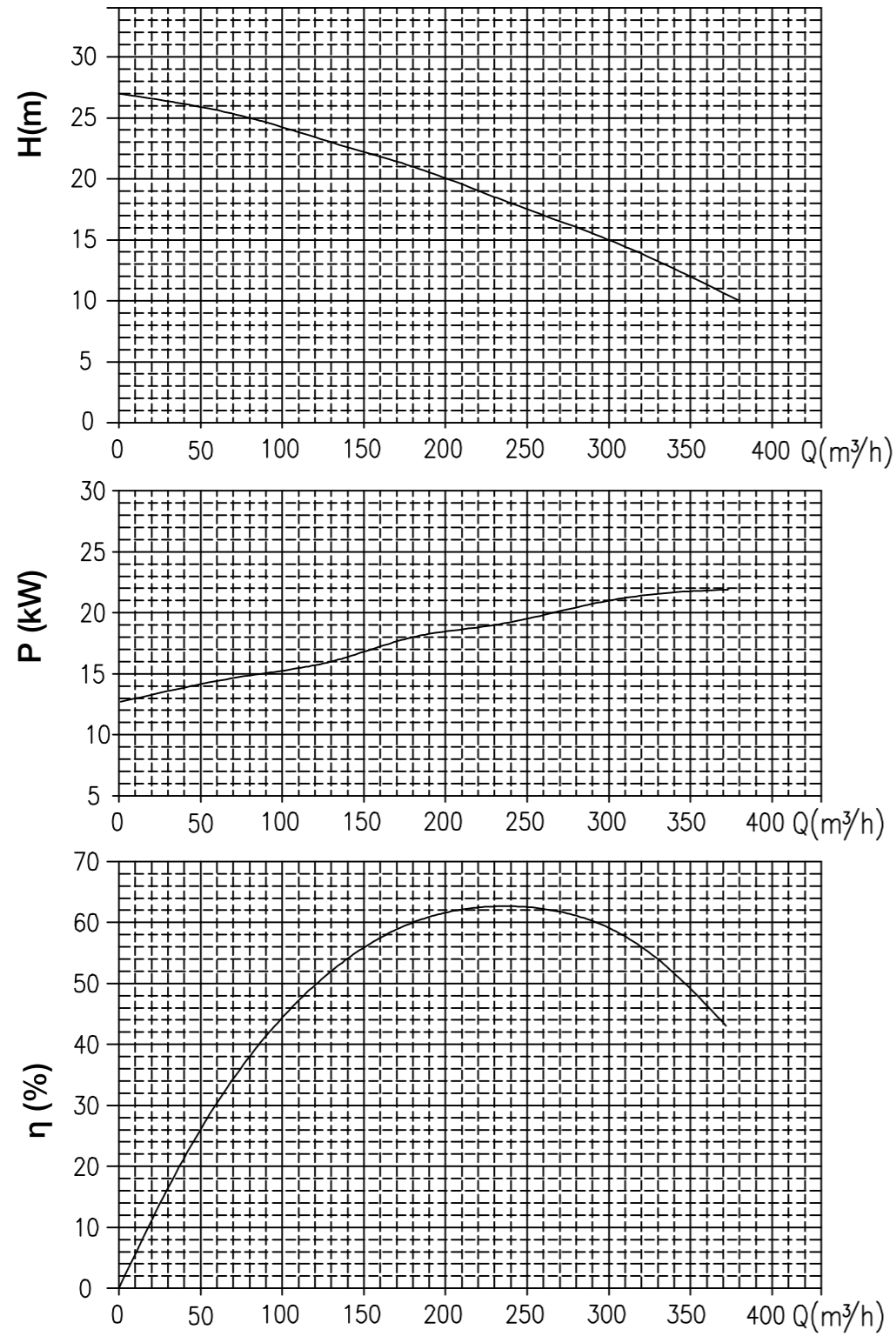
1450 r/min



WF150 200-20/22

Performance curve

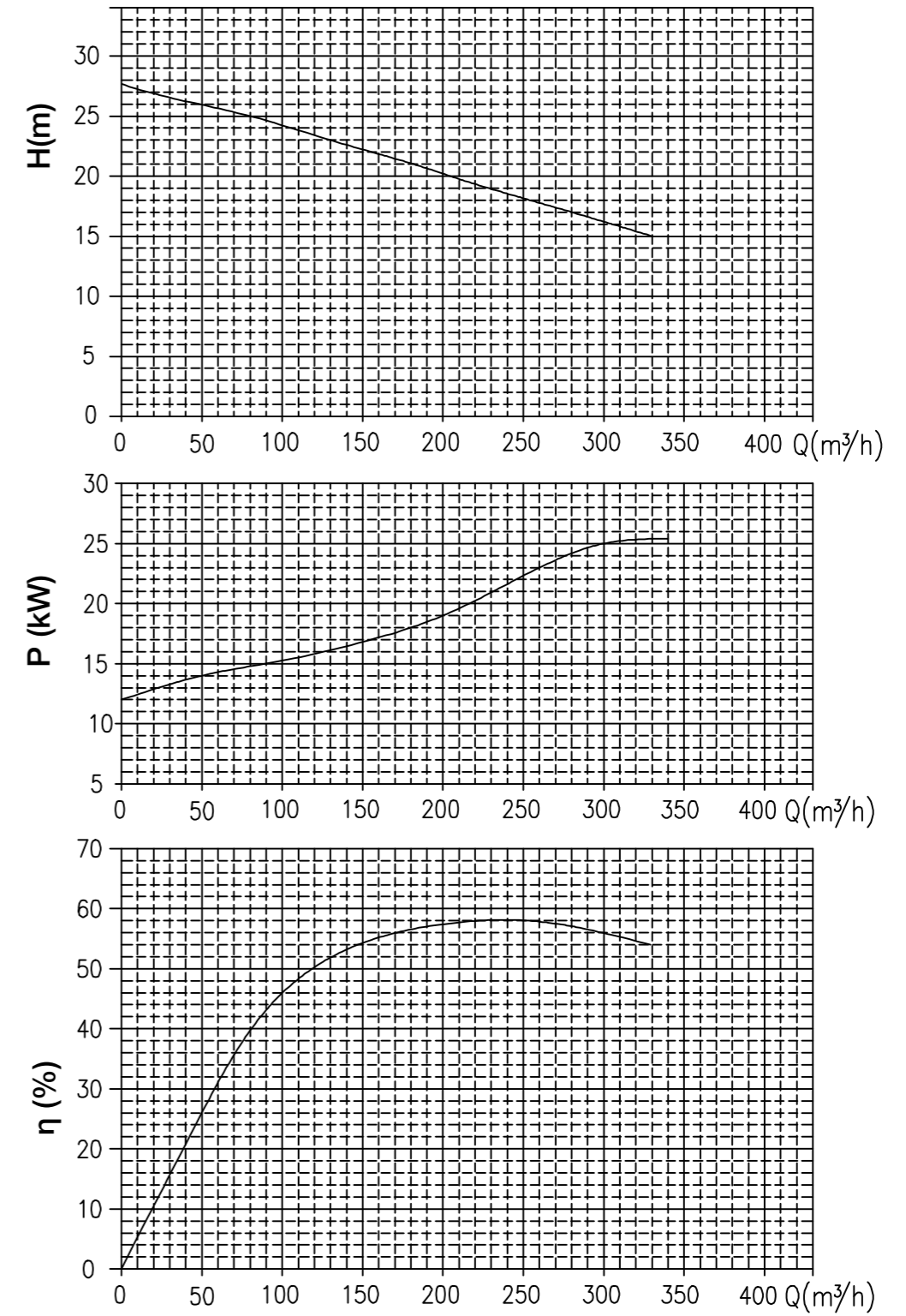
1450 r/min



WF150 200-25/30

Performance curve

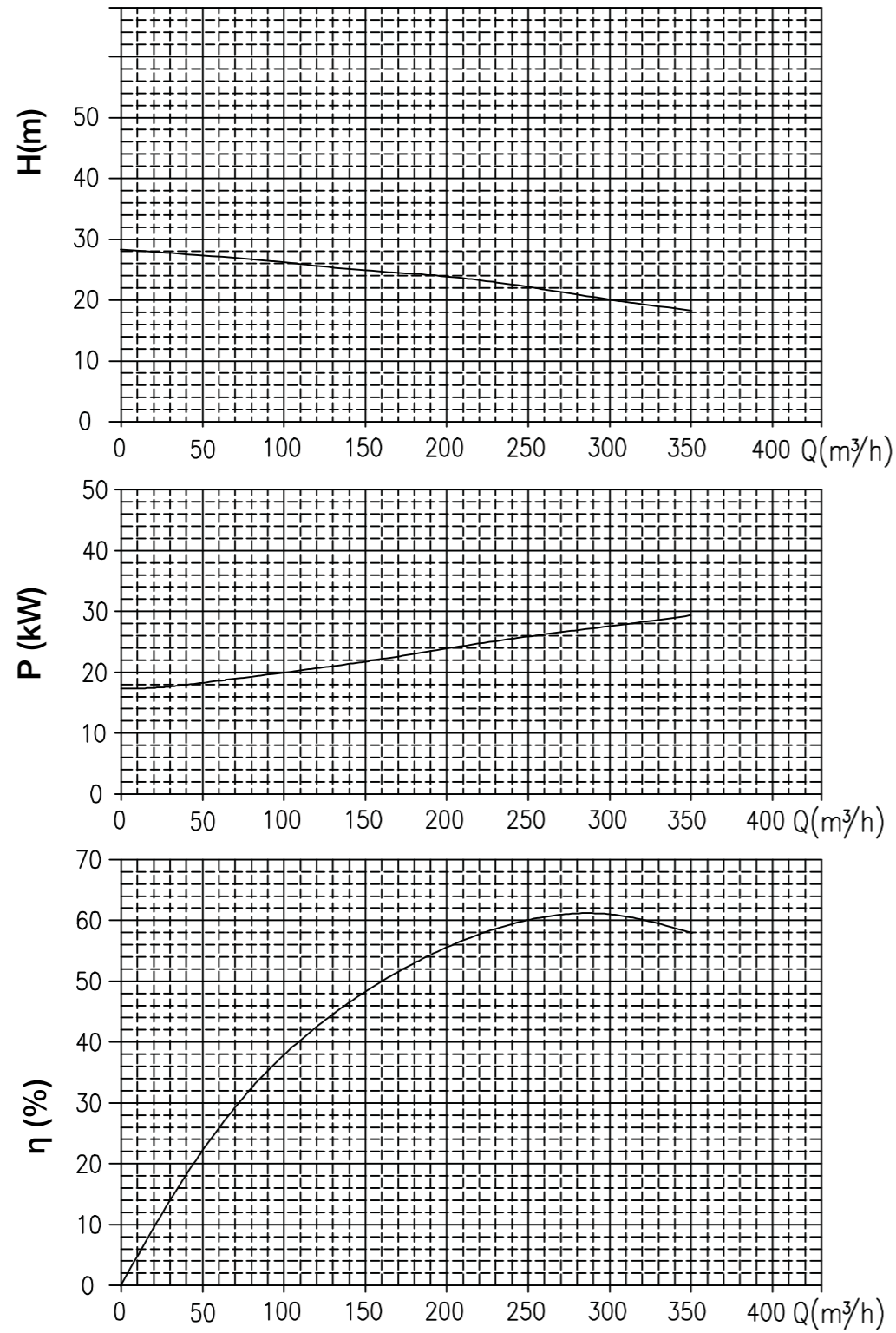
1450 r/min



WF150 200-35/37

Performance curve

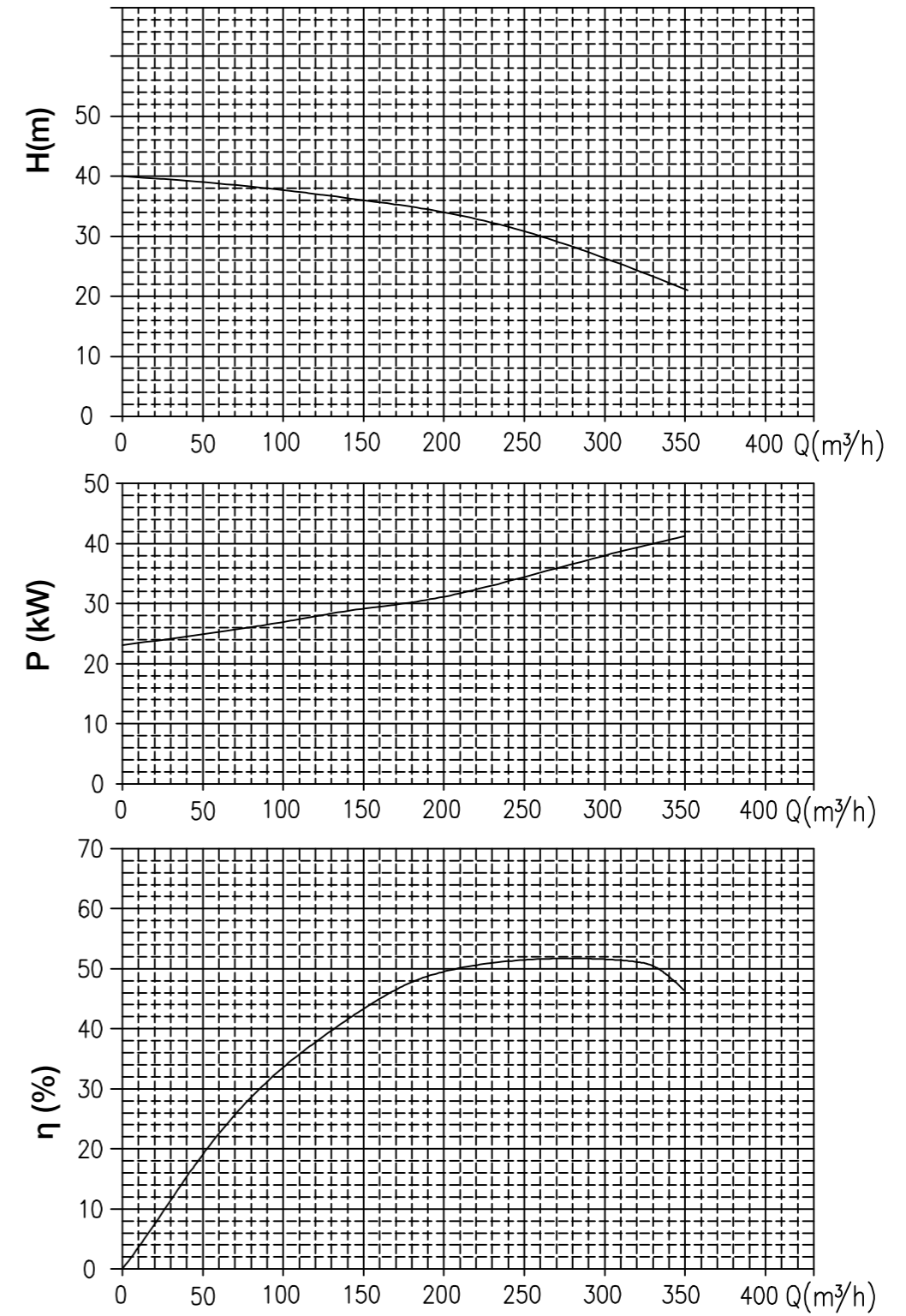
1450 r/min



WF150 200-40/45

Performance curve

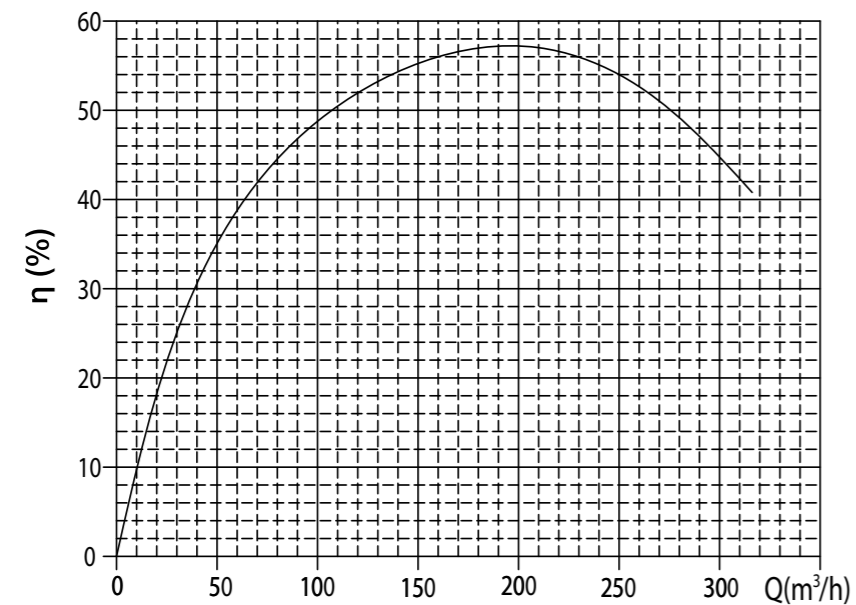
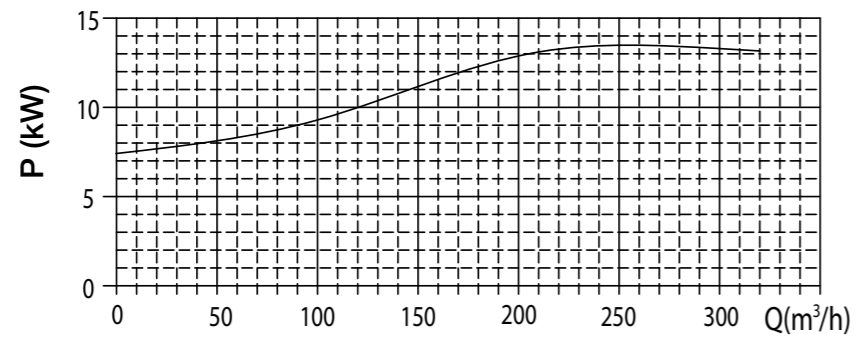
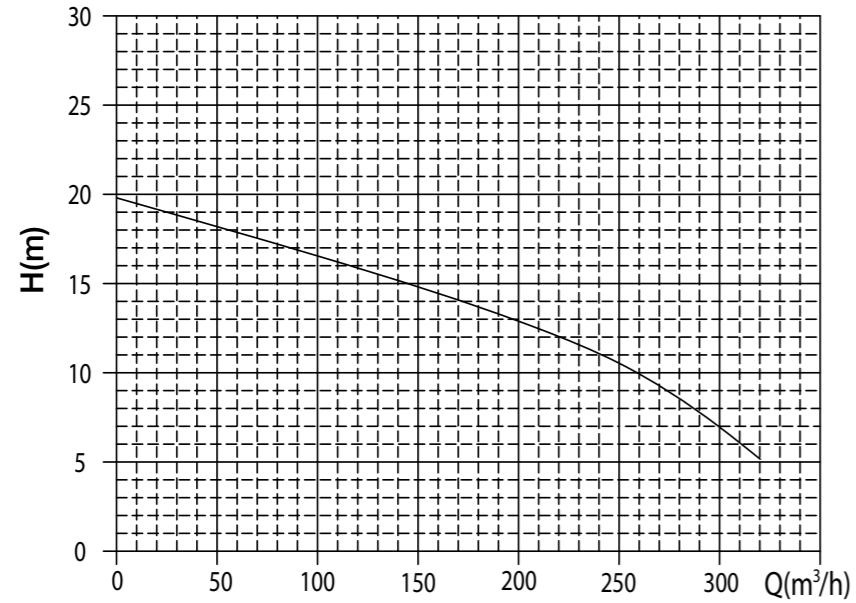
1450 r/min



