



**EBARA**

CT 656-08-16

# **CURVES AND CABLES SELECTION CATALOGUE**

**MODELS 4BPS / BHS**

**50 Hz**



## TECHNOLOGY AND DEVELOPMENT IN BRAZIL AND AROUND THE WORLD

Founded in Japan in 1912, EBARA is currently one of the world's leading industrial machinery manufacturers and has been expanding the technological frontiers of rotating equipment and systems, which are essential for transporting liquid and gaseous substances. The EBARA Group currently has three business units: Fluid Machinery & Systems, focusing on the manufacture of pumps and compressors; Environmental Engineering, which provides engineering services and builds incineration, gasification and water treatment systems; and Precision Machinery, which produces equipment for the semiconductor industry.

The Fluid Machinery and Systems Group offers a full range of products and services - from equipment for pumping, to a full- engineering and integrated systems service on a global stage, which plays an indispensable role in project solutions related to water supply, energy and the environment. The Ebara Group consists of 77 subsidiaries (53 of them are consolidated subsidiaries) and 11 affiliated companies.



EBARA's history in Brazil began in January 1975. It is the Group's first industrial unit outside Japan. With its headquarters and plant in the city of Bauru, SP, it started by manufacturing submersible pumps and motors for deep wells. Since then, EBARA has undergone several changes, always pursuing productive and human development. Ebara maintains its quality level by investing in technology and innovation for production systems, thus offering high performance products that meet the needs of its customers. These products are divided into sets of submersible motor pumps for deep wells, submersible motor pumps for sewage and drainage, centrifugal pump lines, and the Acqua Plus pressurization system, in addition to controls and accessories.

***EBARA is always seeking innovations to ensure the quality of its products,  
and most importantly, to guarantee customer satisfaction.  
EBARA, quality solutions.***



### **MODEL 4BPS**

Stainless steel pumpers and tech polymer rotors. Flow rates up to 22,8 m<sup>3</sup>/h for 4" wells.

### **MODEL BHS**

Cast iron pumpers and stainless steel or bronze rotors. Flow rates up to 480 m<sup>3</sup>/h and power up to 260 HP.

### **CONTROL BOX**

Ensure and guarantee the good operation of the equipment.

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# EBARA

## EBARA MOTOR PUMP SETS APPLICATION

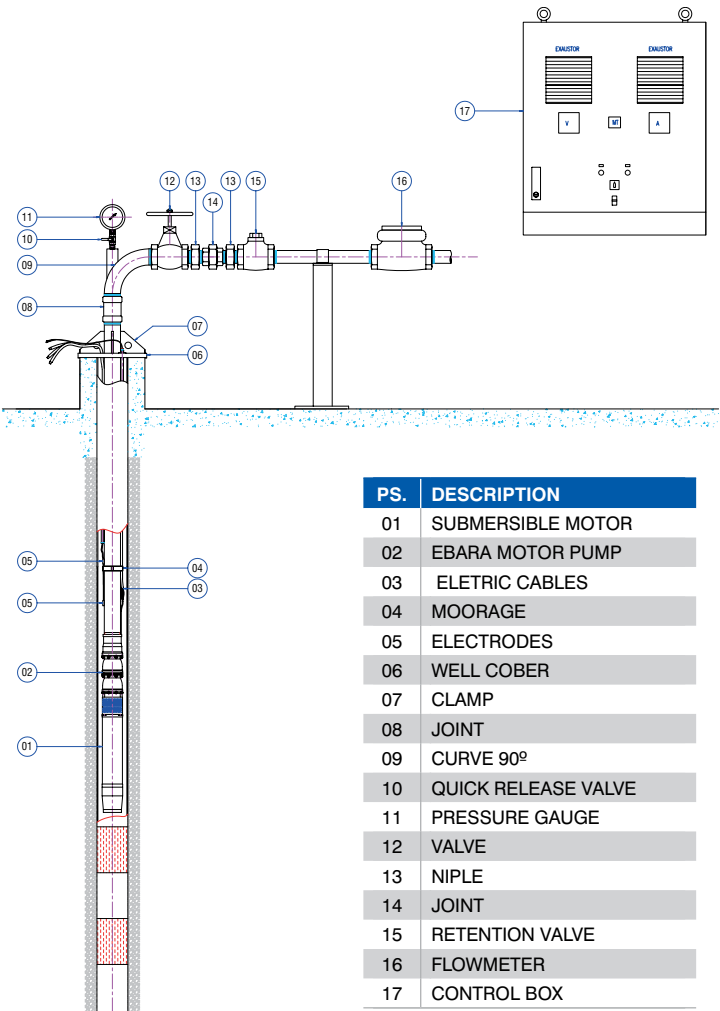
### WATER COLLECTION WATER

Ebara submersible motor pump sets have been developed to allow groundwater collection through the installation of tube wells. They can be used for residential, industrial, agricultural and public supply. They can also be used for reducing the water table if necessary for construction and mining.

One factor that should be checked carefully to ensure the longest motor life possible, is the submergence, which must be suitable for each piece of equipment and each operation flow.

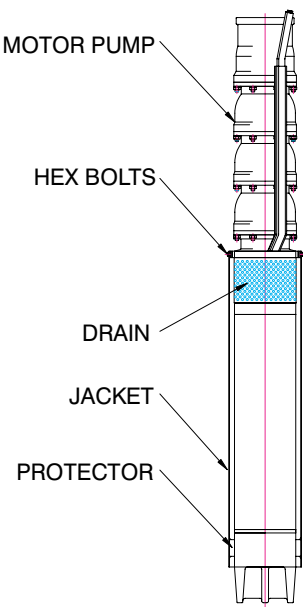
To found out the minimum submergence needed for your equipment, contact our Commercial Department.

Remember, hydraulic fittings may be changed according to operating conditions.



### SUCTION JACKET

The suction Jacket allows the entire flow of pumped water to go through the motor, ensuring it is cooled. It is an accessory that is required when operating the motor pump assembly between or under all filters, or when the diameter of the well casing does not guarantee the minimum required motor cooling speed.



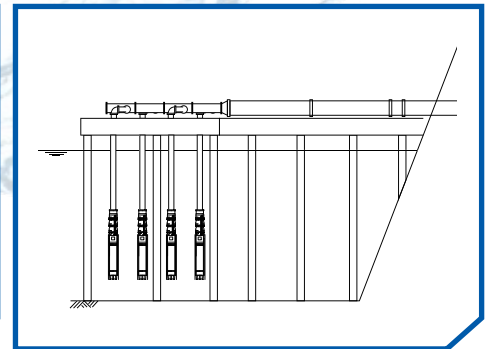
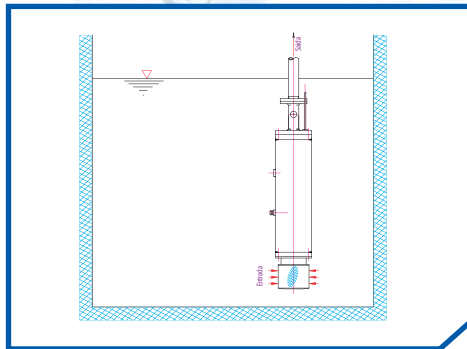
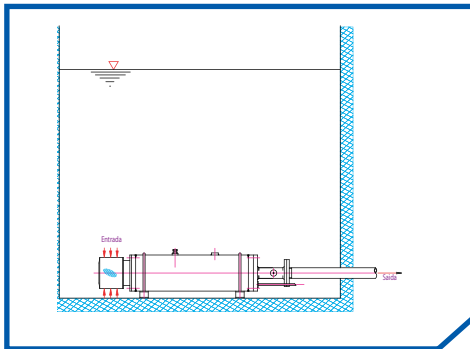


## EBARA PUMP SETS APPLICATIONS

### COLLECTION

Ebara Submersible motor pump sets are also used to collect water in tanks in vertical and horizontal positions. This operation provides the following advantages:

- Reduces the cost of construction works.
- Reduces noise and vibrations.
- Minimizes the risk of robbery by not being exposed.
- Eliminates the risk of leaks at joints and bearings (common for centrifugal pumps).
- Reduces pump room temperature.

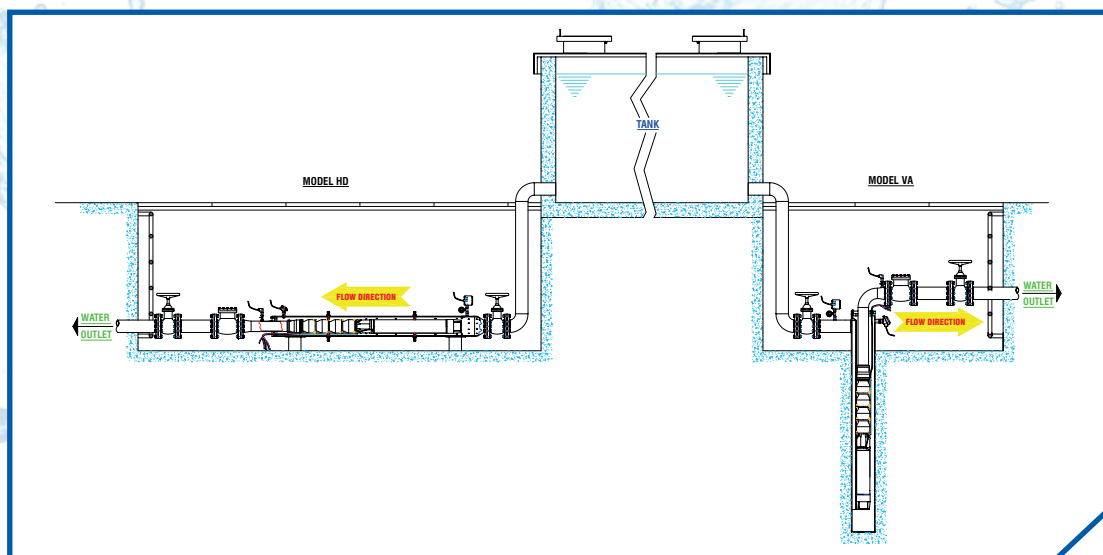


### BOOSTER

Another way to operate Ebara submersible motor sets is by using network pressurization systems (boosters) in vertical and horizontal positions.

The main advantages of using a booster system are:

- Reduction of noise level.
- Greater efficiency.
- Lower power consumption.
- Space reduction.
- Lower initial cost.
- Reduction of the machinery room temperature
- Less maintenance.
- No leaks.
- Reduced risk of vandalism



## **CAUTIONS WHEN CHOOSING A PUMP**

Always select equipment, which operates within the range mentioned in the catalogue.

Submersible pump motor cooling for wells is obtained by passing water at a certain speed required by the motor, thus ensuring perfect cooling of the motors. The pump must be installed above the filters in the well and the submergence recommendation must be followed. When the equipment is operating in a well with a diameter larger than it was designed for, and when the pump will be operated between the filters, a suction jacket must be installed.

Ebara motors are produced to operate in wells with water temperatures up to 40°C. For higher temperatures, our sales department must be contacted for assistance.

When selecting cables, in addition to taking into account the motor model, power and voltage, please note that the transformer is exclusive to the motor.

In this case, you must select a cable with a voltage drop of up to 7%. In the event that the transformer also works for other charges, the cable must be selected by using the 4% voltage drop columns.

For safer operation, we recommend using the Control box with maximum protection.

At the time of installation, make sure to follow the procedures described in the manual supplied with the pump.



***Check the other EBARA product lines  
at our site.***



## ***MOTOR PUMP SETS IN 4"***

**50Hz**

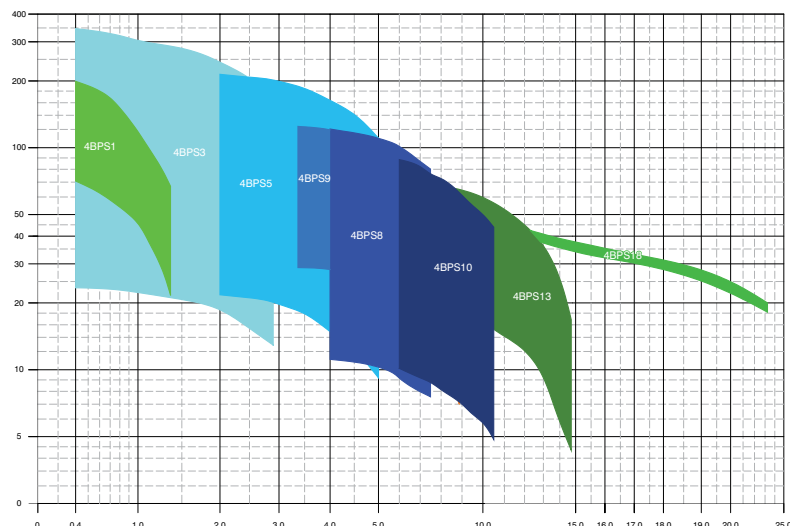
### ***Models 4BPS***

- Flow rates up to 22.8 m<sup>3</sup>/h.
  - POWER up 4,0HP.
- PRESSURES up to 324.7 meters of head.
- Stainless steel pumps and Technopolymer impellers.
- Available in carbon steel or stainless steel rewinding motor.
  - Increased resistance to abrasion





## Operation Range



## CHARACTERISTICS

- Outer tube, stage body, suction body, stainless steel coupling and shaft.
- Technopolymer impellers and diffusers for greater resistance to abrasion:
- Impellers designed to reduce the axial HEAD, increasing the life of the motor.
- Valve body, models:
  - 4BPS 3,5,8 and 10f - cast iron with anti-corrosion coating.
  - 4BPS 1,3,5,8,9,10,13 and 18i - stainless steel.

## APLICATIONS

- Water collection in deep tube wells for residential, industrial and agricultural use.
- Pressurization of the hydraulic networks.
- Sources.

## WATER QUALITY

- Clean water with pH of 6.5 to 8.0.
- Maximum sand content permitted: 50 g/m³ or ppm.

## PUMP CONNECTION

- Female thread BSP 1 1/4 " (4BPS 1 models).
- Female thread BSP 1 1/2 " (4BPS 3,5,8,9 and 10 models).
- Female thread BSP2 " (4bps 13 and 18 models).

## ROTATION DIRECTION

- Counterclockwise (top view).

## MOTORS

- The Ebara 4BPS models were designed to be coupled with the motors built in accordance with the specifications of the NEMA standard.
- Available in M4P2 and M4P7 series.

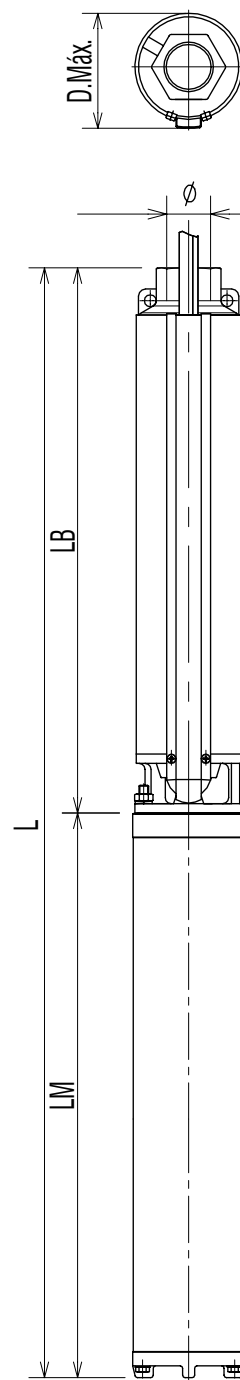
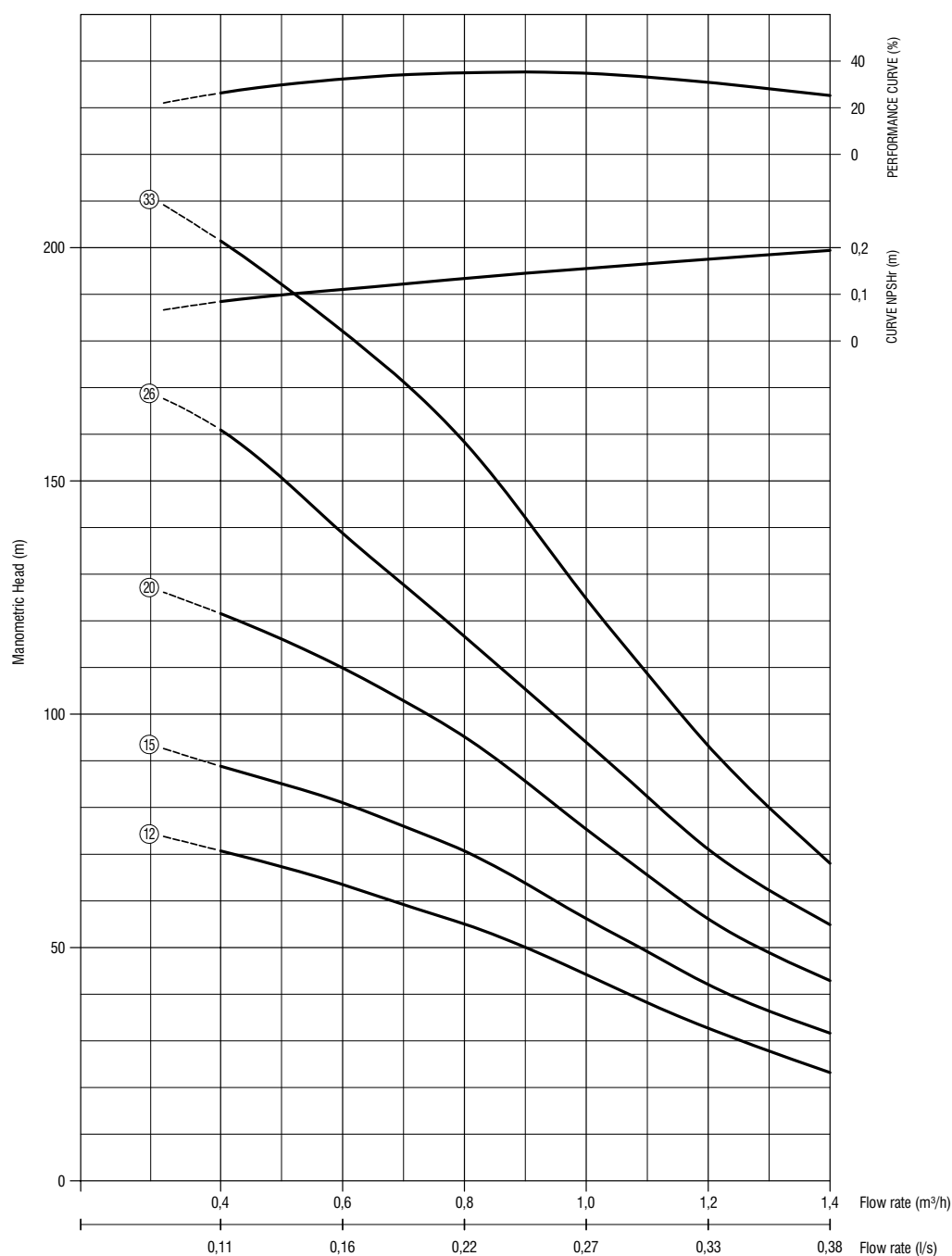


## MOTORS

| Origin           |             | M4P2             | M4P7             |
|------------------|-------------|------------------|------------------|
| National         |             | National         | National         |
| Power            | Three-Phase | 0,5~2 HP         | 2,5~4 HP         |
| Voltage          | Three-Phase | 220, 380 ou 440V | 220, 380 ou 440V |
| Outer Tube       |             | Carbon steel     | Carbon steel     |
| Lubrication      |             | Water            | Water            |
| Internal cooling |             | Water            | Water            |
| External cooling |             | Water            | Water            |
| Isolation        |             | Rebobinable      | Rebobinable      |
| Bearing          |             | Graphite         | Graphite         |
| Sealed retainer  |             | Retainer         | Retainer         |

PERFORMANCE CURVE

50Hz

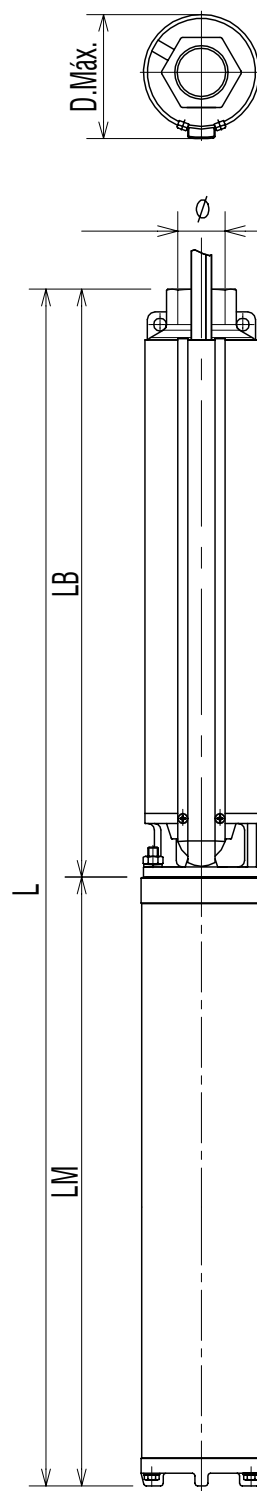
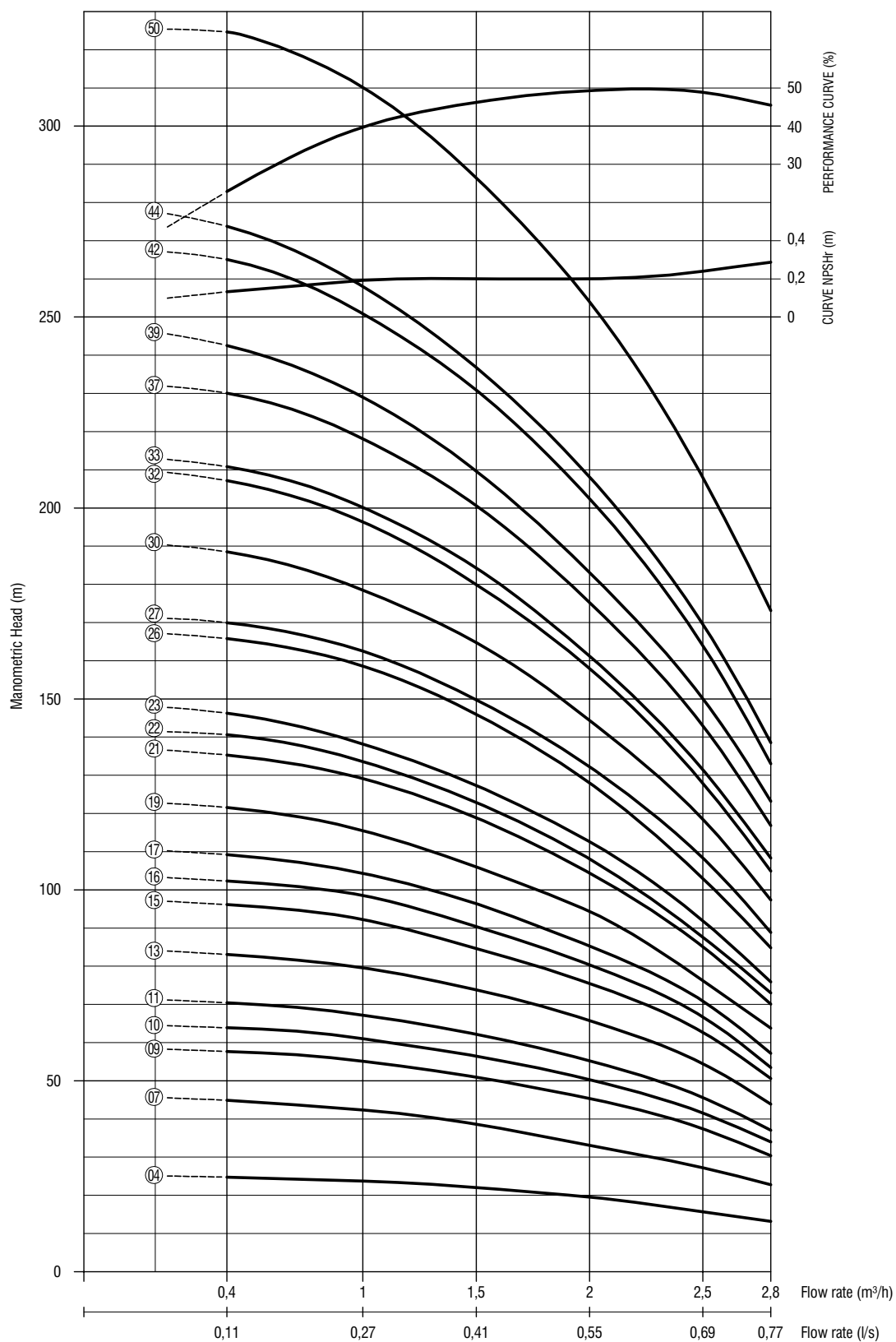


### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº<br>EST. | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |      |      |      |      | THREE-PHASE (220/380V) |            |           | Volume (Kg)                 | D<br>máx.<br>(mm) | Ø<br>PUL<br>BSP |
|---------------|------------|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               |            | HP    | kW   |                | 0                             | 0,4   | 0,6   | 0,7   | 0,8   | 1     | 1,1  | 1,2  | 1,4  | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| 4BPS1-12      | 12         | 0,5   | 0,37 | M4P2           | 78,2                          | 70,7  | 63,5  | 59,9  | 54,5  | 46,4  | 33,6 | 30,4 | 23,1 | m    | 428                    | 359        | 787       | 18                          | 97                | 1 1/4"          |
| 4BPS1-15      | 15         | 0,75  | 0,56 |                | 98,8                          | 88,8  | 81,1  | 77,2  | 70,7  | 60,8  | 44,6 | 40,6 | 31,6 |      | 468                    | 411        | 879       | 20,5                        |                   |                 |
| 4BPS1-20      | 20         | 1     | 0,75 |                | 132,4                         | 121,5 | 109,9 | 104,1 | 95,2  | 81,9  | 60,4 | 55,0 | 42,9 |      | 508                    | 499        | 1007      | 22,9                        |                   |                 |
| 4BPS1-26      | 26         | 1,5   | 1,12 |                | 174,9                         | 160,9 | 138,8 | 127,8 | 116,7 | 103,9 | 76,8 | 70,1 | 54,9 |      | 563                    | 642        | 1205      | 26,4                        |                   |                 |
| 4BPS1-33      | 33         | 1,5   | 1,12 |                | 219,5                         | 201,4 | 182,1 | 172,4 | 157,9 | 136,6 | 99,5 | 89,9 | 68,0 |      | 563                    | 757        | 1320      | 27,9                        |                   |                 |

PERFORMANCE CURVE

50Hz



## EQUIPMENT SELECTION CHART

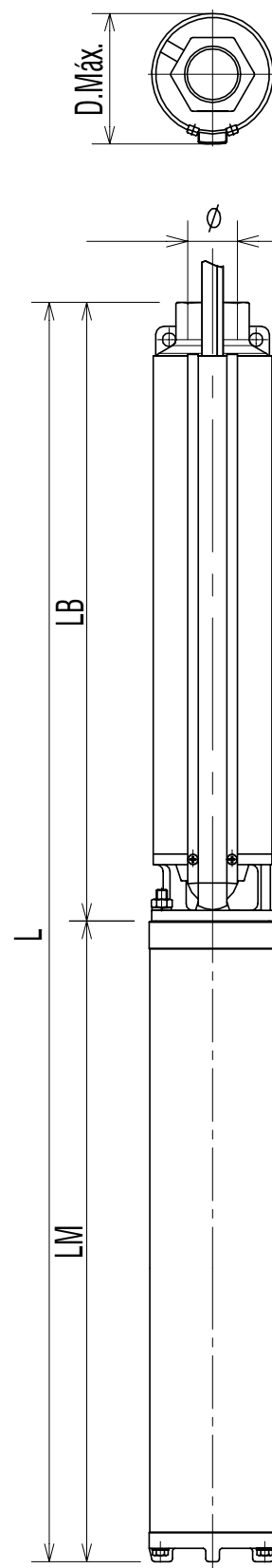
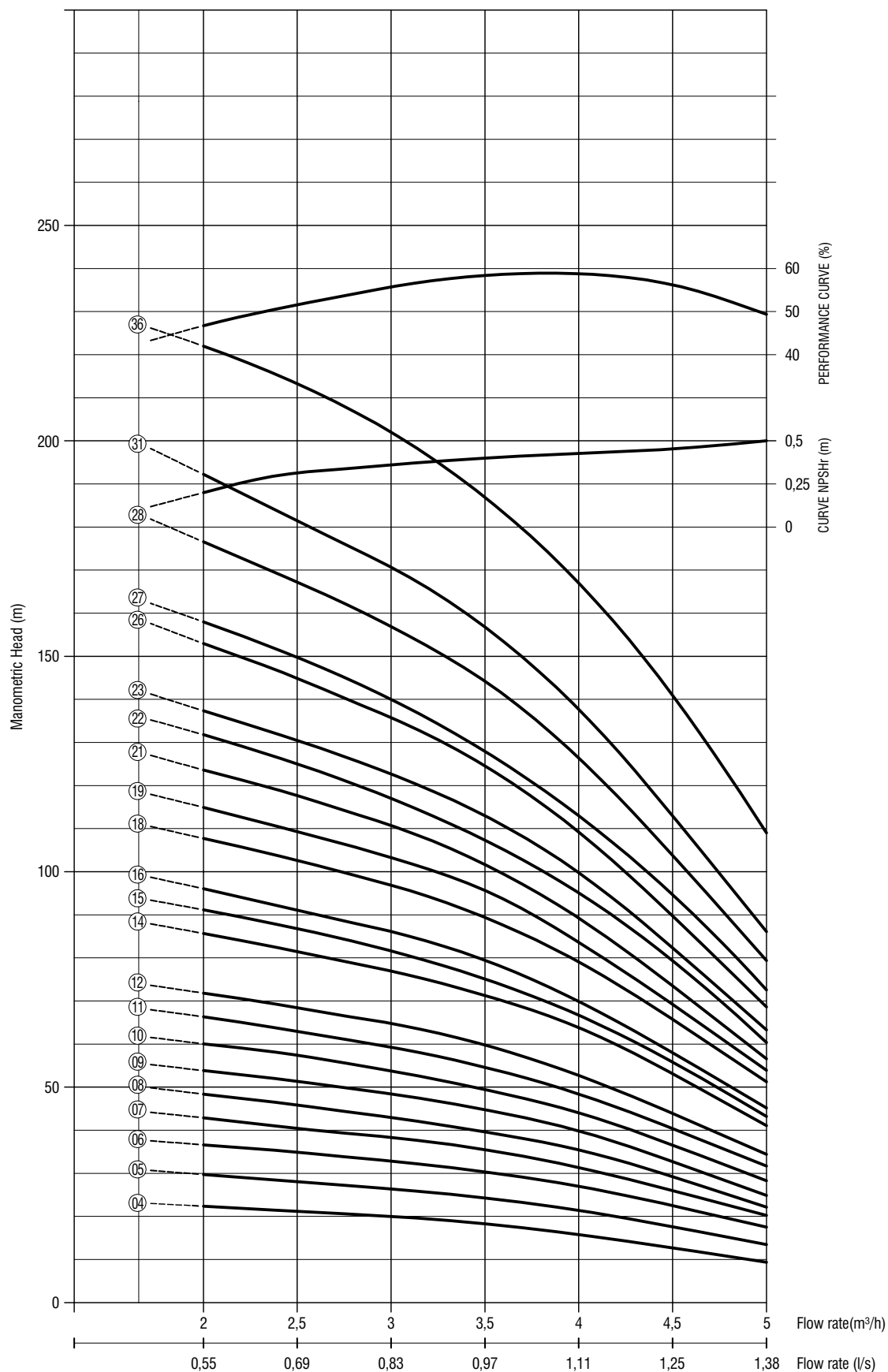
50Hz

| PUMP<br>MODEL | N°<br>EST. | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |            |           | Volume (Kg)                 | D.<br>max.<br>(mm) | Ø<br>PUL |
|---------------|------------|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------------|-----------|-----------------------------|--------------------|----------|
|               |            | HP    | kW   |                | 0                             | 0.4   | 0.8   | 1     | 1.5   | 1.8   | 2     | 2.5   | 2.8   | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                    |          |
| 4BPS3-04      | 04         | 0,5   | 0,37 | M4P2           | 25,4                          | 24,7  | 24,1  | 23,7  | 22,0  | 20,6  | 19,6  | 15,6  | 13,2  | m    | 428                    | 250        | 678       | 17,8                        | 97                 | 1 1/2"   |
| 4BPS3-07      | 07         | 0,5   | 0,37 |                | 46,0                          | 43,9  | 43,3  | 42,4  | 38,6  | 35,4  | 33,1  | 27,3  | 22,7  |      | 428                    | 305        | 733       | 18,4                        |                    |          |
| 4BPS3-09      | 09         | 0,75  | 0,56 |                | 59,0                          | 57,7  | 56,3  | 55,1  | 50,9  | 47,7  | 45,4  | 37,5  | 30,4  |      | 468                    | 345        | 813       | 20,8                        |                    |          |
| 4BPS3-10      | 10         | 0,75  | 0,56 |                | 65,2                          | 63,8  | 62,5  | 61,0  | 56,4  | 53,0  | 50,3  | 41,6  | 34,0  |      | 468                    | 365        | 833       | 21                          |                    |          |
| 4BPS3-11      | 11         | 1     | 0,75 |                | 72,0                          | 70,0  | 68,7  | 67,2  | 62,2  | 58,2  | 55,2  | 45,6  | 37,1  |      | 508                    | 385        | 893       | 22,8                        |                    |          |
| 4BPS3-13      | 13         | 1     | 0,75 |                | 85,1                          | 83,1  | 81,1  | 79,2  | 73,8  | 69,4  | 65,8  | 54,5  | 43,9  |      | 508                    | 424        | 932       | 23,4                        |                    |          |
| 4BPS3-15      | 15         | 1,5   | 1,12 |                | 98,1                          | 96,1  | 94,1  | 91,7  | 84,6  | 79,5  | 75,5  | 62,7  | 50,5  |      | 563                    | 463        | 1026      | 26,4                        |                    |          |
| 4BPS3-16      | 16         | 1,5   | 1,12 |                | 104,3                         | 102,3 | 100,3 | 97,9  | 90,4  | 84,7  | 80,4  | 66,8  | 53,6  |      | 563                    | 483        | 1046      | 26,6                        |                    |          |
| 4BPS3-17      | 17         | 1,5   | 1,12 |                | 111,1                         | 108,5 | 106,5 | 104,3 | 96,4  | 90,0  | 85,3  | 70,9  | 57,2  |      | 563                    | 503        | 1066      | 26,8                        |                    |          |
| 4BPS3-19      | 19         | 1,5   | 1,12 |                | 123,5                         | 121,5 | 118,2 | 115,1 | 106,0 | 99,3  | 94,3  | 76,2  | 63,7  |      | 563                    | 541        | 1104      | 27,2                        |                    |          |
| 4BPS3-21      | 21         | 2     | 1,49 |                | 138,6                         | 133,8 | 131,9 | 129,1 | 119,1 | 110,7 | 104,4 | 85,1  | 70,0  |      | 613                    | 580        | 1193      | 29,8                        |                    |          |
| 4BPS3-22      | 22         | 2     | 1,49 |                | 141,0                         | 140,6 | 136,8 | 133,6 | 122,9 | 114,6 | 108,1 | 87,6  | 72,4  |      | 613                    | 600        | 1213      | 30                          |                    |          |
| 4BPS3-23      | 23         | 2     | 1,49 |                | 148,9                         | 146,3 | 141,6 | 138,2 | 127,4 | 118,9 | 112,6 | 91,9  | 75,9  |      | 613                    | 619        | 1232      | 30,2                        |                    |          |
| 4BPS3-26      | 26         | 2     | 1,49 |                | 168,0                         | 165,8 | 161,9 | 168,6 | 146,0 | 135,9 | 128,0 | 109,9 | 90,5  |      | 613                    | 709        | 1322      | 31,2                        |                    |          |
| 4BPS3-27      | 27         | 2     | 1,49 |                | 171,5                         | 170,3 | 164,4 | 160,8 | 149,6 | 139,9 | 132,3 | 109,0 | 88,8  |      | 613                    | 729        | 1342      | 31,4                        |                    |          |
| 4BPS3-30      | 30         | 2,5   | 1,86 | M4P7           | 191,4                         | 187,4 | 182,8 | 178,5 | 164,7 | 153,4 | 144,4 | 118,5 | 97,4  |      | 730                    | 787        | 1517      | 36,5                        |                    |          |
| 4BPS3-32      | 32         | 3     | 2,24 |                | 208,0                         | 207,2 | 201,0 | 196,4 | 180,0 | 167,6 | 168,5 | 136,5 | 111,9 |      | 730                    | 826        | 1556      | 37                          |                    |          |
| 4BPS3-33      | 33         | 3     | 2,24 |                | 214,0                         | 210,8 | 204,8 | 200,2 | 184,3 | 171,2 | 161,3 | 131,4 | 108,3 |      | 730                    | 846        | 1576      | 37,2                        |                    |          |
| 4BPS3-37      | 37         | 3     | 2,24 |                | 232,6                         | 230,0 | 223,4 | 218,1 | 200,6 | 186,3 | 175,3 | 143,0 | 116,8 |      | 730                    | 924        | 1654      | 38,1                        |                    |          |
| 4BPS3-39      | 39         | 3     | 2,24 |                | 243,0                         | 242,6 | 234,6 | 229,0 | 209,7 | 194,5 | 183,1 | 150,1 | 123,2 |      | 730                    | 964        | 1694      | 38,5                        |                    |          |
| 4BPS3-42      | 42         | 3     | 2,24 |                | 267,5                         | 265,1 | 257,1 | 250,9 | 230,9 | 214,8 | 202,5 | 164,8 | 133,0 |      | 730                    | 1021       | 1751      | 39,5                        |                    |          |
| 4BPS3-44      | 44         | 4     | 2,98 |                | 274,0                         | 273,7 | 264,6 | 258,0 | 236,8 | 220,6 | 208,1 | 232,1 | 138,6 |      | 790                    | 1061       | 1851      | 42,9                        |                    |          |
| 4BPS3-50      | 50         | 4     | 2,98 |                | 325,0                         | 324,7 | 316,6 | 310,2 | 286,4 | 268,1 | 254,0 | 208,0 | 173,1 |      | 790                    | 1181       | 1971      | 44,1                        |                    |          |



PERFORMANCE CURVE

50Hz



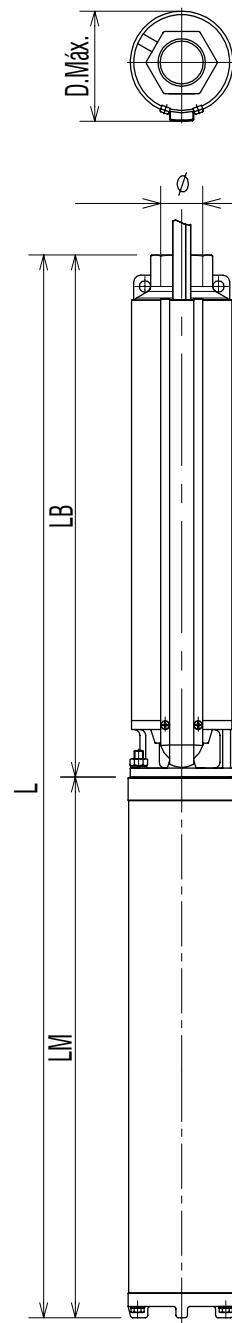
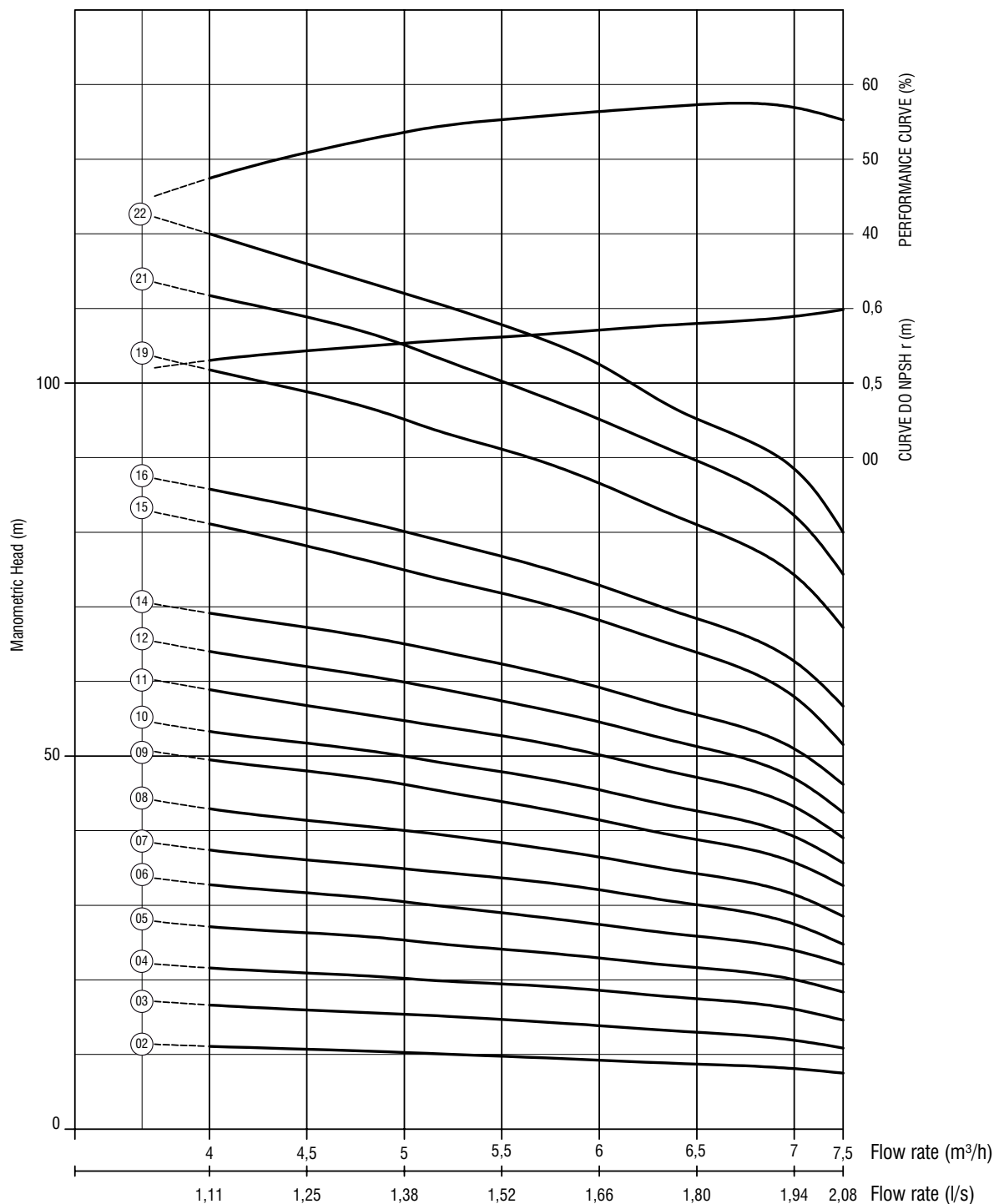
## EQUIPEMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº   | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |            |           | VOLUME(Kg)                  | D<br>máx.<br>(mm) | ø<br>PUL<br>BSP |
|---------------|------|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               | ETP. | HP    | Kw   |                | 0                             | 2     | 2,4   | 2,8   | 3     | 3,5   | 4     | 4,5   | 5     | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| 4BPS5-04      | 04   | 0,5   | 0,37 | M4P2           | 26,8                          | 22,1  | 21,4  | 20,5  | 20,0  | 18,3  | 15,8  | 12,7  | 9,4   | m    | 428                    | 270        | 698       | 17,7                        | 97                | 1 1/2"          |
| 4BPS5-05      | 05   | 0,5   | 0,37 |                | 32,9                          | 29,7  | 28,4  | 27,1  | 26,4  | 24,3  | 21,4  | 17,6  | 13,5  |      | 428                    | 291        | 719       | 17,9                        |                   |                 |
| 4BPS5-06      | 06   | 0,75  | 0,56 |                | 39,8                          | 36,6  | 35,3  | 33,7  | 32,8  | 30,3  | 27,0  | 22,5  | 17,5  |      | 468                    | 315        | 783       | 20,1                        |                   |                 |
| 4BPS5-07      | 07   | 0,75  | 0,56 |                | 46,6                          | 42,9  | 40,9  | 39,2  | 38,3  | 35,5  | 31,3  | 26,0  | 20,2  |      | 468                    | 339        | 807       | 20,4                        |                   |                 |
| 4BPS5-08      | 08   | 1     | 0,75 |                | 52,1                          | 48,4  | 46,4  | 44,1  | 43,0  | 39,6  | 35,5  | 29,2  | 22,2  |      | 508                    | 363        | 871       | 22,2                        |                   |                 |
| 4BPS5-09      | 09   | 1     | 0,75 |                | 59,0                          | 53,9  | 51,9  | 49,6  | 48,5  | 44,8  | 39,8  | 32,7  | 24,9  |      | 508                    | 387        | 895       | 22,5                        |                   |                 |
| 4BPS5-10      | 10   | 1,5   | 1,12 |                | 65,2                          | 60,0  | 58,0  | 55,3  | 53,8  | 49,4  | 44,0  | 36,6  | 28,3  |      | 563                    | 411        | 974       | 25,4                        |                   |                 |
| 4BPS5-11      | 11   | 1,5   | 1,12 |                | 71,3                          | 66,3  | 63,7  | 60,8  | 59,3  | 54,6  | 48,4  | 40,4  | 31,7  |      | 563                    | 435        | 998       | 25,7                        |                   |                 |
| 4BPS5-12      | 12   | 1,5   | 1,12 |                | 78,2                          | 71,8  | 69,2  | 66,2  | 64,8  | 59,8  | 52,7  | 43,9  | 34,4  |      | 563                    | 459        | 1022      | 25,9                        |                   |                 |
| 4BPS5-14      | 14   | 2     | 1,49 |                | 92,6                          | 85,6  | 82,3  | 78,8  | 76,9  | 71,3  | 63,8  | 53,1  | 41,1  |      | 613                    | 507        | 1120      | 28,4                        |                   |                 |
| 4BPS5-15      | 15   | 2     | 1,49 | M4P7           | 99,0                          | 91,2  | 87,7  | 83,8  | 81,6  | 75,1  | 66,7  | 55,8  | 43,2  | m    | 613                    | 531        | 1144      | 28,7                        |                   |                 |
| 4BPS5-16      | 16   | 2     | 1,49 |                | 105,6                         | 96,0  | 92,1  | 88,1  | 86,1  | 79,4  | 69,9  | 58,0  | 45,1  |      | 613                    | 555        | 1168      | 28,9                        |                   |                 |
| 4BPS5-18      | 18   | 2     | 1,49 |                | 118,7                         | 107,7 | 103,7 | 99,2  | 96,9  | 89,4  | 79,0  | 65,7  | 51,2  |      | 613                    | 603        | 1216      | 29,4                        |                   |                 |
| 4BPS5-19      | 19   | 2,5   | 1,86 |                | 125,5                         | 114,0 | 109,4 | 105,2 | 103,3 | 95,6  | 83,6  | 69,2  | 53,9  |      | 730                    | 627        | 1357      | 34,1                        |                   |                 |
| 4BPS5-21      | 21   | 2,5   | 1,86 |                | 136,5                         | 123,6 | 119,0 | 113,5 | 110,7 | 101,7 | 89,2  | 73,5  | 56,5  |      | 730                    | 708        | 1438      | 34,9                        |                   |                 |
| 4BPS5-22      | 22   | 3     | 2,24 |                | 145,0                         | 131,8 | 126,5 | 120,4 | 117,0 | 107,3 | 95,1  | 79,4  | 60,4  |      | 730                    | 732        | 1462      | 35,2                        |                   |                 |
| 4BPS5-23      | 23   | 3     | 2,24 |                | 150,2                         | 136,8 | 131,5 | 125,6 | 122,6 | 113,0 | 99,8  | 82,3  | 63,3  |      | 730                    | 756        | 1486      | 35,4                        |                   |                 |
| 4BPS5-26      | 26   | 3     | 2,24 |                | 168,1                         | 152,0 | 146,0 | 139,2 | 135,8 | 124,6 | 109,2 | 89,7  | 68,6  |      | 730                    | 828        | 1558      | 36,2                        |                   |                 |
| 4BPS5-27      | 27   | 3     | 2,24 |                | 174,0                         | 158,0 | 151,5 | 144,1 | 140,0 | 127,9 | 113,0 | 94,7  | 72,6  |      | 730                    | 852        | 1582      | 36,5                        |                   |                 |
| 4BPS5-28      | 28   | 3,5   | 2,61 |                | 194,1                         | 175,5 | 168,2 | 160,7 | 156,9 | 144,2 | 126,4 | 103,8 | 79,4  |      | 790                    | 876        | 1666      | 39,7                        |                   |                 |
| 4BPS5-31      | 31   | 3,5   | 2,61 | M4P7           | 214,0                         | 192,2 | 183,6 | 175,0 | 170,7 | 156,8 | 137,7 | 113,0 | 86,1  | m    | 790                    | 948        | 1738      | 40,5                        |                   |                 |
| 4BPS5-36      | 36   | 4     | 2,98 |                | 240,0                         | 222,0 | 215,2 | 206,9 | 202,0 | 186,9 | 167,0 | 141,0 | 109,0 |      | 790                    | 1068       | 1858      | 42                          |                   |                 |

