



APEC-SUN

Stainless Steel Vertical Multistage Centrifugal Pump



GENERAL INTRODUCTION:

AVM Series is a kind of non self-priming stainless steel vertical multistage centrifugal pumps, which adopts classical vertical IEC standard electric motor and assembly cartridge mechanical seal. It possesses many advantages, such as small volume, high head, light weight, low noise, easy maintenance, elegant appearance, etc. AVM Series are widely used in the areas of daily life, industry, agriculture, water treatment system, and so on.

APPLICATIONS:

Water supply and pressure boosting:

- Pressure boosting in buildings, hotels, residential complexes.
- Pressure booster stations, supply of water networks.
- Booster packages.

Water treatment:

- Ultrafiltration systems.
- Reverse osmosis systems.
- Water softeners and de-mineralization.
- Distillation systems.
- Filtration.

Light industry:

- Washing and cleaning plants (washing and degreasing of mechanical parts, car, and truck wash tunnels, washing of electronic industry circuits).
- Commercial washers.
- Fire fighting system pumps.
- Jockey pump for fire fighting system.

Irrigation and agriculture:

- Greenhouses.
- Humidifiers.
- Sprinkler irrigation.

Heating, ventilation and air conditioning (HVAC):

- Cooling towers and systems.
- Temperature control systems.
- Refrigerators.
- Induction heating.
- Heat exchangers.
- Boilers.
- Water recirculation and heating.

FEATURES:

MOTOR

- Squirrel cage in short circuit, aluminium casing, enclosed construction with external ventilation.
- IP55 protection.
- Class F insulation.

PUMP

- Flow rate up to 110 m³/h.

- Head up to 330 m.

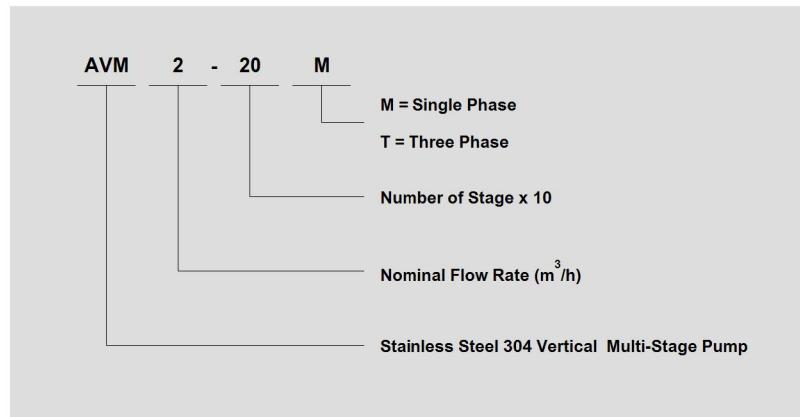
- Temperature of pumped liquid:

Normal type : -15°C to 79°C.

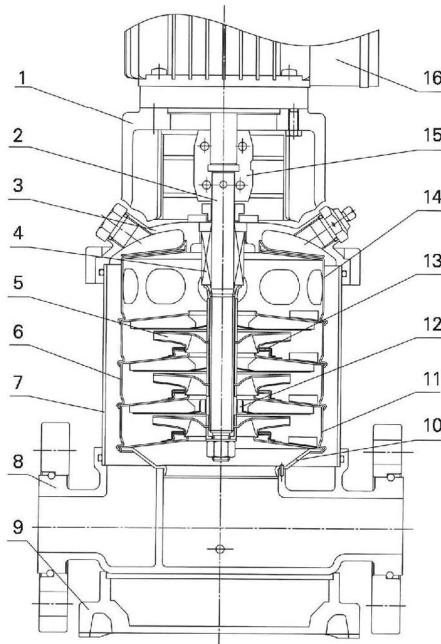
Special type : 80°C to 120°C.

- Clean, nonflammable, and non-explosive medium without solid particles and fibers.
- Mildly corrosive liquid without solid particles.
- Vertical and compac structure, the inlet and outlet flanges are located at the same central line, small area occupation and easy installation.
- Assembly cartridge mechanical seal, making installation andd maintenance safer and more convenient, and guaranteeing the reliability of the mechanical seal.
- Flow parts are made of stainless steel, which will not contaminate medium and possess lengthy service life and elegant appearance.
- Electric motor shaft directly and accurately connects with pump shaft through coupling.
- Lower noise and less vibration.
- Standardized design and outstanding universality.

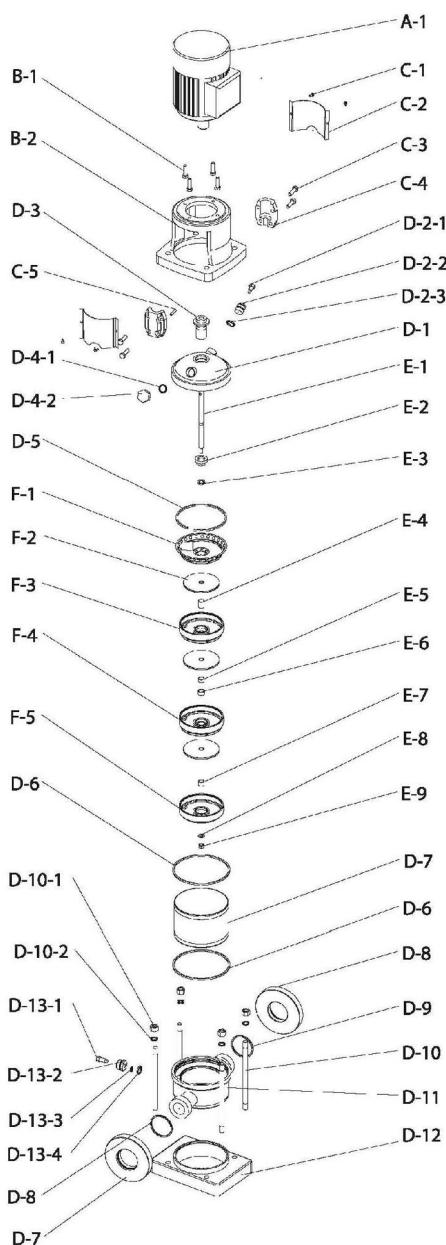
TYPE DESCRIPTION:



CONSTRUCTION:



| NO. | NAME | MATERIAL |
|-----|--------------------------------|------------------|
| 1 | Motor Base | Cast Iron |
| 2 | Pump Shaft | Stainless Steel |
| 3 | Mechanical Seal Bed | Stainless Steel |
| 4 | Mechanical Seal | Subassembly |
| 5 | Impeller | Stainless Steel |
| 6 | Intermediate Body | Stainless Steel |
| 7 | Cylinder | Stainless Steel |
| 8 | Inlet and Outlet Section | Stainless Steel |
| 9 | Pump Base | Cast Iron |
| 10 | Inlet Intermediate Body | Stainless Steel |
| 11 | Intermediate Body with Bearing | Stainless Steel |
| 12 | Sliding Bearing | Tungsten Carbide |
| 13 | Sealing Ring | F-4 |
| 14 | Outlet Intermediate Body | Stainless Steel |
| 15 | Coupling | GS-45 |
| 16 | Electric Motor | Subassembly |



| NO. | NAME |
|--------|---------------------------|
| A-1 | Motor |
| B-1 | Bolt |
| B-2 | Motor Base |
| C-1 | Screw |
| C-2 | Coupling Cover |
| C-3 | Screw |
| C-4 | Coupling |
| C-5 | Pin |
| D-1 | Mechanical Seal Seat |
| D-2-1 | Air Vent Screw |
| D-2-2 | Air Vent Nut |
| D-2-3 | O-Ring |
| D-3 | Cartridge Mechanical Seal |
| D-4-1 | O-Ring |
| D-4-2 | Gag |
| D-5 | Corrugated Spring |
| D-6 | O-Ring |
| D-7 | Cylinder |
| D-8 | Flange |
| D-9 | Washer |
| D-10 | Rod |
| D-10-1 | Nut |
| D-10-2 | Gasket |

| NO. | NAME |
|--------|-----------------------------|
| D-11 | Inlet & Outlet Section |
| D-12 | Pump Base |
| D-13-1 | Drainage Screw |
| D-13-2 | Drainage Nut |
| D-13-3 | O-Ring |
| D-13-4 | O-Ring |
| E-1 | Pump Shaft |
| E-2 | Washer Sleeve |
| E-3 | Washer |
| E-4 | Impeller Sleeve |
| E-5 | Short Sleeve |
| E-6 | Water Bearing Inner Ring |
| E-7 | First Stage Sleeve |
| E-8 | Washer |
| E-9 | Nut |
| F-1 | Discharge Stage |
| F-2 | Impeller |
| F-3 | Middle - Stage with Bearing |
| F-4 | Middle - Stage |
| F-5 | Suction - Stage |

PRODUCTS:

| PUMP MODEL | AVM2 | AVM4 | AVM8 | AVM16 | AVM30 | AVM45 | AVM65 | AVM90 |
|--------------------------------|--------|--------|--------------------------------|--------|---------------------------------|-------|-------|--------|
| Rated Flow (m ³ /h) | 2 | 4 | 8 | 16 | 32 | 45 | 65 | 90 |
| Flow Range (m ³ /h) | 1-3.2 | 41457 | 41584 | 44044 | 15-36 | 22-55 | 30-80 | 45-110 |
| Max Pressure (bar) | 24 | 22 | 22 | 23 | 28 | 32 | 22 | 20 |
| Electric Power (kW) | 0.37-3 | 0.37-4 | 0.75-7.5 | 2.2-15 | 1.5-30 | 3-45 | 4-45 | 5.5-45 |
| Temperature (°C) | | | Normal Type : -15°C up to 79°C | | Special Type : 80°C up to 120°C | | | |
| Max Efficiency (%) | 48 | 59 | 64 | 70 | 78 | 79 | 80 | 81 |
| Flange | DN25 | DN32 | DN40 | DN50 | DN65 | DN80 | DN100 | DN100 |

MAX WORKING PRESSURE:

| PUMP MODEL | MAX WORKING PRESSURE (bar) |
|-------------------------|----------------------------|
| AVM2 | 25 |
| AVM4 | 25 |
| AVM8 | 25 |
| AVM16 | 25 |
| AVM32-10/1 - AVM32-70 | 16 |
| AVM32-80/2 - AVM32-120 | 25 |
| AVM32-130/2 - AVM32-140 | 30 |

| PUMP MODEL | MAX WORKING PRESSURE (bar) |
|---------------------------|----------------------------|
| AVM45-10/1 - AVM45-50 | 16 |
| AVM45-60/2 - AVM45-90 | 25 |
| AVM45-100/2 - AVM45-130/2 | 33 |
| AVM65-10/1 - AVM65-50 | 16 |
| AVM65-60/2 - AVM65-80/1 | 25 |
| AVM90-10/1 - AVM90-40 | 16 |
| AVM90-50/2 - AVM90-60 | 25 |

MAX INLET PRESSURE:

| PUMP MODEL | MAX INLET PRESSURE (bar) |
|-------------------------|--------------------------|
| AVM2-20 | 6 |
| AVM2-30 - AVM2-110 | 10 |
| AVM2-120 - AVM2-260 | 15 |
| AVM4-20 | 6 |
| AVM4-30 - AVM4-100 | 10 |
| AVM4-110 - AVM4-220 | 15 |
| AVM8-20 - AVM8-60 | 6 |
| AVM8-70 - AVM8-200 | 10 |
| AVM16-20 - AVM16-30 | 6 |
| AVM16-40 - AVM16-160 | 10 |
| AVM32-10/1 - AVM32-20/2 | 3 |
| AVM32-20 - AVM32-40 | 4 |

| PUMP MODEL | MAX INLET PRESSURE (bar) |
|--------------------------|--------------------------|
| AVM32-50/2 - AVM32-100 | 10 |
| AVM32-110/2 - AVM32-140 | 15 |
| AVM45-10/1 | 3 |
| AVM45-10 - AVM45-20 | 4 |
| AVM45-30/2 - AVM45-40 | 10 |
| AVM45-50/2 - AVM45-130/2 | 15 |
| AVM65-10/1 - AVM65-20/2 | 4 |
| AVM65-20/1 - AVM65-30/1 | 10 |
| AVM65-30 - AVM65-80/1 | 15 |
| AVM90-10/1 - AVM90-10 | 4 |
| AVM90-20/2 - AVM90-20 | 10 |
| AVM90-30/2 - AVM90-60 | 15 |

Note: When the is in practical use, the actual inlet pressure plus the closing valve pressure must be lower than the max working pressure.

MINIMUM INLET PRESSURE NPSH:

If the pressure in pump is lower than the steaming pressure, cavitaions might occur. To avoid cavitaions, a minimum pressure at the inlet side of the pump must be guaranteed. The maximum suction head can refer to the below figure and be calculated as the following formula:

$$H = Pb \times 10.2 - NPSH - Hf - Hv - Hs \text{ (m).}$$

Pb = atmosphere pressure (bar), the pressure can be set as 1 bar. In a closed system, Pb means system pressure (bar).

NPSH = Net positive suctin head (m), it can be read out from the point of possible max flow rate shown on NPSH curve.