WF200 300-7/11

Performance curve

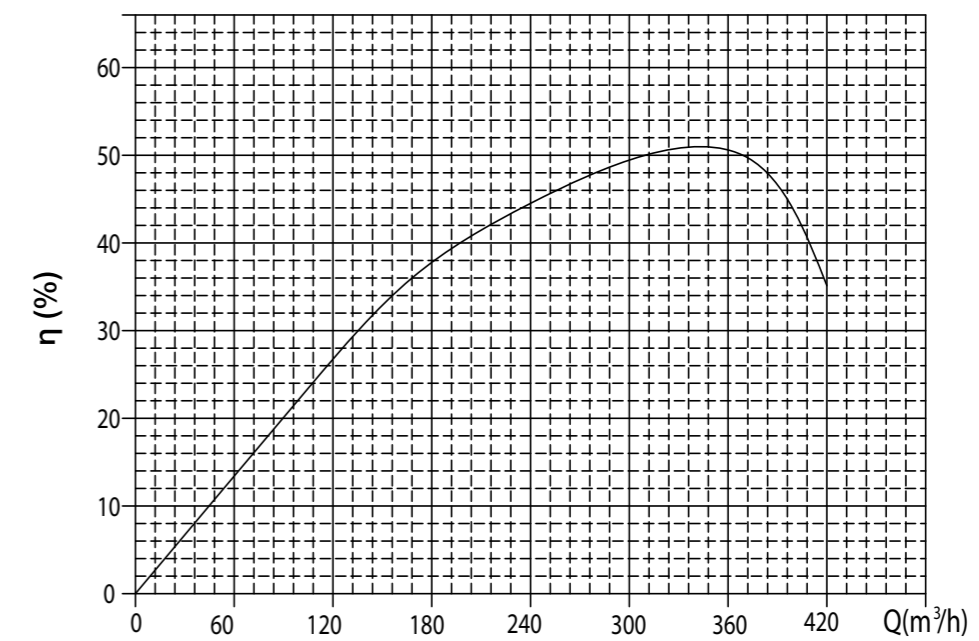
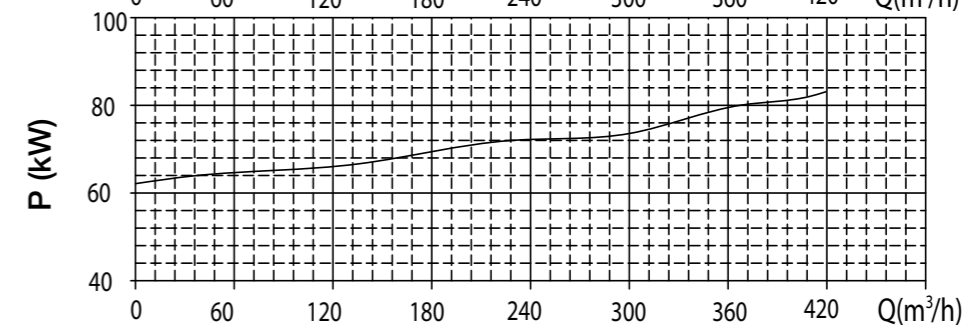
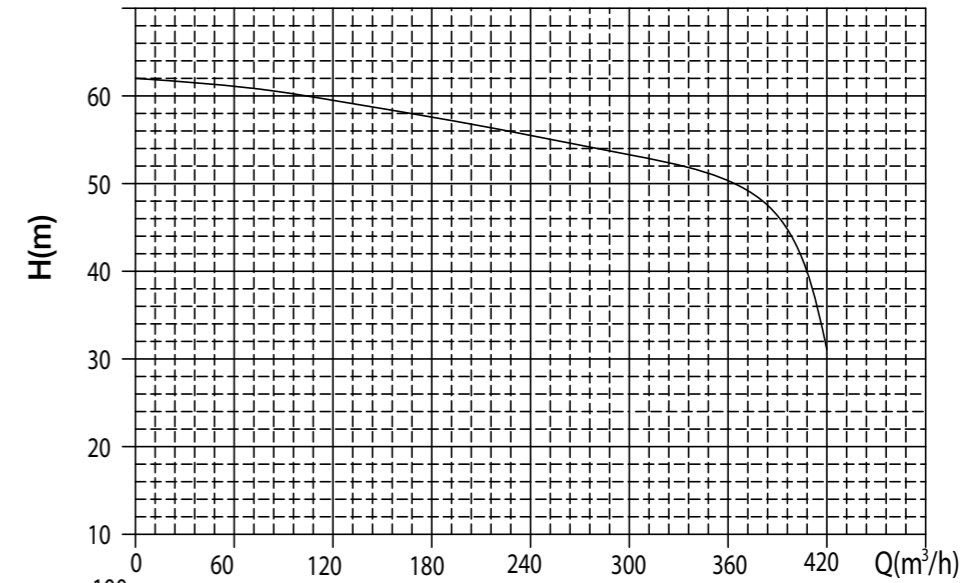
1450 r/min



WF200 250-11/15

Performance curve

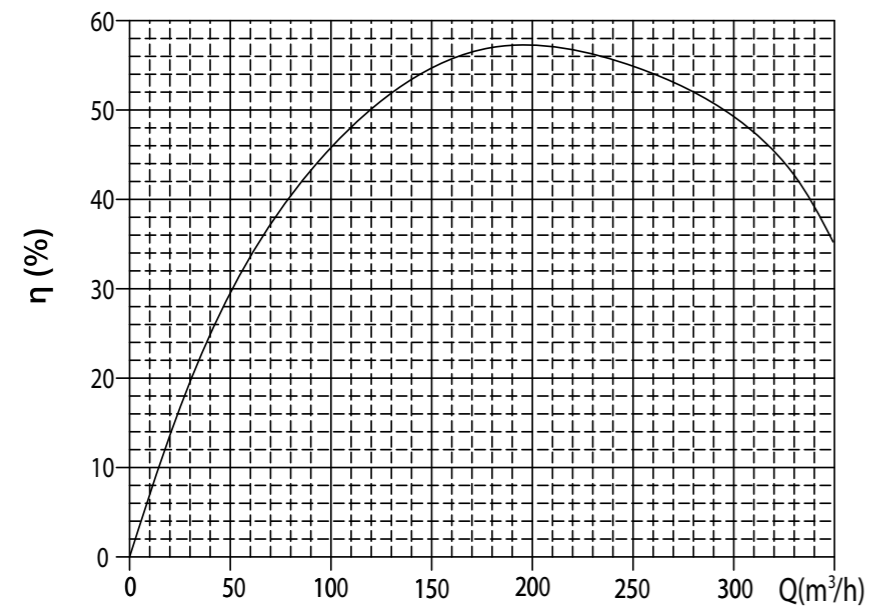
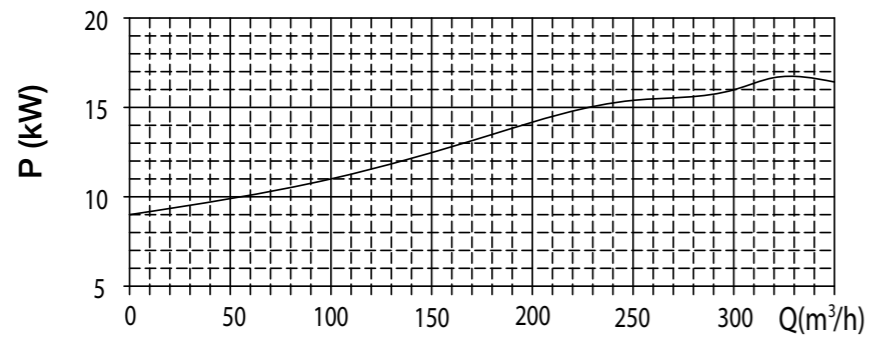
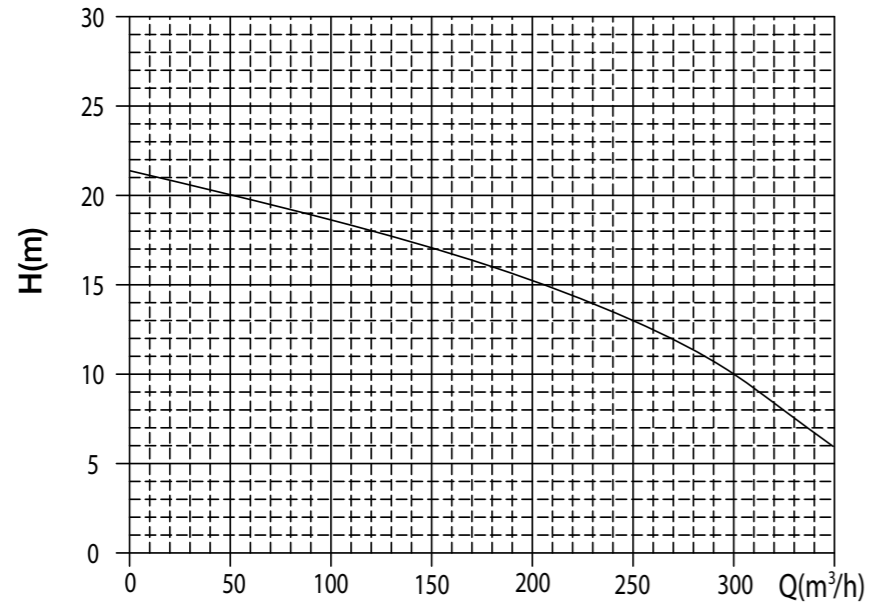
1450 r/min



WF200 250-15/18,5

Performance curve

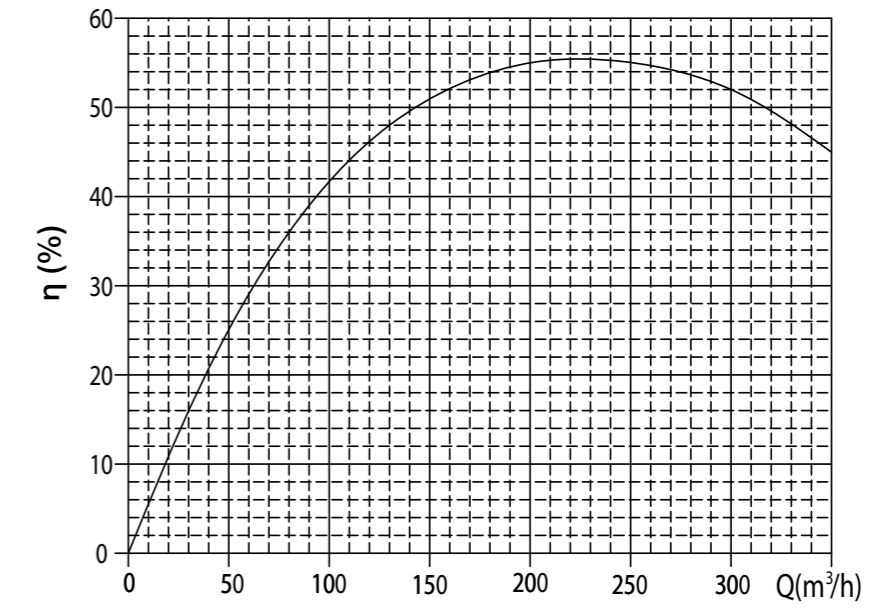
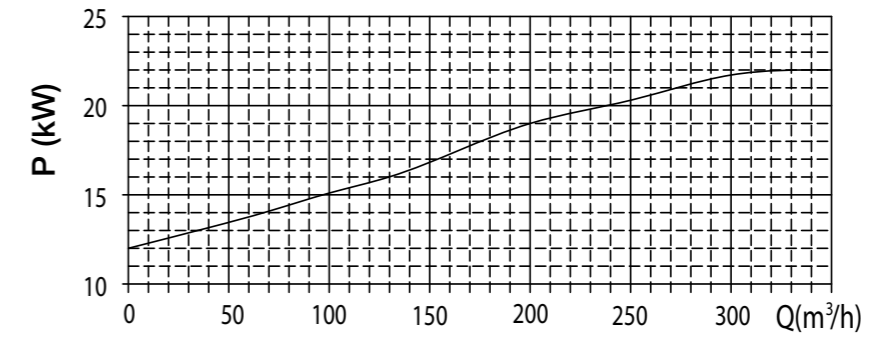
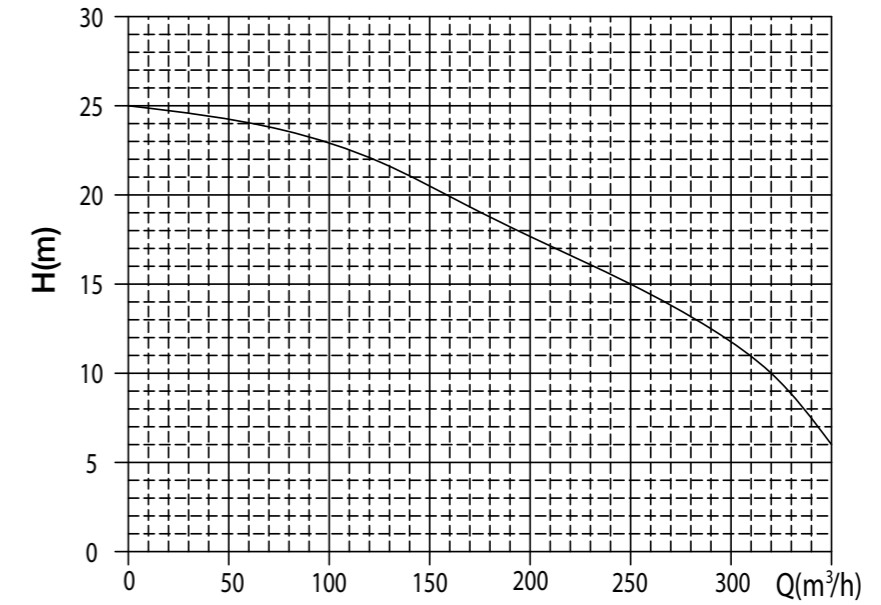
1450 r/min



WF200 300-15/22

Performance curve

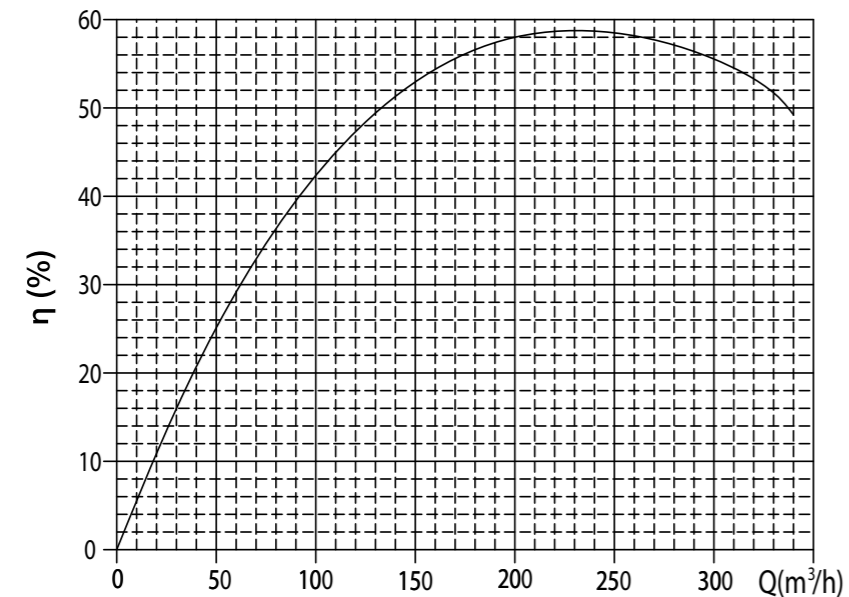
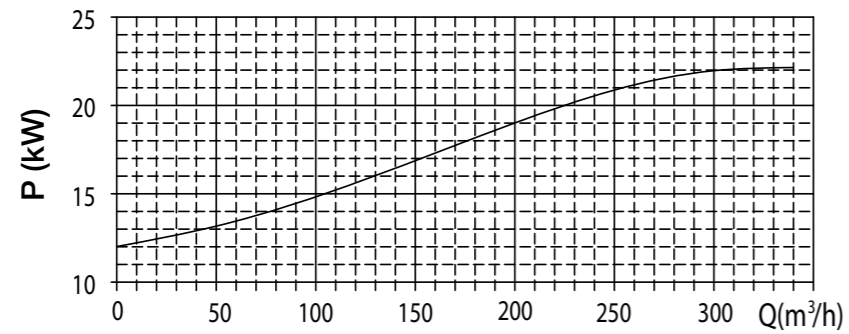
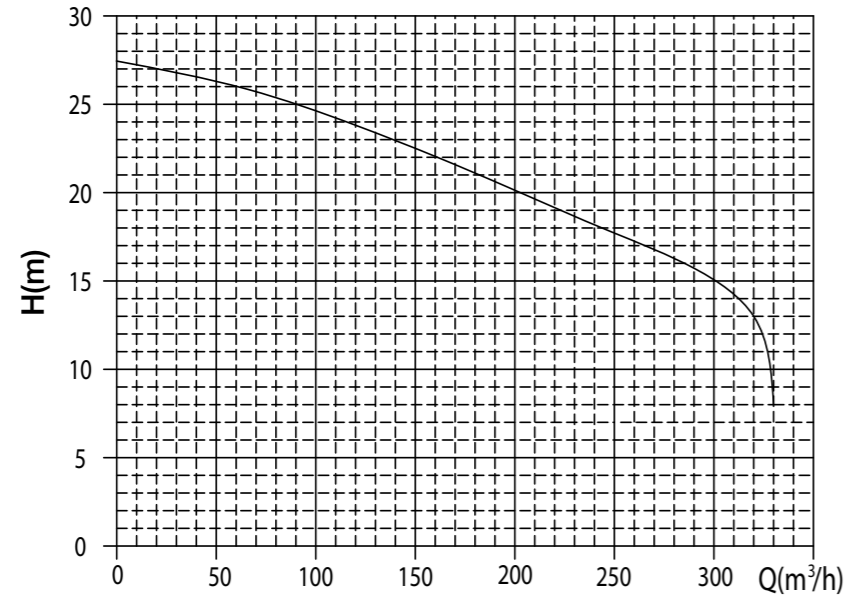
1450 r/min



WF200 350-15/30

Performance curve

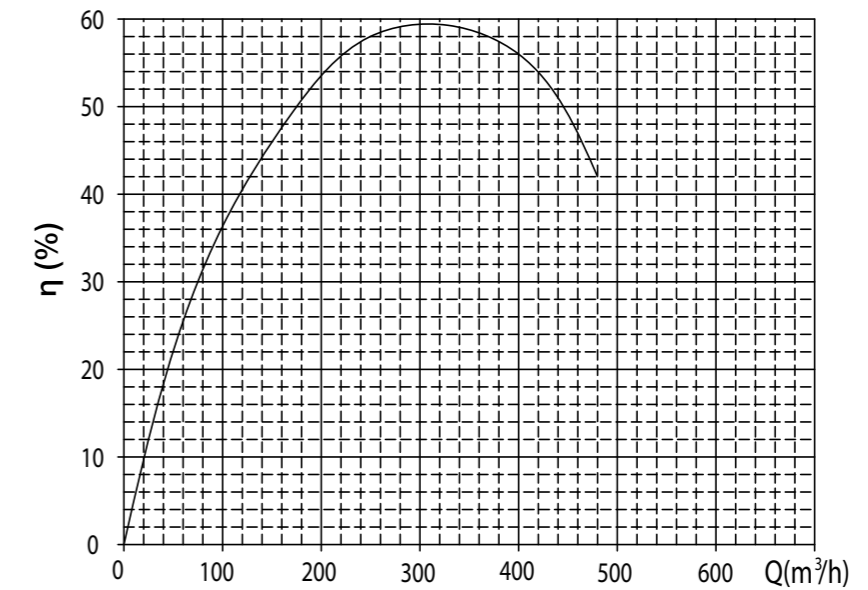
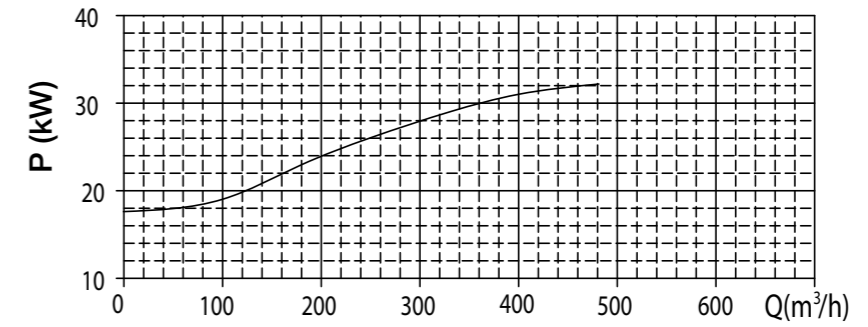
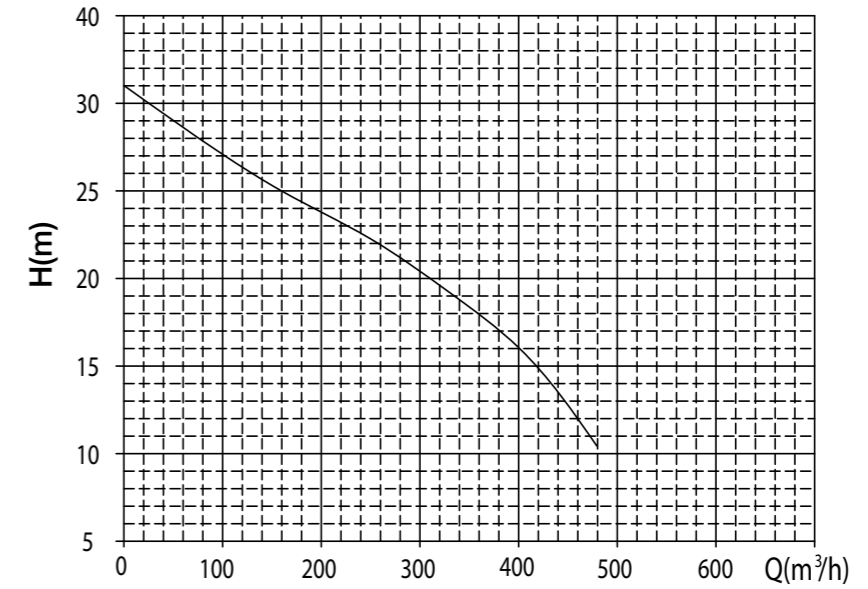
1450 r/min



WF200 300-25/37

Performance curve

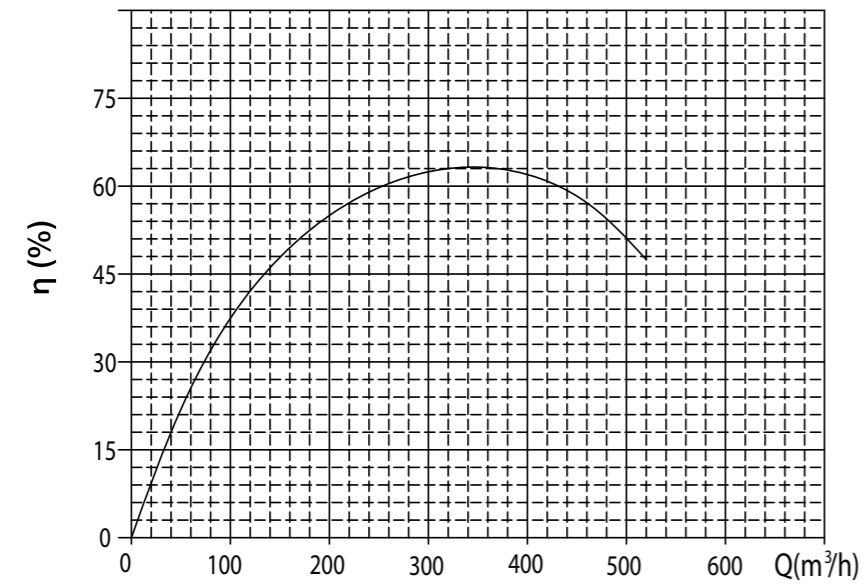
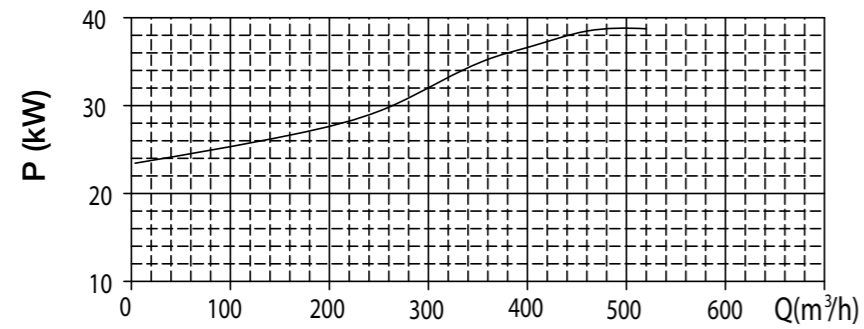
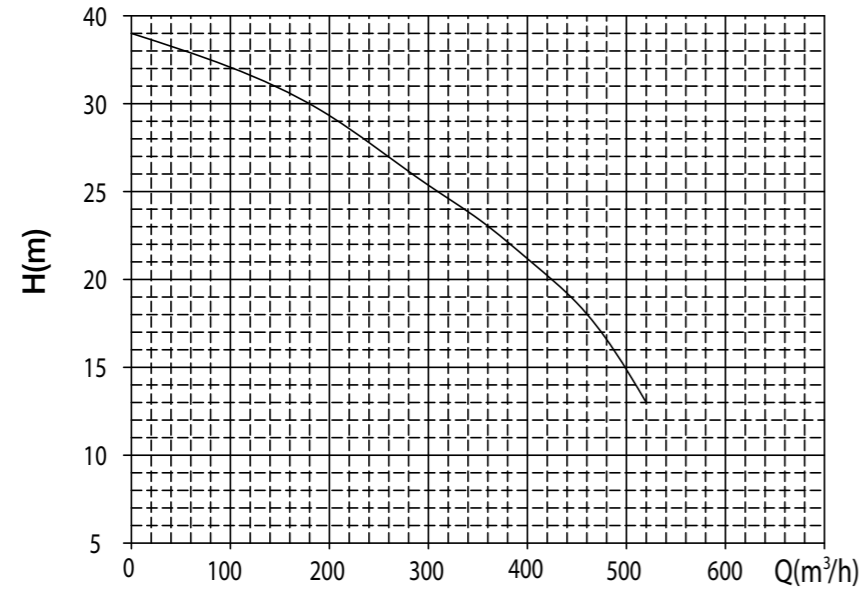
1450 r/min



WF200 250-30/45

Performance curve

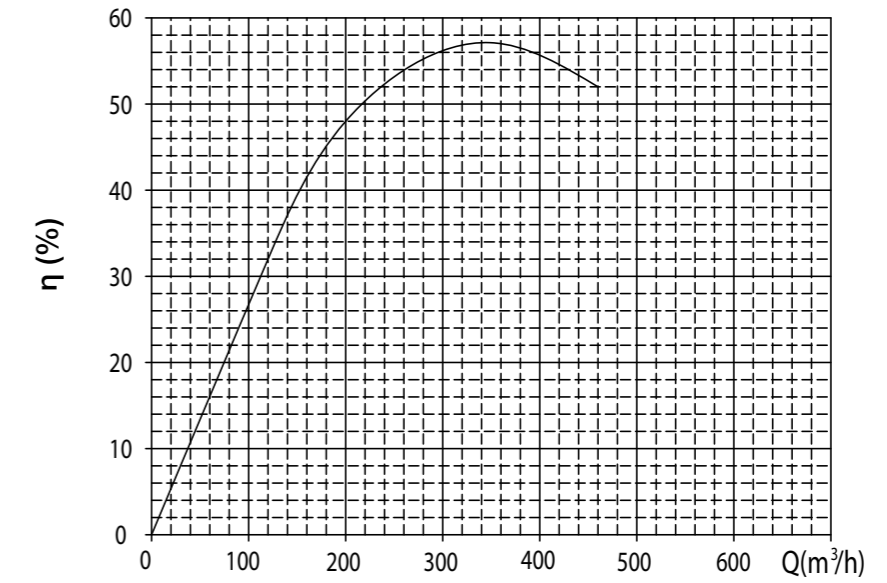
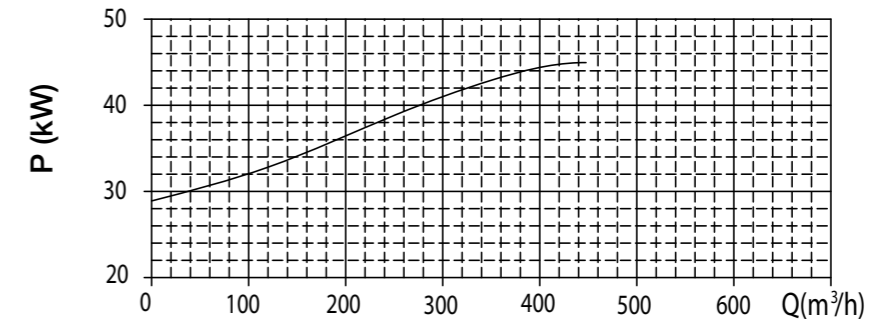
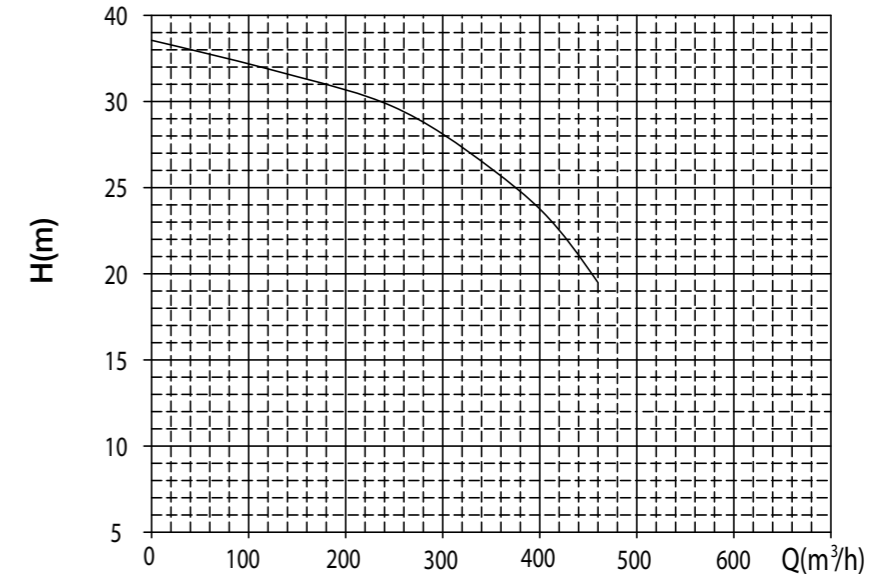
1450 r/min



WF200 300-40/55

Performance curve

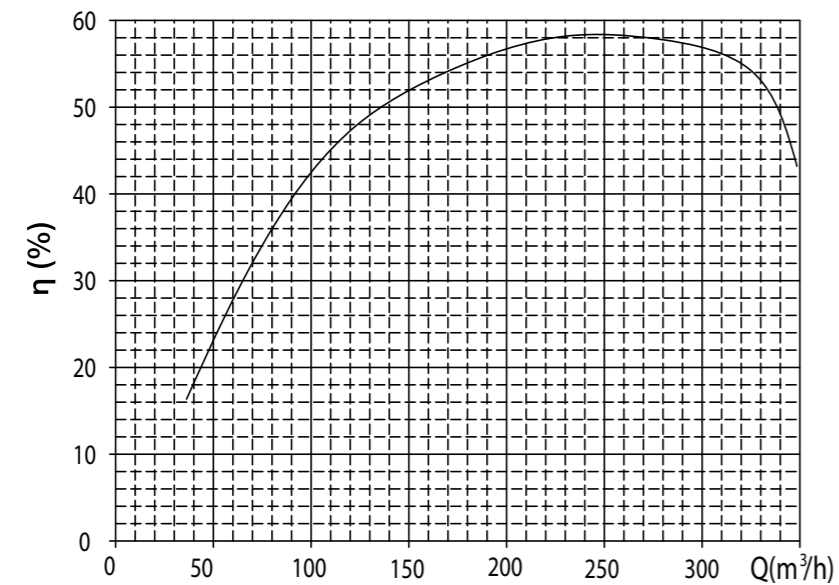
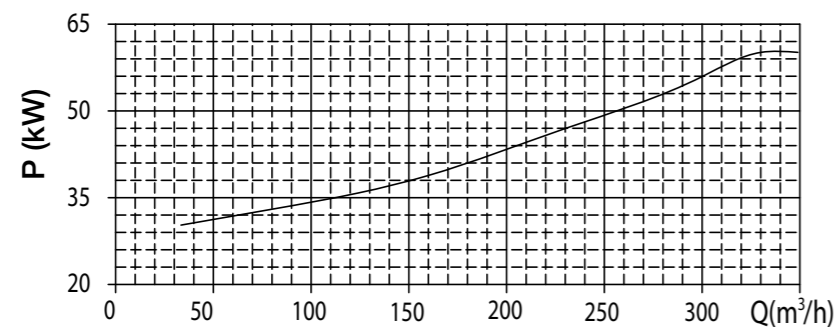
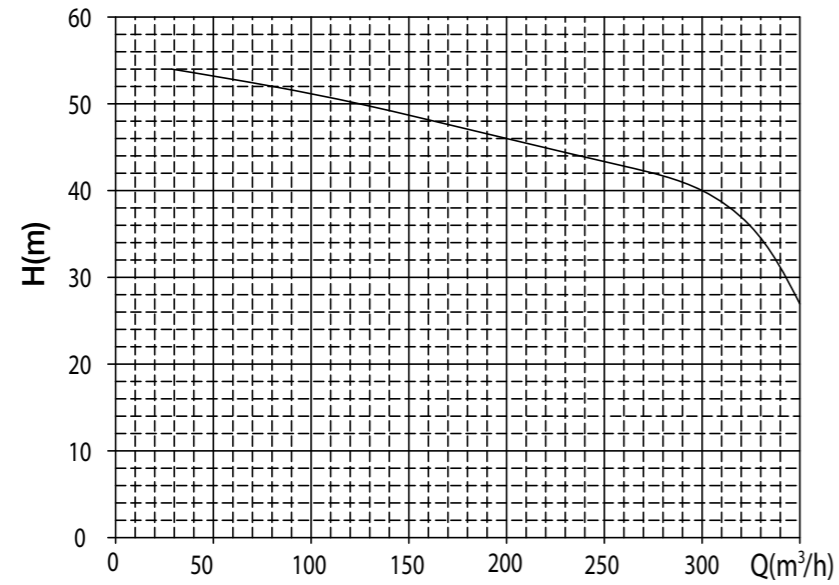
1450 r/min



WF200 350-40/75

Performance curve

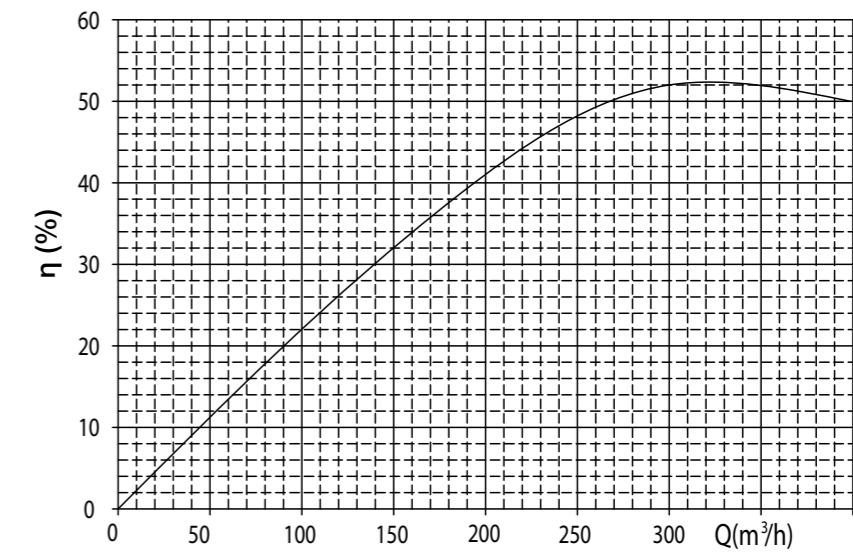
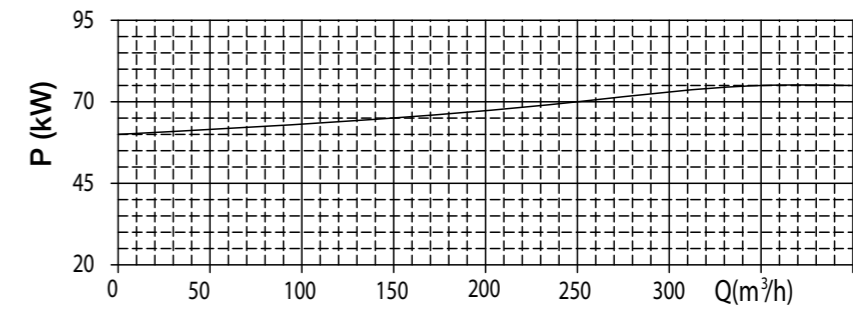
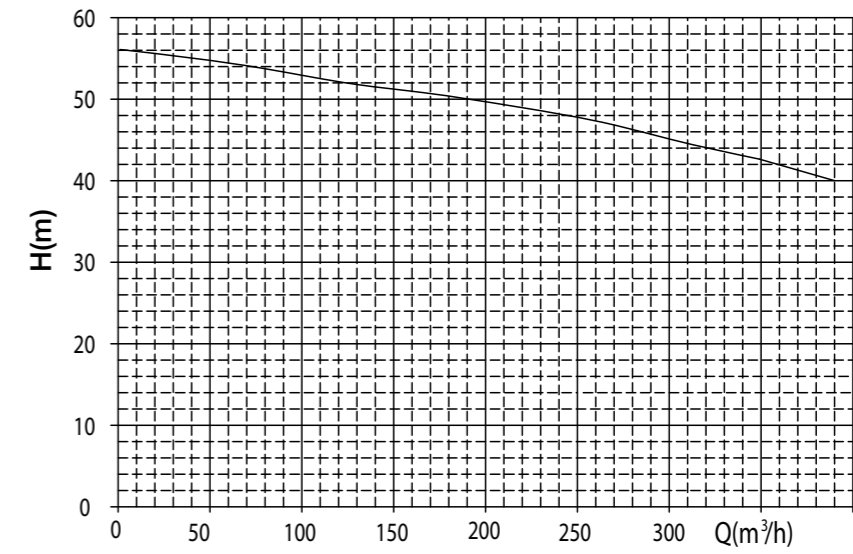
1450 r/min



WF200 350-50/90

Performance curve

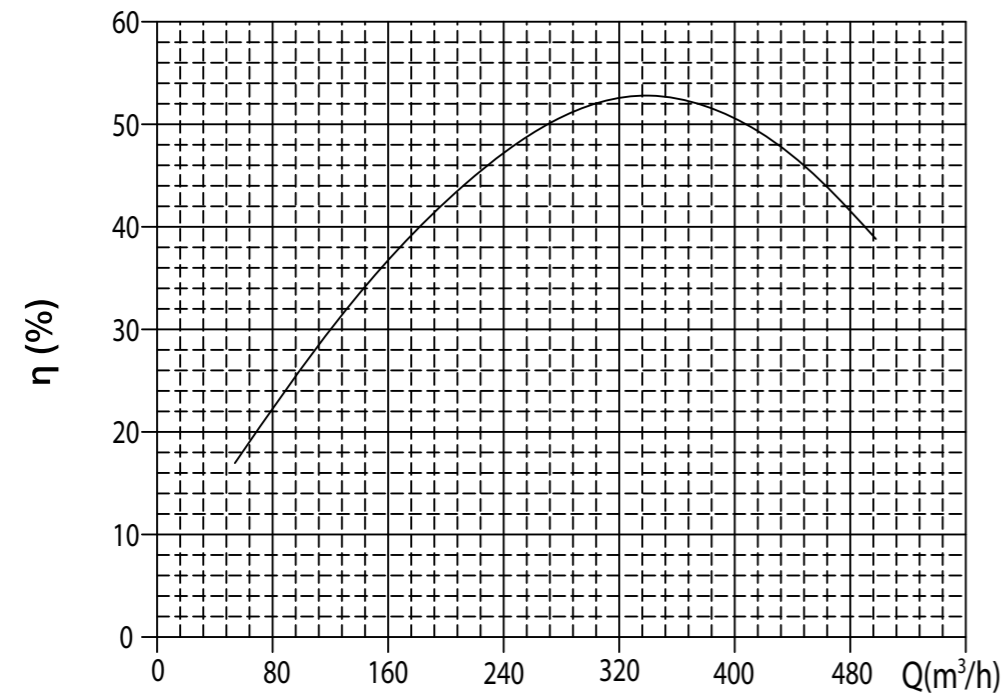
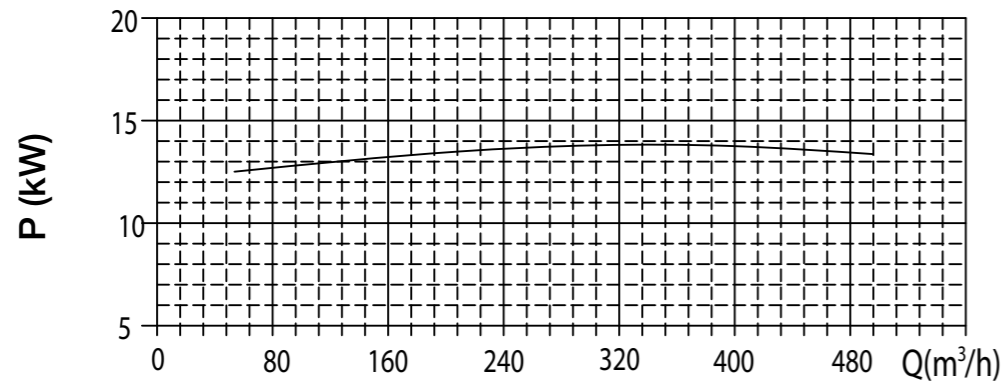
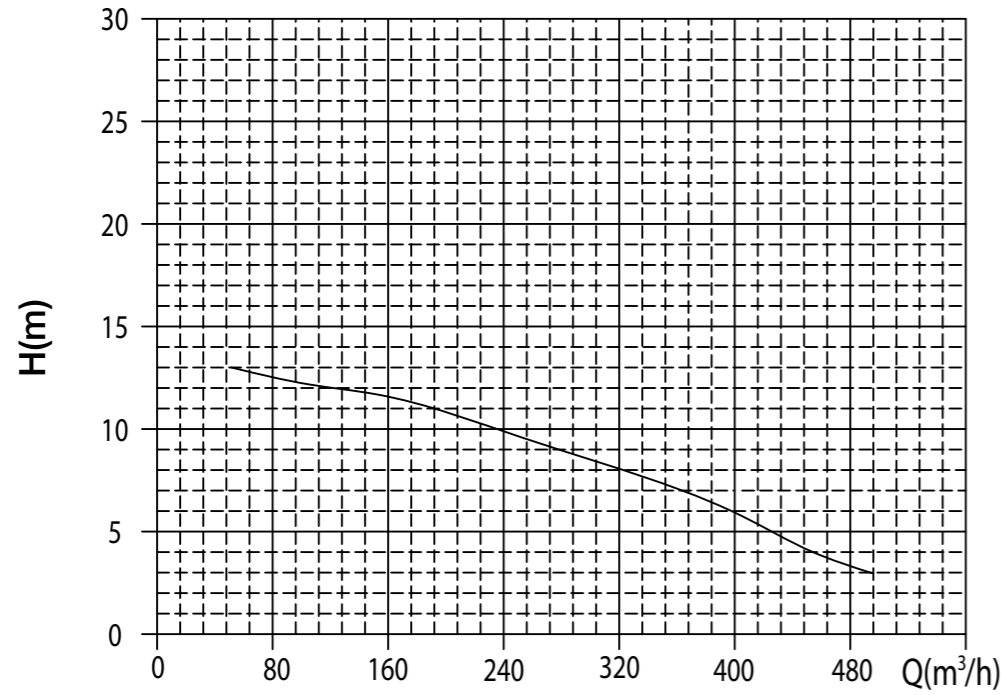
1450 r/min