PERFORMANCE CURVE

50Hz



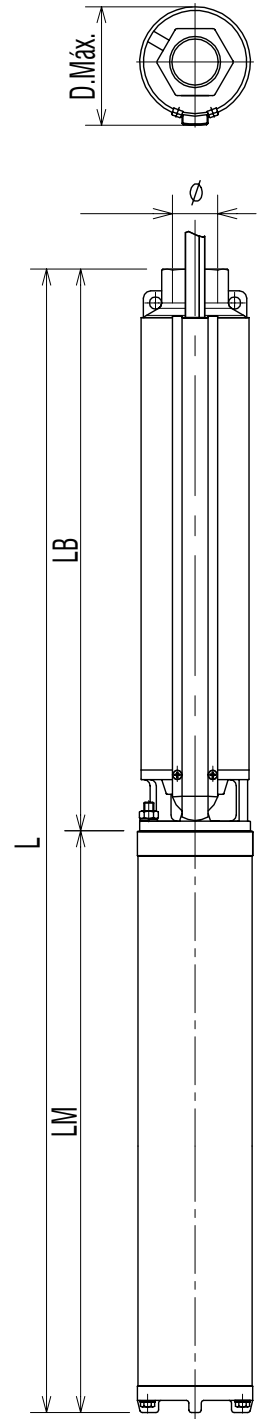
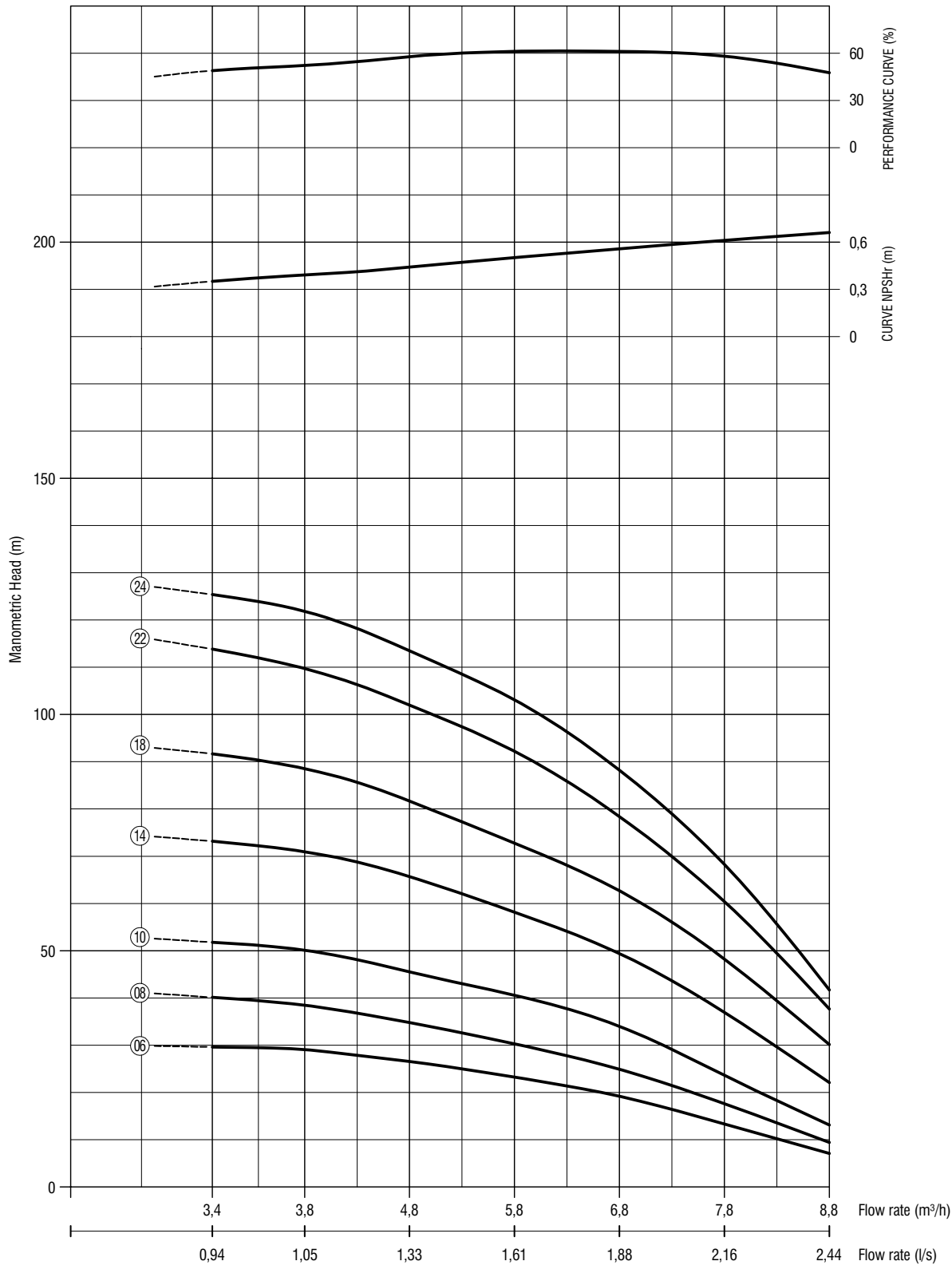
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº  | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |      |      |      |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D<br>max.<br>(mm) | Ø<br>PUL<br>BSP |
|---------------|-----|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               | ETP | HP    | Kw   |                | 0                             | 4     | 5     | 5.2   | 5.6   | 6     | 6.4  | 7    | 7.5  | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| 4BPS8-02      | 02  | 0,5   | 0,37 | M4P2           | 12,3                          | 11,1  | 10,3  | 10,1  | 9,7   | 9,2   | 8,8  | 8,1  | 7,5  | m    | 428                    | 266        | 694       | 17,5                        | 97                | 1<br>1/2"       |
| 4BPS8-03      | 03  | 0,5   | 0,37 |                | 18,5                          | 16,6  | 15,4  | 15,1  | 14,5  | 13,9  | 13,1 | 11,9 | 10,9 |      | 428                    | 310        | 738       | 17,9                        |                   |                 |
| 4BPS8-04      | 04  | 0,75  | 0,56 |                | 24,4                          | 21,6  | 20,2  | 19,9  | 19,3  | 18,6  | 17,7 | 16,1 | 14,6 |      | 468                    | 354        | 822       | 20,3                        |                   |                 |
| 4BPS8-05      | 05  | 1     | 0,75 |                | 30,5                          | 27,1  | 25,3  | 24,8  | 23,9  | 22,9  | 21,9 | 20,0 | 18,4 |      | 508                    | 399        | 907       | 22,4                        |                   |                 |
| 4BPS8-06      | 06  | 1,5   | 1,12 |                | 36,7                          | 32,8  | 30,5  | 29,9  | 28,7  | 27,4  | 26,1 | 24,0 | 22,1 |      | 563                    | 443        | 1006      | 25,4                        |                   |                 |
| 4BPS8-07      | 07  | 1,5   | 1,12 |                | 41,5                          | 37,4  | 34,9  | 34,4  | 33,4  | 32,1  | 30,4 | 27,5 | 24,8 |      | 563                    | 487        | 1050      | 25,8                        |                   |                 |
| 4BPS8-08      | 08  | 1,5   | 1,12 |                | 47,3                          | 42,9  | 40,0  | 39,4  | 38,0  | 36,5  | 34,6 | 31,4 | 28,5 |      | 563                    | 531        | 1094      | 26,3                        |                   |                 |
| 4BPS8-09      | 09  | 2     | 1,49 |                | 55,6                          | 49,5  | 46,2  | 45,2  | 43,4  | 41,4  | 39,3 | 35,7 | 32,6 |      | 613                    | 575        | 1188      | 29,1                        |                   |                 |
| 4BPS8-10      | 10  | 2     | 1,49 |                | 59,0                          | 53,3  | 50,0  | 49,1  | 47,5  | 45,5  | 43,1 | 39,2 | 35,7 |      | 613                    | 619        | 1232      | 29,5                        |                   |                 |
| 4BPS8-11      | 11  | 2     | 1,49 |                | 65,2                          | 58,9  | 54,7  | 53,9  | 52,3  | 50,2  | 47,7 | 43,2 | 39,0 |      | 613                    | 695        | 1308      | 30                          |                   |                 |
| 4BPS8-12      | 12  | 2,5   | 1,86 | M4P7           | 71,0                          | 64,0  | 59,9  | 58,9  | 56,9  | 54,6  | 51,9 | 47,0 | 42,4 | 27   | 740                    | 767        | 34,8      |                             |                   |                 |
| 4BPS8-13      | 13  | 2,5   | 1,86 |                | 76,8                          | 69,2  | 65,0  | 63,9  | 61,8  | 59,2  | 56,2 | 51,0 | 46,2 | 27   | 784                    | 811        | 35,2      |                             |                   |                 |
| 4BPS8-15      | 15  | 3     | 2,24 |                | 88,5                          | 81,1  | 74,9  | 73,7  | 71,2  | 68,2  | 64,7 | 57,9 | 51,5 | 27   | 872                    | 899        | 36,1      |                             |                   |                 |
| 4BPS8-16      | 16  | 3     | 2,24 |                | 94,7                          | 84,7  | 80,1  | 78,7  | 76,1  | 72,9  | 69,3 | 62,7 | 56,7 | 27   | 917                    | 944        | 36,5      |                             |                   |                 |
| 4BPS8-19      | 19  | 3,5   | 2,61 |                | 112,2                         | 101,8 | 95,1  | 93,5  | 90,4  | 86,6  | 82,1 | 74,3 | 67,2 | 30   | 1049                   | 1079       | 40,8      |                             |                   |                 |
| 4BPS8-21      | 21  | 4     | 2,98 |                | 124,2                         | 111,7 | 105,1 | 103,1 | 99,3  | 95,1  | 90,7 | 82,2 | 74,4 | 30   | 1137                   | 1167       | 41,7      |                             |                   |                 |
| 4BPS8-22      | 22  | 4     | 2,98 |                | 128,0                         | 120,0 | 112,0 | 110,4 | 106,9 | 102,5 | 96,4 | 88,5 | 80,0 | 30   | 1182                   | 1212       | 42,1      |                             |                   |                 |

PERFORMANCE CURVE

50Hz





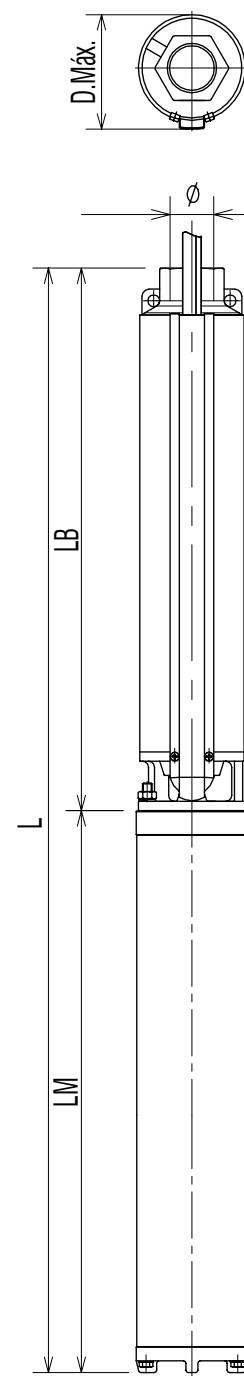
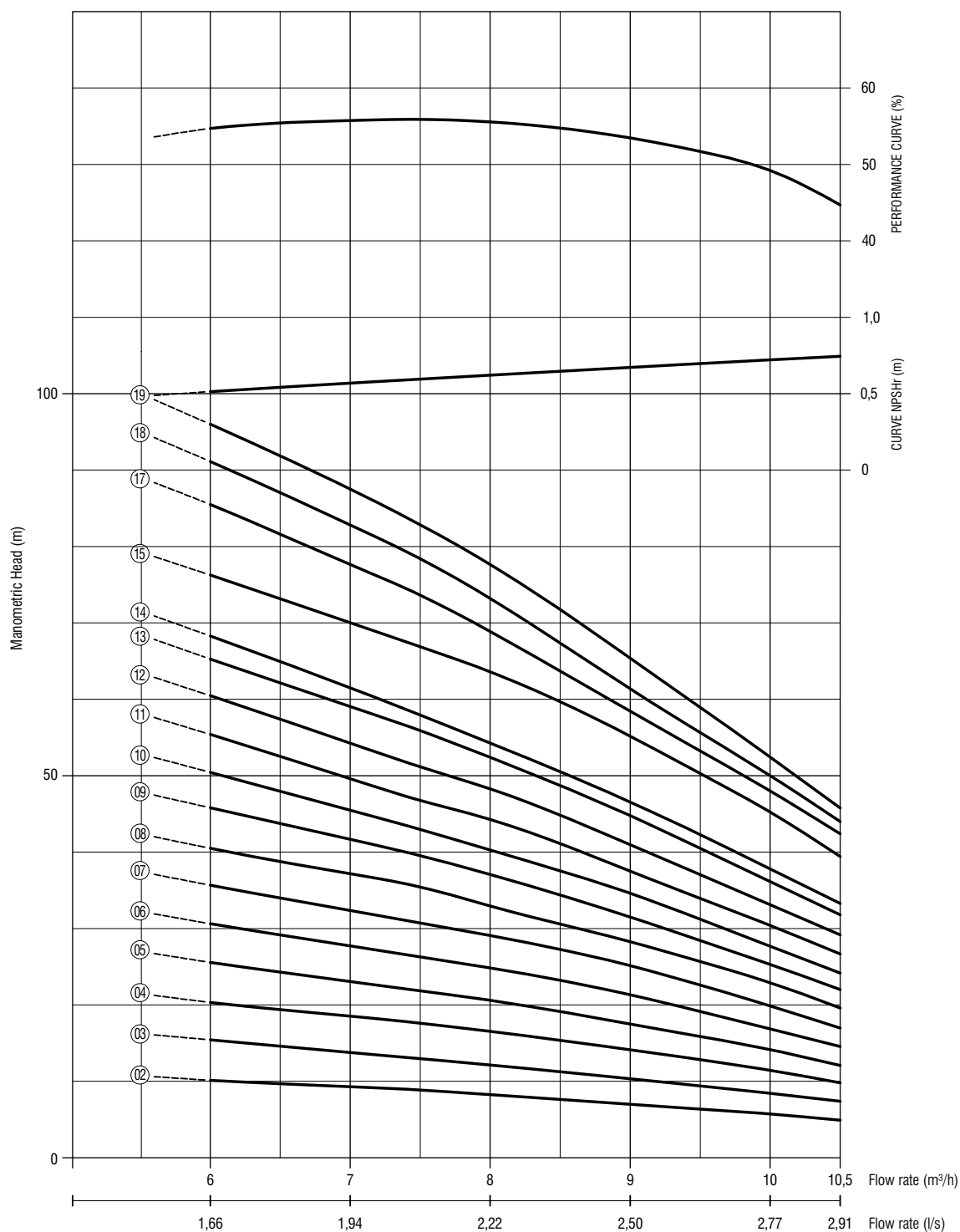
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº  | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |      |      |      |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D máx.<br>(mm) | Ø<br>POL<br>BSP |
|---------------|-----|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|------|------|------|------|------------------------|------------|-----------|-----------------------------|----------------|-----------------|
|               | ETP | HP    | Kw   |                | 0                             | 3,4   | 3,8   | 4,4   | 4,8   | 5,8   | 6,8  | 7,8  | 8,8  | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                |                 |
| 4BPS9-06      | 06  | 1     | 0,75 | M4P2           | 35,7                          | 29,6  | 29,1  | 27,6  | 26,5  | 23,2  | 19,2 | 13,3 | 7,1  | m    | 508                    | 359        | 867       | 21,4                        | 97             | 1 1/2"          |
| 4BPS9-08      | 08  | 1     | 0,75 |                | 48,0                          | 40,1  | 38,5  | 36,0  | 34,8  | 30,3  | 24,9 | 17,6 | 9,4  |      | 508                    | 421        | 929       | 22                          |                |                 |
| 4BPS9-10      | 10  | 1,5   | 1,12 |                | 62,4                          | 51,8  | 50,1  | 47,6  | 45,5  | 40,6  | 34,0 | 23,6 | 13,1 |      | 563                    | 483        | 1046      | 25,2                        |                |                 |
| 4BPS9-14      | 14  | 2     | 1,49 |                | 87,8                          | 73,1  | 70,9  | 68,2  | 65,6  | 58,2  | 49,4 | 36,9 | 22,1 |      | 613                    | 607        | 1220      | 28,3                        |                |                 |
| 4BPS9-18      | 18  | 2,5   | 1,86 | M4P7           | 109,8                         | 91,7  | 89,5  | 85,0  | 81,7  | 72,8  | 62,7 | 48,2 | 30,1 |      | 730                    | 731        | 1461      | 31,3                        |                |                 |
| 4BPS9-22      | 22  | 3,5   | 2,61 |                | 137,2                         | 113,8 | 110,5 | 105,0 | 102,0 | 92,2  | 78,4 | 60,4 | 37,6 |      | 790                    | 893        | 1683      | 38,1                        |                |                 |
| 4BPS9-24      | 24  | 3,5   | 2,61 |                | 150,9                         | 125,4 | 122,6 | 117,3 | 113,0 | 103,1 | 88,2 | 68,3 | 41,7 |      | 790                    | 955        | 1745      | 38,7                        |                |                 |

PERFORMANCE CURVE

50Hz



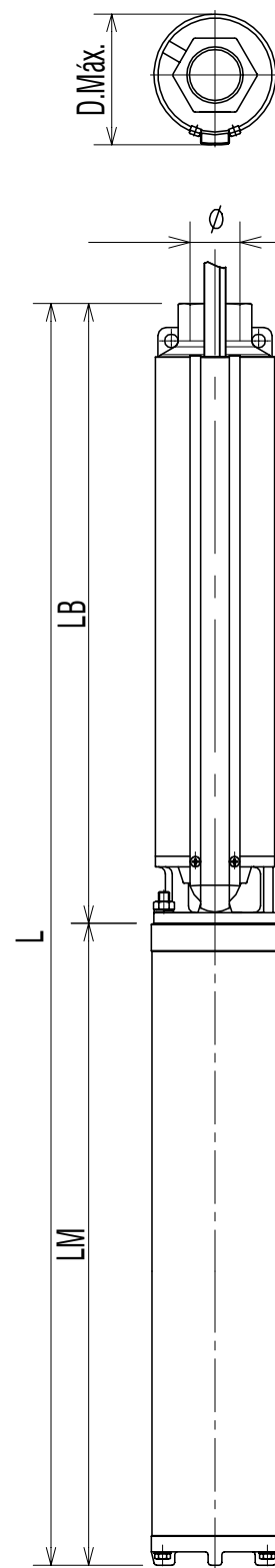
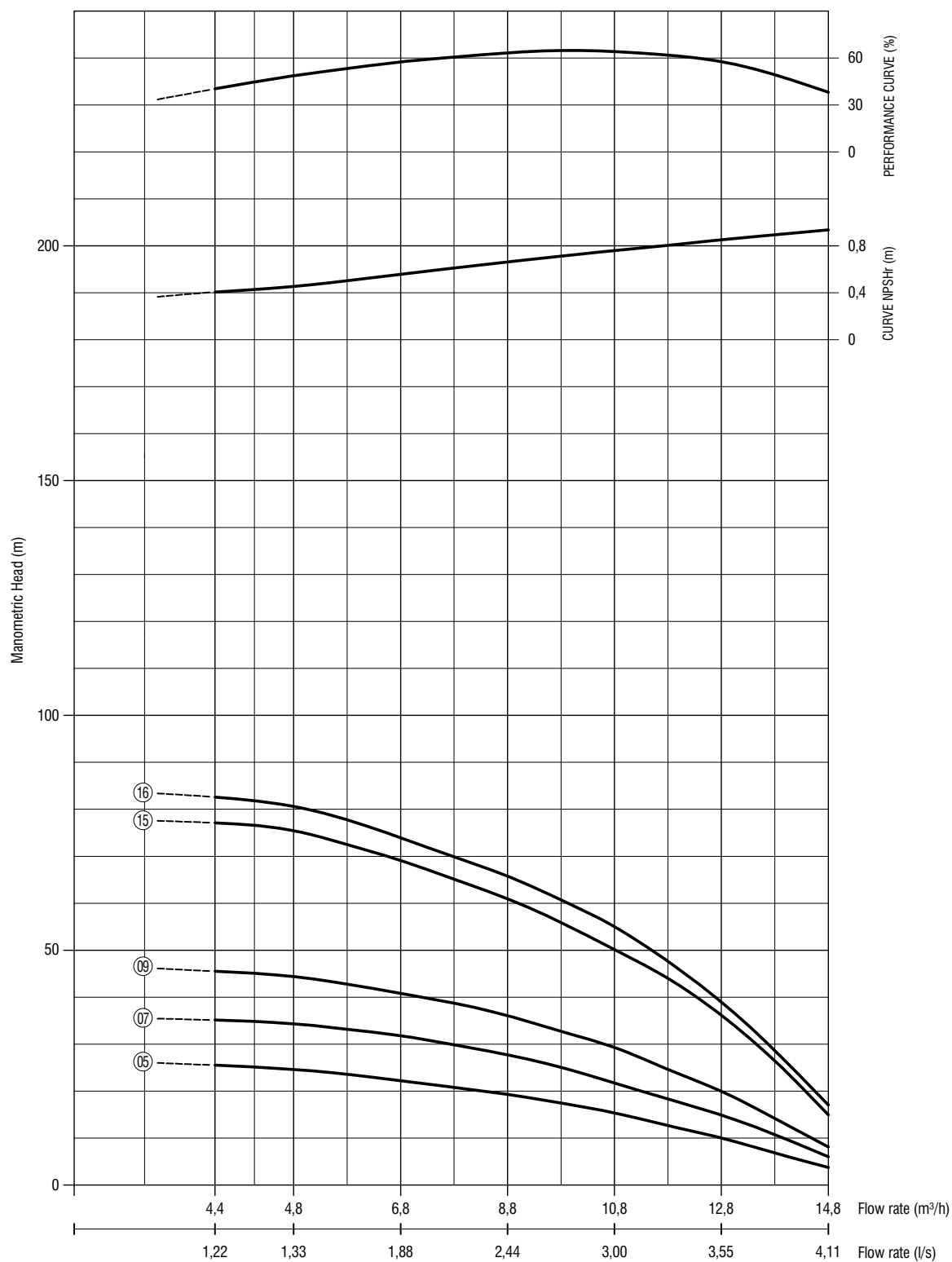
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº  | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |      |      |      |      |      |      |      |      |      |            | THREE-<br>PHASE(220/380V) |           |                             | VOLUME(Kg) | D<br>máx.<br>(mm) | Ø<br>PUL<br>BSP |
|---------------|-----|-------|------|----------------|-------------------------------|------|------|------|------|------|------|------|------|------|------------|---------------------------|-----------|-----------------------------|------------|-------------------|-----------------|
|               | ETR | HP    | kW   |                | 0                             | 6    | 7    | 7.5  | 8    | 9    | 9.5  | 10   | 10.5 | m³/h | LM<br>(mm) | LB<br>(mm)                | L<br>(mm) | W/ Three-phase<br>220, 380V |            |                   |                 |
| 4BPS10-02     | 02  | 0,5   | 0,37 | M4P2           | 12,7                          | 10,1 | 9,3  | 8,9  | 8,3  | 7,0  | 6,4  | 5,7  | 4,9  | m    | 428        | 266                       | 694       | 17,5                        | 97         | 1<br>1/2"         |                 |
| 4BPS10-03     | 03  | 0,75  | 0,56 |                | 18,9                          | 15,4 | 13,8 | 13,0 | 12,1 | 10,3 | 9,4  | 8,4  | 7,4  |      | 468        | 310                       | 778       | 19,9                        |            |                   |                 |
| 4BPS10-04     | 04  | 1     | 0,75 |                | 24,4                          | 20,3 | 18,5 | 17,6 | 16,5 | 14,1 | 12,8 | 11,4 | 9,8  |      | 508        | 354                       | 862       | 22                          |            |                   |                 |
| 4BPS10-05     | 05  | 1     | 0,75 |                | 30,5                          | 25,6 | 23,1 | 21,8 | 20,6 | 17,5 | 15,9 | 14,1 | 12,1 |      | 508        | 399                       | 907       | 22,4                        |            |                   |                 |
| 4BPS10-06     | 06  | 1,5   | 1,12 |                | 36,4                          | 30,6 | 27,7 | 26,3 | 24,8 | 21,3 | 19,1 | 16,9 | 14,6 |      | 563        | 443                       | 1006      | 25,5                        |            |                   |                 |
| 4BPS10-07     | 07  | 1,5   | 1,12 |                | 42,5                          | 35,7 | 32,4 | 30,7 | 29,1 | 25,1 | 22,6 | 19,9 | 17,0 |      | 563        | 487                       | 1050      | 25,9                        |            |                   |                 |
| 4BPS10-08     | 08  | 2     | 1,49 |                | 48,7                          | 40,5 | 37,2 | 35,4 | 32,9 | 28,3 | 25,7 | 22,9 | 19,6 |      | 613        | 531                       | 1144      | 28,3                        |            |                   |                 |
| 4BPS10-09     | 09  | 2     | 1,49 |                | 54,9                          | 45,8 | 41,7 | 39,5 | 37,1 | 31,5 | 28,4 | 25,3 | 22,0 |      | 613        | 608                       | 1221      | 29,1                        |            |                   |                 |
| 4BPS10-10     | 10  | 2,5   | 1,86 | M4P7           | 59,7                          | 50,4 | 45,5 | 43,0 | 40,3 | 34,6 | 31,2 | 27,7 | 24,2 |      | 730        | 652                       | 1382      | 34                          |            |                   |                 |
| 4BPS10-11     | 11  | 2,5   | 1,86 |                | 66,2                          | 55,4 | 49,6 | 46,8 | 44,3 | 37,5 | 33,9 | 30,4 | 26,7 |      | 730        | 696                       | 1426      | 34,5                        |            |                   |                 |
| 4BPS10-12     | 12  | 2,5   | 1,86 |                | 72,4                          | 60,5 | 54,3 | 51,2 | 48,3 | 41,0 | 37,0 | 33,1 | 29,2 |      | 730        | 740                       | 1470      | 35                          |            |                   |                 |
| 4BPS10-13     | 13  | 3     | 2,24 |                | 77,9                          | 65,3 | 59,1 | 55,9 | 52,4 | 44,8 | 40,5 | 36,1 | 31,8 |      | 730        | 784                       | 1514      | 35,5                        |            |                   |                 |
| 4BPS10-14     | 14  | 3     | 2,24 |                | 86,0                          | 68,3 | 61,5 | 57,9 | 53,5 | 45,5 | 42,3 | 36,0 | 33,3 |      | 730        | 828                       | 1558      | 36                          |            |                   |                 |
| 4BPS10-15     | 15  | 3,5   | 2,61 |                | 90,2                          | 76,3 | 70,0 | 66,9 | 63,6 | 55,2 | 50,3 | 45,2 | 39,4 |      | 790        | 872                       | 1662      | 39,3                        |            |                   |                 |
| 4BPS10-17     | 17  | 4     | 2,98 |                | 101,5                         | 85,5 | 77,6 | 73,6 | 68,9 | 58,4 | 53,2 | 48,0 | 42,4 |      | 790        | 961                       | 1751      | 40,2                        |            |                   |                 |
| 4BPS10-18     | 18  | 4     | 2,98 |                | 107,4                         | 89,1 | 82,1 | 78,4 | 73,2 | 61,4 | 55,6 | 50,0 | 44,0 |      | 790        | 1005                      | 1795      | 40,6                        |            |                   |                 |
| 4BPS10-19     | 19  | 4     | 2,98 |                | 116,0                         | 96,0 | 87,5 | 82,8 | 78,5 | 67,0 | 58,9 | 54,0 | 45,8 |      | 790        | 1049                      | 1839      | 41,1                        |            |                   |                 |

PERFORMANCE CURVE

50Hz



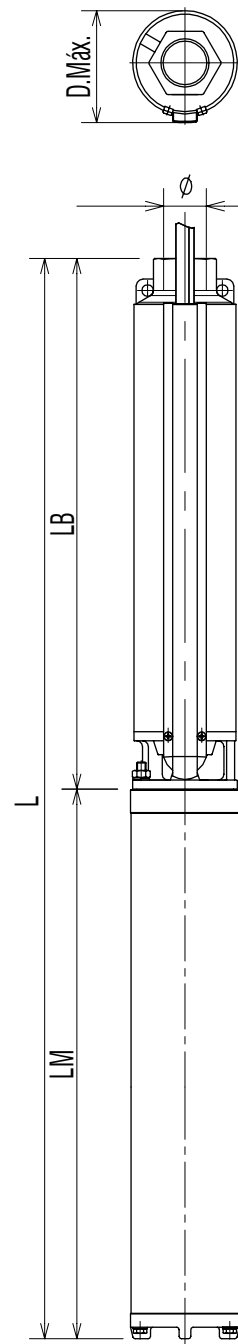
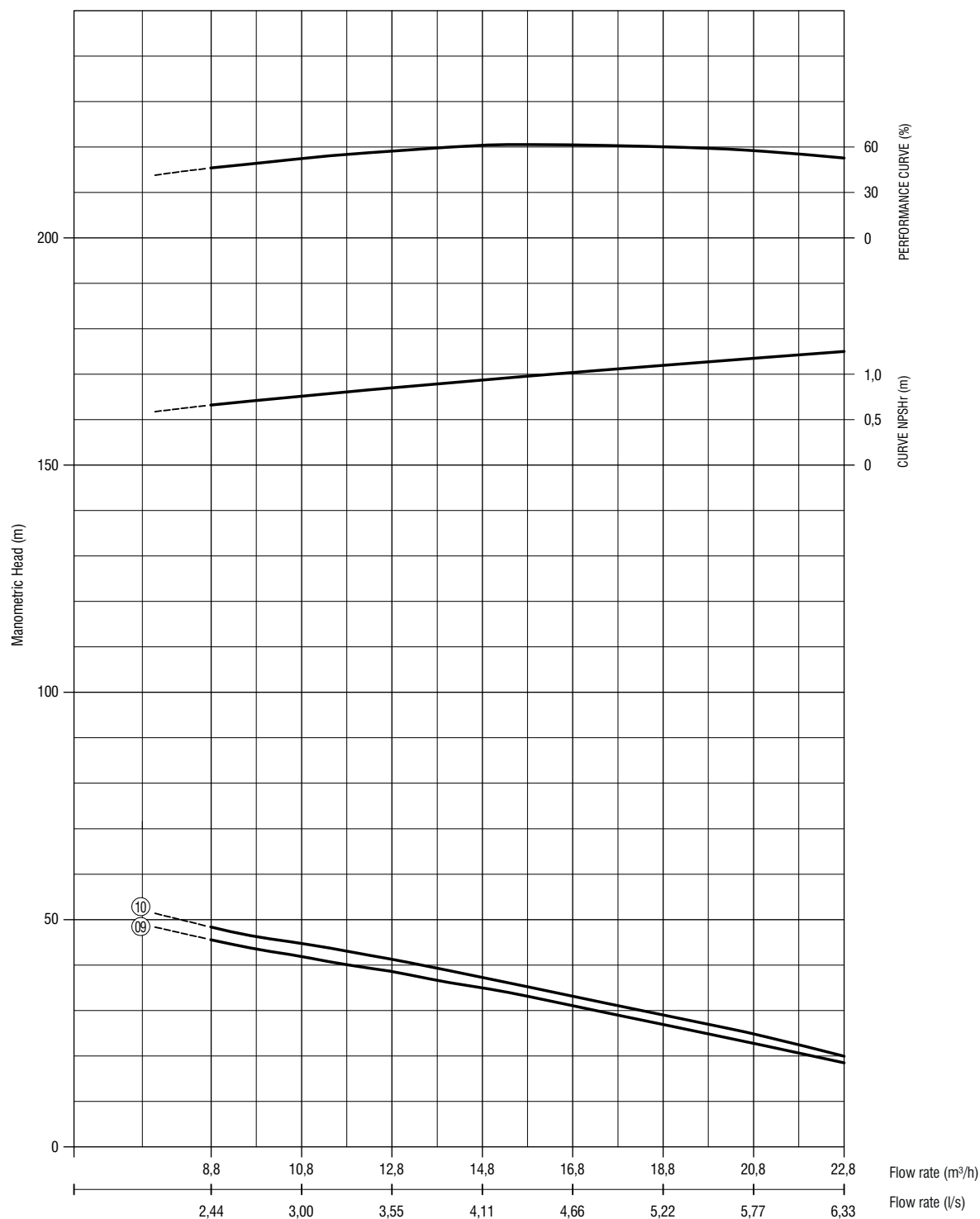
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº   | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |      |      |      |      |      |      |      |      |      |      |      |      |      |            | THREE-PHASE (220/380V) |           |                             | VOLUME(Kg) | D<br>máx.<br>(mm) | Ø<br>PUL<br>BSP |
|---------------|------|-------|------|----------------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------|------------------------|-----------|-----------------------------|------------|-------------------|-----------------|
|               | ETP. | HP    | kW   |                | 0                             | 4,4  | 4,8  | 5,8  | 6,8  | 7,8  | 8,8  | 9,8  | 10,8 | 11,8 | 12,8 | 13,8 | 14,8 | m³/h | LM<br>(mm) | LB<br>(mm)             | L<br>(mm) | W/ Three-phase<br>220, 380V |            |                   |                 |
| 4BPS13-05     | 05   | 1     | 0,75 | M4P2           | 28,8                          | 25,5 | 24,9 | 23,5 | 22,2 | 20,8 | 19,4 | 17,4 | 15,4 | 12,7 | 10,0 | 6,6  | 3,7  | m    | 508        | 433                    | 941       | 22,3                        | 97         | 2"                |                 |
| 4BPS13-07     | 07   | 1,5   | 1,12 |                | 40,5                          | 35,1 | 34,5 | 33,2 | 31,8 | 29,8 | 27,7 | 25,1 | 21,7 | 18,3 | 14,9 | 10,7 | 6,0  |      | 563        | 537                    | 1100      | 25,9                        |            |                   |                 |
| 4BPS13-09     | 09   | 2     | 1,49 |                | 52,1                          | 45,5 | 44,4 | 42,8 | 40,8 | 38,7 | 36,1 | 32,7 | 29,3 | 24,6 | 19,9 | 13,7 | 8,1  |      | 613        | 641                    | 1254      | 28,8                        |            |                   |                 |
| 4BPS13-15     | 15   | 3,5   | 2,61 | M4P7           | 87,8                          | 77,1 | 75,5 | 72,5 | 69,1 | 65,1 | 61,0 | 55,6 | 50,1 | 44,0 | 36,1 | 26,4 | 14,9 |      | 730        | 953                    | 1683      | 39                          |            |                   |                 |
| 4BPS13-16     | 16   | 3,5   | 2,61 |                | 94,0                          | 82,6 | 81,0 | 77,4 | 73,9 | 69,9 | 65,8 | 61,0 | 55,0 | 47,6 | 38,9 | 28,6 | 17,0 |      | 730        | 1005                   | 1735      | 39,5                        |            |                   |                 |

PERFORMANCE CURVE

50Hz







# SUBMERSIBLE MOTOR PUMPS FOR WELLS MIN. 4''

MODEL

**4BPS18i**

## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODELO | Nº  | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |      |      |      |      |      |      |      |      |      |      |      |      |            | THREE-PHASE(220/380V) |           |                             | VOLUME (Kg) | D<br>máx.<br>(mm) | ø<br>PUL<br>BSP |
|----------------|-----|-------|------|----------------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------------|-----------------------|-----------|-----------------------------|-------------|-------------------|-----------------|
|                | ETP | HP    | kW   |                | 0                             | 8,8  | 9,8  | 10,8 | 11,8 | 12,8 | 13,8 | 14,8 | 16,8 | 18,8 | 20,8 | 22,8 | m³/h | LM<br>(mm) | LB<br>(mm)            | L<br>(mm) | W/ Three-phase<br>220, 380V |             |                   |                 |
| 4BPS18-09      | 09  | 3,5   | 2,61 | M4P7           | 56,3                          | 45,6 | 43,5 | 42,0 | 40,0 | 38,6 | 36,6 | 35,1 | 31,1 | 26,9 | 22,8 | 18,5 | m    | 790        | 743                   | 1533      | 45,3                        | 97          | 2"                |                 |
| 4BPS18-10      | 10  | 3,5   | 2,61 |                | 60,4                          | 48,3 | 46,2 | 44,8 | 44,0 | 41,5 | 39,3 | 37,3 | 33,1 | 29,0 | 24,9 | 19,9 | m    | 790        | 814                   | 1604      | 45,3                        |             |                   |                 |

**4" UP TO 12" MOTOR PUMP SETS FOR DEEP WELLS**

**50Hz**

**Models BHS**



## CARACTERÍSTICAS

### CHARACTERISTICS

- Stage body, suction body and cast iron valve body.
- Stainless steel shaft, coupling, bolts and nuts.
- Stainless steel impellers for models BHS 222, 232, 411, 412, 511, 512, 8150, 8170, 8180, 12210, 12240 and 12270.
- Stainless steel impellers for models BHS 516, 517, 813, 804, 1010, 1012, 1015, 12300, 12350, 12400, 12450 and 12500.
- Nylon diffusers for models BHS 222, 232, 411, 412, 511, 512.
- Cast iron diffusers for models BHS 516, 517, 813, 804, 8150, 8170, 8180, 1010, 1012, 1015, 12210, 12240, 12270, 12300, 12350, 12400, 12450 and 12500.
- Internal ceramic coating on stage bodies for models BHS 8150, 8170, 8180, 12210, 12240 and 12270.
- Rubber wear rings for models BHS 222, 232, 411, 412, 511, 512 and bronze for models BHS 516, 517, 813, 804, 8150, 8170, 8180, 1010, 1012, 1015, 12210, 12240, 12270, 12300, 12350, 12400, 12450 and 12500.
- Rubber bearings for models BHS 222, 232, 411, 412, 511, 512 and bronze for models BHS 516, 517, 813, 804, 8150, 8170, 8180, 1010, 1012, 1015, 12210, 12240, 12270, 12300, 12350, 12400, 12450 and 12500.

## APPLICATIONS

- Water collection in deep tube wells for residential, industrial and agricultural use.
- Water table reduction for construction and mining.
- Pressurization of hydraulic power networks.
- Sources.
- Drainage and flushing of tank with clean water.

## WATER QUALITY

- Clean water with pH of 6.5 to 8.0.
- Maximum sand content permitted of 50 g/m<sup>3</sup> or ppm.
- Maximum chlorine content permitted of 500 ppm

## ROTATION DIRECTION

- Clockwise for models BHS 222, 232, 411, 412, 511, 512, 516, 517, 813, 804, 1010, 1012, 1015, 12300, 12350, 12400, 12450 and 12500.
- Counterclockwise for models BHS 8150, 8170, 8180, 12210, 12240 and 12270.

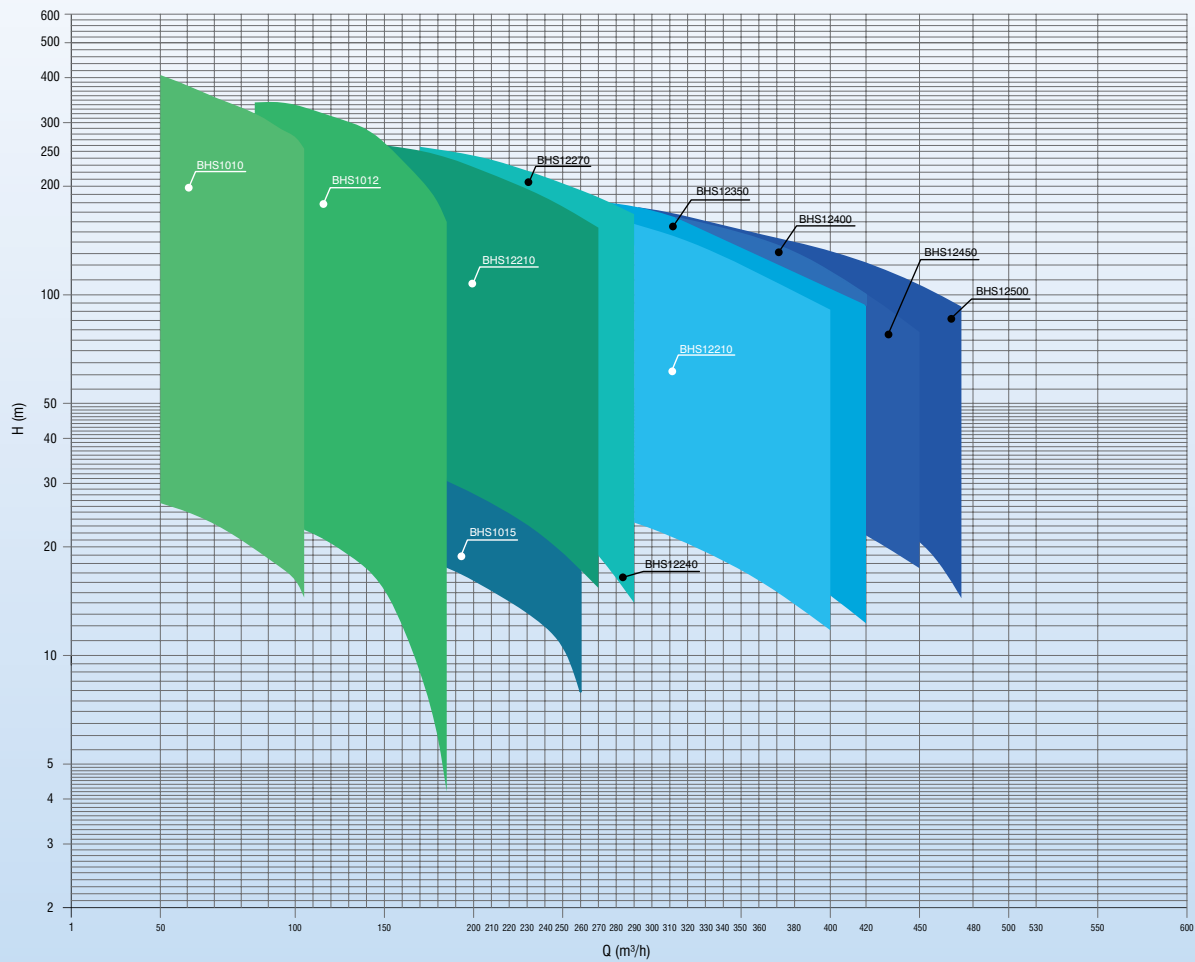
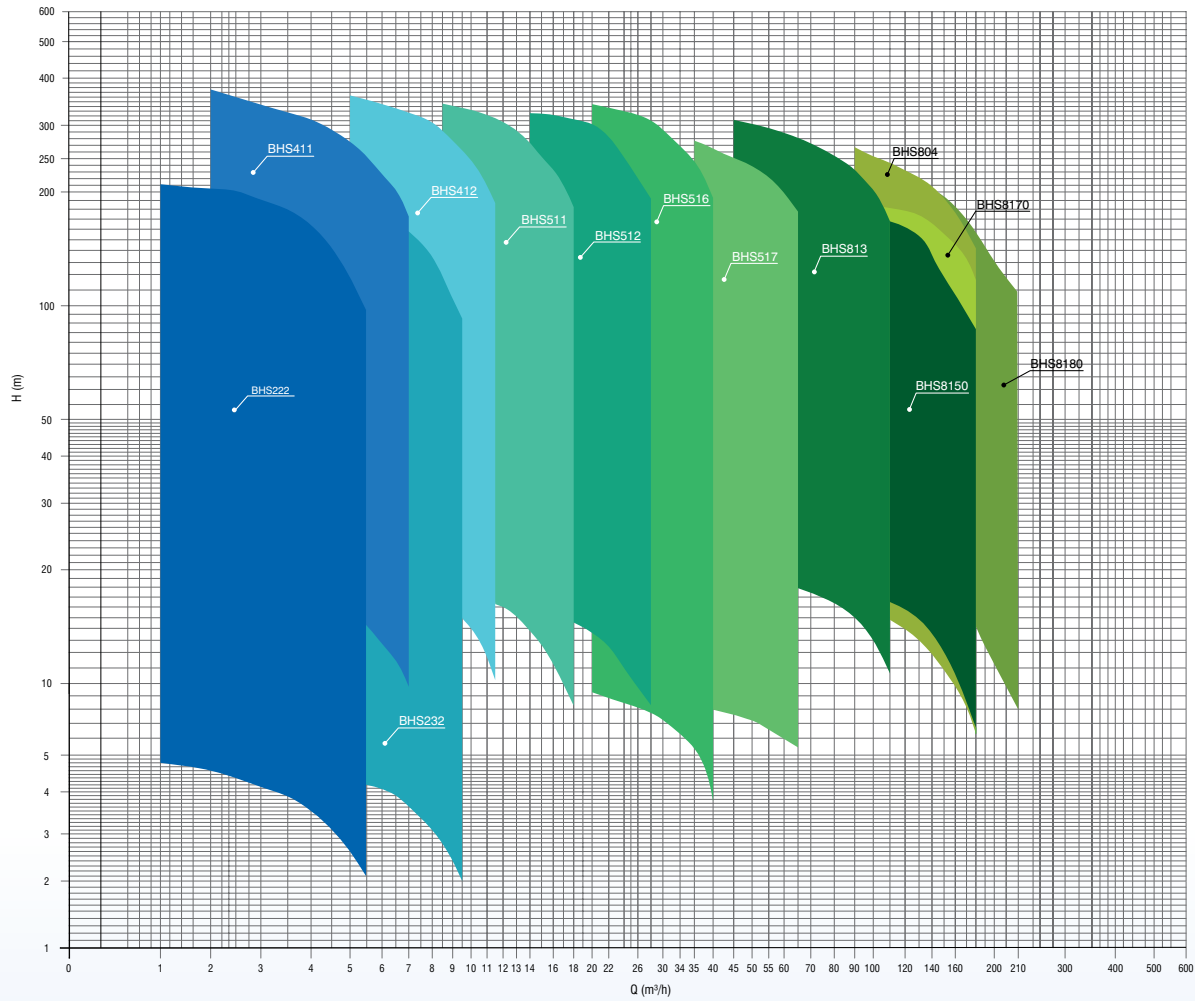
## MOTORS

|                            |             | MODELS           |                  |                  |                  |                  |                  |
|----------------------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                            |             | M4C2             | M4A              | M4D              | M6P              | M6G              | Mi6P             |
| Origin                     |             | National         | National         | National         | National         | National         | National         |
| Power                      | Three-phase | 0,5~2 HP         | 2,5~4 HP         | 8~12,5 HP        | 1~15 HP          | 16~30 HP         | 1~15 HP          |
| Tensions                   | Three-phase | 220, 380 ou 440V | 220, 380 ou 440V | 220, 380 ou 440V | 220, 380 ou 440V | 220, 380 ou 440V | 220, 380 ou 440V |
| Outer tube                 |             | Carbon Steel     | Carbon Steel     | Carbon Steel     | Carbon Steel     | Carbon Steel     | Inox             |
| A and B Support and Casing |             | Cast iron        | Cast iron        | Cast iron        | Cast iron        | Cast iron        | Cast iron        |
| Lubrication and cooling    |             | Water            | Water            | Water            | Water            | Water            | Water            |
| Coiling                    |             | Rewindable       | Armored          | Rewindable       | Rewindable       | Rewindable       | Rewindable       |
| Radial bearing             |             | Graphite         | Bronze           | Bronze           | Bronze           | Bronze           | Bronze           |
| Axial bearing              |             | Graphite/Inox    | Graphite/Inox    | Graphite/Inox    | Graphite/Inox    | Graphite/Inox    | Graphite/Inox    |
| Sealing                    |             | Retainer         | Retainer         | Retainer         | Retainer         | Retainer         | Retainer         |

