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The advertisement for Hanthing Water pumps features a blue and white color scheme. On the left is the Hanthing logo, a stylized blue 'S' shape above the word 'Hanthing' in blue. To the right of the logo is a collage of images showing various pump models and components. A large, diagonal yellow banner with the text 'Water pump' in blue runs across the center. To the right of the banner, four pump types are listed in white text on blue rectangular backgrounds: 'Inline', 'Split case', 'Multi stage', and 'End suction'. At the bottom, the website 'www.hanthing.com' is displayed in white text on a blue background.

**Hanthing**

**Water pump**

Inline  
Split case  
Multi stage  
End suction

[www.hanthing.com](http://www.hanthing.com)



The advertisement for Exthin Air Compressors features a black and yellow color scheme. On the left is the Exthin logo, which consists of a stylized yellow 'X' shape above the word 'Exthin' in yellow. To the right of the logo is a collage of images showing various compressor models and components. A large, diagonal yellow banner with the text 'Air Compressor' in black runs across the center. To the right of the banner, three compressor types are listed in yellow text on black rectangular backgrounds: 'Portable', 'Screw', and 'Piston'. At the bottom right, there is a detailed image of a large industrial air compressor unit. At the bottom, the website 'www.exthin.com' is displayed in white text on a black background.

**Exthin**

**Air Compressor**

Portable  
Screw  
Piston

[www.exthin.com](http://www.exthin.com)

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国家产品质量免检 | 中国著名品牌

# CDM/F立式多级泵

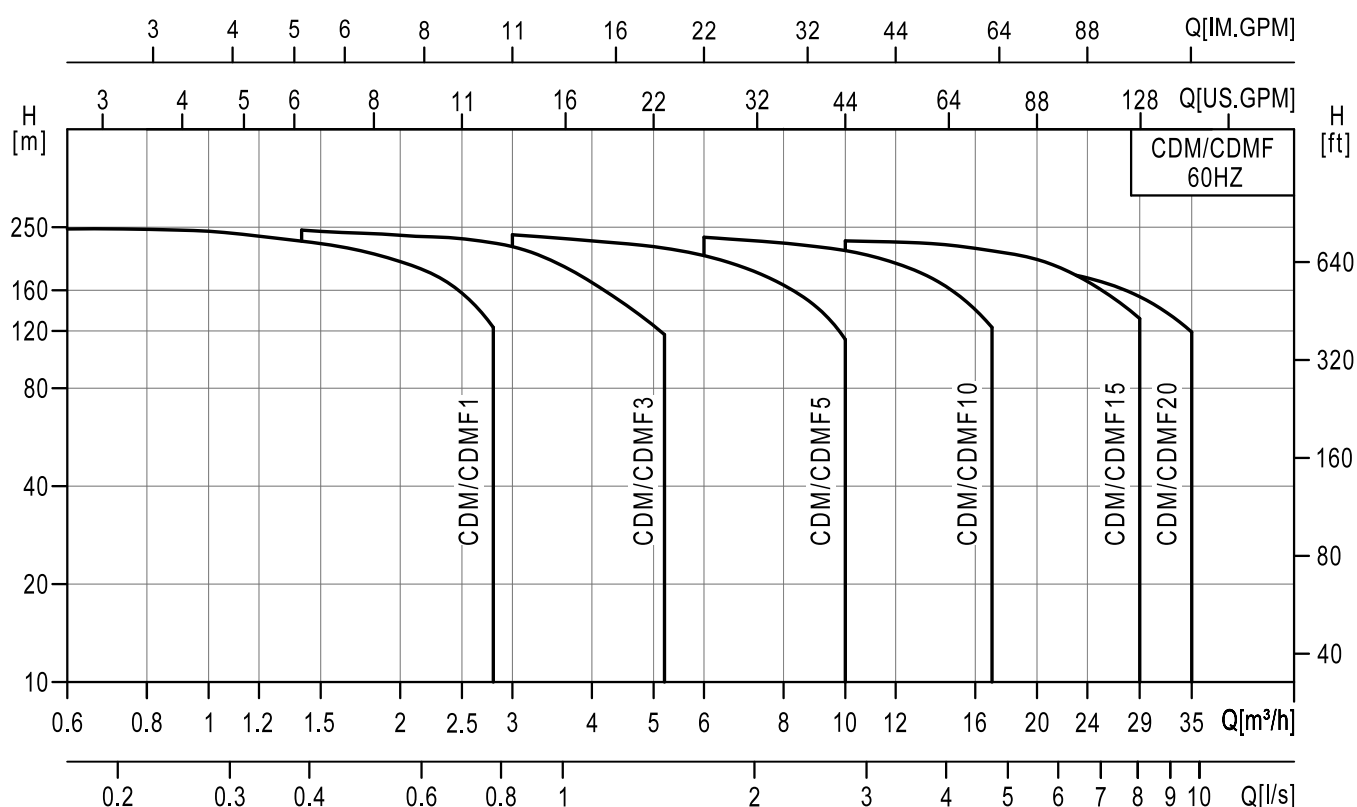
CDM/F Series Vertical Multi-stage Pump



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## Performance scope



## Product range

| Description         |                       | CDM/CDMF   |           |           |           |           |           |
|---------------------|-----------------------|------------|-----------|-----------|-----------|-----------|-----------|
| Rated flow [m³/h]   |                       | 1          | 3         | 5         | 10        | 15        | 20        |
| Rated flow [l/s]    |                       | 0.28       | 0.83      | 1.39      | 2.78      | 4.17      | 5.56      |
| Flow range [m³/h]   |                       | 0.6~2.8    | 1.4~5.2   | 3~10      | 6~17      | 10~29     | 13~35     |
| Flow range [l/s]    |                       | 0.17~0.78  | 0.39~1.44 | 0.83~2.78 | 1.67~4.72 | 2.78~8.06 | 3.61~9.72 |
| Max. pressure [bar] |                       | 25         | 25        | 24        | 24        | 23        | 20        |
| Motor power [kW]    |                       | 0.37~3     | 0.37~4    | 0.55~5.5  | 0.75~11   | 1.5~18.5  | 2.2~18.5  |
| Temp [°C]           |                       | -15 ~ +120 |           |           |           |           |           |
| Max. efficiency [%] |                       | 49         | 59        | 70        | 72        | 73        | 73        |
| CDM Pipelines       | DIN flange            | DN25       | DN25      | DN32      | DN40      | DN50      | DN50      |
|                     | Oval flange           | G1         | G1        | G1¼       | G1½       |           |           |
| CDMF Pipelines      | DIN flange            | DN25       | DN25      | DN32      | DN40      | DN50      | DN50      |
|                     | Cutting ferrule joint | DN32       | DN32      | DN32      | DN50      | DN50      | DN50      |
|                     | Pipe thread           | R1¼        | R1¼       | R1¼       | R2        | R2        | R2        |
|                     | Oval flange           | G1         | G1        | G1¼       | G1½       |           |           |



## Summary

CDM/CDMF pumps are new generation, high efficiency, non-self-priming vertical multistage centrifugal pumps (Abbr. as pumps). It referred to European standard, adopted entirely new industrial design, efficiency achieved  $MEI \geq 0.7$ . It is energy saving, low noise, environment friendly, compact design, beautiful shape, light weight, easy for service, high reliability.

## Motor

Totally enclosed, fan cooled, 2 pole standard motor

IP class: IP55

Insulation class: F

Voltage: 60Hz: 3×200-230/346-400V

3×220-255/380-440V

3×220-277/380-480V

## Working conditions

Thin, clean, non-flammable, non-explosive, solid free, fiber free, physically and chemically water-like liquid.

Liquid temperature:

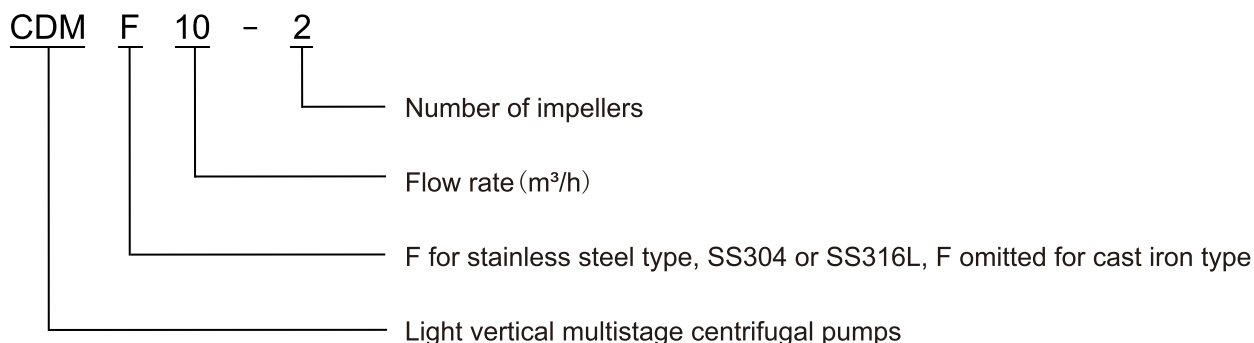
Normal temperature type:  $-15^{\circ}\text{C}$  to  $70^{\circ}\text{C}$

Hot water type:  $-15^{\circ}\text{C}$  to  $120^{\circ}\text{C}$

Ambient temperature: up to  $+40^{\circ}\text{C}$

Altitude: up to 1000m

## Model definition



## Applications

CDM/CDMF pumps are designed for a variety of applications from the pumping of potable water to the pumping of industrial liquids. Applied for liquids of different temperature, different rated flow, different pressure range. CDM is suitable for non-corrosive liquid, CDMF is suitable for light corrosive liquid.

Boosting: Filtering and transferring water in water factories, delivering water in different zone, pressurizing for major pipelines, boosting for high buildings.

Industrial boosting: process water system, cleaning system, high pressure washing system, fire-fighting system.

Industrial liquid conveying: cooling and air conditioning systems, boiler feed and condensate systems, machine matching, acid and alkali.

HVAC: Air conditioning system

Water treatment: Ultrafiltration system, R/O system, distillation system, separator, swimming pool.

## Performance curve

Following conditions are suitable for the performance curves shown below.

1. All curves are based on the measured values of 60Hz: constant motor speed 3500rpm.

2. Curve tolerance in conformity to ISO9906:2012 Grade 3B.

3. Measurement is done with  $20^{\circ}\text{C}$  air-free water, kinematic viscosity of  $1 \text{ mm}^2/\text{sec}$ .

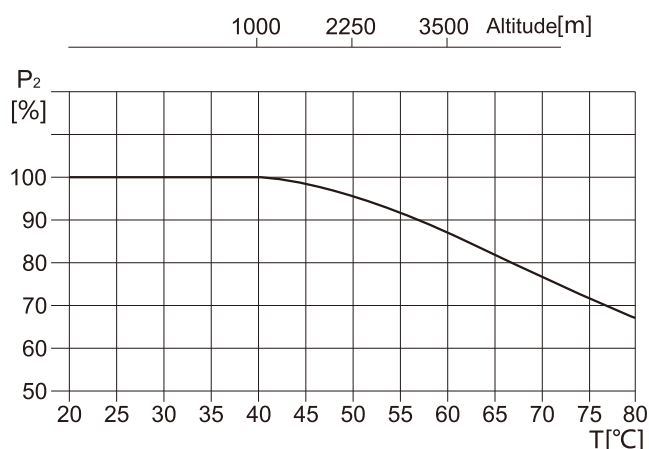
4. The operation of pump shall refer to the performance region indicated by the thickened curve to prevent overheating due to too small flow rate or overload of motor due to too large flow rate.

## Max. working pressure

| Model                                                       | Max working(bar) |
|-------------------------------------------------------------|------------------|
| CDM/CDMF1,3,5,10,15,20 Flange, cutting ferrule, pipe thread | 25               |
| CDM/CDMF1,3,5,10 oval flange                                | 16               |

## Max. ambient temperature, altitude above sea level

When pumps working in the condition of higher than 40°C or higher than 1000m altitude, because the air density lessened, cooling performance is reduced, motor output power  $P_2$  is reduced also. The motor power shall be enlarged in those working conditions.



## Min. inlet pressure

In case that the pressure in pump is lower than the steam pressure used to convey liquid, the cavitations will occur. To avoid cavitations, a minimum pressure at the inlet side of the pump shall be guaranteed. The maximum suction stroke can be calculated with following formula:

$$H = P_b \times 10.2 - \text{NPSH} - H_f - H_v - H_s$$

$P_b$  = Barometric pressure in bar.

(Barometric pressure can be set to 1 bar).

In a closed system,  $P_b$  means system pressure [bar].

NPSH = Net Positive Suction Head [m].

(It can be read from the point of possible max. flow rate shown on NPSH curve.)

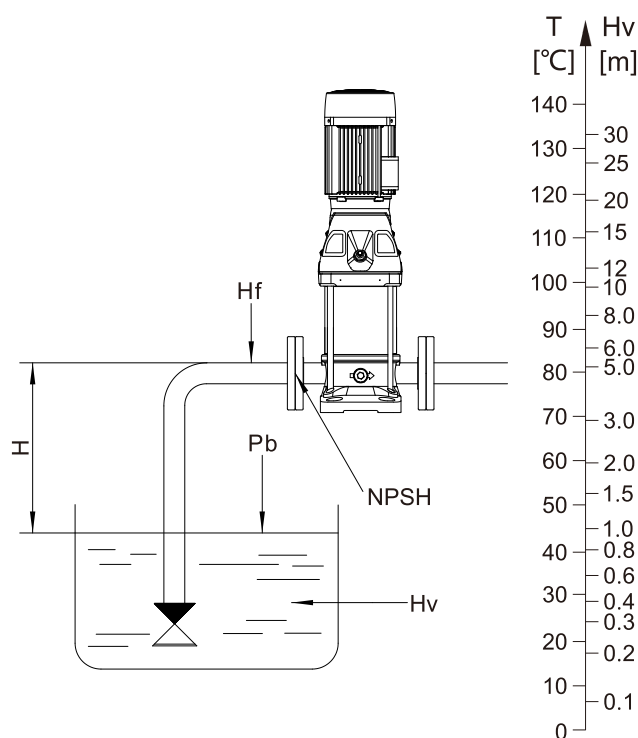
$H_f$  = Pipe friction loss at the inlet[m].

$H_v$  = Vapour pressure [m].

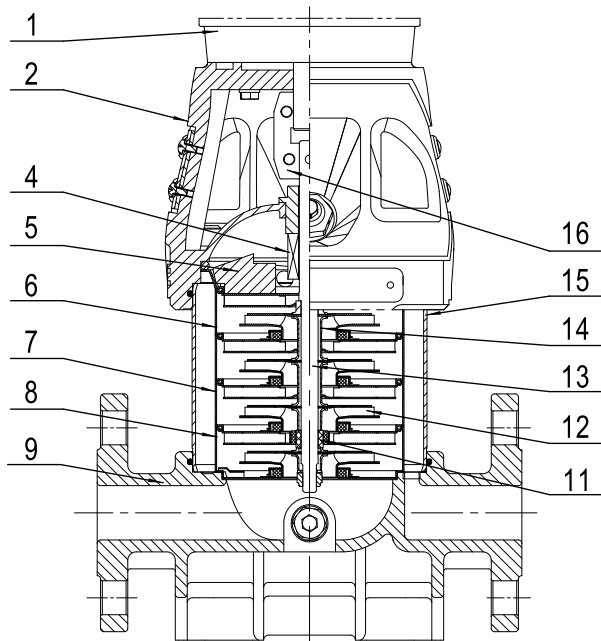
$H_s$  = Safety margin = minimum 0.5 meters head.

If the "H" calculated is positive, the pump may run under the max. suction stroke H.

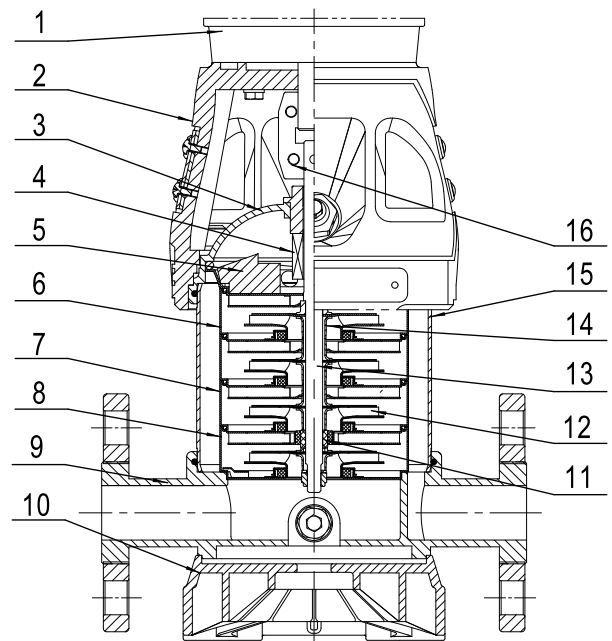
If the "H" calculated is negative, A head of minimum inlet pressure H is required.



## CDM/CDMF1,3,5 Sectional drawing



CDM



CDMF

### CDM1,3,5 Material list

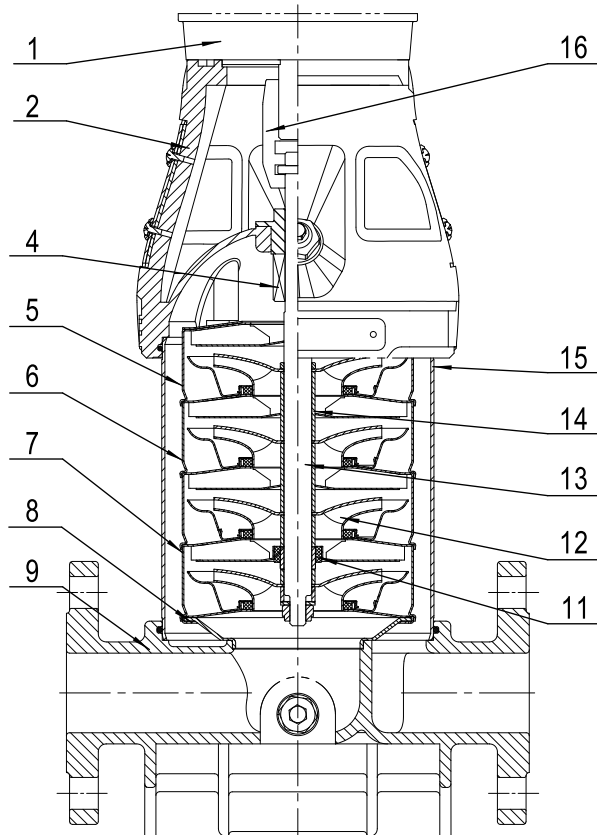
| Pos. | Name                   | Materials                       | AISI/ASTM |
|------|------------------------|---------------------------------|-----------|
| 1    | Motor                  |                                 |           |
| 2    | Pump head              | Cast iron                       | ASTM25B   |
| 4    | Mechanical seal        | Tungsten carbide /Carbon        |           |
| 5    | Top diffuser           | Stainless steel                 | AISI304   |
| 6    | Diffuser               | Stainless steel                 | AISI304   |
| 7    | Support diffuser       | Stainless steel                 | AISI304   |
| 8    | Inducer                | Stainless steel                 | AISI304   |
| 9    | Inlet & outlet chamber | Stainless steel                 | ASTM25B   |
| 11   | Bearing                | Tungsten carbide                |           |
| 12   | Impeller               | Stainless steel                 | AISI304   |
| 13   | Shaft                  | Stainless steel                 | AISI304   |
| 14   | Impeller sleeve        | Stainless steel                 | AISI304   |
| 15   | Cylinder               | Stainless steel                 | AISI304   |
| 16   | Coupling               | Carbon steel/ Powder metallurgy |           |

Please check with us for other materials

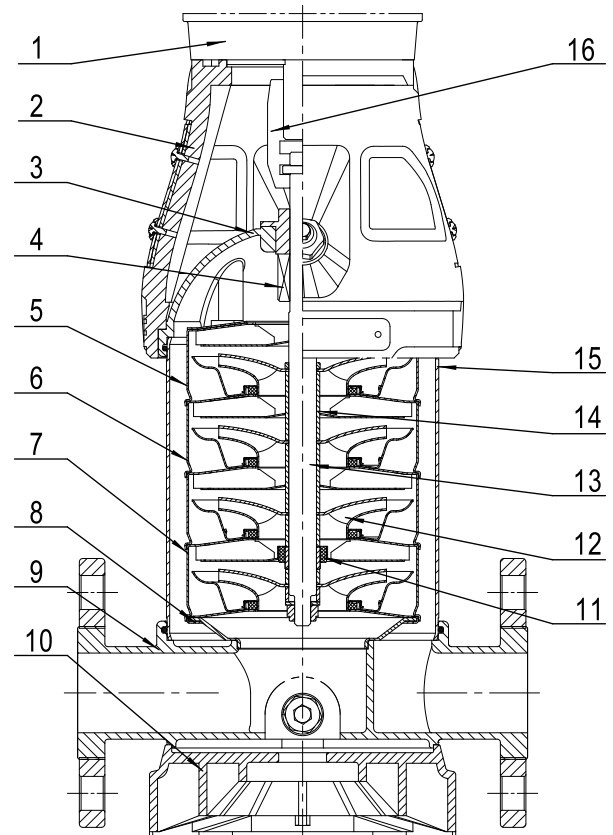
### CDMF1,3,5 Material list

| Pos. | Name                   | Materials                       | AISI/ASTM |
|------|------------------------|---------------------------------|-----------|
| 1    | Motor                  |                                 |           |
| 2    | Pump head              | Cast iron                       | ASTM25B   |
| 3    | Lining                 | Stainless steel                 | AISI304   |
| 4    | Mechanical seal        | Tungsten carbide/ Carbon        |           |
| 5    | Top diffuser           | Stainless steel                 | AISI304   |
| 6    | Diffuser               | Stainless steel                 | AISI304   |
| 7    | Support diffuser       | Stainless steel                 | AISI304   |
| 8    | Inducer                | Stainless steel                 | AISI304   |
| 9    | Inlet & outlet chamber | Stainless steel                 | AISI304   |
| 10   | Base plate             | Cast aluminum                   |           |
| 11   | Bearing                | Tungsten carbide                |           |
| 12   | Impeller               | Stainless steel                 | AISI304   |
| 13   | Shaft                  | Stainless steel                 | AISI304   |
| 14   | Impeller sleeve        | Stainless steel                 | AISI304   |
| 15   | Cylinder               | Stainless steel                 | AISI304   |
| 16   | Coupling               | Carbon steel/ Powder metallurgy |           |

## CDM/CDMF10,15,20 Sectional drawing



CDM



CDMF

### CDM10,15,20 Material list

| Pos. | Name                      | Materials                          | AISI/ASTM |
|------|---------------------------|------------------------------------|-----------|
| 1    | Motor                     |                                    |           |
| 2    | Pump head                 | Cast iron                          | ASTM25B   |
| 4    | Mechanical seal           | Tungsten carbide/<br>Carbon        |           |
| 5    | Top diffuser              | Stainless steel                    | AISI304   |
| 6    | Diffuser                  | Stainless steel                    | AISI304   |
| 7    | Support diffuser          | Stainless steel                    | AISI304   |
| 8    | Inducer                   | Stainless steel                    | AISI304   |
| 9    | Inlet & outlet<br>chamber | Stainless steel                    | ASTM25B   |
| 11   | Bearing                   | Tungsten carbide                   |           |
| 12   | Impeller                  | Stainless steel                    | AISI304   |
| 13   | Shaft                     | Stainless steel                    | AISI304   |
| 14   | Impeller sleeve           | Stainless steel                    | AISI304   |
| 15   | Cylinder                  | Stainless steel                    | AISI304   |
| 16   | Coupling                  | Carbon steel/<br>Powder metallurgy |           |

Please check with us for other materials

### CDMF10,15,20 Material list

| Pos. | Name                      | Materials                          | AISI/ASTM |
|------|---------------------------|------------------------------------|-----------|
| 1    | Motor                     |                                    |           |
| 2    | Pump head                 | Cast iron                          | ASTM25B   |
| 3    | Lining                    | Stainless steel                    | AISI304   |
| 4    | Mechanical seal           | Tungsten carbide/<br>Carbon        |           |
| 5    | Top diffuser              | Stainless steel                    | AISI304   |
| 6    | Diffuser                  | Stainless steel                    | AISI304   |
| 7    | Support diffuser          | Stainless steel                    | AISI304   |
| 8    | Inducer                   | Stainless steel                    | AISI304   |
| 9    | Inlet & outlet<br>chamber | Stainless steel                    | AISI304   |
| 10   | Base plate                | Cast aluminum                      |           |
| 11   | Bearing                   | Tungsten carbide                   |           |
| 12   | Impeller                  | Stainless steel                    | AISI304   |
| 13   | Shaft                     | Stainless steel                    | AISI304   |
| 14   | Impeller sleeve           | Stainless steel                    | AISI304   |
| 15   | Cylinder                  | Stainless steel                    | AISI304   |
| 16   | Coupling                  | Carbon steel/<br>Powder metallurgy |           |

## CDM/CDMF1 Performance table

| Model | Motor |      | Q<br>(m³/h) | 0    | 0.6  | 0.8  | 1    | 1.2  | 1.4  | 1.6  | 1.8  | 2    | 2.4  | 2.8  |
|-------|-------|------|-------------|------|------|------|------|------|------|------|------|------|------|------|
|       | (kW)  | (hp) |             |      |      |      |      |      |      |      |      |      |      |      |
| 1-2   | 0.37  | 0.5  | H<br>(m)    | 17.5 | 17   | 16.8 | 16.6 | 16.4 | 16   | 15.4 | 14.6 | 13.7 | 11.3 | 8.4  |
| 1-3   | 0.37  | 0.5  |             | 26   | 25.5 | 25.3 | 25   | 24.6 | 24   | 23   | 22   | 20.5 | 17   | 12.5 |
| 1-4   | 0.37  | 0.5  |             | 34   | 33.8 | 33.5 | 33   | 32.5 | 31.5 | 30.5 | 29.3 | 27.5 | 22.5 | 16.8 |
| 1-5   | 0.55  | 0.75 |             | 43   | 42.5 | 42   | 41.5 | 41   | 40   | 38.6 | 36.6 | 34.4 | 28.3 | 21   |
| 1-6   | 0.55  | 0.75 |             | 51.5 | 51   | 50.6 | 50   | 49   | 47.5 | 46   | 44   | 41   | 34   | 25   |
| 1-7   | 0.75  | 1    |             | 60   | 59   | 58.5 | 58   | 57   | 56   | 54   | 51.5 | 48   | 39   | 29   |
| 1-8   | 0.75  | 1    |             | 68   | 67   | 66.5 | 66   | 65.5 | 64   | 62   | 59   | 55   | 45   | 33   |
| 1-9   | 0.75  | 1    |             | 77   | 76.5 | 76   | 75   | 74   | 72   | 69.5 | 66   | 62   | 51   | 38   |
| 1-10  | 1.1   | 1.5  |             | 85.5 | 84.5 | 84   | 83   | 82   | 80   | 77   | 73   | 68.5 | 56.5 | 42   |
| 1-11  | 1.1   | 1.5  |             | 94   | 93   | 92.5 | 91.5 | 90   | 88   | 85   | 80.5 | 75.5 | 62   | 46   |
| 1-12  | 1.1   | 1.5  |             | 103  | 102  | 101  | 100  | 98.5 | 96   | 92.5 | 88   | 82.5 | 68   | 50   |
| 1-13  | 1.1   | 1.5  |             | 112  | 111  | 110  | 109  | 107  | 105  | 101  | 96   | 90   | 74   | 55   |
| 1-15  | 1.5   | 2    |             | 129  | 128  | 127  | 126  | 124  | 121  | 117  | 111  | 104  | 86   | 64   |
| 1-17  | 1.5   | 2    |             | 146  | 144  | 143  | 142  | 140  | 137  | 132  | 125  | 118  | 97   | 72   |
| 1-19  | 2.2   | 3    |             | 162  | 161  | 160  | 159  | 157  | 153  | 147  | 140  | 131  | 108  | 81   |
| 1-21  | 2.2   | 3    |             | 180  | 179  | 178  | 177  | 175  | 170  | 164  | 155  | 145  | 120  | 90   |
| 1-23  | 2.2   | 3    |             | 197  | 196  | 195  | 194  | 191  | 186  | 179  | 170  | 158  | 132  | 98   |
| 1-25  | 2.2   | 3    |             | 215  | 214  | 213  | 211  | 208  | 203  | 195  | 184  | 172  | 143  | 107  |
| 1-26  | 2.2   | 3    |             | 223  | 222  | 221  | 220  | 217  | 211  | 203  | 192  | 179  | 149  | 111  |
| 1-27  | 3     | 4    |             | 232  | 231  | 230  | 228  | 225  | 219  | 210  | 199  | 186  | 155  | 115  |
| 1-29  | 3     | 4    |             | 249  | 248  | 247  | 245  | 242  | 235  | 226  | 214  | 199  | 166  | 123  |

## CDM/CDMF3 Performance table

| Model | Motor |      | Q<br>(m³/h) | 0    | 1.4  | 1.8  | 2.4  | 2.8  | 3    | 3.6  | 4.2   | 4.8  | 5.2  |
|-------|-------|------|-------------|------|------|------|------|------|------|------|-------|------|------|
|       | (kW)  | (hp) |             |      |      |      |      |      |      |      |       |      |      |
| 3-2   | 0.37  | 0.5  | H<br>(m)    | 21.2 | 20.2 | 19.8 | 19   | 18.2 | 17.7 | 16   | 14    | 11.5 | 9.2  |
| 3-3   | 0.55  | 0.75 |             | 32   | 31   | 30.5 | 29.5 | 28.4 | 27.6 | 25.2 | 22    | 18   | 14.6 |
| 3-4   | 0.75  | 1    |             | 43   | 42   | 41.5 | 40   | 38   | 37   | 33.5 | 29.5  | 24.5 | 20   |
| 3-5   | 1.1   | 1.5  |             | 54   | 52   | 51   | 48.5 | 46.5 | 45.5 | 42   | 37.5  | 30.2 | 24.5 |
| 3-6   | 1.1   | 1.5  |             | 65   | 63   | 62   | 59   | 57   | 55.5 | 50.5 | 44.5  | 36   | 29.5 |
| 3-7   | 1.1   | 1.5  |             | 76   | 74   | 73   | 70   | 67   | 65.5 | 60   | 52    | 43.2 | 35   |
| 3-8   | 1.5   | 2    |             | 86   | 85   | 84   | 81   | 77   | 75   | 68   | 59.5  | 49   | 40   |
| 3-9   | 1.5   | 2    |             | 97   | 95   | 94   | 91   | 87.5 | 85   | 77   | 67    | 55   | 45   |
| 3-10  | 2.2   | 3    |             | 108  | 106  | 105  | 101  | 96   | 93.5 | 85   | 74.5  | 60.5 | 50   |
| 3-11  | 2.2   | 3    |             | 119  | 116  | 114  | 111  | 106  | 103  | 94   | 82    | 68   | 56   |
| 3-12  | 2.2   | 3    |             | 130  | 127  | 125  | 120  | 115  | 112  | 103  | 88    | 72   | 60   |
| 3-13  | 2.2   | 3    |             | 141  | 137  | 135  | 130  | 125  | 122  | 111  | 95.5  | 78   | 66   |
| 3-14  | 2.2   | 3    |             | 152  | 148  | 146  | 141  | 135  | 131  | 119  | 102.5 | 83.5 | 70   |
| 3-15  | 3     | 4    |             | 163  | 159  | 157  | 151  | 146  | 142  | 130  | 113   | 92   | 77   |
| 3-16  | 3     | 4    |             | 174  | 170  | 168  | 161  | 156  | 152  | 138  | 121   | 99   | 82   |
| 3-18  | 3     | 4    |             | 196  | 192  | 189  | 182  | 175  | 171  | 156  | 135   | 110  | 92   |
| 3-19  | 3     | 4    |             | 206  | 202  | 199  | 190  | 183  | 179  | 164  | 143   | 118  | 97   |
| 3-20  | 4     | 5.5  |             | 218  | 213  | 210  | 202  | 194  | 189  | 173  | 150   | 124  | 103  |
| 3-21  | 4     | 5.5  |             | 228  | 224  | 220  | 212  | 204  | 199  | 181  | 158   | 130  | 108  |
| 3-22  | 4     | 5.5  |             | 239  | 234  | 230  | 222  | 212  | 207  | 190  | 165   | 135  | 113  |
| 3-23  | 4     | 5.5  |             | 250  | 245  | 241  | 232  | 223  | 218  | 199  | 172   | 140  | 117  |

## CDM/CDMF5 Performance table

| Model | Motor |      | Q<br>(m³/h) | 0    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   |
|-------|-------|------|-------------|------|------|------|------|------|------|------|------|------|
|       | (kW)  | (hp) |             |      |      |      |      |      |      |      |      |      |
| 5-2   | 0.55  | 0.75 | H<br>(m)    | 21.2 | 19.4 | 18.8 | 17.7 | 16   | 13.5 | 11   | 8.6  | 6.2  |
| 5-3   | 0.75  | 1    |             | 31.8 | 30.2 | 29.3 | 27.6 | 25.2 | 22.3 | 18.8 | 15.2 | 11.5 |
| 5-4   | 1.1   | 1.5  |             | 42.5 | 40.3 | 39   | 37   | 34.5 | 31   | 26.5 | 21.5 | 16.8 |
| 5-5   | 1.5   | 2    |             | 53.3 | 50.4 | 49   | 47   | 44   | 39.8 | 35   | 29.5 | 23   |
| 5-6   | 1.5   | 2    |             | 64   | 60.5 | 59.3 | 57   | 53.3 | 48.7 | 42   | 34.5 | 27.5 |
| 5-7   | 2.2   | 3    |             | 75   | 71   | 69   | 65.5 | 61.2 | 56.2 | 49   | 40.5 | 32   |
| 5-8   | 2.2   | 3    |             | 85   | 82   | 79.5 | 75.5 | 70.6 | 64.5 | 56   | 46   | 36.5 |
| 5-9   | 2.2   | 3    |             | 96.5 | 92.2 | 89.5 | 85.5 | 80   | 73   | 64   | 53   | 41   |
| 5-10  | 3     | 4    |             | 107  | 102  | 99   | 95   | 89.3 | 81   | 71   | 59   | 46   |
| 5-11  | 3     | 4    |             | 118  | 112  | 109  | 104  | 98   | 90   | 79   | 65   | 50.5 |
| 5-12  | 3     | 4    |             | 129  | 122  | 120  | 115  | 107  | 97.5 | 85   | 71   | 56   |
| 5-13  | 4     | 5.5  |             | 140  | 133  | 130  | 124  | 115  | 105  | 92   | 78   | 61   |
| 5-14  | 4     | 5.5  |             | 151  | 144  | 140  | 134  | 125  | 114  | 100  | 84.5 | 66   |
| 5-15  | 4     | 5.5  |             | 161  | 155  | 151  | 144  | 134  | 121  | 106  | 89   | 71   |
| 5-16  | 4     | 5.5  |             | 172  | 164  | 159  | 153  | 143  | 130  | 114  | 95   | 76   |
| 5-17  | 5.5   | 7.5  |             | 183  | 174  | 168  | 161  | 151  | 139  | 121  | 102  | 81   |
| 5-18  | 5.5   | 7.5  |             | 194  | 184  | 179  | 171  | 160  | 146  | 128  | 108  | 86   |
| 5-20  | 5.5   | 7.5  |             | 215  | 206  | 199  | 190  | 179  | 162  | 143  | 120  | 95   |
| 5-21  | 5.5   | 7.5  |             | 226  | 216  | 209  | 199  | 187  | 171  | 151  | 126  | 100  |
| 5-22  | 5.5   | 7.5  |             | 236  | 226  | 218  | 208  | 196  | 180  | 158  | 134  | 107  |
| 5-23  | 5.5   | 7.5  |             | 248  | 237  | 228  | 218  | 205  | 188  | 166  | 141  | 113  |

## CDM/CDMF10 Performance table

| Model | Motor |      | Q<br>(m³/h) | 0    | 6    | 8     | 10    | 12   | 14   | 16   | 17   |
|-------|-------|------|-------------|------|------|-------|-------|------|------|------|------|
|       | (kW)  | (hp) |             |      |      |       |       |      |      |      |      |
| 10-1  | 0.75  | 1    | H<br>(m)    | 15.8 | 14.9 | 14    | 13    | 12   | 10.5 | 8    | 6.5  |
| 10-2  | 1.5   | 2    |             | 32   | 30.2 | 29    | 27    | 23.8 | 20.2 | 16   | 13.5 |
| 10-3  | 2.2   | 3    |             | 48   | 45.5 | 44    | 40.5  | 36.5 | 32.5 | 27   | 23   |
| 10-4  | 3     | 4    |             | 64   | 60.5 | 58    | 54    | 49   | 43.5 | 35.5 | 30.5 |
| 10-5  | 4     | 5.5  |             | 80   | 75   | 72    | 68    | 62   | 55   | 45.5 | 39   |
| 10-6  | 4     | 5.5  |             | 96.5 | 91.5 | 87.5  | 82    | 75   | 65.5 | 54   | 47.5 |
| 10-7  | 5.5   | 7.5  |             | 113  | 107  | 103   | 98    | 89   | 77.5 | 63   | 56   |
| 10-8  | 5.5   | 7.5  |             | 130  | 123  | 119   | 112   | 102  | 90   | 73   | 64.5 |
| 10-9  | 7.5   | 10   |             | 146  | 138  | 133.5 | 126.5 | 115  | 100  | 83   | 73   |
| 10-10 | 7.5   | 10   |             | 163  | 154  | 148.5 | 139.5 | 128  | 113  | 94   | 82   |
| 10-11 | 7.5   | 10   |             | 179  | 170  | 163   | 153   | 141  | 125  | 103  | 89   |
| 10-12 | 7.5   | 10   |             | 197  | 187  | 180   | 169   | 154  | 136  | 112  | 98   |
| 10-13 | 11    | 15   |             | 213  | 202  | 196   | 185   | 167  | 147  | 121  | 107  |
| 10-14 | 11    | 15   |             | 230  | 217  | 210   | 197   | 180  | 158  | 131  | 115  |
| 10-15 | 11    | 15   |             | 246  | 233  | 226   | 212   | 193  | 170  | 141  | 123  |