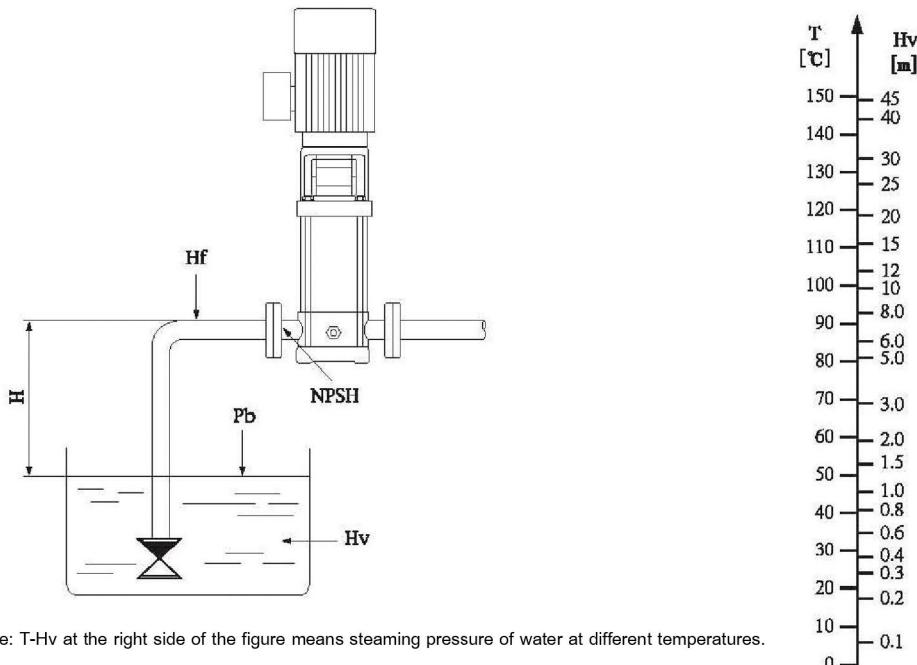
Hf = Pipeline loss at the inlet (m).

Hv = Steaming pressure (m).

Hs = Safety margin, it means minimum 0.5m delivery head.

If the calculated result H is positive, the pump may run under the max suction head H.

If the calculated result H is negative, a pressure over H is required at the inlet side of the pump.



MINIMUM FLOW RATE:

To avoid damages caused by overheating, the pump mustn't rum under minimum flow rate.

| PUMP MODEL | MINIMUM FLOW RATE (m^3/h) | |
|------------|---|----------------|
| | < 80 °C | 80 °C - 120 °C |
| AVM2 | 0.2 | 0.5 |
| AVM4 | 0.4 | 1.0 |
| AVM8 | 0.8 | 2.0 |
| AVM16 | 1.6 | 4.0 |

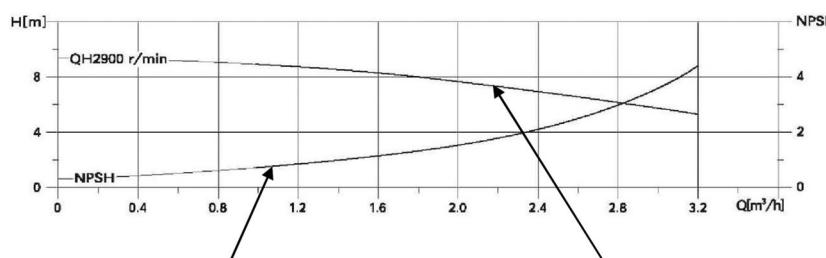
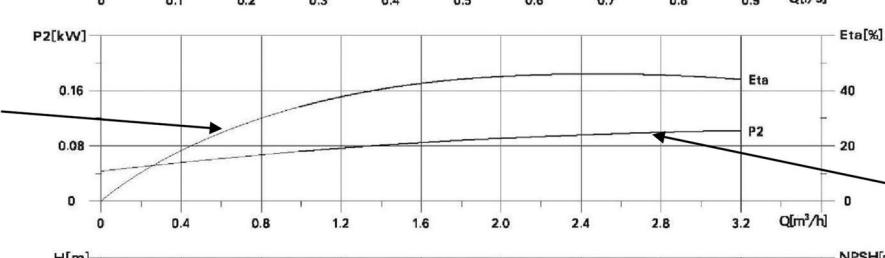
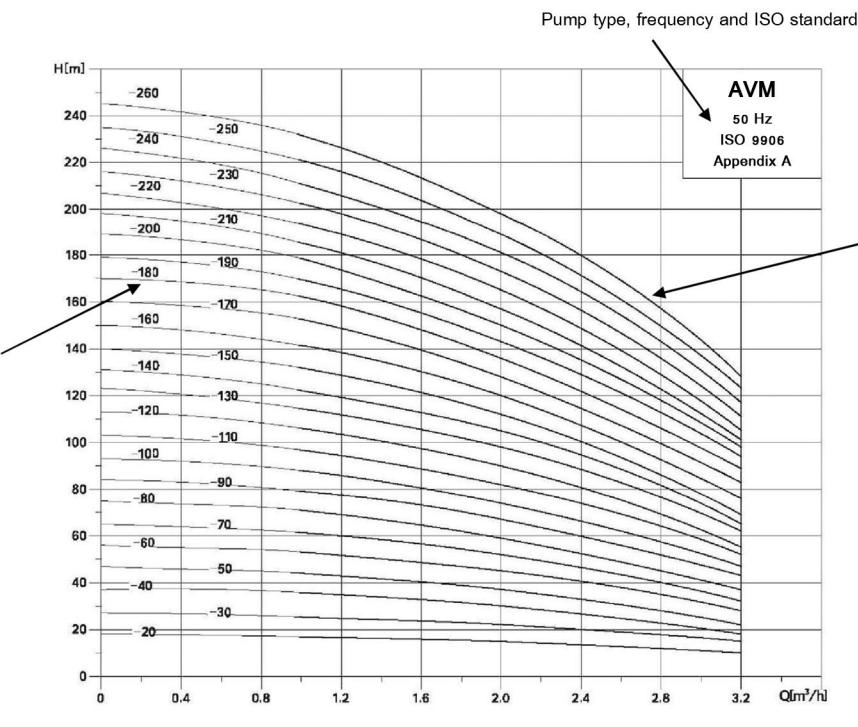
| PUMP MODEL | MINIMUM FLOW RATE (m^3/h) | |
|------------|---|----------------|
| | < 80 °C | 80 °C - 120 °C |
| AVM32 | 3.2 | 8.0 |
| AVM45 | 4.5 | 10.0 |
| AVM65 | 6.4 | 15.0 |
| AVM90 | 9.0 | 20.0 |

INTRODUCTION OF PERFORMANCE CURVE:

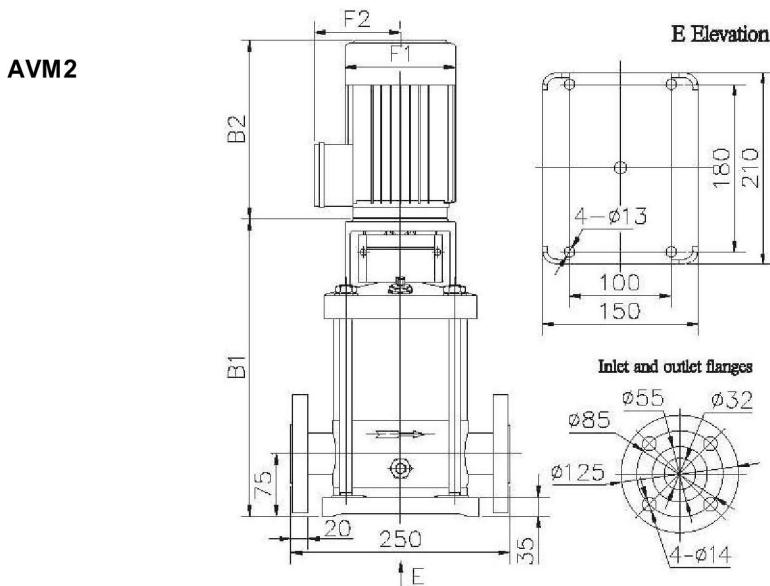
The following instructions are suitable for the performance curves shown below:

- Tolerances to ISO 9906, Annex A, if indicated.
- The motors used for the measurements are 3 phase, 380-450V, 50Hz and constant motor speed at 2900 rpm.
- Measurements have been made with air-free water at normal temperature.
- The operation of pump shall refer to the recommended performance region indicated by the thickened line to prevent dangers due to too small or too large flow rate.

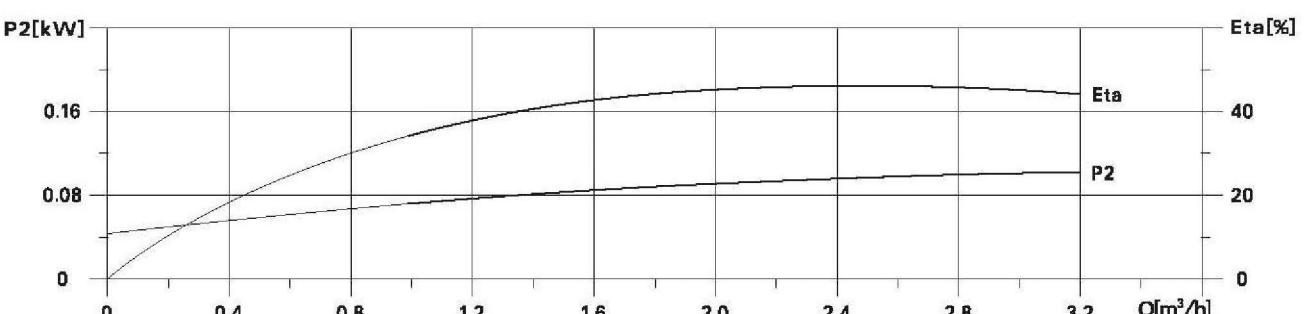
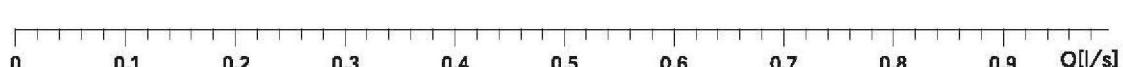
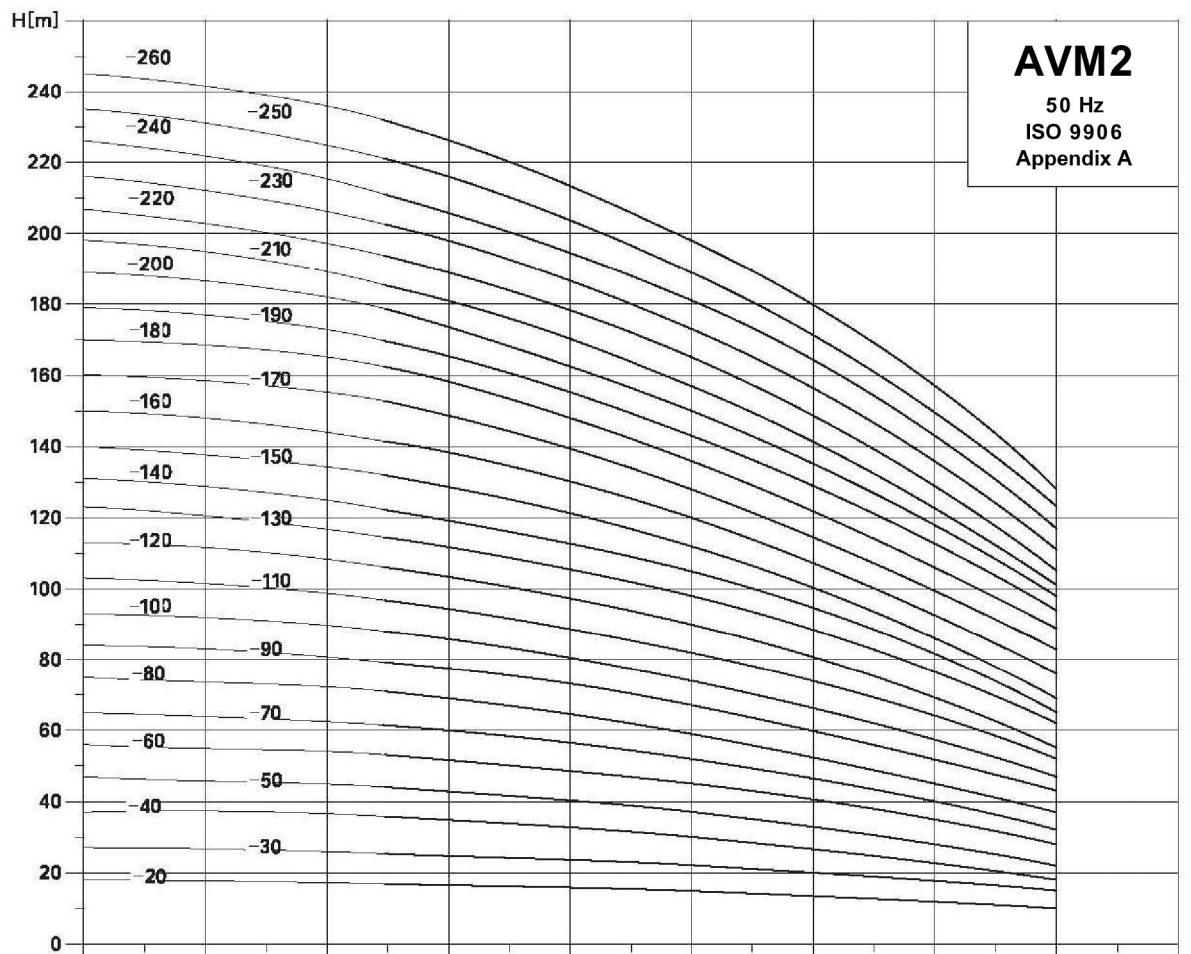
CURVE EXPLANATION:



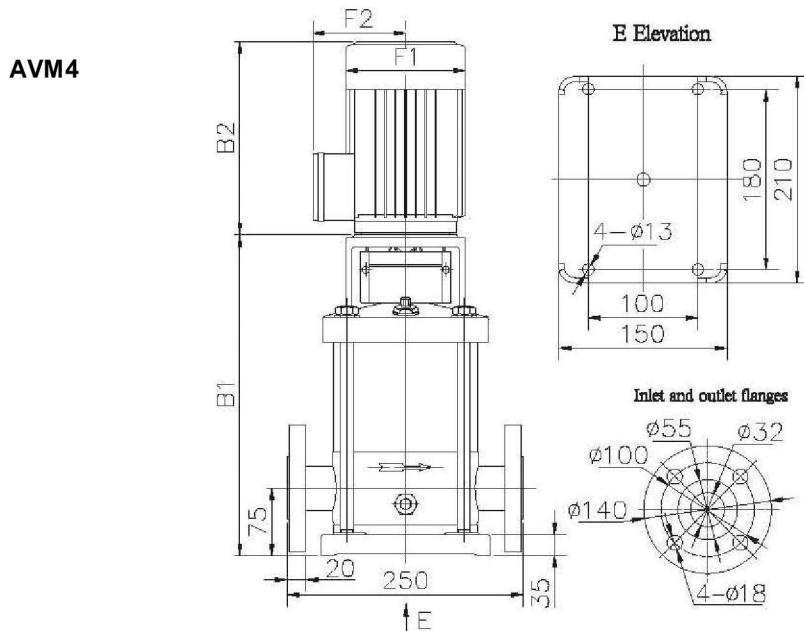
PERFORMANCE PARAMETERS AND DIMENSIONS:



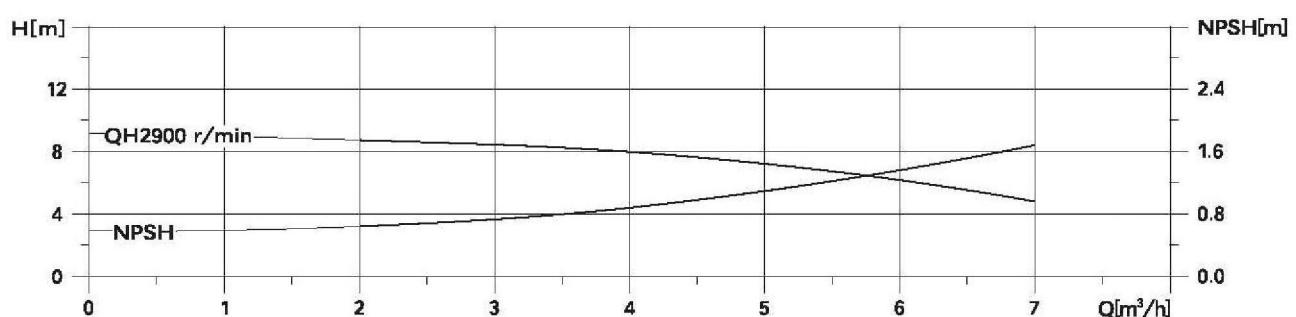
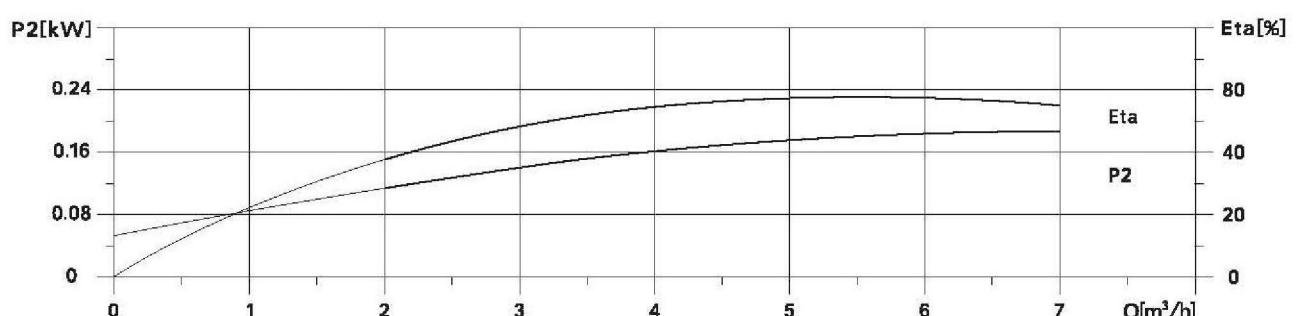
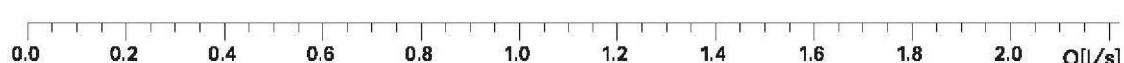
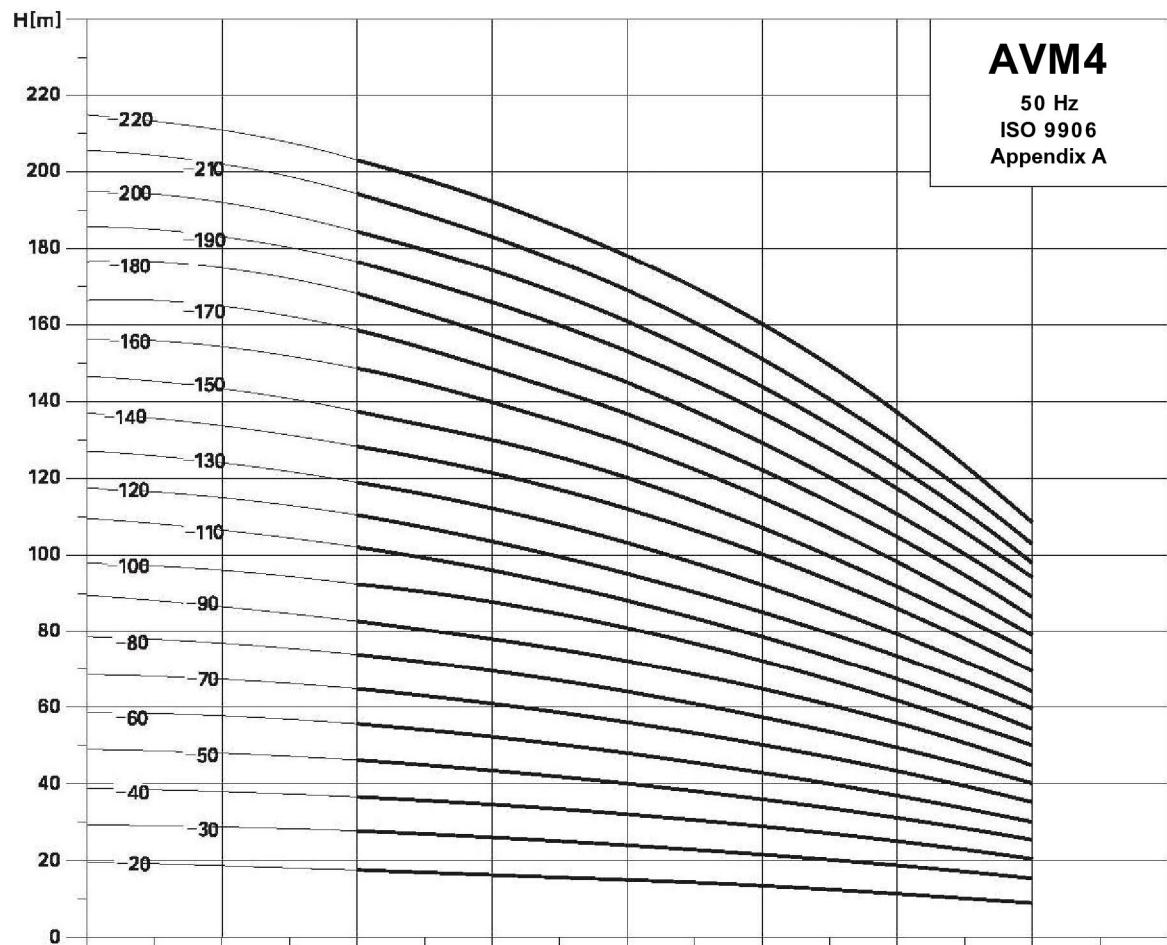
| PUMP MODEL | MOTOR POWER (kW) | CAPACITY (m ³ /h) | | | | | | | SIZE (mm) | | | | | Weight (kg) | |
|------------|---------------------|------------------------------|-----|-----|-----|-----|-----|-----|-----------|-----|-------|------|-----|----------------|----|
| | | 1.0 | 1.2 | 1.6 | 2.0 | 2.4 | 2.8 | 3.2 | B1 | B2 | B1+B2 | F1 | F2 | | |
| AVM2-20 | 0.37 | HEAD (m) | 17 | 17 | 16 | 15 | 13 | 12 | 10 | 257 | 240 | 497 | 145 | 140 | 22 |
| AVM2-30 | 0.37 | | 25 | 25 | 24 | 22 | 20 | 18 | 15 | 275 | 240 | 515 | 145 | 140 | 23 |
| AVM2-40 | 0.55 | | 36 | 35 | 33 | 30 | 27 | 23 | 18 | 293 | 240 | 533 | 145 | 140 | 24 |
| AVM2-50 | 0.55 | | 44 | 43 | 40 | 37 | 33 | 28 | 22 | 311 | 240 | 551 | 145 | 140 | 24 |
| AVM2-60 | 0.75 | | 53 | 52 | 49 | 45 | 41 | 35 | 28 | 338 | 255 | 593 | 175 | 150 | 29 |
| AVM2-70 | 0.75 | | 62 | 60 | 57 | 52 | 47 | 40 | 32 | 356 | 255 | 611 | 175 | 150 | 29 |
| AVM2-80 | 1.1 | | 71 | 70 | 65 | 59 | 53 | 45 | 37 | 374 | 255 | 629 | 175 | 150 | 30 |
| AVM2-90 | 1.1 | | 79 | 78 | 73 | 67 | 60 | 53 | 43 | 392 | 255 | 647 | 175 | 150 | 31 |
| AVM2-100 | 1.1 | | 88 | 87 | 81 | 74 | 67 | 58 | 47 | 410 | 255 | 665 | 175 | 150 | 31 |
| AVM2-110 | 1.1 | | 95 | 95 | 89 | 82 | 74 | 65 | 52 | 428 | 255 | 683 | 175 | 150 | 32 |
| AVM2-120 | 1.5 | | 107 | 104 | 98 | 90 | 81 | 70 | 55 | 457 | 285 | 742 | 195 | 155 | 36 |
| AVM2-130 | 1.5 | | 115 | 113 | 106 | 98 | 89 | 77 | 58 | 475 | 285 | 760 | 195 | 155 | 37 |
| AVM2-140 | 1.5 | | 123 | 119 | 113 | 105 | 95 | 83 | 64 | 493 | 285 | 778 | 195 | 155 | 38 |
| AVM2-150 | 1.5 | | 133 | 130 | 122 | 112 | 101 | 87 | 69 | 511 | 285 | 796 | 195 | 155 | 39 |
| AVM2-160 | 2.2 | | 142 | 139 | 131 | 120 | 108 | 93 | 76 | 529 | 285 | 814 | 195 | 155 | 42 |
| AVM2-170 | 2.2 | | 153 | 148 | 139 | 128 | 115 | 100 | 83 | 547 | 285 | 832 | 195 | 155 | 43 |
| AVM2-180 | 2.2 | | 163 | 159 | 147 | 136 | 123 | 107 | 90 | 565 | 285 | 850 | 195 | 155 | 44 |
| AVM2-190 | 2.2 | | 170 | 167 | 156 | 143 | 130 | 114 | 94 | 583 | 285 | 868 | 195 | 155 | 44 |
| AVM2-200 | 2.2 | | 176 | 174 | 163 | 150 | 136 | 119 | 98 | 601 | 285 | 886 | 195 | 155 | 45 |
| AVM2-210 | 2.2 | | 185 | 182 | 171 | 157 | 142 | 124 | 101 | 619 | 285 | 904 | 195 | 155 | 45 |
| AVM2-220 | 2.2 | | 192 | 190 | 179 | 165 | 150 | 130 | 105 | 637 | 285 | 922 | 195 | 155 | 46 |
| AVM2-230 | 3 | | 201 | 198 | 187 | 173 | 157 | 137 | 111 | 665 | 325 | 990 | 215 | 180 | 52 |
| AVM2-240 | 3 | | 210 | 206 | 195 | 181 | 165 | 144 | 117 | 683 | 325 | 1008 | 215 | 180 | 53 |
| AVM2-250 | 3 | | 221 | 216 | 205 | 189 | 172 | 151 | 123 | 701 | 325 | 1026 | 215 | 180 | 54 |
| AVM2-260 | 3 | | 232 | 227 | 214 | 198 | 180 | 158 | 128 | 719 | 325 | 1044 | 215 | 180 | 54 |