## MOTORS

|                            |             | MODELS           |                       |                       |                  |                  |
|----------------------------|-------------|------------------|-----------------------|-----------------------|------------------|------------------|
|                            |             | Mi6G             | M8                    | Mi8                   | M10              | M12              |
| Origin                     |             | National         | National              | National              | National         | National         |
| Power                      | Three-phase | 16~50 HP         | 35~75 HP              | 35~125 HP             | 80~200 HP        | 205~350 HP       |
| Tensions                   | Three-phase | 220, 380 ou 440V | 220, 380, 440 ou 660V | 220, 380, 440 ou 660V | 380, 440 ou 660V | 380, 440 ou 660V |
| Outer tube                 |             | Inox             | Carbon Steel          | Inox                  | Carbon Steel     | Carbon Steel     |
| A and B Support and Casing |             | Cast iron        | Cast iron             | Cast iron             | Cast iron        | Cast iron        |
| Lubrication and cooling    |             | Water            | Water                 | Water                 | Water            | Water            |
| Coiling                    |             | Rewindable       | Rewindable            | Rewindable            | Rewindable       | Rewindable       |
| Radial bearing             |             | Bronze           | Bronze                | Bronze                | Bronze           | Graphite         |
| Axial bearing              |             | Graphite/Inox    | Graphite/Inox         | Graphite/Inox         | Graphite/Inox    | Graphite/Inox    |
| Sealing                    |             | Retainer         | Retainer              | Retainer              | Retainer         | Retainer         |

OPERATION RANGE





**EBARA**

## **FULLY STAINLESS STEEL MOTOR PUMP SETS**

- 6" to 12" Sets (6 "to 12" pumps and 6 "to 12" motors)
- High resistance and durability
  - Cost-effective
- Ideal for collecting mineral water In adverse conditions
  - High performance
- Sealed with mechanical seal or retainer
  - NEMA standard coupling or shaft key
- Greater Robustness: Shorter

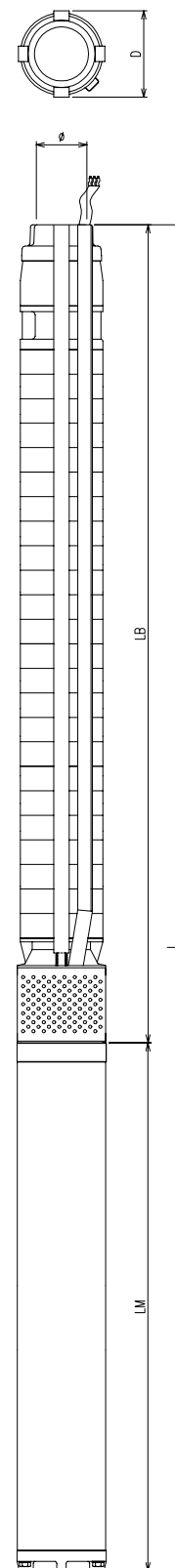
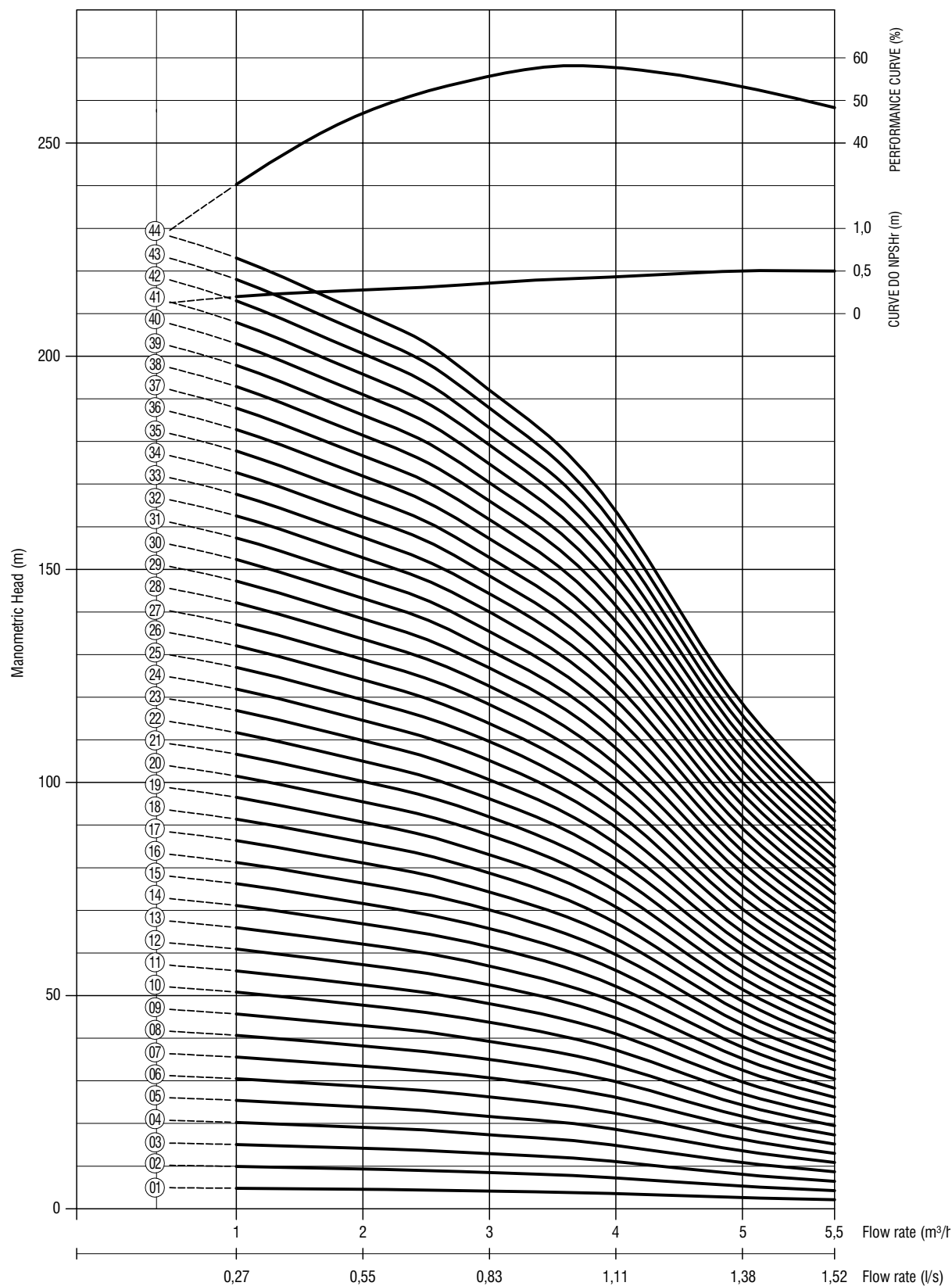


**6" AND 8" FULLY STAIN  
STEEL MOTORS**

**FULLY STAINLESS STEEL  
MOTOR PUMP SETS**

PERFORMANCE CURVE

50Hz



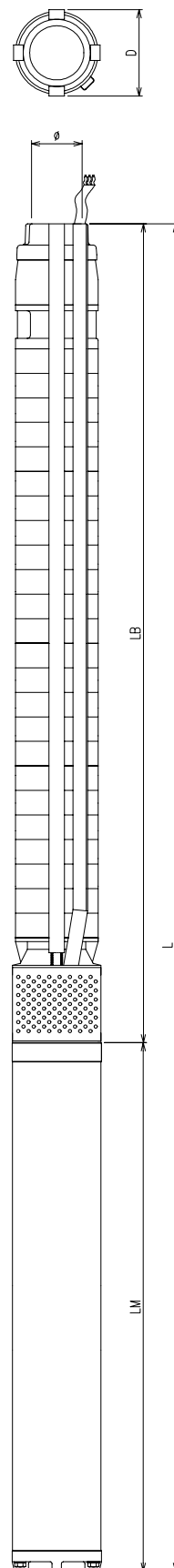
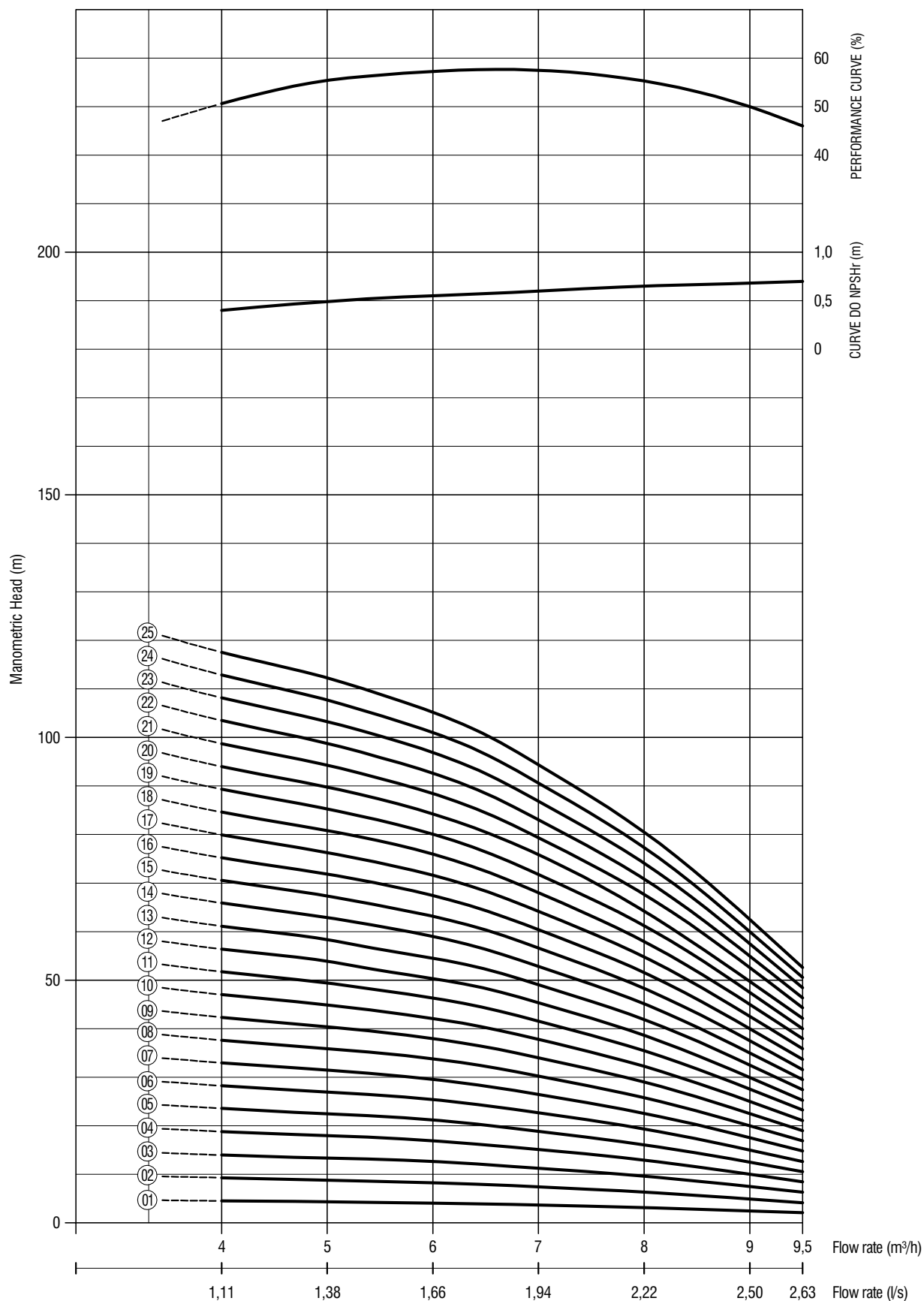
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº<br>EST. | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |      |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D<br>máx.<br>(mm) | Ø<br>POL<br>BSP |
|---------------|------------|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               |            | HP    | KW   |                | 0                             | 1     | 2     | 2,5   | 3     | 3,5   | 4     | 5     | 5,5  | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ THREE-PHASE<br>220, 380V |                   |                 |
| BHS 222-01    | 01         | 0,5   | 0,37 | M4C2           | 5,1                           | 4,8   | 4,6   | 4,4   | 4,1   | 3,9   | 3,6   | 2,6   | 2,1  | m    | 428                    | 293        | 721       | 20,1                        | 98                | 1<br>1/2"       |
| BHS 222-02    | 02         | 0,5   | 0,37 |                | 10,4                          | 9,9   | 9,3   | 9,0   | 8,5   | 8,0   | 7,3   | 5,3   | 4,2  |      | 428                    | 322        | 750       | 20,8                        |                   |                 |
| BHS 222-03    | 03         | 0,5   | 0,37 |                | 15,8                          | 15,1  | 14,2  | 13,7  | 12,9  | 12,2  | 11,1  | 8,1   | 6,4  |      | 428                    | 351        | 779       | 21,4                        |                   |                 |
| BHS 222-04    | 04         | 0,5   | 0,37 |                | 21,3                          | 20,2  | 19,1  | 18,4  | 17,3  | 16,4  | 14,9  | 10,8  | 8,7  |      | 428                    | 380        | 808       | 22,1                        |                   |                 |
| BHS 222-05    | 05         | 0,5   | 0,37 |                | 26,6                          | 25,5  | 23,9  | 23,0  | 21,6  | 20,5  | 18,6  | 13,6  | 10,9 |      | 428                    | 409        | 837       | 22,7                        |                   |                 |
| BHS 222-06    | 06         | 0,75  | 0,56 |                | 32,0                          | 30,5  | 28,7  | 27,7  | 26,0  | 24,6  | 22,4  | 16,3  | 13,0 |      | 468                    | 438        | 906       | 25,4                        |                   |                 |
| BHS 222-07    | 07         | 0,75  | 0,56 |                | 37,2                          | 35,6  | 33,4  | 32,2  | 30,3  | 28,7  | 26,1  | 19,0  | 15,2 |      | 468                    | 467        | 935       | 26                          |                   |                 |
| BHS 222-08    | 08         | 0,75  | 0,56 |                | 42,6                          | 40,7  | 38,2  | 36,8  | 34,7  | 32,8  | 29,8  | 21,6  | 17,3 |      | 468                    | 496        | 964       | 26,7                        |                   |                 |
| BHS 222-09    | 09         | 1     | 0,75 |                | 47,9                          | 45,7  | 43,0  | 41,5  | 39,0  | 36,9  | 33,5  | 24,3  | 19,5 |      | 508                    | 525        | 1033      | 28,9                        |                   |                 |
| BHS 222-10    | 10         | 1     | 0,75 |                | 53,4                          | 50,8  | 47,7  | 46,1  | 43,3  | 41,0  | 37,3  | 27,0  | 21,7 |      | 508                    | 554        | 1062      | 29,6                        |                   |                 |
| BHS 222-11    | 11         | 1     | 0,75 |                | 58,6                          | 55,8  | 52,5  | 50,7  | 47,6  | 45,1  | 41,0  | 29,7  | 23,9 |      | 508                    | 583        | 1091      | 30,2                        |                   |                 |
| BHS 222-12    | 12         | 1,5   | 1,12 |                | 63,9                          | 60,9  | 57,3  | 55,3  | 52,0  | 49,2  | 44,7  | 32,5  | 26,1 |      | 563                    | 612        | 1175      | 33,5                        |                   |                 |
| BHS 222-13    | 13         | 1,5   | 1,12 |                | 69,2                          | 65,9  | 62,0  | 59,9  | 56,3  | 53,3  | 48,4  | 35,2  | 28,2 |      | 563                    | 641        | 1204      | 34,1                        |                   |                 |
| BHS 222-14    | 14         | 1,5   | 1,12 |                | 74,5                          | 71,2  | 66,8  | 64,5  | 60,8  | 57,5  | 52,2  | 37,9  | 30,4 |      | 563                    | 670        | 1233      | 34,8                        |                   |                 |
| BHS 222-15    | 15         | 1,5   | 1,12 |                | 79,9                          | 76,2  | 71,6  | 69,1  | 65,0  | 61,5  | 55,9  | 40,6  | 32,6 |      | 563                    | 699        | 1262      | 35,4                        |                   |                 |
| BHS 222-16    | 16         | 1,5   | 1,12 |                | 85,1                          | 81,3  | 76,4  | 73,7  | 69,4  | 65,7  | 59,6  | 43,3  | 34,8 |      | 563                    | 728        | 1291      | 36,1                        |                   |                 |
| BHS 222-17    | 17         | 1,5   | 1,12 |                | 90,5                          | 86,4  | 81,1  | 78,3  | 73,6  | 69,7  | 63,4  | 46,0  | 36,9 |      | 563                    | 757        | 1320      | 36,7                        |                   |                 |
| BHS 222-18    | 18         | 2     | 1,49 |                | 95,8                          | 91,4  | 85,9  | 82,9  | 78,0  | 73,8  | 67,1  | 48,7  | 39,1 |      | 613                    | 786        | 1399      | 39,4                        |                   |                 |
| BHS 222-19    | 19         | 2     | 1,49 |                | 101,1                         | 96,5  | 90,7  | 87,5  | 82,3  | 77,9  | 70,8  | 51,4  | 41,3 |      | 613                    | 815        | 1428      | 40                          |                   |                 |
| BHS 222-20    | 20         | 2     | 1,49 |                | 106,5                         | 101,5 | 95,5  | 92,2  | 86,7  | 82,0  | 74,5  | 54,1  | 43,4 |      | 613                    | 844        | 1457      | 40,7                        |                   |                 |
| BHS 222-21    | 21         | 2     | 1,49 |                | 111,7                         | 106,6 | 100,2 | 96,7  | 91,0  | 86,2  | 78,3  | 56,8  | 45,6 |      | 613                    | 873        | 1486      | 41,3                        |                   |                 |
| BHS 222-22    | 22         | 2     | 1,49 |                | 117,1                         | 111,7 | 105,0 | 101,3 | 95,3  | 90,3  | 82,0  | 59,5  | 47,8 |      | 613                    | 902        | 1515      | 42                          |                   |                 |
| BHS 222-23    | 23         | 2,5   | 1,86 | M4A            | 122,5                         | 116,8 | 109,8 | 106,0 | 99,7  | 94,4  | 85,7  | 62,2  | 49,9 | m    | 730                    | 931        | 1661      | 47                          |                   |                 |
| BHS 222-24    | 24         | 2,5   | 1,86 |                | 127,7                         | 121,9 | 114,6 | 110,6 | 104,0 | 98,4  | 89,4  | 64,9  | 52,1 |      | 730                    | 960        | 1690      | 47,7                        |                   |                 |
| BHS 222-25    | 25         | 2,5   | 1,86 |                | 133,1                         | 127,0 | 119,3 | 115,2 | 108,3 | 102,5 | 93,2  | 67,6  | 54,3 |      | 730                    | 989        | 1719      | 48,3                        |                   |                 |
| BHS 222-26    | 26         | 2,5   | 1,86 |                | 138,4                         | 132,1 | 124,1 | 119,8 | 112,7 | 106,6 | 96,9  | 70,3  | 56,4 |      | 730                    | 1018       | 1748      | 49                          |                   |                 |
| BHS 222-27    | 27         | 2,5   | 1,86 |                | 143,7                         | 137,1 | 128,9 | 124,4 | 117,0 | 110,8 | 100,7 | 73,0  | 58,6 |      | 730                    | 1047       | 1777      | 49,6                        |                   |                 |
| BHS 222-28    | 28         | 3     | 2,24 |                | 149,1                         | 142,2 | 133,6 | 129,0 | 121,3 | 114,9 | 104,3 | 75,7  | 60,8 |      | 730                    | 1076       | 1806      | 50,3                        |                   |                 |
| BHS 222-29    | 29         | 3     | 2,24 |                | 154,4                         | 147,3 | 138,4 | 133,6 | 125,7 | 119,0 | 108,1 | 78,4  | 63,0 |      | 730                    | 1105       | 1835      | 50,9                        |                   |                 |
| BHS 222-30    | 30         | 3     | 2,24 |                | 159,7                         | 152,3 | 143,2 | 138,2 | 130,0 | 123,0 | 111,8 | 81,2  | 65,1 |      | 730                    | 1134       | 1864      | 51,6                        |                   |                 |
| BHS 222-31    | 31         | 3     | 2,24 |                | 165,0                         | 157,4 | 147,9 | 142,8 | 134,3 | 127,1 | 115,5 | 83,9  | 67,3 |      | 730                    | 1218       | 1948      | 53                          |                   |                 |
| BHS 222-32    | 32         | 3     | 2,24 |                | 170,3                         | 162,5 | 152,8 | 147,4 | 138,7 | 131,3 | 119,3 | 86,6  | 69,5 |      | 730                    | 1247       | 1977      | 53,7                        |                   |                 |
| BHS 222-33    | 33         | 3     | 2,24 |                | 175,7                         | 167,6 | 157,5 | 152,0 | 143,0 | 135,4 | 123,0 | 89,2  | 71,6 |      | 730                    | 1276       | 2006      | 54,3                        |                   |                 |
| BHS 222-34    | 34         | 3,5   | 2,61 |                | 181,0                         | 172,7 | 162,3 | 156,7 | 147,3 | 139,5 | 126,7 | 92,0  | 73,9 |      | 790                    | 1305       | 2095      | 58                          |                   |                 |
| BHS 222-35    | 35         | 3,5   | 2,61 |                | 186,3                         | 177,8 | 167,1 | 161,2 | 151,7 | 143,6 | 130,4 | 94,7  | 76,0 |      | 790                    | 1334       | 2124      | 58,6                        |                   |                 |
| BHS 222-36    | 36         | 3,5   | 2,61 |                | 191,6                         | 182,8 | 171,9 | 165,9 | 156,0 | 147,7 | 134,1 | 97,4  | 78,2 |      | 790                    | 1363       | 2153      | 59,3                        |                   |                 |
| BHS 222-37    | 37         | 3,5   | 2,61 |                | 196,9                         | 187,8 | 176,6 | 170,5 | 160,4 | 151,8 | 137,8 | 100,0 | 80,3 |      | 790                    | 1392       | 2182      | 59,9                        |                   |                 |
| BHS 222-38    | 38         | 3,5   | 2,61 |                | 202,2                         | 192,9 | 181,4 | 175,2 | 164,7 | 155,9 | 141,5 | 102,6 | 82,5 |      | 790                    | 1421       | 2211      | 60,6                        |                   |                 |
| BHS 222-39    | 39         | 4     | 2,98 |                | 207,4                         | 197,9 | 186,2 | 179,8 | 169,1 | 160,0 | 145,2 | 105,3 | 84,6 |      | 790                    | 1450       | 2240      | 61,2                        |                   |                 |
| BHS 222-40    | 40         | 4     | 2,98 |                | 212,7                         | 202,9 | 191,0 | 184,5 | 173,4 | 164,1 | 148,9 | 107,9 | 86,8 |      | 790                    | 1479       | 2269      | 61,9                        |                   |                 |
| BHS 222-41    | 41         | 4     | 2,98 |                | 218,0                         | 208,0 | 195,8 | 189,1 | 177,8 | 168,2 | 152,5 | 110,6 | 88,9 |      | 790                    | 1563       | 2353      | 63,3                        |                   |                 |
| BHS 222-42    | 42         | 4     | 2,98 |                | 223,3                         | 213,0 | 200,6 | 193,8 | 182,1 | 172,3 | 156,2 | 113,2 | 91,0 |      | 790                    | 1592       | 2382      | 64                          |                   |                 |
| BHS 222-43    | 43         | 4     | 2,98 |                | 228,6                         | 218,0 | 205,3 | 198,4 | 186,5 | 176,4 | 159,9 | 115,8 | 93,2 |      | 790                    | 1621       | 2411      | 64,6                        |                   |                 |
| BHS 222-44    | 44         | 4     | 2,98 |                | 233,9                         | 223,1 | 210,1 | 203,1 | 190,8 | 180,5 | 163,6 | 118,5 | 95,3 |      | 790                    | 1650       | 2440      | 65,3                        |                   |                 |

PERFORMANCE CURVE

50Hz





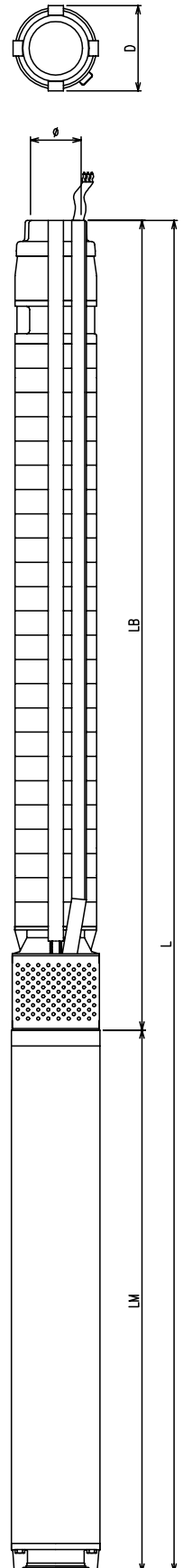
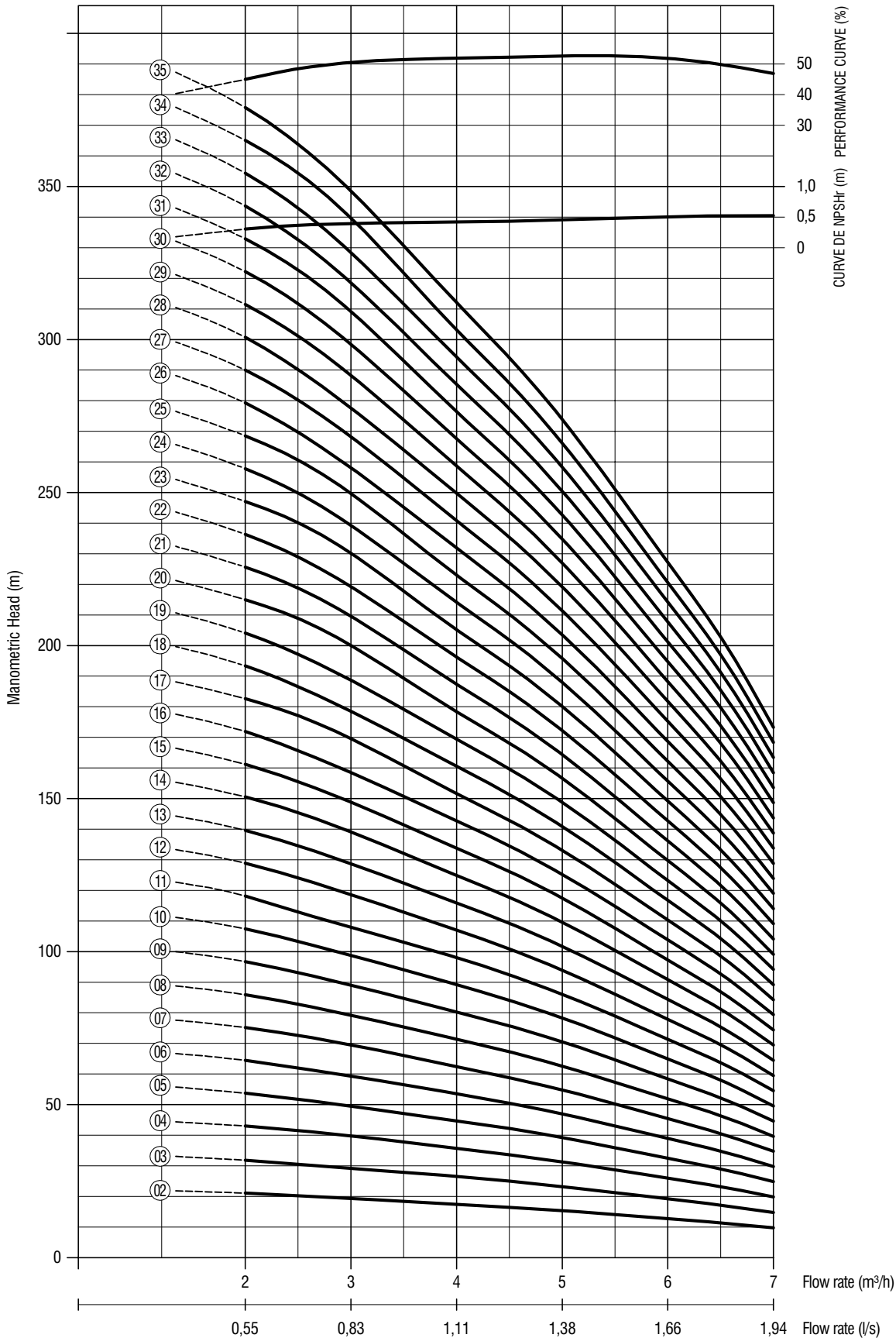
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº   | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |      |      |      |      |      | THREE-PHASE (220/380V) |            |           | VOLUME(Kg)                  | D máx.<br>(mm) | Ø<br>POL<br>BSP |
|---------------|------|-------|------|----------------|-------------------------------|-------|-------|-------|-------|------|------|------|------|------|------------------------|------------|-----------|-----------------------------|----------------|-----------------|
|               | EST. | HP    | Kw   |                | 0                             | 4     | 5     | 5,5   | 6,5   | 7    | 8    | 9    | 9,5  | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                |                 |
| BHS 232-01    | 01   | 0,5   | 0,37 | M4C2           | 4,9                           | 4,5   | 4,3   | 4,2   | 3,9   | 3,6  | 3,1  | 2,4  | 2,0  | m    | 428                    | 302        | 730       | 20,2                        | 98             | 1 1/2"          |
| BHS 232-02    | 02   | 0,5   | 0,37 |                | 9,9                           | 9,3   | 8,8   | 8,5   | 7,9   | 7,4  | 6,3  | 4,9  | 4,1  |      | 428                    | 340        | 768       | 21                          |                |                 |
| BHS 232-03    | 03   | 0,5   | 0,37 |                | 15,1                          | 13,9  | 13,4  | 12,9  | 12,0  | 11,2 | 9,6  | 7,5  | 6,3  |      | 428                    | 378        | 806       | 21,7                        |                |                 |
| BHS 232-04    | 04   | 0,75  | 0,56 |                | 20,3                          | 18,8  | 17,9  | 17,3  | 16,1  | 15,1 | 12,9 | 10,0 | 8,4  |      | 468                    | 416        | 884       | 24,5                        |                |                 |
| BHS 232-05    | 05   | 1     | 0,75 |                | 25,4                          | 23,5  | 22,5  | 21,7  | 20,1  | 18,9 | 16,1 | 12,5 | 10,5 |      | 508                    | 454        | 962       | 26,8                        |                |                 |
| BHS 232-06    | 06   | 1     | 0,75 |                | 30,5                          | 28,2  | 26,9  | 26,0  | 24,2  | 22,7 | 19,3 | 15,0 | 12,6 |      | 508                    | 492        | 1000      | 27,6                        |                |                 |
| BHS 232-07    | 07   | 1,5   | 1,12 |                | 35,5                          | 32,9  | 31,4  | 30,3  | 28,2  | 26,5 | 22,6 | 17,5 | 14,8 |      | 563                    | 530        | 1093      | 30,9                        |                |                 |
| BHS 232-08    | 08   | 1,5   | 1,12 |                | 40,6                          | 37,6  | 35,9  | 34,6  | 32,2  | 30,2 | 25,8 | 20,0 | 16,9 |      | 563                    | 568        | 1131      | 31,7                        |                |                 |
| BHS 232-09    | 09   | 1,5   | 1,12 |                | 45,7                          | 42,3  | 40,4  | 39,0  | 36,2  | 34,0 | 29,0 | 22,5 | 19,0 |      | 563                    | 606        | 1169      | 32,4                        |                |                 |
| BHS 232-10    | 10   | 2     | 1,49 |                | 50,8                          | 47,0  | 44,9  | 43,3  | 40,2  | 37,8 | 32,2 | 25,0 | 21,1 |      | 613                    | 644        | 1257      | 35,2                        |                |                 |
| BHS 232-11    | 11   | 2     | 1,49 |                | 55,8                          | 51,7  | 49,4  | 47,7  | 44,3  | 41,5 | 35,5 | 27,5 | 23,2 |      | 613                    | 682        | 1295      | 35,9                        |                |                 |
| BHS 232-12    | 12   | 2     | 1,49 |                | 60,8                          | 56,4  | 53,9  | 52,0  | 48,3  | 45,3 | 38,6 | 30,0 | 25,2 |      | 613                    | 720        | 1333      | 36,7                        |                |                 |
| BHS 232-13    | 13   | 2,5   | 1,86 | M4A            | 65,9                          | 61,1  | 58,4  | 56,3  | 52,3  | 49,1 | 41,9 | 32,5 | 27,4 | m    | 643                    | 758        | 1401      | 41,8                        | 98             | 1 1/2"          |
| BHS 232-14    | 14   | 2,5   | 1,86 |                | 71,0                          | 65,9  | 62,9  | 60,7  | 56,3  | 52,9 | 45,1 | 35,0 | 29,5 |      | 643                    | 796        | 1439      | 42,6                        |                |                 |
| BHS 232-15    | 15   | 2,5   | 1,86 |                | 76,1                          | 70,6  | 67,3  | 65,0  | 60,3  | 56,6 | 48,3 | 37,5 | 31,6 |      | 643                    | 834        | 1477      | 43,3                        |                |                 |
| BHS 232-16    | 16   | 3     | 2,24 |                | 81,2                          | 75,2  | 71,9  | 69,3  | 64,3  | 60,4 | 51,5 | 40,0 | 33,7 |      | 730                    | 872        | 1602      | 44,1                        |                |                 |
| BHS 232-17    | 17   | 3     | 2,24 |                | 86,2                          | 79,9  | 76,3  | 73,6  | 68,4  | 64,2 | 54,8 | 42,5 | 35,8 |      | 730                    | 910        | 1640      | 44,8                        |                |                 |
| BHS 232-18    | 18   | 3     | 2,24 |                | 91,3                          | 84,6  | 80,8  | 78,0  | 72,4  | 68,0 | 58,0 | 45,0 | 37,9 |      | 730                    | 1003       | 1733      | 46,4                        |                |                 |
| BHS 232-19    | 19   | 3,5   | 2,61 |                | 96,4                          | 89,3  | 85,3  | 82,3  | 76,5  | 71,8 | 61,2 | 47,5 | 40,0 |      | 790                    | 1041       | 1831      | 50,1                        |                |                 |
| BHS 232-20    | 20   | 3,5   | 2,61 |                | 101,5                         | 94,0  | 89,8  | 86,7  | 80,5  | 75,1 | 62,7 | 49,7 | 42,1 |      | 790                    | 1079       | 1869      | 50,9                        |                |                 |
| BHS 232-21    | 21   | 3,5   | 2,61 |                | 106,5                         | 98,7  | 94,3  | 91,0  | 84,5  | 79,3 | 67,7 | 52,5 | 44,3 |      | 790                    | 1117       | 1907      | 51,6                        |                |                 |
| BHS 232-22    | 22   | 4     | 2,98 |                | 111,6                         | 103,5 | 98,8  | 95,3  | 88,5  | 83,1 | 70,9 | 55,0 | 46,3 |      | 790                    | 1155       | 1945      | 52,4                        |                |                 |
| BHS 232-23    | 23   | 4     | 2,98 |                | 116,7                         | 108,2 | 103,3 | 99,7  | 92,5  | 86,9 | 74,1 | 57,5 | 48,5 |      | 790                    | 1193       | 1983      | 53,1                        |                |                 |
| BHS 232-24    | 24   | 4     | 2,98 |                | 121,8                         | 112,9 | 107,7 | 104,0 | 96,5  | 90,6 | 77,3 | 60,0 | 50,6 |      | 790                    | 1231       | 2021      | 53,9                        |                |                 |
| BHS 232-25    | 25   | 4     | 2,98 |                | 126,8                         | 117,6 | 112,3 | 108,3 | 100,6 | 94,4 | 80,5 | 62,5 | 52,6 |      | 790                    | 1269       | 2059      | 54,6                        |                |                 |

PERFORMANCE CURVE

50Hz



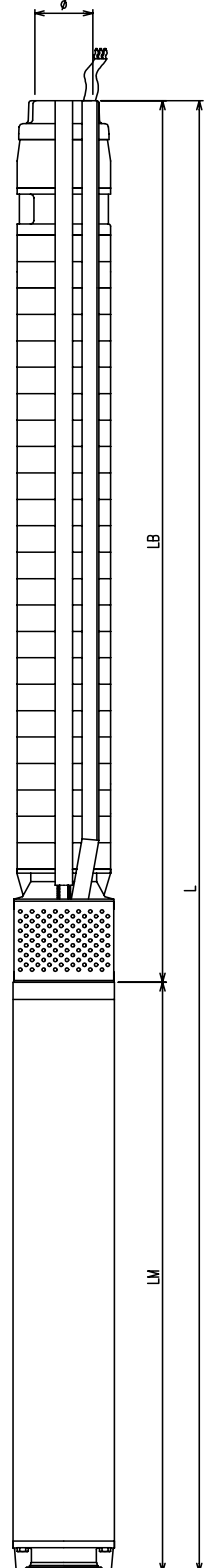
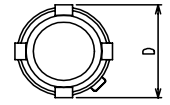
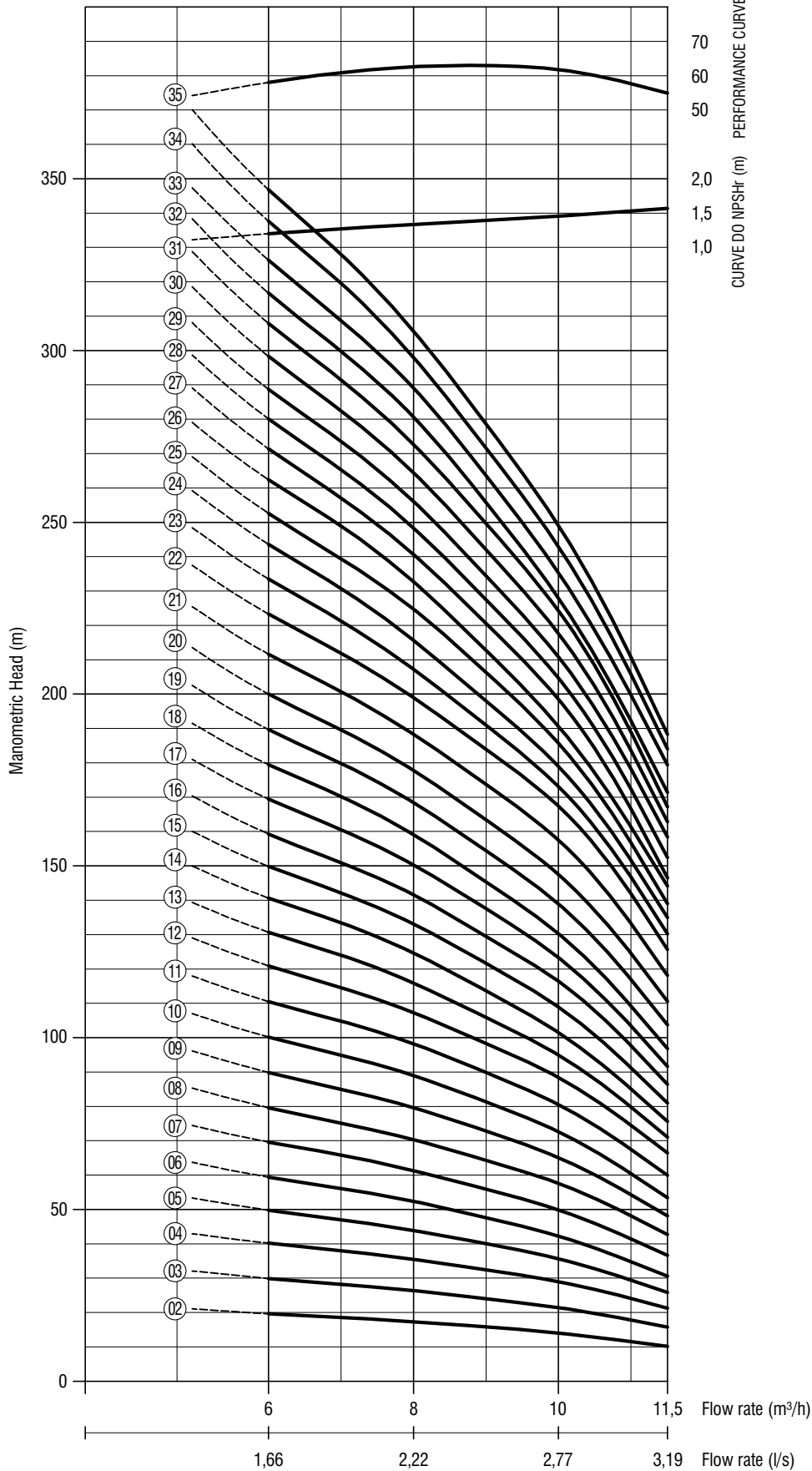
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº   | POWER |      | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D<br>máx.<br>(mm) | ø<br>POL<br>BSP |
|---------------|------|-------|------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               | EST. | HP    | Kw   |                | 0                             | 2     | 3,5   | 4     | 4,5   | 5,5   | 6     | 6,5   | 7     | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| BHS 411-02    | 02   | 1     | 0,75 | M6P            | 22,4                          | 21,1  | 18,4  | 17,5  | 16,5  | 14,1  | 12,8  | 11,4  | 9,7   | m    | 450                    | 434        | 884       | 45,3                        | 144               | 2"              |
| BHS 411-03    | 03   | 1     | 0,75 |                | 34,0                          | 31,8  | 27,8  | 26,5  | 25,0  | 21,3  | 19,3  | 17,2  | 14,7  |      | 450                    | 472        | 922       | 47,1                        |                   |                 |
| BHS 411-04    | 04   | 1,5   | 1,12 |                | 45,8                          | 43,0  | 37,5  | 35,7  | 33,6  | 28,7  | 26,0  | 23,2  | 19,8  |      | 450                    | 510        | 960       | 48,9                        |                   |                 |
| BHS 411-05    | 05   | 1,5   | 1,12 |                | 64,0                          | 53,7  | 46,9  | 44,6  | 42,1  | 35,9  | 32,5  | 29,0  | 24,8  |      | 450                    | 548        | 998       | 50,7                        |                   |                 |
| BHS 411-06    | 06   | 2     | 1,49 |                | 68,6                          | 64,5  | 56,3  | 53,5  | 50,5  | 43,1  | 38,9  | 34,8  | 29,8  |      | 465                    | 586        | 1051      | 54,5                        |                   |                 |
| BHS 411-07    | 07   | 2     | 1,49 |                | 80,0                          | 75,2  | 65,6  | 62,4  | 58,8  | 50,2  | 45,4  | 40,6  | 34,7  |      | 465                    | 624        | 1089      | 56,3                        |                   |                 |
| BHS 411-08    | 08   | 2,5   | 1,86 |                | 91,4                          | 85,9  | 75,0  | 71,3  | 67,2  | 57,4  | 51,9  | 46,4  | 39,7  |      | 490                    | 662        | 1152      | 61,1                        |                   |                 |
| BHS 411-09    | 09   | 2,5   | 1,86 |                | 102,9                         | 96,7  | 84,4  | 80,3  | 75,7  | 64,6  | 58,4  | 52,2  | 44,6  |      | 490                    | 700        | 1190      | 62,9                        |                   |                 |
| BHS 411-10    | 10   | 3     | 2,24 |                | 114,3                         | 107,4 | 93,8  | 89,2  | 84,1  | 71,8  | 64,9  | 58,0  | 49,6  |      | 490                    | 738        | 1228      | 64,7                        |                   |                 |
| BHS 411-11    | 11   | 3     | 2,24 |                | 125,7                         | 118,2 | 103,1 | 98,1  | 92,5  | 78,9  | 71,3  | 63,8  | 54,6  |      | 490                    | 776        | 1266      | 66,5                        |                   |                 |
| BHS 411-12    | 12   | 3,5   | 2,61 |                | 137,2                         | 128,9 | 112,5 | 107,0 | 100,9 | 86,1  | 77,8  | 69,6  | 59,5  |      | 510                    | 814        | 1324      | 70,3                        |                   |                 |
| BHS 411-13    | 13   | 3,5   | 2,61 |                | 148,6                         | 139,6 | 121,9 | 115,9 | 109,3 | 93,3  | 84,3  | 75,4  | 64,5  |      | 510                    | 852        | 1362      | 72,1                        |                   |                 |
| BHS 411-14    | 14   | 4     | 2,98 |                | 160,0                         | 150,5 | 131,3 | 124,9 | 117,7 | 100,5 | 90,8  | 81,1  | 69,4  |      | 510                    | 890        | 1400      | 83,9                        |                   |                 |
| BHS 411-15    | 15   | 4     | 2,98 |                | 171,4                         | 161,2 | 140,7 | 133,8 | 126,2 | 107,7 | 97,3  | 86,9  | 74,4  |      | 510                    | 928        | 1438      | 75,7                        |                   |                 |
| BHS 411-16    | 16   | 4,5   | 3,36 |                | 182,7                         | 171,9 | 150,0 | 142,7 | 134,6 | 114,8 | 103,8 | 92,7  | 79,3  |      | 550                    | 966        | 1516      | 82,5                        |                   |                 |
| BHS 411-17    | 17   | 5     | 3,73 |                | 194,3                         | 182,6 | 159,4 | 151,6 | 142,9 | 122,0 | 110,3 | 98,5  | 84,3  |      | 550                    | 1004       | 1554      | 84,3                        |                   |                 |
| BHS 411-18    | 18   | 5     | 3,73 |                | 205,7                         | 193,4 | 168,8 | 160,6 | 151,4 | 129,2 | 116,7 | 104,3 | 89,2  |      | 550                    | 1042       | 1592      | 86,1                        |                   |                 |
| BHS 411-19    | 19   | 5,5   | 4,10 |                | 217,2                         | 204,1 | 178,1 | 169,5 | 159,8 | 136,3 | 123,2 | 110,1 | 94,2  |      | 610                    | 1080       | 1690      | 93,9                        |                   |                 |
| BHS 411-20    | 20   | 5,5   | 4,10 |                | 228,6                         | 215,0 | 187,5 | 178,4 | 168,2 | 143,5 | 129,7 | 115,9 | 99,1  |      | 610                    | 1118       | 1728      | 95,7                        |                   |                 |
| BHS 411-21    | 21   | 6     | 4,47 |                | 240,0                         | 225,6 | 196,9 | 187,4 | 176,6 | 150,7 | 136,2 | 121,7 | 104,1 |      | 610                    | 1156       | 1766      | 97,5                        |                   |                 |
| BHS 411-22    | 22   | 6     | 4,47 |                | 251,5                         | 236,4 | 206,3 | 196,3 | 185,0 | 157,9 | 142,7 | 127,5 | 109,1 |      | 610                    | 1194       | 1804      | 99,3                        |                   |                 |
| BHS 411-23    | 23   | 6,5   | 4,85 |                | 262,9                         | 247,1 | 215,6 | 205,2 | 193,4 | 165,0 | 149,2 | 133,3 | 114,0 |      | 610                    | 1300       | 1910      | 104,9                       |                   |                 |
| BHS 411-24    | 24   | 6,5   | 4,85 |                | 274,3                         | 257,8 | 225,0 | 214,1 | 201,8 | 172,2 | 155,7 | 139,1 | 119,0 |      | 610                    | 1338       | 1948      | 106,7                       |                   |                 |
| BHS 411-25    | 25   | 7     | 5,22 |                | 285,7                         | 268,6 | 234,4 | 223,0 | 210,2 | 179,4 | 162,2 | 144,9 | 123,9 |      | 610                    | 1376       | 1986      | 108,5                       |                   |                 |
| BHS 411-26    | 26   | 7,5   | 5,59 |                | 297,0                         | 279,3 | 243,7 | 231,9 | 218,6 | 186,6 | 168,7 | 150,7 | 128,8 |      | 610                    | 1414       | 2024      | 110,3                       |                   |                 |
| BHS 411-27    | 27   | 7,5   | 5,59 |                | 308,4                         | 290,0 | 253,1 | 240,8 | 227,0 | 193,8 | 175,2 | 156,5 | 133,8 |      | 610                    | 1520       | 2130      | 115,9                       |                   |                 |
| BHS 411-28    | 28   | 8     | 5,97 |                | 319,8                         | 300,7 | 262,5 | 249,7 | 235,4 | 201,0 | 181,7 | 162,3 | 138,7 |      | 665                    | 1558       | 2223      | 122,7                       |                   |                 |
| BHS 411-29    | 29   | 8     | 5,97 |                | 331,2                         | 311,5 | 271,8 | 258,6 | 243,8 | 208,1 | 188,2 | 168,1 | 143,7 |      | 665                    | 1596       | 2261      | 124,5                       |                   |                 |
| BHS 411-30    | 30   | 9     | 6,71 |                | 342,6                         | 322,2 | 281,2 | 267,5 | 252,2 | 215,3 | 194,7 | 173,9 | 148,6 |      | 665                    | 1634       | 2299      | 126,3                       |                   |                 |
| BHS 411-31    | 31   | 9     | 6,71 |                | 354,0                         | 332,9 | 290,6 | 276,4 | 260,5 | 222,5 | 201,2 | 179,7 | 153,5 |      | 665                    | 1672       | 2337      | 128,1                       |                   |                 |
| BHS 411-32    | 32   | 9     | 6,71 |                | 365,4                         | 343,7 | 299,9 | 285,3 | 268,9 | 229,7 | 207,6 | 185,4 | 158,5 |      | 665                    | 1710       | 2375      | 129,9                       |                   |                 |
| BHS 411-33    | 33   | 9     | 6,71 |                | 376,8                         | 354,4 | 309,3 | 294,3 | 277,3 | 236,8 | 214,2 | 191,2 | 163,4 |      | 665                    | 1748       | 2413      | 131,7                       |                   |                 |
| BHS 411-34    | 34   | 10    | 7,46 |                | 388,1                         | 365,1 | 318,7 | 303,2 | 285,7 | 244,0 | 220,7 | 197,0 | 168,4 |      | 665                    | 1786       | 2451      | 133,5                       |                   |                 |
| BHS 411-35    | 35   | 10    | 7,46 |                | 399,5                         | 375,9 | 328,0 | 312,1 | 294,1 | 251,2 | 227,2 | 202,8 | 173,3 |      | 665                    | 1824       | 2489      | 135,3                       |                   |                 |

PERFORMANCE CURVE

50Hz



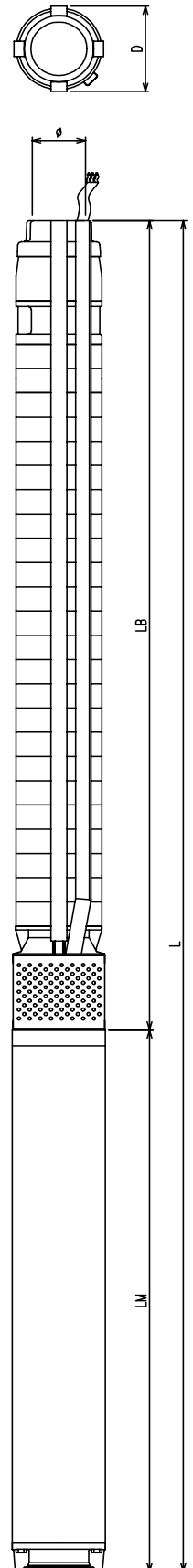
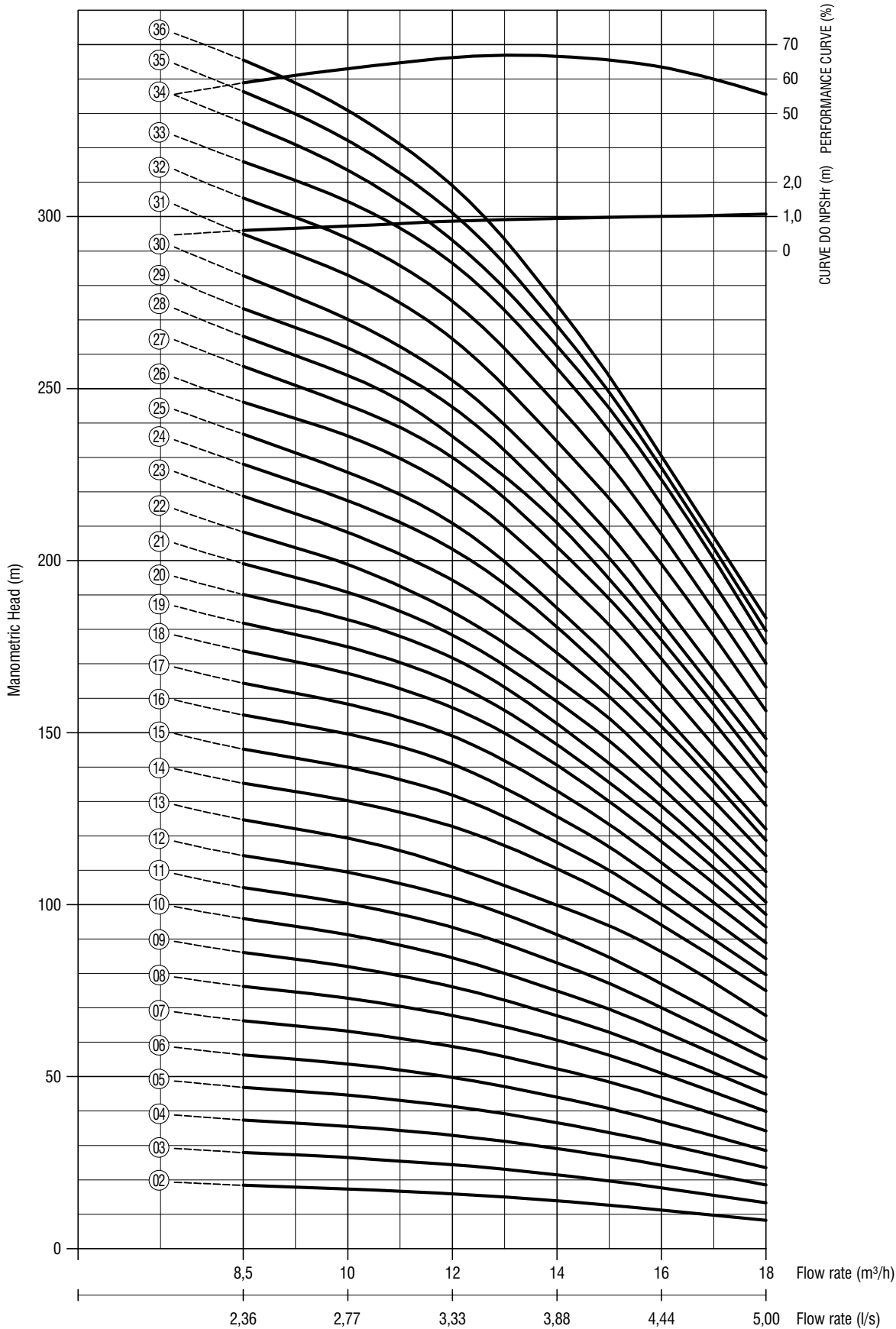
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº   | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D<br>max.<br>(mm) | ø<br>POL<br>BSP |
|---------------|------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               | EST. | HP    | KW    |                | 0                             | 5     | 6     | 7     | 8     | 9     | 10    | 11,5  | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| BHS 412-02    | 02   | 1     | 0,75  | M6P            | 23,7                          | 20,7  | 19,6  | 18,6  | 17,3  | 15,8  | 14,0  | 10,1  | m    | 450                    | 434        | 884       | 45,3                        | 144               | 2"              |
| BHS 412-03    | 03   | 1,5   | 1,12  |                | 35,7                          | 31,4  | 29,9  | 28,2  | 26,4  | 24,0  | 21,4  | 15,7  |      | 450                    | 472        | 922       | 47,1                        |                   |                 |
| BHS 412-04    | 04   | 2     | 1,49  |                | 47,6                          | 42,2  | 40,2  | 38,0  | 35,5  | 32,4  | 29,0  | 21,3  |      | 465                    | 510        | 975       | 50,9                        |                   |                 |
| BHS 412-05    | 05   | 2,5   | 1,86  |                | 59,2                          | 52,4  | 49,8  | 47,0  | 43,9  | 40,0  | 35,6  | 25,9  |      | 490                    | 548        | 1038      | 55,7                        |                   |                 |
| BHS 412-06    | 06   | 3     | 2,24  |                | 70,9                          | 62,6  | 59,4  | 56,1  | 52,4  | 47,6  | 42,2  | 30,6  |      | 490                    | 586        | 1076      | 57,5                        |                   |                 |
| BHS 412-07    | 07   | 3     | 2,24  |                | 82,7                          | 73,3  | 69,6  | 65,8  | 61,3  | 55,9  | 49,9  | 36,6  |      | 490                    | 624        | 1114      | 59,3                        |                   |                 |
| BHS 412-08    | 08   | 3,5   | 2,61  |                | 94,6                          | 84,0  | 79,6  | 75,1  | 70,3  | 64,3  | 57,6  | 42,7  |      | 510                    | 662        | 1172      | 63,1                        |                   |                 |
| BHS 412-09    | 09   | 4     | 2,98  |                | 106,5                         | 94,6  | 89,9  | 85,0  | 79,6  | 72,8  | 65,1  | 48,1  |      | 510                    | 700        | 1210      | 65                          |                   |                 |
| BHS 412-10    | 10   | 4,5   | 3,36  |                | 118,4                         | 105,3 | 100,2 | 94,9  | 89,0  | 81,3  | 75,6  | 53,4  |      | 550                    | 738        | 1288      | 71,8                        |                   |                 |
| BHS 412-11    | 11   | 5     | 3,73  |                | 130,5                         | 115,9 | 110,5 | 104,8 | 98,2  | 89,8  | 80,5  | 59,9  |      | 550                    | 776        | 1326      | 73,6                        |                   |                 |
| BHS 412-12    | 12   | 5,5   | 4,10  |                | 142,6                         | 126,6 | 120,9 | 114,6 | 107,3 | 98,3  | 88,4  | 66,5  |      | 610                    | 814        | 1424      | 81,4                        |                   |                 |
| BHS 412-13    | 13   | 6     | 4,47  |                | 154,2                         | 136,9 | 130,7 | 124,0 | 115,9 | 105,9 | 94,9  | 71,0  |      | 610                    | 852        | 1462      | 83,2                        |                   |                 |
| BHS 412-14    | 14   | 6     | 4,47  |                | 165,9                         | 147,1 | 140,6 | 133,4 | 124,6 | 113,6 | 101,5 | 75,6  |      | 610                    | 890        | 1500      | 85                          |                   |                 |
| BHS 412-15    | 15   | 6,5   | 4,85  |                | 177,5                         | 157,3 | 149,9 | 142,1 | 133,1 | 121,6 | 108,9 | 81,0  |      | 610                    | 928        | 1538      | 86,9                        |                   |                 |
| BHS 412-16    | 16   | 7     | 5,22  |                | 189,1                         | 167,6 | 159,3 | 150,9 | 141,6 | 129,7 | 116,4 | 86,4  |      | 610                    | 966        | 1576      | 88,7                        |                   |                 |
| BHS 412-17    | 17   | 7,5   | 5,59  |                | 200,6                         | 177,7 | 169,4 | 160,5 | 150,3 | 137,5 | 123,3 | 91,6  |      | 610                    | 1004       | 1614      | 90,5                        |                   |                 |
| BHS 412-18    | 18   | 7,5   | 5,59  |                | 212,3                         | 188,0 | 179,5 | 170,2 | 159,1 | 145,3 | 130,2 | 96,8  |      | 610                    | 1042       | 1652      | 92,3                        |                   |                 |
| BHS 412-19    | 19   | 8     | 5,97  |                | 224,5                         | 198,9 | 189,7 | 179,8 | 168,4 | 154,4 | 138,9 | 103,7 |      | 665                    | 1080       | 1745      | 99,1                        |                   |                 |
| BHS 412-20    | 20   | 9     | 6,71  |                | 236,6                         | 209,9 | 200,0 | 189,6 | 177,8 | 163,4 | 147,5 | 110,6 |      | 665                    | 1118       | 1783      | 100,9                       |                   |                 |
| BHS 412-21    | 21   | 9     | 6,71  |                | 248,8                         | 222,0 | 211,6 | 200,7 | 188,3 | 173,7 | 157,5 | 118,1 |      | 665                    | 1156       | 1821      | 102,7                       |                   |                 |
| BHS 412-22    | 22   | 10    | 7,46  |                | 261,0                         | 234,1 | 223,3 | 211,9 | 198,9 | 183,9 | 167,4 | 125,6 |      | 665                    | 1194       | 1859      | 104,5                       |                   |                 |
| BHS 412-23    | 23   | 10    | 7,46  |                | 272,9                         | 244,7 | 233,5 | 221,3 | 207,2 | 190,9 | 173,1 | 130,2 |      | 665                    | 1300       | 1965      | 110,1                       |                   |                 |
| BHS 412-24    | 24   | 11    | 8,20  |                | 284,8                         | 255,3 | 243,6 | 230,8 | 215,6 | 198,0 | 178,9 | 134,9 |      | 715                    | 1338       | 2053      | 117,9                       |                   |                 |
| BHS 412-25    | 25   | 11    | 8,20  |                | 296,0                         | 265,3 | 252,6 | 239,4 | 224,8 | 206,3 | 185,7 | 139,0 |      | 715                    | 1376       | 2091      | 119,7                       |                   |                 |
| BHS 412-26    | 26   | 12    | 8,95  |                | 307,1                         | 274,5 | 262,4 | 249,0 | 232,7 | 212,7 | 190,7 | 144,1 |      | 715                    | 1414       | 2129      | 121,5                       |                   |                 |
| BHS 412-27    | 27   | 12    | 8,95  |                | 318,7                         | 284,8 | 271,4 | 257,1 | 240,6 | 220,5 | 198,5 | 146,5 |      | 715                    | 1520       | 2235      | 127,1                       |                   |                 |
| BHS 412-28    | 28   | 12    | 8,95  |                | 330,2                         | 293,8 | 250,1 | 265,4 | 248,4 | 227,5 | 204,7 | 152,5 |      | 715                    | 1558       | 2273      | 129                         |                   |                 |
| BHS 412-29    | 29   | 13    | 9,69  |                | 341,7                         | 302,8 | 288,7 | 273,6 | 256,1 | 234,4 | 210,8 | 158,4 |      | 780                    | 1596       | 2376      | 137,8                       |                   |                 |
| BHS 412-30    | 30   | 13    | 9,69  |                | 353,2                         | 313,1 | 298,3 | 282,5 | 264,4 | 242,0 | 217,6 | 162,8 |      | 780                    | 1634       | 2414      | 139,6                       |                   |                 |
| BHS 412-31    | 31   | 13    | 9,69  |                | 354,7                         | 323,4 | 307,9 | 291,5 | 272,7 | 249,6 | 224,3 | 167,2 |      | 780                    | 1672       | 2452      | 141,4                       |                   |                 |
| BHS 412-32    | 32   | 14    | 10,44 |                | 375,9                         | 332,7 | 316,7 | 299,8 | 280,6 | 255,7 | 228,0 | 171,4 |      | 780                    | 1710       | 2490      | 143,2                       |                   |                 |
| BHS 412-33    | 33   | 14    | 10,44 |                | 380,9                         | 343,3 | 326,3 | 308,7 | 289,1 | 263,6 | 235,3 | 179,4 |      | 780                    | 1748       | 2528      | 145                         |                   |                 |
| BHS 412-34    | 34   | 14    | 10,44 |                | 398,8                         | 354,0 | 337,6 | 319,6 | 298,0 | 271,6 | 242,9 | 184,0 |      | 780                    | 1786       | 2566      | 146,8                       |                   |                 |
| BHS 412-35    | 35   | 15    | 11,19 |                | 409,8                         | 363,9 | 346,8 | 328,0 | 305,7 | 278,6 | 249,1 | 188,3 |      | 780                    | 1824       | 2604      | 148,7                       |                   |                 |

PERFORMANCE CURVE

50Hz



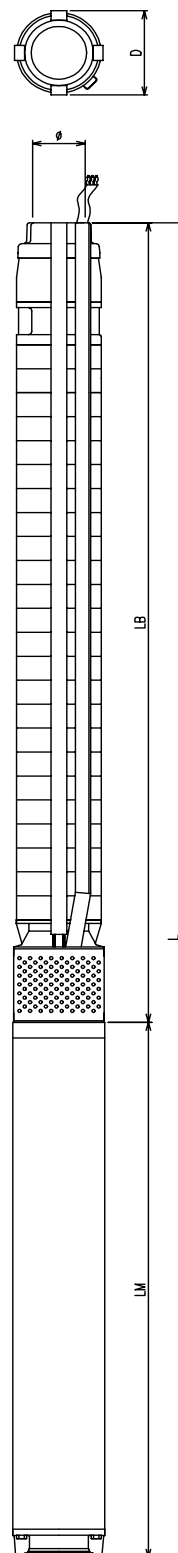
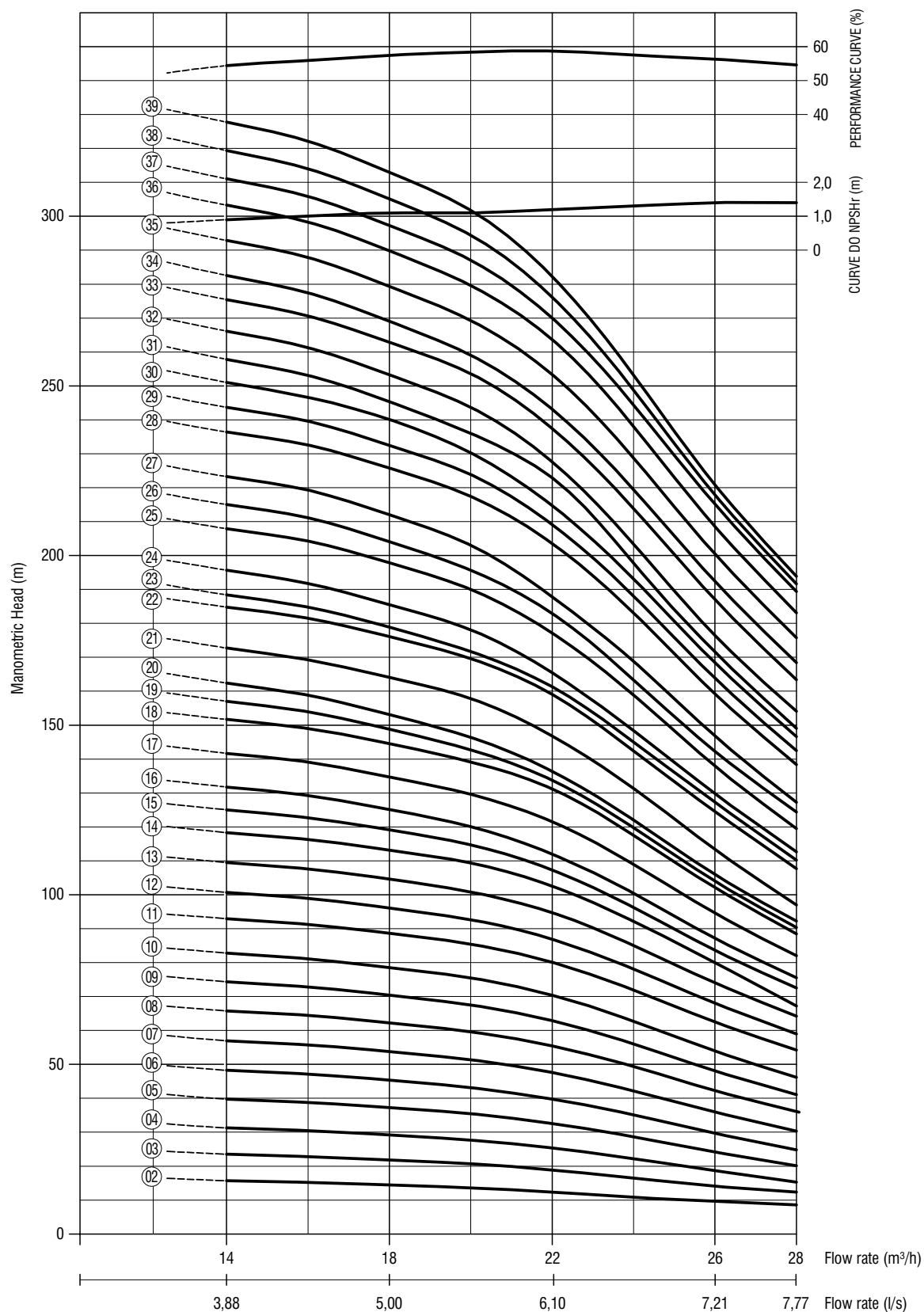
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | N°<br>EST. | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D<br>max.<br>(mm) | ø<br>POL<br>BSP |
|---------------|------------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               |            | HP    | Kw    |                | 0                             | 8,5   | 10    | 11    | 12    | 14    | 15    | 16    | 18    | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| BHS 511-02    | 02         | 1,5   | 1,12  | M6P            | 22,2                          | 18,4  | 17,4  | 16,7  | 16,0  | 13,9  | 12,6  | 11,2  | 8,2   | m    | 450                    | 444        | 894       | 45,6                        | 144               | 2''             |
| BHS 511-03    | 03         | 2     | 1,49  |                | 33,3                          | 27,9  | 26,5  | 25,5  | 24,4  | 21,5  | 19,7  | 17,7  | 13,3  |      | 465                    | 487        | 952       | 49,6                        |                   |                 |
| BHS 511-04    | 04         | 2,5   | 1,86  |                | 44,5                          | 37,4  | 35,6  | 34,4  | 33,0  | 29,1  | 26,9  | 24,3  | 18,5  |      | 490                    | 530        | 1020      | 54,5                        |                   |                 |
| BHS 511-05    | 05         | 3     | 2,24  |                | 55,4                          | 46,9  | 44,6  | 43,1  | 41,4  | 36,6  | 33,8  | 30,6  | 23,5  |      | 490                    | 573        | 1063      | 56,5                        |                   |                 |
| BHS 511-06    | 06         | 3,5   | 2,61  |                | 66,3                          | 56,3  | 53,7  | 51,9  | 49,8  | 44,1  | 40,7  | 36,9  | 28,5  |      | 510                    | 616        | 1126      | 60,4                        |                   |                 |
| BHS 511-07    | 07         | 4     | 2,98  |                | 77,7                          | 66,2  | 63,2  | 61,2  | 58,8  | 52,4  | 48,5  | 44,0  | 34,2  |      | 510                    | 659        | 1169      | 62,4                        |                   |                 |
| BHS 511-08    | 08         | 5     | 3,73  |                | 89,0                          | 76,3  | 72,8  | 70,5  | 67,8  | 60,6  | 56,2  | 51,0  | 39,9  |      | 550                    | 702        | 1252      | 69,3                        |                   |                 |
| BHS 511-09    | 09         | 5,5   | 4,10  |                | 100,2                         | 86,0  | 82,0  | 79,3  | 76,2  | 67,8  | 62,9  | 57,2  | 44,9  |      | 610                    | 745        | 1355      | 77,2                        |                   |                 |
| BHS 511-10    | 10         | 6     | 4,47  |                | 111,3                         | 95,9  | 91,3  | 88,3  | 84,6  | 74,9  | 69,6  | 63,4  | 49,8  |      | 610                    | 788        | 1398      | 79,2                        |                   |                 |
| BHS 511-11    | 11         | 6     | 4,47  |                | 121,8                         | 105,0 | 100,3 | 97,2  | 93,4  | 83,1  | 77,1  | 70,1  | 55,1  |      | 610                    | 831        | 1441      | 81,2                        |                   |                 |
| BHS 511-12    | 12         | 7     | 5,22  |                | 132,3                         | 114,3 | 109,4 | 106,2 | 102,3 | 91,3  | 84,7  | 76,9  | 60,5  |      | 610                    | 874        | 1484      | 83,1                        |                   |                 |
| BHS 511-13    | 13         | 8     | 5,97  |                | 144,4                         | 124,8 | 119,8 | 116,5 | 110,9 | 97,5  | 93,8  | 85,5  | 67,7  |      | 665                    | 917        | 1582      | 90,1                        |                   |                 |
| BHS 511-14    | 14         | 9     | 6,71  |                | 156,6                         | 135,3 | 130,3 | 126,9 | 122,7 | 110,5 | 102,9 | 94,2  | 75,0  |      | 665                    | 960        | 1625      | 92                          |                   |                 |
| BHS 511-15    | 15         | 10    | 7,46  |                | 167,3                         | 145,2 | 139,9 | 136,4 | 131,8 | 118,1 | 109,9 | 100,2 | 79,6  |      | 665                    | 1003       | 1668      | 94                          |                   |                 |
| BHS 511-16    | 16         | 10    | 7,46  |                | 178,1                         | 155,1 | 149,6 | 145,9 | 140,9 | 125,7 | 116,8 | 106,2 | 84,2  |      | 665                    | 1046       | 1711      | 95,9                        |                   |                 |
| BHS 511-17    | 17         | 11    | 8,20  |                | 189,1                         | 164,4 | 158,3 | 154,3 | 149,1 | 133,1 | 123,4 | 112,3 | 88,9  |      | 715                    | 1089       | 1804      | 103,9                       |                   |                 |
| BHS 511-18    | 18         | 11    | 8,20  |                | 200,1                         | 173,8 | 167,2 | 162,8 | 157,3 | 140,5 | 130,0 | 118,4 | 93,5  |      | 715                    | 1132       | 1847      | 105,8                       |                   |                 |
| BHS 511-19    | 19         | 12    | 8,95  |                | 210,7                         | 181,9 | 175,0 | 170,4 | 164,5 | 146,6 | 135,5 | 123,6 | 97,1  |      | 715                    | 1175       | 1890      | 107,8                       |                   |                 |
| BHS 511-20    | 20         | 12    | 8,95  |                | 221,2                         | 190,1 | 182,9 | 178,0 | 171,7 | 152,6 | 141,0 | 128,7 | 100,7 |      | 715                    | 1218       | 1933      | 109,7                       |                   |                 |
| BHS 511-21    | 21         | 12,5  | 9,32  |                | 231,4                         | 199,2 | 190,8 | 185,3 | 178,4 | 159,1 | 147,6 | 134,2 | 105,2 |      | 715                    | 1329       | 2044      | 115,5                       |                   |                 |
| BHS 511-22    | 22         | 13    | 9,69  |                | 241,5                         | 208,3 | 198,9 | 192,6 | 185,1 | 165,5 | 154,2 | 139,6 | 109,6 |      | 780                    | 1372       | 2152      | 124,4                       |                   |                 |
| BHS 511-23    | 23         | 14    | 10,44 |                | 253,2                         | 217,7 | 208,2 | 201,9 | 194,3 | 173,2 | 160,5 | 145,7 | 114,2 |      | 780                    | 1415       | 2195      | 126,4                       |                   |                 |
| BHS 511-24    | 24         | 14    | 10,44 |                | 264,8                         | 227,0 | 217,5 | 211,1 | 203,4 | 180,8 | 166,7 | 151,8 | 118,6 |      | 780                    | 1458       | 2238      | 128,3                       |                   |                 |
| BHS 511-25    | 25         | 15    | 11,19 |                | 275,2                         | 235,4 | 225,7 | 219,2 | 210,9 | 186,3 | 171,9 | 155,9 | 121,9 |      | 780                    | 1501       | 2281      | 130,3                       |                   |                 |
| BHS 511-26    | 26         | 16    | 11,93 | M6G            | 286,1                         | 246,1 | 236,3 | 229,7 | 221,2 | 196,1 | 181,3 | 164,0 | 128,8 | m    | 1075                   | 1544       | 2619      | 154,2                       | 144               | 2''             |
| BHS 511-27    | 27         | 17    | 12,68 |                | 297,7                         | 255,0 | 245,2 | 238,7 | 230,0 | 204,0 | 188,9 | 171,5 | 134,2 |      | 1075                   | 1587       | 2662      | 156,2                       |                   |                 |
| BHS 511-28    | 28         | 17    | 12,68 |                | 309,4                         | 269,8 | 253,8 | 243,2 | 233,5 | 211,0 | 194,7 | 177,0 | 138,6 |      | 1075                   | 1630       | 2705      | 158,1                       |                   |                 |
| BHS 511-29    | 29         | 18    | 13,42 |                | 319,5                         | 273,3 | 261,8 | 254,2 | 244,8 | 217,3 | 200,8 | 181,9 | 143,3 |      | 1075                   | 1673       | 2748      | 160,1                       |                   |                 |
| BHS 511-30    | 30         | 18    | 13,42 |                | 330,9                         | 281,9 | 270,1 | 262,3 | 252,4 | 224,2 | 207,8 | 188,3 | 148,2 |      | 1075                   | 1716       | 2791      | 162                         |                   |                 |
| BHS 511-31    | 31         | 19    | 14,17 |                | 343,3                         | 294,9 | 282,9 | 274,9 | 264,5 | 234,6 | 218,1 | 199,0 | 156,3 |      | 1075                   | 1827       | 2902      | 167,8                       |                   |                 |
| BHS 511-32    | 32         | 20    | 14,91 |                | 354,9                         | 305,5 | 293,7 | 285,8 | 275,5 | 245,3 | 227,9 | 207,7 | 163,2 |      | 1075                   | 1870       | 2945      | 169,7                       |                   |                 |
| BHS 511-33    | 33         | 22,5  | 16,78 |                | 366,7                         | 316,0 | 304,4 | 296,6 | 286,5 | 256,0 | 237,8 | 216,4 | 170,1 |      | 1145                   | 1913       | 3058      | 179,7                       |                   |                 |
| BHS 511-34    | 34         | 22,5  | 16,78 |                | 371,1                         | 327,4 | 313,5 | 304,3 | 293,2 | 262,5 | 244,3 | 223,6 | 176,0 |      | 1145                   | 1956       | 3101      | 181,6                       |                   |                 |
| BHS 511-35    | 35         | 22,5  | 16,78 |                | 381,1                         | 336,4 | 322,2 | 312,7 | 301,1 | 268,4 | 249,0 | 227,0 | 179,6 |      | 1145                   | 1999       | 3144      | 183,6                       |                   |                 |
| BHS 511-36    | 36         | 22,5  | 16,78 |                | 391,0                         | 345,5 | 330,8 | 321,1 | 309,0 | 274,4 | 253,6 | 230,4 | 183,3 |      | 1145                   | 2042       | 3187      | 185,5                       |                   |                 |

PERFORMANCE CURVE

50Hz





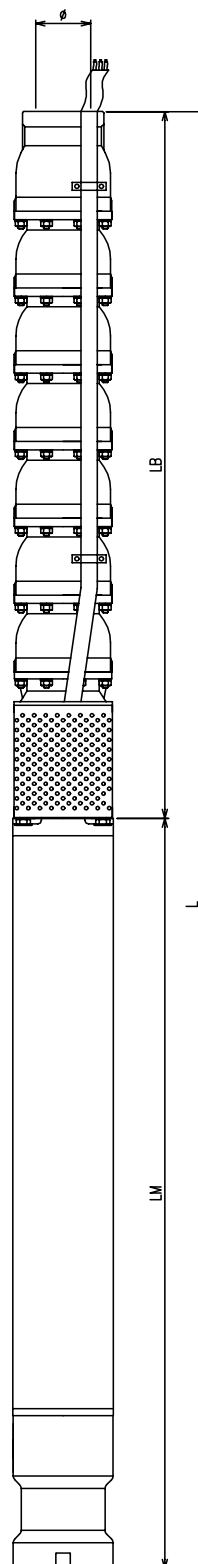
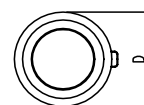
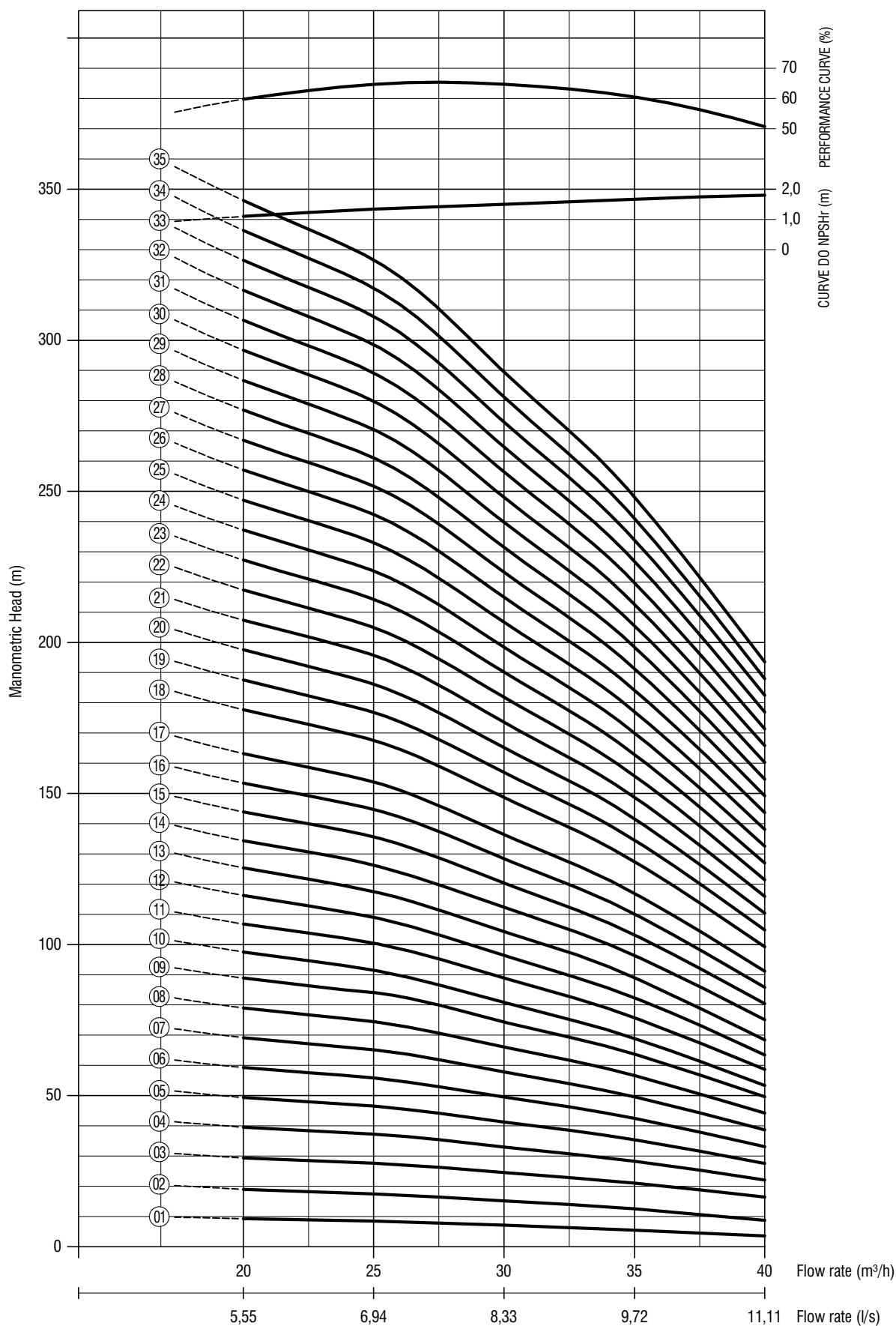
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº<br>EST. | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |            |           | VOLUME (Kg)                 | D<br>máx.<br>(mm) | Ø<br>POL<br>BSP |
|---------------|------------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------------|-----------|-----------------------------|-------------------|-----------------|
|               |            | HP    | kW    |                | 0                             | 14    | 16    | 18    | 20    | 22    | 24    | 26    | 28    | m³/h | LM<br>(mm)             | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220, 380V |                   |                 |
| BHS 512-02    | 02         | 2     | 1,49  | M6P            | 19,1                          | 15,7  | 15,2  | 14,5  | 13,6  | 12,4  | 10,8  | 9,7   | 9,3   | m    | 465                    | 464        | 929       | 47,8                        | 144               | 2"              |
| BHS 512-03    | 03         | 2,5   | 1,86  |                | 28,0                          | 23,5  | 22,8  | 21,8  | 20,7  | 18,9  | 16,5  | 14,1  | 12,3  |      | 490                    | 517        | 1007      | 52,8                        |                   |                 |
| BHS 512-04    | 04         | 3,5   | 2,61  |                | 36,9                          | 31,3  | 30,5  | 29,2  | 27,7  | 25,4  | 22,2  | 18,6  | 15,3  |      | 510                    | 570        | 1080      | 56,8                        |                   |                 |
| BHS 512-05    | 05         | 4,5   | 3,36  |                | 46,3                          | 39,8  | 38,8  | 37,3  | 35,4  | 32,5  | 28,7  | 24,1  | 20,1  |      | 550                    | 623        | 1173      | 63,9                        |                   |                 |
| BHS 512-06    | 06         | 5,5   | 4,10  |                | 55,7                          | 48,2  | 47,2  | 45,3  | 43,1  | 39,7  | 35,1  | 29,7  | 24,8  |      | 610                    | 676        | 1286      | 71,9                        |                   |                 |
| BHS 512-07    | 07         | 6,5   | 4,85  |                | 65,4                          | 57,0  | 55,8  | 53,8  | 51,4  | 47,6  | 42,2  | 35,9  | 30,3  |      | 610                    | 729        | 1339      | 73,9                        |                   |                 |
| BHS 512-08    | 08         | 7     | 5,22  |                | 75,1                          | 65,8  | 64,4  | 62,3  | 59,6  | 55,5  | 49,3  | 42,3  | 35,9  |      | 610                    | 782        | 1392      | 75,9                        |                   |                 |
| BHS 512-09    | 09         | 8     | 5,97  |                | 84,7                          | 74,3  | 72,8  | 70,4  | 67,6  | 62,9  | 56,0  | 48,1  | 41,0  |      | 665                    | 835        | 1500      | 83                          |                   |                 |
| BHS 512-10    | 10         | 9     | 6,71  |                | 94,4                          | 82,8  | 81,1  | 78,6  | 75,5  | 70,4  | 62,7  | 53,9  | 46,1  |      | 665                    | 888        | 1553      | 85                          |                   |                 |
| BHS 512-11    | 11         | 10    | 7,46  |                | 104,5                         | 92,9  | 91,3  | 88,6  | 85,4  | 80,1  | 71,9  | 62,5  | 54,2  |      | 665                    | 941        | 1606      | 87                          |                   |                 |
| BHS 512-12    | 12         | 11    | 8,20  |                | 113,1                         | 100,7 | 98,9  | 96,1  | 92,7  | 86,9  | 78,0  | 68,0  | 59,0  |      | 715                    | 994        | 1709      | 95,1                        |                   |                 |
| BHS 512-13    | 13         | 12    | 8,95  |                | 122,7                         | 109,5 | 107,6 | 104,6 | 101,0 | 94,7  | 85,1  | 74,0  | 64,3  |      | 715                    | 1048       | 1763      | 97,1                        |                   |                 |
| BHS 512-14    | 14         | 12,5  | 9,32  |                | 132,4                         | 118,3 | 116,3 | 113,1 | 109,3 | 102,6 | 92,1  | 80,0  | 69,6  |      | 715                    | 1100       | 1815      | 99,1                        |                   |                 |
| BHS 512-15    | 15         | 14    | 10,44 |                | 140,8                         | 125,0 | 122,7 | 119,1 | 114,7 | 107,3 | 96,3  | 83,6  | 72,5  |      | 780                    | 1153       | 1933      | 108,2                       |                   |                 |
| BHS 512-16    | 16         | 14    | 10,44 |                | 149,3                         | 131,8 | 129,3 | 125,1 | 120,1 | 112,0 | 100,4 | 87,1  | 75,5  |      | 780                    | 1206       | 1986      | 110,2                       |                   |                 |
| BHS 512-17    | 17         | 15    | 11,19 |                | 159,8                         | 141,7 | 139,1 | 134,8 | 129,6 | 121,6 | 109,0 | 94,6  | 82,0  |      | 780                    | 1327       | 2107      | 116,1                       |                   |                 |
| BHS 512-18    | 18         | 16    | 11,93 | M6G            | 170,2                         | 151,7 | 149,1 | 144,6 | 139,2 | 131,2 | 117,5 | 102,1 | 88,5  | m    | 1075                   | 1380       | 2455      | 140,1                       |                   |                 |
| BHS 512-19    | 19         | 17    | 12,68 |                | 178,6                         | 157,0 | 153,9 | 148,8 | 142,7 | 133,8 | 119,8 | 104,0 | 90,3  |      | 1075                   | 1433       | 2508      | 142,2                       |                   |                 |
| BHS 512-20    | 20         | 17    | 12,68 |                | 187,1                         | 162,4 | 158,8 | 153,1 | 146,4 | 136,4 | 122,0 | 105,9 | 92,2  |      | 1075                   | 1486       | 2561      | 144,2                       |                   |                 |
| BHS 512-21    | 21         | 18    | 13,42 |                | 196,5                         | 172,7 | 169,3 | 164,1 | 157,8 | 146,8 | 131,4 | 113,4 | 97,0  |      | 1075                   | 1539       | 2614      | 146,2                       |                   |                 |
| BHS 512-22    | 22         | 19    | 14,17 |                | 207,4                         | 184,8 | 181,5 | 176,1 | 169,6 | 159,0 | 142,4 | 124,5 | 108,6 |      | 1075                   | 1592       | 2667      | 148,2                       |                   |                 |
| BHS 512-23    | 23         | 20    | 14,91 |                | 213,8                         | 188,4 | 184,8 | 178,9 | 171,7 | 159,3 | 142,1 | 123,0 | 106,7 |      | 1075                   | 1645       | 2720      | 150,2                       |                   |                 |
| BHS 512-24    | 24         | 22,5  | 16,78 |                | 222,8                         | 195,7 | 191,8 | 185,5 | 178,1 | 165,4 | 148,4 | 128,7 | 110,3 |      | 1145                   | 1698       | 2843      | 160,3                       |                   |                 |
| BHS 512-25    | 25         | 22,5  | 16,78 |                | 233,3                         | 207,9 | 204,3 | 197,9 | 190,0 | 177,1 | 158,9 | 137,9 | 119,6 |      | 1145                   | 1751       | 2896      | 162,2                       |                   |                 |
| BHS 512-26    | 26         | 22,5  | 16,78 |                | 242,4                         | 215,0 | 211,1 | 204,1 | 195,7 | 183,0 | 163,4 | 142,2 | 124,4 |      | 1145                   | 1804       | 2949      | 164,3                       |                   |                 |
| BHS 512-27    | 27         | 25    | 18,64 |                | 251,1                         | 223,2 | 219,3 | 212,0 | 203,0 | 187,8 | 168,8 | 146,7 | 127,3 |      | 1145                   | 1857       | 3002      | 166,3                       |                   |                 |
| BHS 512-28    | 28         | 25    | 18,64 |                | 263,2                         | 236,4 | 232,6 | 225,8 | 217,5 | 203,5 | 183,1 | 159,2 | 138,4 |      | 1145                   | 1910       | 3055      | 168,4                       |                   |                 |
| BHS 512-29    | 29         | 27,5  | 20,51 |                | 272,4                         | 243,7 | 239,6 | 232,5 | 223,9 | 209,1 | 188,1 | 163,8 | 142,5 |      | 1235                   | 1963       | 3198      | 179,3                       |                   |                 |
| BHS 512-30    | 30         | 27,5  | 20,51 |                | 281,6                         | 251,0 | 246,7 | 239,3 | 230,3 | 214,7 | 193,1 | 168,4 | 146,6 |      | 1235                   | 2016       | 3251      | 181,4                       |                   |                 |
| BHS 512-31    | 31         | 27,5  | 20,51 |                | 290,5                         | 257,8 | 253,1 | 245,3 | 236,0 | 221,3 | 197,7 | 171,5 | 149,1 |      | 1235                   | 2069       | 3304      | 183,4                       |                   |                 |
| BHS 512-32    | 32         | 30    | 22,37 |                | 300,2                         | 266,2 | 261,3 | 253,3 | 243,7 | 227,6 | 203,3 | 176,4 | 154,1 |      | 1235                   | 2122       | 3357      | 185,5                       |                   |                 |
| BHS 512-33    | 33         | 30    | 22,37 |                | 309,4                         | 275,5 | 270,6 | 262,9 | 253,6 | 237,5 | 213,9 | 186,9 | 163,3 |      | 1235                   | 2243       | 3478      | 191,4                       |                   |                 |
| BHS 512-34    | 34         | 30    | 22,37 |                | 318,7                         | 282,6 | 277,4 | 269,0 | 259,0 | 243,1 | 219,4 | 192,3 | 168,4 |      | 1235                   | 2296       | 3531      | 193,4                       |                   |                 |
| BHS 512-35    | 35         | 32,5  | 24,24 | Mi6G           | 328,5                         | 292,9 | 287,8 | 279,4 | 269,3 | 253,4 | 228,8 | 200,4 | 175,7 | m    | 1294                   | 2349       | 3643      | 202,4                       |                   |                 |
| BHS 512-36    | 36         | 32,5  | 24,24 |                | 338,3                         | 303,3 | 298,3 | 289,8 | 279,6 | 263,7 | 238,1 | 208,6 | 183,1 |      | 1294                   | 2402       | 3696      | 204,5                       |                   |                 |
| BHS 512-37    | 37         | 32,5  | 24,24 |                | 347,6                         | 311,1 | 305,8 | 297,3 | 287,1 | 270,0 | 244,4 | 215,0 | 189,3 |      | 1294                   | 2455       | 3749      | 206,5                       |                   |                 |
| BHS 512-38    | 38         | 35    | 26,10 | M8             | 357,0                         | 319,4 | 314,0 | 305,1 | 294,4 | 276,1 | 248,8 | 217,9 | 191,6 | m    | 1294                   | 2508       | 3802      | 208,5                       |                   |                 |
| BHS 512-39    | 39         | 35    | 26,10 |                | 366,5                         | 327,7 | 322,2 | 312,9 | 301,7 | 282,3 | 253,2 | 220,8 | 193,8 |      | 1294                   | 2561       | 3855      | 210,5                       |                   |                 |