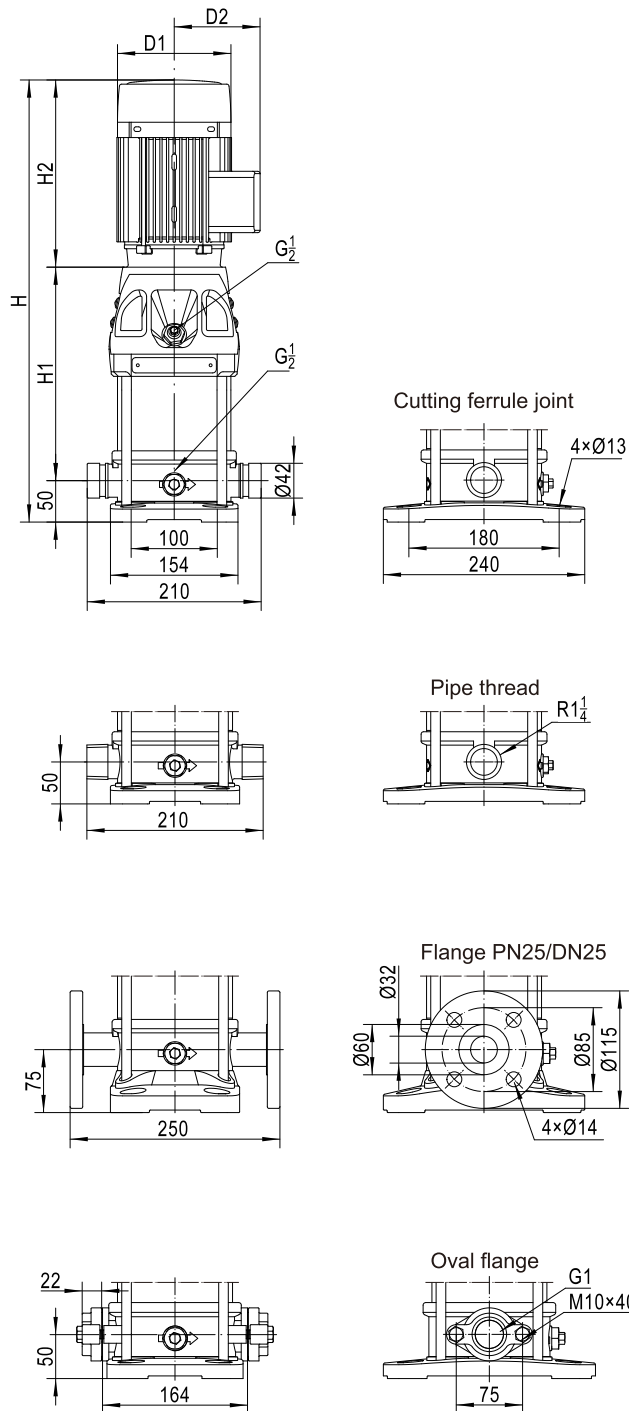
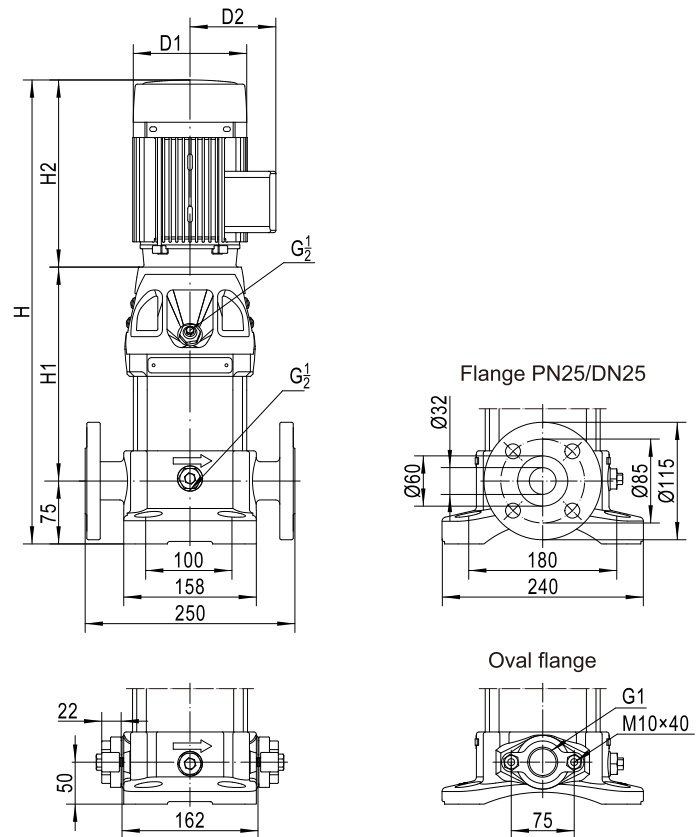
## CDM/CDMF15 Performance table

| Model | Motor |      | Q<br>(m³/h) | 0   | 10   | 12   | 14   | 15   | 16   | 18   | 20   | 22   | 24  | 26   | 28   | 29   |
|-------|-------|------|-------------|-----|------|------|------|------|------|------|------|------|-----|------|------|------|
|       | (kW)  | (hp) |             |     |      |      |      |      |      |      |      |      |     |      |      |      |
| 15-1  | 1.5   | 2    | H<br>(m)    | 18  | 17.5 | 17.3 | 17.1 | 16.9 | 16.7 | 16   | 15.2 | 14.3 | 13  | 11.5 | 10   | 9.2  |
| 15-2  | 3     | 4    |             | 38  | 36.5 | 36   | 35.5 | 35   | 34.3 | 32.8 | 31   | 29   | 27  | 24.5 | 21.5 | 19.5 |
| 15-3  | 4     | 5.5  |             | 57  | 54.5 | 54   | 53.5 | 53   | 52.5 | 51   | 49   | 46.5 | 43  | 38   | 33   | 30   |
| 15-4  | 5.5   | 7.5  |             | 80  | 74.5 | 73.5 | 72   | 71   | 70   | 68   | 65   | 61   | 56  | 51   | 45   | 41   |
| 15-5  | 7.5   | 10   |             | 100 | 93   | 91   | 89   | 88   | 87   | 84.5 | 81   | 76   | 70  | 63   | 56   | 52   |
| 15-6  | 11    | 15   |             | 120 | 112  | 110  | 108  | 107  | 106  | 102  | 97   | 92   | 85  | 78   | 68   | 63   |
| 15-7  | 11    | 15   |             | 141 | 132  | 130  | 128  | 126  | 124  | 119  | 114  | 108  | 100 | 91   | 80   | 74   |
| 15-8  | 11    | 15   |             | 161 | 151  | 149  | 146  | 144  | 142  | 137  | 131  | 123  | 114 | 104  | 92   | 86   |
| 15-9  | 15    | 20   |             | 183 | 172  | 169  | 166  | 164  | 162  | 156  | 148  | 139  | 129 | 117  | 104  | 97   |
| 15-10 | 15    | 20   |             | 203 | 190  | 187  | 184  | 182  | 179  | 173  | 165  | 155  | 144 | 130  | 116  | 108  |
| 15-11 | 15    | 20   |             | 222 | 208  | 205  | 202  | 200  | 198  | 191  | 181  | 169  | 157 | 143  | 127  | 119  |
| 15-12 | 18.5  | 25   |             | 239 | 227  | 224  | 221  | 219  | 216  | 209  | 199  | 187  | 172 | 156  | 139  | 131  |

## CDM/CDMF20 Performance table

| Model | Motor |      | Q<br>(m³/h) | 0    | 13   | 15   | 17   | 20   | 23  | 26  | 29   | 32   | 34   | 35   |
|-------|-------|------|-------------|------|------|------|------|------|-----|-----|------|------|------|------|
|       | (kW)  | (hp) |             |      |      |      |      |      |     |     |      |      |      |      |
| 20-1  | 2.2   | 3    | H<br>(m)    | 19.5 | 18.3 | 18   | 17.7 | 17   | 16  | 15  | 13.7 | 12.3 | 11.3 | 10.7 |
| 20-2  | 4     | 5.5  |             | 40   | 38   | 37.5 | 37   | 35.5 | 34  | 32  | 29   | 25.5 | 23   | 21.5 |
| 20-3  | 5.5   | 7.5  |             | 60   | 57.5 | 57   | 56   | 54   | 51  | 48  | 44   | 39   | 35   | 33   |
| 20-4  | 7.5   | 10   |             | 80   | 77   | 76   | 75   | 73   | 70  | 65  | 59.5 | 52   | 47   | 44   |
| 20-5  | 11    | 15   |             | 100  | 95   | 94   | 93   | 91   | 87  | 81  | 74   | 65   | 59   | 56   |
| 20-6  | 11    | 15   |             | 121  | 115  | 114  | 113  | 110  | 105 | 98  | 90   | 81   | 74   | 70   |
| 20-7  | 15    | 20   |             | 141  | 135  | 134  | 132  | 128  | 122 | 115 | 106  | 96   | 88   | 84   |
| 20-8  | 15    | 20   |             | 163  | 155  | 153  | 151  | 147  | 140 | 132 | 121  | 109  | 100  | 96   |
| 20-9  | 18.5  | 25   |             | 183  | 175  | 173  | 171  | 167  | 160 | 150 | 138  | 123  | 113  | 108  |
| 20-10 | 18.5  | 25   |             | 203  | 194  | 192  | 190  | 186  | 178 | 167 | 153  | 137  | 125  | 119  |

## CDM/CDMF1 Installation sketch

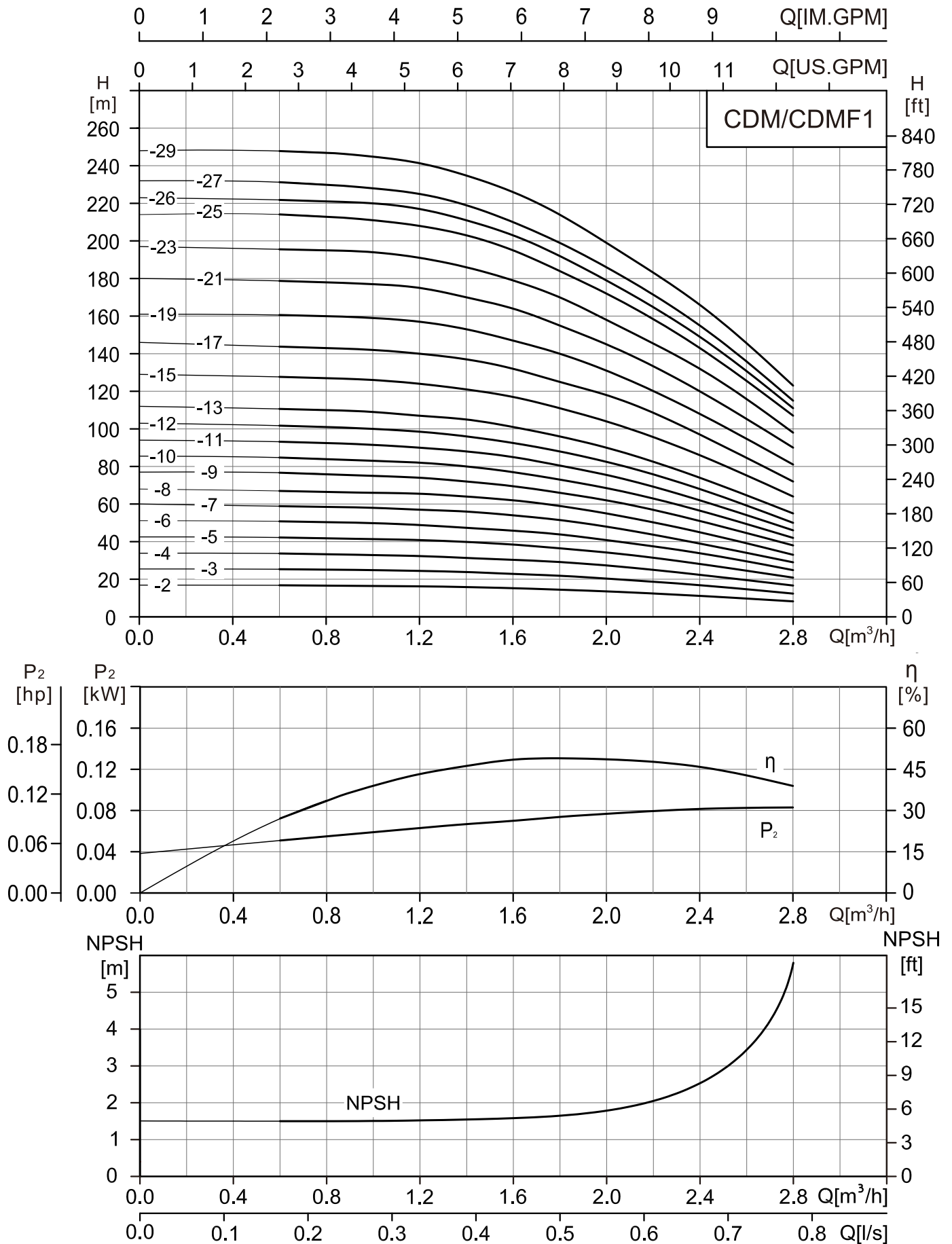
**CDMF**

**CDM**


## Dimensions and weights

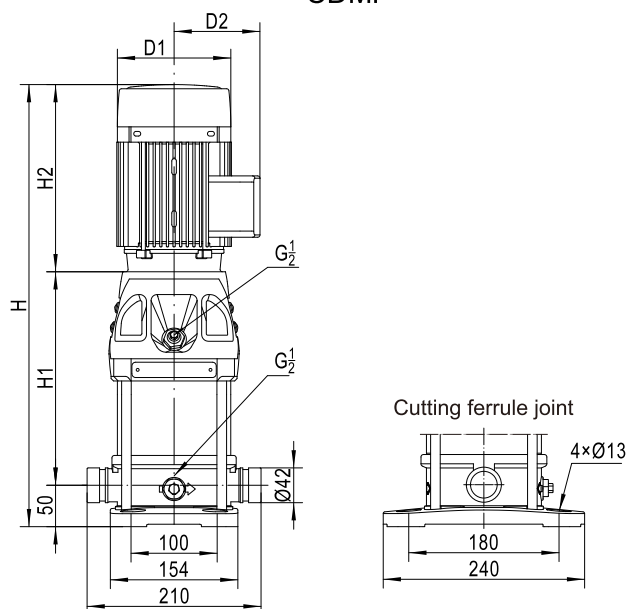
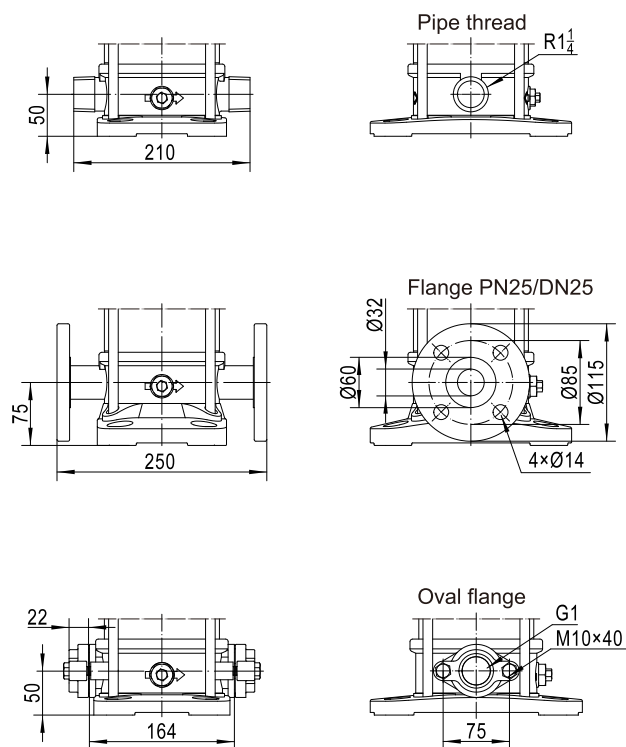
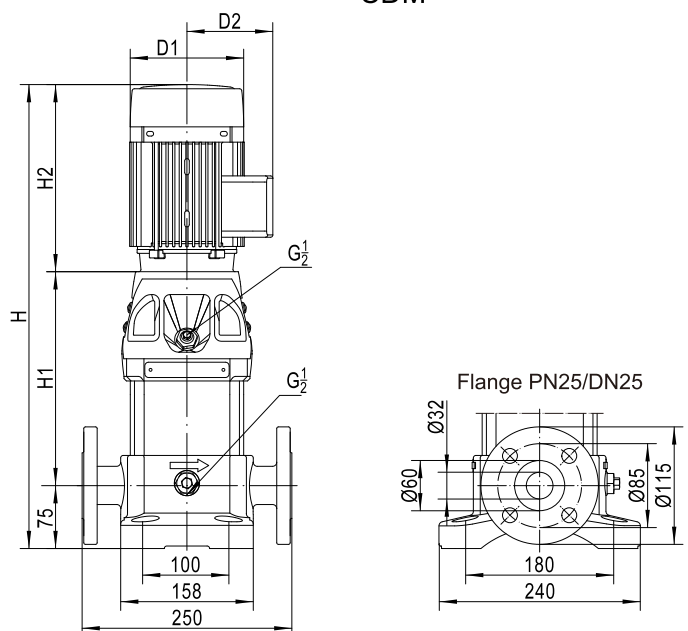
| Model | Dimension (mm) |     |                |     |     | Weight(kg) |     |
|-------|----------------|-----|----------------|-----|-----|------------|-----|
|       | H1             | H2  | H(Flange/Oth.) | D1  | D2  | CDMF       | CDM |
| 1-2   | 187            | 215 | 477/452        | 148 | 117 | 19         | 23  |
| 1-3   | 207            | 215 | 497/472        | 148 | 117 | 19         | 23  |
| 1-4   | 227            | 215 | 517/492        | 148 | 117 | 20         | 24  |
| 1-5   | 247            | 215 | 537/512        | 148 | 117 | 21         | 25  |
| 1-6   | 267            | 215 | 557/532        | 148 | 117 | 21         | 25  |
| 1-7   | 297            | 245 | 617/592        | 170 | 142 | 25         | 29  |
| 1-8   | 317            | 245 | 637/612        | 170 | 142 | 25         | 29  |
| 1-9   | 337            | 245 | 657/632        | 170 | 142 | 26         | 30  |
| 1-10  | 357            | 245 | 677/652        | 170 | 142 | 28         | 32  |
| 1-11  | 377            | 245 | 697/672        | 170 | 142 | 29         | 33  |
| 1-12  | 397            | 245 | 717/692        | 170 | 142 | 29         | 33  |
| 1-13  | 427            | 245 | 747/722        | 170 | 142 | 29         | 33  |
| 1-15  | 467            | 290 | 832/807        | 190 | 155 | 35         | 39  |
| 1-17  | 507            | 290 | 872/847        | 190 | 155 | 36         | 40  |
| 1-19  | 547            | 290 | 912/887        | 190 | 155 | 39         | 43  |
| 1-21  | 587            | 290 | 952/927        | 190 | 155 | 39         | 43  |
| 1-23  | 627            | 290 | 992/967        | 190 | 155 | 40         | 44  |
| 1-25  | 667            | 290 | 1032/1007      | 190 | 155 | 41         | 45  |
| 1-26  | 687            | 290 | 1052/1027      | 190 | 155 | 42         | 46  |
| 1-27  | 717            | 345 | 1137/1112      | 197 | 165 | 53         | 57  |
| 1-29  | 757            | 345 | 1177/1152      | 197 | 165 | 54         | 58  |

CDM/CDMF1-19~1-29 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

## Performance curve



# CDM/CDMF3 Installation sketch

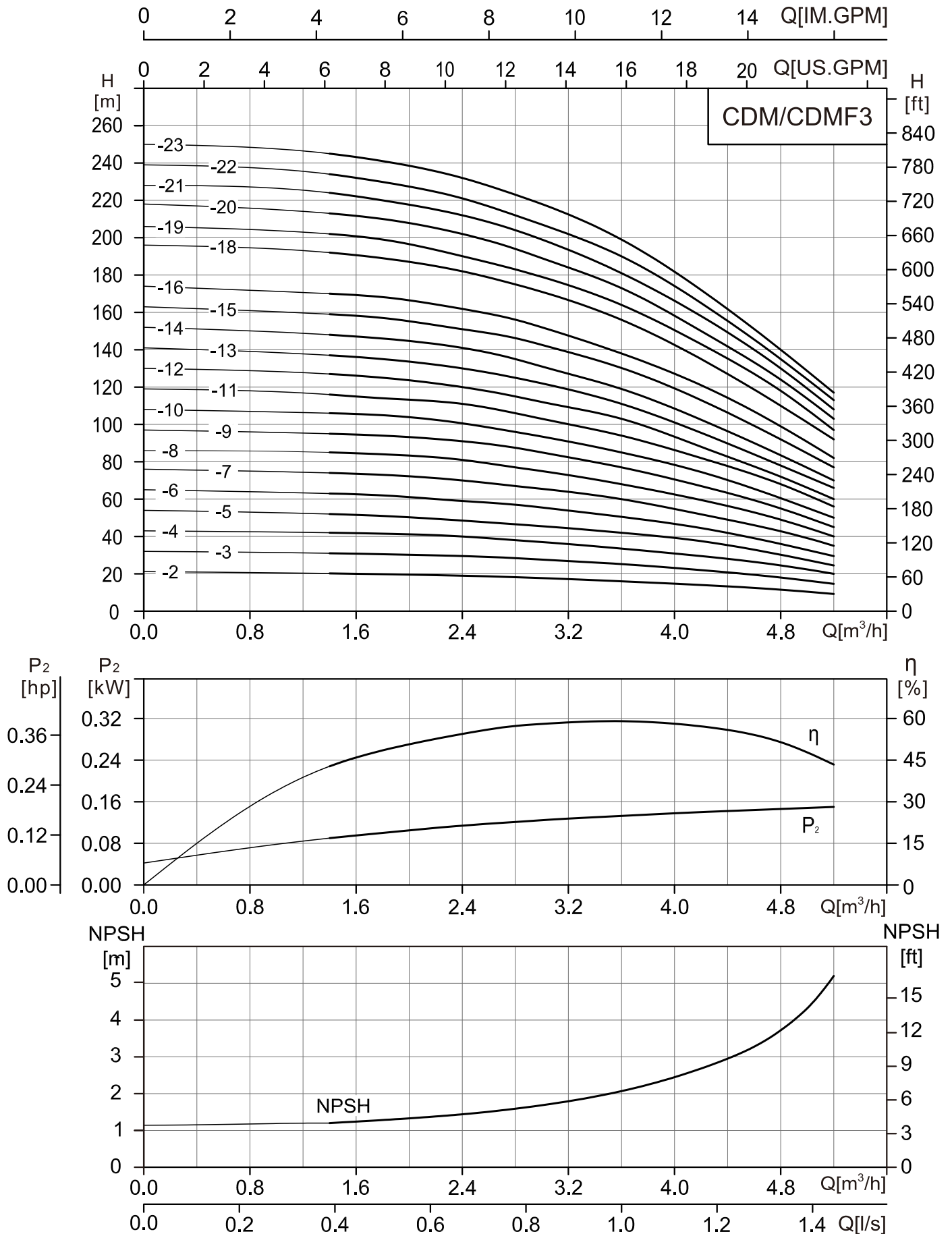
**CDMF**

**CDM**


## Dimensions and weights

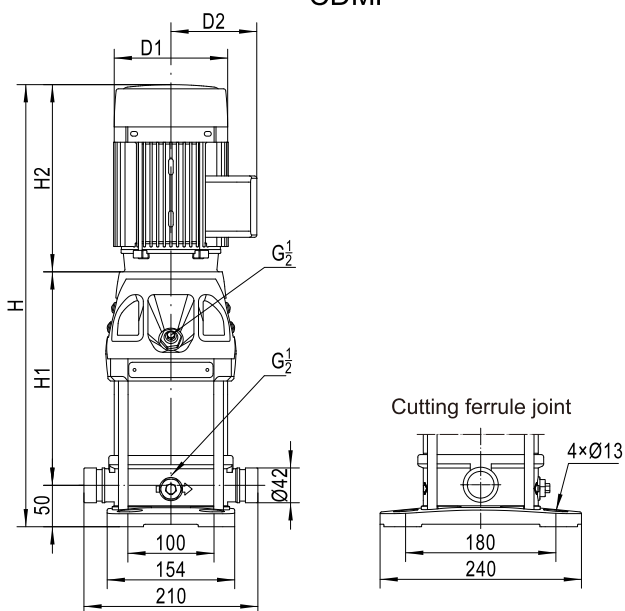
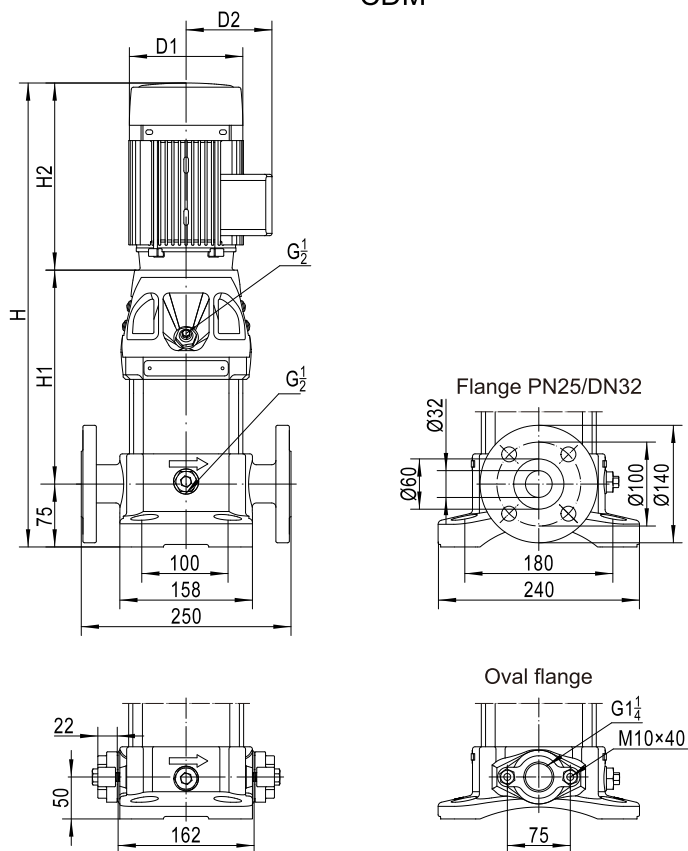
| Model | Dimension (mm) |     |                |     |     | Weight(kg) |     |
|-------|----------------|-----|----------------|-----|-----|------------|-----|
|       | H1             | H2  | H(Flange/Oth.) | D1  | D2  | CDMF       | CDM |
| 3-2   | 187            | 215 | 477/452        | 148 | 117 | 20         | 24  |
| 3-3   | 207            | 215 | 497/472        | 148 | 117 | 21         | 25  |
| 3-4   | 237            | 245 | 557/532        | 170 | 142 | 24         | 28  |
| 3-5   | 257            | 245 | 577/552        | 170 | 142 | 27         | 31  |
| 3-6   | 277            | 245 | 597/572        | 170 | 142 | 27         | 31  |
| 3-7   | 297            | 245 | 617/592        | 170 | 142 | 28         | 32  |
| 3-8   | 327            | 290 | 692/667        | 190 | 155 | 33         | 37  |
| 3-9   | 347            | 290 | 712/687        | 190 | 155 | 33         | 37  |
| 3-10  | 367            | 290 | 732/707        | 190 | 155 | 36         | 40  |
| 3-11  | 387            | 290 | 752/727        | 190 | 155 | 36         | 40  |
| 3-12  | 407            | 290 | 772/747        | 190 | 155 | 37         | 41  |
| 3-13  | 427            | 290 | 792/767        | 190 | 155 | 37         | 41  |
| 3-14  | 447            | 290 | 812/787        | 190 | 155 | 38         | 42  |
| 3-15  | 477            | 345 | 897/872        | 197 | 165 | 48         | 52  |
| 3-16  | 497            | 345 | 917/892        | 197 | 165 | 49         | 53  |
| 3-18  | 537            | 345 | 957/932        | 197 | 165 | 50         | 54  |
| 3-19  | 557            | 345 | 977/952        | 197 | 165 | 50         | 54  |
| 3-20  | 577            | 355 | 1007/982       | 230 | 188 | 57         | 61  |
| 3-21  | 597            | 355 | 1027/1002      | 230 | 188 | 57         | 61  |
| 3-22  | 617            | 355 | 1047/1022      | 230 | 188 | 58         | 62  |
| 3-23  | 637            | 355 | 1067/1042      | 230 | 188 | 58         | 62  |

CDM/CDMF3-15~3-23 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

## Performance curve



# CDM/CDMF5 Installation sketch

**CDMF**

**CDM**


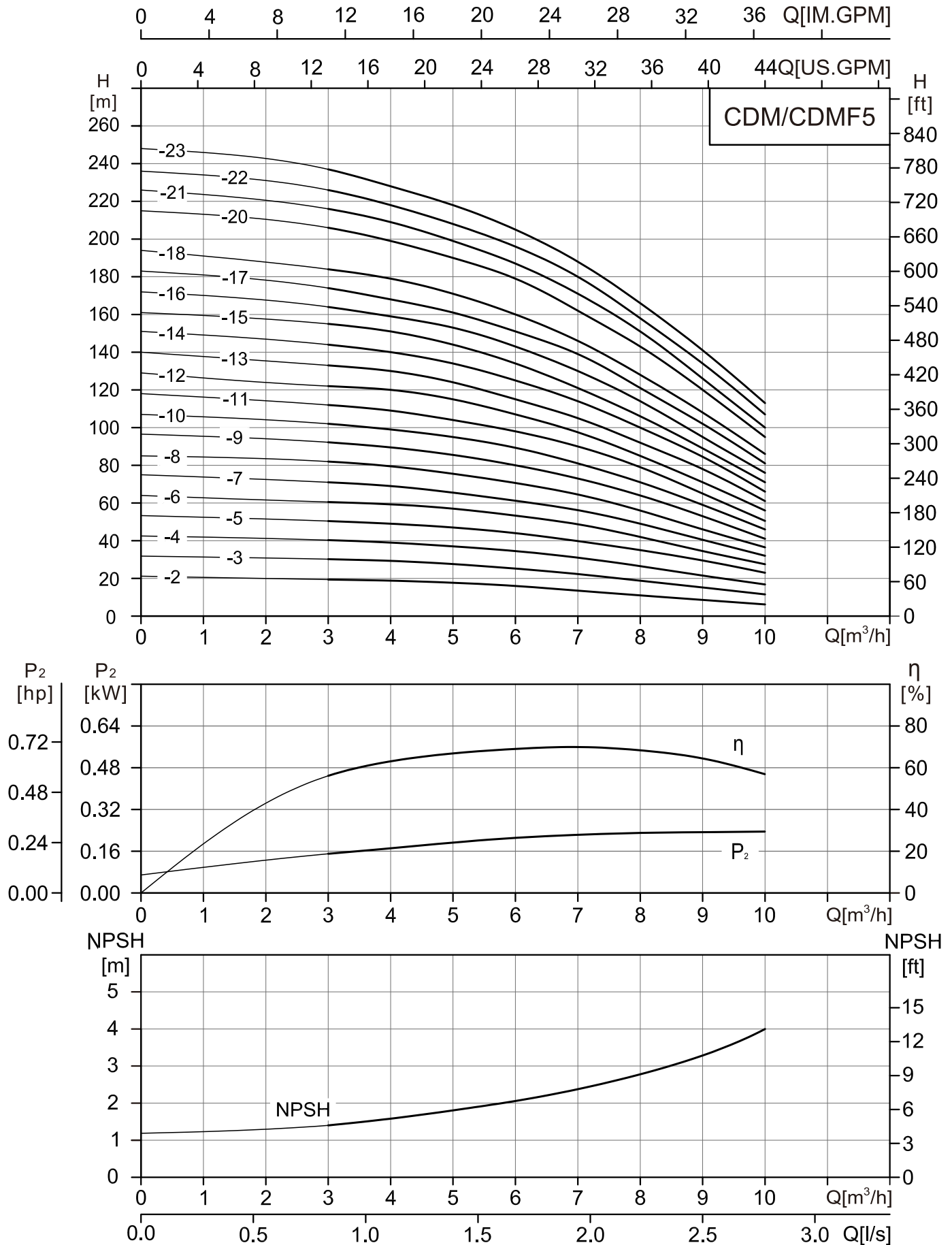
## Dimensions and weights

| Model | Dimension (mm) |     |                |     |     | Weight(kg) |     |
|-------|----------------|-----|----------------|-----|-----|------------|-----|
|       | H1             | H2  | H(Flange/Oth.) | D1  | D2  | CDMF       | CDM |
| 5-2   | 201            | 215 | 491/466        | 148 | 117 | 20         | 25  |
| 5-3   | 238            | 245 | 558/533        | 170 | 142 | 23         | 28  |
| 5-4   | 265            | 245 | 585/560        | 170 | 142 | 26         | 31  |
| 5-5   | 302            | 290 | 667/642        | 190 | 155 | 32         | 37  |
| 5-6   | 329            | 290 | 694/669        | 190 | 155 | 32         | 37  |
| 5-7   | 356            | 290 | 721/696        | 190 | 155 | 35         | 40  |
| 5-8   | 383            | 290 | 748/723        | 190 | 155 | 35         | 40  |
| 5-9   | 410            | 290 | 775/750        | 190 | 155 | 36         | 41  |
| 5-10  | 447            | 345 | 867/842        | 197 | 165 | 46         | 51  |
| 5-11  | 474            | 345 | 894/869        | 197 | 165 | 47         | 52  |
| 5-12  | 501            | 345 | 921/896        | 197 | 165 | 47         | 52  |
| 5-13  | 528            | 355 | 958/933        | 230 | 188 | 54         | 59  |
| 5-14  | 555            | 355 | 985/960        | 230 | 188 | 55         | 60  |
| 5-15  | 582            | 355 | 1012/987       | 230 | 188 | 55         | 60  |
| 5-16  | 609            | 355 | 1039/1014      | 230 | 188 | 56         | 61  |
| 5-17  | 711            | 390 | 1176/1151      | 260 | 208 | 76         | 81  |
| 5-18  | 738            | 390 | 1203/1178      | 260 | 208 | 76         | 81  |
| 5-20  | 792            | 390 | 1257/1232      | 260 | 208 | 77         | 82  |
| 5-21  | 819            | 390 | 1284/1259      | 260 | 208 | 78         | 83  |
| 5-22  | 846            | 390 | 1311/1286      | 260 | 208 | 78         | 83  |
| 5-23  | 873            | 390 | 1338/1313      | 260 | 208 | 79         | 84  |

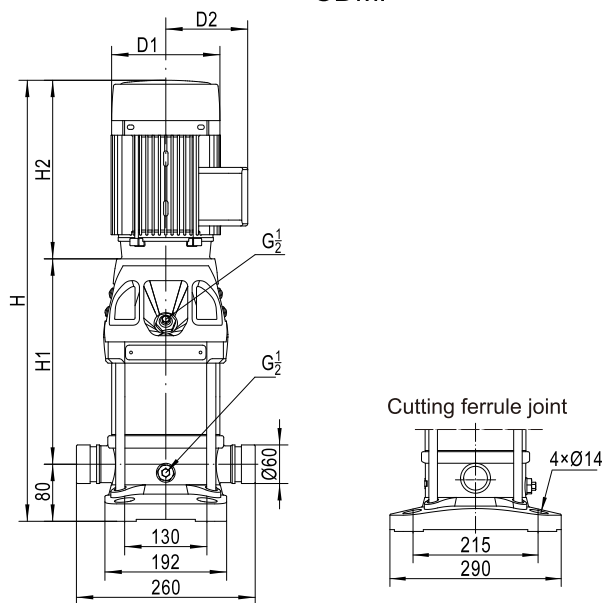
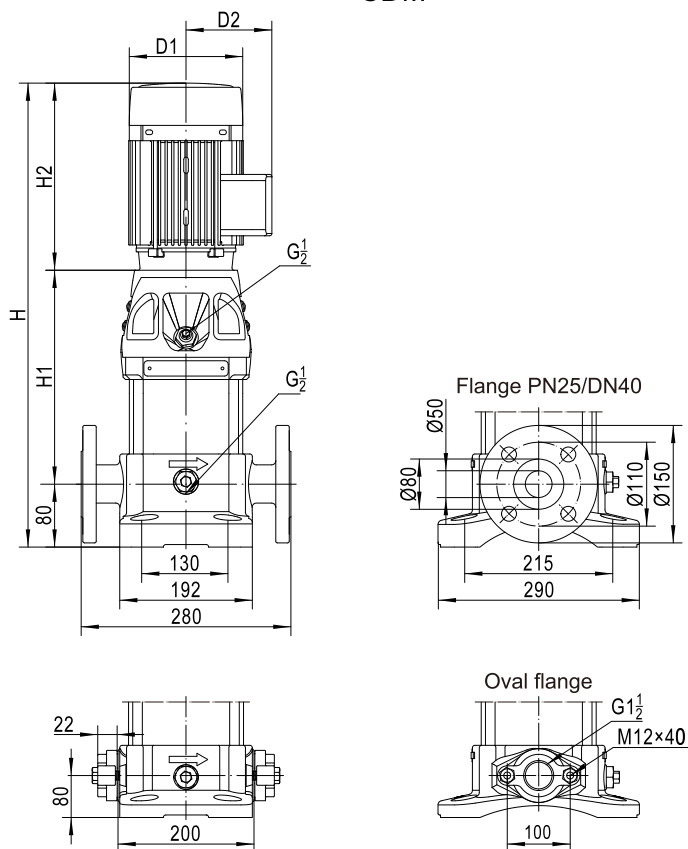
CDM/CDMF5-15~5-23 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.



## Performance curve



# CDM/CDMF10 Installation sketch

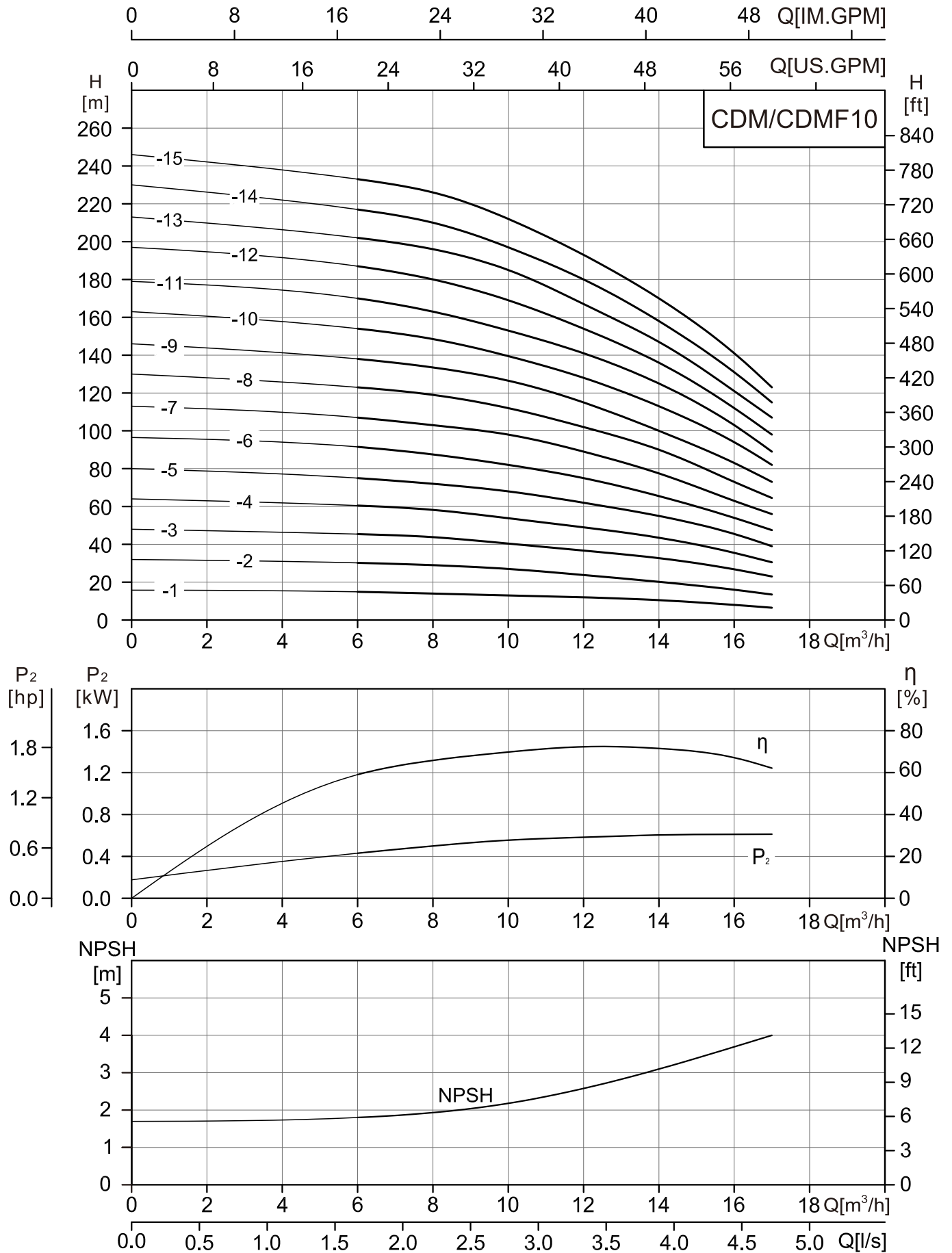
**CDMF**

**CDM**


## Dimensions and weights

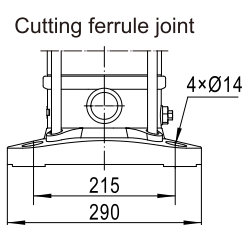
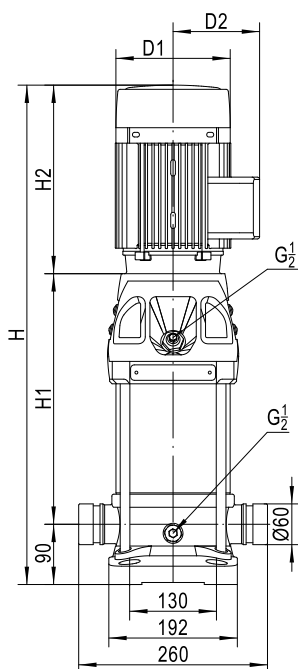
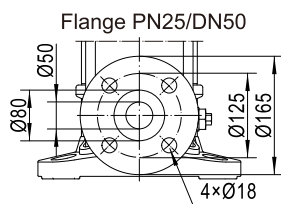
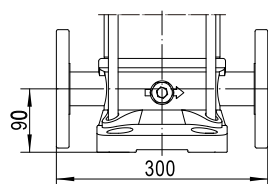
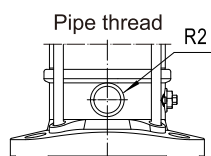
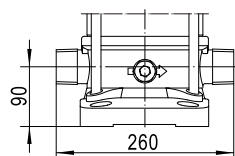
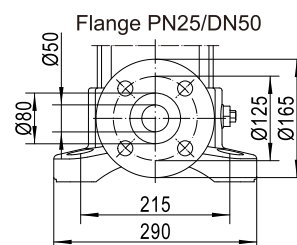
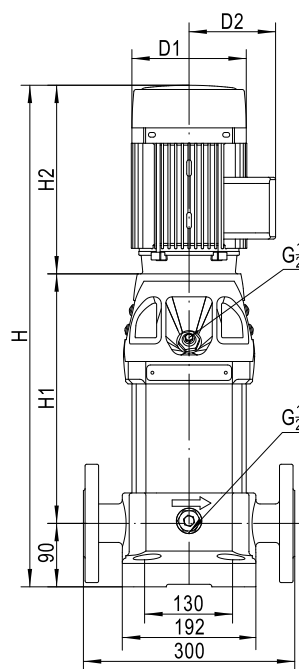
| Model | Dimension (mm) |     |      |     |     | Weight(kg) |     |
|-------|----------------|-----|------|-----|-----|------------|-----|
|       | H1             | H2  | H    | D1  | D2  | CDMF       | CDM |
| 10-1  | 267            | 245 | 592  | 170 | 142 | 29         | 31  |
| 10-2  | 277            | 290 | 647  | 190 | 155 | 37         | 39  |
| 10-3  | 307            | 290 | 677  | 190 | 155 | 40         | 42  |
| 10-4  | 347            | 345 | 772  | 197 | 165 | 51         | 53  |
| 10-5  | 377            | 355 | 812  | 230 | 188 | 60         | 62  |
| 10-6  | 407            | 355 | 842  | 230 | 188 | 61         | 63  |
| 10-7  | 515            | 390 | 985  | 260 | 208 | 82         | 84  |
| 10-8  | 545            | 390 | 1015 | 260 | 208 | 83         | 85  |
| 10-9  | 575            | 390 | 1045 | 260 | 208 | 87         | 89  |
| 10-10 | 605            | 390 | 1075 | 260 | 208 | 88         | 90  |
| 10-11 | 635            | 390 | 1105 | 260 | 208 | 89         | 91  |
| 10-12 | 665            | 390 | 1135 | 260 | 208 | 90         | 92  |
| 10-13 | 725            | 500 | 1305 | 330 | 255 | 160        | 162 |
| 10-14 | 755            | 500 | 1335 | 330 | 255 | 161        | 163 |
| 10-15 | 785            | 500 | 1365 | 330 | 255 | 162        | 164 |

CDM/CDMF10-10~10-15 have no oval flange pipeline connection. The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

## Performance curve



# CDM/CDMF15 Installation sketch

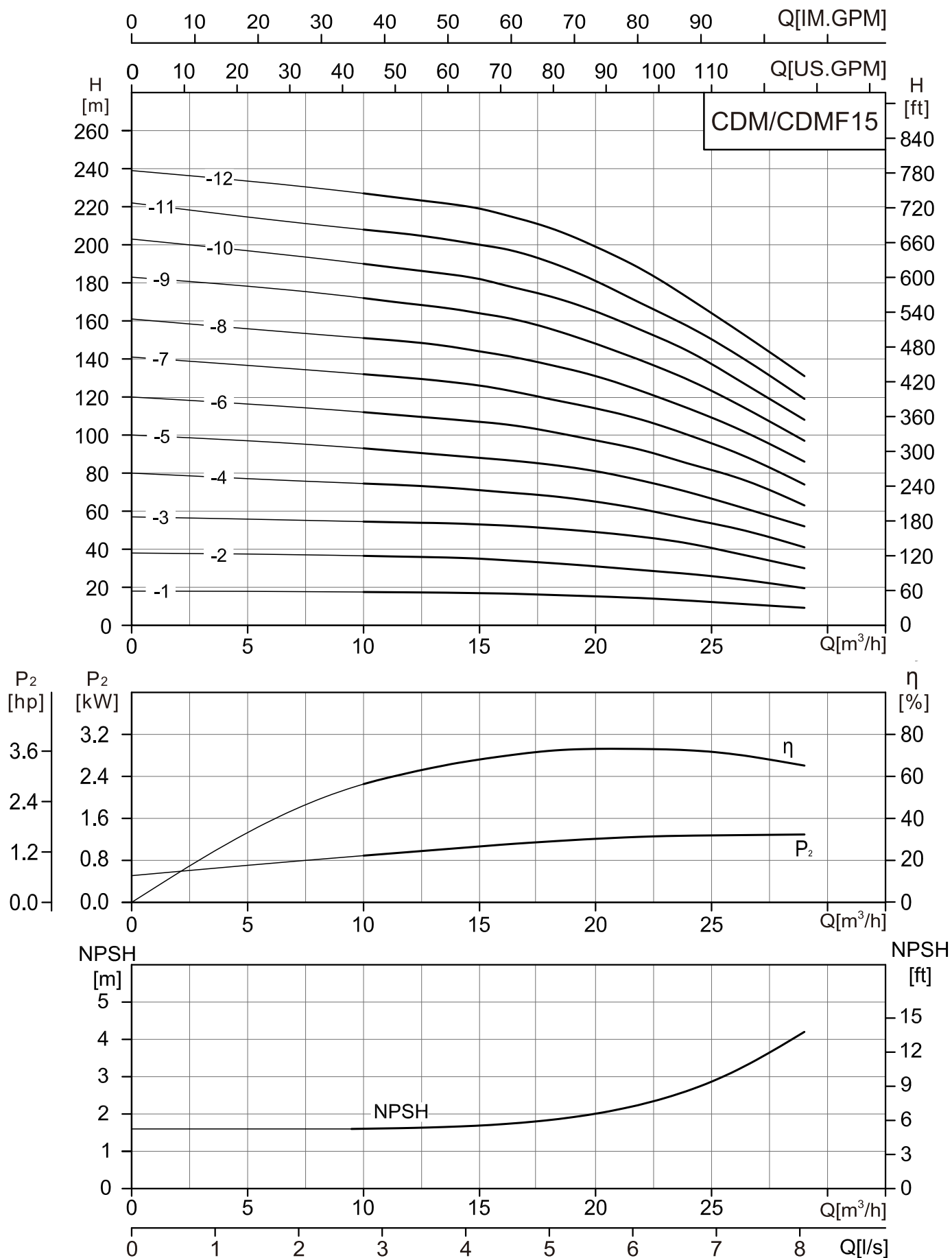
**CDMF**

**CDM**


## Dimensions and weights

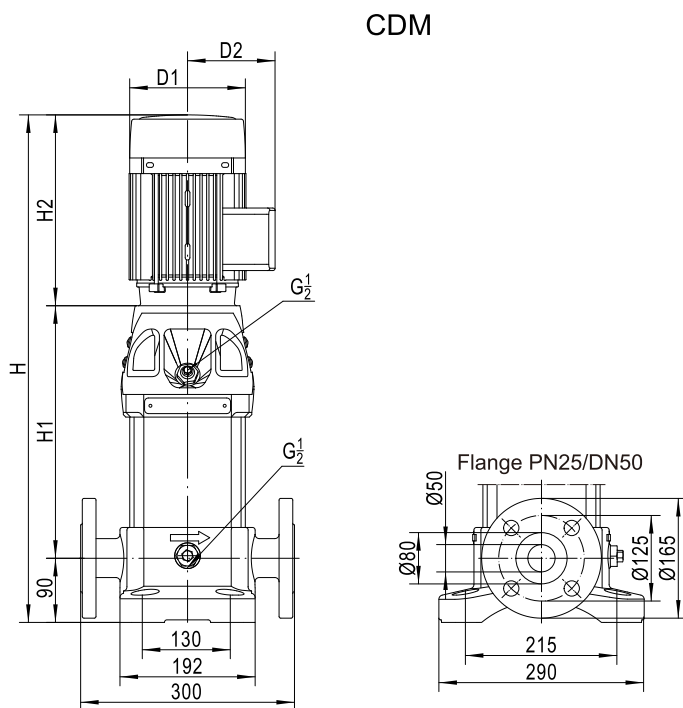
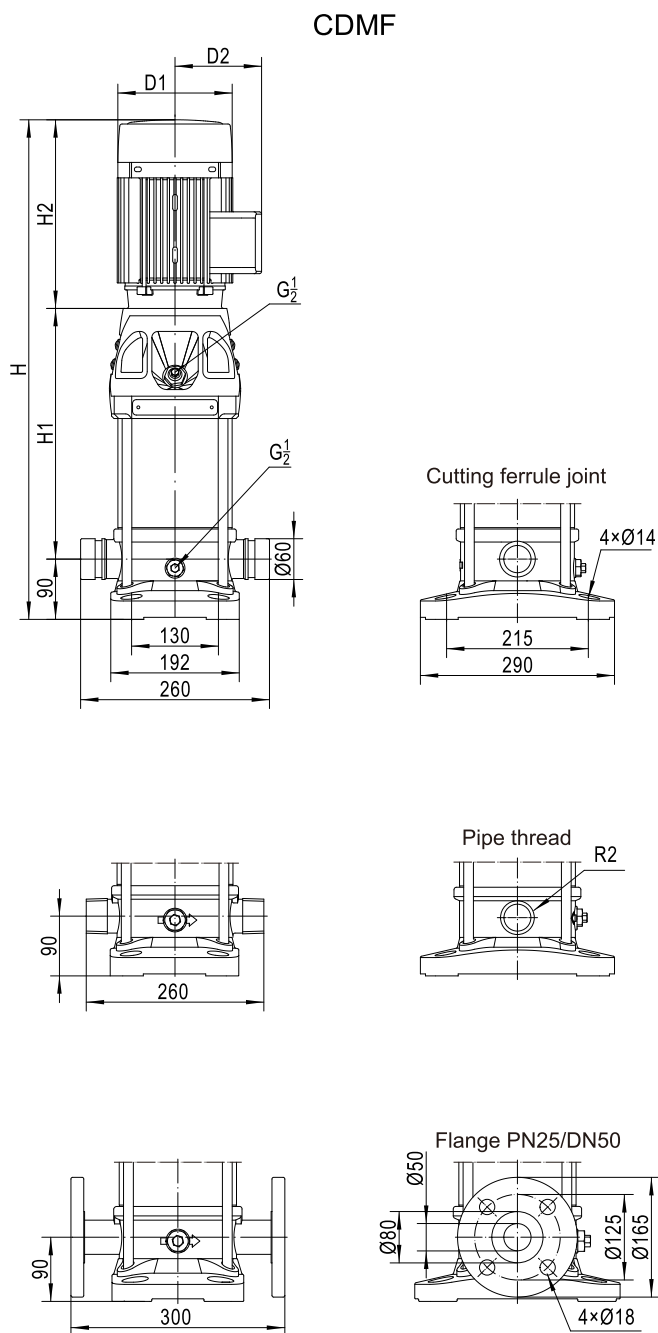
| Model | Dimension (mm) |     |      |     |     | Weight(kg) |     |
|-------|----------------|-----|------|-----|-----|------------|-----|
|       | H1             | H2  | H    | D1  | D2  | CDMF       | CDM |
| 15-1  | 307            | 290 | 687  | 190 | 155 | 40         | 47  |
| 15-2  | 317            | 345 | 752  | 197 | 165 | 53         | 60  |
| 15-3  | 362            | 355 | 807  | 230 | 188 | 61         | 68  |
| 15-4  | 485            | 390 | 965  | 260 | 208 | 83         | 90  |
| 15-5  | 530            | 390 | 1010 | 260 | 208 | 87         | 94  |
| 15-6  | 605            | 500 | 1195 | 330 | 255 | 168        | 175 |
| 15-7  | 650            | 500 | 1240 | 330 | 255 | 170        | 177 |
| 15-8  | 695            | 500 | 1285 | 330 | 255 | 171        | 178 |
| 15-9  | 740            | 500 | 1330 | 330 | 255 | 173        | 180 |
| 15-10 | 785            | 500 | 1375 | 330 | 255 | 174        | 181 |
| 15-11 | 830            | 500 | 1420 | 330 | 255 | 175        | 182 |
| 15-12 | 875            | 550 | 1515 | 330 | 255 | 185        | 192 |

The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.