PERFORMANCE CURVES:


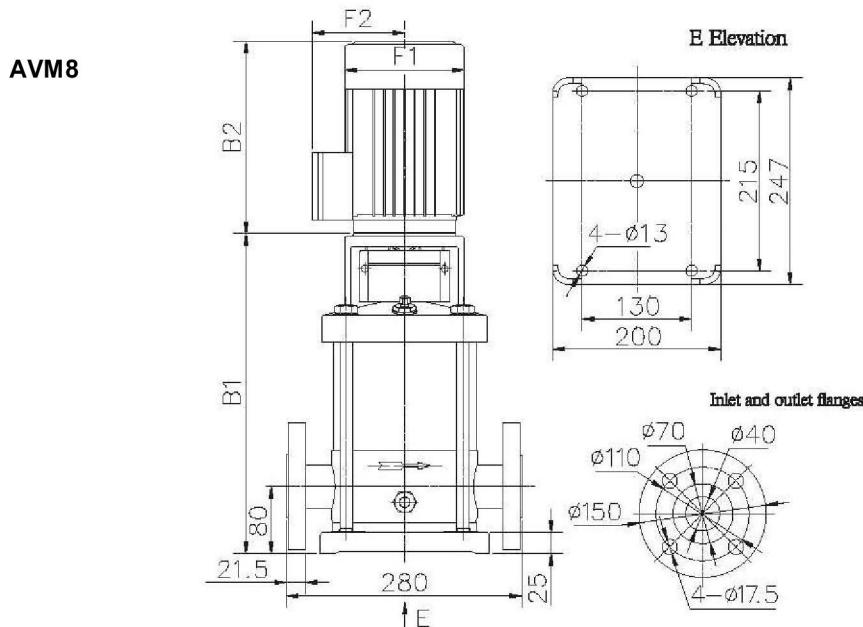
PERFORMANCE PARAMETERS AND DIMENSIONS:



| PUMP MODEL | MOTOR POWER (kW) | | CAPACITY (m ³ /h) | | | | | | SIZE (mm) | | | | | Weight (kg) |
|------------|---------------------|-------------|------------------------------|-----|-----|-----|-----|-----|-----------|-----|-------|-----|-----|----------------|
| | | | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | B1 | B2 | B1+B2 | F1 | F2 | |
| AVM4-20 | 0.37 | HEAD (m) | 18 | 16 | 15 | 13 | 11 | 9 | 275 | 240 | 515 | 145 | 140 | 23 |
| AVM4-30 | 0.55 | | 28 | 26 | 24 | 21 | 19 | 15 | 302 | 240 | 542 | 145 | 140 | 24 |
| AVM4-40 | 0.75 | | 37 | 35 | 32 | 29 | 25 | 20 | 338 | 255 | 593 | 175 | 150 | 29 |
| AVM4-50 | 1.1 | | 46 | 43 | 40 | 36 | 31 | 26 | 365 | 255 | 620 | 175 | 150 | 39 |
| AVM4-60 | 1.1 | | 56 | 52 | 48 | 43 | 37 | 30 | 392 | 255 | 647 | 175 | 150 | 40 |
| AVM4-70 | 1.5 | | 65 | 61 | 56 | 50 | 43 | 335 | 430 | 285 | 715 | 195 | 155 | 41 |
| AVM4-80 | 1.5 | | 74 | 69 | 64 | 57 | 49 | 39 | 457 | 285 | 742 | 195 | 155 | 42 |
| AVM4-90 | 2.2 | | 83 | 78 | 72 | 65 | 56 | 45 | 484 | 285 | 769 | 195 | 155 | 44 |
| AVM4-100 | 2.2 | | 92 | 88 | 81 | 72 | 61 | 50 | 511 | 285 | 796 | 195 | 155 | 45 |
| AVM4-110 | 2.2 | | 102 | 96 | 88 | 79 | 67 | 55 | 538 | 285 | 823 | 195 | 155 | 46 |
| AVM4-120 | 2.2 | | 110 | 103 | 95 | 85 | 73 | 60 | 565 | 285 | 850 | 195 | 155 | 47 |
| AVM4-130 | 3 | | 119 | 112 | 103 | 92 | 79 | 64 | 602 | 325 | 927 | 215 | 180 | 56 |
| AVM4-140 | 3 | | 128 | 121 | 112 | 100 | 86 | 69 | 629 | 325 | 954 | 215 | 180 | 57 |
| AVM4-150 | 3 | | 137 | 130 | 120 | 107 | 91 | 74 | 656 | 325 | 981 | 215 | 180 | 58 |
| AVM4-160 | 3 | | 148 | 140 | 129 | 115 | 98 | 78 | 683 | 325 | 1008 | 215 | 180 | 59 |
| AVM4-170 | 4 | | 158 | 148 | 137 | 122 | 105 | 83 | 710 | 340 | 1050 | 240 | 190 | 63 |
| AVM4-180 | 4 | | 168 | 157 | 145 | 129 | 110 | 89 | 737 | 340 | 1077 | 240 | 190 | 64 |
| AVM4-190 | 4 | | 176 | 166 | 153 | 137 | 117 | 94 | 764 | 340 | 1104 | 240 | 190 | 65 |
| AVM4-200 | 4 | | 184 | 174 | 161 | 143 | 123 | 98 | 791 | 340 | 1131 | 240 | 190 | 66 |
| AVM4-210 | 4 | | 194 | 183 | 169 | 151 | 129 | 103 | 818 | 340 | 1158 | 240 | 190 | 67 |
| AVM4-220 | 4 | | 203 | 192 | 178 | 160 | 137 | 107 | 845 | 340 | 1185 | 240 | 190 | 67 |

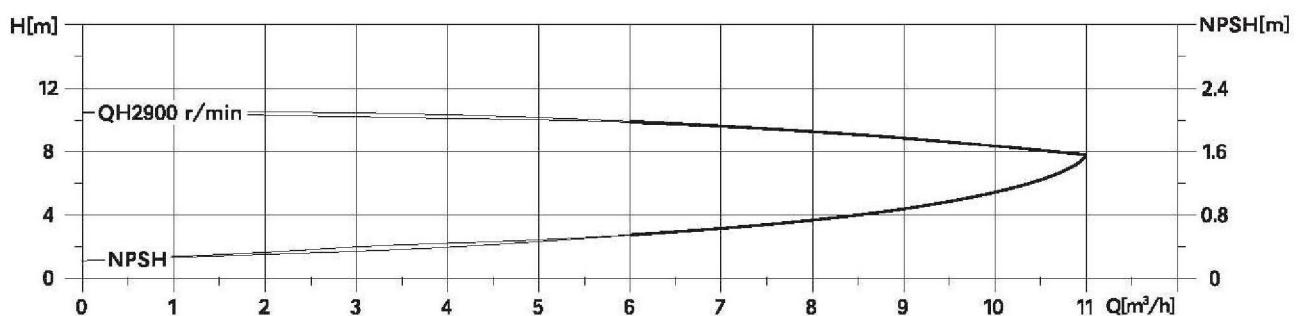
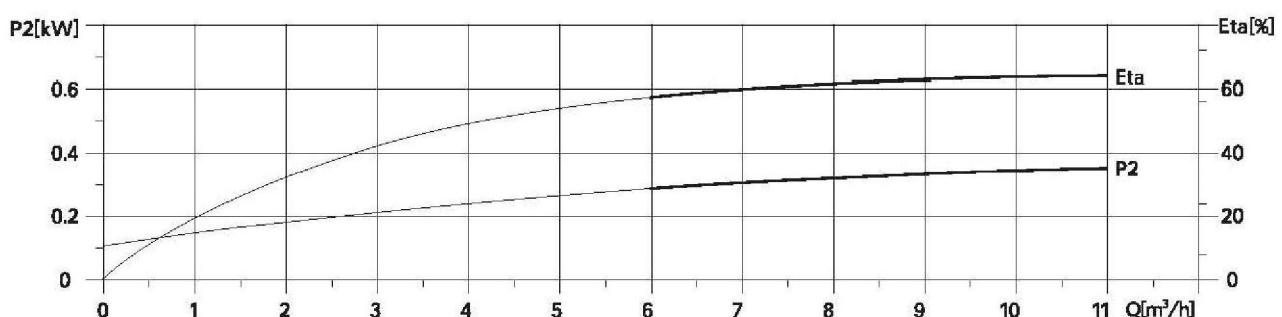
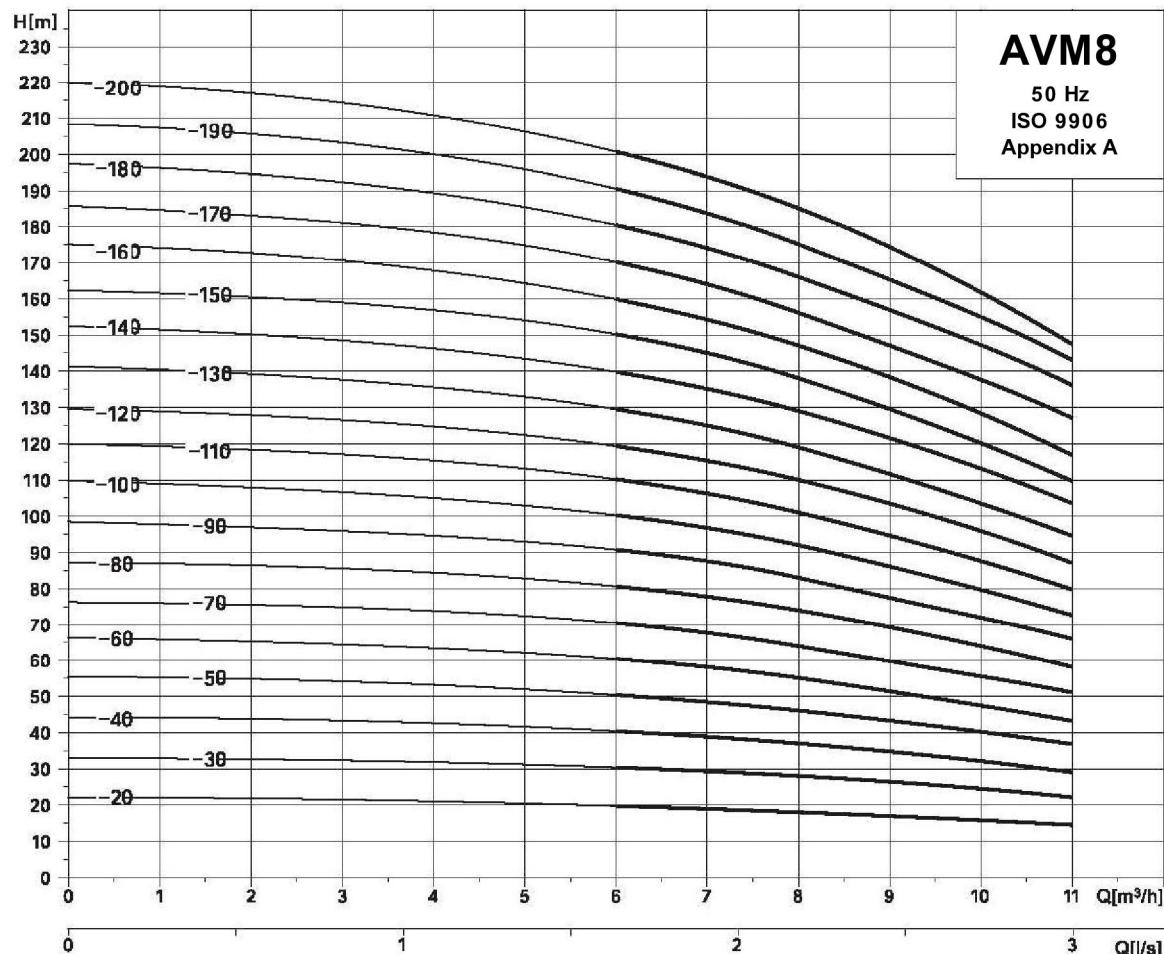
PERFORMANCE CURVES:


PERFORMANCE PARAMETERS AND DIMENSIONS:

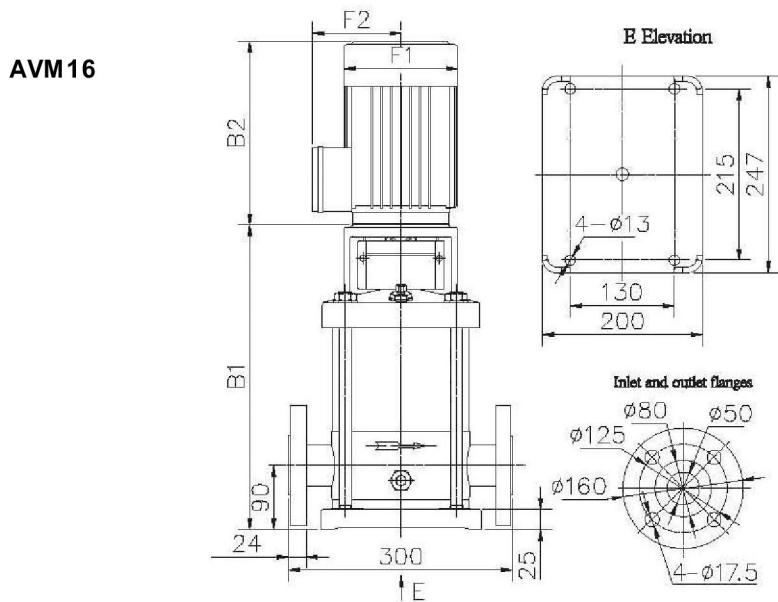


| PUMP MODEL | MOTOR POWER (kW) | HEAD (m) | CAPACITY (m ³ /h) | | | | | | SIZE (mm) | | | | | Weight (kg) |
|------------|---------------------|-------------|------------------------------|-----|-----|-----|------|------|-----------|-----|-------|-----|-----|----------------|
| | | | 6.0 | 7.0 | 8.0 | 9.0 | 10.0 | 11.0 | B1 | B2 | B1+B2 | F1 | F2 | |
| AVM8-20 | 0.75 | | 20 | 19 | 18 | 16 | 15 | 15 | 347 | 255 | 602 | 175 | 150 | 43 |
| AVM8-30 | 1.1 | | 30 | 29 | 28 | 26 | 24 | 22 | 377 | 255 | 632 | 175 | 150 | 46 |
| AVM8-40 | 1.5 | | 41 | 39 | 37 | 35 | 33 | 29 | 422 | 285 | 707 | 195 | 155 | 47 |
| AVM8-50 | 2.2 | | 50 | 49 | 46 | 43 | 40 | 37 | 452 | 285 | 737 | 195 | 155 | 51 |
| AVM8-60 | 2.2 | | 60 | 59 | 55 | 51 | 47 | 43 | 482 | 285 | 767 | 195 | 155 | 52 |
| AVM8-70 | 3 | | 70 | 68 | 64 | 60 | 55 | 51 | 517 | 325 | 842 | 215 | 180 | 64 |
| AVM8-80 | 3 | | 81 | 78 | 74 | 69 | 63 | 58 | 547 | 325 | 872 | 215 | 180 | 65 |
| AVM8-90 | 4 | | 91 | 88 | 83 | 77 | 72 | 66 | 577 | 340 | 917 | 240 | 190 | 71 |
| AVM8-100 | 4 | | 100 | 97 | 92 | 86 | 80 | 72 | 607 | 340 | 947 | 240 | 190 | 72 |
| AVM8-110 | 4 | HEAD (m) | 111 | 107 | 101 | 94 | 88 | 80 | 637 | 340 | 977 | 240 | 190 | 73 |
| AVM8-120 | 4 | | 119 | 116 | 110 | 103 | 96 | 87 | 667 | 340 | 1007 | 240 | 190 | 74 |
| AVM8-130 | 5.5 | | 130 | 125 | 119 | 111 | 103 | 94 | 717 | 390 | 1107 | 275 | 210 | 98 |
| AVM8-140 | 5.5 | | 140 | 135 | 129 | 121 | 113 | 103 | 747 | 390 | 1137 | 275 | 210 | 99 |
| AVM8-150 | 5.5 | | 150 | 145 | 138 | 129 | 120 | 110 | 777 | 390 | 1167 | 275 | 210 | 100 |
| AVM8-160 | 5.5 | | 160 | 155 | 147 | 138 | 129 | 117 | 807 | 390 | 1197 | 275 | 210 | 101 |
| AVM8-170 | 7.5 | | 170 | 164 | 156 | 147 | 137 | 127 | 837 | 390 | 1227 | 275 | 210 | 105 |
| AVM8-180 | 7.5 | | 181 | 174 | 166 | 157 | 147 | 136 | 867 | 390 | 1257 | 275 | 210 | 106 |
| AVM8-190 | 7.5 | | 191 | 184 | 175 | 165 | 155 | 143 | 897 | 390 | 1287 | 275 | 210 | 107 |
| AVM8-200 | 7.5 | | 201 | 194 | 185 | 175 | 162 | 147 | 927 | 390 | 1317 | 275 | 210 | 108 |

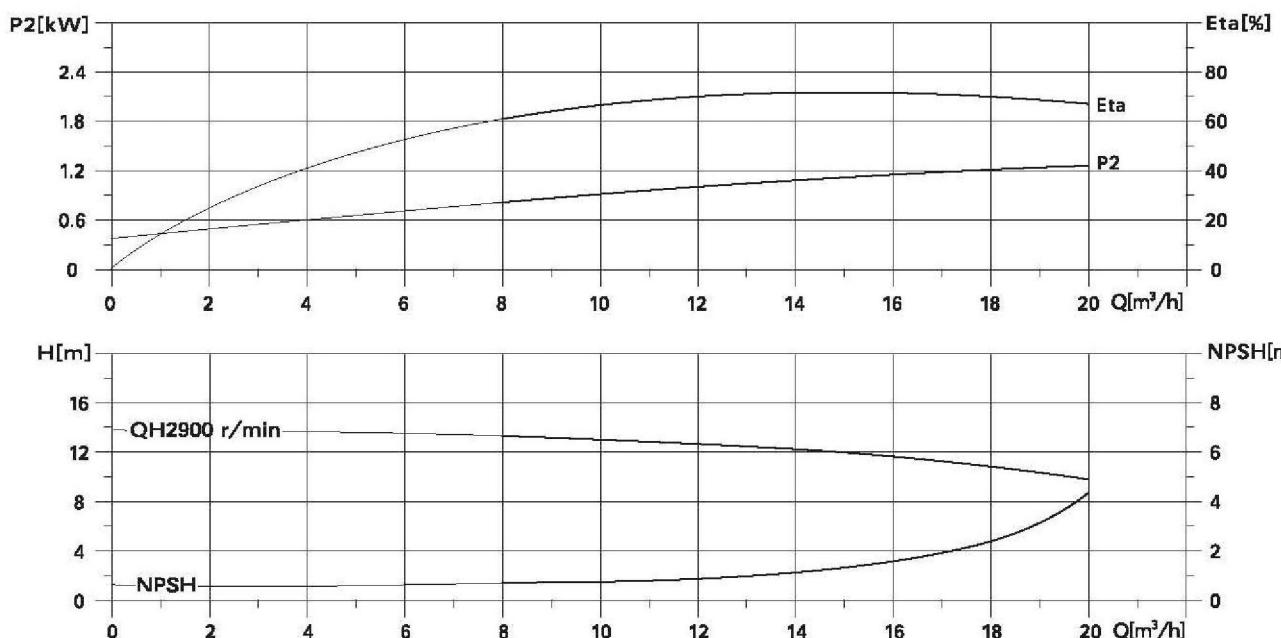
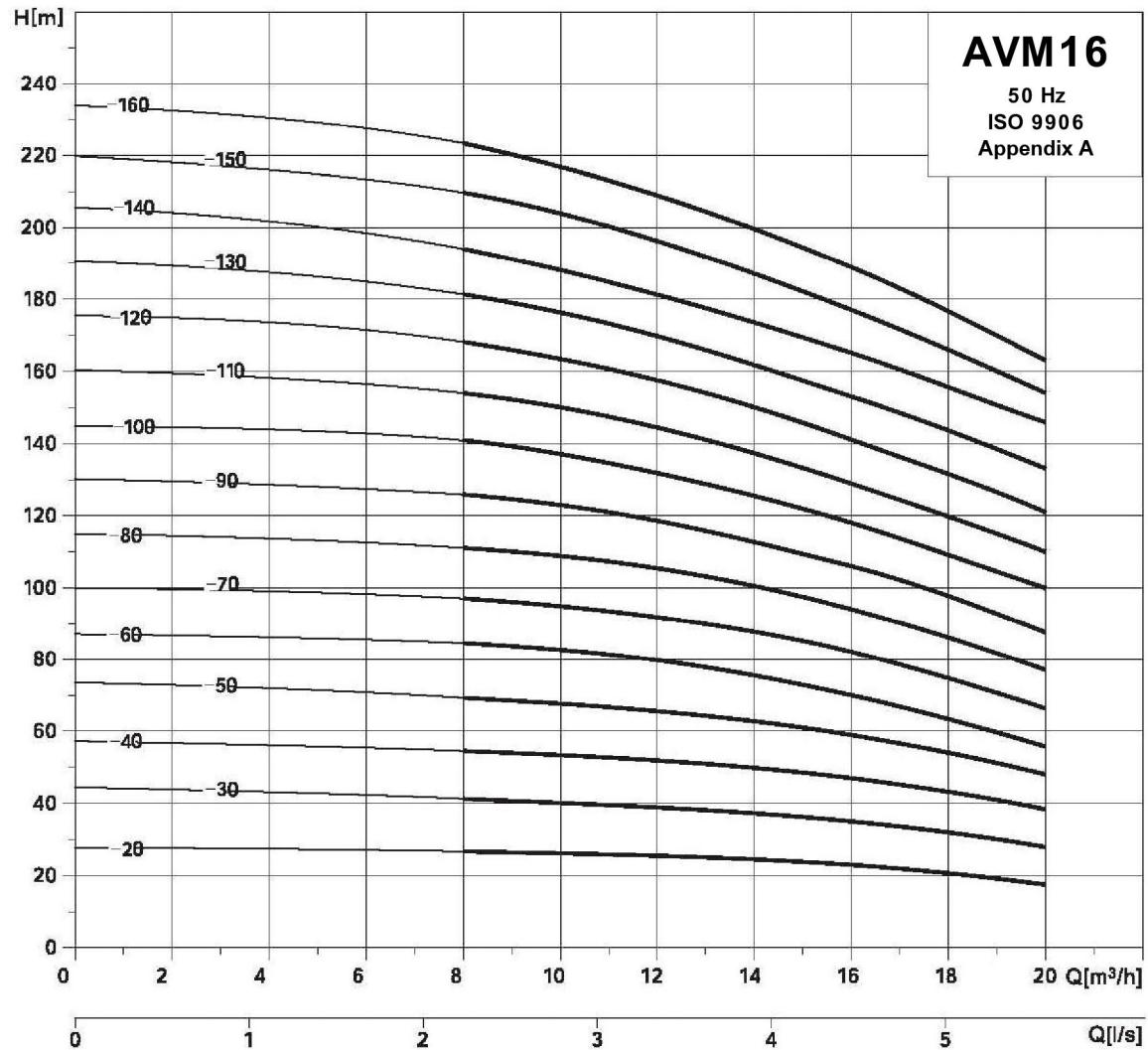
PERFORMANCE CURVES:



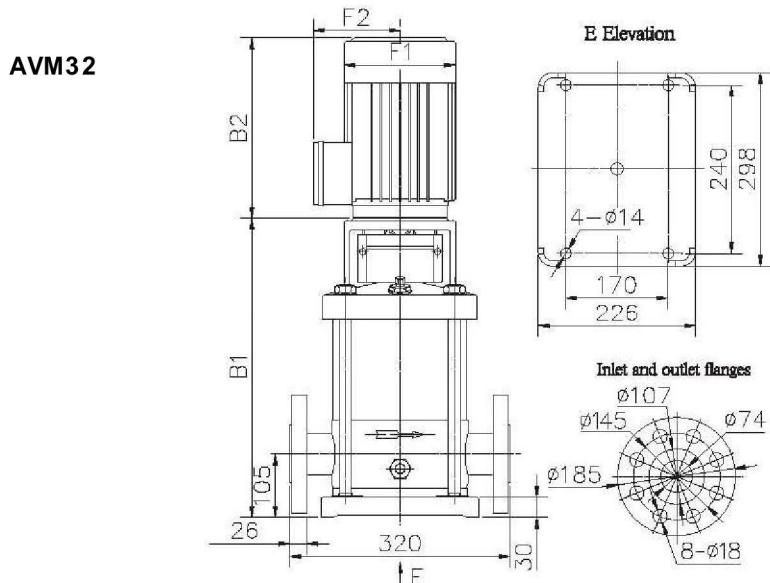
PERFORMANCE PARAMETERS AND DIMENSIONS:



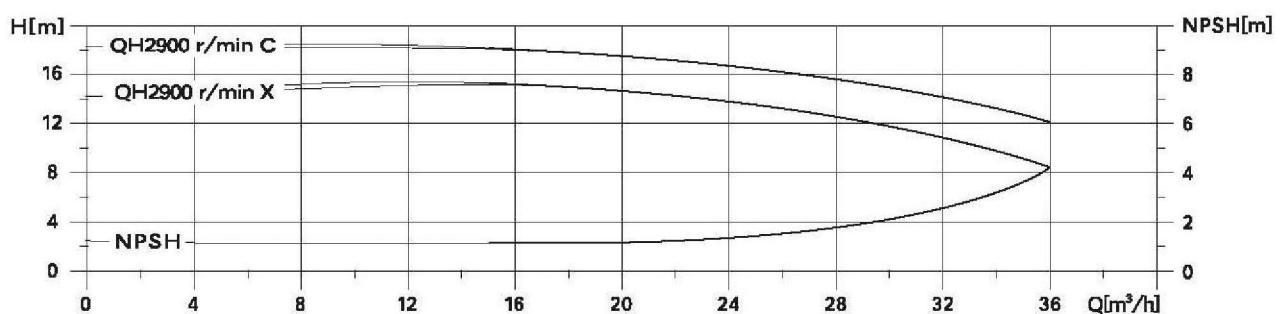
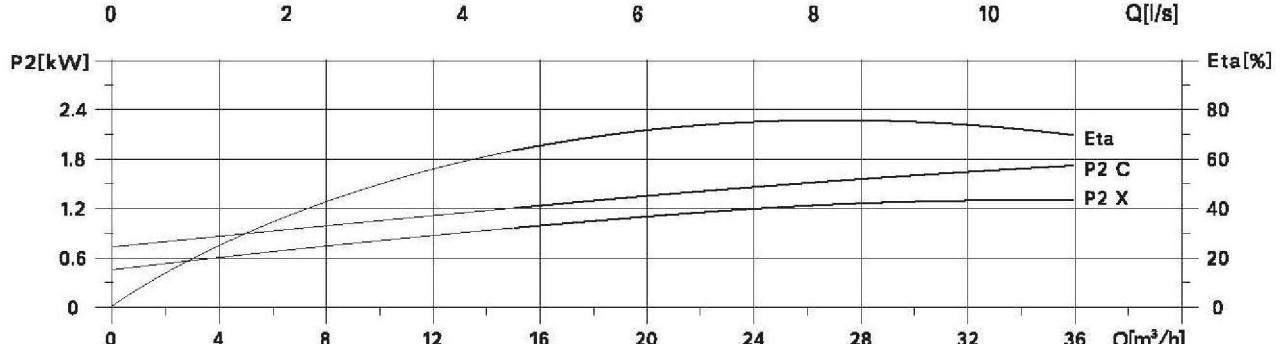
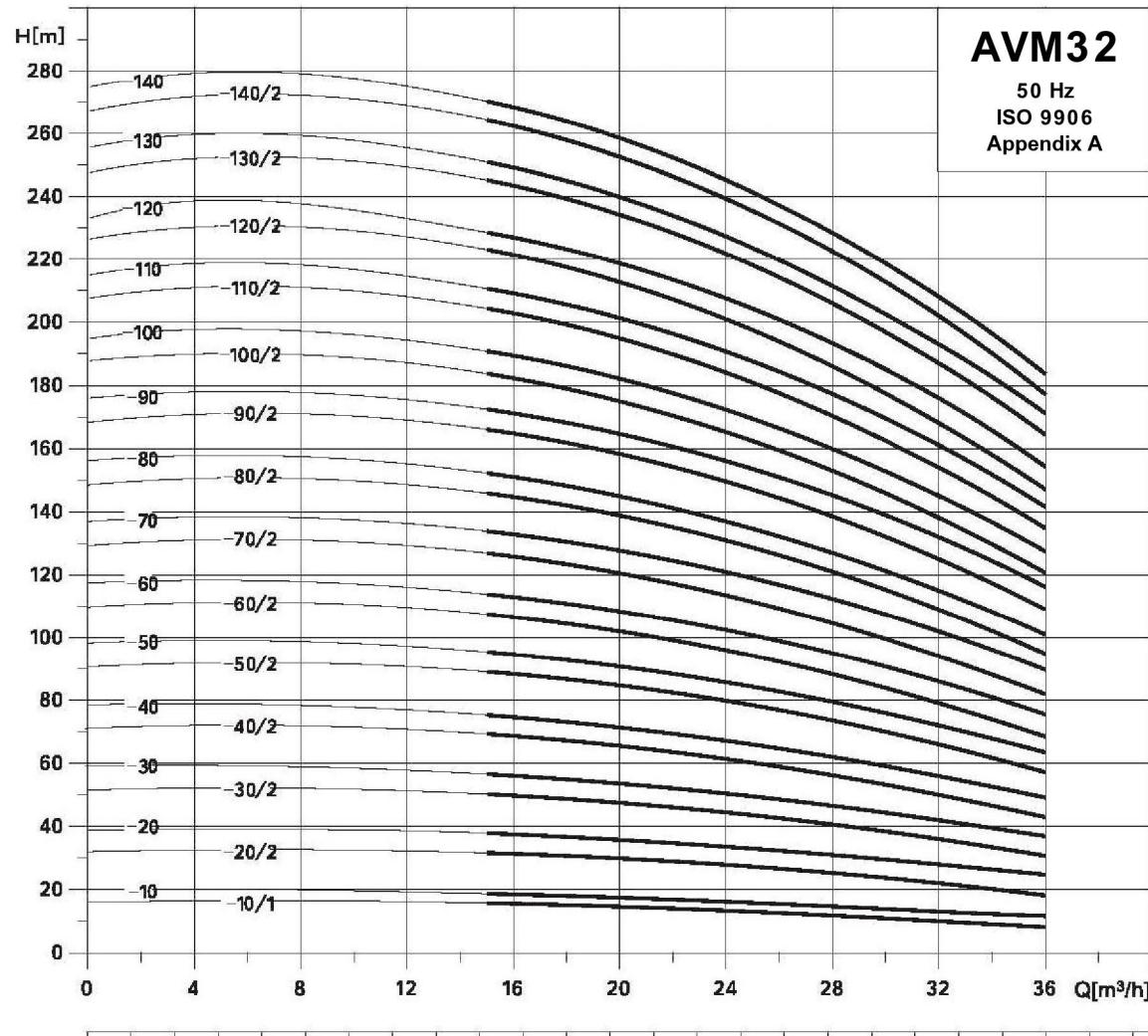
| PUMP MODEL | MOTOR POWER (kW) | CAPACITY (m ³ /h) | | | | | | | SIZE (mm) | | | | | Weight (kg) |
|------------|---------------------|------------------------------|------|------|------|------|------|------|-----------|-----|-------|-----|-----|----------------|
| | | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | B1 | B2 | B1+B2 | F1 | F2 | |
| AVM16-20 | 2.2 | 26 | 26 | 25 | 24 | 23 | 20 | 17 | 405 | 285 | 690 | 195 | 155 | 54 |
| AVM16-30 | 3 | 41 | 40 | 38 | 37 | 35 | 32 | 28 | 455 | 325 | 780 | 215 | 180 | 66 |
| AVM16-40 | 4 | 54 | 53 | 52 | 50 | 47 | 43 | 38 | 500 | 340 | 840 | 240 | 190 | 72 |
| AVM16-50 | 5.5 | 69 | 68 | 65 | 62 | 59 | 54 | 47 | 625 | 390 | 1015 | 275 | 210 | 95 |
| AVM16-60 | 5.5 | 85 | 83 | 80 | 75 | 70 | 64 | 56 | 670 | 390 | 1060 | 275 | 210 | 96 |
| AVM16-70 | 7.5 | 97 | 95 | 92 | 87 | 82 | 75 | 66 | 715 | 390 | 1105 | 275 | 210 | 101 |
| AVM16-80 | 7.5 | 111 | 109 | 105 | 100 | 94 | 86 | 77 | 760 | 390 | 1150 | 275 | 210 | 102 |
| AVM16-90 | 11 | 126 | 123 | 119 | 113 | 106 | 98 | 87 | 865 | 500 | 1365 | 315 | 250 | 158 |
| AVM16-100 | 11 | 141 | 137 | 132 | 125 | 118 | 110 | 100 | 910 | 500 | 1410 | 315 | 250 | 160 |
| AVM16-110 | 11 | 154 | 150 | 144 | 137 | 129 | 120 | 110 | 955 | 500 | 1455 | 315 | 250 | 161 |
| AVM16-120 | 11 | 168 | 164 | 158 | 150 | 141 | 132 | 121 | 1000 | 500 | 1500 | 315 | 250 | 162 |
| AVM16-130 | 15 | 182 | 177 | 170 | 162 | 153 | 144 | 133 | 1045 | 500 | 1545 | 315 | 250 | 171 |
| AVM16-140 | 15 | 195 | 188 | 182 | 173 | 165 | 155 | 146 | 1090 | 500 | 1590 | 315 | 250 | 173 |
| AVM16-150 | 15 | 210 | 204 | 196 | 187 | 177 | 166 | 154 | 1135 | 500 | 1635 | 315 | 250 | 174 |
| AVM16-160 | 15 | 224 | 217 | 209 | 199 | 189 | 177 | 164 | 1180 | 500 | 1680 | 315 | 250 | 175 |

PERFORMANCE CURVES:


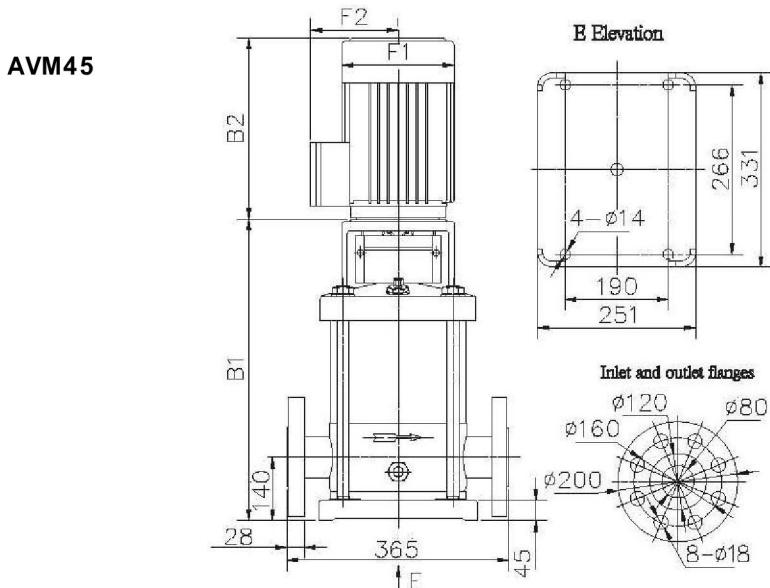
PERFORMANCE PARAMETERS AND DIMENSIONS:



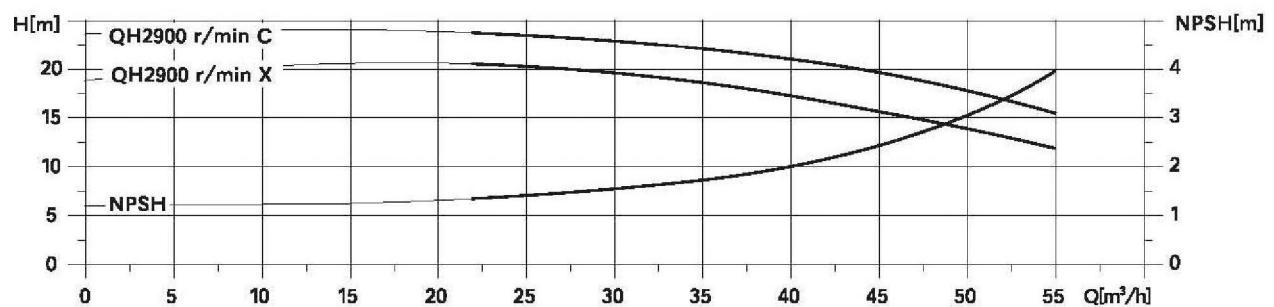
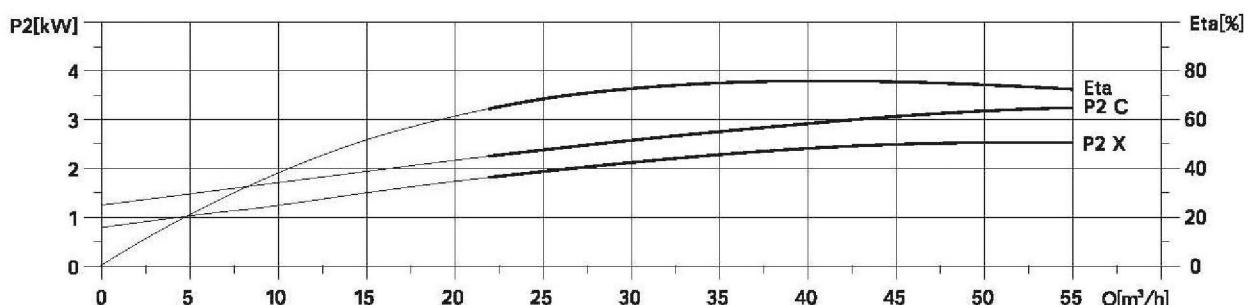
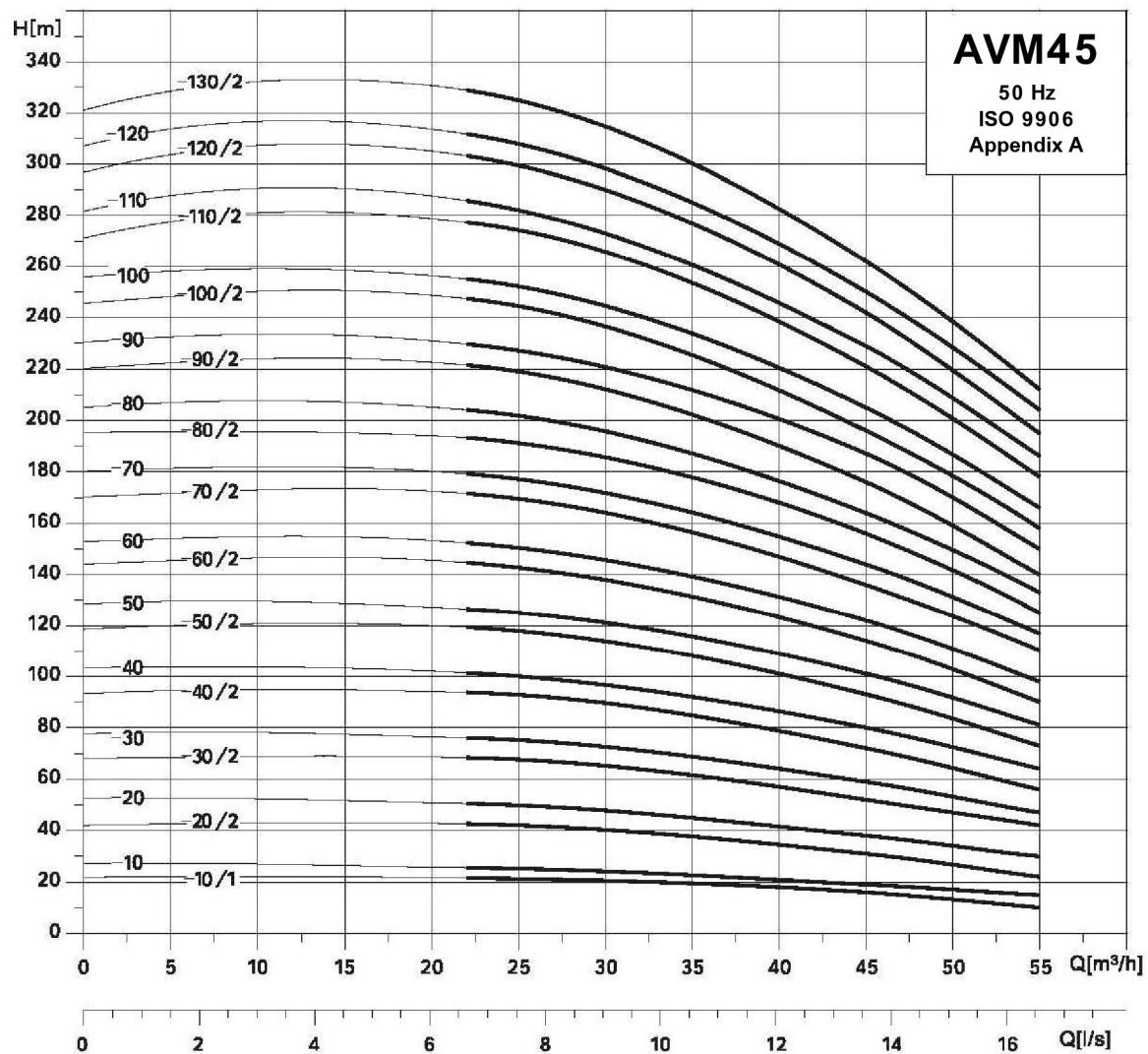
| PUMP MODEL | MOTOR POWER (kW) | CAPACITY (m ³ /h) | | | | | | | SIZE (mm) | | | | | Weight (kg) | |
|-------------|---------------------|------------------------------|------|------|------|------|------|------|-----------|------|-------|------|-----|----------------|-----|
| | | 15.0 | 16.0 | 20.0 | 24.0 | 28.0 | 32.0 | 36.0 | B1 | B2 | B1+B2 | F1 | F2 | | |
| AVM32-10/1 | 1.5 | HEAD (m) | 16 | 16 | 14 | 13 | 12 | 10 | 8 | 505 | 285 | 790 | 195 | 155 | 71 |
| AVM32-10 | 2.2 | | 19 | 18 | 17 | 16 | 14 | 13 | 12 | 505 | 285 | 790 | 195 | 155 | 74 |
| AVM32-20/2 | 3 | | 32 | 31 | 30 | 28 | 25 | 22 | 18 | 575 | 325 | 900 | 215 | 180 | 81 |
| AVM32-20 | 4 | | 38 | 37 | 36 | 34 | 31 | 28 | 24 | 575 | 340 | 915 | 240 | 190 | 88 |
| AVM32-30/2 | 5.5 | | 51 | 50 | 47 | 45 | 41 | 36 | 30 | 645 | 390 | 1035 | 275 | 210 | 104 |
| AVM32-30 | 5.5 | | 57 | 56 | 53 | 50 | 46 | 42 | 36 | 645 | 390 | 1035 | 275 | 210 | 104 |
| AVM32-40/2 | 7.5 | | 69 | 68 | 66 | 61 | 56 | 50 | 43 | 715 | 390 | 1105 | 275 | 210 | 113 |
| AVM32-40 | 7.5 | | 76 | 75 | 71 | 67 | 62 | 56 | 49 | 715 | 390 | 1105 | 275 | 210 | 113 |
| AVM32-50/2 | 11 | | 89 | 88 | 85 | 80 | 74 | 66 | 57 | 895 | 490 | 1385 | 315 | 250 | 188 |
| AVM32-50 | 11 | | 95 | 94 | 91 | 85 | 79 | 72 | 63 | 895 | 490 | 1385 | 315 | 250 | 188 |
| AVM32-60/2 | 11 | | 108 | 107 | 102 | 96 | 88 | 79 | 69 | 965 | 490 | 1455 | 315 | 250 | 190 |
| AVM32-60 | 11 | | 114 | 113 | 109 | 102 | 95 | 86 | 76 | 965 | 490 | 1455 | 315 | 250 | 191 |
| AVM32-70/2 | 15 | | 127 | 126 | 121 | 114 | 105 | 94 | 82 | 1035 | 490 | 1525 | 315 | 250 | 201 |
| AVM32-70 | 15 | | 134 | 133 | 128 | 121 | 112 | 102 | 90 | 1035 | 490 | 1525 | 315 | 250 | 201 |
| AVM32-80/2 | 15 | | 146 | 145 | 139 | 131 | 121 | 109 | 94 | 1105 | 490 | 1595 | 315 | 250 | 204 |
| AVM32-80 | 18.5 | | 152 | 151 | 145 | 137 | 127 | 115 | 101 | 1105 | 490 | 1595 | 315 | 250 | 204 |
| AVM32-90/2 | 18.5 | | 166 | 165 | 158 | 150 | 139 | 125 | 109 | 1175 | 530 | 1705 | 315 | 250 | 223 |
| AVM32-90 | 18.5 | | 173 | 171 | 165 | 157 | 145 | 132 | 117 | 1175 | 530 | 1705 | 315 | 250 | 223 |
| AVM32-100/2 | 18.5 | | 184 | 182 | 175 | 166 | 153 | 138 | 121 | 1245 | 530 | 1775 | 315 | 250 | 225 |
| AVM32-100 | 22 | | 191 | 190 | 182 | 173 | 160 | 145 | 128 | 1245 | 530 | 1775 | 315 | 250 | 225 |
| AVM32-110/2 | 22 | | 205 | 203 | 196 | 184 | 171 | 154 | 135 | 1315 | 580 | 1895 | 360 | 275 | 262 |
| AVM32-110 | 22 | | 211 | 209 | 202 | 191 | 178 | 161 | 142 | 1315 | 580 | 1895 | 360 | 275 | 262 |
| AVM32-120/2 | 22 | | 223 | 222 | 214 | 201 | 186 | 168 | 147 | 1385 | 580 | 1965 | 360 | 275 | 264 |
| AVM32-120 | 30 | | 229 | 227 | 220 | 208 | 194 | 176 | 155 | 1385 | 580 | 1965 | 360 | 275 | 264 |
| AVM32-130/2 | 30 | | 246 | 244 | 235 | 223 | 207 | 187 | 165 | 1455 | 650 | 2105 | 400 | 305 | 331 |
| AVM32-130 | 30 | | 251 | 249 | 240 | 228 | 212 | 193 | 172 | 1455 | 650 | 2105 | 400 | 305 | 331 |
| AVM32-140/2 | 30 | | 265 | 263 | 254 | 239 | 223 | 202 | 178 | 1525 | 650 | 2175 | 400 | 305 | 333 |
| AVM32-140 | 30 | | 271 | 269 | 259 | 246 | 229 | 208 | 184 | 1525 | 650 | 2175 | 400 | 305 | 333 |

PERFORMANCE CURVES:


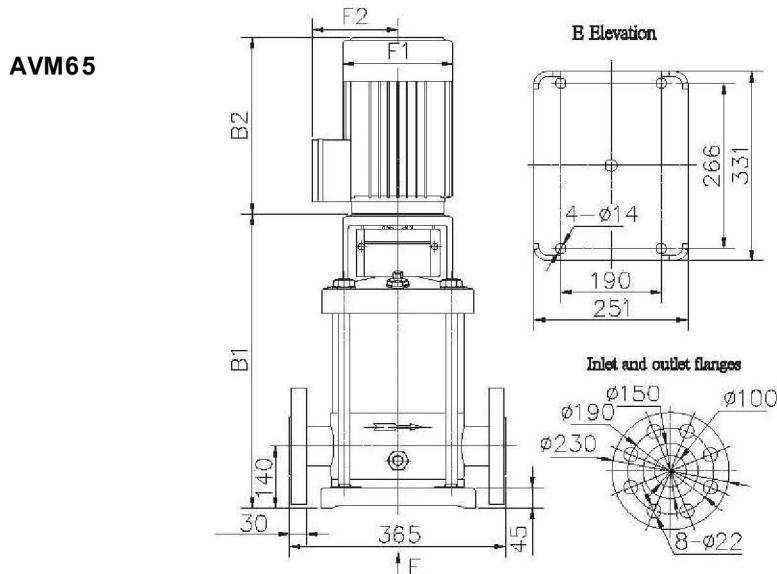
PERFORMANCE PARAMETERS AND DIMENSIONS:



| PUMP MODEL | MOTOR POWER (kW) | CAPACITY (m ³ /h) | | | | | | | | SIZE (mm) | | | | Weight (kg) | |
|-------------|---------------------|------------------------------|------|------|------|------|------|------|------|-----------|-----|-------|-----|----------------|-----|
| | | 22.0 | 25.0 | 30.0 | 35.0 | 40.0 | 45.0 | 50.0 | 55.0 | B1 | B2 | B1+B2 | F1 | F2 | |
| AVM45-10/1 | 3 | 22 | 21 | 20 | 18 | 17 | 16 | 13 | 10 | 558 | 325 | 883 | 215 | 180 | 86 |
| AVM45-10 | 4 | 26 | 25 | 24 | 22 | 21 | 19 | 17 | 15 | 558 | 340 | 898 | 240 | 190 | 92 |
| AVM45-20/2 | 5.5 | 42 | 41 | 40 | 37 | 35 | 31 | 27 | 22 | 638 | 390 | 1028 | 275 | 210 | 102 |
| AVM45-20 | 7.5 | 51 | 50 | 48 | 44 | 41 | 38 | 34 | 30 | 638 | 390 | 1028 | 275 | 210 | 107 |
| AVM45-30/2 | 11 | 68 | 67 | 65 | 61 | 56 | 52 | 47 | 40 | 828 | 490 | 1318 | 315 | 250 | 175 |
| AVM45-30 | 11 | 76 | 75 | 73 | 68 | 64 | 59 | 53 | 47 | 828 | 490 | 1318 | 315 | 250 | 175 |
| AVM45-40/2 | 15 | 93 | 92 | 90 | 85 | 79 | 72 | 64 | 56 | 908 | 490 | 1398 | 315 | 250 | 187 |
| AVM45-40 | 15 | 101 | 100 | 97 | 92 | 87 | 80 | 73 | 64 | 908 | 490 | 1398 | 315 | 250 | 187 |
| AVM45-50/2 | 18.5 | 119 | 118 | 114 | 108 | 101 | 93 | 83 | 73 | 988 | 530 | 1518 | 315 | 250 | 208 |
| AVM45-50 | 18.5 | 127 | 126 | 121 | 116 | 110 | 101 | 92 | 81 | 988 | 530 | 1518 | 315 | 250 | 208 |
| AVM45-60/2 | 22 | 144 | 143 | 138 | 131 | 124 | 114 | 103 | 90 | 1068 | 580 | 1648 | 360 | 275 | 251 |
| AVM45-60 | 22 | 152 | 151 | 146 | 140 | 132 | 122 | 112 | 98 | 1068 | 580 | 1648 | 360 | 275 | 251 |
| AVM45-70/2 | 30 | 171 | 169 | 165 | 156 | 147 | 136 | 124 | 111 | 1148 | 650 | 1798 | 400 | 305 | 315 |
| AVM45-70 | 30 | 179 | 178 | 172 | 164 | 155 | 144 | 132 | 117 | 1148 | 650 | 1798 | 400 | 305 | 315 |
| AVM45-80/2 | 30 | 193 | 191 | 185 | 178 | 168 | 156 | 142 | 125 | 1228 | 650 | 1878 | 400 | 305 | 319 |
| AVM45-80 | 30 | 204 | 202 | 196 | 188 | 177 | 164 | 150 | 133 | 1228 | 650 | 1878 | 400 | 305 | 319 |
| AVM45-90/2 | 30 | 221 | 219 | 213 | 203 | 190 | 176 | 159 | 140 | 1308 | 650 | 1958 | 400 | 305 | 323 |
| AVM45-90 | 37 | 230 | 228 | 221 | 211 | 200 | 187 | 170 | 150 | 1308 | 650 | 1958 | 400 | 305 | 343 |
| AVM45-100/2 | 37 | 247 | 245 | 236 | 226 | 213 | 196 | 178 | 158 | 1388 | 650 | 2038 | 400 | 305 | 347 |
| AVM45-100 | 37 | 255 | 253 | 245 | 234 | 220 | 205 | 187 | 166 | 1388 | 650 | 2038 | 400 | 305 | 347 |
| AVM45-110/2 | 45 | 278 | 274 | 266 | 254 | 239 | 221 | 201 | 178 | 1468 | 695 | 2163 | 450 | 325 | 413 |
| AVM45-110 | 45 | 286 | 283 | 273 | 260 | 246 | 229 | 209 | 186 | 1468 | 695 | 2163 | 450 | 325 | 413 |
| AVM45-120/2 | 45 | 304 | 300 | 291 | 278 | 261 | 242 | 220 | 195 | 1556 | 695 | 2251 | 450 | 325 | 417 |
| AVM45-120 | 45 | 312 | 308 | 298 | 285 | 270 | 250 | 228 | 204 | 1556 | 695 | 2251 | 450 | 325 | 417 |
| AVM45-130/2 | 45 | 330 | 325 | 316 | 300 | 283 | 262 | 239 | 212 | 1636 | 695 | 2331 | 450 | 325 | 421 |