PERFORMANCE CURVE

50Hz



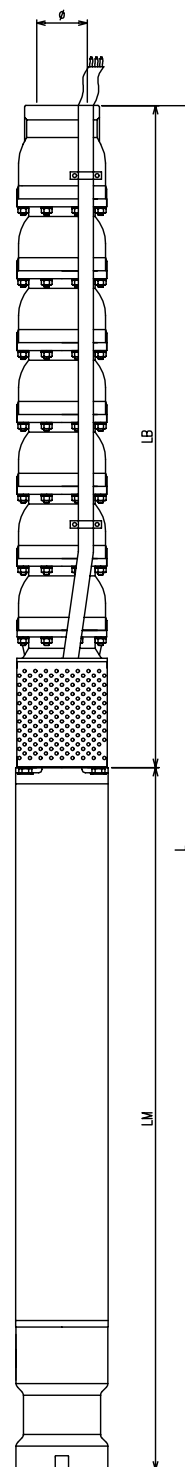
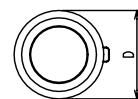
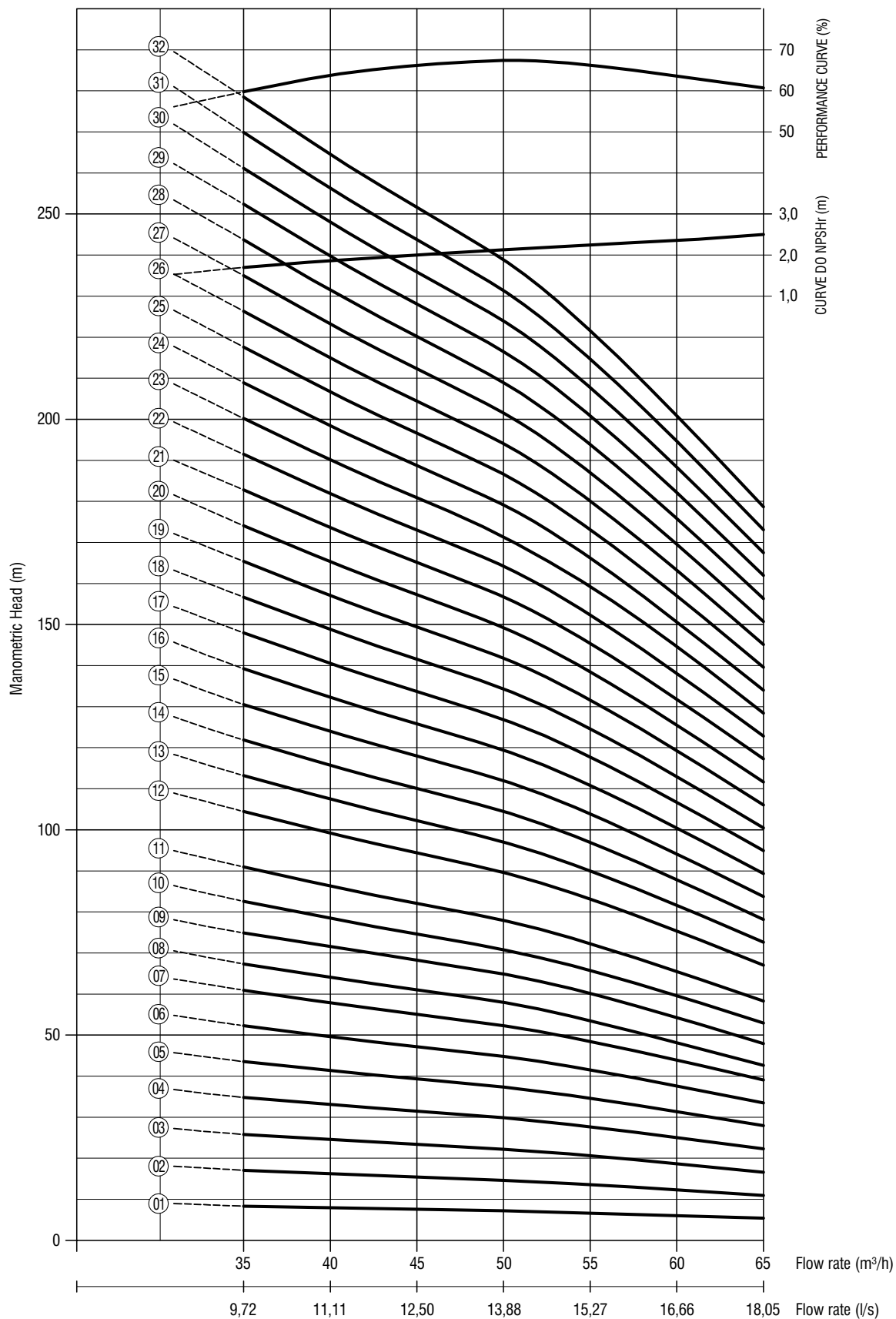
## EQUIPMENT SELECTION CHART

50Hz

| PUMP<br>MODEL | Nº   | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      |            | THREE-PHASE (220/380V) |           |                            | VOLUME(Kg) | D<br>máx.<br>(mm) | Ø<br>POL<br>BSP |
|---------------|------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------|------------------------|-----------|----------------------------|------------|-------------------|-----------------|
|               | EST. | HP    | KW    |                | 0                             | 20    | 24    | 28    | 30    | 32    | 35    | 46    | 40    | m³/h | LM<br>(mm) | LB<br>(mm)             | L<br>(mm) | W/Three-phase<br>220, 380V |            |                   |                 |
| BHS 516-01    | 01   | 1,5   | 1,12  | M6P            | 12,6                          | 9,3   | 8,6   | 7,6   | 7,1   | 6,5   | 5,5   | 5,1   | 3,6   | m    | 450        | 462                    | 912       | 45,5                       | 146        | 3"                |                 |
| BHS 516-02    | 02   | 3     | 2,24  |                | 25,2                          | 19,0  | 17,8  | 16,1  | 15,2  | 14,2  | 12,5  | 11,8  | 8,7   |      | 490        | 572                    | 1062      | 56                         |            |                   |                 |
| BHS 516-03    | 03   | 4,5   | 3,36  |                | 35,9                          | 29,3  | 28,0  | 25,8  | 24,5  | 23,3  | 21,0  | 20,2  | 16,4  |      | 550        | 682                    | 1232      | 68,5                       |            |                   |                 |
| BHS 516-04    | 04   | 5,5   | 4,10  |                | 48,3                          | 39,6  | 37,8  | 34,7  | 33,0  | 31,3  | 28,3  | 27,1  | 22,1  |      | 610        | 792                    | 1402      | 80                         |            |                   |                 |
| BHS 516-05    | 05   | 7     | 5,22  |                | 60,4                          | 49,4  | 47,2  | 43,4  | 41,3  | 39,2  | 35,4  | 33,9  | 27,6  |      | 610        | 902                    | 1512      | 85,5                       |            |                   |                 |
| BHS 516-06    | 06   | 8     | 5,97  |                | 72,4                          | 59,3  | 56,6  | 52,1  | 49,5  | 47,0  | 42,4  | 40,8  | 33,1  |      | 665        | 1012                   | 1677      | 96                         |            |                   |                 |
| BHS 516-07    | 07   | 10    | 7,46  |                | 84,5                          | 69,1  | 66,0  | 60,8  | 57,8  | 54,9  | 49,5  | 47,6  | 38,6  |      | 665        | 1122                   | 1787      | 556                        |            |                   |                 |
| BHS 516-08    | 08   | 11    | 8,20  |                | 96,6                          | 79,0  | 75,4  | 69,4  | 66,1  | 62,7  | 56,6  | 54,3  | 44,1  |      | 715        | 1232                   | 1947      | 113                        |            |                   |                 |
| BHS 516-09    | 09   | 12    | 8,95  |                | 108,7                         | 88,9  | 84,9  | 78,1  | 74,4  | 70,6  | 63,7  | 61,1  | 49,7  |      | 715        | 1342                   | 2057      | 118,5                      |            |                   |                 |
| BHS 516-10    | 10   | 13    | 9,69  |                | 120,7                         | 97,5  | 92,9  | 85,1  | 80,8  | 76,5  | 68,8  | 66,0  | 53,3  |      | 780        | 1452                   | 2232      | 131                        |            |                   |                 |
| BHS 516-11    | 11   | 15    | 11,19 |                | 131,7                         | 106,9 | 101,9 | 93,5  | 88,9  | 84,2  | 75,7  | 72,6  | 58,6  |      | 780        | 1562                   | 2342      | 136,5                      |            |                   |                 |
| BHS 516-12    | 12   | 16    | 11,93 | M6G            | 144,1                         | 116,2 | 110,6 | 101,5 | 96,4  | 91,3  | 82,3  | 78,9  | 63,4  | m    | 1075       | 1672                   | 2747      | 164                        | 146        | 3"                |                 |
| BHS 516-13    | 13   | 17    | 12,68 |                | 155,7                         | 125,4 | 119,3 | 109,6 | 104,3 | 99,0  | 88,9  | 85,1  | 68,5  |      | 1075       | 1782                   | 2857      | 169,5                      |            |                   |                 |
| BHS 516-14    | 14   | 18    | 13,42 |                | 164,3                         | 134,3 | 128,3 | 118,0 | 112,3 | 106,6 | 96,2  | 92,4  | 75,1  |      | 1075       | 1892                   | 2967      | 175                        |            |                   |                 |
| BHS 516-15    | 15   | 20    | 14,91 |                | 176,0                         | 144,0 | 137,5 | 126,5 | 120,4 | 114,2 | 103,1 | 99,0  | 80,4  |      | 1075       | 2002                   | 3077      | 180,5                      |            |                   |                 |
| BHS 516-16    | 16   | 22,5  | 16,78 |                | 187,8                         | 153,5 | 146,7 | 134,9 | 128,4 | 121,9 | 109,9 | 105,6 | 85,8  |      | 1145       | 2112                   | 3257      | 194                        |            |                   |                 |
| BHS 516-17    | 17   | 22,5  | 16,78 |                | 199,5                         | 163,2 | 155,9 | 143,4 | 136,4 | 129,4 | 116,8 | 112,1 | 91,1  |      | 1145       | 2222                   | 3367      | 199,5                      |            |                   |                 |
| BHS 516-18    | 18   | 25    | 18,64 |                | 217,4                         | 177,8 | 169,8 | 156,2 | 148,6 | 141,1 | 127,3 | 122,2 | 99,3  |      | 1145       | 2332                   | 3477      | 205                        |            |                   |                 |
| BHS 516-19    | 19   | 25    | 18,64 |                | 229,5                         | 187,6 | 179,2 | 164,9 | 156,9 | 148,9 | 134,4 | 129,0 | 104,9 |      | 1145       | 2442                   | 3587      | 210,5                      |            |                   |                 |
| BHS 516-20    | 20   | 27,5  | 20,51 |                | 241,5                         | 197,5 | 188,7 | 173,6 | 165,2 | 156,8 | 141,5 | 135,8 | 110,4 |      | 1235       | 2552                   | 3787      | 225                        |            |                   |                 |
| BHS 516-21    | 21   | 30    | 22,37 |                | 253,6                         | 207,4 | 198,2 | 182,3 | 173,5 | 164,7 | 148,5 | 142,6 | 115,9 |      | 1235       | 2662                   | 3897      | 230,5                      |            |                   |                 |
| BHS 516-22    | 22   | 30    | 22,37 |                | 265,7                         | 217,4 | 207,7 | 191,1 | 181,8 | 172,5 | 155,6 | 149,4 | 121,5 |      | 1235       | 2772                   | 4007      | 236                        |            |                   |                 |
| BHS 516-23    | 23   | 32,5  | 24,24 | Mi6G           | 277,7                         | 227,3 | 217,2 | 199,8 | 190,1 | 180,4 | 162,7 | 156,2 | 127,0 | m    | 1294       | 2882                   | 4176      | 248,5                      | 144        | 3"                |                 |
| BHS 516-24    | 24   | 32,5  | 24,24 |                | 289,8                         | 237,2 | 226,7 | 208,5 | 198,4 | 188,2 | 169,8 | 163,0 | 132,6 |      | 1294       | 2992                   | 4286      | 254                        |            |                   |                 |
| BHS 516-25    | 25   | 35    | 26,10 | M8             | 301,9                         | 247,1 | 236,2 | 217,2 | 206,7 | 196,1 | 176,9 | 169,8 | 138,1 | m    | 1068       | 3122                   | 4190      | 289,5                      | 180        | 3"                |                 |
| BHS 516-26    | 26   | 35    | 26,10 |                | 314,0                         | 257,0 | 245,6 | 225,9 | 214,9 | 203,9 | 184,0 | 176,6 | 143,6 |      | 1068       | 3232                   | 4300      | 295                        |            |                   |                 |
| BHS 516-27    | 27   | 37,5  | 27,96 |                | 326,1                         | 266,9 | 255,1 | 234,6 | 223,2 | 211,8 | 191,1 | 183,4 | 149,2 |      | 1068       | 3342                   | 4410      | 300,5                      |            |                   |                 |
| BHS 516-28    | 28   | 37,5  | 27,96 |                | 338,1                         | 276,9 | 264,6 | 243,3 | 231,5 | 219,6 | 198,1 | 190,2 | 154,7 |      | 1068       | 3452                   | 4520      | 306                        |            |                   |                 |
| BHS 516-29    | 29   | 40    | 29,83 |                | 350,2                         | 286,8 | 274,1 | 252,0 | 239,7 | 227,5 | 205,2 | 197,0 | 160,3 |      | 1068       | 3562                   | 4630      | 311,5                      |            |                   |                 |
| BHS 516-30    | 30   | 40    | 29,83 |                | 362,3                         | 296,7 | 283,6 | 260,7 | 248,0 | 235,3 | 212,3 | 203,8 | 165,8 |      | 1068       | 3672                   | 4740      | 317                        |            |                   |                 |
| BHS 516-31    | 31   | 45    | 33,56 |                | 373,9                         | 306,6 | 293,1 | 269,5 | 256,3 | 243,2 | 219,4 | 210,6 | 171,3 |      | 1128       | 3782                   | 4910      | 333,5                      |            |                   |                 |
| BHS 516-32    | 32   | 45    | 33,56 |                | 386,4                         | 316,6 | 302,6 | 278,2 | 264,6 | 251,1 | 226,5 | 217,5 | 176,9 |      | 1128       | 3892                   | 5020      | 339                        |            |                   |                 |
| BHS 516-33    | 33   | 45    | 33,56 |                | 398,5                         | 326,4 | 312,1 | 286,9 | 272,9 | 258,9 | 233,6 | 224,3 | 182,4 |      | 1128       | 4002                   | 5130      | 344,5                      |            |                   |                 |
| BHS 516-34    | 34   | 45    | 33,56 |                | 410,6                         | 336,4 | 321,6 | 295,6 | 281,2 | 266,8 | 240,7 | 231,1 | 188,0 |      | 1128       | 4112                   | 5240      | 350                        |            |                   |                 |
| BHS 516-35    | 35   | 50    | 37,28 |                | 422,6                         | 346,3 | 331,0 | 304,3 | 289,5 | 274,6 | 247,7 | 237,9 | 193,5 |      | 1128       | 4222                   | 5350      | 355,5                      |            |                   |                 |

PERFORMANCE CURVE

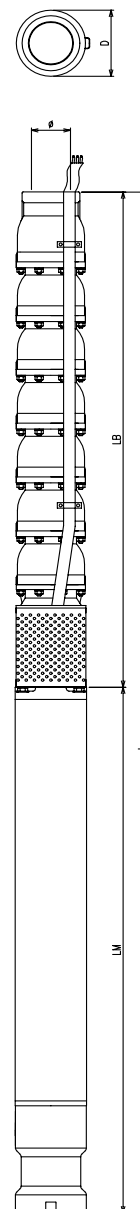
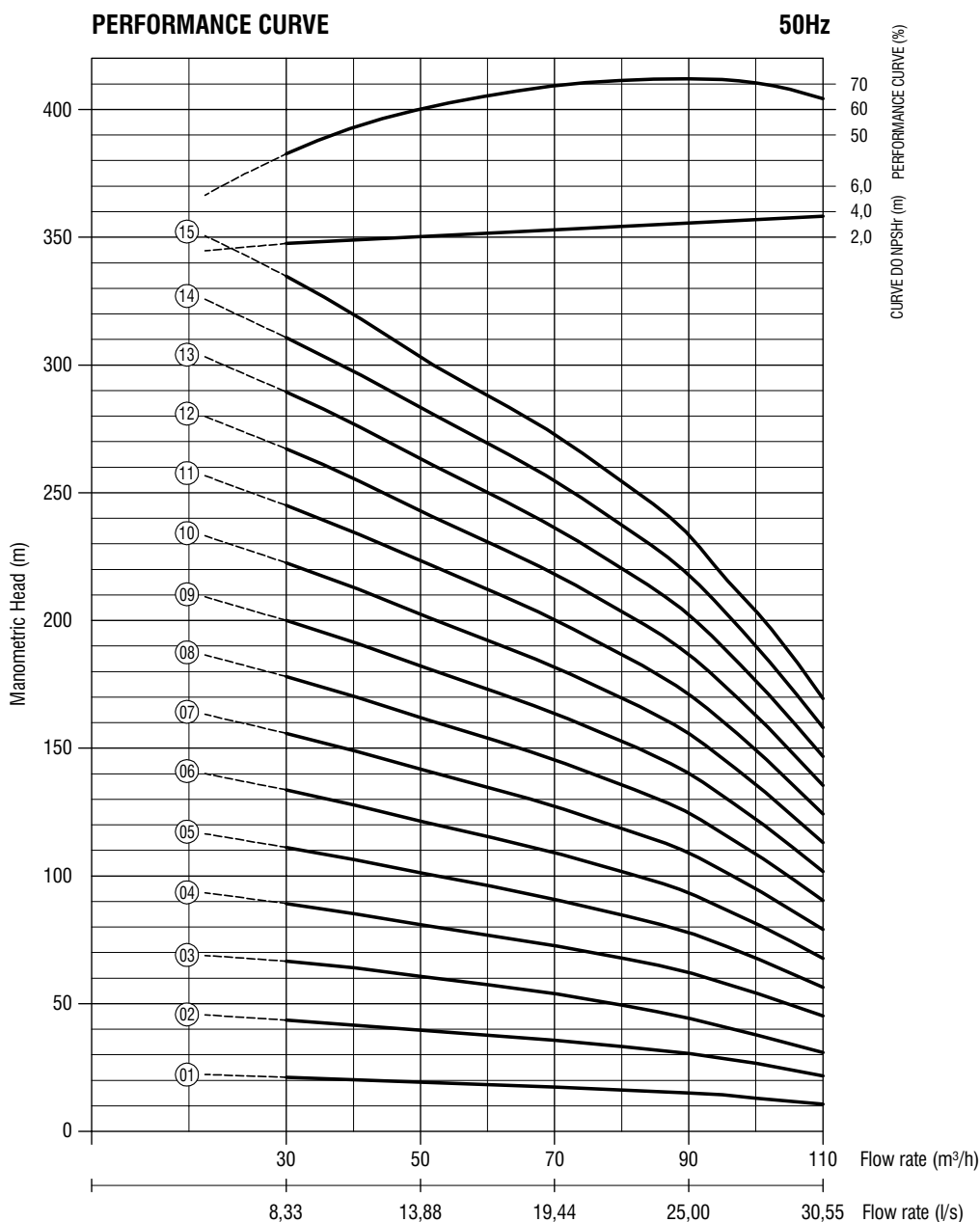
50Hz



## EQUIPMENT SELECTION CHART

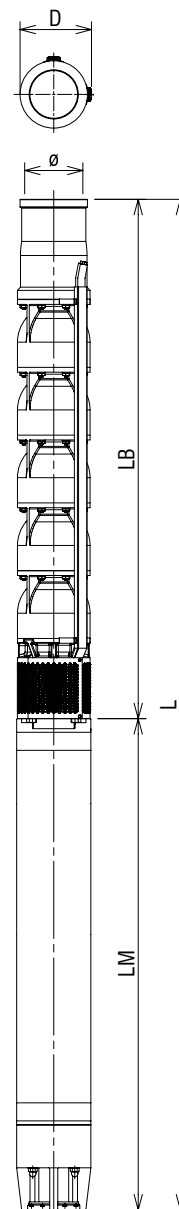
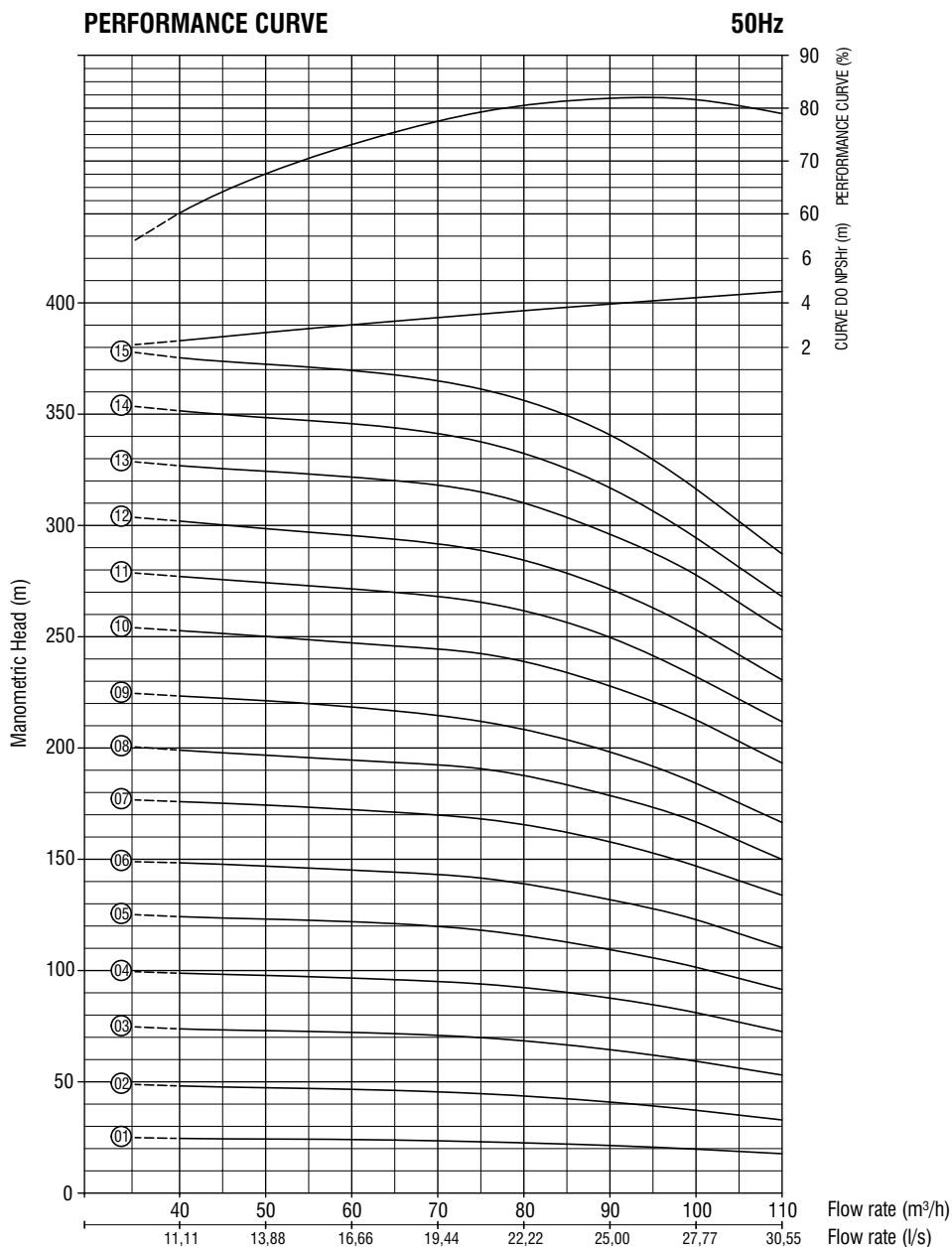
50Hz

| PUMP<br>MODEL | Nº   | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380V) |      |      | VOLUME(Kg)                | D máx.<br>(mm) | Ø<br>POL<br>BSP |    |     |
|---------------|------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------------------|------|------|---------------------------|----------------|-----------------|----|-----|
|               | EST. | HP    | Kw    |                | 0                             | 35    | 38    | 40    | 45    | 48    | 50    | 55    | 65    | m³/h | LM                     | LB   | L    | W/Three-phase<br>220,380V |                |                 |    |     |
|               |      |       |       |                |                               |       |       |       |       |       |       |       |       |      | (mm)                   | (mm) | (mm) |                           |                |                 |    |     |
| BHS 517-01    | 01   | 2,5   | 1,86  | M6P            | 11,5                          | 8,4   | 8,1   | 7,9   | 7,6   | 7,3   | 7,2   | 6,6   | 5,4   | m    | 490                    | 477  | 967  | 51                        | 146            | 3"              |    |     |
| BHS 517-02    | 02   | 4,5   | 3,36  |                | 23,3                          | 17,0  | 16,5  | 16,2  | 15,4  | 14,9  | 14,6  | 13,6  | 10,9  |      | 550                    | 602  | 1152 | 64                        |                |                 |    |     |
| BHS 517-03    | 03   | 6     | 4,47  |                | 35,3                          | 25,8  | 25,1  | 24,6  | 23,4  | 22,7  | 22,2  | 20,6  | 16,6  |      | 610                    | 727  | 1337 | 76                        |                |                 |    |     |
| BHS 517-04    | 04   | 8     | 5,97  |                | 47,6                          | 34,8  | 33,8  | 33,1  | 31,5  | 30,5  | 29,8  | 27,7  | 22,3  |      | 665                    | 852  | 1517 | 87                        |                |                 |    |     |
| BHS 517-05    | 05   | 10    | 7,46  |                | 59,5                          | 43,5  | 42,2  | 41,4  | 39,3  | 38,2  | 37,3  | 34,6  | 27,9  |      | 665                    | 977  | 1642 | 93                        |                |                 |    |     |
| BHS 517-06    | 06   | 12    | 8,95  |                | 71,4                          | 52,2  | 50,6  | 49,6  | 47,2  | 45,8  | 44,8  | 41,6  | 33,5  |      | 715                    | 1102 | 1817 | 105                       |                |                 |    |     |
| BHS 517-07    | 07   | 14    | 10,44 |                | 83,3                          | 60,9  | 59,1  | 57,9  | 55,0  | 53,4  | 52,2  | 48,5  | 39,1  |      | 780                    | 1227 | 2007 | 118                       |                |                 |    |     |
| BHS 517-08    | 08   | 15    | 11,19 |                | 93,3                          | 67,4  | 65,4  | 64,0  | 61,0  | 59,3  | 58,0  | 53,5  | 42,6  |      | 780                    | 1352 | 2132 | 124                       |                |                 |    |     |
| BHS 517-09    | 09   | 17    | 12,68 | M6G            | 105,0                         | 74,9  | 72,9  | 71,6  | 68,3  | 66,3  | 64,9  | 60,1  | 47,9  |      | 1075                   | 1477 | 2552 | 152                       | 146            |                 | 3" |     |
| BHS 517-10    | 10   | 19    | 14,17 |                | 116,3                         | 82,6  | 80,1  | 78,5  | 74,6  | 72,4  | 70,8  | 65,7  | 53,0  |      | 1075                   | 1602 | 2677 | 158                       |                |                 |    |     |
| BHS 517-11    | 11   | 22,5  | 16,78 |                | 128,0                         | 90,9  | 88,2  | 86,3  | 82,1  | 79,6  | 77,9  | 72,3  | 58,3  |      | 1145                   | 1727 | 2872 | 172                       |                |                 |    |     |
| BHS 517-12    | 12   | 25    | 18,64 |                | 142,9                         | 104,4 | 101,3 | 99,2  | 94,4  | 91,6  | 89,6  | 83,1  | 67,0  |      | 1145                   | 1852 | 2997 | 178                       |                |                 |    |     |
| BHS 517-13    | 13   | 27,5  | 20,51 |                | 154,8                         | 113,2 | 109,7 | 107,5 | 102,2 | 99,2  | 97,0  | 90,0  | 72,6  |      | 1235                   | 1977 | 3212 | 193                       |                |                 |    |     |
| BHS 517-14    | 14   | 27,5  | 20,51 |                | 166,7                         | 121,9 | 118,2 | 115,7 | 110,1 | 106,8 | 104,5 | 96,9  | 78,1  |      | 1235                   | 2102 | 3337 | 199                       |                |                 |    |     |
| BHS 517-15    | 15   | 30    | 22,37 |                | 178,6                         | 130,6 | 126,6 | 124,0 | 118,0 | 114,5 | 112,0 | 103,9 | 83,7  |      | 1235                   | 2227 | 3462 | 205                       |                |                 |    |     |
| BHS 517-16    | 16   | 32,5  | 24,24 |                | Mi6G                          | 190,5 | 139,3 | 135,1 | 132,2 | 125,8 | 122,1 | 119,4 | 110,8 |      | 89,3                   | 1294 | 2352 | 3646                      |                |                 |    | 218 |
| BHS 517-17    | 17   | 35    | 26,10 | M8             | 202,4                         | 148,0 | 143,5 | 140,5 | 133,7 | 129,7 | 126,9 | 117,7 | 94,9  |      | 1068                   | 2497 | 3565 | 254                       | 180            |                 |    |     |
| BHS 517-18    | 18   | 37,5  | 27,96 |                | 214,3                         | 156,7 | 152,0 | 148,8 | 141,5 | 137,3 | 134,3 | 124,6 | 100,5 |      | 1068                   | 2622 | 3690 | 260                       |                |                 |    |     |
| BHS 517-19    | 19   | 40    | 29,83 |                | 226,2                         | 165,4 | 160,4 | 157,0 | 149,4 | 145,0 | 141,8 | 131,6 | 106,1 |      | 1068                   | 2747 | 3815 | 266                       |                |                 |    |     |
| BHS 517-20    | 20   | 45    | 33,56 |                | 238,1                         | 174,1 | 168,8 | 165,3 | 157,2 | 152,6 | 149,3 | 138,5 | 111,7 |      | 1128                   | 2872 | 4000 | 283                       |                |                 |    |     |
| BHS 517-21    | 21   | 45    | 33,56 |                | 250,0                         | 182,8 | 177,3 | 173,6 | 165,1 | 160,2 | 156,7 | 145,4 | 117,2 |      | 1128                   | 2997 | 4125 | 289                       |                |                 |    |     |
| BHS 517-22    | 22   | 45    | 33,56 |                | 262,0                         | 191,5 | 185,7 | 181,9 | 173,0 | 167,9 | 164,2 | 152,3 | 122,8 |      | 1128                   | 3122 | 4250 | 295                       |                |                 |    |     |
| BHS 517-23    | 23   | 50    | 37,28 |                | 273,9                         | 200,2 | 194,2 | 190,1 | 180,8 | 175,5 | 171,7 | 159,3 | 128,4 |      | 1128                   | 3247 | 4375 | 301                       |                |                 |    |     |
| BHS 517-24    | 24   | 50    | 37,28 |                | 285,8                         | 208,9 | 202,6 | 198,4 | 188,7 | 183,1 | 179,1 | 166,2 | 134,0 |      | 1128                   | 3372 | 4500 | 307                       |                |                 |    |     |
| BHS 517-25    | 25   | 55    | 41,01 |                | 297,7                         | 217,6 | 211,0 | 206,7 | 196,6 | 190,8 | 186,6 | 173,1 | 139,6 |      | 1228                   | 3497 | 4725 | 330                       |                |                 |    |     |
| BHS 517-26    | 26   | 55    | 41,01 |                | 309,6                         | 226,3 | 219,5 | 214,9 | 204,4 | 198,4 | 194,1 | 180,1 | 145,1 |      | 1228                   | 3622 | 4850 | 336                       |                |                 |    |     |
| BHS 517-27    | 27   | 55    | 41,01 |                | 321,5                         | 235,0 | 227,9 | 223,2 | 212,3 | 206,0 | 201,5 | 187,0 | 150,7 |      | 1228                   | 3755 | 4983 | 343                       |                |                 |    |     |
| BHS 517-28    | 28   | 60    | 44,74 |                | 333,4                         | 243,7 | 236,4 | 231,5 | 220,2 | 213,6 | 209,0 | 193,9 | 156,3 |      | 1228                   | 3880 | 5108 | 349                       |                |                 |    |     |
| BHS 517-29    | 29   | 60    | 44,74 |                | 345,3                         | 252,4 | 244,8 | 239,7 | 228,0 | 221,3 | 216,5 | 200,8 | 161,9 |      | 1228                   | 4005 | 5233 | 355                       |                |                 |    |     |
| BHS 517-30    | 30   | 65    | 48,47 | M8S            | 357,2                         | 261,1 | 253,2 | 248,0 | 235,9 | 228,9 | 223,9 | 207,7 | 167,4 |      | 1358                   | 4130 | 5488 | 387                       |                |                 |    | 185 |
| BHS 517-31    | 31   | 65    | 48,47 |                | 369,1                         | 269,8 | 261,7 | 256,3 | 243,7 | 236,5 | 231,3 | 214,7 | 173,0 |      | 1358                   | 4255 | 5613 | 393                       |                |                 |    |     |
| BHS 517-32    | 32   | 65    | 48,47 |                | 381,0                         | 278,5 | 270,1 | 264,5 | 251,6 | 244,2 | 238,9 | 221,6 | 178,6 |      | 1358                   | 4380 | 5738 | 399                       |                |                 |    |     |



### EQUIPMENT SELECTION CHART

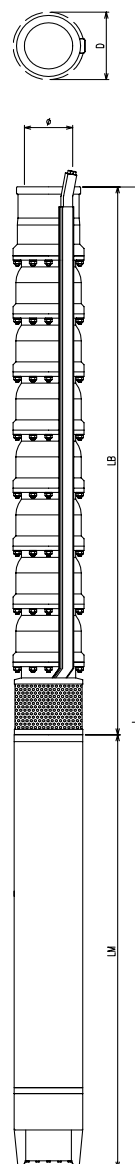
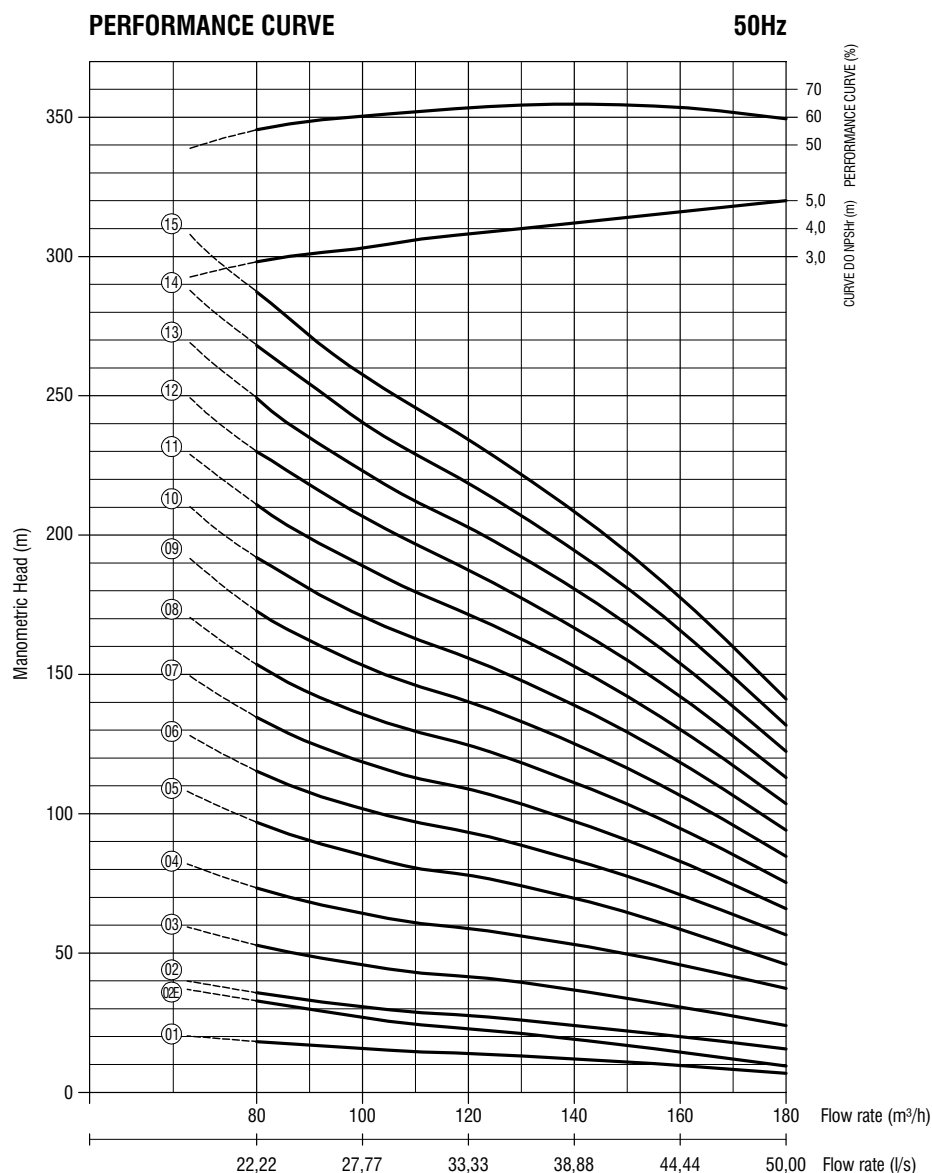
| PUMP<br>MODEL | Nº   | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380/440V) |      |      | VOLUME(Kg)                     | D<br>máx.<br>(mm) | ø<br>POL<br>NPT |
|---------------|------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|----------------------------|------|------|--------------------------------|-------------------|-----------------|
|               | EST. | HP    | Kw    |                | 0                             | 45    | 50    | 70    | 80    | 90    | 95    | 100   | 110   | m³/h | LM                         | LB   | L    | W/ Three-phase<br>220,380,440V |                   |                 |
|               |      |       |       |                |                               |       |       |       |       |       |       |       |       |      | (mm)                       | (mm) | (mm) |                                |                   |                 |
| BHS813-01     | 01   | 10    | 7,46  | M6P            | 23,7                          | 19,9  | 19,4  | 17,4  | 16,3  | 15,0  | 14,0  | 13,0  | 10,6  | m    | 665                        | 535  | 1200 | 86                             | 190               | 5"              |
| BHS813-02     | 02   | 15    | 11,19 |                | 48,4                          | 40,7  | 39,7  | 35,7  | 33,3  | 30,5  | 28,7  | 26,6  | 21,7  |      | 780                        | 680  | 1460 | 109                            |                   |                 |
| BHS813-03     | 03   | 25    | 18,64 | M6G            | 71,3                          | 62,5  | 60,8  | 53,9  | 49,5  | 44,3  | 41,2  | 37,9  | 30,9  |      | 1145                       | 825  | 1970 | 149                            |                   |                 |
| BHS813-04     | 04   | 30    | 22,37 |                | 98,8                          | 83,1  | 80,9  | 72,7  | 67,9  | 62,3  | 58,4  | 54,3  | 45,2  |      | 1235                       | 970  | 2205 | 168                            |                   |                 |
| BHS813-05     | 05   | 40    | 29,83 | M8             | 123,5                         | 103,9 | 101,2 | 90,9  | 84,8  | 77,9  | 73,1  | 67,9  | 56,4  |      | 1068                       | 1115 | 2183 | 211                            |                   |                 |
| BHS813-06     | 06   | 45    | 33,56 |                | 148,2                         | 124,7 | 121,5 | 109,1 | 101,8 | 93,4  | 87,6  | 81,5  | 67,8  |      | 1128                       | 1260 | 2388 | 232                            |                   |                 |
| BHS813-07     | 07   | 50    | 37,28 |                | 172,9                         | 145,5 | 141,7 | 127,3 | 118,7 | 109,0 | 102,3 | 95,0  | 79,0  |      |                            | 1405 | 2533 | 242                            |                   |                 |
| BHS813-08     | 08   | 60    | 44,74 |                | 197,6                         | 166,3 | 162,0 | 145,5 | 135,7 | 124,6 | 116,9 | 108,6 | 90,4  |      | 1228                       | 1550 | 2778 | 269                            |                   |                 |
| BHS813-09     | 09   | 65    | 48,47 | M8S            | 222,3                         | 187,0 | 182,2 | 163,6 | 152,7 | 140,1 | 131,5 | 122,2 | 101,7 |      | 1358                       | 1695 | 3053 | 317                            |                   |                 |
| BHS813-10     | 10   | 75    | 55,93 |                | 247,0                         | 207,8 | 202,4 | 181,8 | 169,7 | 155,7 | 146,1 | 135,8 | 113,0 |      |                            | 1840 | 3198 | 327                            |                   |                 |
| BHS813-11     | 11   | 80    | 59,66 | Mi8S           | 271,7                         | 228,6 | 222,7 | 200,1 | 186,7 | 171,2 | 160,7 | 149,4 | 124,2 |      | 1355                       | 1985 | 3340 | 332                            |                   |                 |
| BHS813-12     | 12   | 90    | 67,11 |                | 296,4                         | 249,4 | 242,9 | 218,2 | 203,6 | 186,8 | 175,3 | 162,9 | 135,5 |      | 1485                       | 2130 | 3615 | 368                            |                   |                 |
| BHS813-13     | 13   | 95    | 70,84 |                | 321,0                         | 270,2 | 263,2 | 236,4 | 220,5 | 202,3 | 189,9 | 176,5 | 146,8 |      |                            | 2332 | 3817 | 390                            |                   |                 |
| BHS813-14     | 14   | 100   | 74,57 |                | 345,7                         | 290,9 | 283,4 | 254,6 | 237,5 | 217,9 | 204,5 | 190,1 | 158,1 |      |                            | 2477 | 3962 | 400                            |                   |                 |
| BHS813-15     | 15   | 110   | 82,03 |                | 370,4                         | 311,7 | 303,7 | 272,8 | 254,5 | 233,5 | 219,1 | 203,7 | 169,4 |      | 1575                       | 2622 | 4197 | 429                            |                   |                 |



### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº<br>Est. | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | LM<br>(mm) | LB<br>(mm) | L<br>(mm) | VOLUME<br>(Kg) | D máx.<br>(mm) | Ø<br>POL<br>NPT |
|---------------|------------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|------------|------------|-----------|----------------|----------------|-----------------|
|               |            | HP    | kW     |                | 0                             | 40    | 50    | 65    | 75    | 90    | 100   | 105   | 110   | m³/h |            |            |           |                |                |                 |
| BHSE 8105-01  | 01         | 10    | 7,46   | M6P            | 26,2                          | 24,6  | 24,3  | 23,8  | 23,1  | 21,4  | 19,7  | 18,7  | 17,7  | m    | 665        | 619        | 1284      | 94,0           | 190            | 5"              |
| BHSE 8105-02  | 02         | 18    | 13,42  | M6G            | 52,4                          | 48,2  | 47,3  | 46,1  | 44,7  | 40,9  | 37,2  | 35,0  | 32,9  |      | 1075       | 788        | 1863      | 142,6          |                |                 |
| BHSE 8105-03  | 03         | 30    | 22,37  |                | 78,6                          | 73,8  | 73,0  | 71,6  | 69,9  | 64,4  | 59,3  | 56,1  | 53,0  |      | 1235       | 957        | 2192      | 173,1          |                |                 |
| BHSE 8105-04  | 04         | 40    | 29,83  | M8             | 104,3                         | 98,8  | 97,8  | 95,9  | 94,0  | 87,6  | 81,1  | 76,8  | 72,6  |      | 1068       | 1126       | 2194      | 219,7          |                |                 |
| BHSE 8105-05  | 05         | 50    | 37,29  |                | 130,3                         | 124,2 | 123,1 | 121,1 | 118,1 | 109,4 | 101,5 | 96,5  | 91,5  |      | 1128       | 1295       | 2423      | 244,2          |                |                 |
| BHSE 8105-06  | 06         | 60    | 44,74  |                | 156,4                         | 148,4 | 146,9 | 144,2 | 141,6 | 131,8 | 122,9 | 116,6 | 110,3 |      | 1228       | 1464       | 2692      | 274,8          |                |                 |
| BHSE 8105-07  | 07         | 70    | 52,20  | M8S            | 184,9                         | 175,9 | 174,3 | 171,1 | 168,2 | 157,8 | 147,0 | 140,4 | 133,8 |      | 1358       | 1633       | 2991      | 314,4          |                |                 |
| BHSE 8105-08  | 08         | 75    | 55,93  |                | 208,1                         | 199,0 | 196,8 | 193,5 | 190,7 | 178,6 | 166,8 | 158,3 | 149,9 |      |            | 1802       | 3160      | 327,9          |                |                 |
| BHSE 8105-09  | 09         | 85    | 63,38  | Mi8S           | 233,3                         | 223,4 | 221,2 | 216,7 | 212,0 | 198,2 | 184,1 | 175,3 | 166,5 |      | 1485       | 1971       | 3456      | 374,5          |                |                 |
| BHSE 8105-10  | 10         | 95    | 70,84  |                | 263,8                         | 252,7 | 250,1 | 245,8 | 242,4 | 227,8 | 212,6 | 202,9 | 193,3 |      |            | 2260       | 3745      | 398,5          |                |                 |
| BHSE 8105-11  | 11         | 105   | 78,30  |                | 291,8                         | 277,1 | 274,3 | 269,9 | 265,5 | 249,7 | 232,1 | 221,9 | 211,8 |      |            | 2429       | 4004      | 431,1          |                |                 |
| BHSE 8105-12  | 12         | 115   | 85,76  | M10S           | 318,3                         | 301,9 | 298,6 | 293,8 | 288,8 | 271,4 | 253,1 | 241,9 | 230,6 |      | 1575       | 2598       | 4173      | 444,6          |                |                 |
| BHSE 8105-13  | 13         | 125   | 93,21  |                | 344,8                         | 326,8 | 324,4 | 320,1 | 315,0 | 296,0 | 277,7 | 265,4 | 253,0 |      |            | 2767       | 4342      | 458,2          |                |                 |
| BHSE 8105-14  | 14         | 135   | 100,67 | M10            | 371,3                         | 351,5 | 348,4 | 343,9 | 337,6 | 316,9 | 294,4 | 281,2 | 268,1 |      | 1704       | 2936       | 4640      | 559,7          |                |                 |
| BHSE 8105-15  | 15         | 145   | 108,13 |                | 390,1                         | 375,3 | 372,4 | 367,6 | 361,3 | 340,7 | 316,4 | 301,8 | 287,2 |      |            | 3105       | 4809      | 573,3          |                |                 |

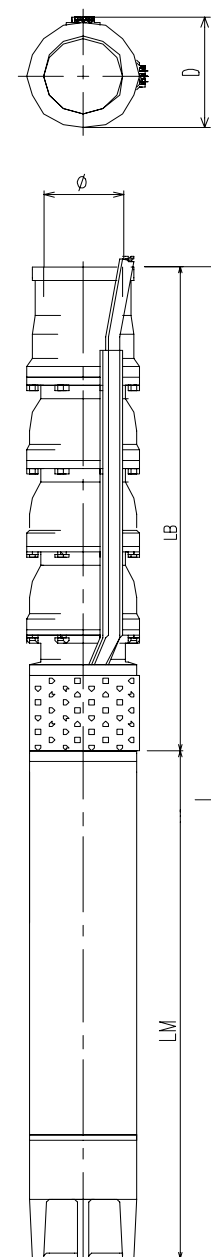
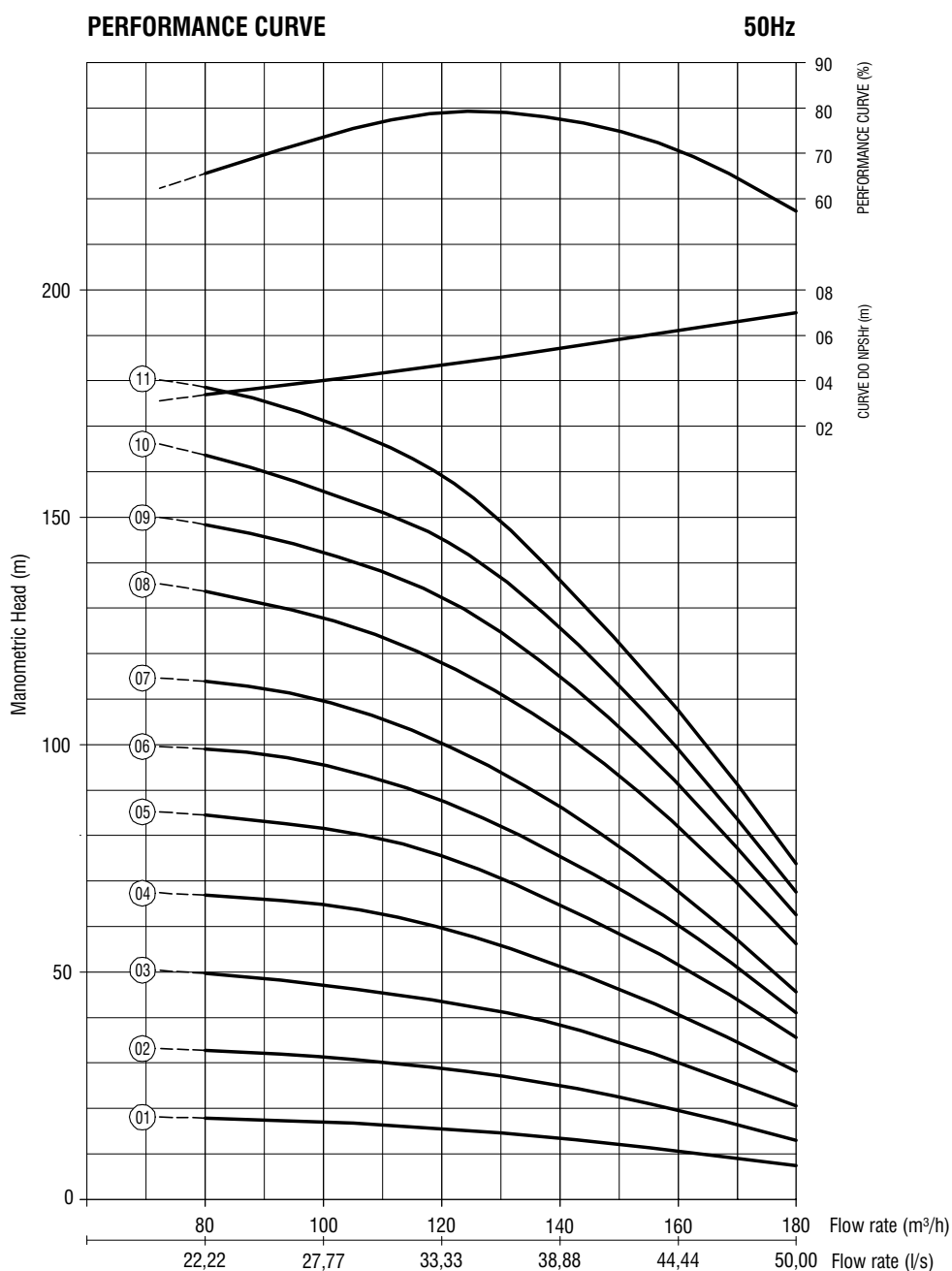
Note: pump efficiency curve BHS 8105-05, to other stages consult individual curve equipment.



### EQUIPMENT SELECTION CHART

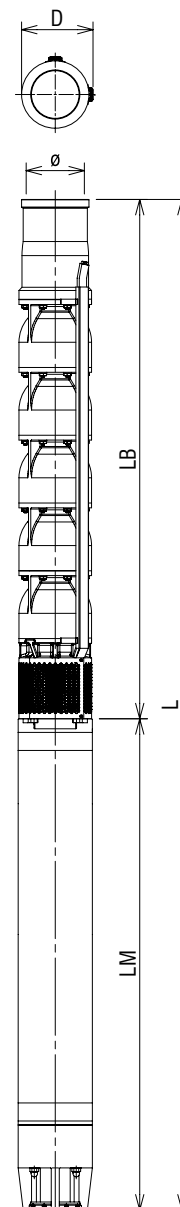
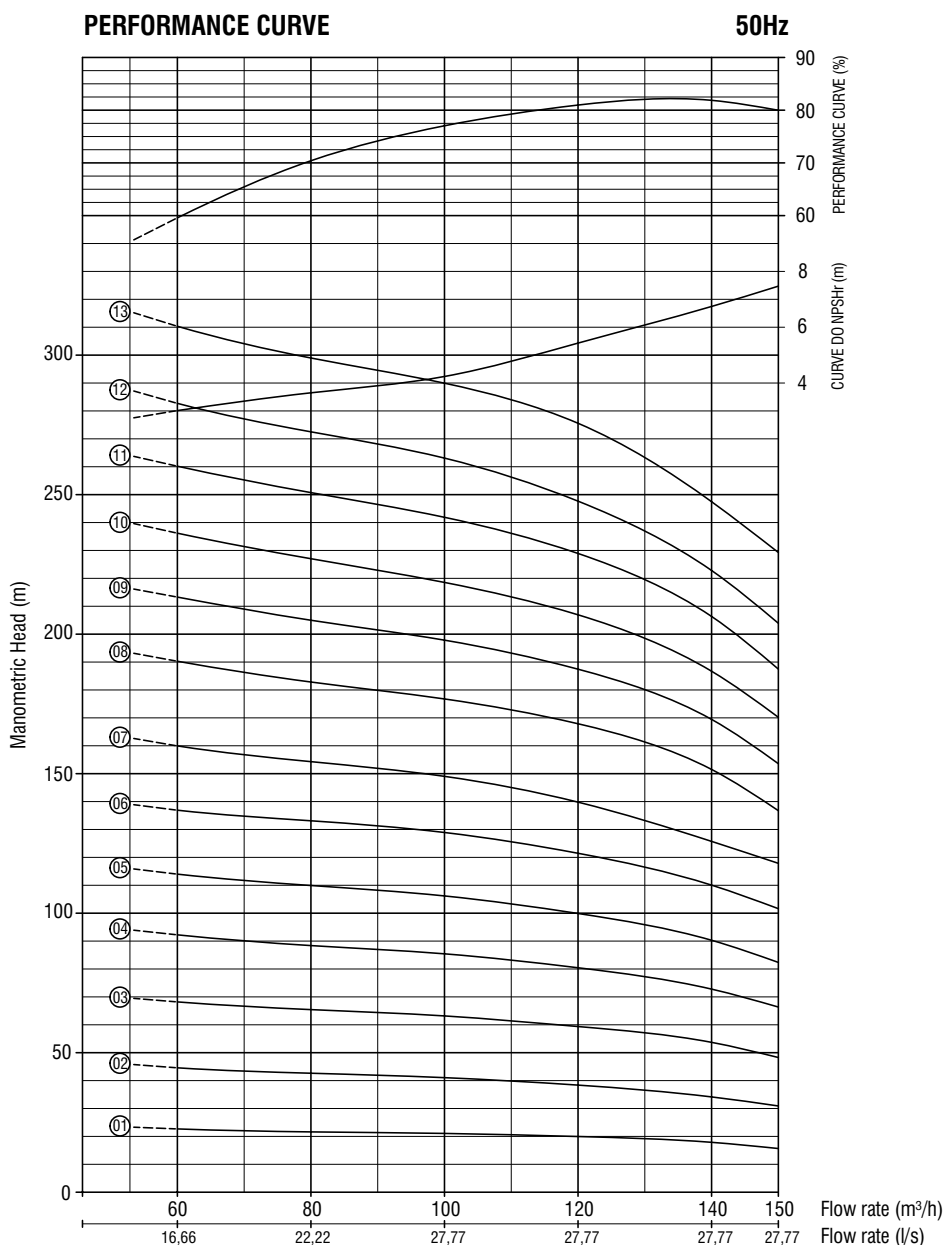
| PUMP<br>MODEL | Nº<br>EST. | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |        | THREE-PHASE (220/380/440V) |            |           |                               | VOLUME Kg | D<br>mm | Ø<br>POL<br>NPT |
|---------------|------------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------------------------|------------|-----------|-------------------------------|-----------|---------|-----------------|
|               |            | HP    | KW     |                | 0                             | 90    | 100   | 110   | 120   | 130   | 150   | 170   | 180   | (m³/h) | LM<br>(mm)                 | LB<br>(mm) | L<br>(mm) | W/ Three-pase<br>230,380,440V |           |         |                 |
| BHS804-01     | 01         | 11    | 8,20   | M6P            | 23,3                          | 16,9  | 15,7  | 14,6  | 14,0  | 13,1  | 10,9  | 8,3   | 6,8   | m      | 715                        | 550        | 1265      | 93                            | 192       | 5"      |                 |
| BHS804-02E    | 02E        | 18    | 13,42  | M6G            | 42,9                          | 29,8  | 26,9  | 24,4  | 22,9  | 21,1  | 16,9  | 11,9  | 9,5   |        | 1075                       | 710        | 1785      | 133                           |           |         |                 |
| BHS804-02     | 02         | 20    | 14,91  |                | 46,6                          | 33,0  | 30,7  | 28,7  | 27,6  | 26,0  | 22,1  | 17,9  | 15,6  |        | 1235                       | 870        | 2105      | 161                           |           |         |                 |
| BHS804-03     | 03         | 30    | 22,37  |                | 70,0                          | 48,9  | 45,8  | 43,0  | 41,5  | 39,2  | 33,7  | 27,4  | 24,0  |        | 1128                       | 1030       | 2158      | 216                           |           |         |                 |
| BHS804-04     | 04         | 45    | 33,56  | M8             | 96,0                          | 68,2  | 64,2  | 60,8  | 58,8  | 56,1  | 49,7  | 41,6  | 37,3  |        | 1228                       | 1190       | 2418      | 244                           |           |         |                 |
| BHS804-05     | 05         | 60    | 44,74  |                | 126,2                         | 90,3  | 85,1  | 80,5  | 77,9  | 74,1  | 64,6  | 52,1  | 45,9  |        | 1368                       | 1350       | 2718      | 281                           |           |         |                 |
| BHS804-06     | 06         | 70    | 52,20  | M8S            | 150,9                         | 107,5 | 101,5 | 96,2  | 93,2  | 88,7  | 77,6  | 63,9  | 56,5  |        | 1355                       | 1510       | 2865      | 311                           |           |         |                 |
| BHS804-07     | 07         | 80    | 59,66  | Mi8S           | 176,1                         | 125,5 | 118,4 | 112,2 | 108,7 | 103,5 | 90,5  | 74,6  | 65,9  |        | 1485                       | 1727       | 3212      | 348                           |           |         |                 |
| BHS804-08     | 08         | 90    | 67,11  |                | 201,2                         | 143,3 | 135,3 | 128,3 | 124,3 | 118,3 | 103,4 | 85,3  | 75,3  |        |                            | 1887       | 3372      | 359                           |           |         |                 |
| BHS804-09     | 09         | 100   | 74,57  |                | 226,4                         | 161,3 | 152,3 | 144,3 | 139,8 | 133,1 | 116,4 | 95,9  | 84,7  |        | 1575                       | 2047       | 3622      | 389                           |           |         |                 |
| BHS804-10     | 10         | 110   | 82,03  | 251,6          | 179,2                         | 169,1 | 160,3 | 155,3 | 147,8 | 129,3 | 106,6 | 94,1  | 2207  |        |                            | 3782       | 400       |                               |           |         |                 |
| BHS804-11     | 11         | 125   | 93,21  | M10            | 276,7                         | 197,1 | 186,1 | 176,4 | 170,9 | 162,7 | 142,2 | 117,3 | 103,6 |        | 1704                       | 2367       | 4071      | 499                           |           |         |                 |
| BHS804-12     | 12         | 135   | 100,67 |                | 301,8                         | 215,0 | 203,0 | 192,4 | 186,4 | 177,4 | 155,1 | 127,9 | 113,0 |        |                            | 2579       | 4283      | 513                           |           |         |                 |
| BHS804-13     | 13         | 145   | 108,13 |                | 327,0                         | 233,0 | 219,9 | 208,4 | 201,9 | 192,2 | 168,1 | 138,5 | 122,4 |        | 1864                       | 2739       | 4603      | 574                           |           |         |                 |
| BHS804-14     | 14         | 155   | 115,58 |                | 352,1                         | 250,8 | 236,8 | 224,5 | 217,5 | 207,0 | 181,0 | 149,2 | 131,8 |        |                            | 2899       | 4763      | 585                           |           |         |                 |
| BHS804-15     | 15         | 165   | 123,04 |                | 377,3                         | 268,8 | 253,7 | 240,5 | 233,0 | 221,8 | 193,9 | 159,9 | 141,2 |        |                            |            |           |                               |           |         |                 |





### EQUIPMENT SELECTION CHART

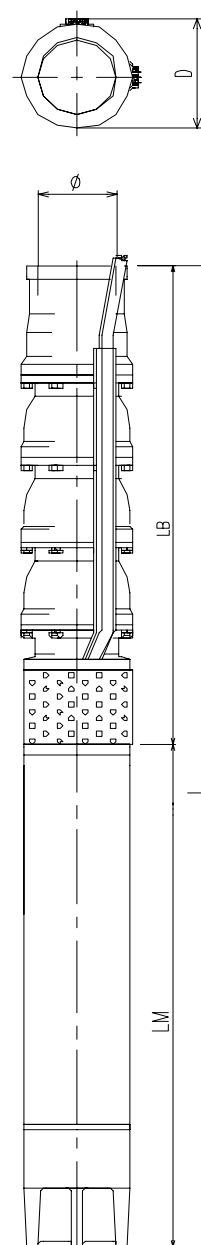
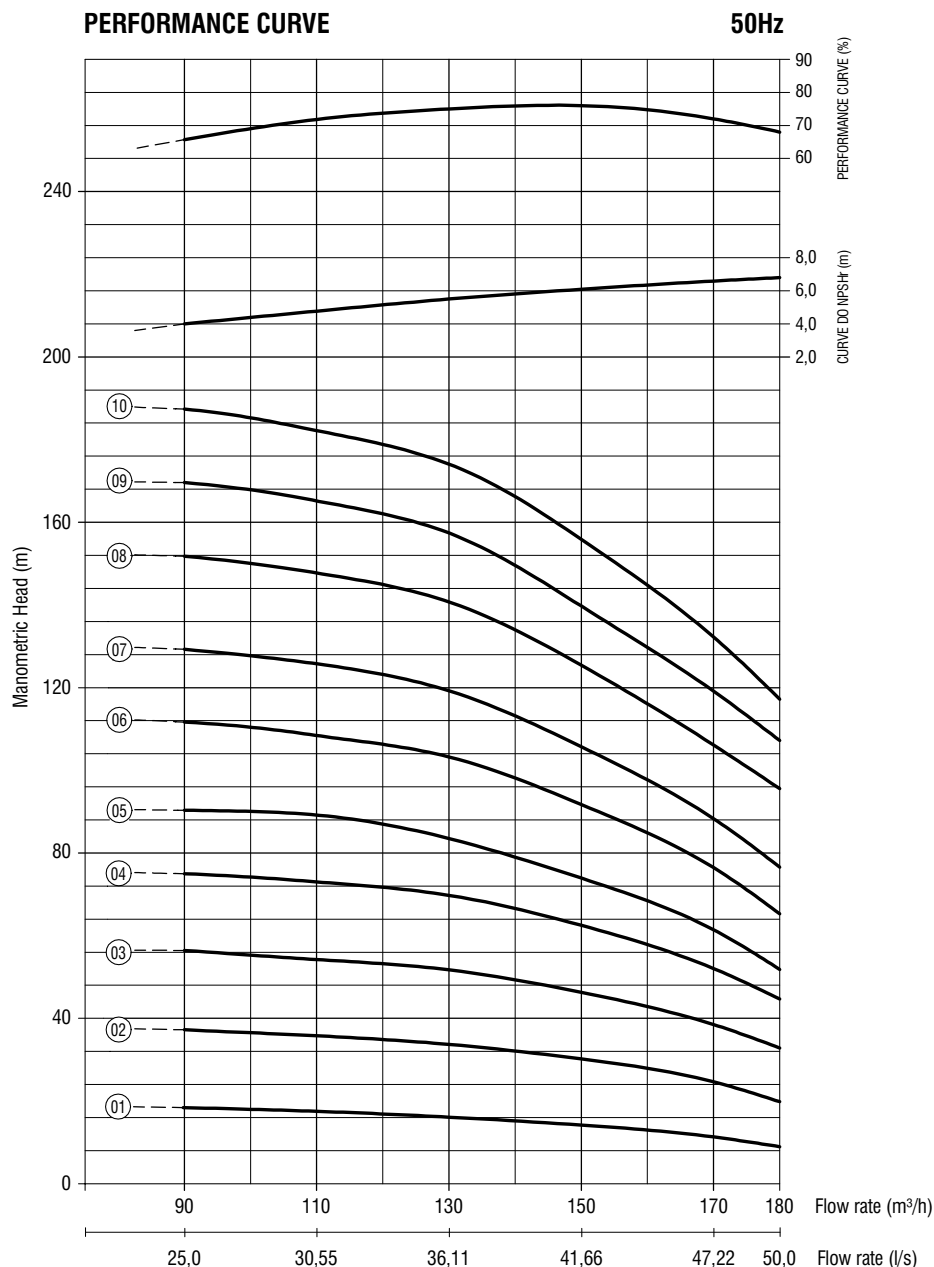
| PUMP<br>MODEL | Nº<br>EST. | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |      | THREE-PHASE (220/380/440V) |            |            | VOLUME (Kg) | D<br>mm | ø<br>POL<br>NPT |                                |
|---------------|------------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|------|----------------------------|------------|------------|-------------|---------|-----------------|--------------------------------|
|               |            | HP    | kW    |                | 0                             | 80    | 90    | 100   | 120   | 140   | 160   | 180  | (m³/h)                     | LM<br>(mm) | LB<br>(mm) | L<br>(mm)   |         |                 | W/ Three-phase<br>230,380,440V |
| BHS8150-01    | 01         | 9     | 6,71  | M6P            | 22,3                          | 17,6  | 17,1  | 17,0  | 15,8  | 13,5  | 10,6  | 7,4  | m                          | 665        | 568        | 1233        | 92,2    | 193             | 5"                             |
| BHS8150-02    | 02         | 17    | 12,68 | M6G            | 40,1                          | 32,8  | 31,7  | 31,1  | 29,2  | 25,0  | 19,6  | 13,0 |                            | 1075       | 748        | 1823        | 138,2   |                 |                                |
| BHS8150-03    | 03         | 27,5  | 20,51 |                | 59,7                          | 49,7  | 47,9  | 46,6  | 44,6  | 38,4  | 30,1  | 20,6 |                            | 1235       | 928        | 2163        | 166,3   |                 |                                |
| BHS8150-04    | 04         | 35    | 26,10 |                | 79,8                          | 66,7  | 65,4  | 64,8  | 59,7  | 51,3  | 40,7  | 28,2 |                            | 1068       | 1108       | 2176        | 210,2   |                 |                                |
| BHS8150-05    | 05         | 45    | 33,56 | M8             | 99,1                          | 84,5  | 82,3  | 80,9  | 75,6  | 64,8  | 51,6  | 35,6 |                            | 1128       | 1288       | 2416        | 232,2   |                 |                                |
| BHS8150-06    | 06         | 50    | 37,28 |                | 117,0                         | 99,0  | 96,7  | 95,5  | 88,3  | 75,5  | 60,3  | 41,0 |                            |            | 1469       | 2597        | 243,2   |                 |                                |
| BHS8150-07    | 07         | 60    | 44,74 |                | 134,0                         | 113,9 | 111,4 | 109,6 | 100,7 | 86,3  | 67,8  | 45,6 |                            | 1228       | 1649       | 2877        | 271,2   |                 |                                |
| BHS8150-08    | 08         | 70    | 52,20 |                | M8S                           | 155,4 | 133,7 | 129,9 | 127,0 | 119,3 | 102,9 | 82,0 |                            | 56,2       | 1358       | 1829        | 3187    |                 |                                |
| BHS8150-09    | 09         | 75    | 55,93 | 174,7          |                               | 148,4 | 144,6 | 142,3 | 135,5 | 115,0 | 91,3  | 62,5 |                            | 2009       |            | 3367        | 319,2   |                 |                                |
| BHS8150-10    | 10         | 80    | 59,66 | Mi8S           | 193,0                         | 163,7 | 158,5 | 154,9 | 146,3 | 125,7 | 99,0  | 67,6 |                            | 1355       | 2189       | 3544        | 337,2   | 194,5           |                                |
| BHS8150-11    | 11         | 90    | 67,11 |                | 208,4                         | 178,6 | 174,4 | 171,8 | 159,6 | 136,2 | 107,6 | 73,8 |                            | 1485       | 2369       | 3854        | 374,2   |                 |                                |



### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | N°<br>Est | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |      | LM<br>(mm) | LB (mm) | L (mm) | Volume<br>Kg | D<br>máx.<br>(mm) | Ø<br>POL<br>NPT |
|---------------|-----------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|------|------------|---------|--------|--------------|-------------------|-----------------|
|               |           | HP    | kW     |                | 0                             | 60    | 80    | 100   | 120   | 140   | 150   | m³/h |            |         |        |              |                   |                 |
| BHSE 8160-01  | 01        | 12,5  | 9,32   | M6P            | 26,2                          | 22,7  | 21,6  | 21,1  | 20,0  | 17,9  | 15,7  | m    | 715        | 808     | 1523   | 100,3        | 190               | 5"              |
| BHSE 8160-02  | 02        | 22,5  | 16,78  | M6G            | 49,9                          | 44,6  | 42,6  | 41,1  | 38,4  | 34,2  | 30,9  |      | 1145       | 988     | 2133   | 151,3        | 193               |                 |
| BHSE 8160-03  | 03        | 35    | 26,10  | M8             | 75,0                          | 68,2  | 65,4  | 63,2  | 59,4  | 53,7  | 48,3  |      | 1068       | 1168    | 2236   | 207,2        |                   |                 |
| BHSE 8160-04  | 04        | 50    | 37,29  |                | 100,0                         | 92,2  | 88,4  | 85,4  | 80,4  | 72,8  | 66,4  |      | 1128       | 1348    | 2476   | 232,1        |                   |                 |
| BHSE 8160-05  | 05        | 60    | 44,74  |                | 123,4                         | 114,0 | 109,9 | 106,2 | 99,9  | 90,3  | 82,4  |      | 1228       | 1528    | 2756   | 263,0        |                   |                 |
| BHSE 8160-06  | 06        | 70    | 52,20  | M8S            | 149,2                         | 136,9 | 133,1 | 128,9 | 121,5 | 110,1 | 101,6 |      | 1358       | 1708    | 3066   | 302,9        |                   |                 |
| BHSE 8160-07  | 07        | 80    | 59,66  | Mi8S           | 173,3                         | 159,9 | 154,3 | 149,0 | 139,8 | 125,7 | 117,9 |      | 1355       | 1888    | 3243   | 323,9        |                   |                 |
| BHSE 8160-08  | 08        | 95    | 70,84  |                | 203,3                         | 190,3 | 182,8 | 176,8 | 167,9 | 151,5 | 136,7 |      | 1485       | 2188    | 3673   | 374,2        |                   |                 |
| BHSE 8160-09  | 09        | 100   | 74,57  |                | 228,0                         | 213,3 | 205,0 | 197,8 | 187,4 | 169,5 | 153,6 |      |            | 2368    | 3853   | 388,2        |                   |                 |
| BHSE 8160-10  | 10        | 115   | 85,76  |                | 253,5                         | 236,2 | 227,0 | 218,5 | 206,9 | 186,7 | 170,2 |      | 1575       | 2548    | 4123   | 421,1        |                   |                 |
| BHSE 8160-11  | 11        | 130   | 96,94  | M10            | 278,2                         | 260,2 | 250,7 | 241,9 | 228,9 | 206,3 | 187,5 | 1704 | 2728       | 4432    | 523,0  | 222          |                   |                 |
| BHSE 8160-12  | 12        | 140   | 104,40 |                | 303,4                         | 282,7 | 272,5 | 263,1 | 247,7 | 222,8 | 203,9 |      | 2908       | 4612    | 536,9  |              |                   |                 |
| BHSE 8160-13  | 13        | 150   | 111,86 |                | 330,2                         | 310,3 | 299,0 | 289,9 | 275,6 | 247,5 | 229,3 |      | 3088       | 4792    | 552,7  |              |                   |                 |

Note: pump efficiency curve BHS 8160-05, to other stages consult individual curve equipment.

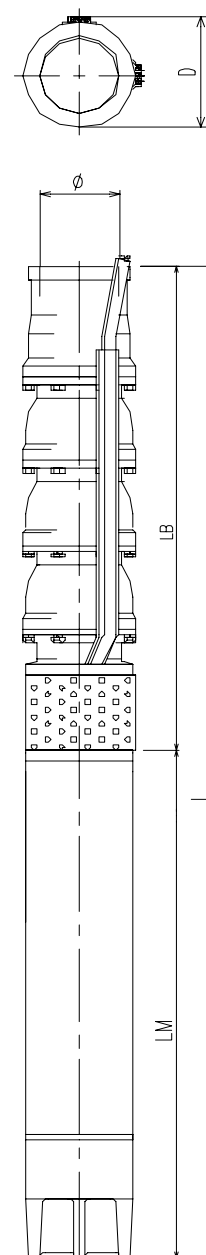
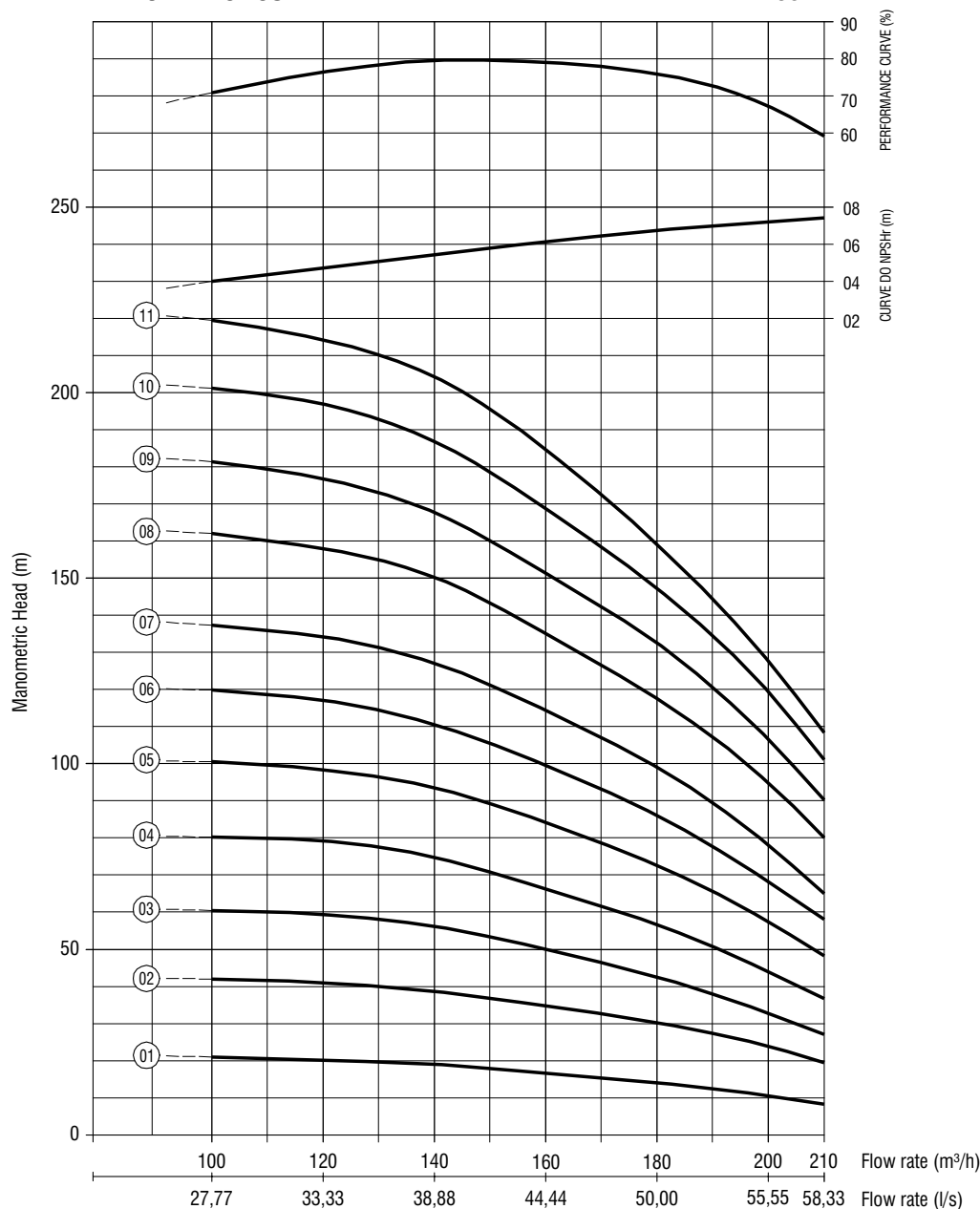


### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |       | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       | THREE-PHASE (220/380/440V) |      |      | VOLUME(Kg) | D                              | Ø                 |            |
|---------------|------|-------|-------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|----------------------------|------|------|------------|--------------------------------|-------------------|------------|
|               | EST. | HP    | Kw    |                | 0                             | 90    | 110   | 130   | 150   | 170   | 180   | m³/h                       | LM   | LB   | L          | W/ Three-phase<br>220,380,440V | D<br>máx.<br>(mm) | POL<br>BSP |
|               |      |       |       |                |                               |       |       |       |       |       |       |                            | (mm) | (mm) | (mm)       |                                |                   |            |
| BHS8170-01    | 01   | 15    | 11,19 | M6P            | 23,5                          | 17,8  | 17,1  | 16,1  | 14,2  | 11,3  | 8,9   | m                          | 780  | 567  | 1347       | 106                            | 193               | 5"         |
| BHS8170-02    | 02   | 25    | 18,64 | M6G            | 46,5                          | 37,2  | 35,4  | 33,7  | 30,2  | 24,7  | 19,8  |                            | 1145 | 748  | 1893       | 147                            |                   |            |
| BHS8170-03    | 03   | 35    | 26,10 | M8             | 69,1                          | 56,5  | 53,6  | 51,8  | 46,3  | 38,5  | 32,8  |                            | 1235 | 928  | 2163       | 167                            |                   |            |
| BHS8170-04    | 04   | 45    | 33,56 |                | 90,1                          | 74,9  | 72,3  | 69,8  | 62,5  | 52,1  | 44,7  |                            | 1128 | 1109 | 2237       | 222                            |                   |            |
| BHS8170-05    | 05   | 55    | 41,01 |                | 110,7                         | 89,0  | 88,0  | 83,6  | 74,0  | 61,4  | 51,8  |                            | 1228 | 1289 | 2517       | 250                            |                   |            |
| BHS8170-06    | 06   | 65    | 48,47 | M8S            | 134,8                         | 111,7 | 107,3 | 103,2 | 91,7  | 76,5  | 65,3  |                            | 1358 | 1469 | 2827       | 288                            |                   |            |
| BHS8170-07    | 07   | 75    | 55,93 |                | 153,9                         | 129,3 | 124,8 | 119,2 | 105,7 | 88,3  | 76,6  |                            |      | 1650 | 3008       | 299                            |                   |            |
| BHS8170-08    | 08   | 90    | 67,11 | Mi8S           | 181,4                         | 151,7 | 145,1 | 140,2 | 125,4 | 106,1 | 95,6  |                            | 1485 | 1830 | 3315       | 337                            |                   |            |
| BHS8170-09    | 09   | 100   | 74,57 |                | 201,3                         | 171,0 | 163,4 | 157,2 | 139,8 | 119,2 | 107,3 |                            |      | 2011 | 3496       | 348                            |                   |            |
| BHS8170-10    | 10   | 110   | 82,03 |                | 223,8                         | 189,0 | 180,7 | 174,6 | 156,0 | 132,3 | 117,2 |                            |      | 1575 | 2192       | 3767                           | 380               |            |

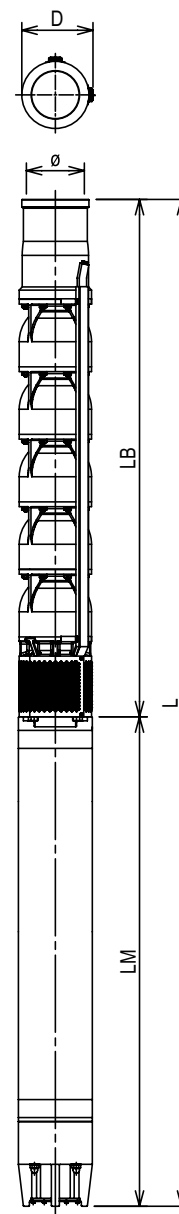
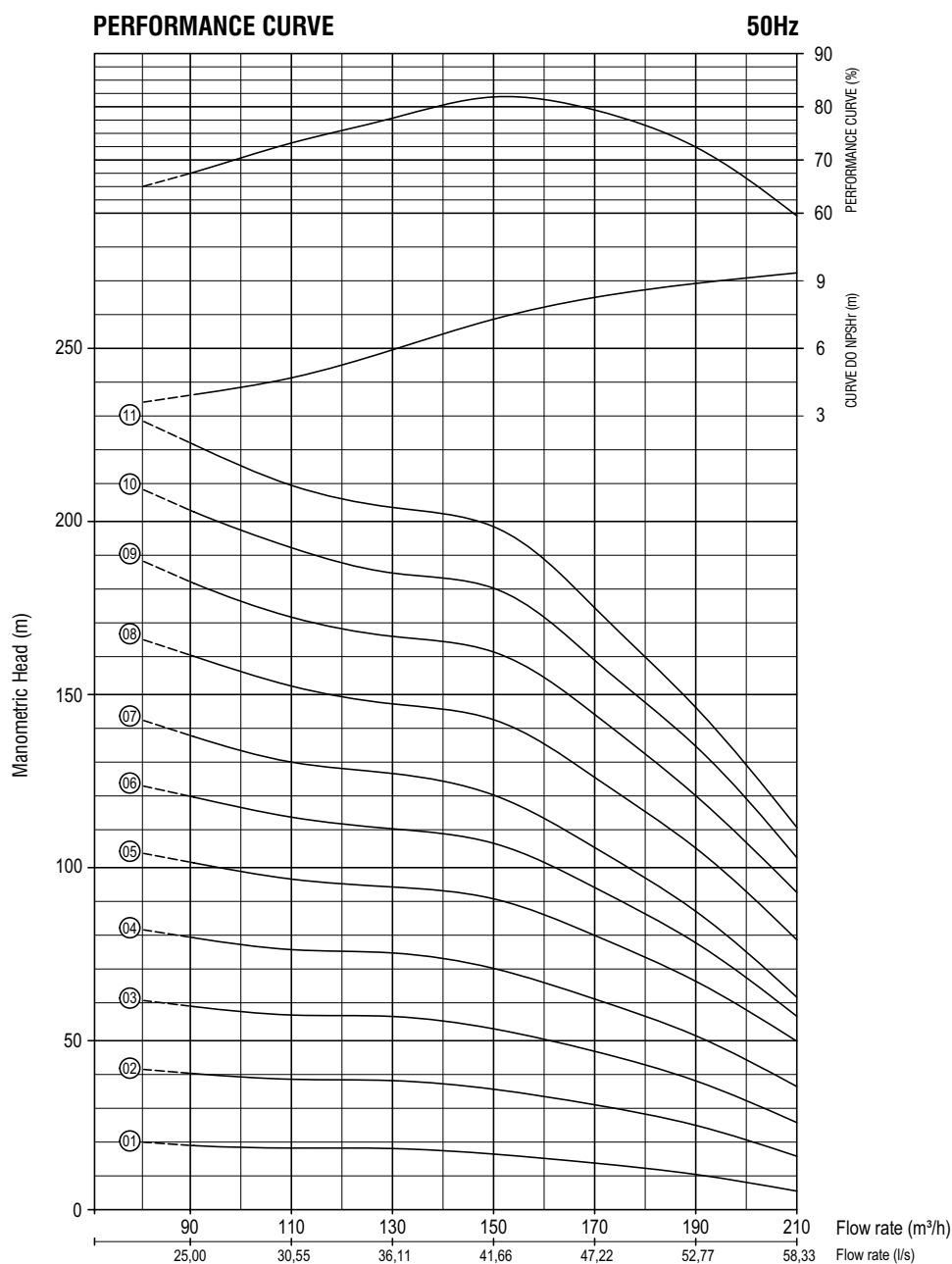
PERFORMANCE CURVE

50Hz



EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       | THREE-PHASE (220/380/440V) |       |      | VOLUME(Kg) | D máx.<br>(mm) | Ø                              |            |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|----------------------------|-------|------|------------|----------------|--------------------------------|------------|
|               | EST. | HP    | Kw     |                | 0                             | 100   | 120   | 140   | 160   | 180   | 200   | 210   | m³/h                       | LM    | LB   | L          |                | W/ Three-phase<br>220,380,440V | POL<br>BSP |
|               |      |       |        |                |                               |       |       |       |       |       |       |       |                            | (mm)  | (mm) | (mm)       |                |                                |            |
| BHS8180-01    | 01   | 14    | 10,44  | M6P            | 27,3                          | 20,8  | 20,2  | 19,0  | 16,7  | 14,1  | 10,5  | 8,2   | m                          | 780   | 568  | 1348       | 105,4          | 193                            | 5"         |
| BHS8180-02    | 02   | 27,5  | 20,51  | M6G            | 52,5                          | 42,0  | 41,0  | 38,7  | 34,8  | 30,3  | 23,8  | 19,4  |                            | 1235  | 748  | 1983       | 155,6          |                                |            |
| BHS8180-03    | 03   | 40    | 29,83  | M8             | 75,5                          | 60,5  | 59,4  | 55,8  | 49,8  | 42,9  | 33,5  | 27,1  |                            | 1068  | 928  | 1996       | 199,8          |                                |            |
| BHS8180-04    | 04   | 50    | 37,28  |                | 100,6                         | 80,2  | 78,4  | 73,7  | 65,7  | 56,7  | 45,2  | 36,7  |                            | 1128  | 1108 | 2236       | 222            |                                |            |
| BHS8180-05    | 05   | 65    | 48,47  | M8S            | 124,3                         | 100,5 | 98,4  | 93,5  | 83,6  | 72,6  | 58,0  | 48,2  |                            | 1358  | 1288 | 2646       | 276,2          |                                |            |
| BHS8180-06    | 06   | 75    | 55,93  |                | 148,6                         | 119,8 | 117,1 | 110,7 | 99,2  | 86,1  | 68,0  | 58,0  |                            |       | 1469 | 2827       | 287,4          |                                |            |
| BHS8180-07    | 07   | 85    | 63,38  | Mi8S           | 178,6                         | 137,3 | 134,2 | 127,1 | 114,0 | 99,1  | 78,5  | 65,0  |                            | 1485  | 1649 | 3134       | 331,6          | 194,5                          |            |
| BHS8180-08    | 08   | 100   | 74,57  |                | 200,3                         | 162,0 | 157,2 | 150,5 | 135,0 | 118,1 | 95,1  | 80,1  |                            |       | 1886 | 3371       | 354,8          |                                |            |
| BHS8180-09    | 09   | 110   | 82,03  |                | 227,2                         | 181,4 | 176,3 | 168,3 | 151,3 | 132,1 | 106,9 | 90,3  |                            | 1575  | 2066 | 3641       | 385            |                                |            |
| BHS8180-10    | 10   | 125   | 93,21  |                | 245,6                         | 201,1 | 194,9 | 187,7 | 168,4 | 147,3 | 119,5 | 101,0 |                            |       | 2246 | 3821       | 396,2          |                                |            |
| BHS8180-11    | 11   | 135   | 100,67 |                | M10                           | 268,0 | 219,4 | 213,8 | 204,4 | 182,7 | 159,1 | 127,7 |                            | 108,3 | 1704 | 2427       | 4131           |                                |            |



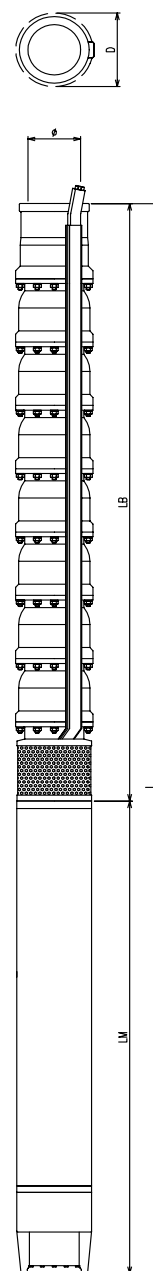
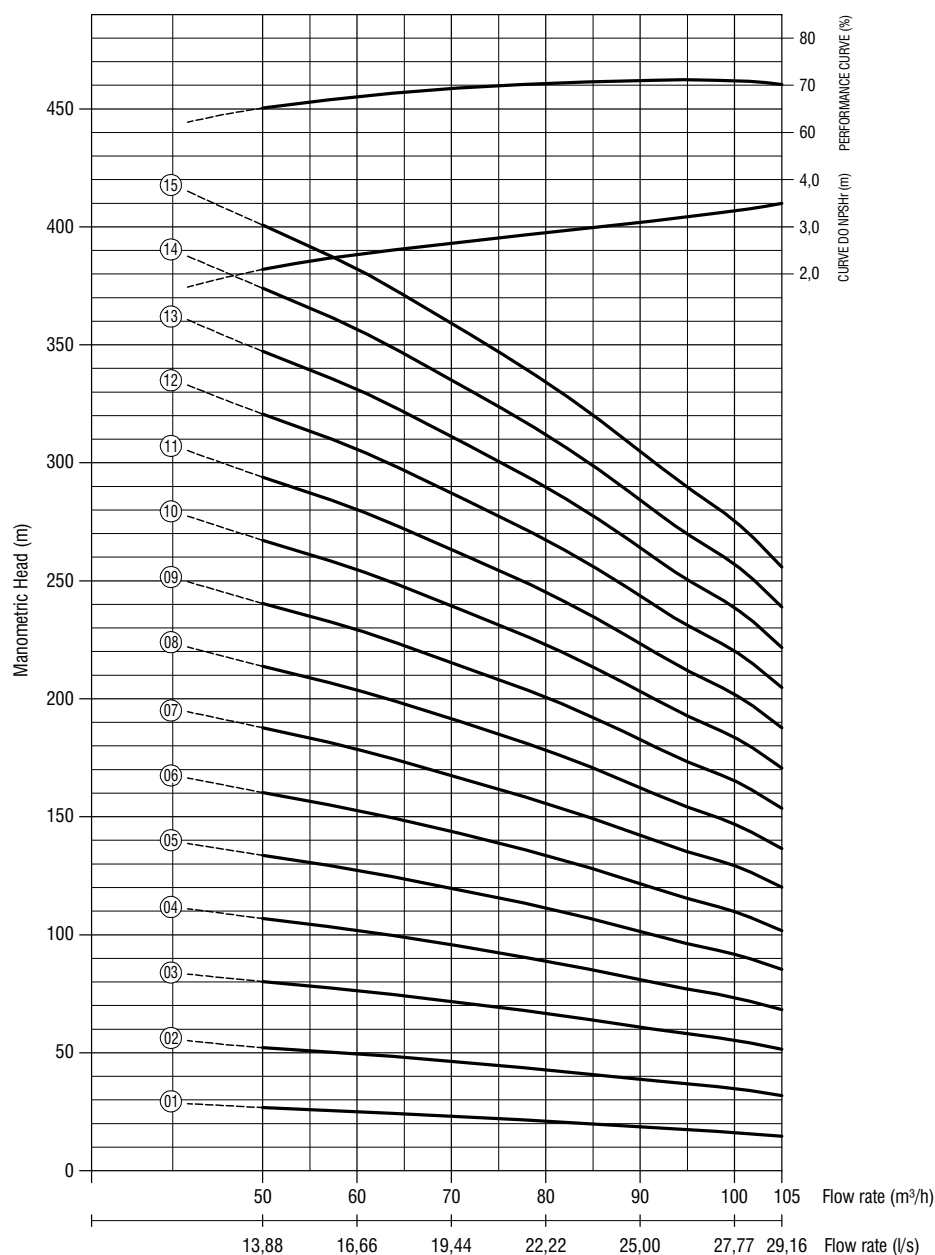
### EQUIPMENT SELECTION CHART

| PUMP MODEL   | N° Est | POWER |        | MOTOR MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       | LM (mm) | LB (mm) | L (mm) | VOLUME (Kg) | D máx. (mm) | Ø POL NPT |      |
|--------------|--------|-------|--------|-------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|---------|---------|--------|-------------|-------------|-----------|------|
|              |        | HP    | kW     |             | 0                             | 90    | 110   | 130   | 150   | 170   | 190   | 210   |         |         |        |             |             |           | m³/h |
| BHSE 8190-01 | 01     | 14    | 10,44  | M6P         | 23,6                          | 19,0  | 18,2  | 18,1  | 16,4  | 13,8  | 10,4  | 5,5   | m       | 780     | 808    | 1588        | 107,3       | 193       | 5"   |
| BHSE 8190-02 | 02     | 27,5  | 20,51  | M6G         | 47,7                          | 40,3  | 38,6  | 38,2  | 35,6  | 31,0  | 25,0  | 15,8  |         | 1235    | 988    | 2223        | 160,3       |           |      |
| BHSE 8190-03 | 03     | 40    | 29,83  | M8          | 70,7                          | 60,1  | 57,6  | 57,2  | 53,5  | 46,9  | 38,1  | 25,8  |         | 1068    | 1168   | 2236        | 207,2       |           |      |
| BHSE 8190-04 | 04     | 55    | 41,01  |             | 94,3                          | 80,4  | 76,9  | 76,0  | 71,4  | 62,3  | 51,5  | 36,4  |         | 1228    | 1348   | 2576        | 249,1       |           |      |
| BHSE 8190-05 | 05     | 65    | 48,47  | M8S         | 119,2                         | 102,6 | 97,8  | 95,5  | 92,0  | 81,2  | 67,6  | 49,8  |         | 1358    | 1528   | 2886        | 289,0       |           |      |
| BHSE 8190-06 | 06     | 80    | 59,66  | Mi8S        | 142,2                         | 122,1 | 116,1 | 112,7 | 108,4 | 95,3  | 79,0  | 57,2  |         | 1355    | 1708   | 3063        | 309,9       |           |      |
| BHSE 8190-07 | 07     | 90    | 67,11  |             | 166,4                         | 140,0 | 132,4 | 129,1 | 122,7 | 107,2 | 88,3  | 62,9  |         | 1485    | 2008   | 3493        | 349,9       |           |      |
| BHSE 8190-08 | 08     | 105   | 78,30  |             | 193,2                         | 163,7 | 154,9 | 149,7 | 145,0 | 127,9 | 107,0 | 79,8  |         | 1575    | 2188   | 3763        | 393,2       |           |      |
| BHSE 8190-09 | 09     | 115   | 85,76  |             | 219,1                         | 185,3 | 175,3 | 169,6 | 165,0 | 146,5 | 122,5 | 93,9  |         |         | 2368   | 3943        | 407,2       |           |      |
| BHSE 8190-10 | 10     | 130   | 96,94  | M10         | 243,4                         | 206,5 | 195,9 | 188,4 | 183,9 | 162,6 | 137,1 | 104,2 |         | 1704    | 2548   | 4252        | 509,1       | 222       |      |
| BHSE 8190-11 | 11     | 140   | 104,40 |             | 266,6                         | 226,4 | 214,3 | 207,8 | 202,1 | 178,1 | 148,6 | 113,1 |         |         | 2728   | 4432        | 523,0       |           |      |

Note: pump efficiency curve BHS 8190-06, to other stages consult individual curve equipment.

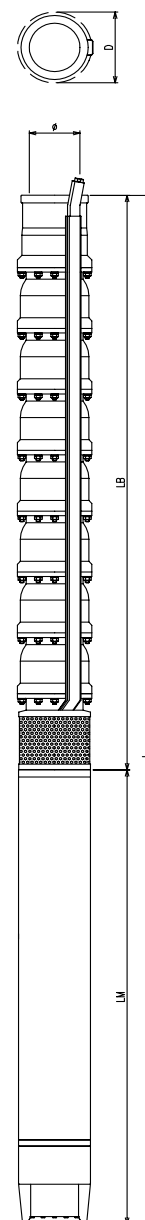
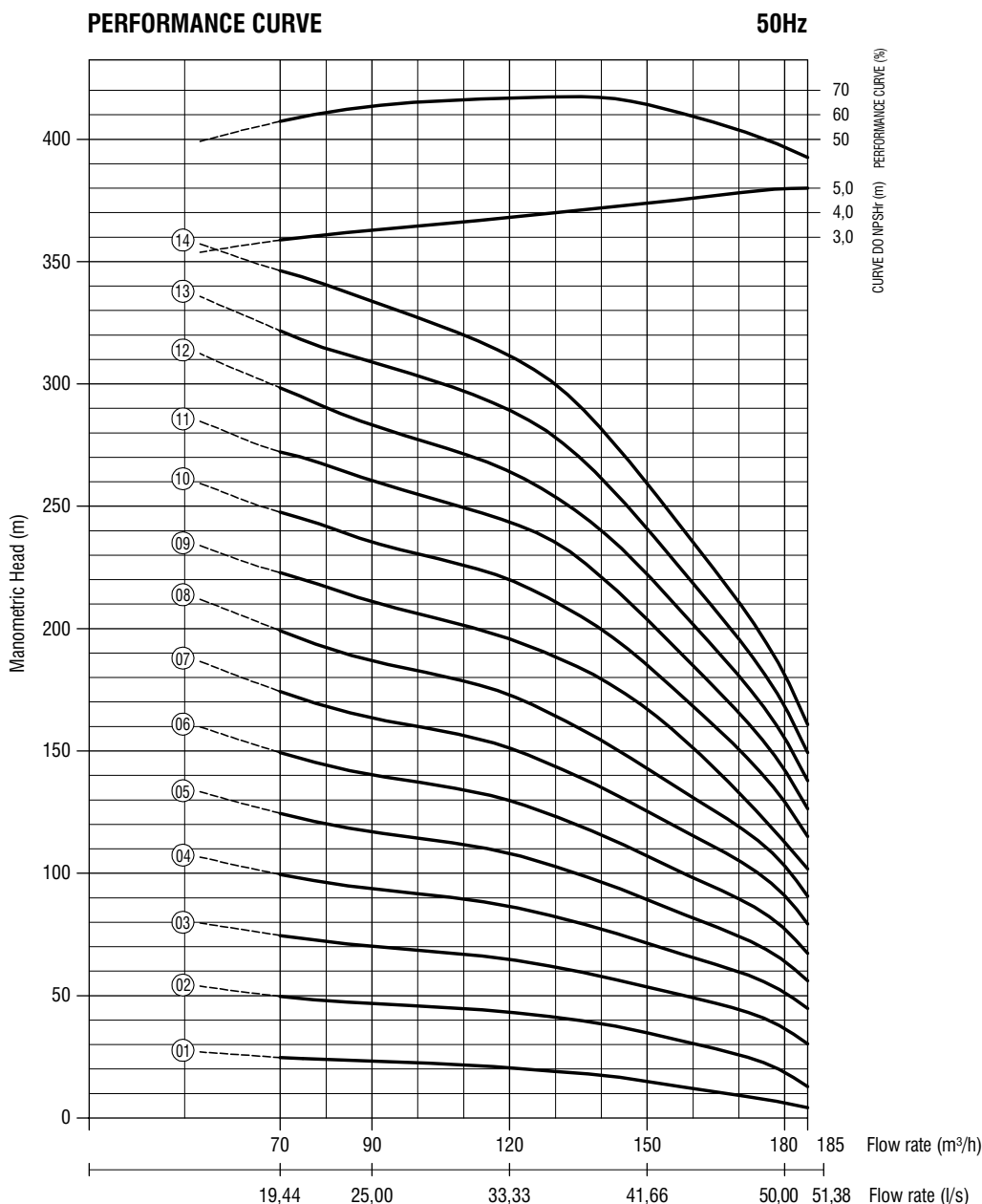
PERFORMANCE CURVE

50Hz



EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº<br>EST. | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |      | THREE-PHASE (220/380/440V) |            |           | VOLUME(Kg)                     | D<br>máx.<br>(mm) | Ø<br>NPT |
|---------------|------------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|----------------------------|------------|-----------|--------------------------------|-------------------|----------|
|               |            | HP    | Kw     |                | 0                             | 50    | 60    | 70    | 80    | 90    | 95    | 100   | 105   | m³/h | LM<br>(mm)                 | LB<br>(mm) | L<br>(mm) | W/ Three-phase<br>220,380,440V |                   |          |
| BHS1010-01    | 01         | 10    | 7,46   | M6P            | 30,9                          | 26,7  | 25,0  | 23,1  | 21,0  | 18,6  | 17,4  | 16,3  | 14,6  | m    | 665                        | 670        | 1335      | 118,7                          | 240               | 6"       |
| BHS1010-02    | 02         | 20    | 14,91  | M6G            | 60,1                          | 52,1  | 49,6  | 46,4  | 42,8  | 38,8  | 36,8  | 34,9  | 31,8  |      | 1075                       | 815        | 1890      | 179,2                          |                   |          |
| BHS1010-03    | 03         | 30    | 22,37  |                | 87,8                          | 80,1  | 76,4  | 71,8  | 66,7  | 60,9  | 58,0  | 55,4  | 51,5  |      | 1235                       | 935        | 2170      | 221,7                          |                   |          |
| BHS1010-04    | 04         | 40    | 29,83  |                | 116,6                         | 106,9 | 101,9 | 95,7  | 88,9  | 81,0  | 77,0  | 73,4  | 68,2  |      | 1068                       | 1080       | 2148      | 275,2                          |                   |          |
| BHS1010-05    | 05         | 50    | 37,28  | M8             | 145,4                         | 133,6 | 127,4 | 119,7 | 111,4 | 101,5 | 96,3  | 91,8  | 85,4  |      | 1128                       | 1225       | 2353      | 311,7                          |                   |          |
| BHS1010-06    | 06         | 60    | 44,74  |                | 174,9                         | 160,3 | 152,8 | 143,7 | 133,8 | 121,8 | 115,4 | 109,8 | 101,7 |      | 1228                       | 1370       | 2598      | 354,2                          |                   |          |
| BHS1010-07    | 07         | 70    | 52,20  | M8S            | 203,1                         | 187,7 | 178,6 | 167,5 | 155,8 | 142,2 | 135,3 | 129,2 | 120,1 |      | 1358                       | 1515       | 2873      | 405,7                          |                   |          |
| BHS1010-08    | 08         | 80    | 59,66  | Mi8S           | 233,2                         | 213,7 | 203,8 | 191,5 | 178,3 | 162,4 | 154,1 | 146,9 | 136,5 |      | 1355                       | 1660       | 3015      | 438,2                          |                   |          |
| BHS1010-09    | 09         | 85    | 63,38  |                | 262,4                         | 240,4 | 229,2 | 215,4 | 200,6 | 182,7 | 173,4 | 165,2 | 153,6 |      | 1485                       | 1805       | 3290      | 489,7                          |                   |          |
| BHS1010-10    | 10         | 95    | 70,84  |                | 291,6                         | 267,1 | 254,7 | 239,4 | 222,9 | 203,1 | 192,7 | 183,6 | 170,6 |      | 1485                       | 1950       | 3435      | 292,2                          |                   |          |
| BHS1010-11    | 11         | 105   | 78,30  |                | 320,7                         | 293,9 | 280,2 | 263,3 | 245,2 | 223,4 | 211,9 | 201,9 | 187,7 |      |                            | 2095       | 3670      | 540,7                          |                   |          |
| BHS1010-12    | 12         | 115   | 85,76  |                | 349,9                         | 320,6 | 305,7 | 287,2 | 267,4 | 243,7 | 231,2 | 220,3 | 204,7 |      | 1575                       | 2240       | 3815      | 585,2                          |                   |          |
| BHS1010-13    | 13         | 125   | 93,21  | M10            | 379,0                         | 347,3 | 331,1 | 311,2 | 289,7 | 264,0 | 250,5 | 238,6 | 221,8 |      |                            | 2385       | 3960      | 610,7                          |                   |          |
| BHS1010-14    | 14         | 135   | 100,67 |                | 408,2                         | 374,0 | 356,6 | 335,1 | 312,0 | 284,3 | 269,7 | 257,0 | 238,9 |      | 1704                       | 2530       | 4234      | 724,2                          |                   |          |
| BHS1010-15    | 15         | 145   | 108,13 |                | 437,3                         | 400,7 | 382,1 | 359,1 | 334,3 | 304,6 | 289,0 | 275,3 | 255,9 |      |                            | 2784       | 4488      | 764,7                          |                   |          |



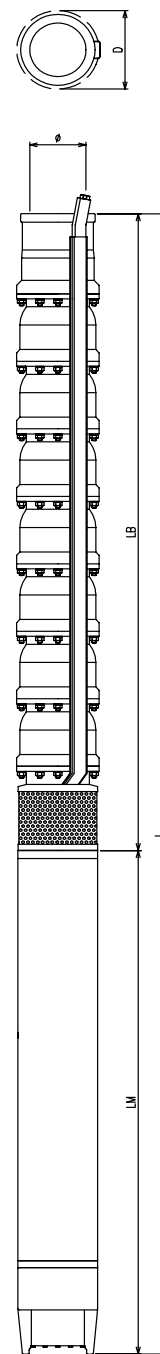
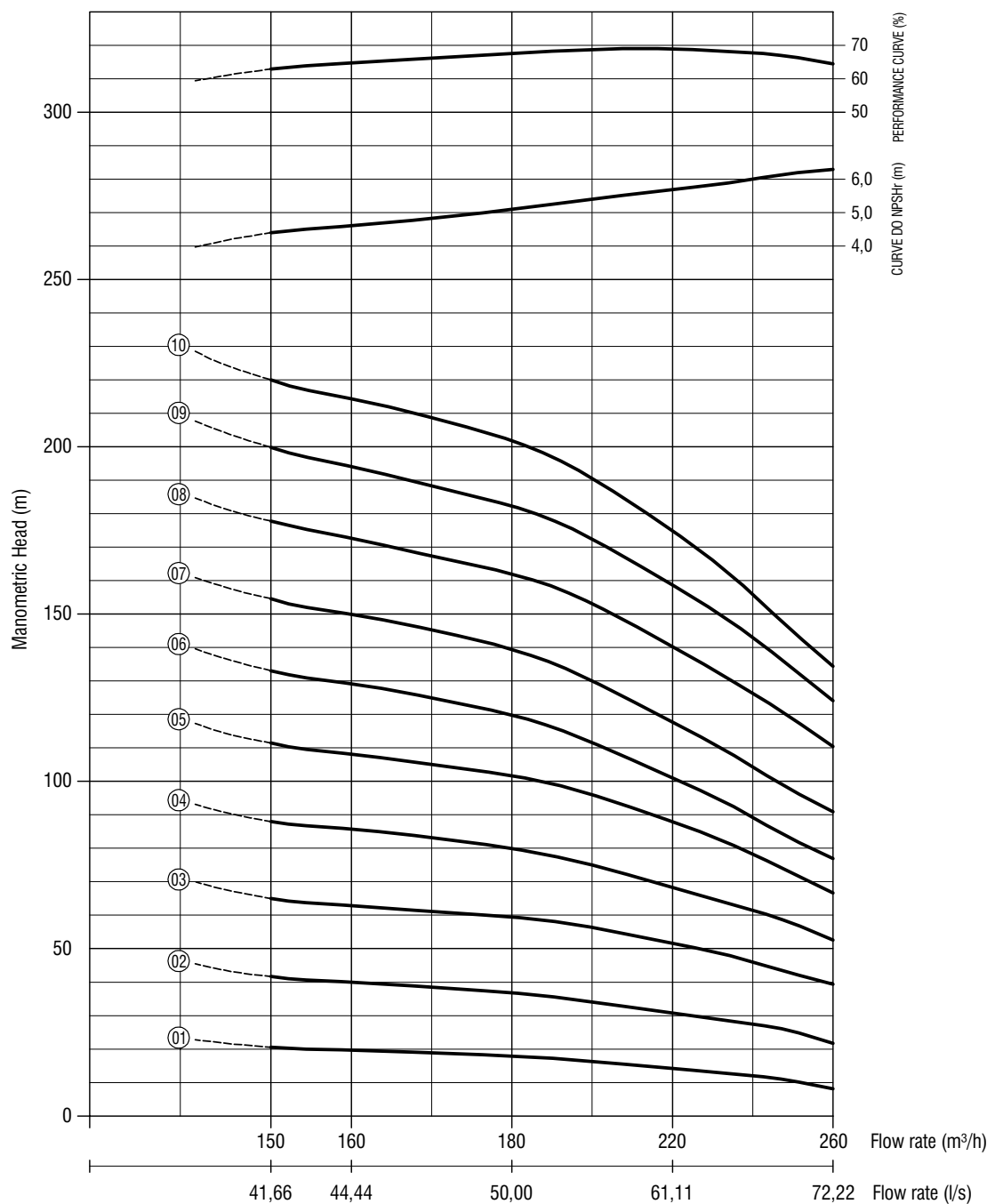
### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       | m³/h | THREE-PHASE (220/380/440V) |      |       | VOLUME(Kg)                     | D<br>máx.<br>(mm) | ø<br>POL<br>NPT |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|----------------------------|------|-------|--------------------------------|-------------------|-----------------|
|               | EST. | HP    | Kw     |                | 0                             | 85    | 95    | 120   | 130   | 140   | 160   | 180   | 185   |      | LM                         | LB   | L     | W/ Three-phase<br>220,380,440V |                   |                 |
|               |      |       |        |                |                               |       |       |       |       |       |       |       |       |      | (mm)                       | (mm) | (mm)  |                                |                   |                 |
| BHS1012-01    | 01   | 15    | 11,19  | M6P            | 31,2                          | 24,2  | 23,6  | 20,5  | 19,0  | 17,5  | 12,0  | 6,1   | 4,2   | m    | 780                        | 680  | 1460  | 132,3                          | 240               | 6"              |
| BHS1012-02    | 02   | 30    | 22,37  | M6G            | 60,9                          | 48,7  | 47,3  | 43,2  | 41,1  | 38,6  | 29,4  | 18,6  | 12,7  |      | 1235                       | 810  | 2045  | 196,7                          |                   |                 |
| BHS1012-03    | 03   | 45    | 33,56  | M8             | 87,8                          | 73,2  | 71,0  | 64,8  | 61,6  | 57,9  | 49,1  | 37,9  | 30,2  |      | 1128                       | 965  | 2093  | 260,2                          |                   |                 |
| BHS1012-04    | 04   | 60    | 44,74  |                | 118,0                         | 97,8  | 94,7  | 86,5  | 82,2  | 77,2  | 65,5  | 51,2  | 44,7  |      | 1228                       | 1120 | 2348  | 302,6                          |                   |                 |
| BHS1012-05    | 05   | 70    | 52,20  | M8S            | 147,1                         | 122,2 | 118,3 | 108,1 | 102,7 | 96,5  | 81,8  | 64,0  | 56,1  |      | 1358                       | 1275 | 2633  | 354                            |                   |                 |
| BHS1012-06    | 06   | 85    | 63,38  | M8S            | 177,0                         | 146,6 | 142,0 | 129,7 | 123,3 | 115,8 | 98,2  | 77,3  | 67,2  |      | 1485                       | 1430 | 2915  | 412,4                          |                   |                 |
| BHS1012-07    | 07   | 100   | 74,57  |                | 205,8                         | 171,1 | 165,6 | 151,3 | 143,8 | 135,1 | 115,4 | 90,9  | 79,2  |      |                            | 1585 | 3070  | 437,8                          |                   |                 |
| BHS1012-08    | 08   | 115   | 85,76  | M10            | 236,0                         | 195,5 | 189,3 | 172,9 | 164,4 | 154,4 | 130,9 | 103,1 | 90,6  |      | 1575                       | 1740 | 3315  | 482,2                          |                   |                 |
| BHS1012-09    | 09   | 130   | 96,94  |                | 268,9                         | 221,2 | 220,0 | 203,6 | 193,3 | 181,1 | 151,4 | 112,6 | 101,9 |      | 1704                       | 1895 | 3599  | 595,6                          |                   |                 |
| BHS1012-10    | 10   | 145   | 108,13 |                | 298,8                         | 245,8 | 244,2 | 226,1 | 214,7 | 201,2 | 168,2 | 129,3 | 115,0 |      |                            | 2050 | 3754  | 621                            |                   |                 |
| BHS1012-11    | 11   | 160   | 119,31 |                | 328,6                         | 270,3 | 268,6 | 248,7 | 236,2 | 221,3 | 184,9 | 142,1 | 126,4 |      | 1864                       | 2314 | 4178  | 711,4                          |                   |                 |
| BHS1012-12    | 12   | 175   | 130,50 | 358,4          | 294,9                         | 293,0 | 271,3 | 257,6 | 241,4 | 201,8 | 155,2 | 137,9 | 2469  |      |                            | 4333 | 736,8 |                                |                   |                 |
| BHS1012-13    | 13   | 190   | 141,68 | M12            | 388,3                         | 319,5 | 317,5 | 294,0 | 279,1 | 261,5 | 218,5 | 168,2 | 149,4 |      | 1964                       | 2624 | 4588  | 782,2                          |                   |                 |
| BHS1012-14    | 14   | 210   | 156,60 |                | 418,1                         | 344,0 | 341,9 | 316,5 | 300,6 | 281,6 | 235,3 | 181,1 | 160,8 |      | 1900                       | 2779 | 4679  | 1002,6                         |                   |                 |

\*Note: Minimum submersion required for M12 motors = 40 meters

PERFORMANCE CURVE

50Hz

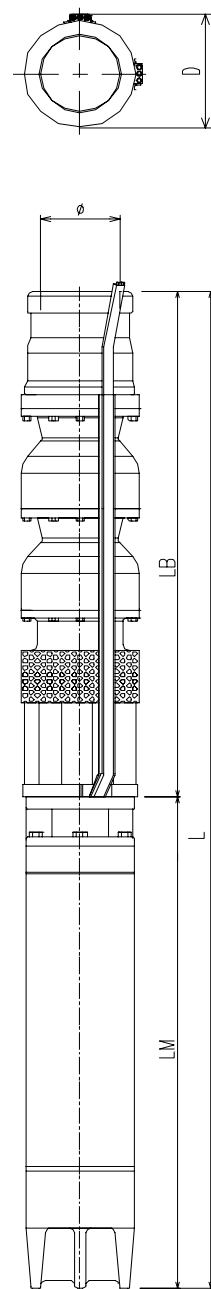
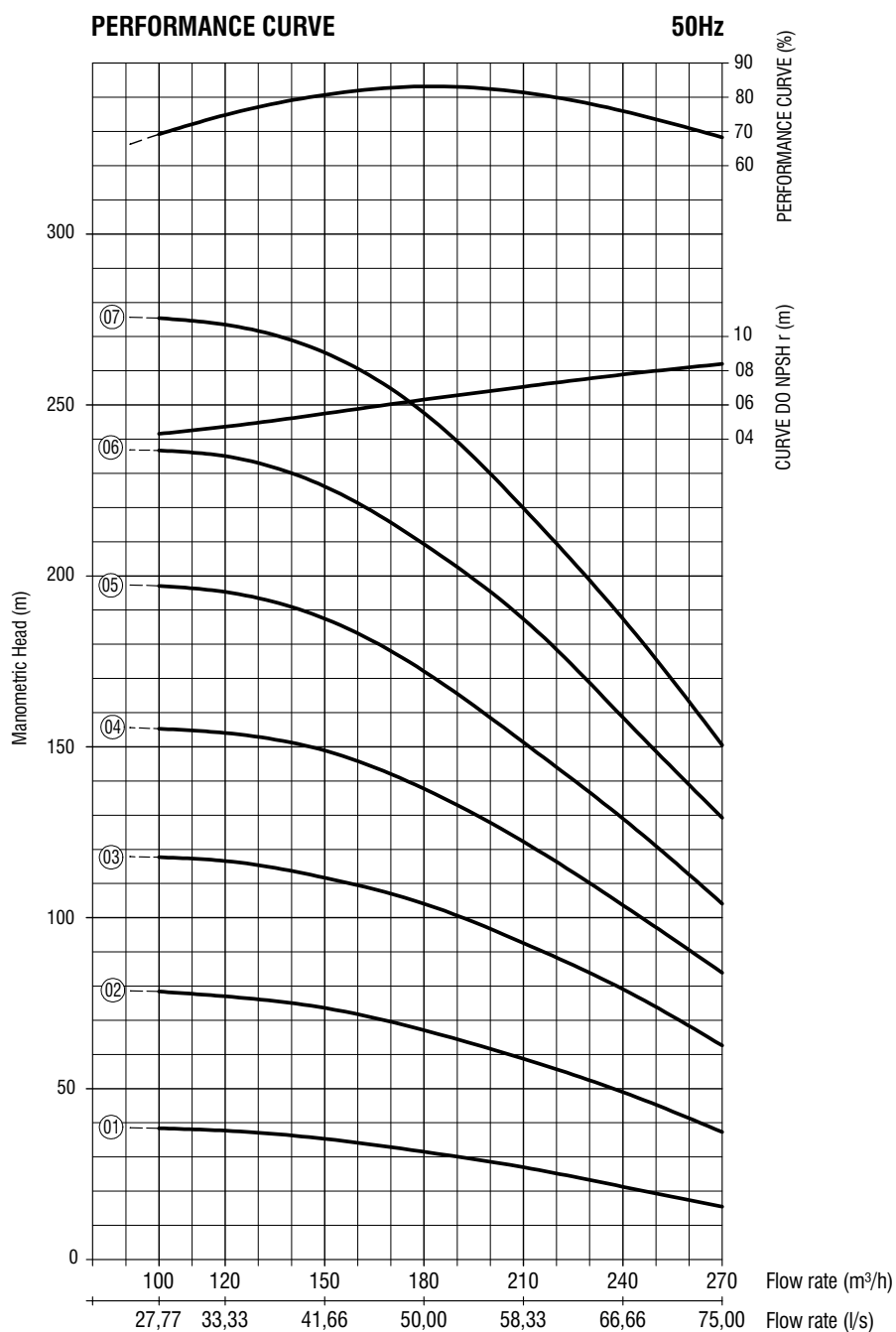


### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       |       |            | m³/h  | THREE-PHASE (220/380/440V) |           |       | VOLUME(Kg)<br>W/ Three-phase<br>220,380,440V | D<br>máx.<br>(mm) | Ø<br>POL<br>NPT |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------------|-------|----------------------------|-----------|-------|----------------------------------------------|-------------------|-----------------|
|               | EST. | HP    | Kw     |                | 0                             | 150   | 160   | 170   | 190   | 210   | 240   | 245   | 260   | LM<br>(mm) |       | LB<br>(mm)                 | L<br>(mm) |       |                                              |                   |                 |
|               |      |       |        |                |                               |       |       |       |       |       |       |       |       |            |       |                            |           |       |                                              |                   |                 |
| BHS1015-01    | 01   | 20    | 14,91  | M6G            | 32,2                          | 20,5  | 19,7  | 18,8  | 17,2  | 15,3  | 12,0  | 11,4  | 8,1   | m          | 1075  | 695                        | 1770      | 166,8 | 240                                          | 6"                |                 |
| BHS1015-02    | 02   | 45    | 33,56  | M8             | 63,1                          | 41,7  | 40,0  | 38,5  | 35,6  | 32,4  | 27,5  | 26,6  | 21,7  |            | 1128  | 840                        | 1968      | 241,3 |                                              |                   |                 |
| BHS1015-03    | 03   | 60    | 44,74  |                | 90,6                          | 65,0  | 62,9  | 61,1  | 58,2  | 54,1  | 46,0  | 44,3  | 39,4  |            | 1228  | 1010                       | 2238      | 277,7 |                                              |                   |                 |
| BHS1015-04    | 04   | 80    | 59,66  |                | 120,7                         | 88,3  | 85,8  | 83,2  | 77,8  | 71,7  | 61,4  | 59,6  | 52,5  |            | 1355  | 1180                       | 2535      | 330,1 |                                              |                   |                 |
| BHS1015-05    | 05   | 105   | 78,30  | Mi8S           | 154,4                         | 111,5 | 108,2 | 105,1 | 99,3  | 92,1  | 78,3  | 75,4  | 66,7  |            | 1575  | 1350                       | 2925      | 394,5 |                                              |                   |                 |
| BHS1015-06    | 06   | 120   | 89,48  |                | 181,1                         | 133,4 | 129,2 | 125,0 | 116,3 | 106,4 | 89,3  | 85,9  | 77,0  |            |       | 1520                       | 3095      | 413,9 |                                              |                   |                 |
| BHS1015-07    | 07   | 140   | 104,40 | M10            | 211,3                         | 154,6 | 150,0 | 145,3 | 135,4 | 124,0 | 104,4 | 100,6 | 90,9  |            | 1704  | 1690                       | 3394      | 535,8 |                                              |                   |                 |
| BHS1015-08    | 08   | 165   | 123,04 |                | 248,3                         | 177,8 | 172,5 | 167,4 | 158,3 | 146,9 | 126,3 | 122,6 | 110,4 |            | 1864  | 1969                       | 3833      | 605,2 |                                              |                   |                 |
| BHS1015-09    | 09   | 190   | 141,68 |                | 277,8                         | 199,8 | 194,0 | 188,4 | 178,1 | 165,8 | 143,1 | 138,4 | 124,1 |            | 1964  | 2139                       | 4103      | 644,6 |                                              |                   |                 |
| BHS1015-10    | 10   | 210   | 156,60 |                | M12                           | 297,7 | 220,0 | 214,4 | 208,7 | 197,1 | 183,0 | 156,0 | 150,3 |            | 134,4 | 1900                       | 2309      | 4209  |                                              |                   | 855             |

\*Note: Minimum submersion required for M12 motors = 40 meters





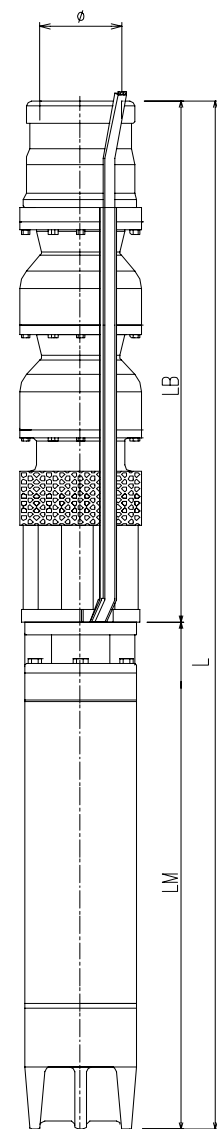
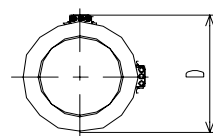
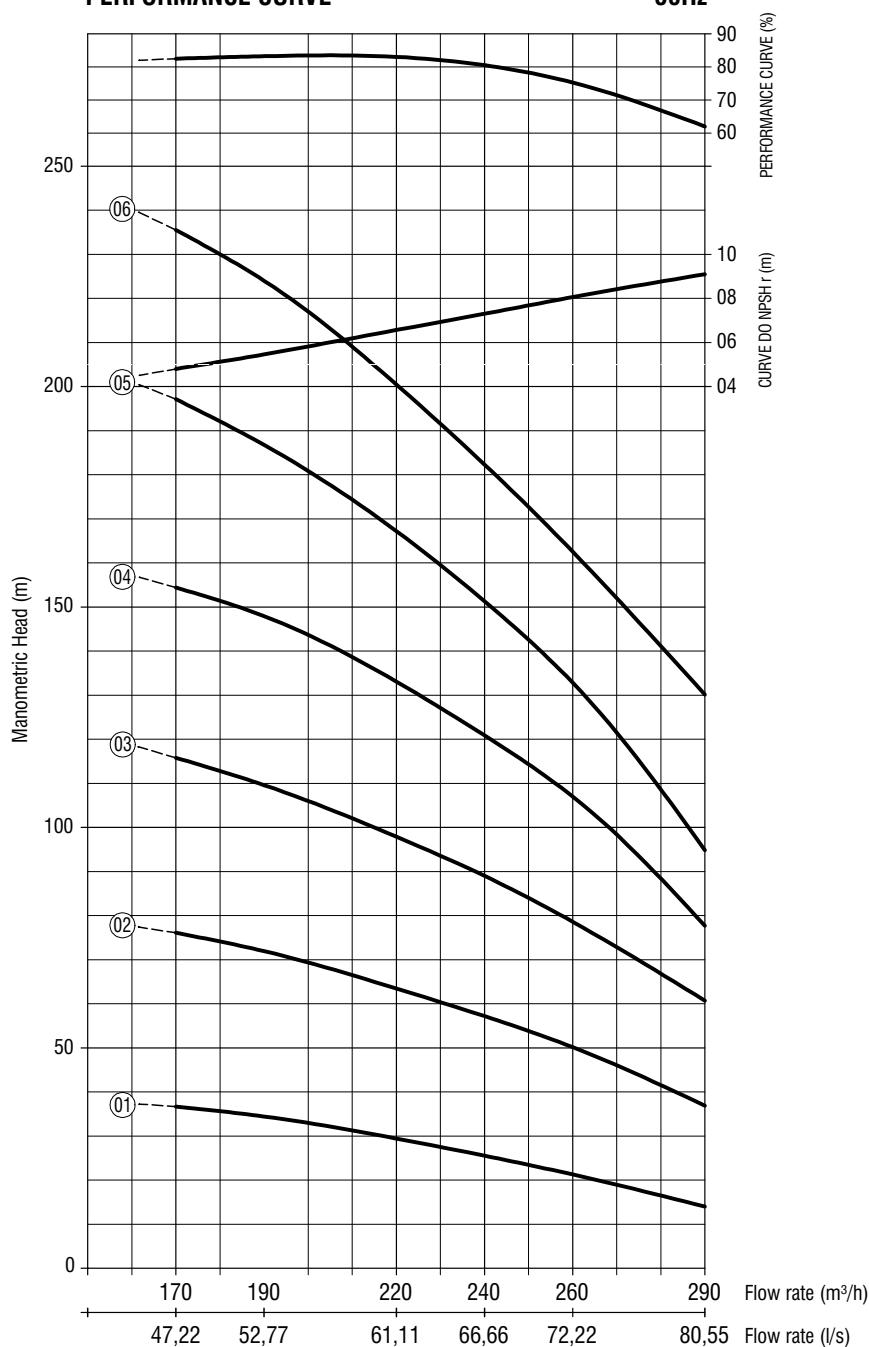
### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       | m³/h | THREE-PHASE (220/380/440V) |                |               | VOLUME(Kg)<br><br>W/ Three-phase<br>220,380,440V | D<br>máx.<br>(mm) | ø<br>POL<br>BSP |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|------|----------------------------|----------------|---------------|--------------------------------------------------|-------------------|-----------------|
|               | EST. | HP    | Kw     |                | 0                             | 100   | 120   | 150   | 180   | 210   | 240   | 270   |      | LM<br><br>(mm)             | LB<br><br>(mm) | L<br><br>(mm) |                                                  |                   |                 |
|               |      |       |        |                |                               |       |       |       |       |       |       |       |      |                            |                |               |                                                  |                   |                 |
| BHS12210-01   | 01   | 32,5  | 24,24  | M8             | 42,3                          | 38,4  | 37,7  | 35,0  | 31,3  | 26,6  | 21,3  | 15,5  | m    | 1068                       | 868            | 1936          | 233,1                                            | 258               | 6"              |
| BHS12210-02   | 02   | 60    | 44,74  |                | 85,5                          | 78,4  | 77,0  | 73,6  | 67,1  | 58,7  | 49,0  | 37,3  |      | 1228                       | 1084           | 2312          | 289,8                                            |                   |                 |
| BHS12210-03   | 03   | 90    | 67,11  | Mi8S           | 124,4                         | 117,7 | 116,6 | 111,7 | 104,1 | 92,6  | 79,1  | 62,6  |      | 1485                       | 1300           | 2785          | 373,3                                            | 262               |                 |
| BHS12210-04   | 04   | 125   | 93,21  |                | 162,0                         | 155,3 | 154,2 | 147,6 | 137,1 | 123,3 | 102,6 | 83,9  |      | 1575                       | 1516           | 3091          | 423,2                                            |                   |                 |
| BHS12210-05   | 05   | 155   | 115,58 | M10            | 206,2                         | 197,1 | 195,3 | 187,5 | 172,1 | 151,3 | 129,0 | 104,1 |      | 1864                       | 1732           | 3596          | 588,8                                            | 275               |                 |
| BHS12210-06   | 06   | 185   | 137,95 |                | 247,8                         | 236,7 | 234,5 | 226,2 | 209,3 | 187,9 | 158,1 | 129,2 |      | 1964                       | 1948           | 3912          | 636,9                                            |                   |                 |
| BHS12210-07   | 07   | 215   | 160,33 | M12            | 286,9                         | 275,4 | 273,5 | 264,2 | 247,7 | 219,8 | 187,5 | 150,5 |      | 1900                       | 2273           | 4173          | 873,9                                            |                   |                 |

\*Note: Minimum submersion required for M12 motors = 40 meters

PERFORMANCE CURVE

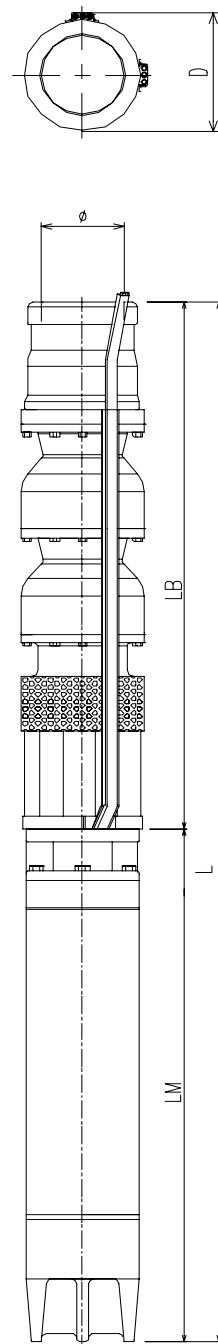
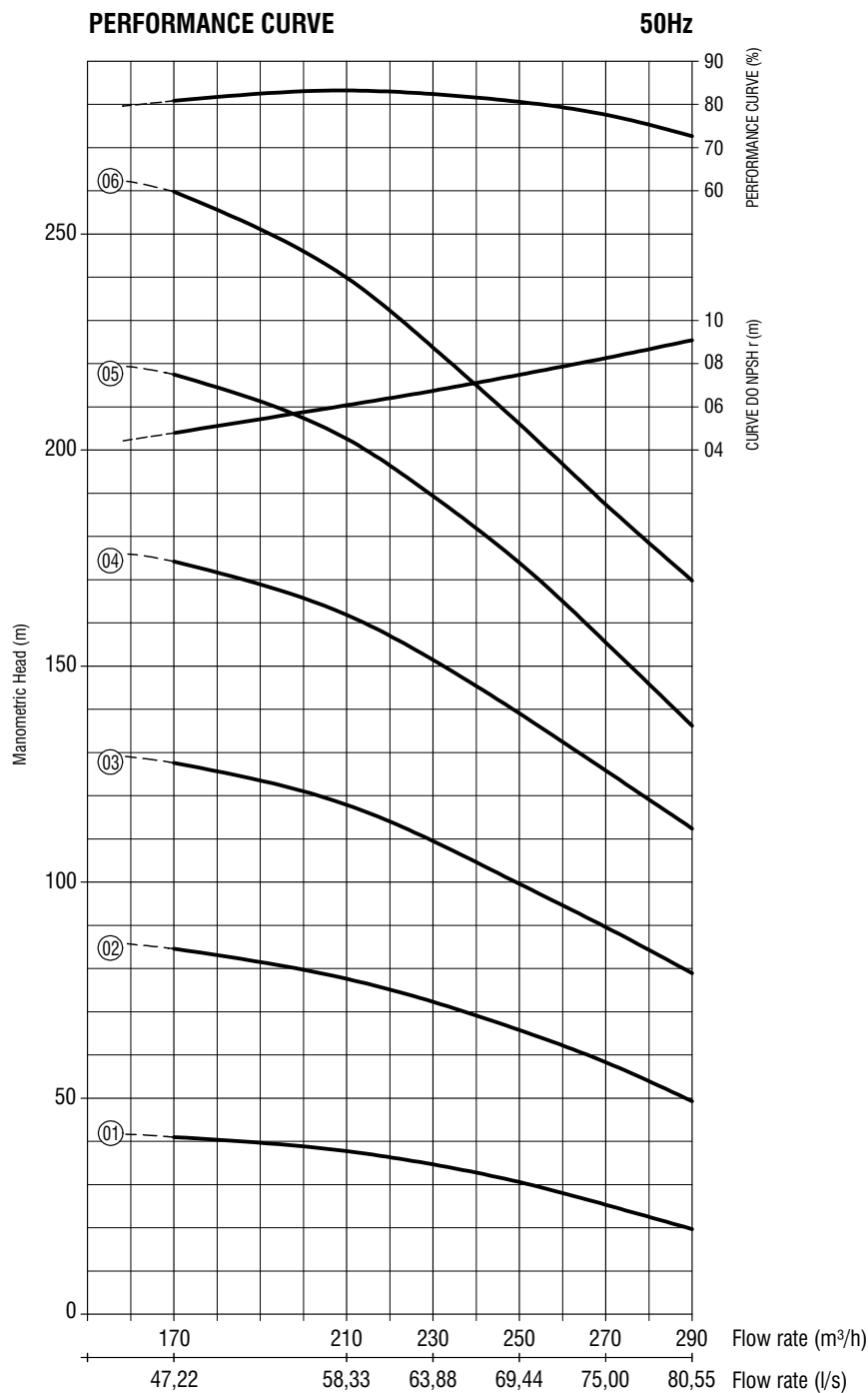
50Hz



### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |      | THREE-PHASE(220/380/440V) |      |      | VOLUME(Kg)                     | D<br>máx.<br>(mm) | ø<br>POL<br>BSP |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|------|---------------------------|------|------|--------------------------------|-------------------|-----------------|
|               | EST. | HP    | Kw     |                | 0                             | 170   | 190   | 220   | 240   | 260   | 290   | m³/h | LM                        | LB   | L    | W/ Three-phase<br>220,380,440V |                   |                 |
|               |      |       |        |                |                               |       |       |       |       |       |       |      | (mm)                      | (mm) | (mm) |                                |                   |                 |
| BHS12240-01   | 01   | 35    | 26,10  | M8             | 45,7                          | 36,7  | 34,3  | 29,7  | 26,2  | 21,7  | 14,0  | m    | 1128                      | 868  | 1996 | 244,3                          | 258               | 6"              |
| BHS12240-02   | 02   | 70    | 52,20  | M8S            | 90,1                          | 76,1  | 72,0  | 63,3  | 57,2  | 50,4  | 36,9  |      | 1358                      | 1084 | 2442 | 316,1                          |                   |                 |
| BHS12240-03   | 03   | 105   | 78,30  | Mi8S           | 134,0                         | 115,8 | 109,6 | 97,9  | 89,0  | 78,6  | 60,7  |      | 1575                      | 1300 | 2875 | 396                            | 262               |                 |
| BHS12240-04   | 04   | 130   | 96,94  | M10            | 175,5                         | 154,8 | 147,5 | 132,0 | 120,0 | 108,8 | 77,7  |      | 1864                      | 1516 | 3380 | 562                            |                   |                 |
| BHS12240-05   | 05   | 170   | 126,77 |                | 219,9                         | 197,1 | 186,5 | 166,1 | 151,6 | 134,3 | 94,8  |      | 1964                      | 1732 | 3696 | 610                            |                   |                 |
| BHS12240-06   | 06   | 205   | 152,87 | M12            | 268,3                         | 235,5 | 224,0 | 200,0 | 182,6 | 163,5 | 130,1 |      | 1900                      | 2057 | 3957 | 846,5                          |                   |                 |

\*Note: Minimum submersion required for M12 motors = 40 meters



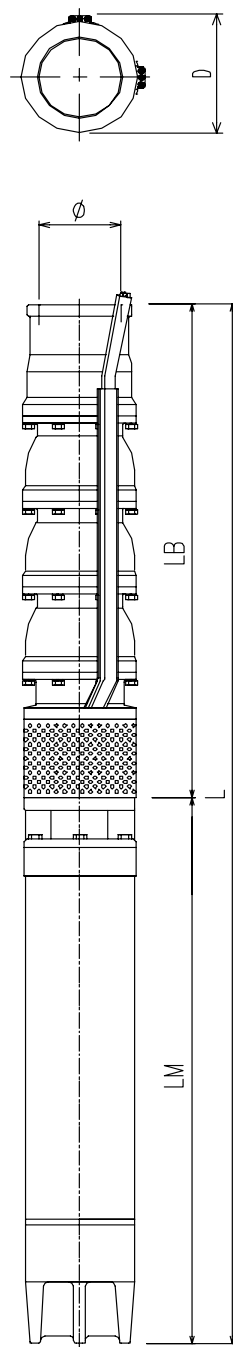
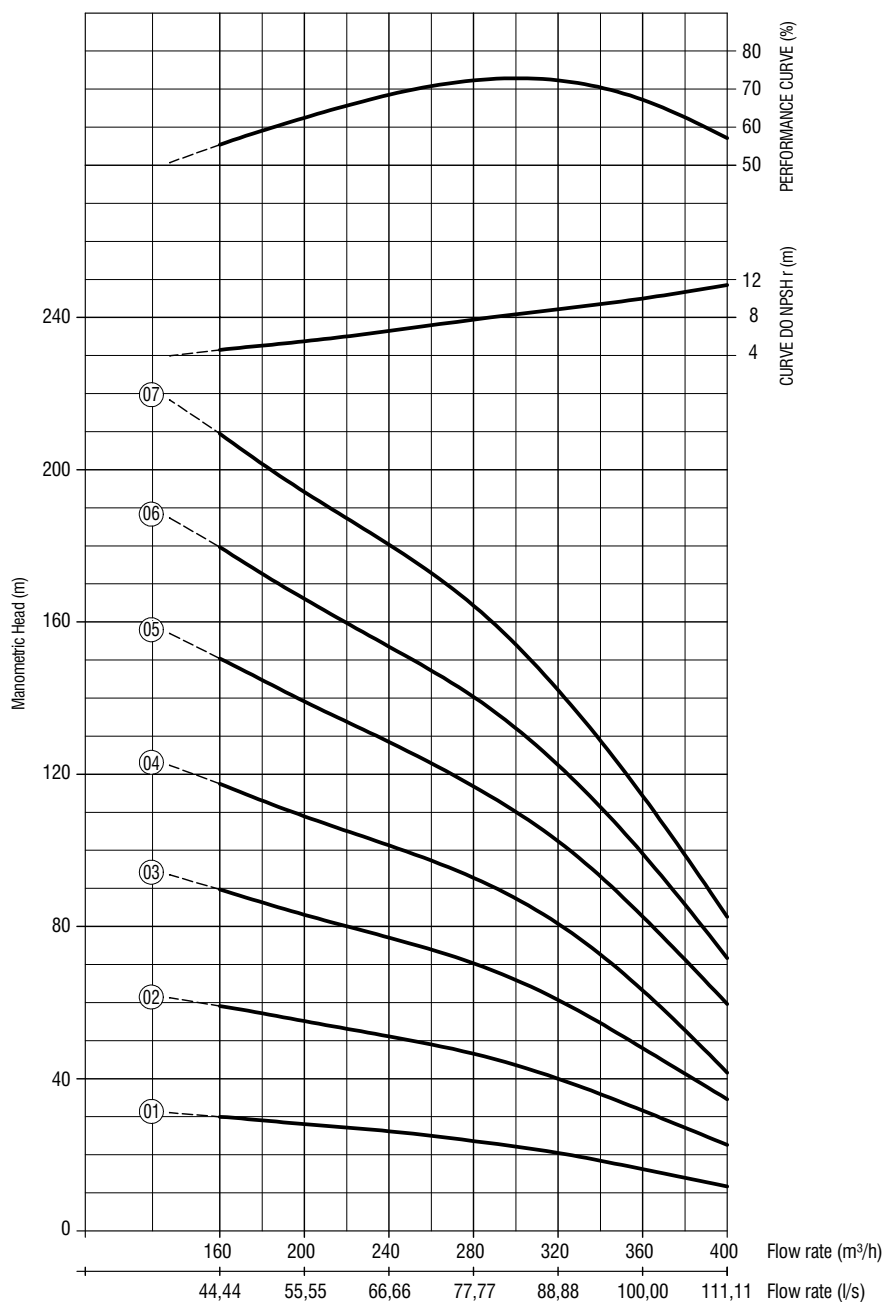
### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       | THREE-PHASE (220/380/440V) |      |      | VOLUME (Kg) | D máx.<br>(mm) | Ø<br>POL<br>BSP |                                |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|----------------------------|------|------|-------------|----------------|-----------------|--------------------------------|
|               | EST. | HP    | Kw     |                | 0                             | 170   | 210   | 230   | 250   | 270   | 290   | m³/h                       | LM   | LB   | L           |                |                 | W/ Three-phase<br>220,380,440V |
|               |      |       |        |                |                               |       |       |       |       |       |       |                            | (mm) | (mm) | (mm)        |                |                 |                                |
| BHS12270-01   | 01   | 40    | 29,83  | M8             | 48,7                          | 41,0  | 36,8  | 33,8  | 30,5  | 25,9  | 19,7  | m                          | 1068 | 868  | 1936        | 233,6          | 258             | 6"                             |
| BHS12270-02   | 02   | 80    | 59,66  | M10            | 95,6                          | 84,6  | 77,2  | 72,3  | 65,4  | 58,3  | 49,3  |                            | 1494 | 1084 | 2578        | 371,6          | 262             |                                |
| BHS12270-03   | 03   | 115   | 85,76  |                | 144,5                         | 127,6 | 117,4 | 109,7 | 99,6  | 89,6  | 78,9  |                            | 1564 | 1300 | 2864        | 444,4          |                 |                                |
| BHS12270-04   | 04   | 165   | 123,04 |                | 192,2                         | 174,2 | 162,6 | 151,4 | 138,7 | 125,8 | 112,4 |                            | 1864 | 1516 | 3380        | 562,2          |                 |                                |
| BHS12270-05   | 05   | 200   | 149,14 |                | 236,4                         | 217,5 | 202,7 | 187,9 | 172,3 | 157,1 | 136,2 |                            | 1964 | 1732 | 3696        | 610            |                 |                                |
| BHS12270-06   | 06   | 235   | 175,24 | M12            | 282,3                         | 259,8 | 240,3 | 222,4 | 204,7 | 187,4 | 169,8 |                            | 1900 | 2057 | 3957        | 848            | 275             |                                |

\*Note: Minimum submersion required for M12 motors = 40 meters

PERFORMANCE CURVE

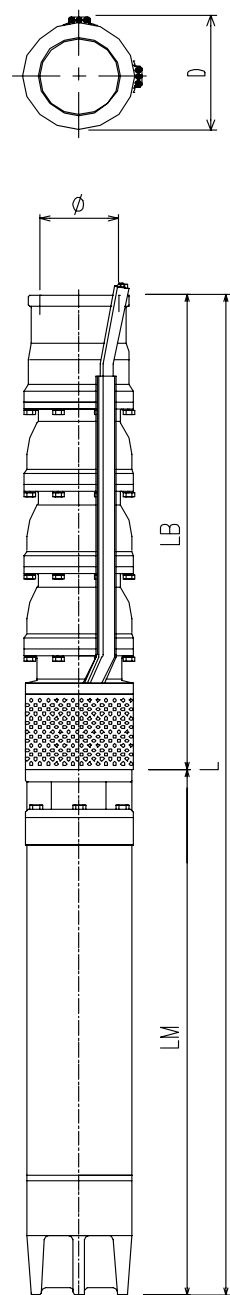
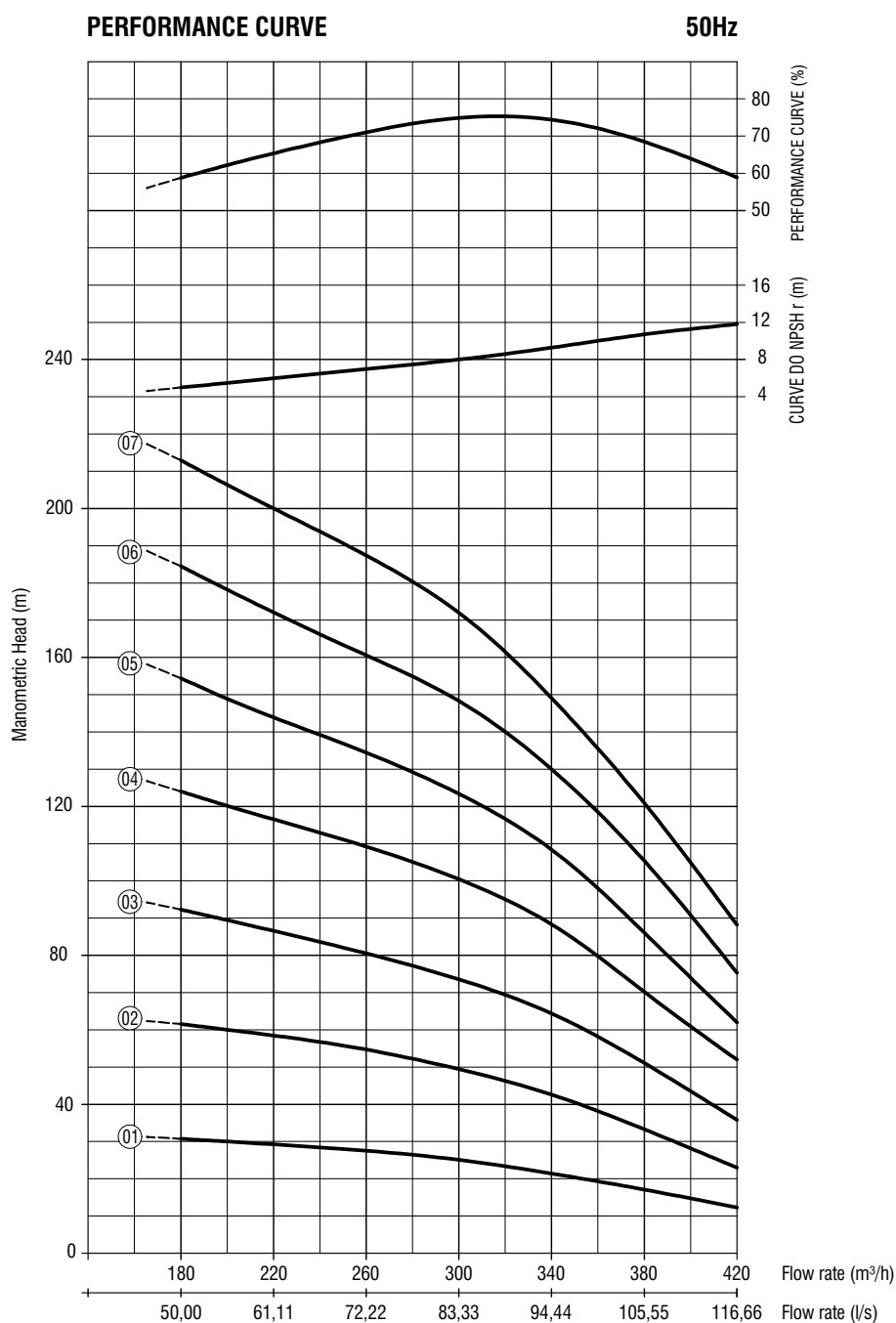
50Hz



### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |      | THREE-PHASE(220/380/440V) |      |      | VOLUME(Kg) | D<br>máx.<br>(mm) | ø<br>POL<br>NPT |                                |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|------|---------------------------|------|------|------------|-------------------|-----------------|--------------------------------|
|               | EST. | HP    | Kw     |                | 0                             | 160   | 200   | 240   | 280   | 320   | 360   | 400  | m³/h                      | LM   | LB   | L          |                   |                 | W/ Three-phase<br>220,380,440V |
|               |      |       |        |                |                               |       |       |       |       |       |       |      |                           | (mm) | (mm) | (mm)       |                   |                 |                                |
| BHS12300-01   | 01   | 35    | 26,10  | M8             | 38,7                          | 30,0  | 27,2  | 26,2  | 24,1  | 20,5  | 16,2  | 11,7 | m                         | 1068 | 855  | 1923       | 271               | 295             | 8"                             |
| BHS12300-02   | 02   | 70    | 52,20  | M8S            | 74,8                          | 59,1  | 54,2  | 51,3  | 46,8  | 40,0  | 31,6  | 22,6 |                           | 1358 | 1090 | 2448       | 363,2             |                 |                                |
| BHS12300-03   | 03   | 100   | 74,57  | Mi8S           | 112,2                         | 89,7  | 82,4  | 77,0  | 70,6  | 60,7  | 48,0  | 34,6 |                           | 1485 | 1325 | 2810       | 434,1             |                 |                                |
| BHS12300-04   | 04   | 135   | 100,67 | M10            | 146,0                         | 117,5 | 108,4 | 101,3 | 93,3  | 80,7  | 63,2  | 41,6 |                           | 1704 | 1560 | 3264       | 579,4             |                 |                                |
| BHS12300-05   | 05   | 170   | 126,77 |                | 186,0                         | 150,4 | 137,6 | 128,3 | 117,8 | 102,4 | 82,6  | 59,6 |                           | 1864 | 1795 | 3659       | 669,3             |                 |                                |
| BHS12300-06   | 06   | 205   | 152,87 | M12            | 220,6                         | 179,7 | 165,5 | 153,0 | 140,3 | 122,4 | 99,1  | 71,7 |                           | 1900 | 2030 | 3930       | 924,1             |                 |                                |
| BHS12300-07   | 07   | 240   | 178,97 |                | 258,6                         | 209,5 | 193,8 | 180,3 | 164,3 | 142,1 | 114,3 | 82,5 |                           | 2265 | 4165 | 962,4      |                   |                 |                                |

\*Note: Minimum submersion required for M12 motors = 40 meters  
\* 380V Voltage motors. "D" = 305 mm.