WF250 400-5/11

Performance curve

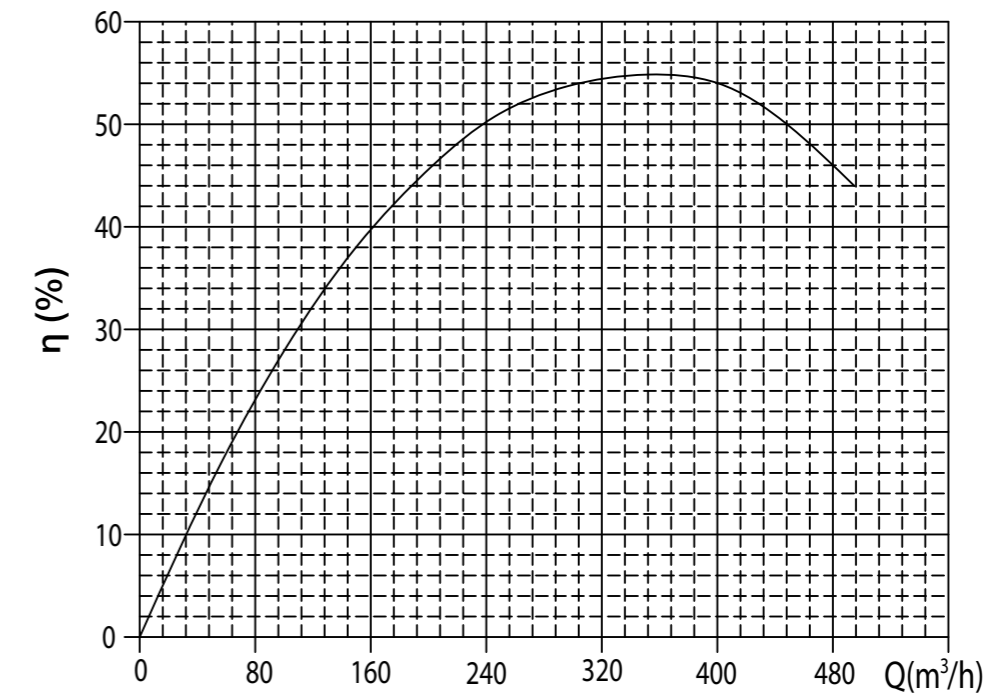
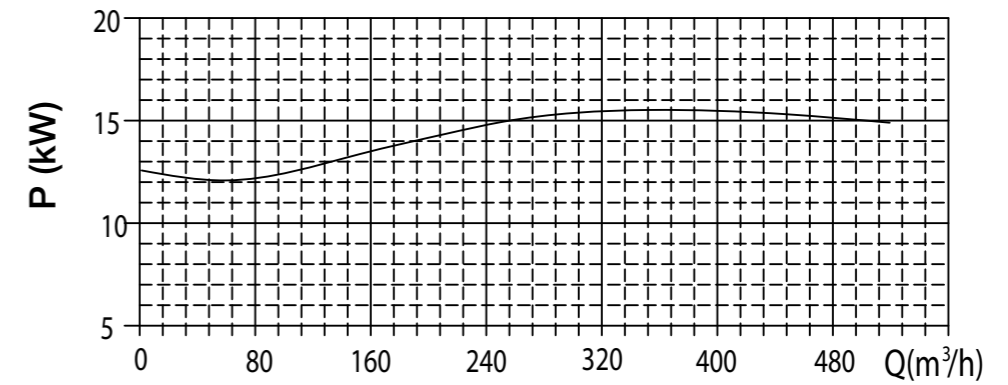
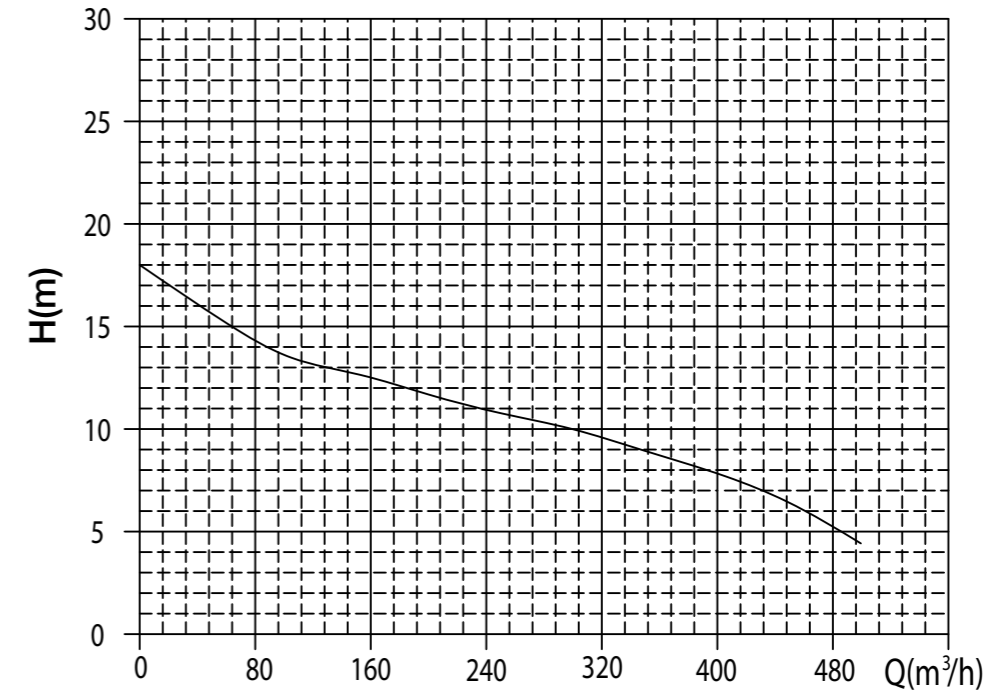
1450 r/min



WF250 400-7/15

Performance curve

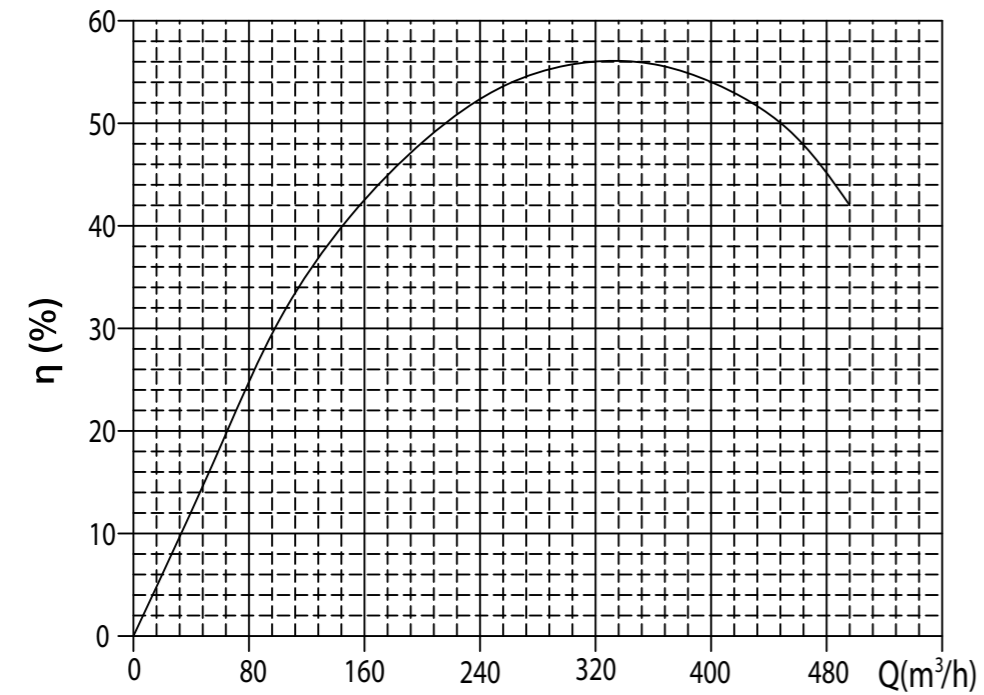
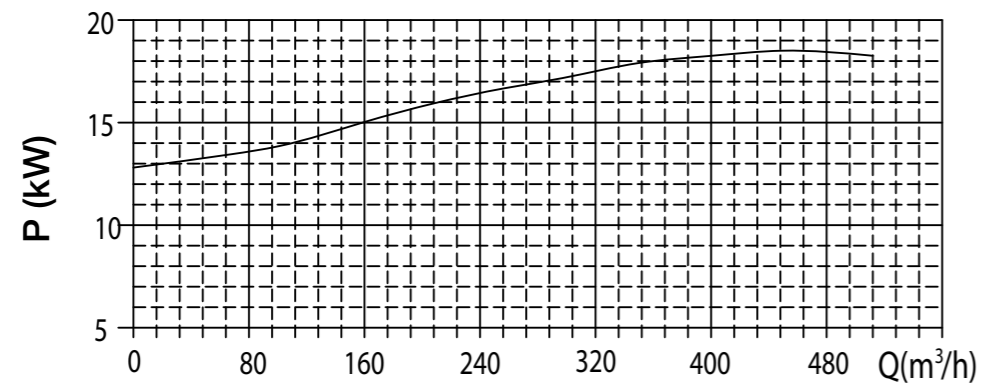
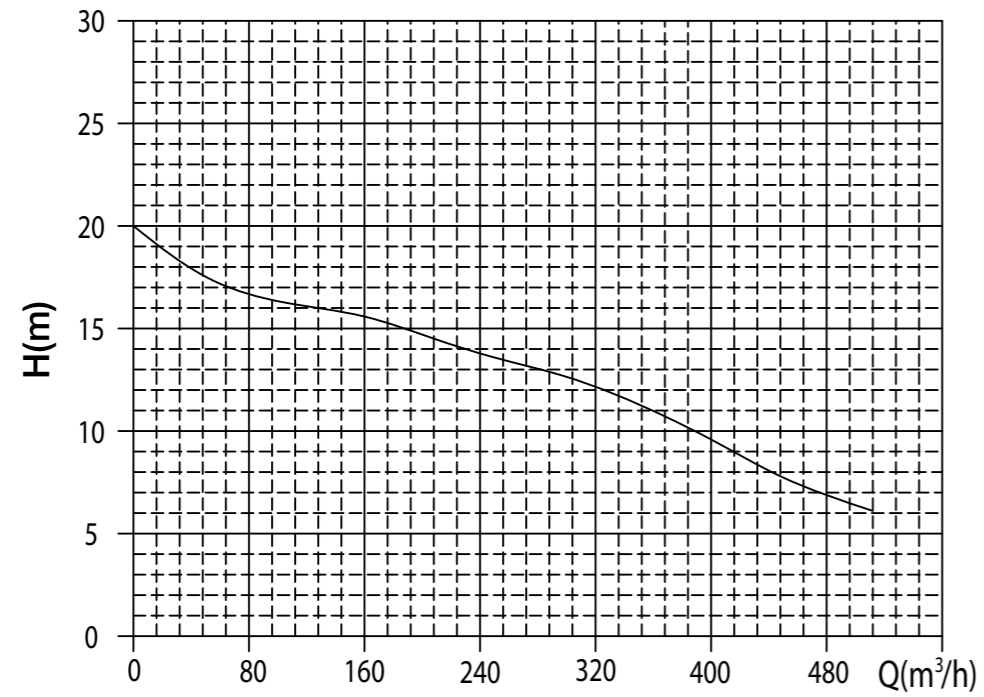
1450 r/min



WF250 400-10/18,5

Performance curve

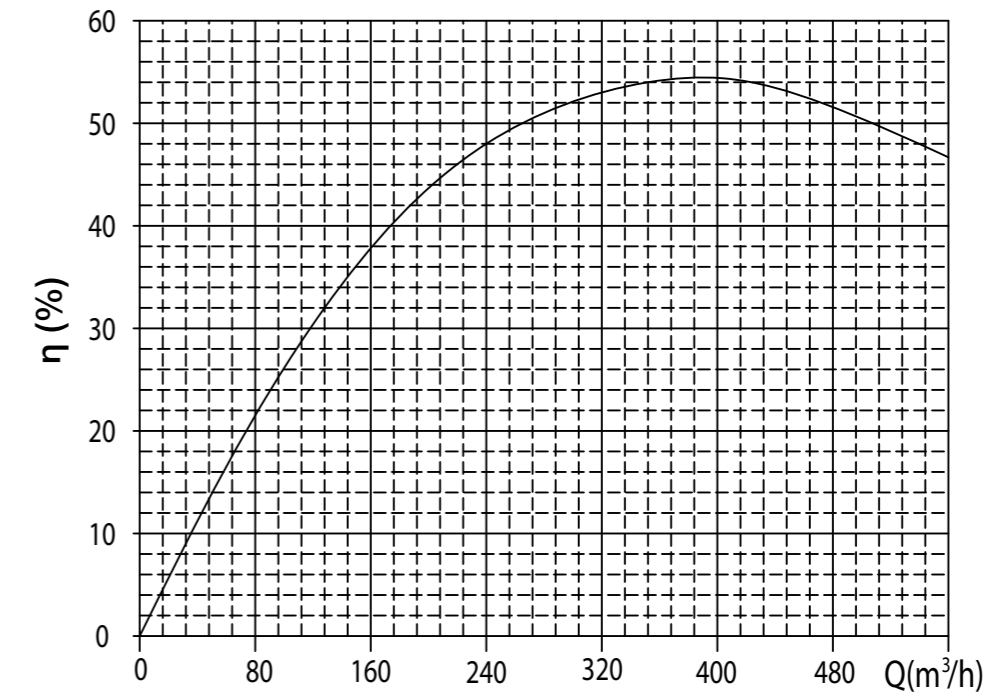
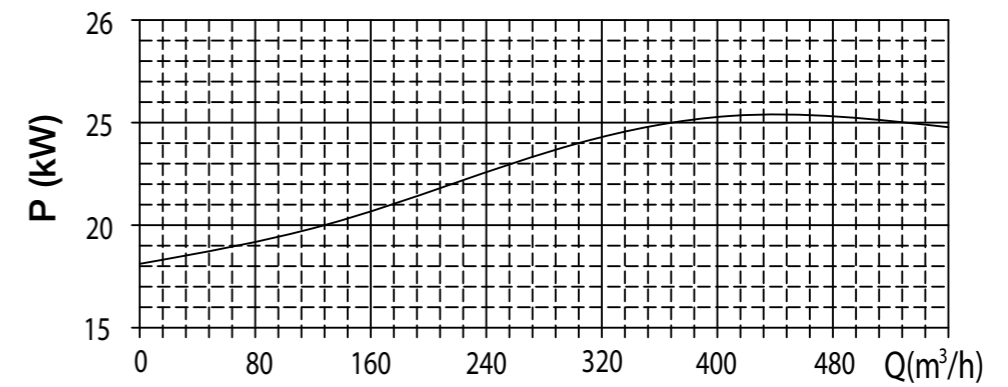
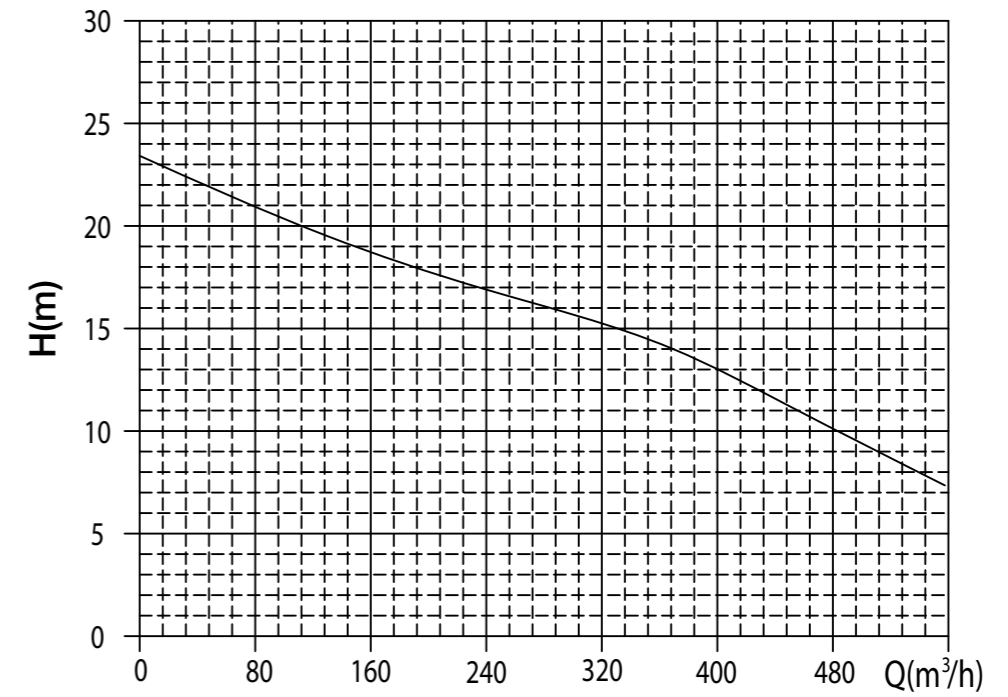
1450 r/min



WF250 500-10/22

Performance curve

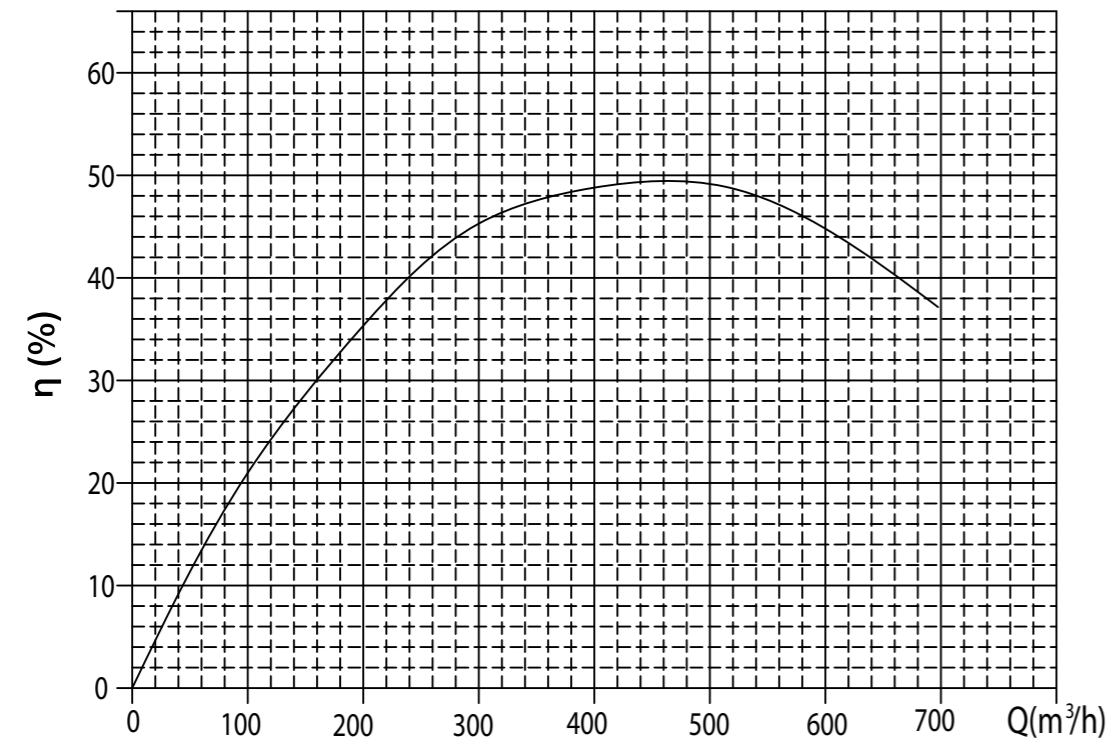
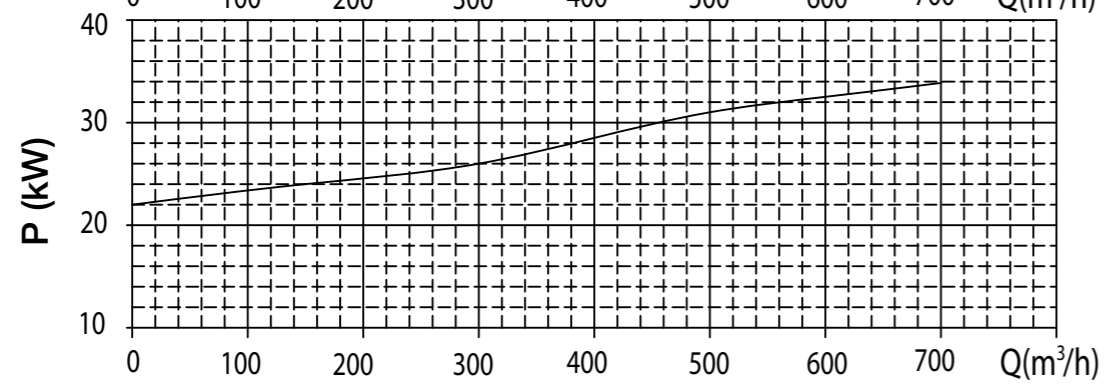
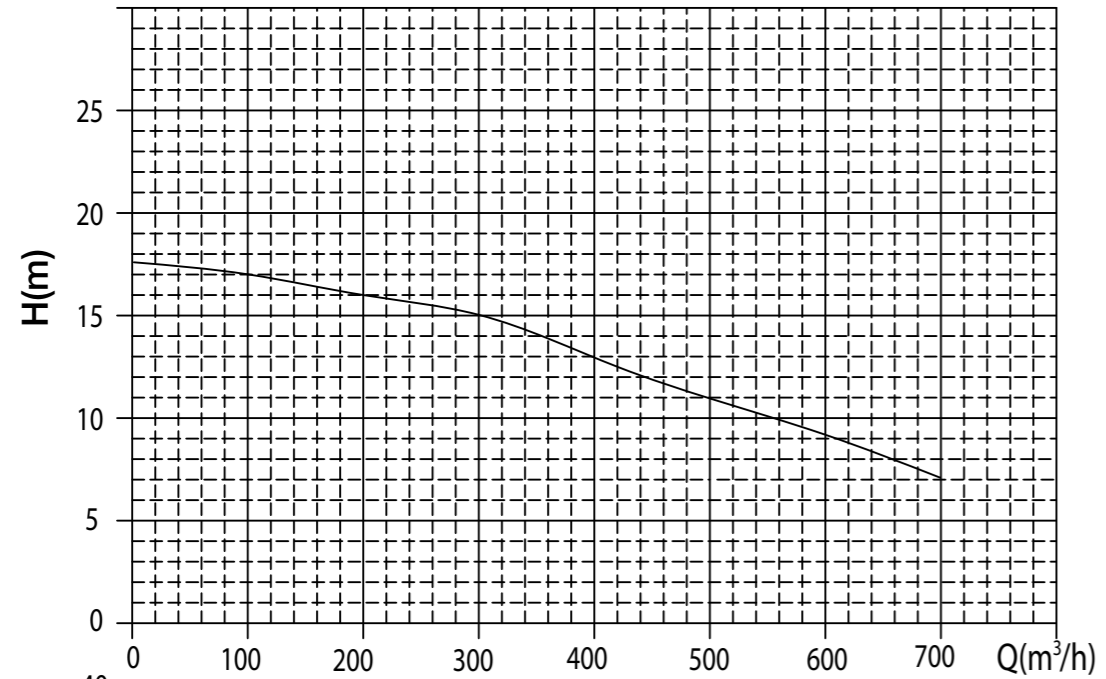
1450 r/min