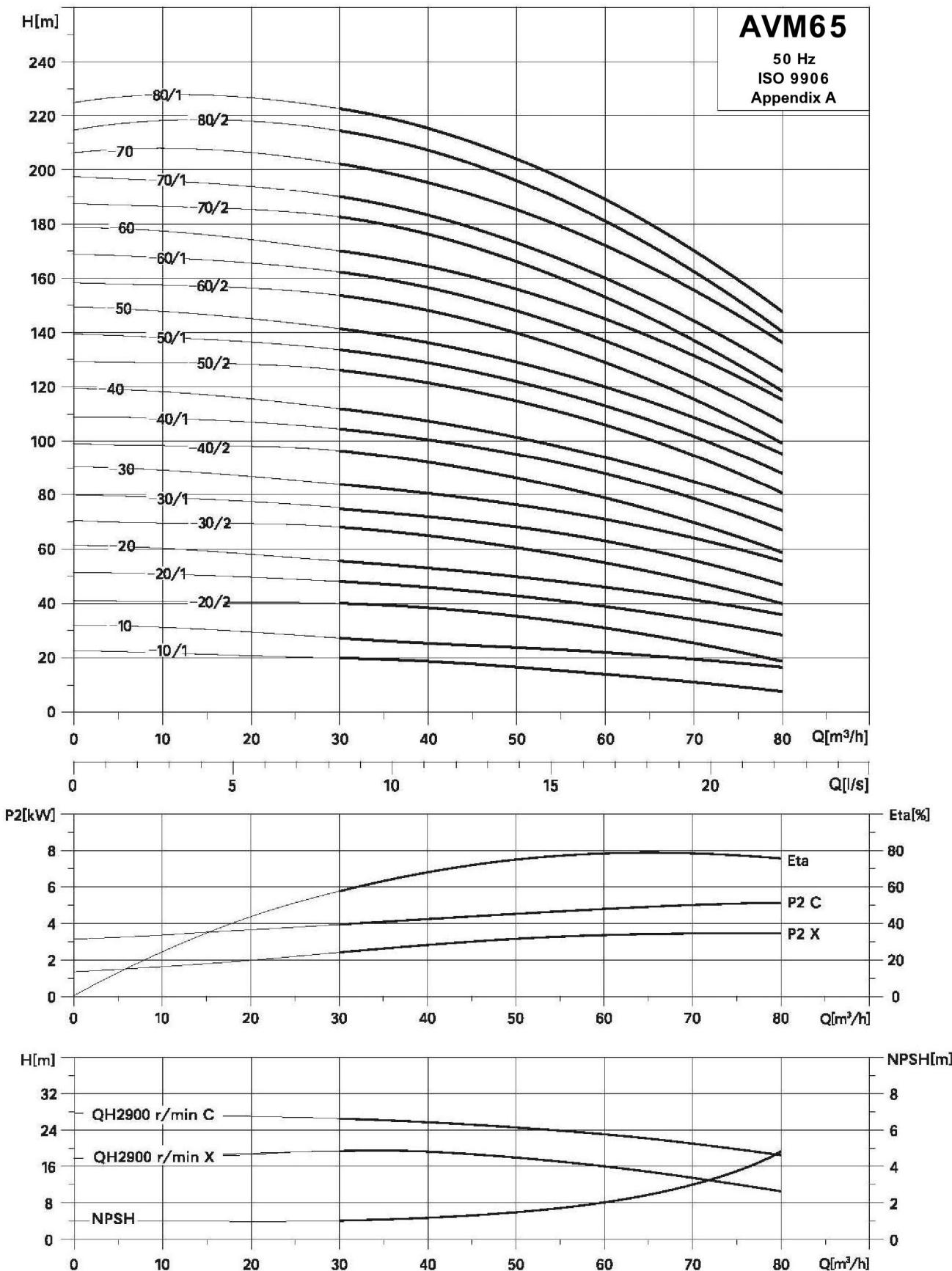
PERFORMANCE CURVES:


PERFORMANCE PARAMETERS AND DIMENSIONS:

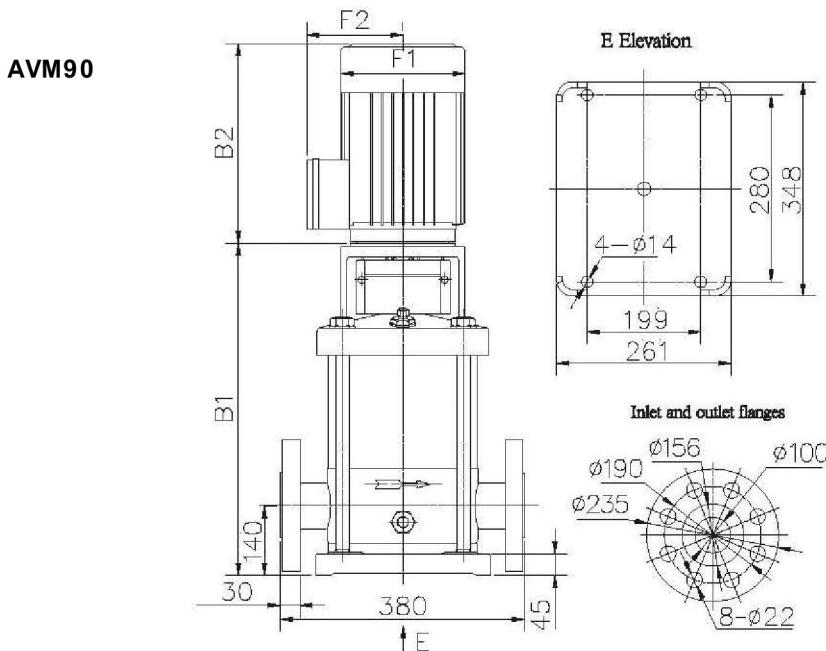


| PUMP MODEL | MOTOR POWER (kW) | CAPACITY (m³/h) | | | | | | SIZE (mm) | | | | Weight (kg) |
|------------|---------------------|-----------------|------|------|------|------|------|-----------|-----|-------|-----|----------------|
| | | 30.0 | 40.0 | 50.0 | 60.0 | 70.0 | 80.0 | B1 | B2 | B1+B2 | F1 | |
| AVM65-10/1 | 4 | 20 | 19 | 16 | 14 | 12 | 8 | 561 | 340 | 901 | 240 | 190 |
| AVM65-10 | 5.5 | 27 | 25 | 24 | 22 | 19 | 16 | 561 | 390 | 951 | 275 | 210 |
| AVM65-20/2 | 7.5 | 40 | 38 | 36 | 31 | 26 | 18 | 754 | 390 | 1144 | 275 | 210 |
| AVM65-20/1 | 11 | 48 | 46 | 43 | 39 | 34 | 28 | 754 | 490 | 1244 | 315 | 250 |
| AVM65-20 | 11 | 55 | 53 | 49 | 46 | 42 | 36 | 754 | 490 | 1244 | 315 | 250 |
| AVM65-30/2 | 15 | 68 | 65 | 61 | 55 | 48 | 40 | 836 | 490 | 1326 | 315 | 250 |
| AVM65-30/1 | 15 | 75 | 72 | 68 | 63 | 56 | 47 | 836 | 490 | 1326 | 315 | 250 |
| AVM65-30 | 18.5 | 84 | 81 | 76 | 71 | 63 | 56 | 836 | 530 | 1366 | 315 | 250 |
| AVM65-40/2 | 18.5 | 96 | 92 | 86 | 79 | 71 | 59 | 919 | 530 | 1449 | 315 | 250 |
| AVM65-40/1 | 22 | 104 | 100 | 95 | 88 | 78 | 67 | 919 | 580 | 1499 | 360 | 275 |
| AVM65-40 | 22 | 112 | 107 | 102 | 94 | 85 | 75 | 919 | 580 | 1499 | 360 | 275 |
| AVM65-50/2 | 30 | 126 | 122 | 115 | 106 | 94 | 81 | 1001 | 650 | 1651 | 400 | 305 |
| AVM65-50/1 | 30 | 134 | 129 | 122 | 113 | 102 | 88 | 1001 | 650 | 1651 | 400 | 305 |
| AVM65-50 | 30 | 141 | 136 | 129 | 120 | 108 | 96 | 1001 | 650 | 1651 | 400 | 305 |
| AVM65-60/2 | 30 | 154 | 148 | 140 | 129 | 116 | 99 | 1084 | 650 | 1734 | 400 | 305 |
| AVM65-60/1 | 37 | 163 | 156 | 148 | 137 | 123 | 107 | 1084 | 650 | 1734 | 400 | 305 |
| AVM65-60 | 37 | 170 | 164 | 155 | 145 | 131 | 115 | 1084 | 650 | 1734 | 400 | 305 |
| AVM65-70/2 | 37 | 182 | 176 | 166 | 153 | 137 | 118 | 1166 | 650 | 1816 | 400 | 305 |
| AVM65-70/1 | 37 | 190 | 184 | 173 | 160 | 144 | 126 | 1166 | 650 | 1816 | 400 | 305 |
| AVM65-70 | 45 | 202 | 195 | 185 | 172 | 155 | 136 | 1166 | 695 | 1861 | 450 | 325 |
| AVM65-80/2 | 45 | 214 | 207 | 196 | 181 | 162 | 140 | 1248 | 695 | 1943 | 450 | 325 |
| AVM65-80/1 | 45 | 223 | 215 | 203 | 189 | 170 | 147 | 1248 | 695 | 1943 | 450 | 325 |
| | | | | | | | | | | | | 440 |

PERFORMANCE CURVES:



PERFORMANCE PARAMETERS AND DIMENSIONS:



| PUMP MODEL | MOTOR POWER (kW) | | CAPACITY (m ³ /h) | | | | | | | | SIZE (mm) | | | | Weight (kg) | |
|------------|---------------------|-------------|------------------------------|------|------|------|------|------|-------|-------|-----------|-----|-------|-----|----------------|-----|
| | | | 45.0 | 50.0 | 60.0 | 70.0 | 80.0 | 90.0 | 100.0 | 110.0 | B1 | B2 | B1+B2 | F1 | F2 | |
| AVM90-10/1 | 5.5 | HEAD (m) | 22 | 21 | 20 | 18 | 16 | 14 | 11 | 7 | 571 | 390 | 961 | 275 | 210 | 120 |
| AVM90-10 | 7.5 | | 29 | 29 | 27 | 24 | 22 | 20 | 18 | 14 | 571 | 390 | 961 | 275 | 210 | 122 |
| AVM90-20/2 | 11 | | 44 | 43 | 41 | 38 | 35 | 30 | 24 | 17 | 773 | 490 | 1263 | 315 | 250 | 165 |
| AVM90-20 | 15 | | 58 | 56 | 55 | 51 | 47 | 43 | 38 | 32 | 773 | 490 | 1263 | 315 | 250 | 198 |
| AVM90-30/2 | 18.5 | | 73 | 72 | 68 | 64 | 58 | 52 | 44 | 35 | 865 | 530 | 1395 | 315 | 250 | 212 |
| AVM90-30 | 22 | | 87 | 85 | 81 | 76 | 71 | 65 | 58 | 51 | 865 | 580 | 1445 | 360 | 275 | 265 |
| AVM90-40/2 | 30 | | 102 | 100 | 96 | 90 | 84 | 76 | 66 | 55 | 957 | 650 | 1607 | 400 | 305 | 348 |
| AVM90-40 | 30 | | 116 | 113 | 108 | 101 | 95 | 88 | 80 | 70 | 957 | 650 | 1607 | 400 | 305 | 348 |
| AVM90-50/2 | 37 | | 132 | 130 | 124 | 117 | 109 | 98 | 86 | 73 | 1049 | 650 | 1699 | 400 | 305 | 375 |
| AVM90-50 | 37 | | 148 | 144 | 137 | 129 | 121 | 112 | 100 | 88 | 1049 | 650 | 1699 | 400 | 305 | 375 |
| AVM90-60/2 | 45 | | 165 | 161 | 154 | 145 | 135 | 123 | 109 | 92 | 1141 | 695 | 1836 | 450 | 325 | 438 |
| AVM90-60 | 45 | | 179 | 175 | 166 | 157 | 147 | 136 | 123 | 107 | 1141 | 695 | 1836 | 450 | 325 | 438 |

PERFORMANCE CURVES:

