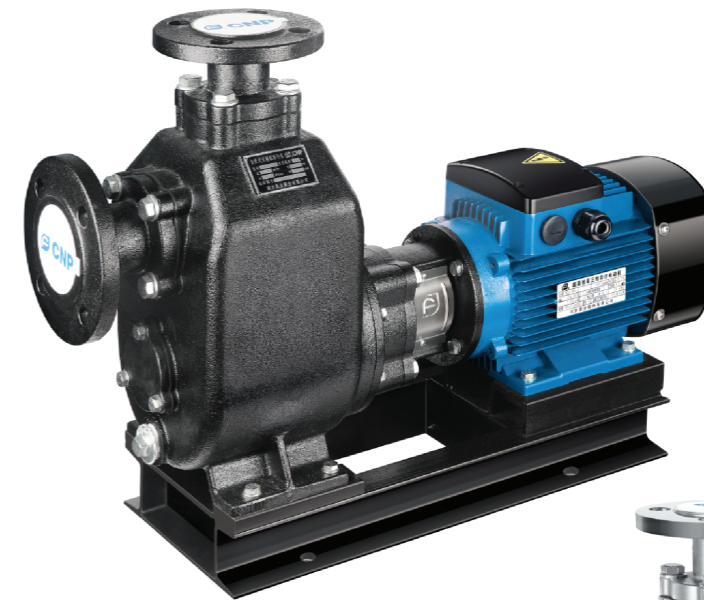


ZW

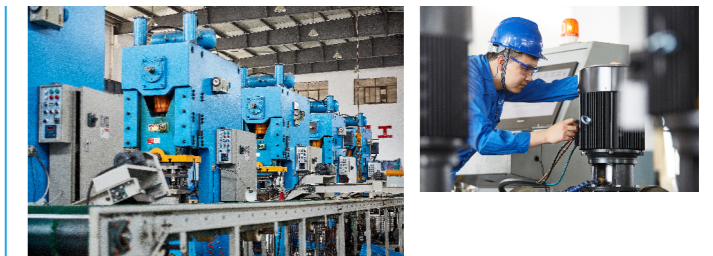
ZWF

50Hz
Non-clogging
Self-priming
Sewage Pump



Stock code:300145





Company profile

Nanfang Pump Industry Co.,Ltd (CNP), as a subsidiary of Nanfang Zhongjin Environment Co.,Ltd, was founded in 1991, and listed on Shenzhen Stock Exchange on December 9, 2010 with stock code 300145.

In 2019, CNP's annual output exceeded 900,000 units/set with nearly 3 billion sales revenue, continuing to maintain high growth. As a national enterprise technology center, CNP has flagship ultra-high efficient product-new generation CDM (F) light vertical multistage centrifugal pump, $MEI \geq 0.7$. Same series high temperature pump products are developed in 2019 to satisfy high temperature applications. All light stainless steel pump product series grow stably. Advanced frequency conversion water supply equipment has been innovated to the 6th generation. Fire pump and diesel engine have obtained UL certification. TD in-line pump, NIS/NISO end suction pump, NSC split casing pump, WQ sewage pump, PQ stainless steel fountain submersible pump, BP silent tube pump, pool pump, non-blocking self-priming sewage pump, metering pump, oil pump and other pump products, can meet various application needs of different fields.

CNP has a complete sales network both in domestic and overseas market, exporting to over 60 countries and regions, maintaining long-term and strong relationship with our clients. CNP pumps have been widely applied in various fields like water treatment, water supply and drainage, HVAC, industrial application, seawater desalination, energy and power etc.

CNP, a green water expert beside you.

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Introduction

ZW(F) series non-clogging self-priming sewage pump is a novel structure, developed on the basis of repeated research on similar technologies in China and abroad. The pump adopts an external mixing structure, and combines self-priming and non-clogging functions together through the unique design of pump body and impeller flow passage.

Compared with similar domestic products, ZW(F) series pump has excellent self-priming performance and strong sewage discharge capacity, with simple structure and beautiful appearance. It has unique oil chamber structure to ensure the reliable operation of mechanical seal. It has leading technical performance parameters, broad application market and great development prospects.

Operating Condition

1. Ambient temperature: ≤40°C, Liquid temperature: ≤40°C;
2. Liquid pH range: 5-9;
3. Liquid density: ≤1.2×10³kg/m³;
4. Self-priming height: Should not exceed the self-priming height specified by the pump, the total length of the suction pipeline should not exceed 10 meters;
5. Passing capacity: The suspended particle diameter can not exceed 60% of the pump diameter, and fiber can not exceed 5 times bigger than the pump diameter.

Application

Can be used to transport liquids containing suspended particles and fiber impurities, mainly used in the following industries:

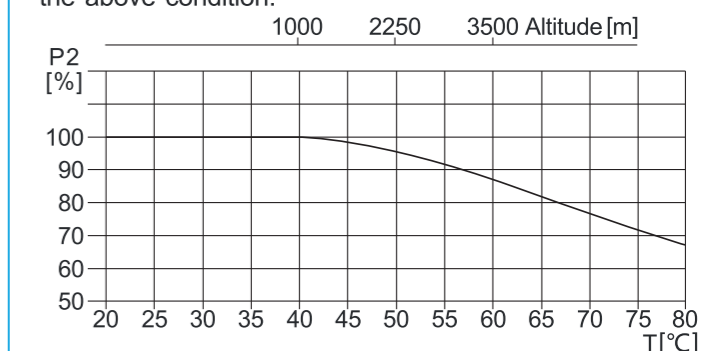
- Environmental protection: municipal sewage, sewage treatment;
- Industry: Paper, textile, dyes;
- Agriculture: river pond farming, etc.

Product Range

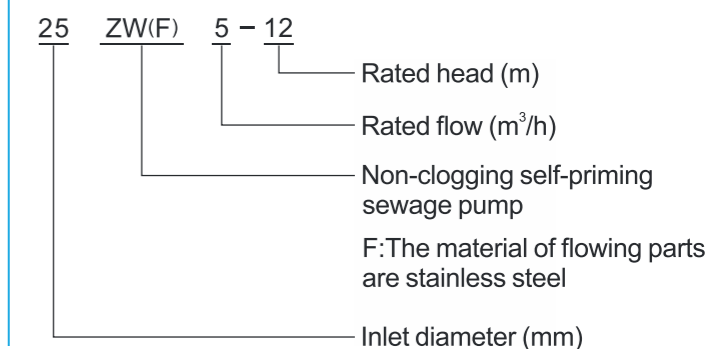
| Features | Model | | | | | | | | | |
|--------------------------------|-------|------|-------|-------|-------|-------|-------|-------|--------|--|
| | ZW(F) | | | | | | | | | |
| Rated flow [m ³ /h] | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 65 | 100 | |
| Flow range [m ³ /h] | 3~10 | 7~13 | 10~20 | 14~26 | 18~32 | 21~39 | 28~52 | 45~85 | 70~120 | |
| Max.pressure [bar] | 3 | 3 | 2 | 2 | 4 | 2 | 3 | 3 | 4 | |
| Max.self-priming height [m] | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4.5 | |
| Highest efficiency [%] | 35 | 42 | 46 | 42 | 53 | 57 | 60 | 65 | 65 | |
| DIN Flange | DN25 | DN32 | DN40 | DN40 | DN65 | DN65 | DN65 | DN80 | DN100 | |
| | DN32 | DN40 | DN50 | DN50 | | | DN80 | | | |
| Flange pressure level | PN10 | | | | | | | | | |

Max. ambient temperature and altitude

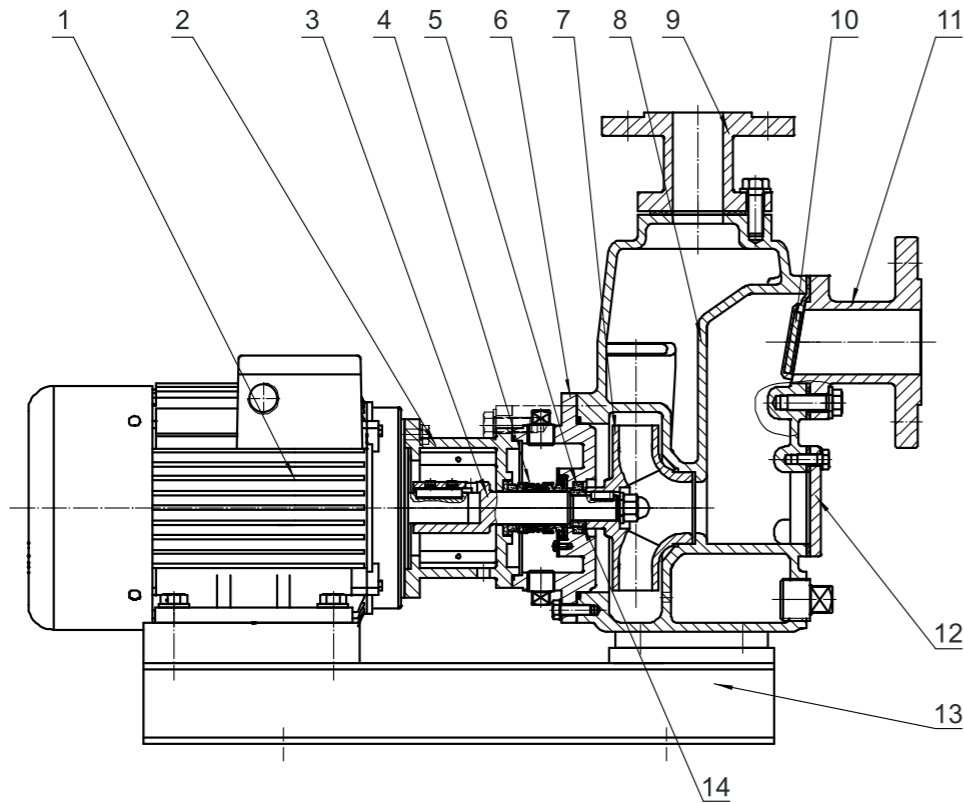
When the pump is operating under ambient temperature higher than 40°C or altitude higher than 1000 meters, the motor output power will be reduced due to the low air density and poor cooling effect. Output motor power P2 needs to be increased when pump running under the above condition.



Model Definition



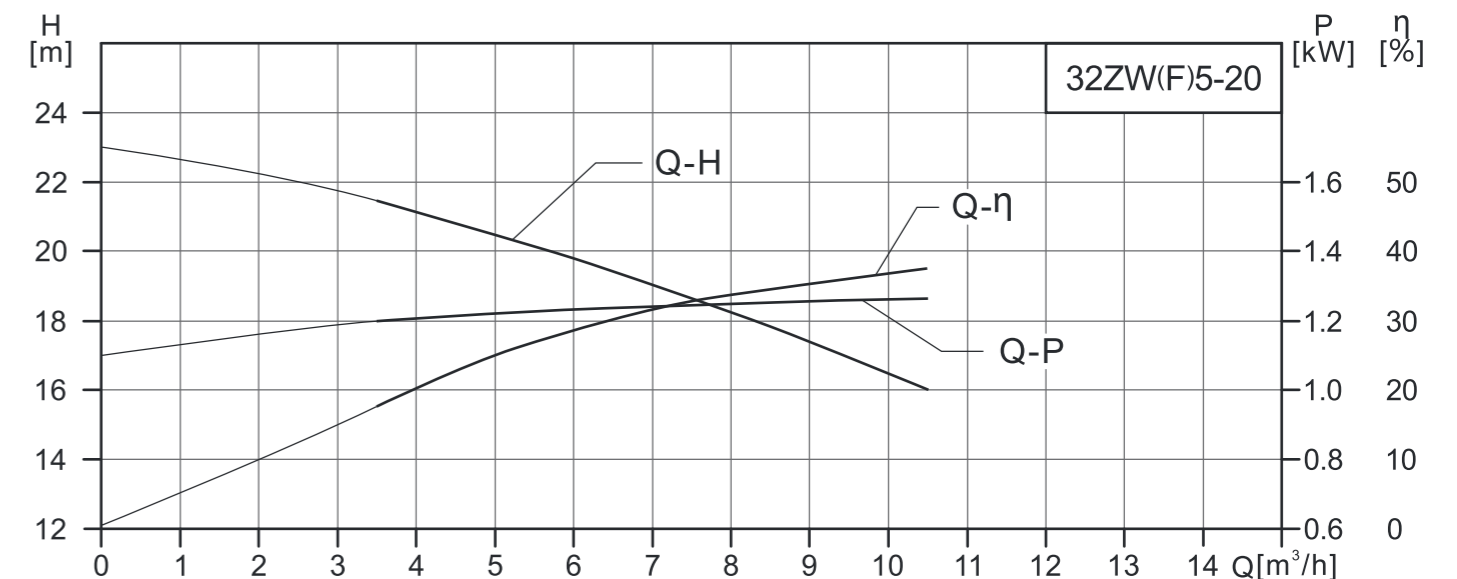
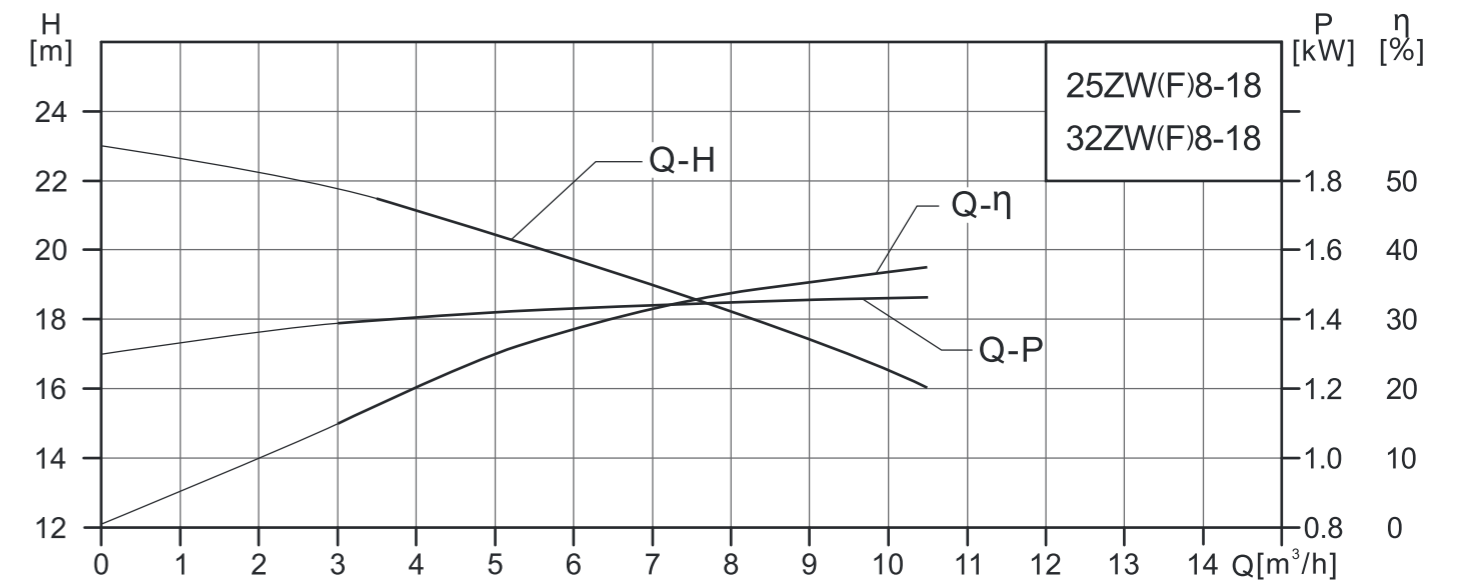
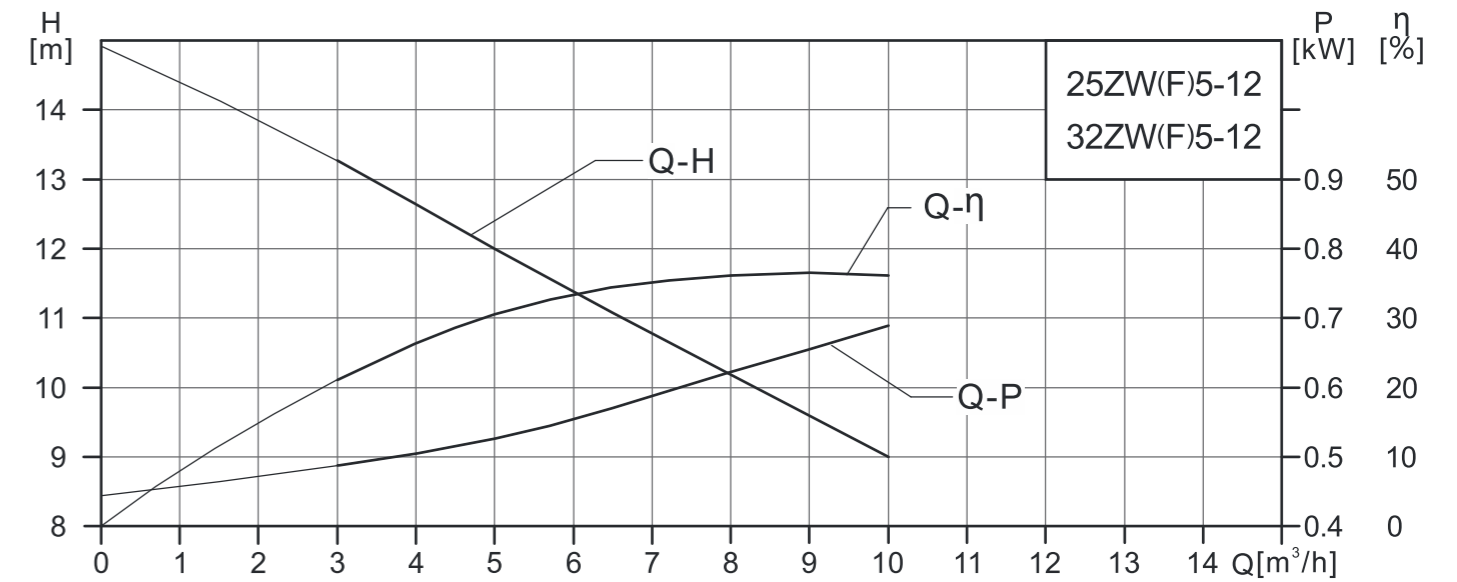
Sectional Drawing (Dia. ≤ DN100)



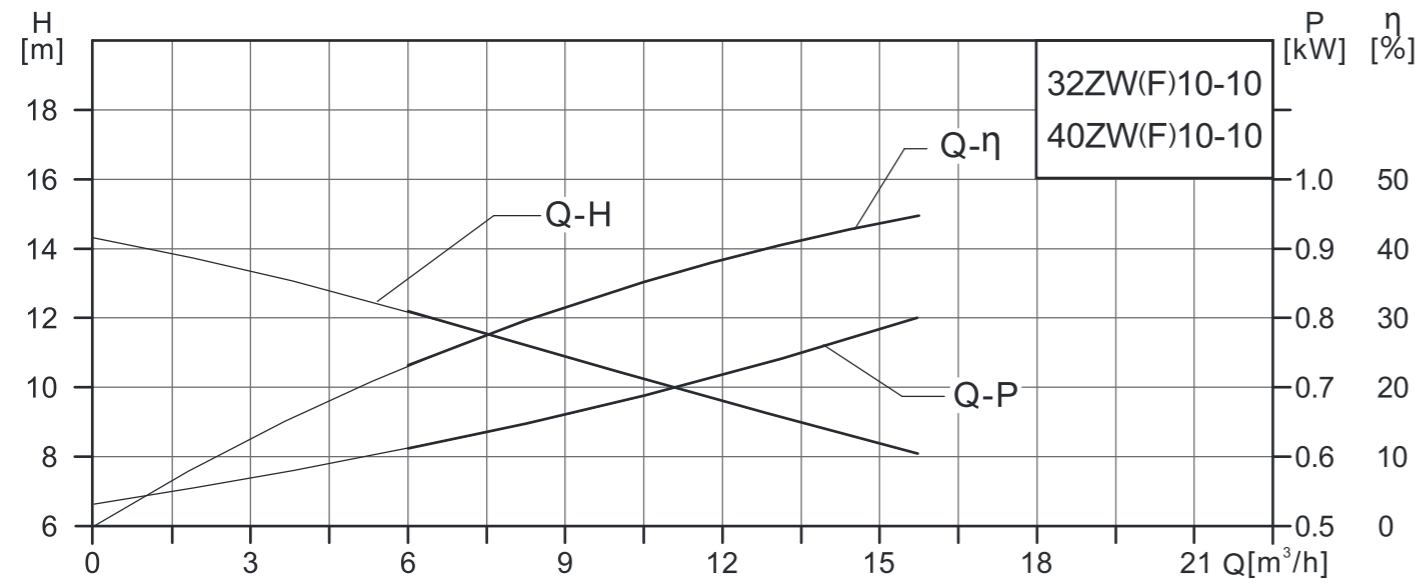
Material List (Dia. ≤ DN100)

| No. | Name | Material | AISI/ASTM |
|-----|---------------------------------------|-------------------|-----------|
| 1 | Motor | | |
| 2 | Pump head | Cast iron | ASTM25B |
| 3 | Shaft | Stainless steel | |
| 4 | Double end mechanical seal (<15kW) | SIC/SIC+SIC/SIC/F | |
| | Double end mechanical seal (≥15kW) | C/SIC+SIC/SIC/F | |
| 5 | Skeleton oil seal (<5.5kW) | | |
| | Sliding Bearing/Shaft sleeve (≥5.5kW) | YG8/YG6 | |
| 6 | Pump cover | Stainless steel | ASTM25B |
| 7 | Impeller | Stainless steel | ASTM25B |
| 8 | Pump body (Inlet Dia. < DN100) | Stainless steel | ASTM25B |
| | Pump body (Inlet Dia. ≥ DN100) | Ductile iron | |
| 9 | Out Flange | Stainless steel | ASTM25B |
| 10 | Inlet Valve | NBR+Q235A | |
| 11 | Inlet Flange | Stainless steel | ASTM25B |
| 12 | Drain cover | Stainless steel | ASTM25B |
| 13 | Base plate | Q235A | |