WF250 600-10/30

Performance curve

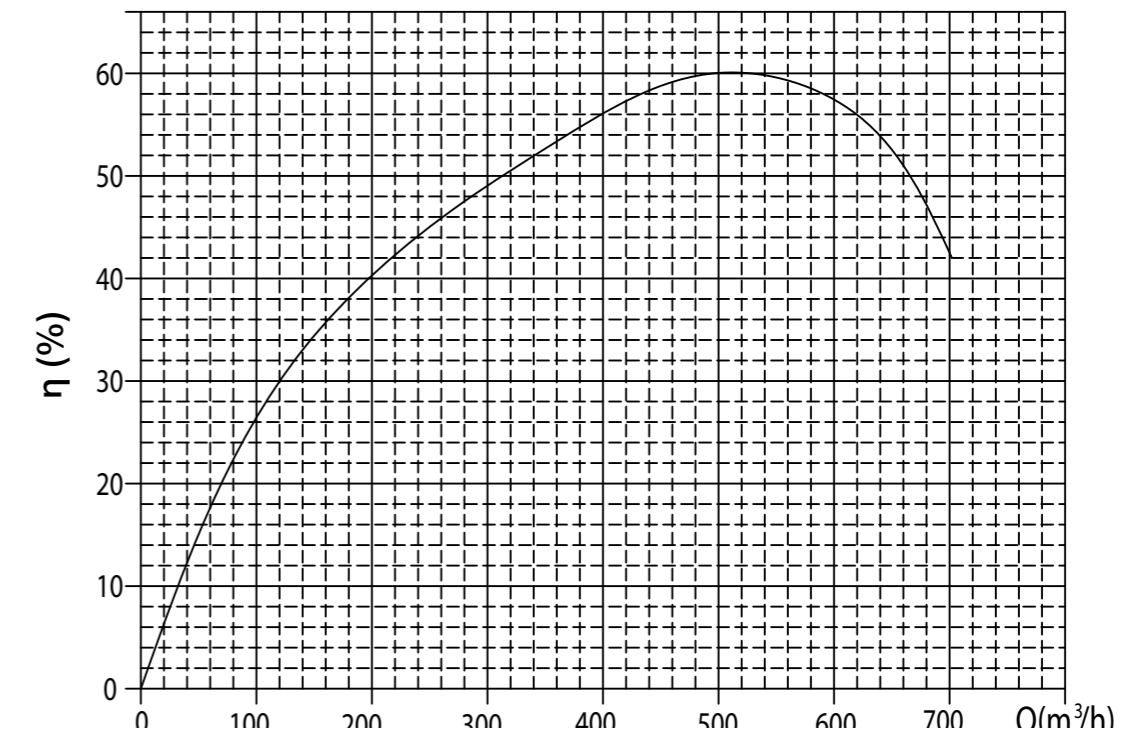
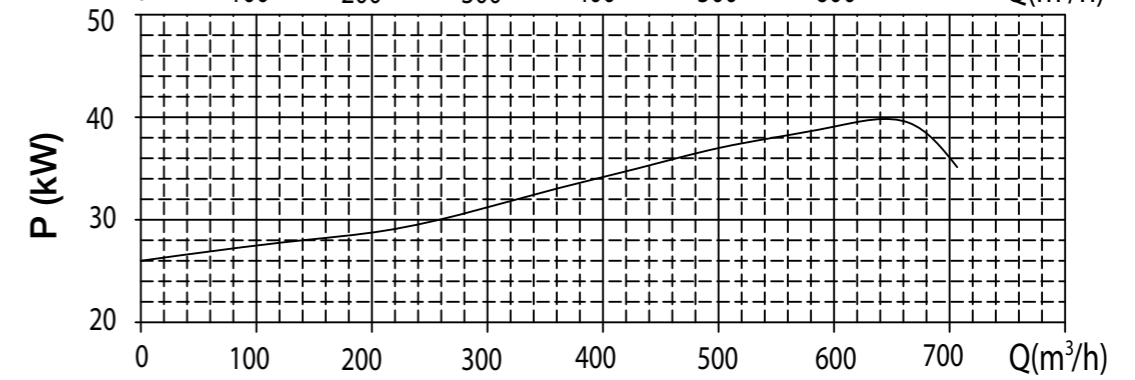
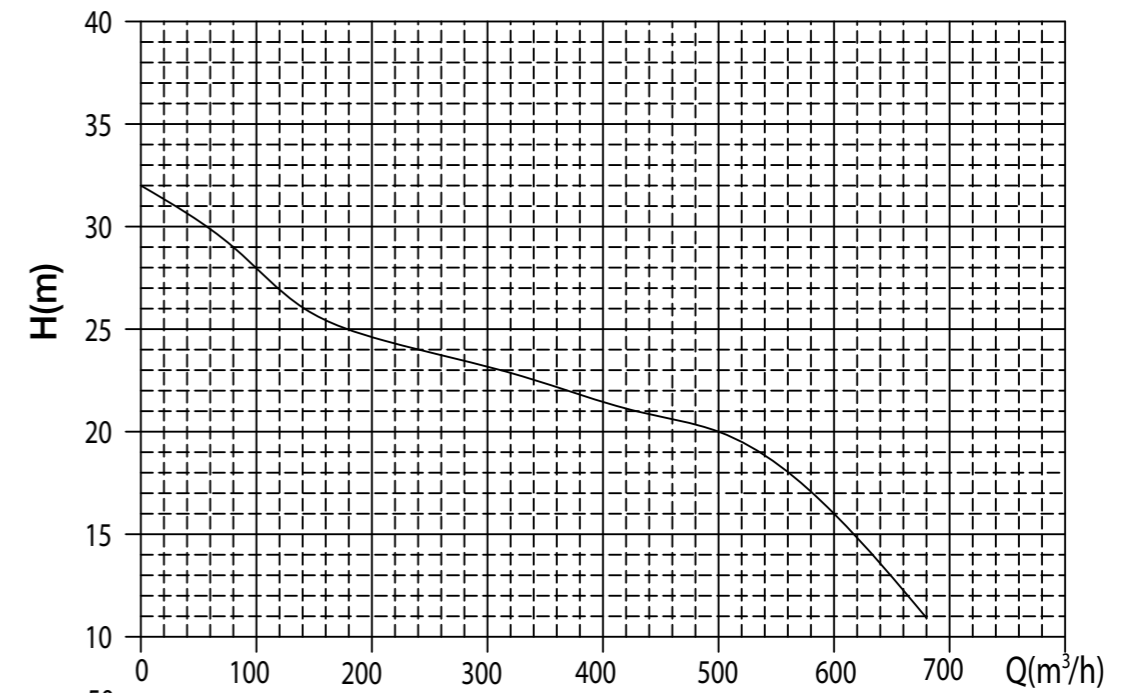
1450 r/min



WF250 500-20/37

Performance curve

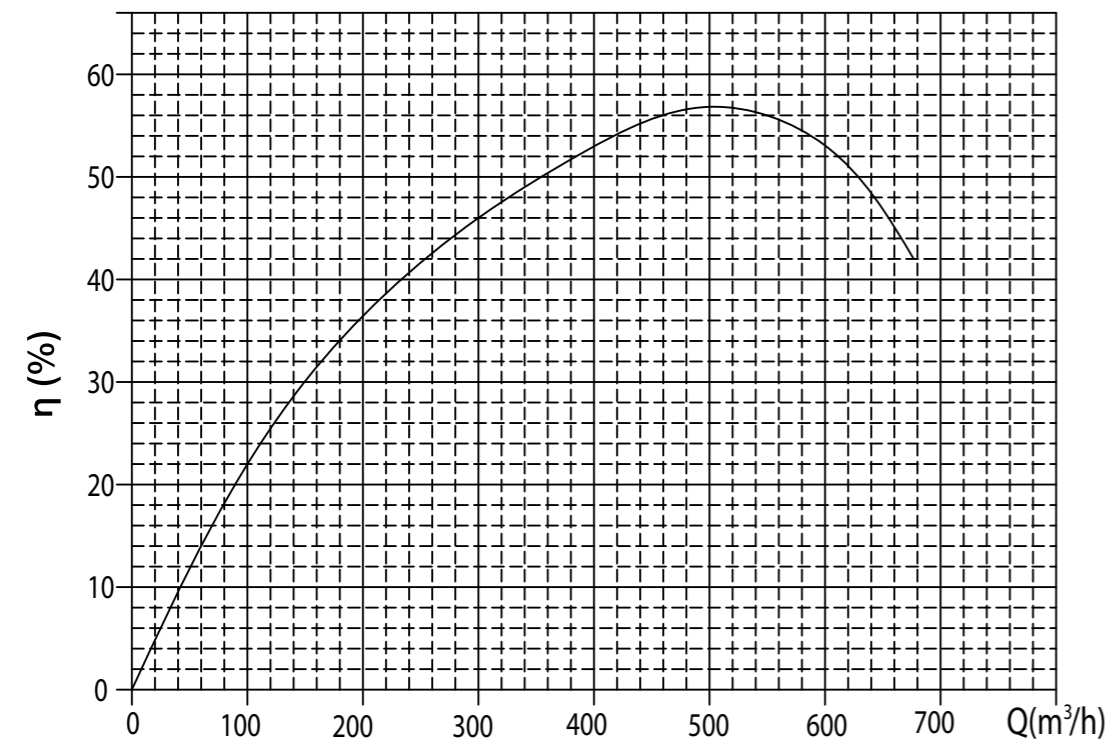
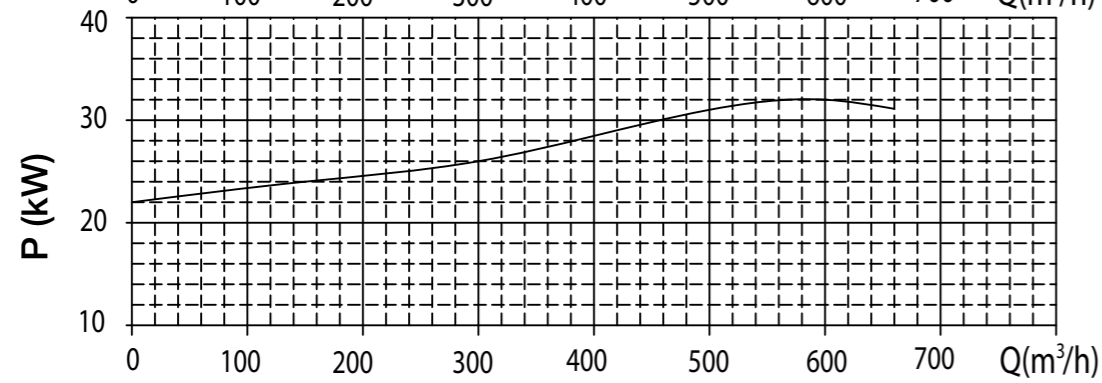
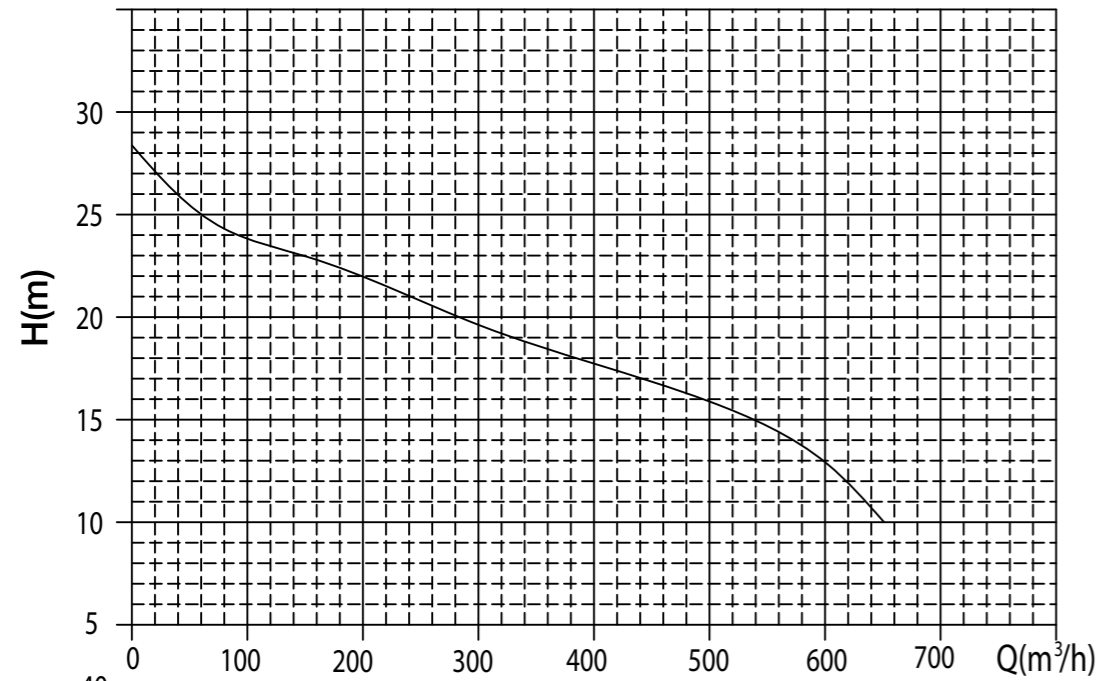
1450 r/min



WF250 600-15/45

Performance curve

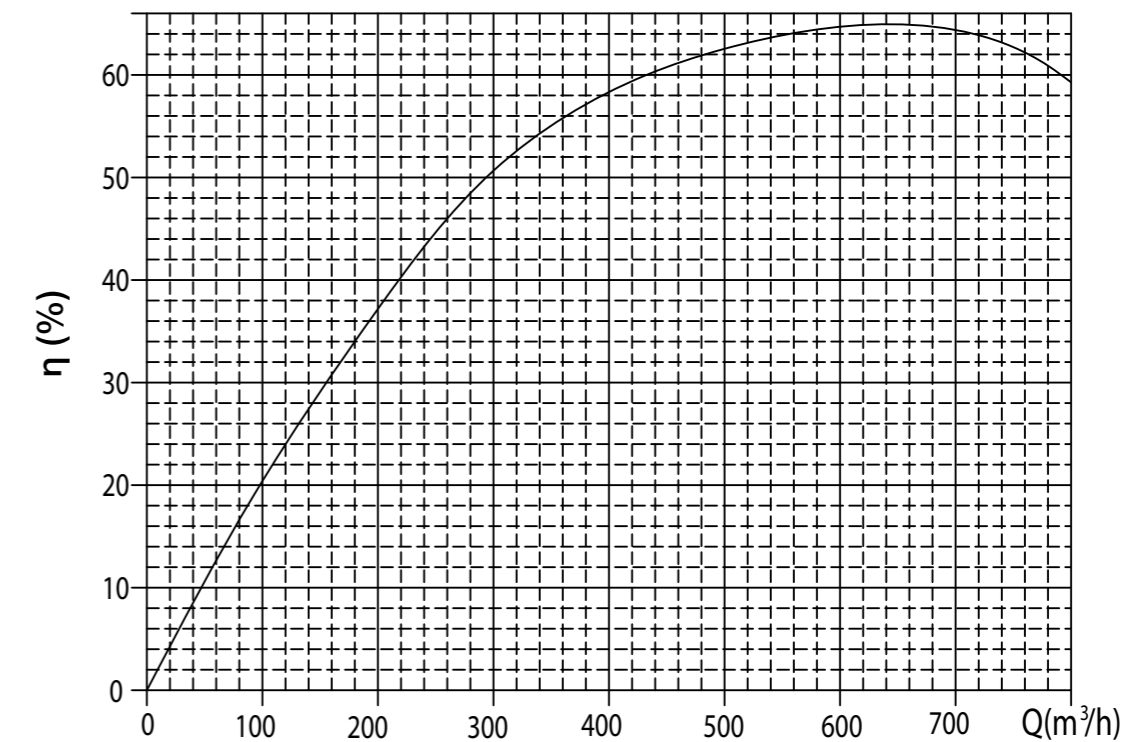
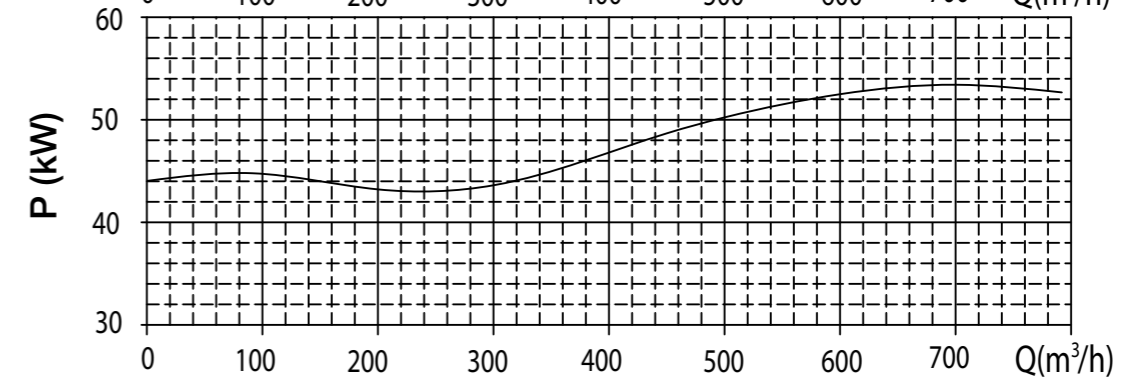
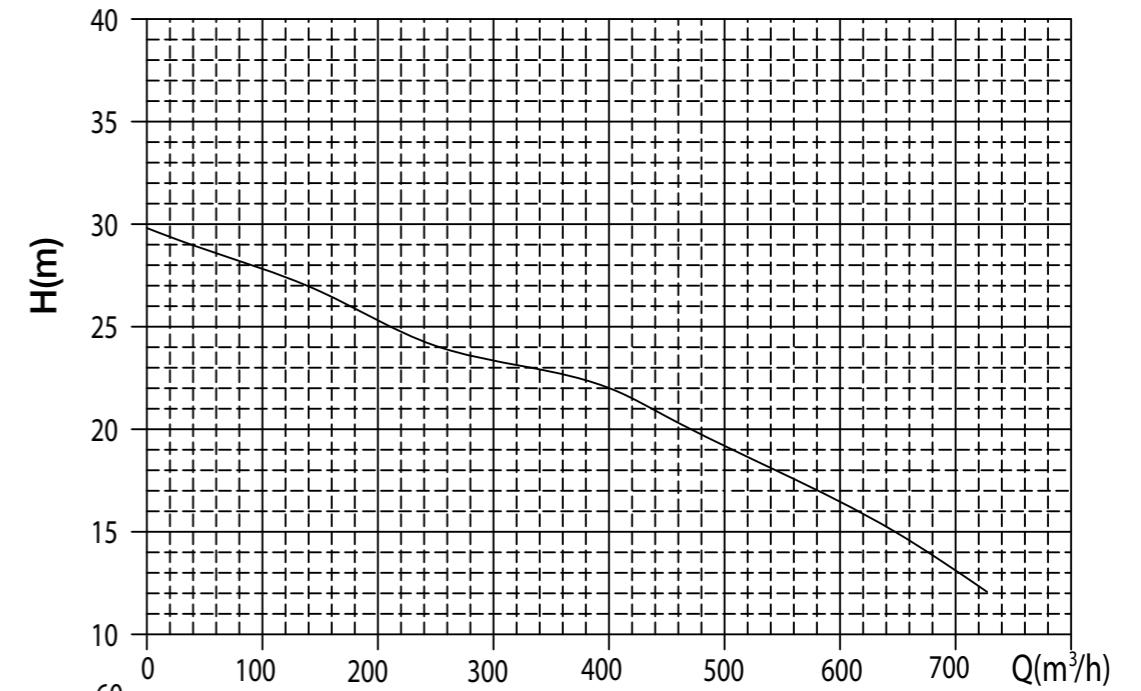
1450 r/min



WF250 650-15/55

Performance curve

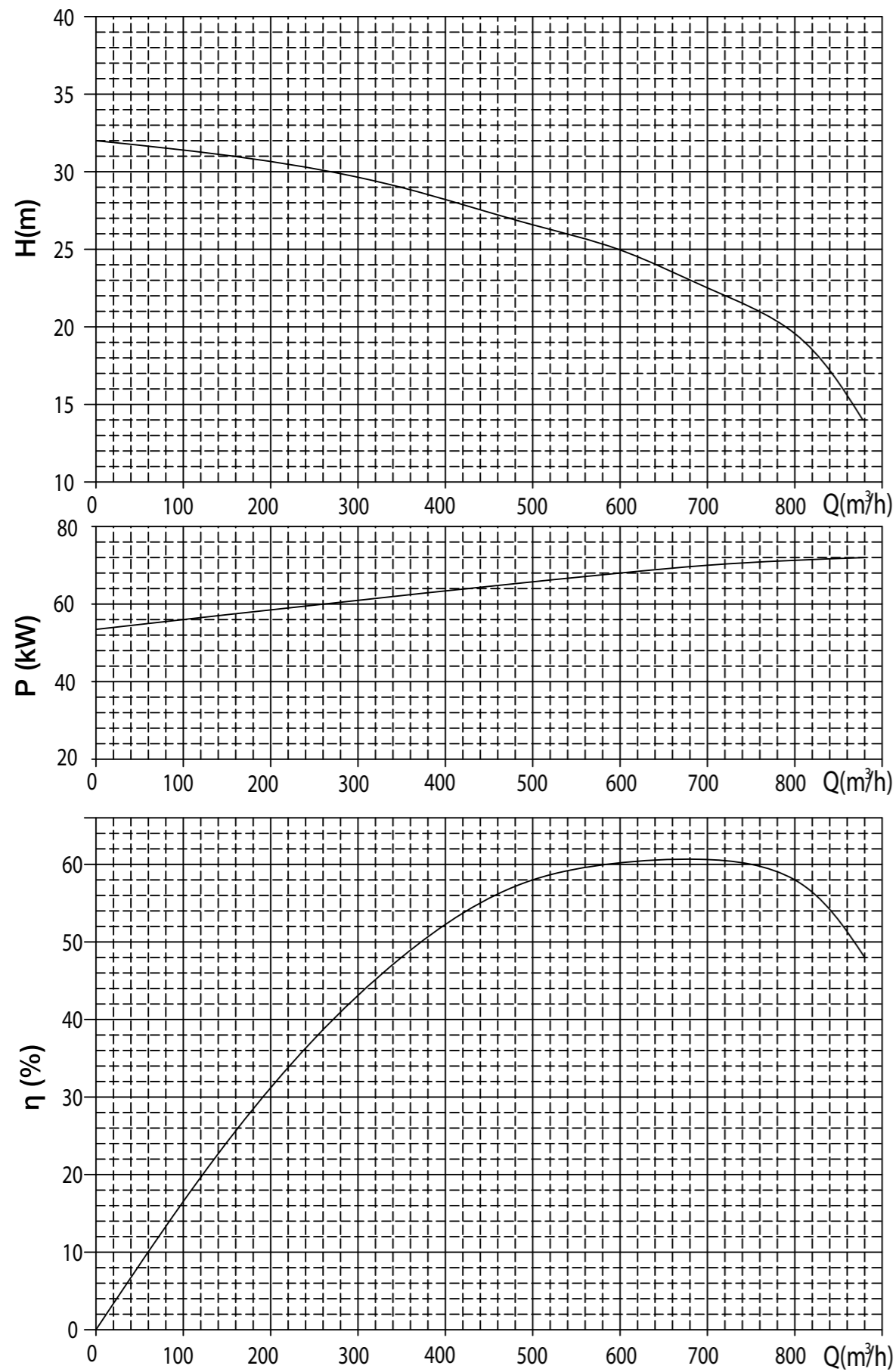
1450 r/min



WF250 600-25/75

Performance curve

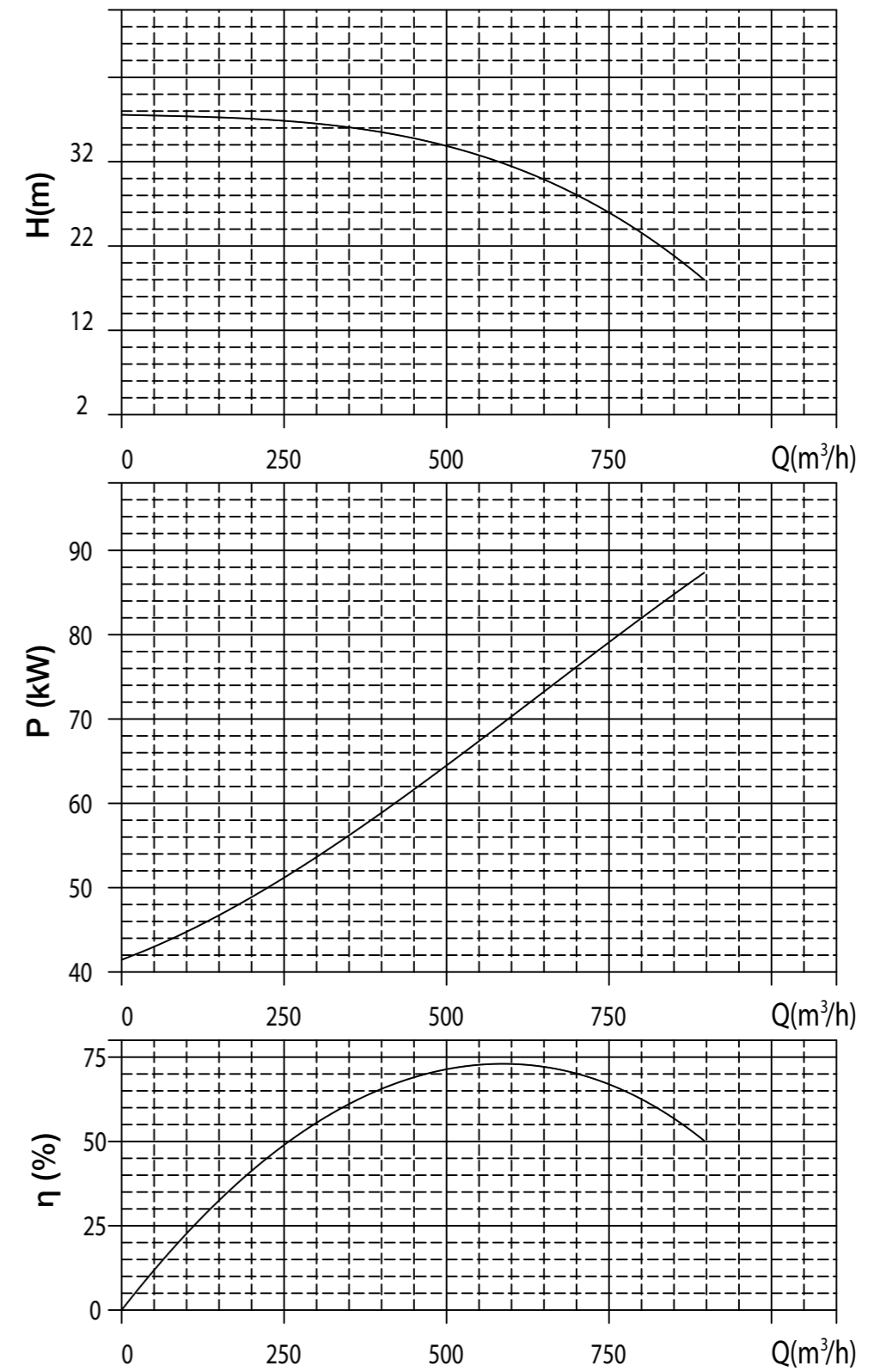
960 r/min



WF250 500-30/90

Performance curve

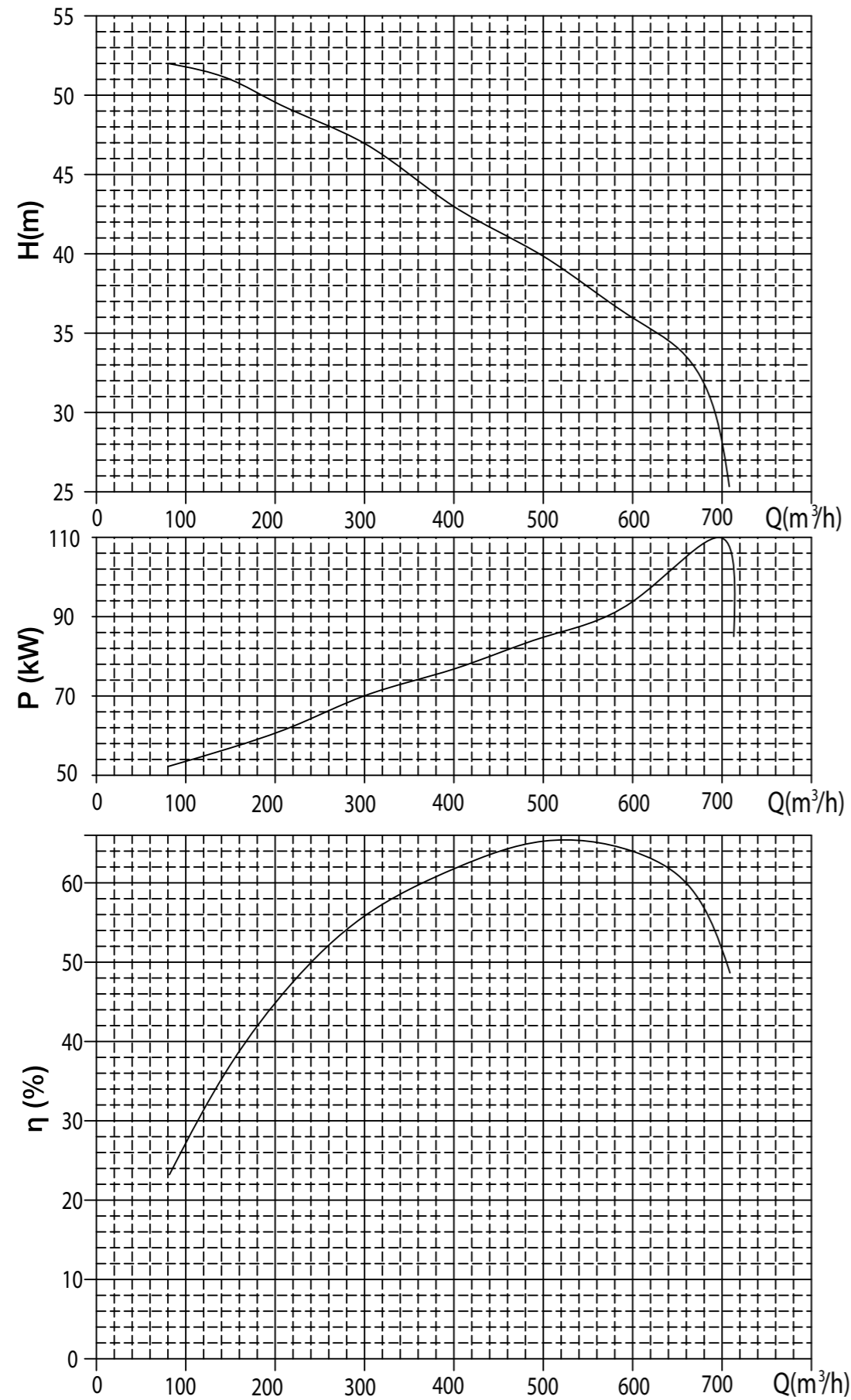
980 r/min



WF250 600-35/110

Performance curve

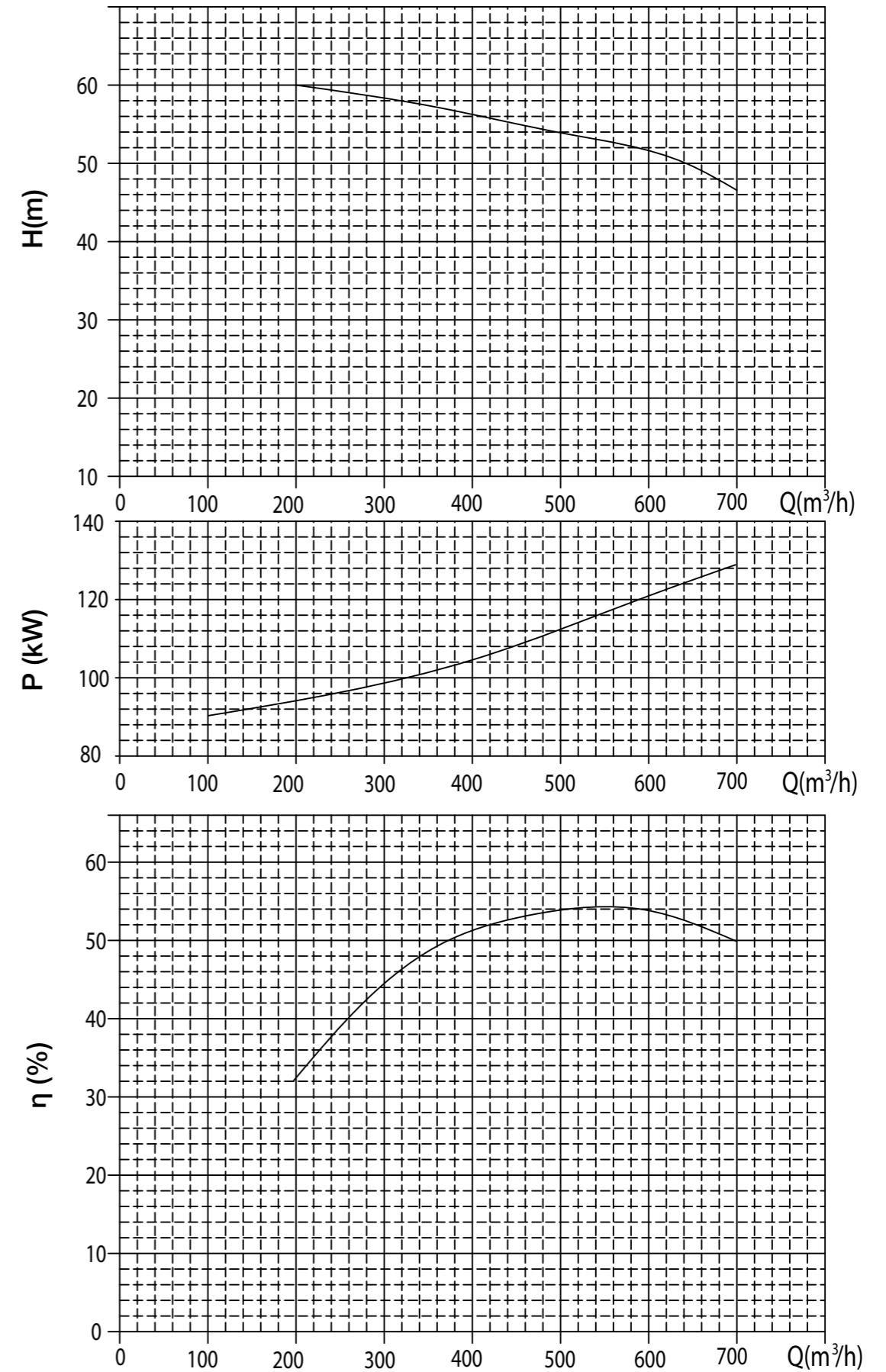
1450 r/min



WF250 650-50/132

Performance curve

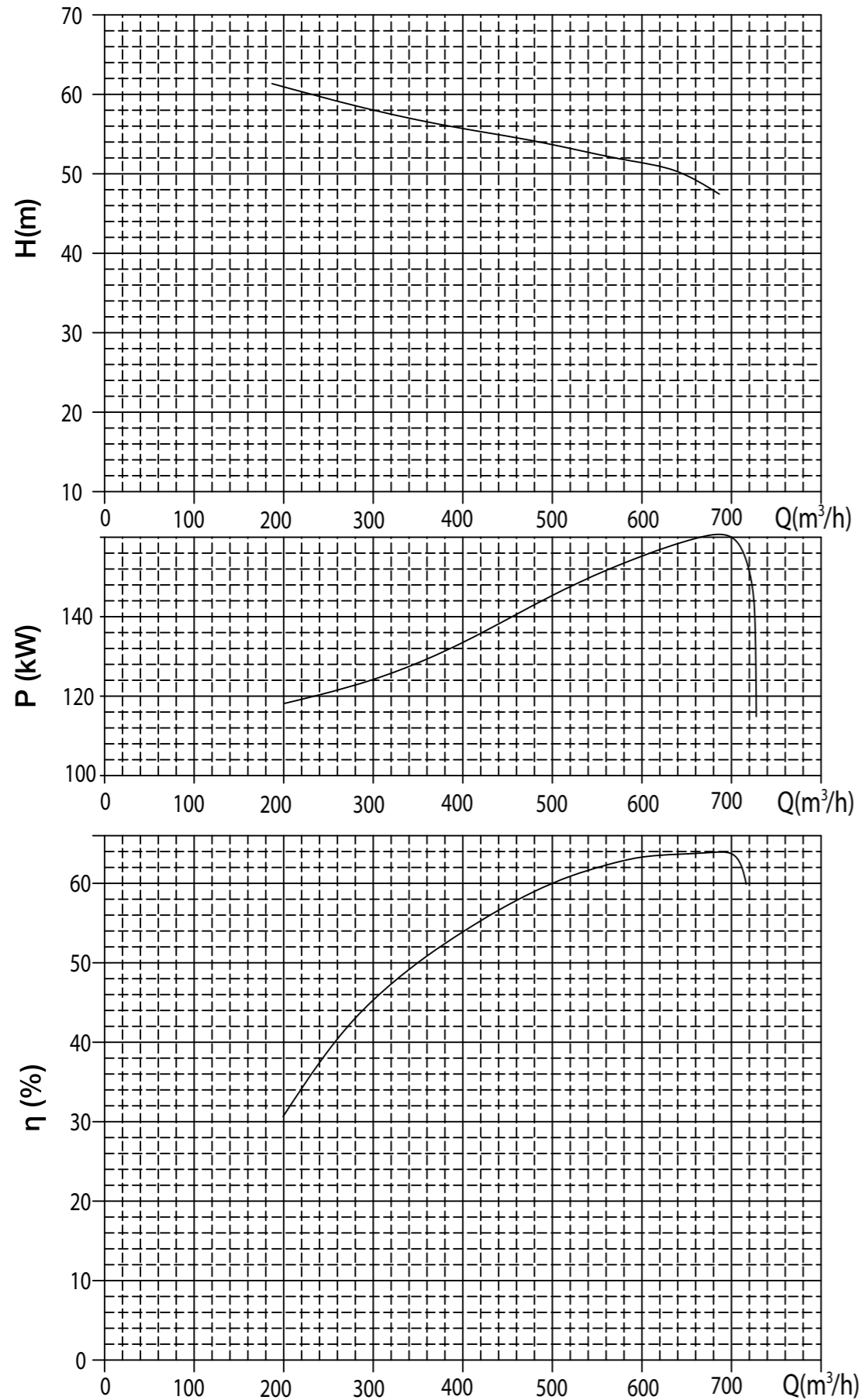
1450 r/min



WF250 600-60/160

Performance curve

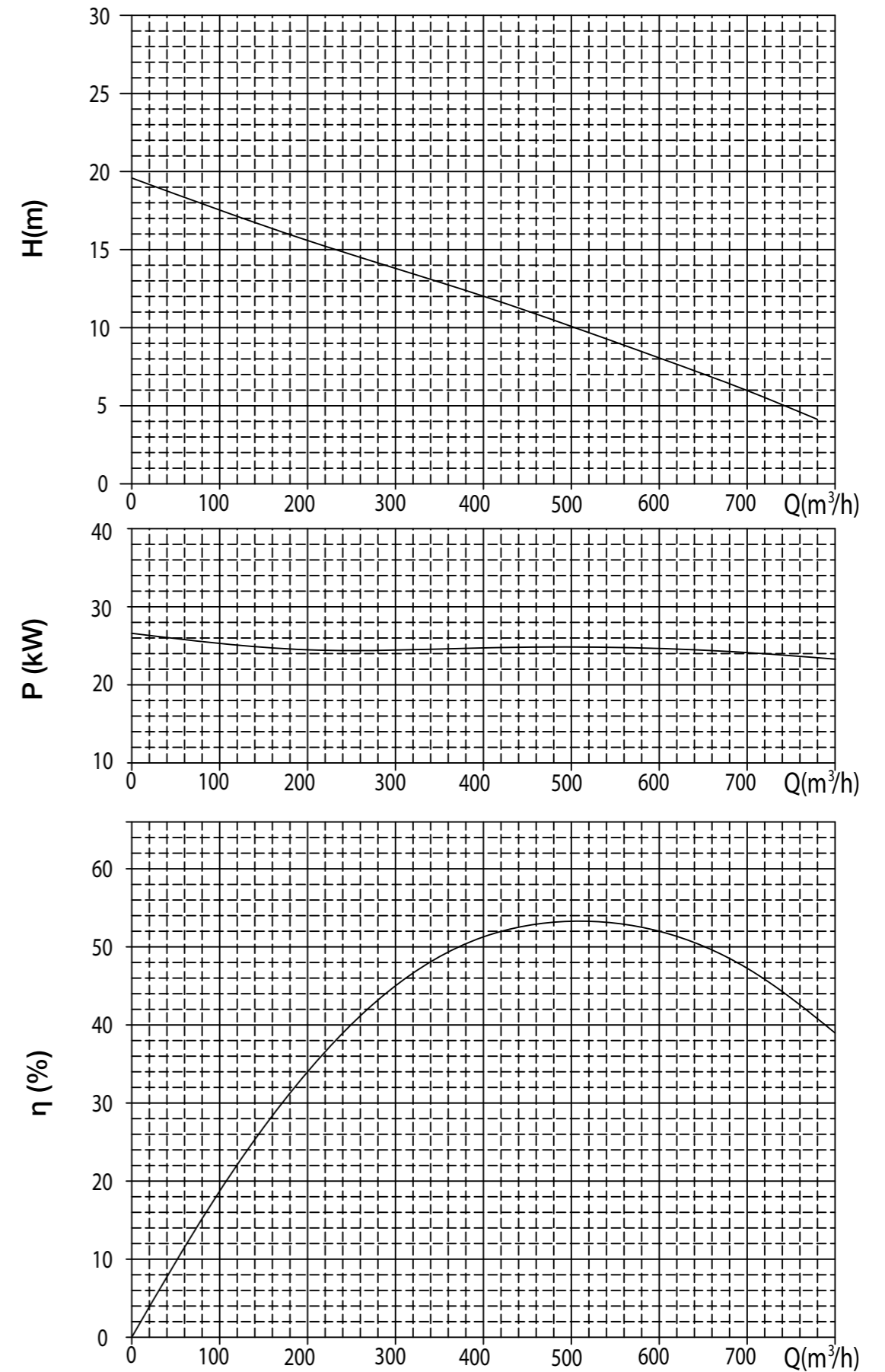
1450 r/min



WF 300 600-7/22

Performance curve

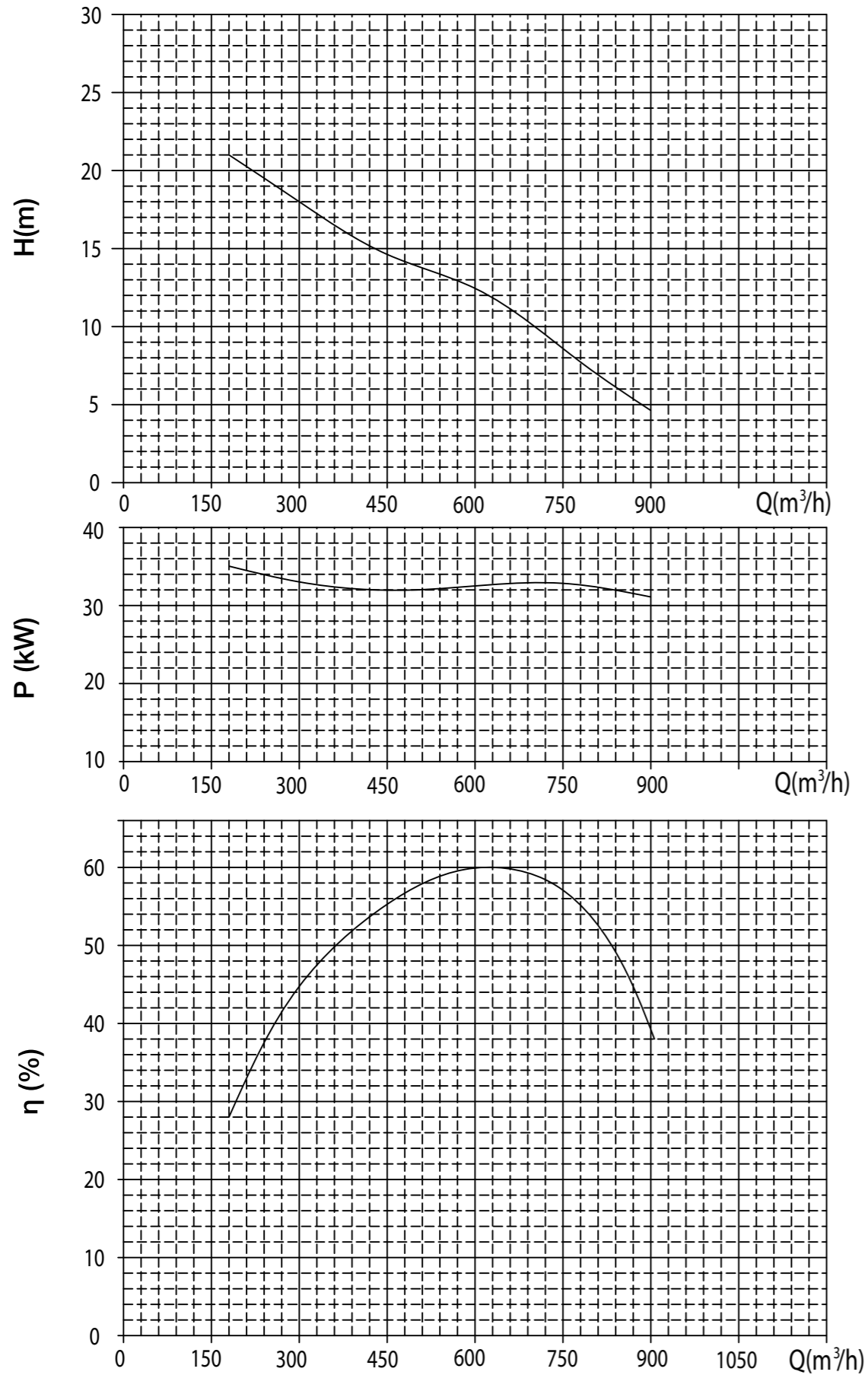
1450 r/min



WF 300 750-7/30

Performance curve

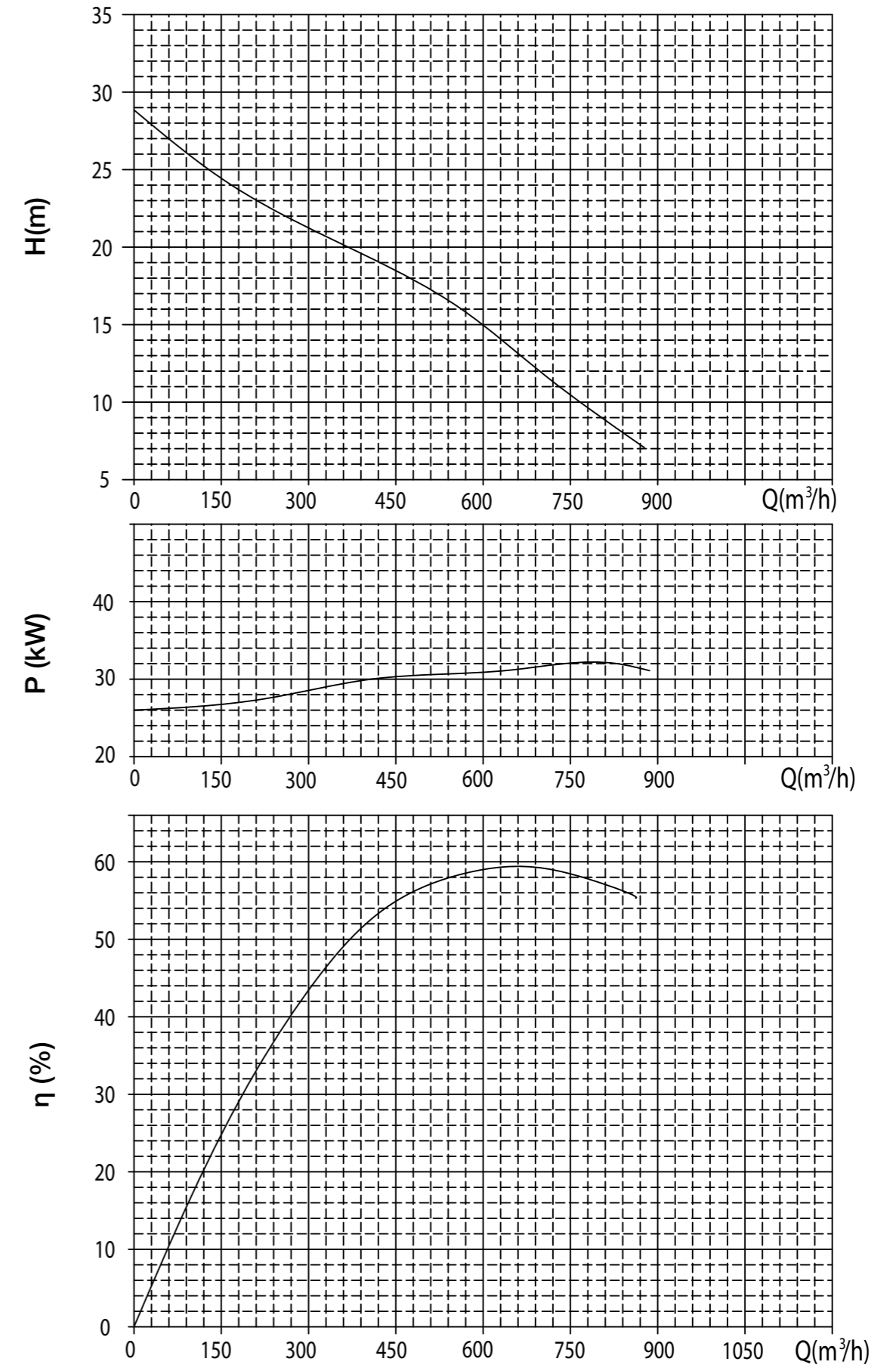
1450 r/min



WF 300 750-10/37

Performance curve

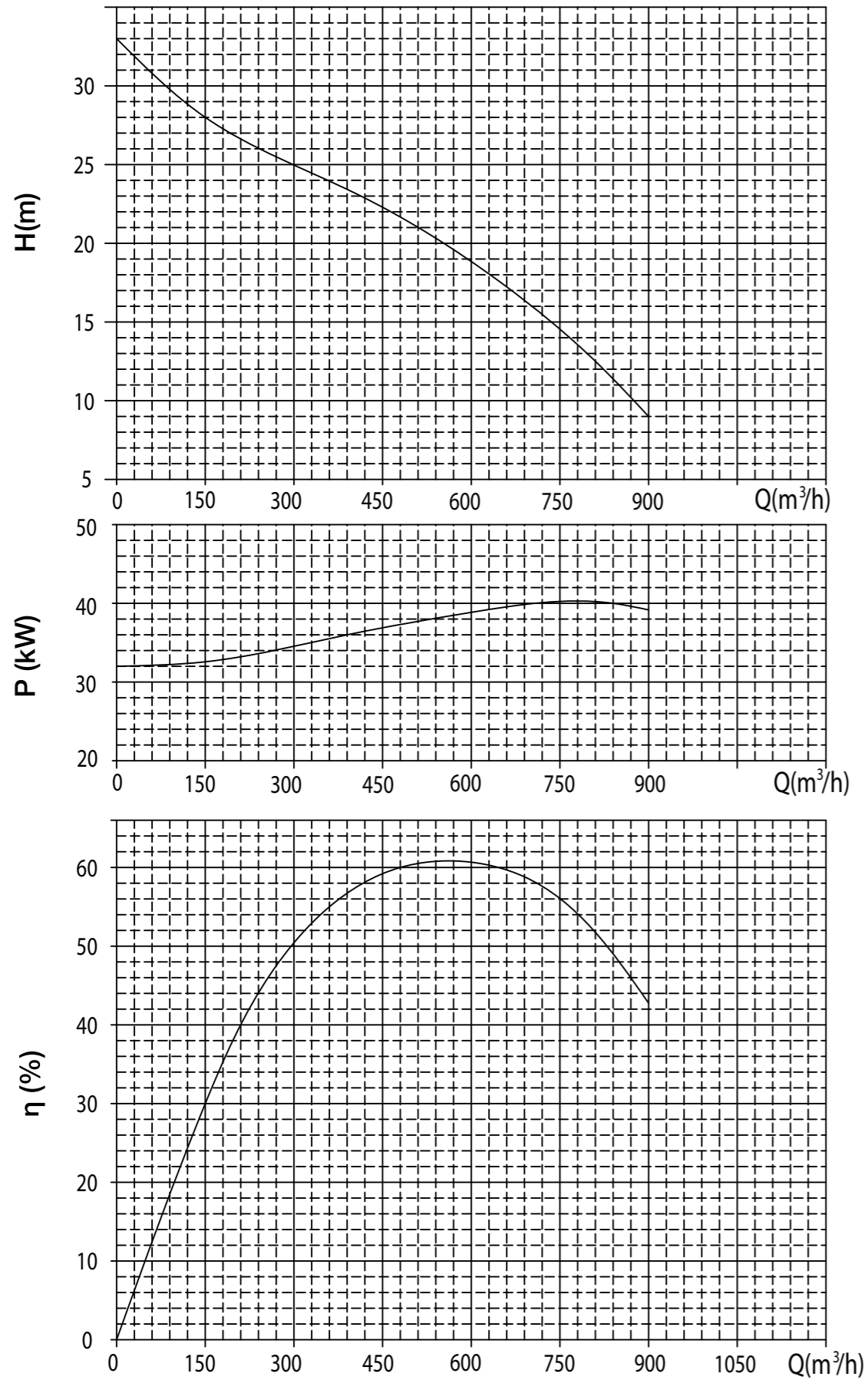
1450 r/min



WF 300 750-15/45

Performance curve

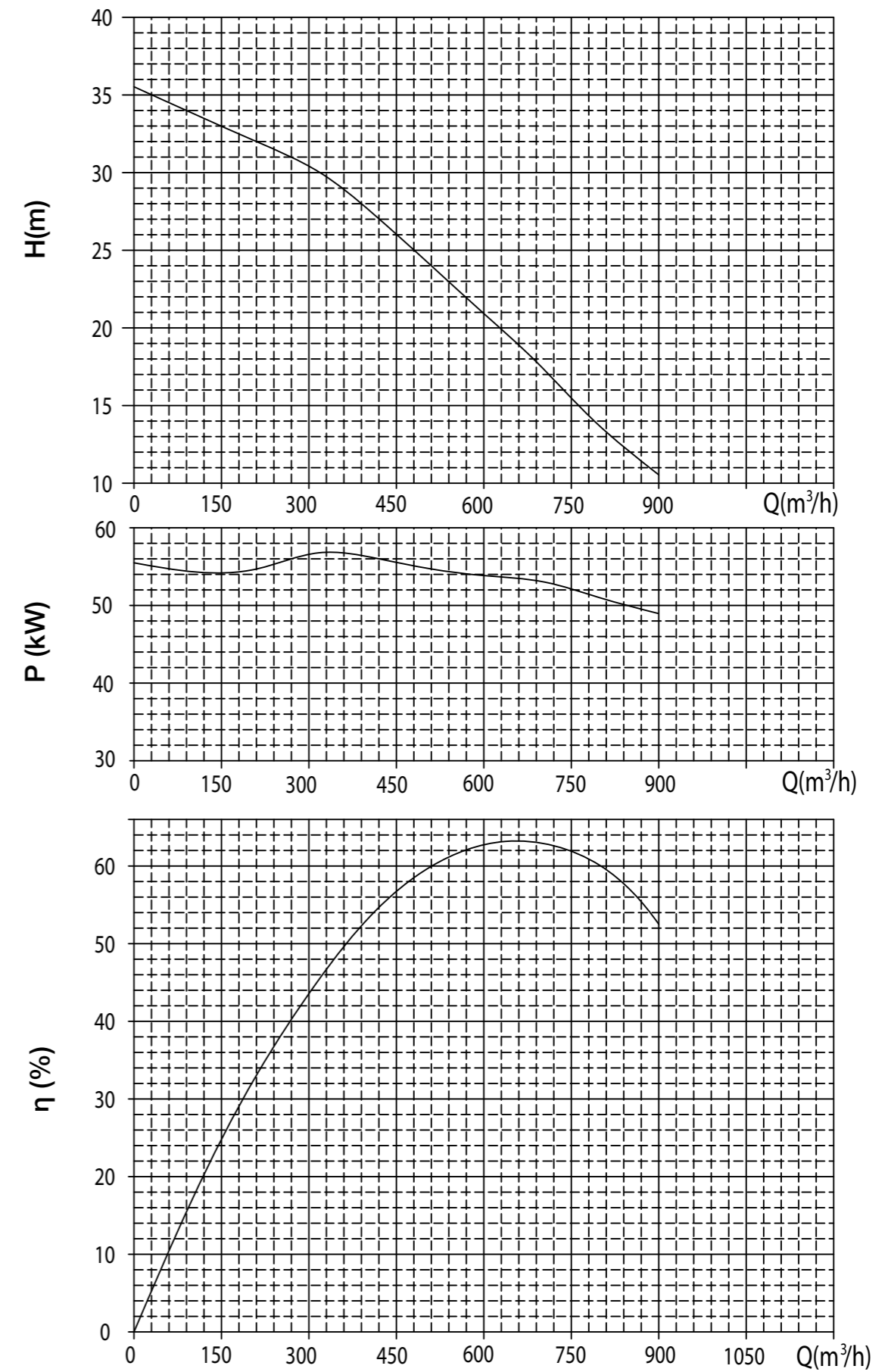
1450 r/min



WF 300 600-20/55

Performance curve

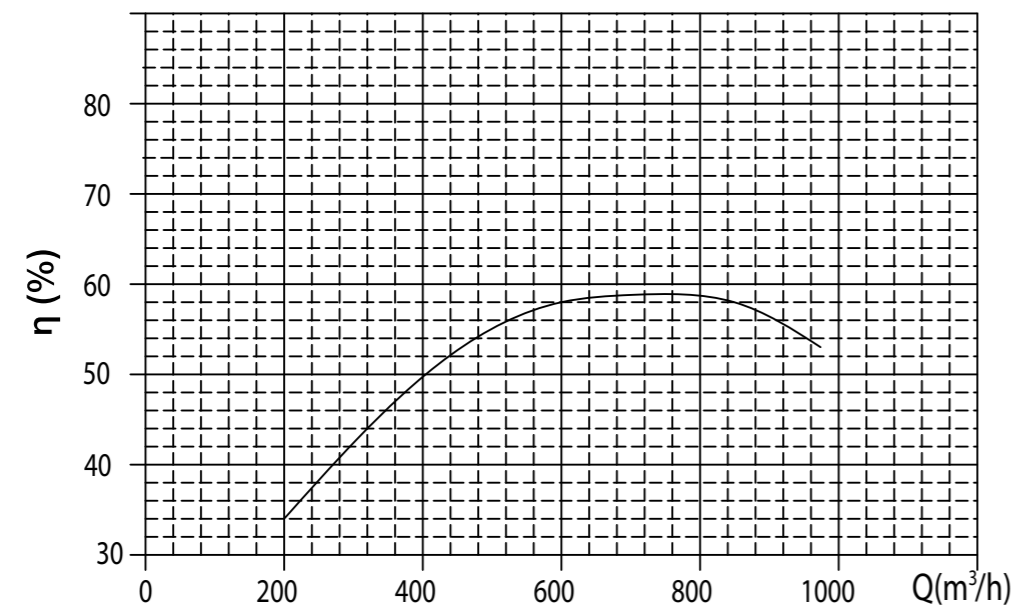
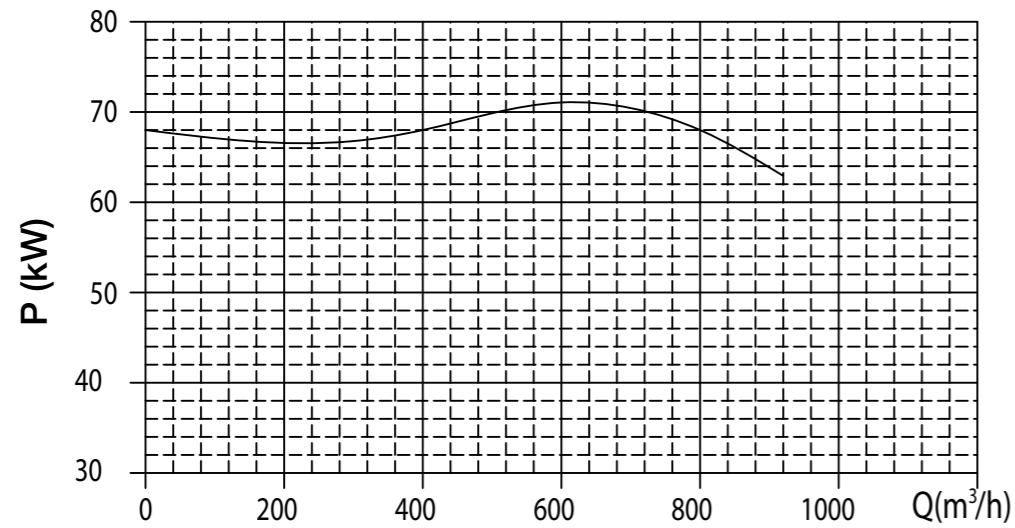
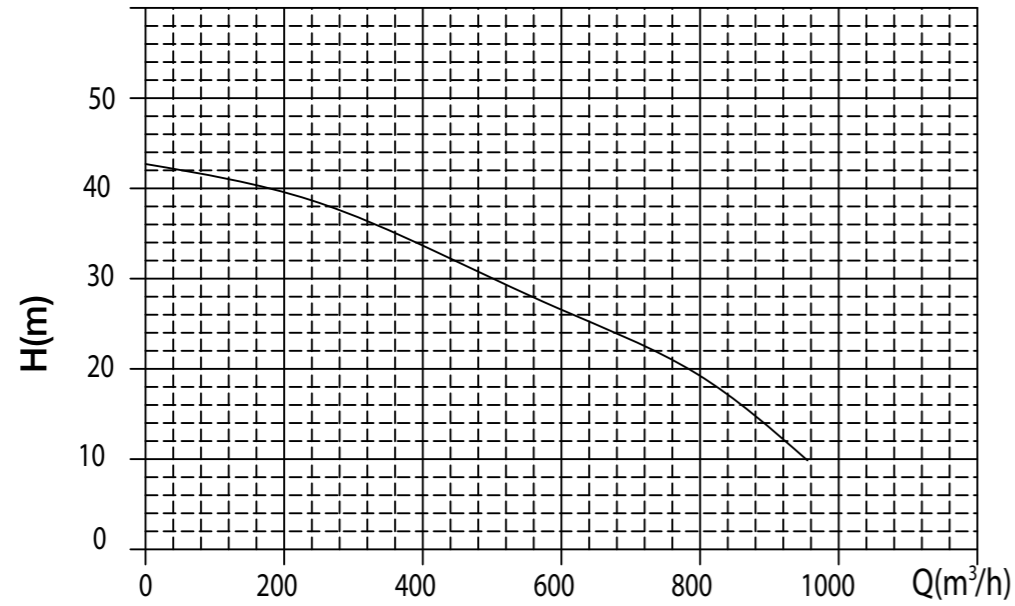
1450 r/min