## Performance curve



## CDM/CDMF20 Installation sketch



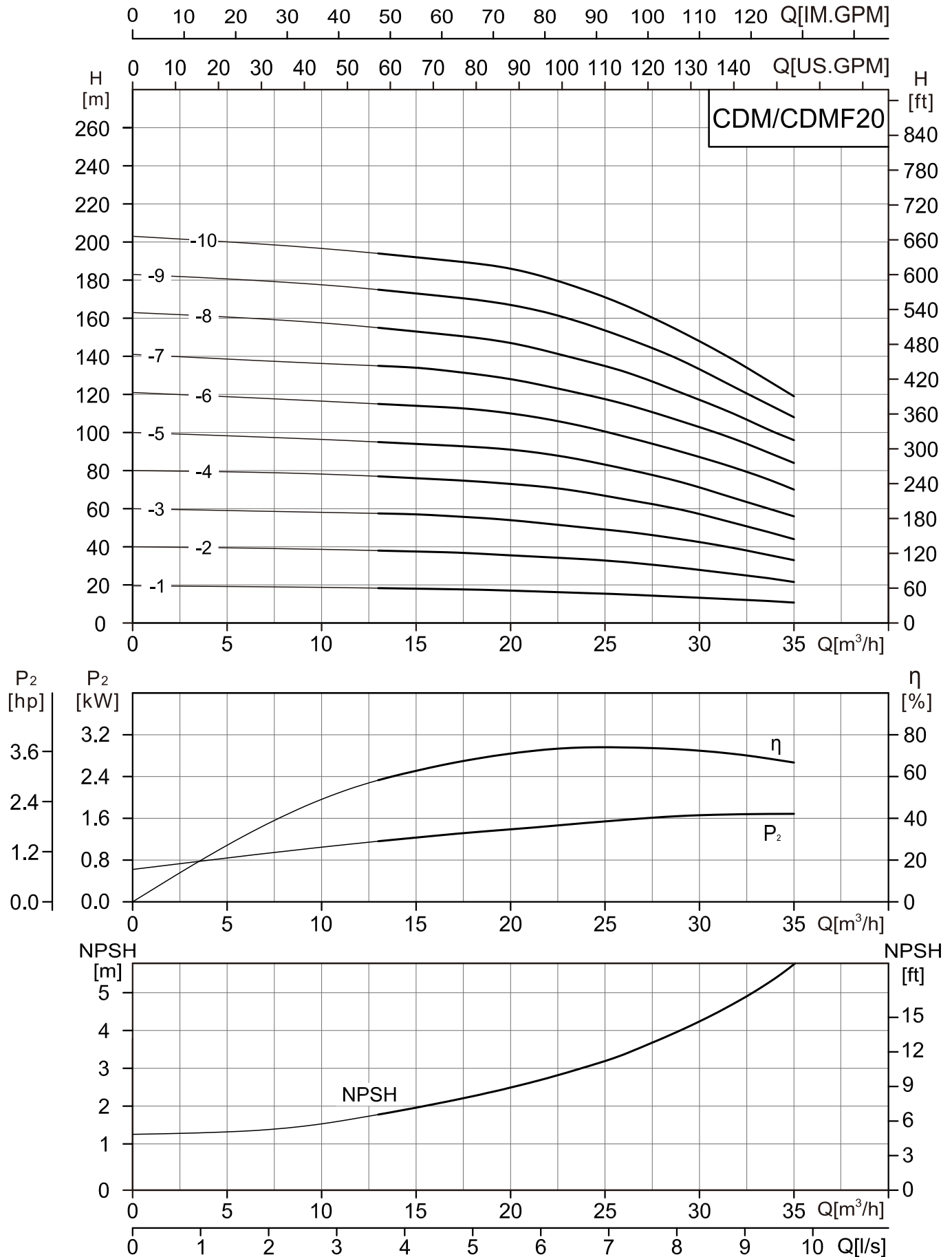
## Dimensions and weights

| Model | Dimension (mm) |     |      |     |     | Weight(kg) |     |
|-------|----------------|-----|------|-----|-----|------------|-----|
|       | H1             | H2  | H    | D1  | D2  | CDMF       | CDM |
| 20-1  | 307            | 290 | 687  | 190 | 155 | 40         | 47  |
| 20-2  | 317            | 355 | 762  | 230 | 188 | 58         | 65  |
| 20-3  | 440            | 390 | 920  | 260 | 208 | 80         | 87  |
| 20-4  | 485            | 390 | 965  | 260 | 208 | 84         | 91  |
| 20-5  | 560            | 500 | 1150 | 330 | 255 | 151        | 158 |
| 20-6  | 605            | 500 | 1195 | 330 | 255 | 153        | 160 |
| 20-7  | 650            | 500 | 1240 | 330 | 255 | 169        | 176 |
| 20-8  | 695            | 500 | 1285 | 330 | 255 | 170        | 177 |
| 20-9  | 740            | 550 | 1380 | 330 | 255 | 180        | 187 |
| 20-10 | 785            | 550 | 1425 | 330 | 255 | 181        | 188 |

The overall dimensions of the single-phase motor and explosive-proof motor are a little different. Please contact us for details.



## Performance curve



## Material code

| Pump material | Sealing rubber | Mechanical Seal                       |
|---------------|----------------|---------------------------------------|
| S : AISI304   | N : NBR        | B : Tungsten carbide/Graphite         |
| L : AISI316L  | E : EPDM       | S : Tungsten carbide/Silicon carbide  |
| P : ASTM25B   | F : FPM        | W : Tungsten Carbide/Tungsten Carbide |

## Compatibility chart for materials

| Pumped liquid           | Chemical formula                                                     | Liquid concentration | Liquid temperature | Pump material | Sealing rubber | Machinery Seal |
|-------------------------|----------------------------------------------------------------------|----------------------|--------------------|---------------|----------------|----------------|
| Sulphuric acid          | H <sub>2</sub> SO <sub>4</sub>                                       | 1.0%                 | 20℃                | L             | F              | S              |
| Nitric acid             | HNO <sub>3</sub>                                                     | 1.0%                 | 20℃                | L             | F              | S              |
| Phosphoric acid         | H <sub>3</sub> PO <sub>4</sub>                                       | 20.0%                | 20℃                | L             | E              | W              |
| Chromic acid            | H <sub>2</sub> CrO <sub>4</sub>                                      | 1.0%                 | 20℃                | L             | F              | S              |
| Acetic acid             | CH <sub>3</sub> COOH                                                 | 5.0%                 | 20℃                | L             | E              | S              |
| Formic acid             | HCOOH                                                                | 5.0%                 | 20℃                | L             | E              | S              |
| Oxalic acid             | (COOH) <sub>2</sub>                                                  | 1.0%                 | 20℃                | L             | E              | S              |
| Citric acid             | HOC(CH <sub>2</sub> CO <sub>2</sub> H) <sub>2</sub> COOH             | 5.0%                 | 40℃                | L             | E              | W              |
| Salicylic acid          | C <sub>6</sub> H <sub>4</sub> (OH)COOH                               | 0.1%                 | 20℃                | L             | E              | W              |
| Benzoic acid            | C <sub>6</sub> H <sub>5</sub> COOH                                   | 0.5%                 | 20℃                | L             | F              | W              |
| Sodium hydroxide        | NaOH                                                                 | 20.0%                | 50℃                | L             | E              | W              |
| Potassium hydroxide     | KOH                                                                  | 20.0%                | 50℃                | L             | E              | W              |
| Potassium hydroxide     | KOH                                                                  | 40.0%                | 80℃                | L             | E              | W              |
| Calcium hydroxide       | Ca(OH) <sub>2</sub>                                                  | 5.0%                 | 50℃                | P             | F              | W              |
| Ammonia in water        | NH <sub>4</sub> OH                                                   | 20.0%                | 40℃                | S             | E              | W              |
| Copper sulphate         | CuSO <sub>4</sub>                                                    | 10.0%                | 50℃                | L             | F              | W              |
| Sodium carbonate        | Na <sub>2</sub> CO <sub>3</sub>                                      | 10.0%                | 51℃                | S             | F              | W              |
| Sodium nitrate          | NaNO <sub>3</sub>                                                    | 10.0%                | 60℃                | L             | F              | W              |
| Sodium phosphate        | Na <sub>3</sub> PO <sub>4</sub>                                      | 10.0%                | 60℃                | L             | F              | W              |
| Sodium bicarbonate      | NaHCO <sub>3</sub>                                                   | 10.0%                | 60℃                | L             | F              | W              |
| Ammonium bicarbonate    | NH <sub>4</sub> HCO <sub>3</sub>                                     | 20.0%                | 40℃                | L             | F              | W              |
| Sodium sulphate         | Na <sub>2</sub> SO <sub>4</sub>                                      | 10.0%                | 60℃                | L             | F              | W              |
| Potassium carbonate     | K <sub>2</sub> CO <sub>3</sub>                                       | 20.0%                | 50℃                | S             | F              | W              |
| Potassium sulphate      | K <sub>2</sub> SO <sub>4</sub>                                       | 20.0%                | 50℃                | L             | F              | W              |
| Potassium nitrate       | KNO <sub>3</sub>                                                     | 20.0%                | 50℃                | L             | F              | W              |
| Potassium permanganate  | KMnO <sub>4</sub>                                                    | 5.0%                 | 20℃                | L             | E              | W              |
| Calcium acetate         | C <sub>4</sub> H <sub>6</sub> CaO <sub>4</sub>                       | 30.0%                | 50℃                | L             | F              | W              |
| Ethanol (ethyl alcohol) | C <sub>2</sub> H <sub>5</sub> OH                                     | 80.0%                | 100℃               | S,P           | F              | B              |
| Ethylene glycol         | HOCH <sub>2</sub> CH <sub>2</sub> OH                                 | 50.0%                | 50℃                | S,P           | F              | B              |
| Propanol                | C <sub>3</sub> H <sub>7</sub> OH                                     | 50.0%                | 100℃               | S,P           | F              | B              |
| Propylene glycol        | CH <sub>3</sub> CH(OH)CH <sub>2</sub> OH                             | 50.0%                | 70℃                | S,P           | F              | B              |
| Butanediol              | HOCH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH | 50.0%                | 25℃                | S,P           | F              | B              |
| formaldehyde            | HCHO                                                                 | 10.0%                | 25℃                | S             | F              | B              |
| Acetaldehyde            | CH <sub>3</sub> CHO                                                  | 20.0%                | 25℃                | S             | F              | B              |
| Petrol                  |                                                                      |                      | 80℃                | S             | N              | B              |
| kerosene                |                                                                      |                      | 80℃                | S             | N              | B              |
| Diesel oil              |                                                                      |                      | 80℃                | S             | N              | B              |
| Pee                     |                                                                      |                      | 60℃                | L             | N              | B              |
| Hydrogen peroxide       |                                                                      |                      | 45℃                | S,P           | E              | S              |
| Ozone water             |                                                                      |                      | 50℃                | S,P           | E              | S              |
| Deionised water         |                                                                      |                      | 100℃               | S,P           | N              | B              |

## Motor parameter table

| Motor<br>P <sub>2</sub> |      | Frame size | Standard voltage<br>[V] | I <sub>1</sub> /I<br>[A] | Cos φ <sub>1</sub> /1 | Efficiency<br>class | η<br>[%] | I <sub>sn</sub> /I <sub>n</sub> | Speed<br>[min <sup>-1</sup> ] |
|-------------------------|------|------------|-------------------------|--------------------------|-----------------------|---------------------|----------|---------------------------------|-------------------------------|
| [kW]                    | [hp] |            |                         |                          |                       |                     |          |                                 |                               |
| 0.37                    | 0.50 | 71         | 220/380                 | 1.7/1.0                  | 0.81                  | -                   | 70.0     | 6.1                             | 3400                          |
| 0.55                    | 0.75 | 71         | 220/380                 | 2.4/1.4                  | 0.82                  | -                   | 73.0     | 6.1                             | 3400                          |
| 0.75                    | 1    | 80         | 220/380                 | 3.1/1.8                  | 0.82                  | IE3                 | 77.0     | 7                               | 3460                          |
| 1.1                     | 1.5  | 80         | 220/380                 | 4.1/2.4                  | 0.83                  | IE3                 | 84.0     | 7.3                             | 3460                          |
| 1.5                     | 2    | 90         | 220/380                 | 5.5/3.2                  | 0.84                  | IE3                 | 85.5     | 7.6                             | 3470                          |
| 2.2                     | 3    | 90         | 220/380                 | 7.9/4.5                  | 0.85                  | IE3                 | 86.5     | 7.6                             | 3470                          |
| 3                       | 4    | 100        | 220/380                 | 10.2/5.9                 | 0.87                  | IE3                 | 88.5     | 7.8                             | 3500                          |
| 4                       | 5.5  | 112        | 380                     | 7.8                      | 0.88                  | IE3                 | 88.5     | 8.3                             | 3510                          |
| 5.5                     | 7.5  | 132        | 380                     | 10.6                     | 0.88                  | IE3                 | 89.5     | 8.3                             | 3530                          |
| 7.5                     | 10   | 132        | 380                     | 14.4                     | 0.88                  | IE3                 | 90.2     | 7.9                             | 3530                          |
| 11                      | 15   | 160        | 380                     | 20.6                     | 0.89                  | IE3                 | 91.0     | 8.1                             | 3550                          |
| 15                      | 20   | 160        | 380                     | 28.1                     | 0.89                  | IE3                 | 91.0     | 8.1                             | 3550                          |
| 18.5                    | 25   | 160        | 380                     | 34.4                     | 0.89                  | IE3                 | 91.7     | 8.2                             | 3550                          |

# MEMO

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