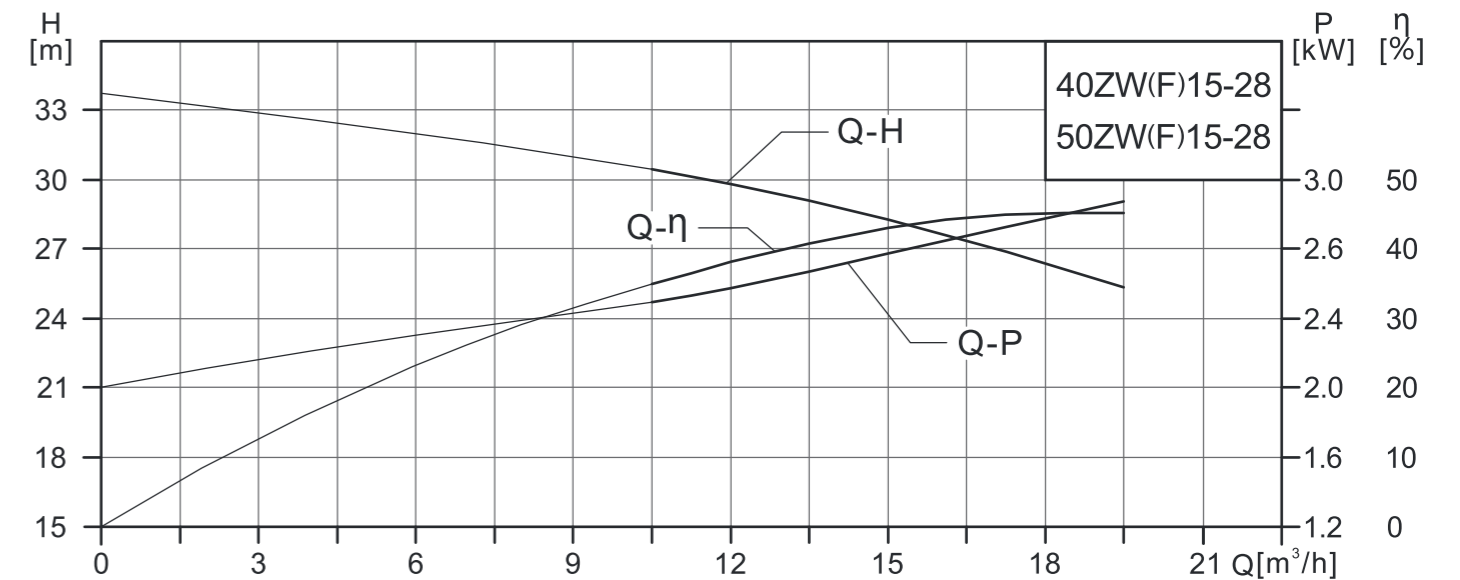
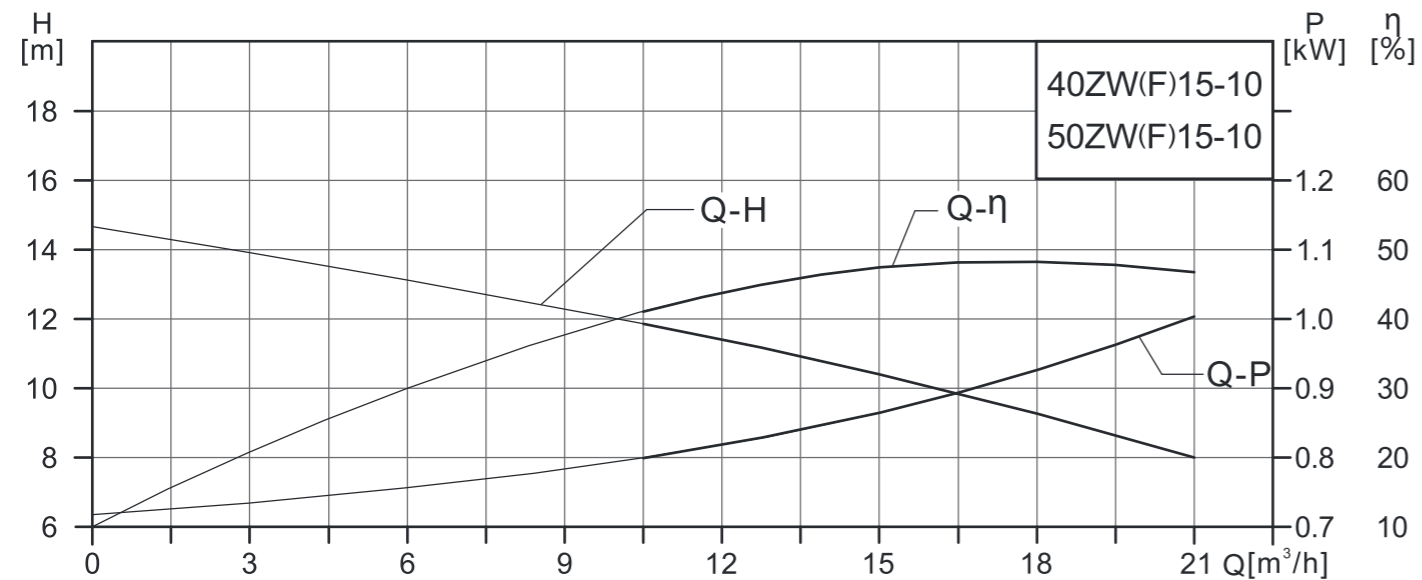
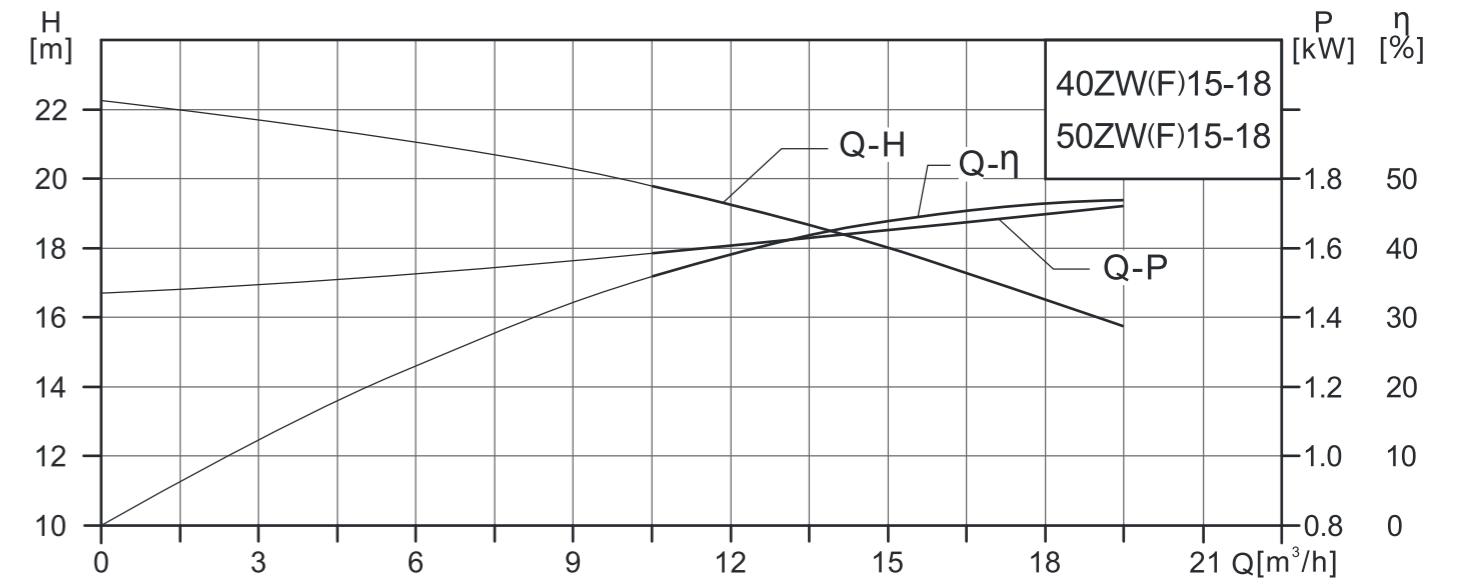
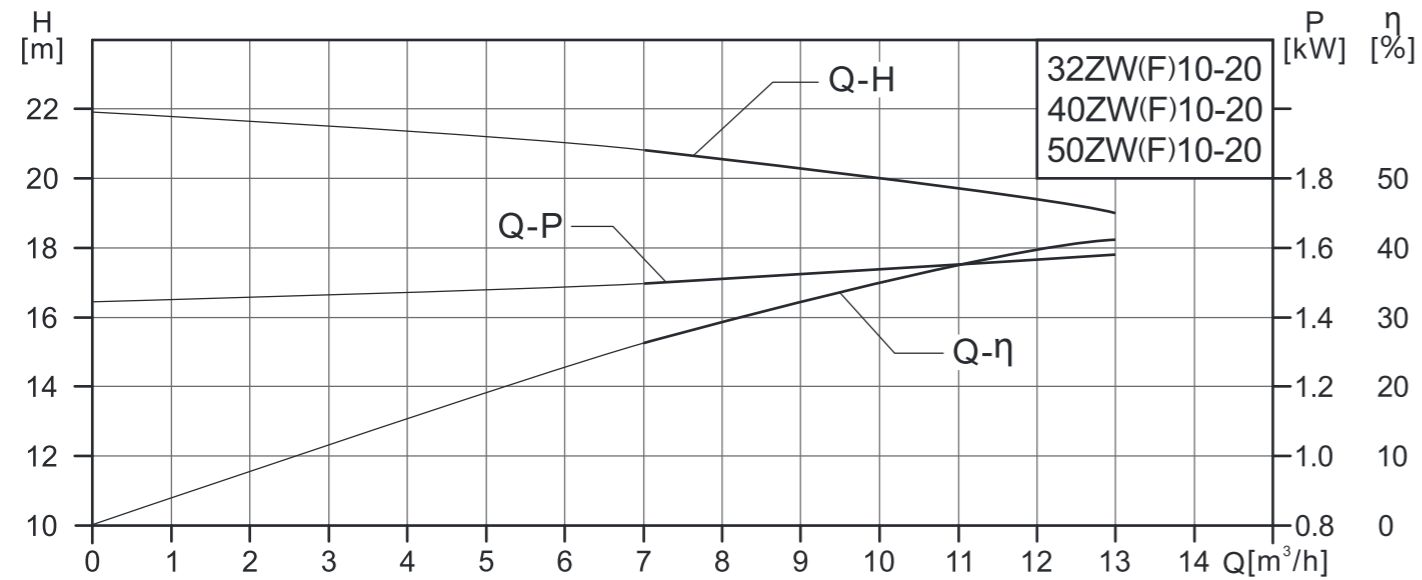
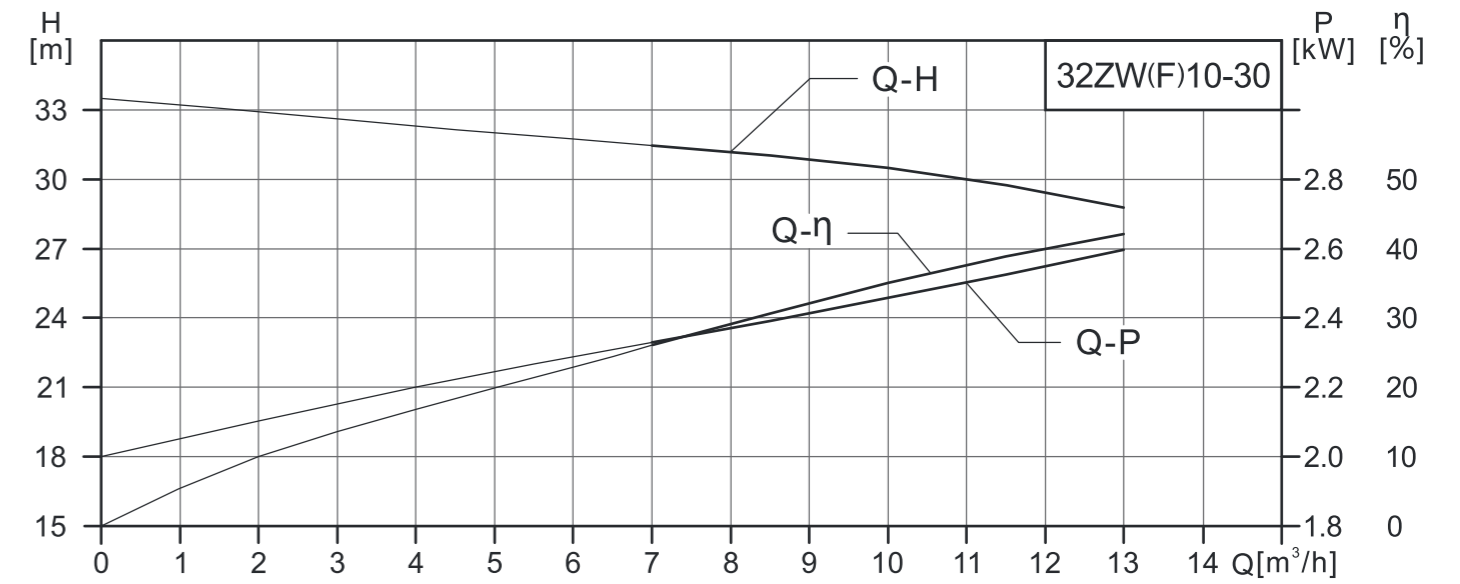
Performance Curve



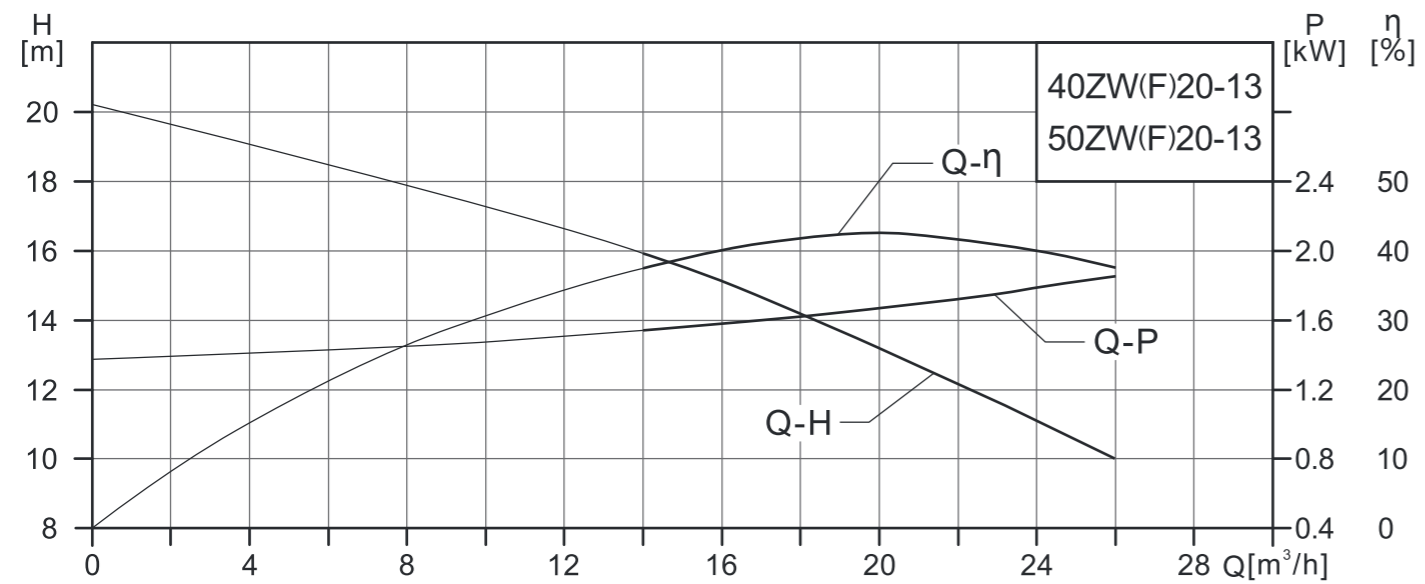
Performance Curve



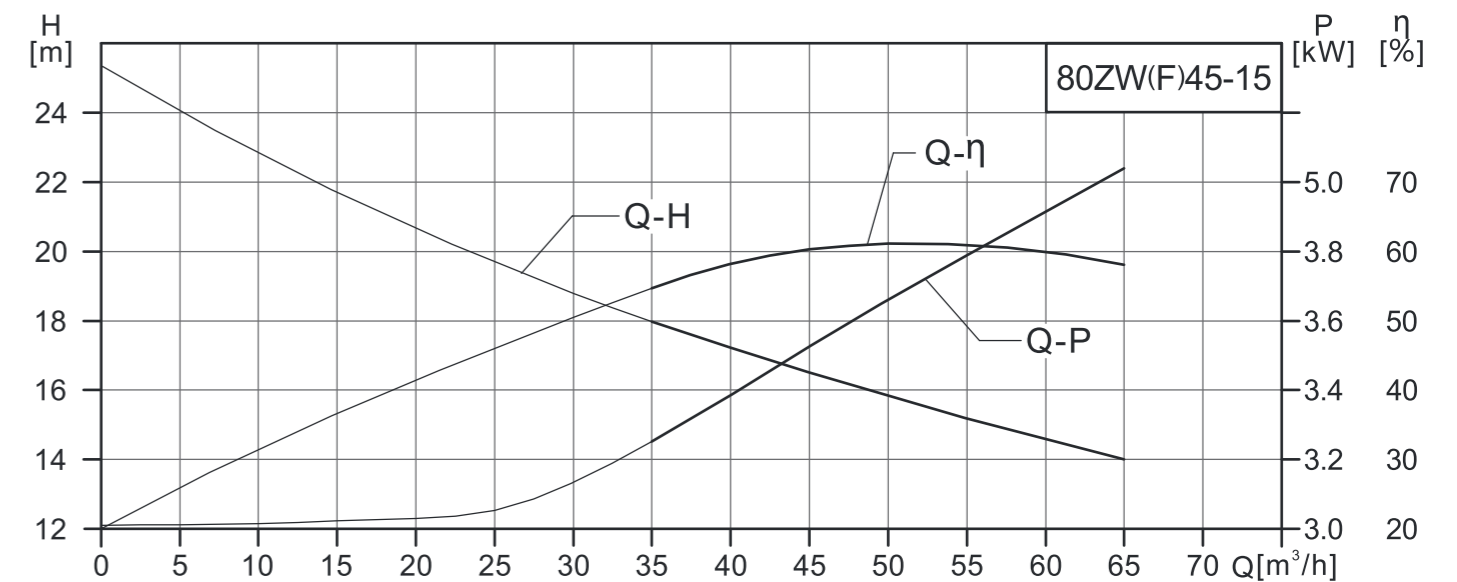
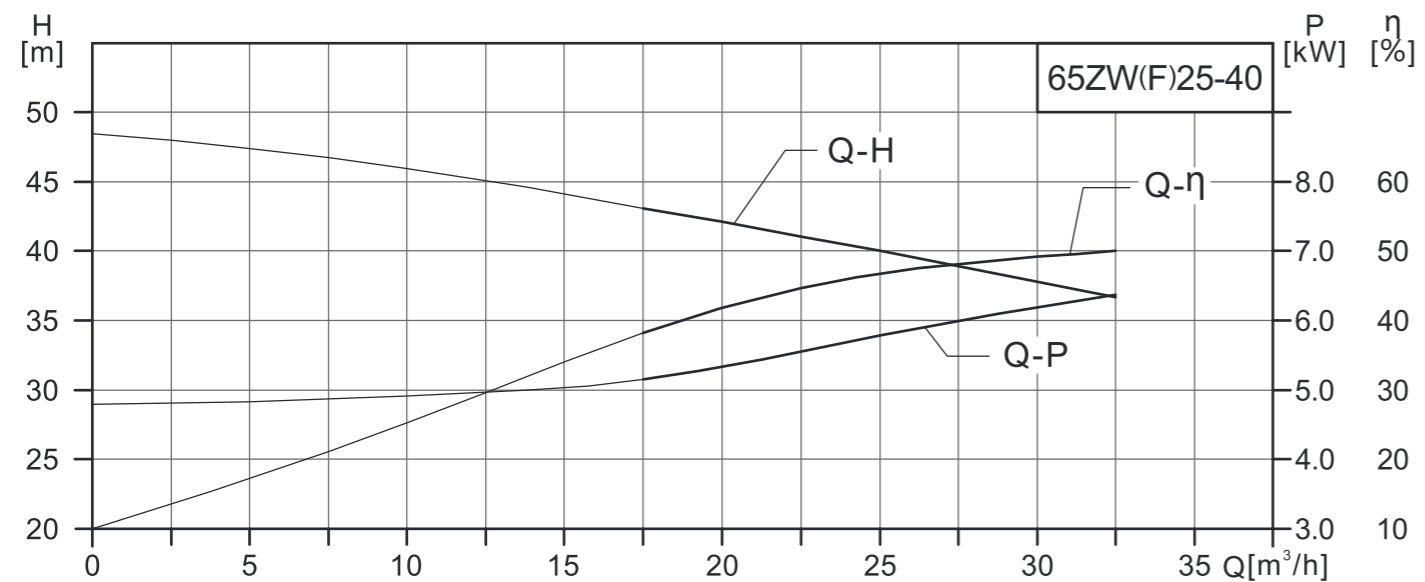
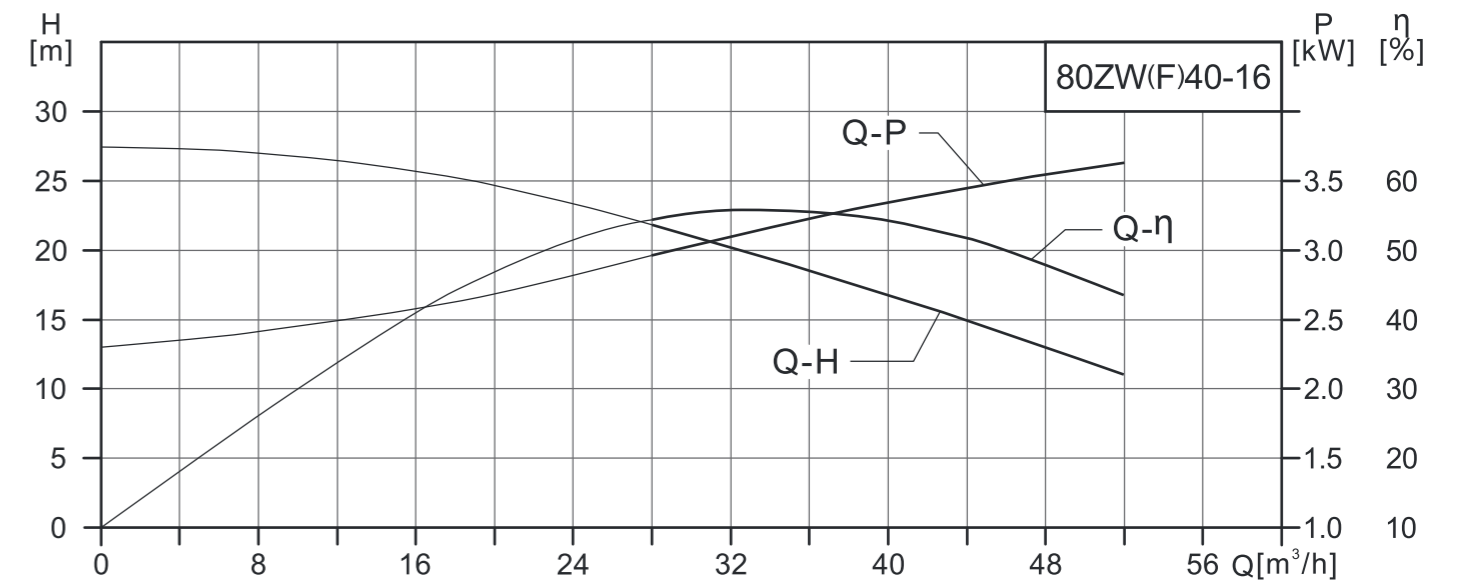
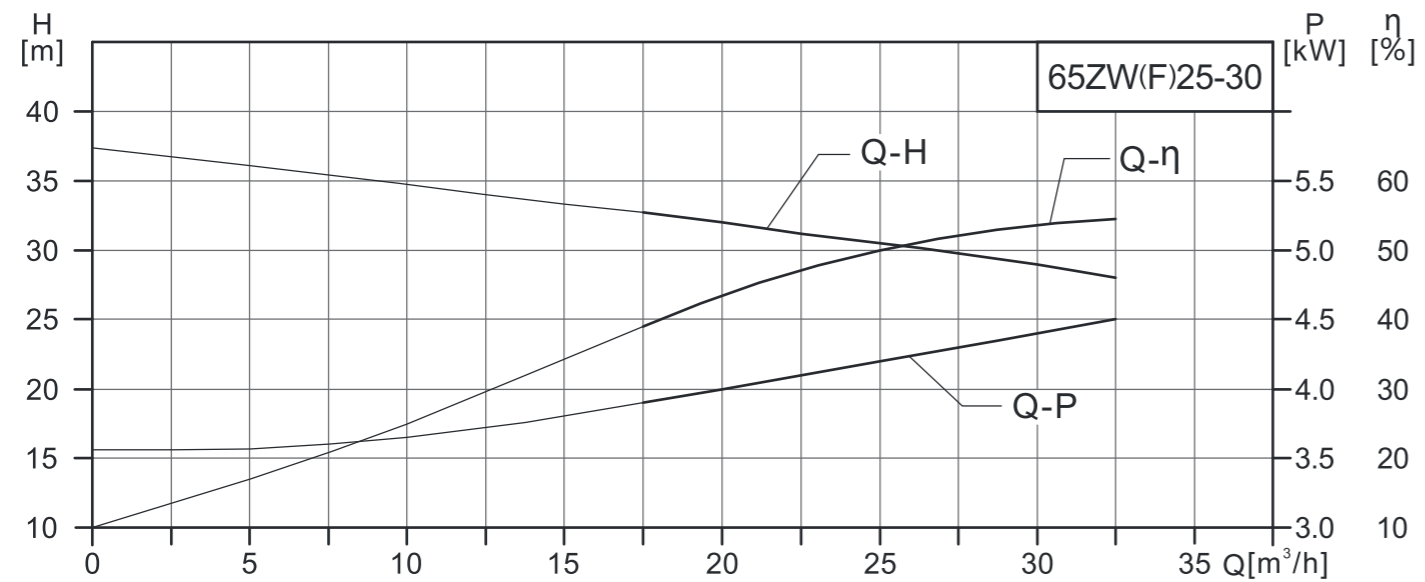
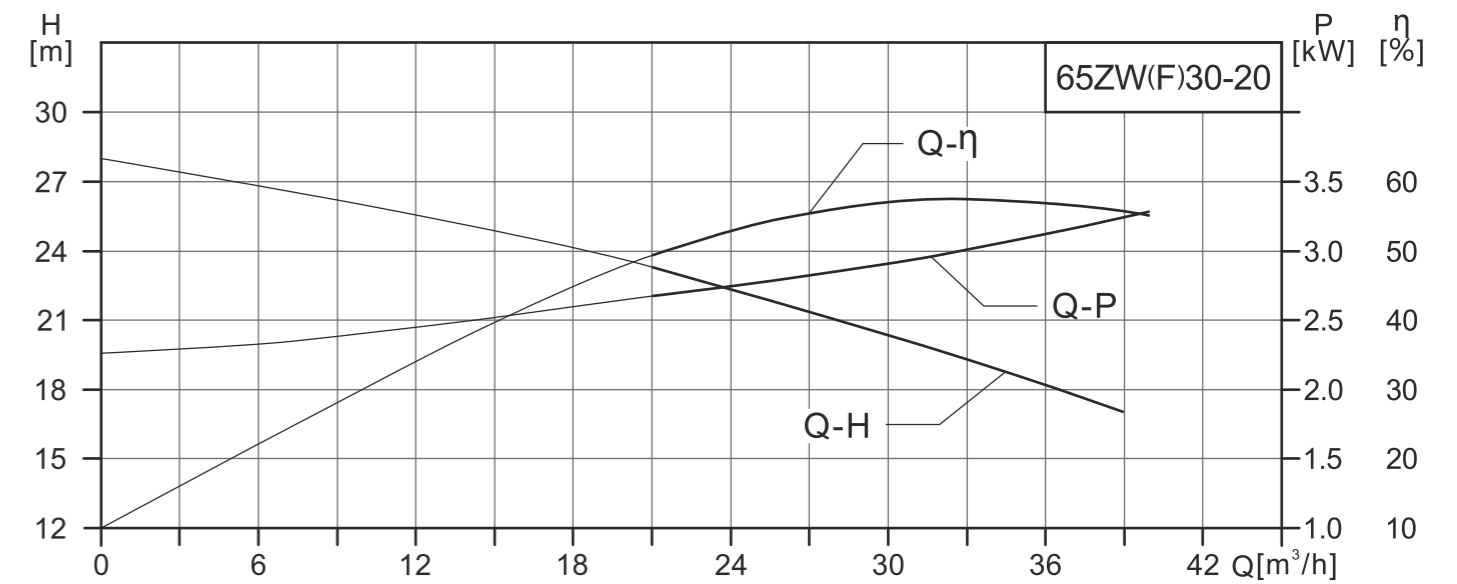
Performance Curve