WF 300 800-20/75

Performance curve

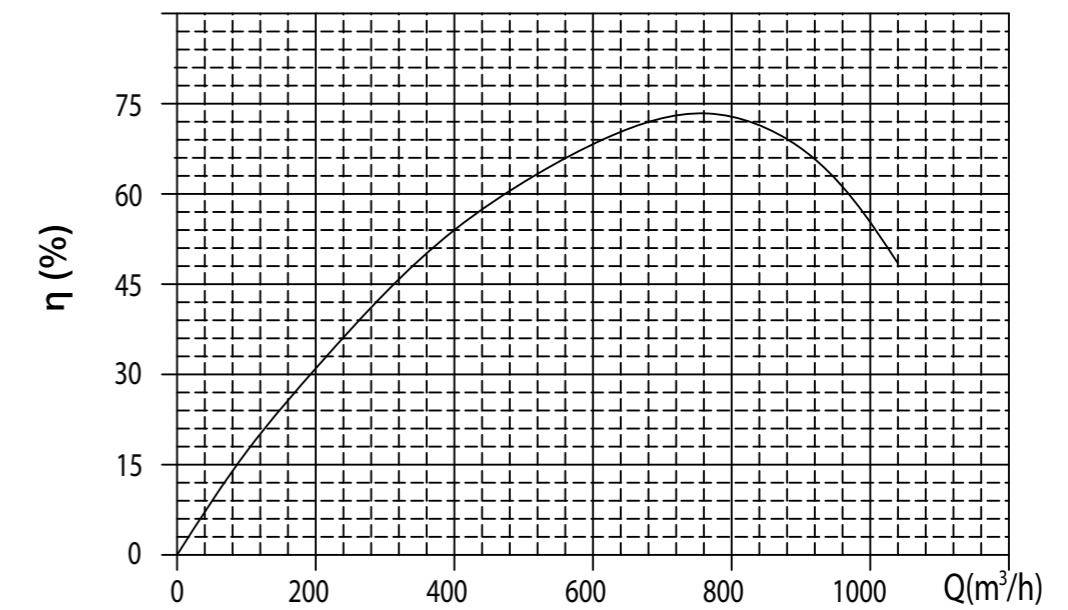
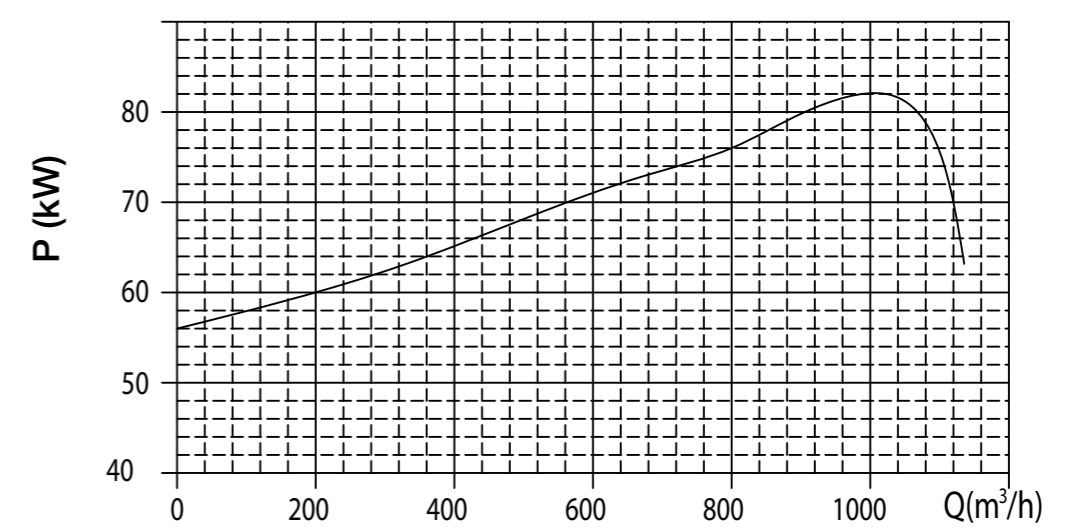
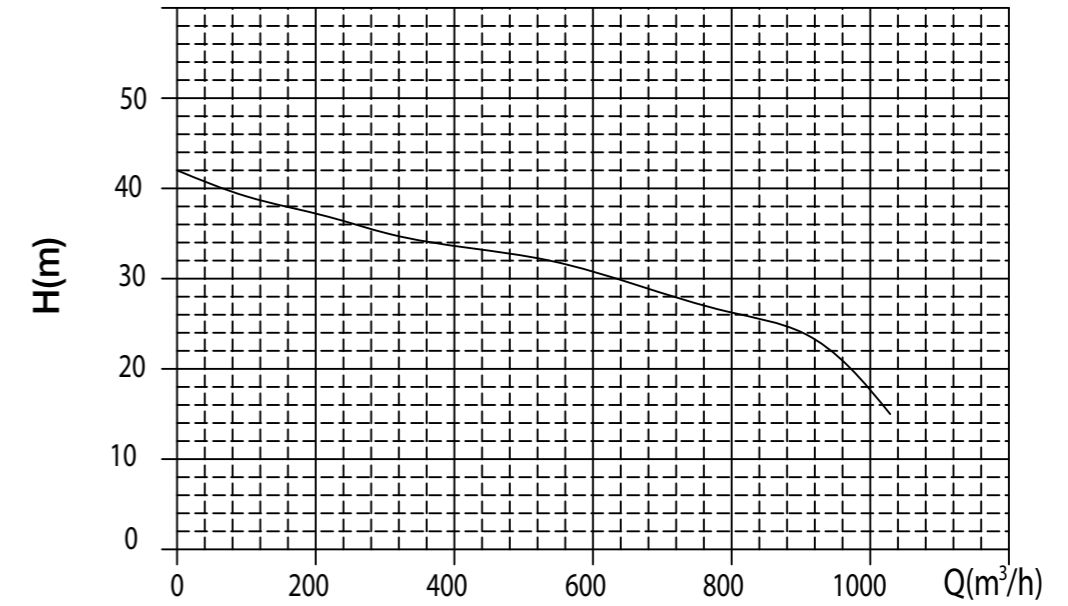
1450 r/min



WF 300 800-25/90

Performance curve

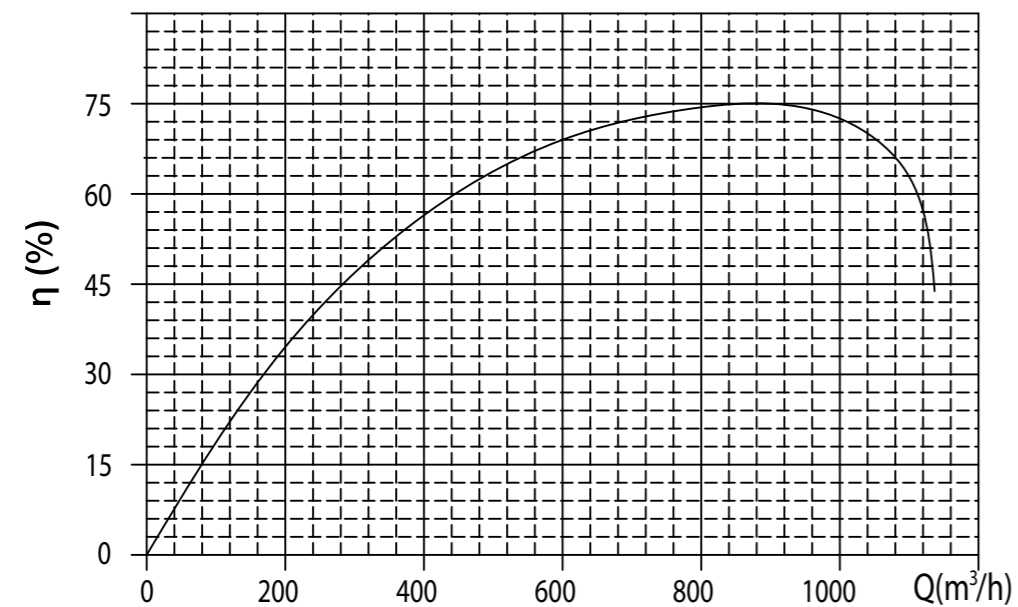
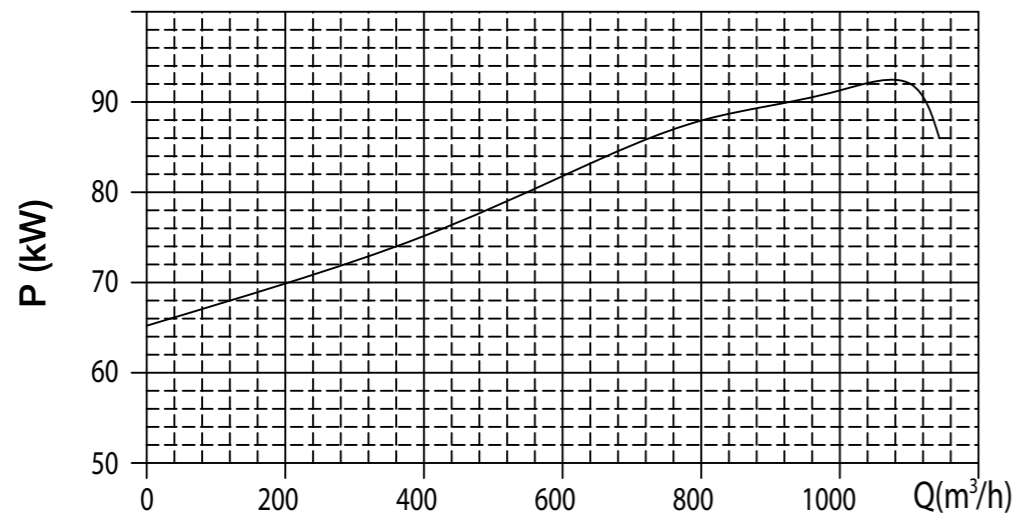
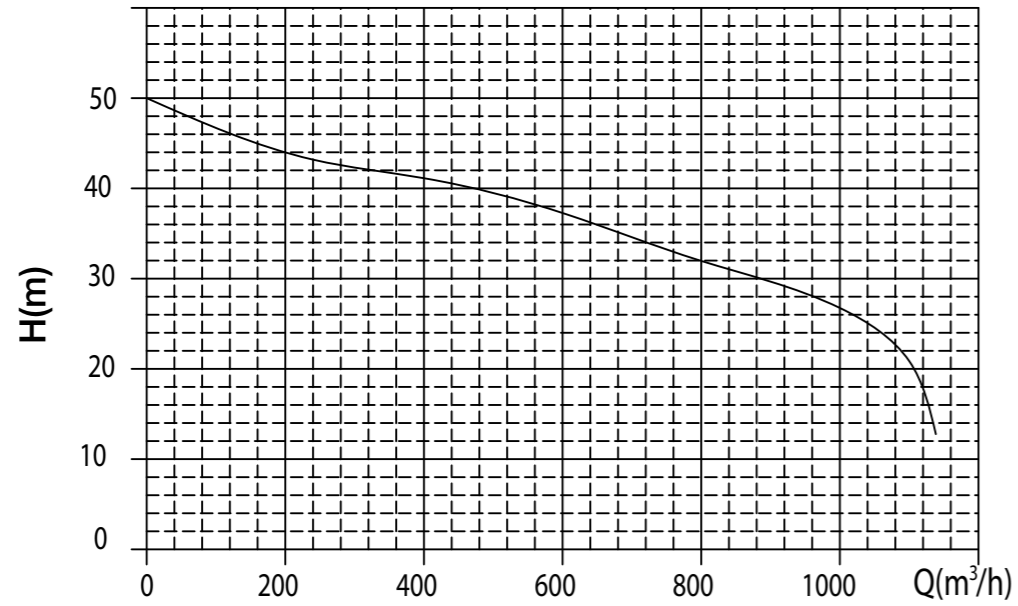
1450 r/min



WF 300 800-30/110

Performance curve

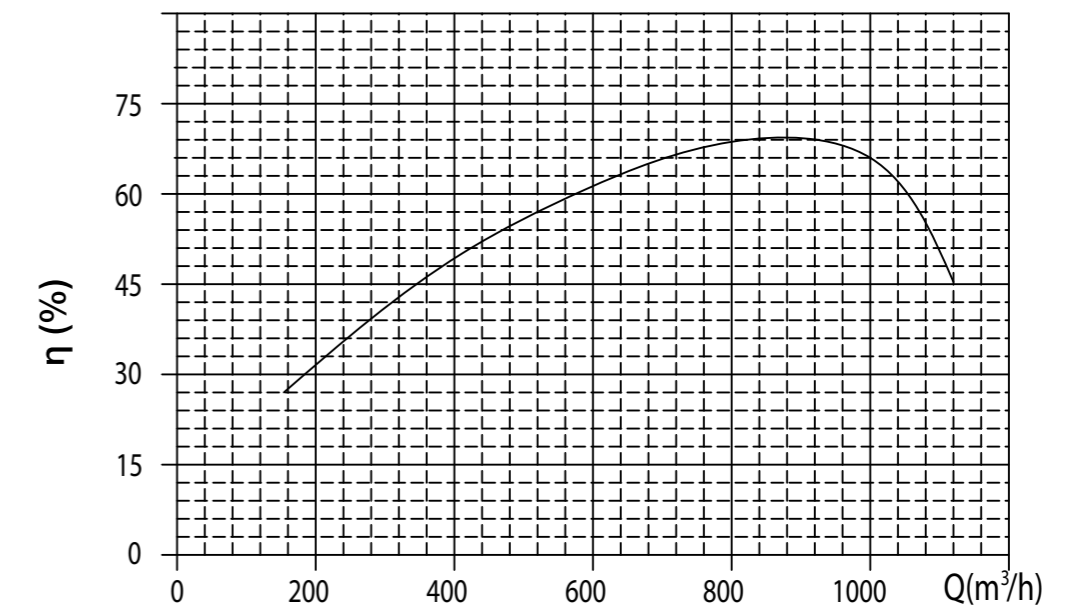
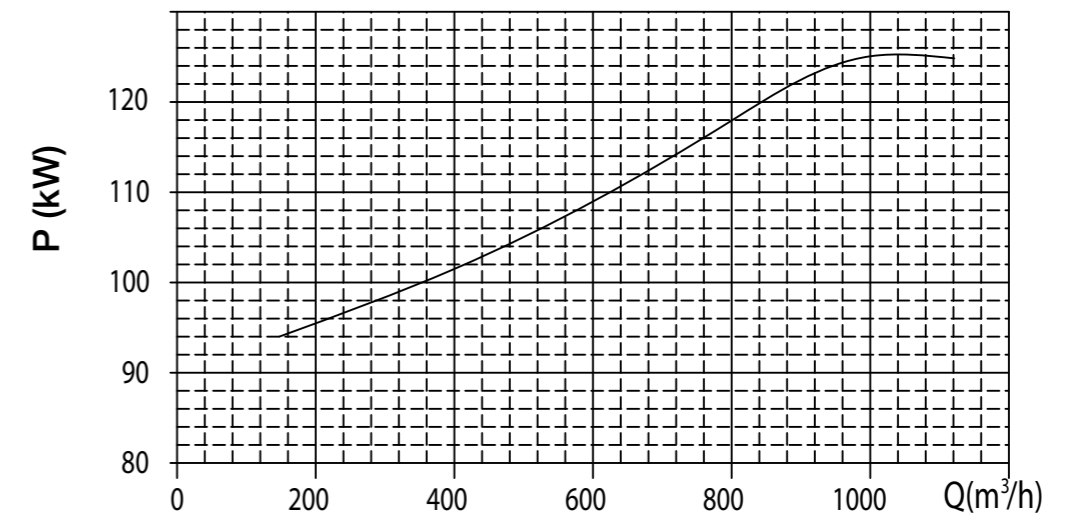
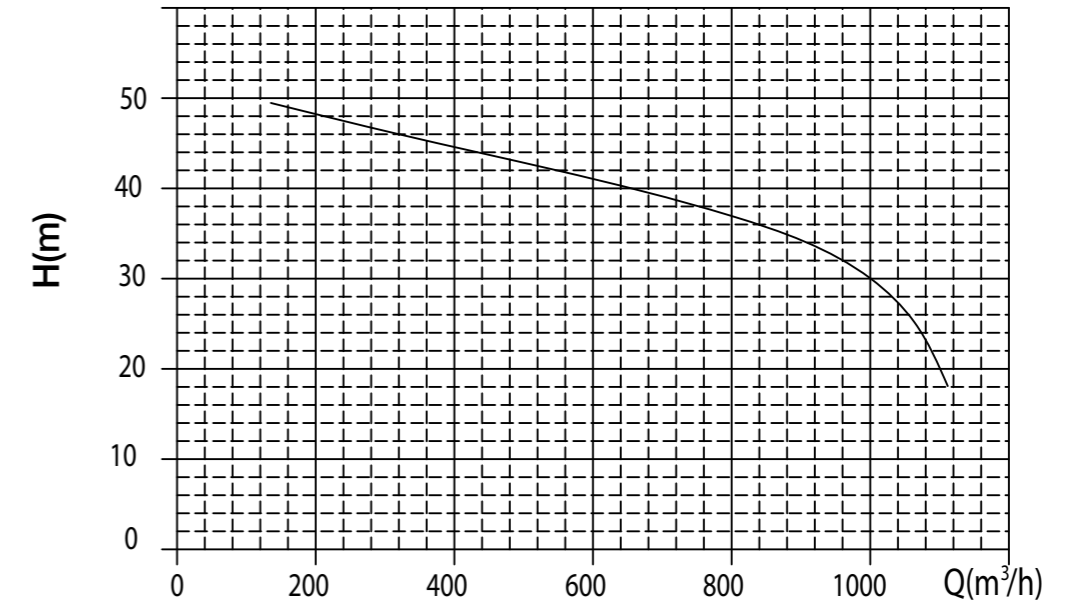
1450 r/min



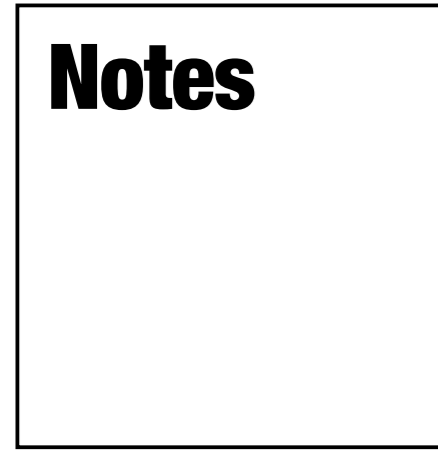
WF 300 800-35/132

Performance curve

1450 r/min



Notes



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A series of horizontal dotted lines for writing notes, extending across the right side of the page.

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