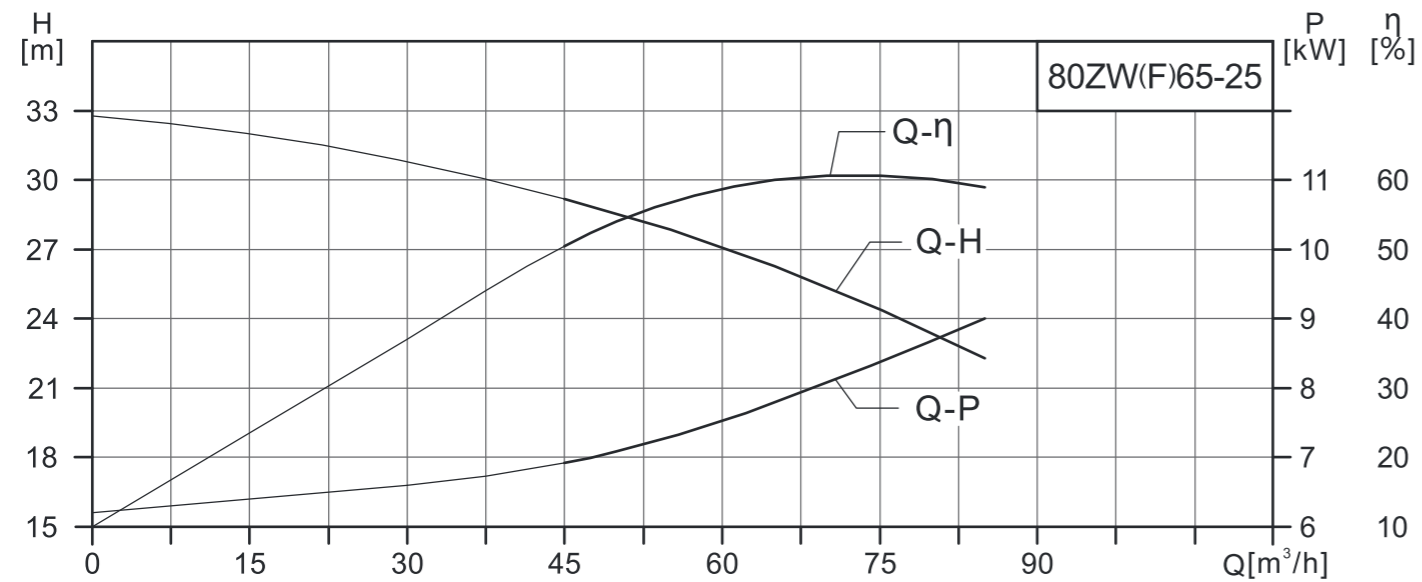
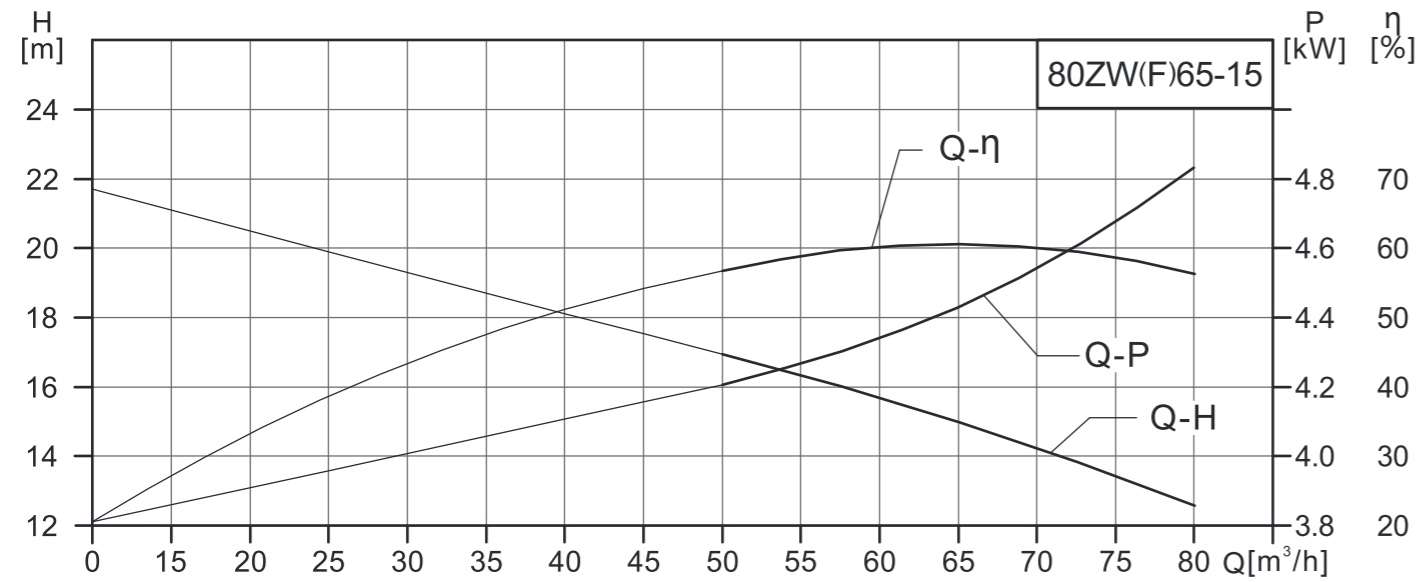
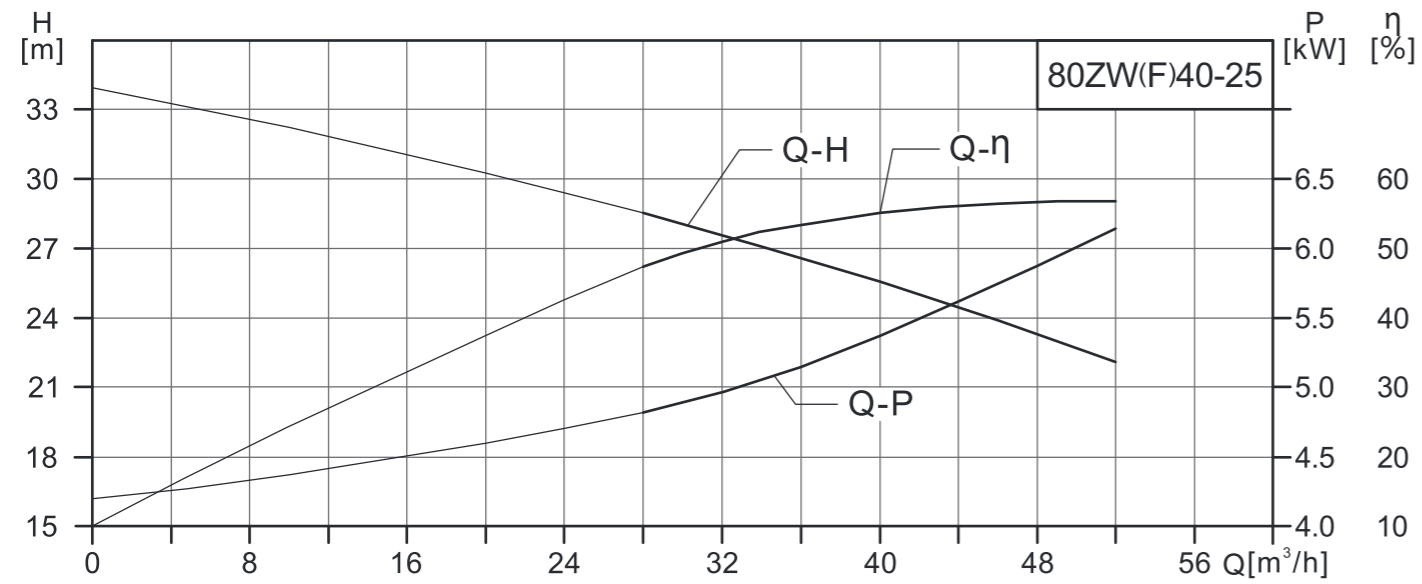
Performance Curve



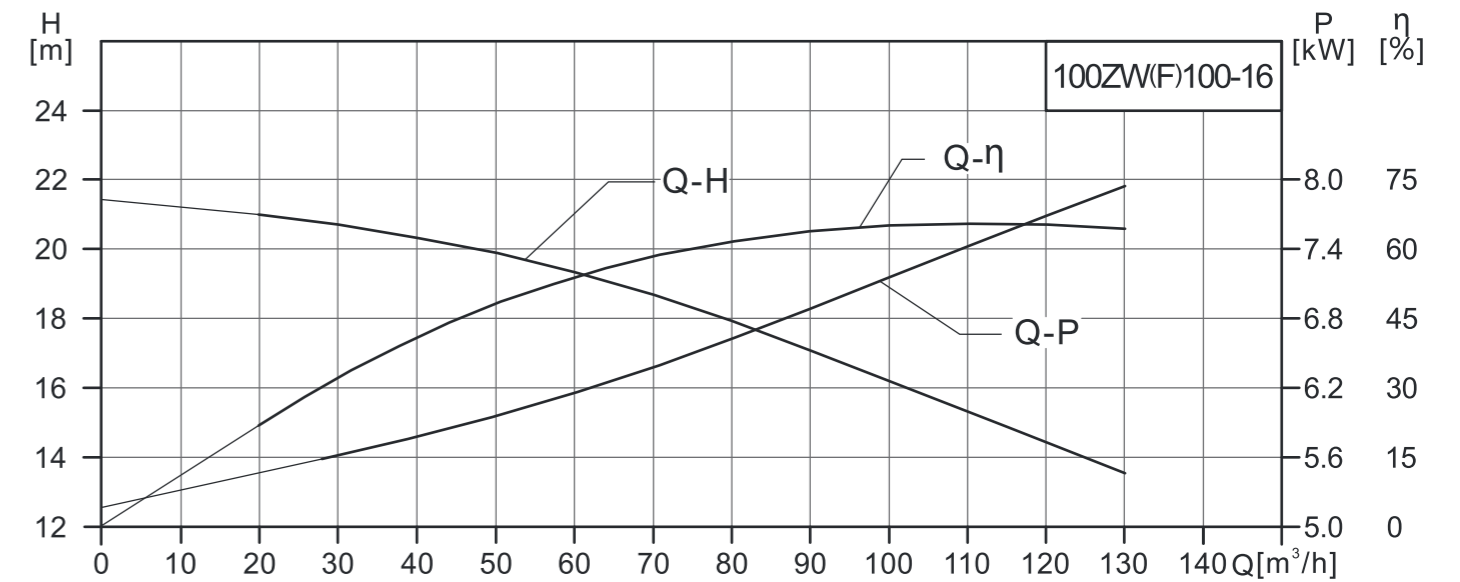
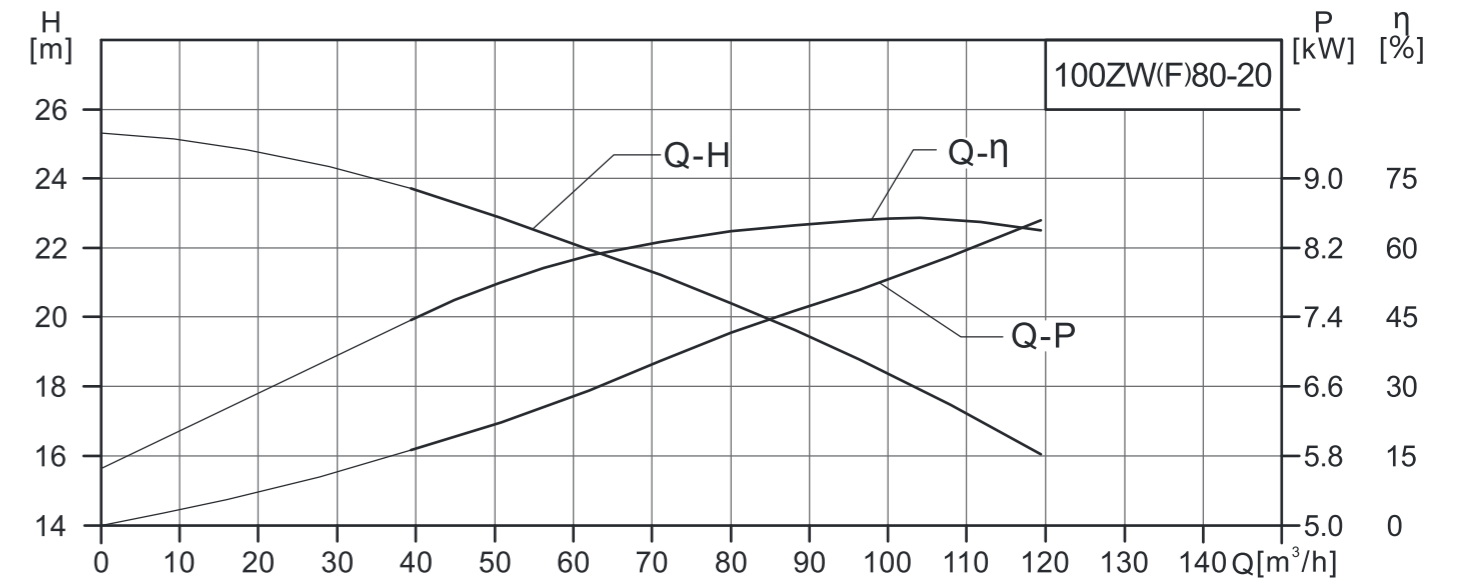
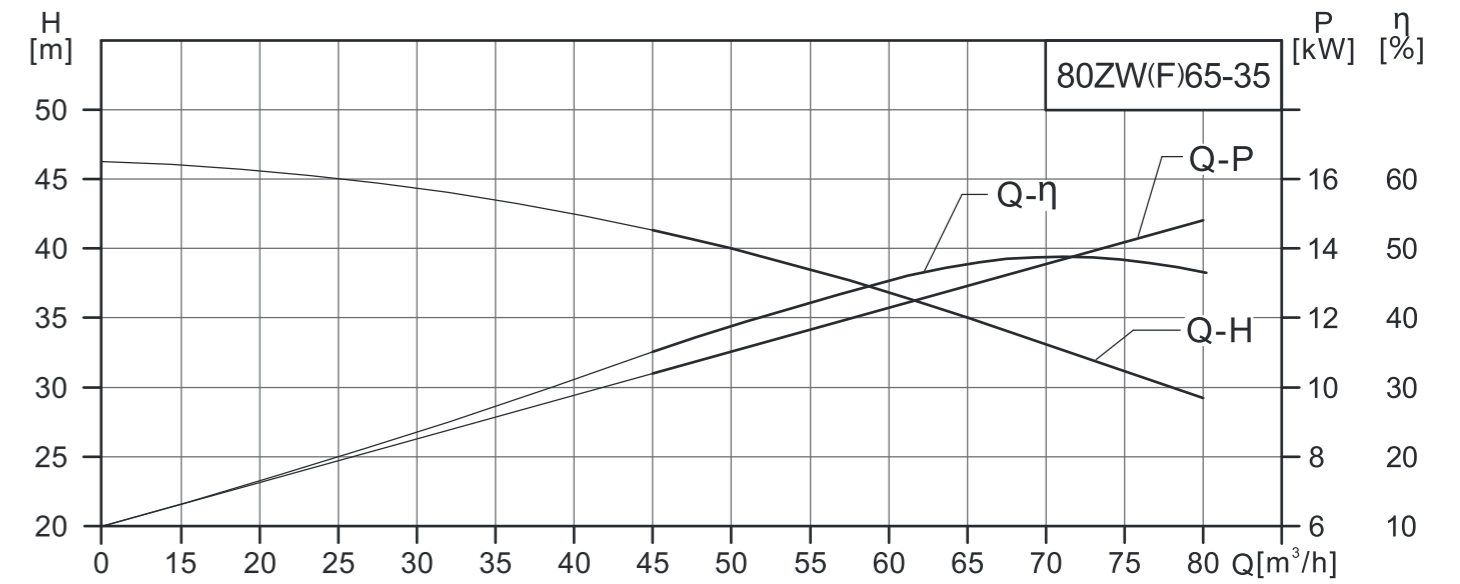
Performance Curve



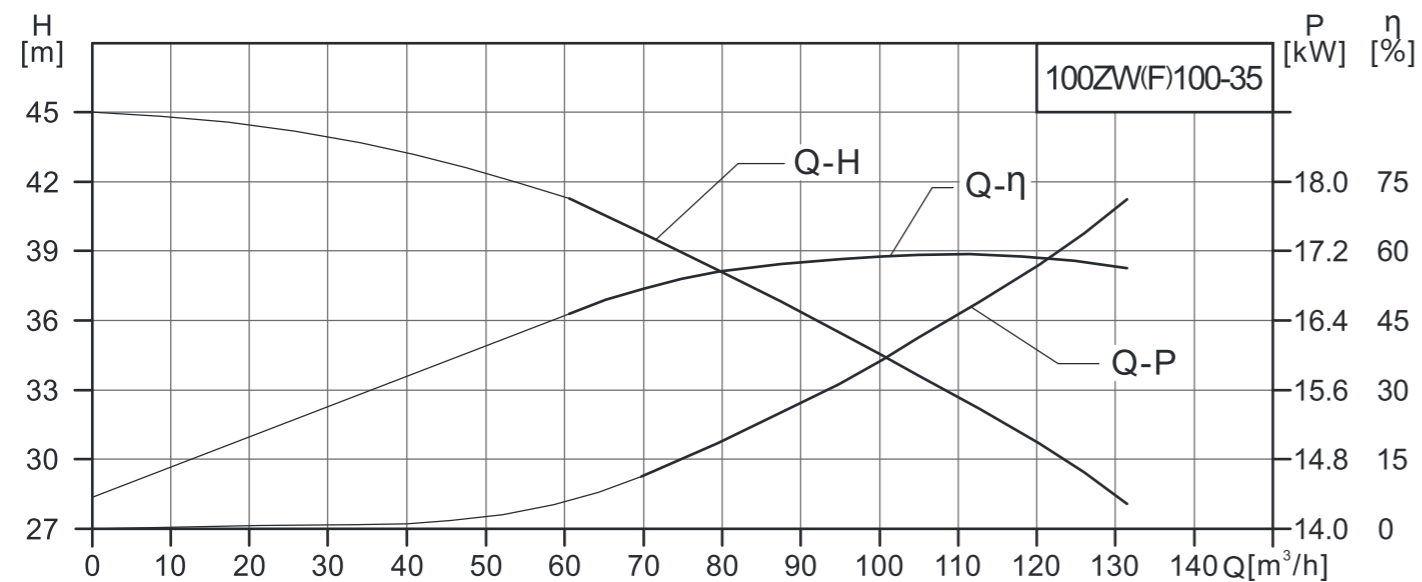
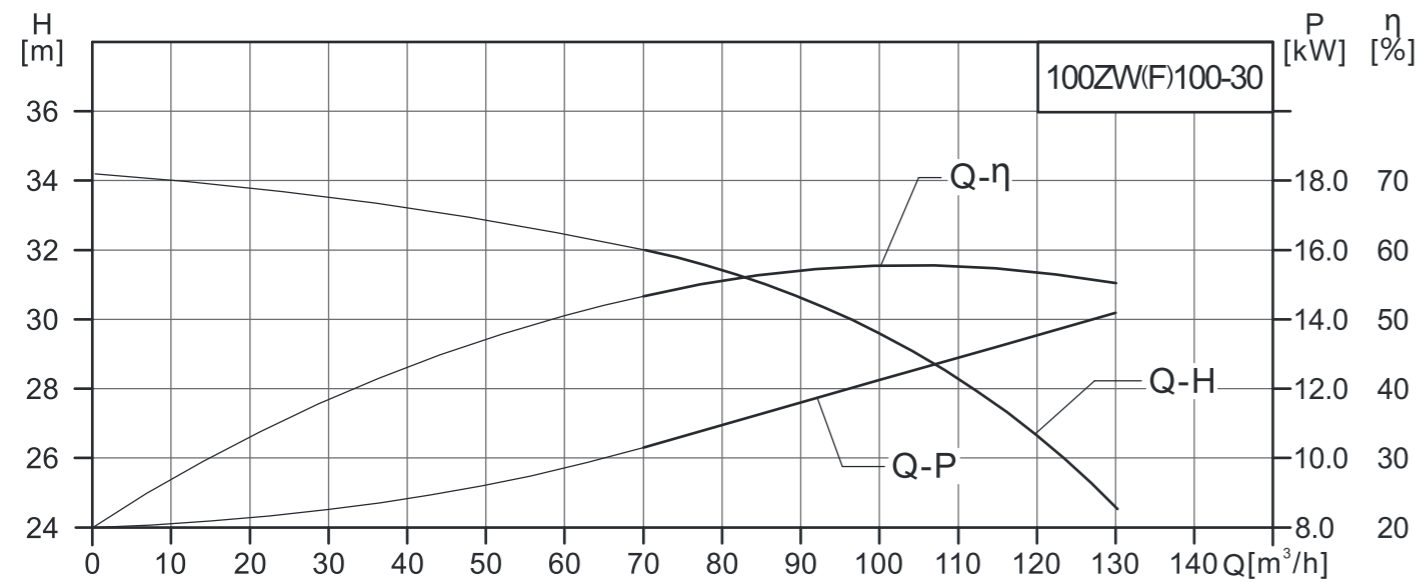
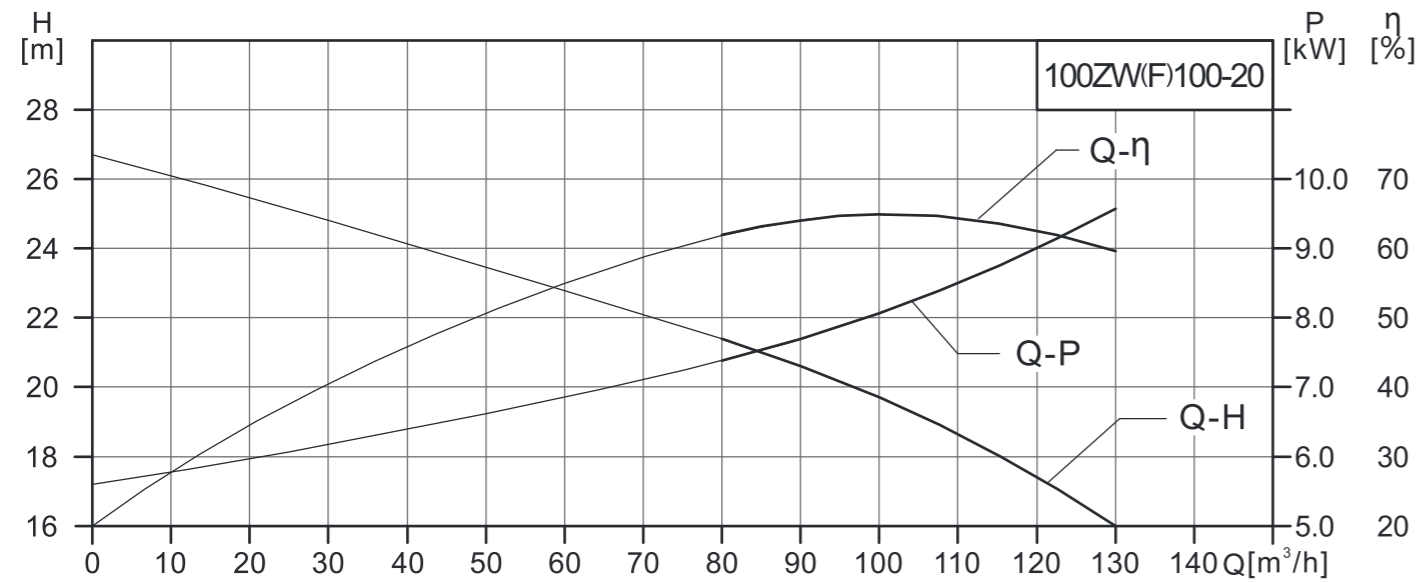
Performance Curve



Performance Curve



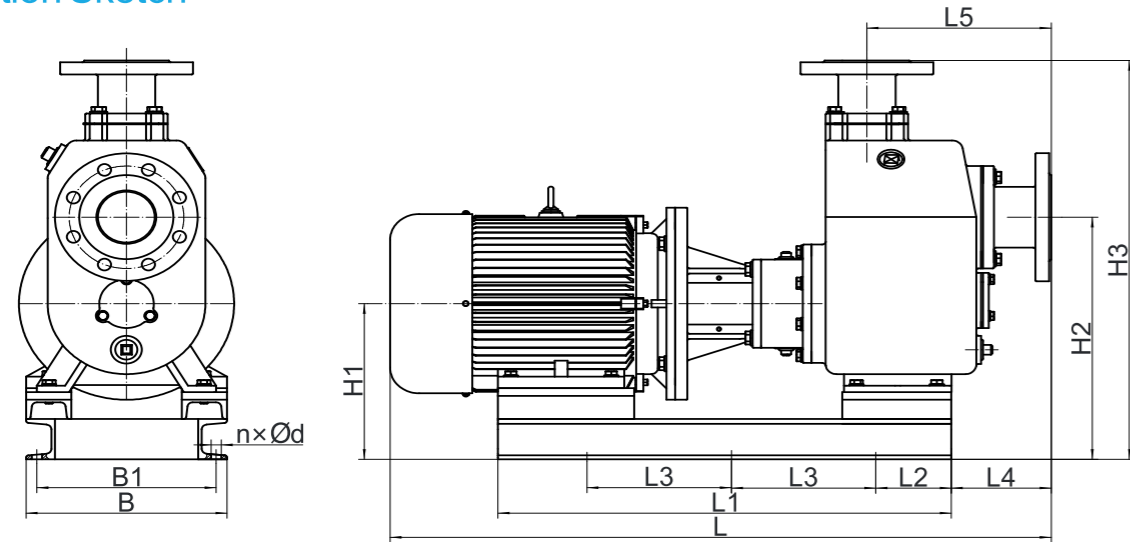
Performance Curve



Basic Parameters

| Model | Data | Inlet Dia. (mm) | Outlet Dia. (mm) | Flow (m³/h) | Head (m) | Power (kW) | Speed (r/min) | Efficiency (%) | Self-priming height (m) |
|----------------|------|-----------------|------------------|-------------|----------|------------|---------------|----------------|-------------------------|
| 25ZW(F)5-12 | | 25 | 25 | 5 | 12 | 0.75 | 2900 | 30 | 5 |
| 25ZW(F)8-18 | | 25 | 25 | 8 | 18 | 1.5 | 2900 | 32 | 5 |
| 32ZW(F)5-12 | | 32 | 32 | 5 | 12 | 0.75 | 2900 | 30 | 5 |
| 32ZW(F)5-20 | | 32 | 32 | 5 | 20 | 1.5 | 2900 | 32 | 5 |
| 32ZW(F)8-18 | | 32 | 32 | 8 | 18 | 1.5 | 2900 | 32 | 5 |
| 32ZW(F)10-10 | | 32 | 32 | 10 | 10 | 1.1 | 2900 | 42 | 5 |
| 32ZW(F)10-20 | | 32 | 32 | 10 | 20 | 2.2 | 2900 | 35 | 5 |
| 32ZW(F)10-30 | | 32 | 32 | 10 | 30 | 3 | 2900 | 35 | 5 |
| 40ZW(F)10-10 | | 40 | 32 | 10 | 10 | 1.1 | 2900 | 42 | 5 |
| 40ZW(F)10-20 | | 40 | 32 | 10 | 20 | 2.2 | 2900 | 35 | 5 |
| 40ZW(F)15-10 | | 40 | 40 | 15 | 10 | 1.1 | 2900 | 45 | 5 |
| 40ZW(F)15-18 | | 40 | 32 | 15 | 18 | 2.2 | 2900 | 44 | 5 |
| 40ZW(F)15-28 | | 40 | 32 | 15 | 28 | 3 | 2900 | 43 | 5 |
| 40ZW(F)20-13 | | 40 | 32 | 20 | 13 | 2.2 | 2900 | 42.5 | 5 |
| 50ZW(F)10-20 | | 50 | 40 | 10 | 20 | 2.2 | 2900 | 35 | 5 |
| 50ZW(F)15-10 | | 50 | 40 | 15 | 10 | 1.1 | 2900 | 45 | 5 |
| 50ZW(F)15-18 | | 50 | 40 | 15 | 18 | 2.2 | 2900 | 44 | 5 |
| 50ZW(F)15-28 | | 50 | 40 | 15 | 28 | 3 | 2900 | 43 | 5 |
| 50ZW(F)20-13 | | 50 | 40 | 20 | 13 | 2.2 | 2900 | 42.5 | 5 |
| 50ZW(F)20-40 | | 50 | 40 | 20 | 40 | 5.5 | 2900 | 46 | 5 |
| 65ZW(F)25-30 | | 65 | 65 | 25 | 30 | 5.5 | 2900 | 50 | 5 |
| 65ZW(F)25-40 | | 65 | 65 | 25 | 40 | 7.5 | 2900 | 46 | 5 |
| 65ZW(F)30-20 | | 65 | 65 | 30 | 20 | 4 | 2900 | 57 | 5 |
| 65ZW(F)40-25 | | 65 | 65 | 40 | 25 | 7.5 | 2900 | 56 | 5 |
| 80ZW(F)40-16 | | 80 | 65 | 40 | 16 | 4 | 2900 | 57 | 5 |
| 80ZW(F)40-25 | | 80 | 65 | 40 | 25 | 7.5 | 2900 | 56 | 5 |
| 80ZW(F)45-15 | | 80 | 65 | 45 | 15 | 5.5 | 2900 | 58 | 5 |
| 80ZW(F)65-15 | | 80 | 65 | 65 | 15 | 5.5 | 2900 | 58 | 5 |
| 80ZW(F)65-25 | | 80 | 65 | 65 | 25 | 11 | 2900 | 65 | 5 |
| 80ZW(F)65-35 | | 80 | 65 | 65 | 35 | 15 | 2900 | 46 | 5 |
| 100ZW(F)80-20 | | 100 | 80 | 80 | 20 | 11 | 1480 | 60 | 4.5 |
| 100ZW(F)100-16 | | 100 | 80 | 100 | 16 | 7.5 | 1480 | 65 | 4.5 |
| 100ZW(F)100-20 | | 100 | 80 | 100 | 20 | 11 | 1480 | 62 | 4.5 |
| 100ZW(F)100-30 | | 100 | 80 | 100 | 30 | 15 | 1480 | 60 | 4.5 |
| 100ZW(F)100-35 | | 100 | 80 | 100 | 35 | 18.5 | 2900 | 60 | 4.5 |

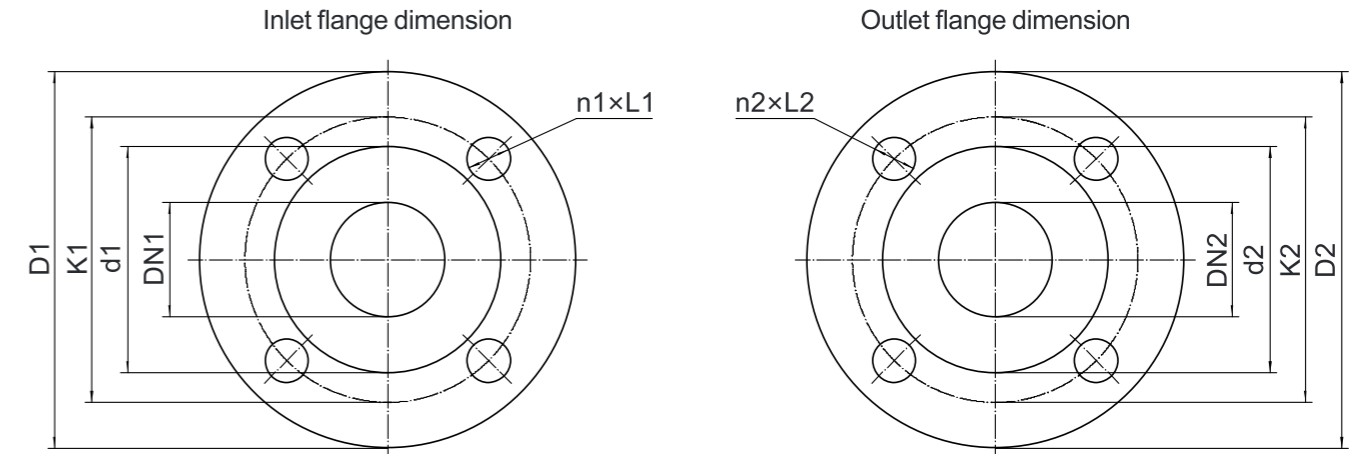
Installation Sketch



Installation Dimensions

| Model | Dimension(mm) | | | | | | | | | | | | | Weight (kg) |
|----------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|----|-------------|
| | L | L1 | L2 | L3 | L4 | L5 | H1 | H2 | H3 | B | B1 | n | d | |
| 25ZW(F)5-12 | 640 | 432 | 72 | 300 | 110 | 170 | 190 | 310 | 470 | 175 | 140 | 4 | 14 | 65 |
| 25ZW(F)8-18 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 77 |
| 32ZW(F)5-12 | 640 | 432 | 72 | 300 | 110 | 170 | 190 | 310 | 470 | 175 | 140 | 4 | 14 | 67 |
| 32ZW(F)5-20 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 78 |
| 32ZW(F)8-18 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 78 |
| 32ZW(F)10-10 | 655 | 432 | 72 | 300 | 120 | 175 | 190 | 310 | 470 | 175 | 140 | 4 | 14 | 70 |
| 32ZW(F)10-20 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 81 |
| 32ZW(F)10-30 | 770 | 540 | 95 | 350 | 125 | 185 | 205 | 375 | 560 | 220 | 185 | 4 | 14 | 92 |
| 40ZW(F)10-10 | 655 | 432 | 72 | 300 | 120 | 175 | 190 | 310 | 470 | 175 | 140 | 4 | 14 | 73 |
| 40ZW(F)10-20 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 81 |
| 40ZW(F)15-10 | 645 | 432 | 72 | 300 | 115 | 168 | 190 | 310 | 470 | 175 | 140 | 4 | 14 | 75 |
| 40ZW(F)15-18 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 81 |
| 40ZW(F)15-28 | 770 | 540 | 95 | 350 | 125 | 185 | 205 | 375 | 560 | 220 | 185 | 4 | 14 | 94 |
| 40ZW(F)20-13 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 80 |
| 50ZW(F)10-20 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 82 |
| 50ZW(F)15-10 | 645 | 432 | 72 | 300 | 115 | 168 | 190 | 310 | 470 | 175 | 140 | 4 | 14 | 80 |
| 50ZW(F)15-18 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 82 |
| 50ZW(F)15-28 | 770 | 540 | 95 | 350 | 125 | 185 | 205 | 375 | 560 | 220 | 185 | 4 | 14 | 95 |
| 50ZW(F)20-13 | 700 | 490 | 85 | 300 | 115 | 175 | 185 | 315 | 495 | 220 | 185 | 4 | 14 | 82 |
| 50ZW(F)20-40 | 880 | 630 | 105 | 420 | 115 | 190 | 245 | 395 | 590 | 280 | 250 | 4 | 14 | 180 |
| 65ZW(F)25-30 | 900 | 630 | 105 | 420 | 120 | 195 | 245 | 405 | 630 | 280 | 250 | 4 | 14 | 170 |
| 65ZW(F)25-40 | 880 | 630 | 105 | 420 | 115 | 190 | 245 | 395 | 610 | 280 | 250 | 4 | 14 | 180 |
| 65ZW(F)30-20 | 815 | 580 | 80 | 420 | 125 | 200 | 225 | 385 | 600 | 235 | 205 | 4 | 14 | 142 |
| 65ZW(F)40-25 | 900 | 630 | 105 | 420 | 120 | 195 | 245 | 448 | 698 | 280 | 250 | 4 | 14 | 172 |
| 80ZW(F)40-16 | 815 | 580 | 80 | 420 | 125 | 200 | 225 | 385 | 600 | 235 | 205 | 4 | 14 | 142 |
| 80ZW(F)40-25 | 900 | 630 | 105 | 420 | 120 | 195 | 245 | 448 | 698 | 280 | 250 | 4 | 14 | 172 |
| 80ZW(F)45-15 | 925 | 635 | 105 | 430 | 140 | 258 | 245 | 378 | 622 | 280 | 250 | 4 | 14 | 220 |
| 80ZW(F)65-15 | 940 | 635 | 105 | 430 | 155 | 272 | 245 | 412 | 662 | 280 | 250 | 4 | 14 | 240 |
| 80ZW(F)65-25 | 1040 | 745 | 140 | 485 | 130 | 260 | 255 | 455 | 705 | 315 | 280 | 4 | 19 | 265 |
| 80ZW(F)65-35 | 1020 | 745 | 140 | 485 | 132 | 255 | 255 | 400 | 655 | 315 | 280 | 4 | 19 | 350 |
| 100ZW(F)80-20 | 1110 | 835 | 105 | 580 | 150 | 305 | 285 | 505 | 820 | 360 | 330 | 4 | 19 | 245 |
| 100ZW(F)100-16 | 1040 | 765 | 115 | 520 | 160 | 345 | 295 | 515 | 870 | 390 | 360 | 4 | 19 | 325 |
| 100ZW(F)100-20 | 1110 | 835 | 105 | 580 | 150 | 305 | 285 | 505 | 820 | 360 | 330 | 4 | 19 | 346 |
| 100ZW100-30 | 1185 | 915 | 180 | 580 | 130 | 318 | 315 | 555 | 900 | 400 | 360 | 4 | 19 | 370 |
| 100ZW100-30 | 1160 | 850 | 118 | 580 | 165 | 290 | 315 | 555 | 893 | 400 | 360 | 4 | 19 | 365 |
| 100ZW100-35 | 1165 | 850 | 120 | 618 | 160 | 335 | 265 | 480 | 760 | 315 | 280 | 4 | 19 | 385 |
| 100ZW100-35 | 1065 | 850 | 120 | 618 | 150 | 310 | 265 | 480 | 760 | 315 | 280 | 4 | 19 | 385 |

Inlet and outlet flange dimension



| Model | Inlet flange dimension(mm) | | | | | | Outlet flange dimension(mm) | | | | | |
|----------------|----------------------------|-----|-----|-----|----|-----|-----------------------------|-----|-----|-----|----|-----|
| | DN1 | d1 | K1 | D1 | n1 | L1 | DN2 | d2 | K2 | D2 | n2 | L2 |
| 25ZW(F)5-12 | 25 | 65 | 85 | 115 | 4 | Ø14 | 25 | 65 | 85 | 115 | 4 | Ø14 |
| 25ZW(F)8-18 | 25 | 65 | 85 | 115 | 4 | Ø14 | 25 | 65 | 85 | 115 | 4 | Ø14 |
| 32ZW(F)5-12 | 32 | 76 | 100 | 140 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 32ZW(F)5-20 | 32 | 76 | 100 | 140 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 32ZW(F)8-18 | 32 | 76 | 100 | 140 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 32ZW(F)10-10 | 32 | 76 | 100 | 140 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 32ZW(F)10-20 | 32 | 76 | 100 | 140 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 32ZW(F)10-30 | 32 | 76 | 100 | 140 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 40ZW(F)10-10 | 40 | 84 | 110 | 150 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 40ZW(F)10-20 | 40 | 84 | 110 | 150 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 40ZW(F)15-10 | 40 | 84 | 110 | 150 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 40ZW(F)15-18 | 40 | 84 | 110 | 150 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 40ZW(F)15-28 | 40 | 84 | 110 | 150 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 40ZW(F)20-13 | 40 | 84 | 110 | 150 | 4 | Ø19 | 32 | 76 | 100 | 140 | 4 | Ø19 |
| 50ZW(F)10-20 | 50 | 99 | 125 | 165 | 4 | Ø19 | 40 | 84 | 110 | 150 | 4 | Ø19 |
| 50ZW(F)15-10 | 50 | 99 | 125 | 165 | 4 | Ø19 | 40 | 84 | 110 | 150 | 4 | Ø19 |
| 50ZW(F)15-18 | 50 | 99 | 125 | 165 | 4 | Ø19 | 40 | 84 | 110 | 150 | 4 | Ø19 |
| 50ZW(F)15-28 | 50 | 99 | 125 | 165 | 4 | Ø19 | 40 | 84 | 110 | 150 | 4 | Ø19 |
| 50ZW(F)20-13 | 50 | 99 | 125 | 165 | 4 | Ø19 | 40 | 84 | 110 | 150 | 4 | Ø19 |
| 50ZW(F)20-40 | 50 | 99 | 125 | 165 | 4 | Ø19 | 40 | 84 | 110 | 150 | 4 | Ø19 |
| 65ZW(F)25-30 | 65 | 118 | 145 | 185 | 4 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 65ZW(F)25-40 | 65 | 118 | 145 | 185 | 4 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 65ZW(F)30-20 | 65 | 118 | 145 | 185 | 4 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 65ZW(F)40-25 | 65 | 118 | 145 | 185 | 4 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 80ZW(F)40-16 | 80 | 132 | 160 | 200 | 8 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 80ZW(F)40-25 | 80 | 132 | 160 | 200 | 8 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 80ZW(F)45-15 | 80 | 132 | 160 | 200 | 8 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 80ZW(F)65-15 | 80 | 132 | 160 | 200 | 8 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 80ZW(F)65-25 | 80 | 132 | 160 | 200 | 8 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 80ZW(F)65-35 | 80 | 132 | 160 | 200 | 8 | Ø19 | 65 | 118 | 145 | 185 | 4 | Ø19 |
| 100ZW(F)80-20 | 100 | 156 | 180 | 220 | 8 | Ø19 | 80 | 132 | 160 | 200 | 8 | Ø19 |
| 100ZW(F)100-16 | 100 | 156 | 180 | 220 | 8 | Ø19 | 80 | 132 | 160 | 200 | 8 | Ø19 |
| 100ZW(F)100-20 | 100 | 156 | 180 | 220 | 8 | Ø19 | 80 | 132 | 160 | 200 | 8 | Ø19 |
| 100ZW(F)100-30 | 100 | 156 | 180 | 220 | 8 | Ø19 | 80 | 132 | 160 | 200 | 8 | Ø19 |
| 100ZW(F)100-35 | 100 | 156 | 180 | 220 | 8 | Ø19 | 80 | 132 | 160 | 200 | 8 | Ø19 |