### EQUIPMENT SELECTION CHART

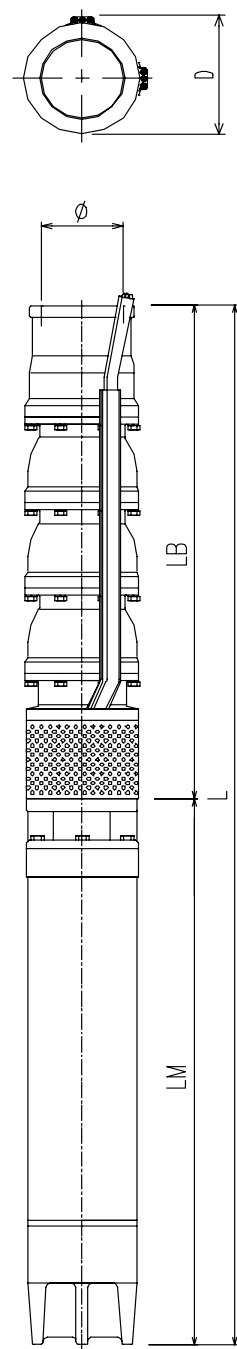
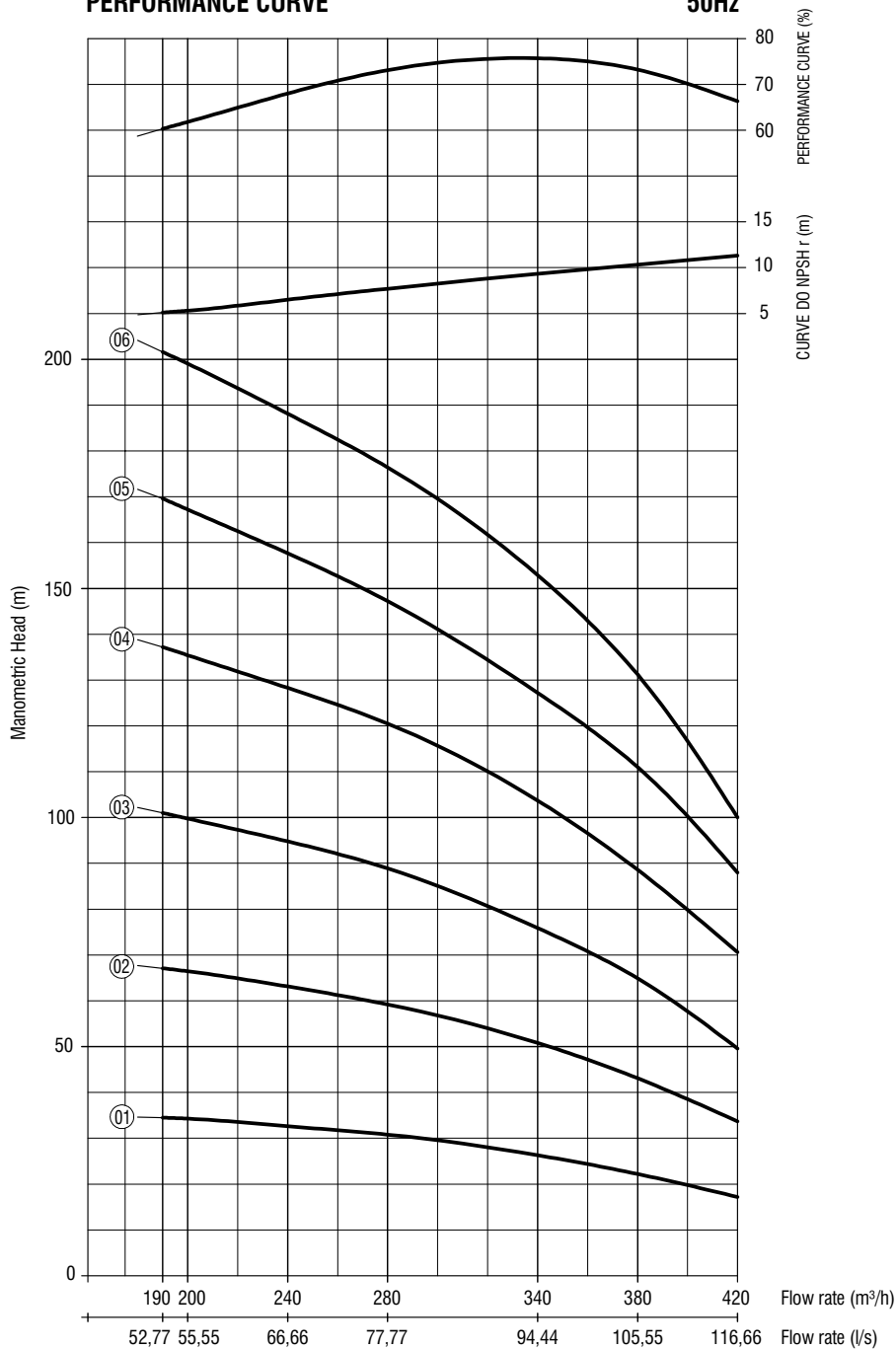
| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |      | THREE-PHASE(220/380/440V) |      |      | VOLUME(Kg) | D máx.<br>(mm) | ø<br>POL<br>NPT |                                |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|------|---------------------------|------|------|------------|----------------|-----------------|--------------------------------|
|               | EST. | HP    | Kw     |                | 0                             | 180   | 200   | 250   | 300   | 340   | 380   | 420  | m³/h                      | LM   | LB   | L          |                |                 | W/ Three-phase<br>220,380,440V |
|               |      |       |        |                |                               |       |       |       |       |       |       |      |                           | (mm) | (mm) | (mm)       |                |                 |                                |
| BHS12350-01   | 01   | 37,5  | 27,96  | M8             | 43,1                          | 31,3  | 30,0  | 28,7  | 25,1  | 21,4  | 17,1  | 12,3 | m                         | 1068 | 855  | 1923       | 271,2          | 295             | 8"                             |
| BHS12350-02   | 02   | 75    | 55,93  | M8S            | 83,1                          | 62,2  | 59,4  | 54,6  | 49,9  | 42,6  | 33,3  | 23,0 |                           | 1358 | 1090 | 2448       | 363,8          |                 |                                |
| BHS12350-03   | 03   | 110   | 82,03  | Mi8S           | 123,6                         | 92,3  | 88,4  | 82,1  | 74,9  | 64,4  | 51,1  | 35,8 |                           | 1575 | 1325 | 2900       | 454            |                 |                                |
| BHS12350-04   | 04   | 150   | 111,85 | M10            | 166,2                         | 124,8 | 119,5 | 110,0 | 101,7 | 88,3  | 70,2  | 52,0 |                           | 1704 | 1560 | 3264       | 580,6          |                 |                                |
| BHS12350-05   | 05   | 185   | 137,95 |                | 204,5                         | 154,9 | 148,3 | 135,5 | 124,8 | 108,4 | 86,1  | 62,0 |                           | 1964 | 1795 | 3759       | 690,8          |                 |                                |
| BHS12350-06   | 06   | 225   | 167,78 | M12            | 246,3                         | 185,9 | 177,4 | 162,5 | 149,1 | 130,0 | 105,4 | 75,3 |                           | 1900 | 2030 | 3930       | 925,9          |                 |                                |
| BHS12350-07   | 07   | 260   | 193,88 |                | 283,8                         | 214,4 | 205,6 | 188,2 | 173,8 | 149,1 | 120,9 | 88,2 |                           | 2195 | 2265 | 4460       | 1045,5         |                 |                                |

\*Note: Minimum submersion required for M12 motors = 40 meters

\* 380V Voltage motors. "D" = 305 mm.

PERFORMANCE CURVE

50Hz

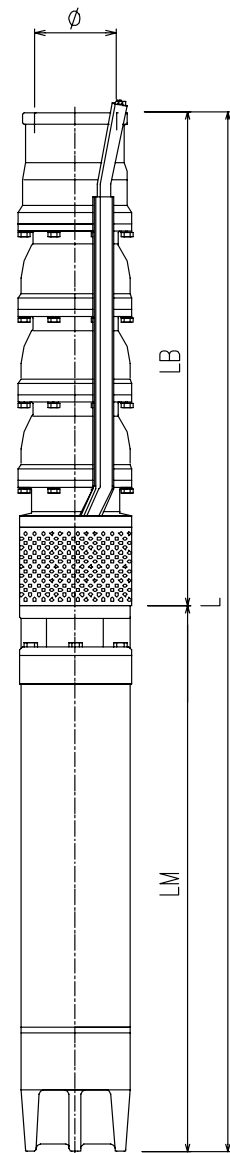
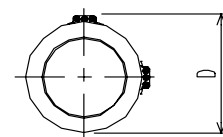
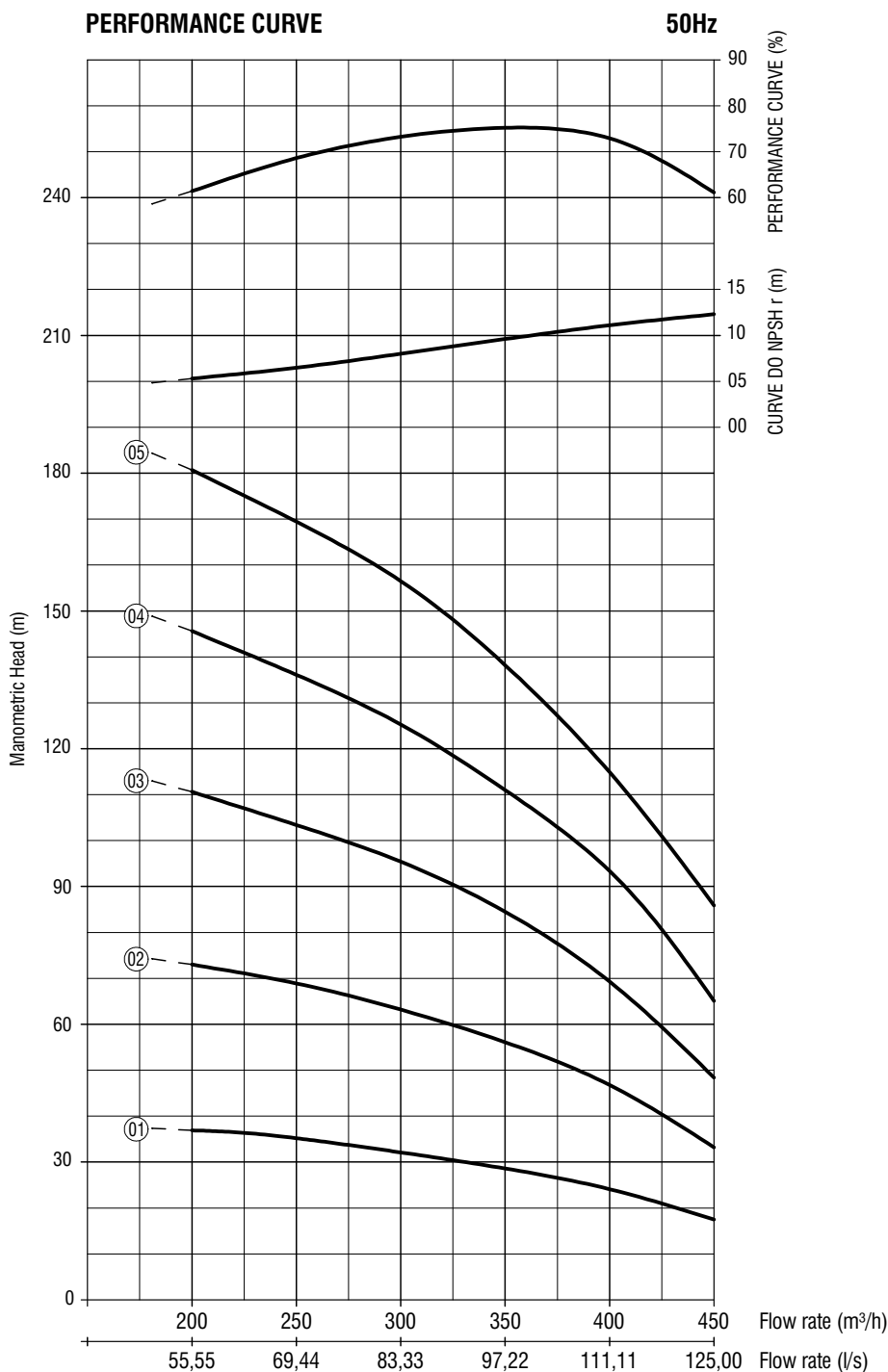


### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |       | THREE-PHASE (220/380/440V) |      |      | VOLUME (Kg) | D<br>máx.<br>(mm) | Ø<br>POL<br>NPT |                                |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|----------------------------|------|------|-------------|-------------------|-----------------|--------------------------------|
|               | EST. | HP    | Kw     |                | 0                             | 190   | 200   | 240   | 280   | 340   | 380   | 420   | m³/h                       | LM   | LB   | L           |                   |                 | W/ Three-phase<br>220,380,440V |
|               |      |       |        |                |                               |       |       |       |       |       |       |       |                            | (mm) | (mm) | (mm)        |                   |                 |                                |
| BHS12400-01   | 01   | 45    | 33,56  | M8             | 47,5                          | 34,5  | 33,9  | 32,6  | 30,8  | 26,3  | 22,2  | 17,2  | m                          | 1128 | 855  | 1983        | 282,5             | 295             | 8"                             |
| BHS12400-02   | 02   | 85    | 63,38  | Mi8S           | 90,3                          | 67,1  | 65,9  | 62,7  | 59,2  | 50,8  | 43,1  | 33,7  |                            | 1485 | 1090 | 2575        | 397,5             |                 |                                |
| BHS12400-03   | 03   | 125   | 93,21  |                | 134,5                         | 101,0 | 99,3  | 93,3  | 88,9  | 75,9  | 64,9  | 49,6  |                            | 1575 | 1325 | 2900        | 455               |                 |                                |
| BHS12400-04   | 04   | 175   | 130,50 | M10            | 179,4                         | 137,2 | 134,6 | 126,8 | 121,0 | 103,7 | 88,6  | 70,6  |                            | 1864 | 1560 | 3424        | 632               |                 |                                |
| BHS12400-05   | 05   | 215   | 160,33 | M12            | 223,2                         | 169,6 | 166,1 | 156,6 | 148,8 | 126,4 | 111,0 | 88,0  |                            | 1900 | 1795 | 3695        | 887,5             |                 |                                |
| BHS12400-06   | 06   | 255   | 190,15 |                | 267,0                         | 201,6 | 197,8 | 186,6 | 177,7 | 152,9 | 131,2 | 100,0 |                            | 2195 | 2030 | 4225        | 1009              |                 |                                |

\*Nota: Sumersión mínima requerida para los motores M12 = 40 metros

\* Para los motores de tensión de 380V. "D" = 305mm



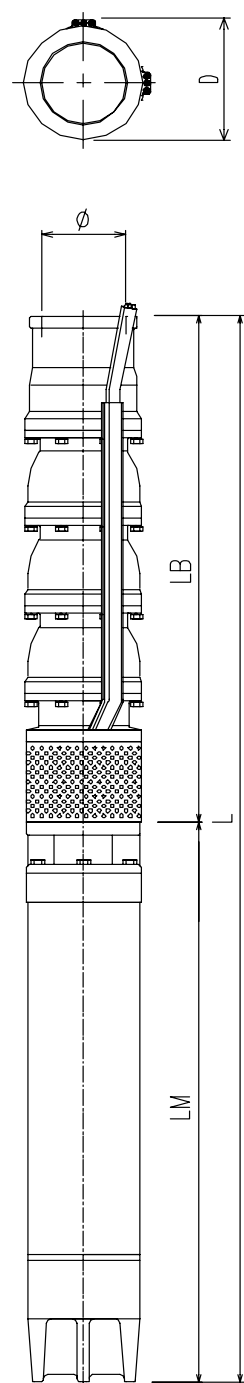
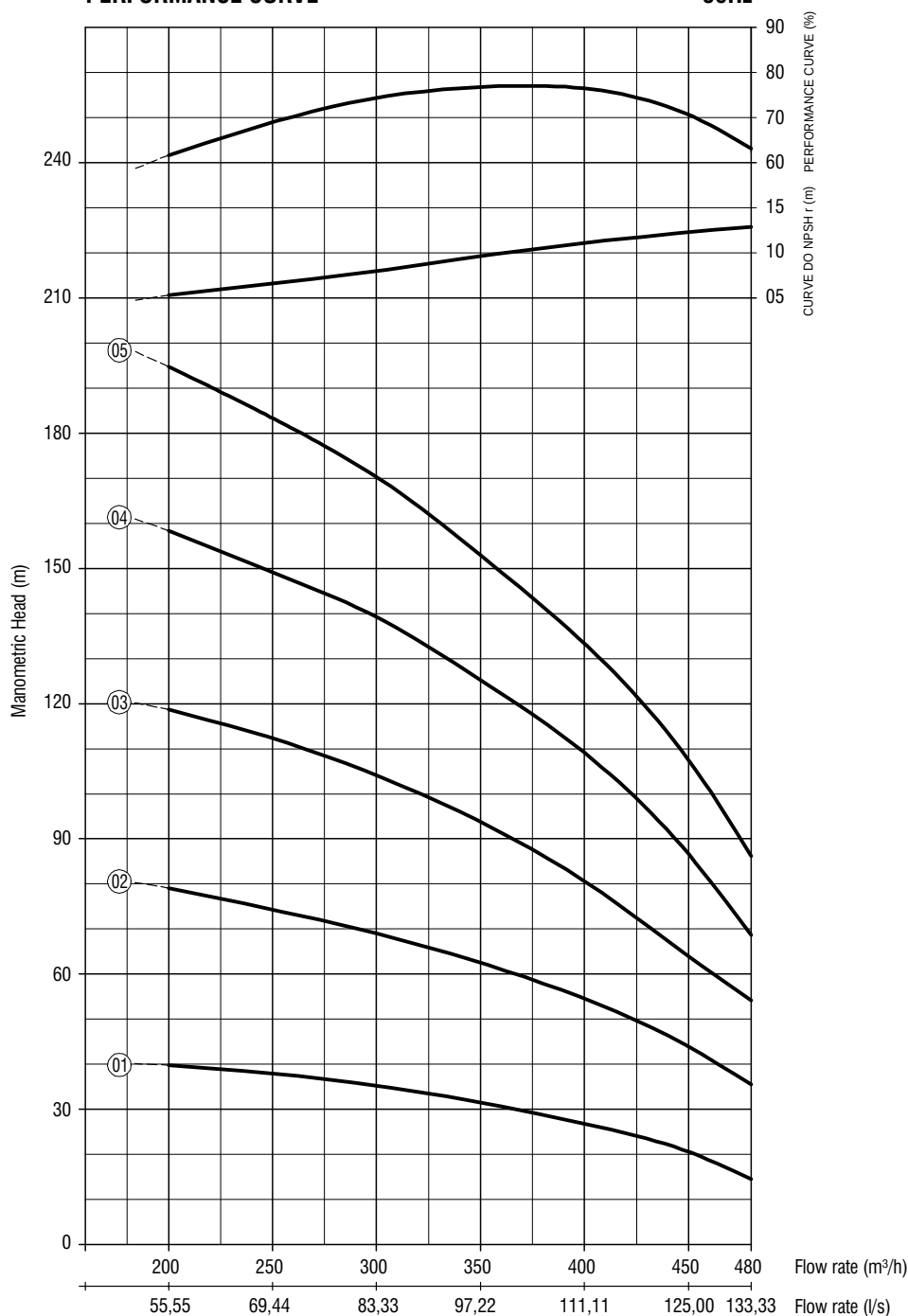
### EQUIPMENT SELECTION CHART

| PUMP MODEL  | POWER |     |        | MOTOR MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |      | THREE-PHASE (220/380/440V) |         |        | VOLUME(Kg) | D máx. (mm) | Ø POL NPT |
|-------------|-------|-----|--------|-------------|-------------------------------|-------|-------|-------|-------|-------|------|----------------------------|---------|--------|------------|-------------|-----------|
|             | EST.  | HP  | Kw     |             | 0                             | 200   | 250   | 300   | 350   | 400   | 450  | LM (mm)                    | LB (mm) | L (mm) |            |             |           |
| BHS12450-01 | 01    | 50  | 37,28  | M8          | 50,3                          | 36,7  | 35,2  | 32,1  | 28,6  | 24,1  | 17,5 | 1128                       | 855     | 1983   | 282,5      | 295         | 8"        |
| BHS12450-02 | 02    | 95  | 70,84  | Mi8S        | 99,4                          | 73,0  | 68,9  | 63,2  | 56,1  | 46,8  | 33,2 | 1485                       | 1090    | 2575   | 398        |             |           |
| BHS12450-03 | 03    | 150 | 111,85 | M10         | 146,7                         | 110,6 | 103,4 | 95,4  | 84,5  | 69,3  | 48,4 | 1704                       | 1325    | 3029   | 544        |             |           |
| BHS12450-04 | 04    | 195 | 145,41 |             | 193,2                         | 145,6 | 136,1 | 125,3 | 111,0 | 93,4  | 65,1 | 1964                       | 1560    | 3524   | 653        |             |           |
| BHS12450-05 | 05    | 235 | 175,24 | M12         | 242,5                         | 181,2 | 169,3 | 157,6 | 138,2 | 114,9 | 85,9 | 1900                       | 1795    | 3695   | 889        |             |           |

\*Note: Minimum submersion required for M12 motors = 40 meters  
\* 380V Voltage motors. "D" = 305 mm.

PERFORMANCE CURVE

50Hz



### EQUIPMENT SELECTION CHART

| PUMP<br>MODEL | Nº   | POWER |        | MOTOR<br>MODEL | FLOW RATE AND MANOMETRIC HEAD |       |       |       |       |       |       |      | THREE-PHASE (220/380/440V) |      |      | VOLUME(Kg) | D máx.<br>(mm) | Ø<br>POL<br>NPT |                                |
|---------------|------|-------|--------|----------------|-------------------------------|-------|-------|-------|-------|-------|-------|------|----------------------------|------|------|------------|----------------|-----------------|--------------------------------|
|               | EST. | HP    | Kw     |                | 0                             | 200   | 250   | 300   | 350   | 400   | 450   | 480  | m³/h                       | LM   | LB   | L          |                |                 | W/ Three-phase<br>220,380,440V |
|               |      |       |        |                |                               |       |       |       |       |       |       |      |                            | (mm) | (mm) | (mm)       |                |                 |                                |
| BHS12500-01   | 01   | 55    | 41,01  | M8             | 55,2                          | 39,8  | 37,7  | 35,2  | 31,3  | 26,6  | 20,9  | 14,5 | m                          | 1228 | 855  | 2083       | 299            | 295             | 8"                             |
| BHS12500-02   | 02   | 105   | 78,30  | Mi8S           | 108,3                         | 79,1  | 74,3  | 69,0  | 62,5  | 54,4  | 43,9  | 35,5 |                            | 1575 | 1090 | 2665       | 416            |                 |                                |
| BHS12500-03   | 03   | 160   | 119,31 | M10            | 161,4                         | 118,7 | 111,7 | 104,4 | 93,5  | 81,1  | 66,3  | 54,2 |                            | 1864 | 1325 | 3189       | 593            |                 |                                |
| BHS12500-04   | 04   | 210   | 156,60 | M12            | 211,4                         | 158,4 | 148,6 | 139,1 | 125,0 | 109,1 | 86,6  | 68,7 |                            | 1900 | 1560 | 3460       | 847            |                 |                                |
| BHS12500-05   | 05   | 255   | 190,15 |                | 265,1                         | 195,0 | 183,1 | 170,3 | 152,5 | 133,3 | 107,5 | 86,2 |                            | 2195 | 1795 | 3990       | 968,2          |                 |                                |

\*Note: Minimum submersion required for M12 motors = 40 meters



## EBARA MOTOR NOMINAL CURRENT

| Models             |           | Power |       | Nominal Current(A) / ***Maximum Current (A) |      |      |           |           |      |      |      |
|--------------------|-----------|-------|-------|---------------------------------------------|------|------|-----------|-----------|------|------|------|
|                    |           |       |       | Three-Phase                                 |      |      | Monophase |           |      |      |      |
|                    |           | HP    | kW    | 220V                                        | 380V | 440V | 115V (2F) | 220V (2F) | 220V | 254V | 440V |
| 4" WELLS OR LARGER | M4P2/M4C2 | 0,5   | 0,37  | 2,9                                         | 2,1  | 1,7  |           |           |      |      |      |
|                    |           | 0,75  | 0,56  | 4,1                                         | 2,8  | 2,2  |           |           |      |      |      |
|                    |           | 1     | 0,75  | 5,3                                         | 3,1  | 2,5  |           |           |      |      |      |
|                    |           | 1,5   | 1,12  | 7,0                                         | 4,0  | 3,2  |           |           |      |      |      |
|                    |           | 2     | 1,49  | 9,0                                         | 4,9  | 3,9  |           |           |      |      |      |
|                    | M4A/M4P7  | 2,5   | 1,86  | 10,4                                        | 6,5  | 5,2  |           |           |      |      |      |
|                    |           | 3     | 2,24  | 12,4                                        | 7,8  | 6,2  |           |           |      |      |      |
|                    |           | 3,5   | 2,61  | 15,8                                        | 10,5 | 8,4  |           |           |      |      |      |
| 4                  |           | 2,98  | 18,0  | 10,5                                        | 8,4  |      |           |           |      |      |      |
| 6" WELLS OR LARGER | M6P       | 0,5   | 0,37  | 3,8                                         | 2,3  | 2,1  |           |           |      |      |      |
|                    |           | 0,75  | 0,56  | 5,0                                         | 3,0  | 2,6  |           |           |      |      |      |
|                    |           | 1     | 0,75  | 5,5                                         | 3,2  | 2,8  |           |           |      |      |      |
|                    |           | 1,5   | 1,12  | 6,0                                         | 3,5  | 3,0  |           |           |      |      |      |
|                    |           | 2     | 1,49  | 7,4                                         | 4,3  | 3,7  |           |           |      |      |      |
|                    |           | 2,5   | 1,86  | 9,8                                         | 5,8  | 5,0  |           |           |      |      |      |
|                    |           | 3     | 2,24  | 10,3                                        | 6,1  | 5,3  |           |           |      |      |      |
|                    |           | 3,5   | 2,61  | 12,2                                        | 7,0  | 6,1  |           |           |      |      |      |
|                    |           | 4     | 2,98  | 13,2                                        | 7,6  | 6,6  |           |           |      |      |      |
|                    |           | 4,5   | 3,36  | 14,8                                        | 8,6  | 7,4  |           |           |      |      |      |
|                    |           | 5     | 3,73  | 17,0                                        | 9,8  | 8,6  |           |           |      |      |      |
|                    |           | 5,5   | 4,10  | 17,4                                        | 10,0 | 8,7  |           |           |      |      |      |
|                    |           | 6     | 4,47  | 18,7                                        | 10,8 | 9,4  |           |           |      |      |      |
|                    |           | 6,5   | 4,85  | 21,3                                        | 12,0 | 10,6 |           |           |      |      |      |
|                    |           | 7     | 5,22  | 22,5                                        | 12,6 | 11,2 |           |           |      |      |      |
|                    |           | 7,5   | 5,59  | 24,0                                        | 13,5 | 12,0 |           |           |      |      |      |
|                    |           | 8     | 5,97  | 24,5                                        | 14,2 | 12,2 |           |           |      |      |      |
|                    |           | 9     | 6,71  | 28,2                                        | 16,4 | 14,1 |           |           |      |      |      |
|                    |           | 10    | 7,46  | 31,9                                        | 18,5 | 15,9 |           |           |      |      |      |
|                    |           | 11    | 8,20  | 33,8                                        | 19,5 | 16,8 |           |           |      |      |      |
|                    |           | 12    | 8,95  | 36,2                                        | 21,0 | 18,1 |           |           |      |      |      |
|                    |           | 12,5  | 9,32  | 38,0                                        | 22,0 | 19,0 |           |           |      |      |      |
|                    |           | 13    | 9,69  | 41,1                                        | 24,1 | 21,4 |           |           |      |      |      |
|                    |           | 14    | 10,44 | 43,5                                        | 25,5 | 22,7 |           |           |      |      |      |
|                    |           | 15    | 11,19 | 46,0                                        | 27,0 | 24,0 |           |           |      |      |      |

**Note: Calculated theoretical current in bold**  
Intermediate Nominal Currents upon request.

EBARA MOTOR NOMINAL CURRENT

| Models             |             | Power |       | Nominal Current (A) |       |       |           |      |      |
|--------------------|-------------|-------|-------|---------------------|-------|-------|-----------|------|------|
|                    |             |       |       | Three-Phase         |       |       | Monophase |      |      |
|                    |             | HP    | kW    | 220V                | 380V  | 440V  | 220V      | 254V | 440V |
| 6" WELLS OR LARGER | M6G         | 16    | 11,93 | 54,2                | 31,4  | 27,0  |           |      |      |
|                    |             | 17    | 12,68 | 56,3                | 32,7  | 28,2  |           |      |      |
|                    |             | 18    | 13,42 | 58,6                | 34,0  | 29,3  |           |      |      |
|                    |             | 19    | 14,17 | 60,9                | 35,3  | 30,4  |           |      |      |
|                    |             | 20    | 14,91 | 62,9                | 36,5  | 31,4  |           |      |      |
|                    |             | 22,5  | 16,78 | 67,0                | 39,1  | 33,5  |           |      |      |
|                    |             | 25    | 18,64 | 72,9                | 42,5  | 36,4  |           |      |      |
|                    |             | 27,5  | 20,51 | 80,2                | 46,2  | 40,5  |           |      |      |
|                    |             | 30    | 22,37 | 85,9                | 49,5  | 43,4  |           |      |      |
|                    |             | 32,5  | 24,24 | 98,7                | 55,1  | 48,0  |           |      |      |
|                    |             | 35    | 26,10 | 104,1               | 60,2  | 52,0  |           |      |      |
|                    |             | 37,5  | 27,96 | 111,2               | 63,8  | 55,1  |           |      |      |
|                    |             | 40    | 29,83 | 117,3               | 67,3  | 58,2  |           |      |      |
|                    | MI6P - INOX | 1,5   | 1,12  | 6,9                 | 4,0   | 3,5   |           |      |      |
|                    |             | 2     | 1,49  | 8,2                 | 4,7   | 4,1   |           |      |      |
|                    |             | 3     | 2,24  | 11,3                | 6,5   | 6,2   |           |      |      |
|                    |             | 3,5   | 2,61  | 13,2                | 7,7   | 6,7   |           |      |      |
|                    |             | 4     | 2,98  | 14                  | 8,4   | 7,3   |           |      |      |
|                    |             | 4,5   | 3,36  | 14,6                | 8,4   | 8,0   |           |      |      |
|                    |             | 5     | 3,73  | 15,5                | 8,9   | 8,5   |           |      |      |
|                    |             | 5,5   | 4,10  | 18,4                | 10,8  | 9,4   |           |      |      |
|                    |             | 6     | 4,47  | 19,6                | 11,3  | 10,1  |           |      |      |
|                    |             | 6,5   | 4,85  | 21,0                | 12,3  | 10,7  |           |      |      |
|                    |             | 7     | 5,22  | 22,1                | 13,0  | 11,3  |           |      |      |
|                    |             | 7,5   | 5,59  | 23,3                | 13,7  | 11,9  |           |      |      |
|                    |             | 8     | 5,97  | 24,9                | 14,4  | 12,5  |           |      |      |
|                    |             | 9     | 6,71  | 29,8                | 17,5  | 15,2  |           |      |      |
|                    |             | 10    | 7,46  | 31,7                | 18,3  | 15,9  |           |      |      |
|                    |             | 11    | 8,20  | 35,4                | 20,8  | 18,1  |           |      |      |
|                    |             | 12,5  | 9,32  | 38,6                | 22,3  | 19,3  |           |      |      |
|                    |             | 13    | 9,69  | 40,3                | 23,7  | 20,6  |           |      |      |
|                    |             | 14    | 10,44 | 42,6                | 25,1  | 21,8  |           |      |      |
|                    |             | 15    | 11,19 | 47,2                | 27,2  | 23,6  |           |      |      |
|                    | MI6G - INOX | 16    | 11,93 | 51,1                | 30,1  | 26,1  |           |      |      |
|                    |             | 17    | 12,68 | 53,4                | 31,4  | 27,3  |           |      |      |
|                    |             | 18    | 13,42 | 55,6                | 32,7  | 28,4  |           |      |      |
|                    |             | 19    | 14,17 | 57,9                | 34,0  | 29,6  |           |      |      |
|                    |             | 20    | 14,91 | 61,7                | 35,6  | 30,9  |           |      |      |
|                    |             | 22,5  | 16,78 | 66,5                | 39,1  | 34,0  |           |      |      |
|                    |             | 25    | 18,64 | 74,6                | 43,1  | 37,3  |           |      |      |
|                    |             | 27,5  | 20,51 | 79,2                | 46,6  | 40,5  |           |      |      |
|                    |             | 30    | 22,37 | 86,3                | 49,9  | 43,2  |           |      |      |
|                    |             | 32,5  | 24,24 | 93,3                | 54,9  | 47,7  |           |      |      |
|                    |             | 35    | 26,10 | 101,2               | 59,5  | 51,7  |           |      |      |
|                    |             | 37,5  | 27,96 | 107,3               | 63,1  | 54,9  |           |      |      |
|                    |             | 40    | 29,83 | 113,5               | 65,6  | 56,8  |           |      |      |
|                    |             | 45    | 33,56 | 129,6               | 76,2  | 66,3  |           |      |      |
|                    |             | 50    | 37,28 | 140,5               | 81,2  | 70,3  |           |      |      |
|                    |             | 55    | 41,01 | 157,1               | 92,4  | 80,3  |           |      |      |
|                    |             | 60    | 44,74 | 170,1               | 100,1 | 87,0  |           |      |      |
| 8" WELLS OR LARGER | M8          | 30    | 22,37 | 91,2                | 49,5  | 42,6  |           |      |      |
|                    |             | 32,5  | 24,24 | 101,3               | 55,0  | 47,3  |           |      |      |
|                    |             | 35    | 26,10 | 106,8               | 58,0  | 49,9  |           |      |      |
|                    |             | 37,5  | 27,96 | 110,1               | 59,8  | 51,5  |           |      |      |
|                    |             | 40    | 29,83 | 113,7               | 66,0  | 56,9  |           |      |      |
|                    |             | 45    | 33,56 | 127,3               | 73,9  | 64,7  |           |      |      |
|                    |             | 50    | 37,28 | 141,7               | 82,0  | 70,9  |           |      |      |
|                    |             | 55    | 41,01 | 163,5               | 95,0  | 81,7  |           |      |      |
|                    |             | 60    | 44,74 | 175,0               | 102,0 | 88,0  |           |      |      |
|                    | M8S         | 65    | 48,47 | 186,0               | 107,0 | 91,7  |           |      |      |
|                    |             | 70    | 52,20 | 198,1               | 114,0 | 97,7  |           |      |      |
|                    |             | 75    | 55,93 | 210,3               | 121,0 | 103,7 |           |      |      |
|                    | MI8 - INOX  | 40    | 29,83 | 113,0               | 65,2  | 56,5  |           |      |      |
|                    |             | 50    | 37,28 | 141,9               | 81,9  | 71,0  |           |      |      |
|                    |             | 60    | 44,74 | 164,4               | 94,9  | 82,2  |           |      |      |
|                    |             | 70    | 52,20 | 193,1               | 111,5 | 96,6  |           |      |      |

Note: Calculated theoretical current in bold  
Intermediate Nominal Currents upon request.

# EBARA MOTOR NOMINAL CURRENT

| Models              |             | Power |        | Nominal Current (A) |              |              |      |
|---------------------|-------------|-------|--------|---------------------|--------------|--------------|------|
|                     |             |       |        | Three-phase         |              |              |      |
|                     |             | HP    | kW     | 220V                | 380V         | 440V         | 660V |
| 8" WELLS OR LARGER  | MI8S - INOX | 80    | 59,66  | 217,4               | 125,5        | 108,7        |      |
|                     |             | 85    | 63,38  | <b>226,5</b>        | <b>133,2</b> | <b>115,8</b> |      |
|                     |             | 90    | 67,11  | <b>243,0</b>        | <b>142,9</b> | <b>124,3</b> |      |
|                     |             | 95    | 70,84  | <b>253,1</b>        | <b>148,9</b> | <b>129,5</b> |      |
|                     |             | 100   | 74,57  | 263,3               | 152,0        | 131,7        |      |
|                     |             | 105   | 78,30  | <b>306,0</b>        | <b>180,0</b> | <b>156,5</b> |      |
|                     |             | 110   | 82,03  | <b>316,9</b>        | <b>186,4</b> | <b>162,1</b> |      |
|                     |             | 115   | 85,76  | <b>327,4</b>        | <b>192,6</b> | <b>167,5</b> |      |
|                     |             | 120   | 89,48  | <b>339,2</b>        | <b>199,6</b> | <b>173,5</b> |      |
|                     |             | 125   | 93,21  | <b>344,7</b>        | <b>202,8</b> | <b>176,3</b> |      |
|                     |             | 130   | 96,94  | <b>350,5</b>        | <b>206,2</b> | <b>179,3</b> |      |
|                     |             | 135   | 100,67 | <b>356,1</b>        | <b>209,5</b> | <b>182,2</b> |      |
|                     |             | 140   | 104,40 | <b>369,1</b>        | <b>217,1</b> | <b>188,8</b> |      |
|                     |             | 145   | 108,13 | <b>382,0</b>        | <b>224,7</b> | <b>195,4</b> |      |
|                     |             | 150   | 111,85 | <b>396,8</b>        | <b>233,4</b> | <b>203,0</b> |      |
| 10" WELLS OR LARGER | M10         | 80    | 59,66  | -                   | 153,0        | <b>133,8</b> |      |
|                     |             | 85    | 63,38  | -                   | 160,0        | <b>139,9</b> |      |
|                     |             | 90    | 67,11  | -                   | 163,0        | <b>142,5</b> |      |
|                     |             | 100   | 74,57  | -                   | 178,0        | <b>155,6</b> |      |
|                     |             | 110   | 82,03  | -                   | <b>187,3</b> | <b>156,1</b> |      |
|                     |             | 115   | 85,76  | -                   | <b>195,1</b> | <b>170,7</b> |      |
|                     |             | 120   | 89,48  | -                   | <b>202,9</b> | <b>177,6</b> |      |
|                     |             | 125   | 93,21  | -                   | 210,0        | <b>183,6</b> |      |
|                     |             | 130   | 96,94  | -                   | <b>216,5</b> | <b>189,3</b> |      |
|                     |             | 135   | 100,67 | -                   | <b>225,5</b> | <b>193,6</b> |      |
|                     |             | 140   | 104,40 | -                   | <b>227,3</b> | <b>195,1</b> |      |
|                     |             | 145   | 108,13 | -                   | <b>235,2</b> | <b>201,9</b> |      |
|                     |             | 150   | 111,85 | -                   | 245,0        | <b>210,4</b> |      |
|                     |             | 155   | 115,58 | -                   | <b>251,2</b> | <b>216,4</b> |      |
|                     |             | 160   | 119,31 | -                   | <b>260,5</b> | <b>224,9</b> |      |
|                     |             | 165   | 123,04 | -                   | <b>270,2</b> | <b>233,4</b> |      |
|                     |             | 170   | 126,77 | -                   | <b>279,0</b> | <b>242,0</b> |      |
|                     |             | 175   | 130,50 | -                   | 315,0        | <b>271,2</b> |      |
|                     |             | 180   | 134,23 | -                   | <b>325,3</b> | <b>279,6</b> |      |
|                     |             | 185   | 137,95 | -                   | <b>333,3</b> | <b>286,0</b> |      |
| 12" WELLS           | M12         | 190   | 141,68 | -                   | <b>341,2</b> | <b>294,6</b> |      |
|                     |             | 195   | 145,41 | -                   | <b>348,9</b> | <b>303,2</b> |      |
|                     |             | 200   | 149,14 | -                   | 357,0        | <b>309,8</b> |      |
|                     |             | 205   | 152,87 | -                   | <b>349,2</b> | <b>273,7</b> |      |
|                     |             | 210   | 156,60 | -                   | <b>356,3</b> | <b>279,3</b> |      |
|                     |             | 215   | 160,33 | -                   | <b>363,6</b> | <b>285,0</b> |      |
|                     |             | 225   | 167,78 | -                   | <b>371,0</b> | <b>300,0</b> |      |
|                     |             | 235   | 175,24 | -                   | <b>378,6</b> | <b>315,8</b> |      |
|                     |             | 240   | 178,97 | -                   | <b>386,3</b> | <b>332,4</b> |      |
|                     |             | 250   | 186,42 | -                   | 400,0        | 345,0        |      |
|                     |             | 255   | 190,15 | -                   | <b>413,5</b> | <b>354,0</b> |      |
|                     |             | 260   | 193,88 | -                   | <b>421,5</b> | <b>363,0</b> |      |
|                     |             | 265   | 197,61 | -                   | <b>430,0</b> | <b>372,0</b> |      |
|                     |             | 270   | 201,34 | -                   | <b>438,0</b> | <b>381,0</b> |      |
|                     |             | 275   | 205,07 | -                   | <b>446,0</b> | <b>388,0</b> |      |
|                     |             | 280   | 208,80 | -                   | <b>454,0</b> | <b>395,0</b> |      |
|                     |             | 285   | 212,52 | -                   | <b>459,0</b> | <b>400,5</b> |      |
|                     |             | 290   | 216,25 | -                   | <b>464,0</b> | <b>405,5</b> |      |
|                     |             | 295   | 219,98 | -                   | <b>469,0</b> | <b>411,0</b> |      |
|                     |             | 300   | 223,71 | -                   | <b>474,0</b> | <b>416,0</b> |      |
|                     |             | 305   | 227,44 | -                   | <b>481,5</b> | <b>422,0</b> |      |
|                     |             | 310   | 231,17 | -                   | <b>489,5</b> | <b>427,5</b> |      |
|                     |             | 315   | 234,90 | -                   | <b>497,0</b> | <b>433,5</b> |      |
|                     |             | 320   | 238,62 | -                   | <b>504,5</b> | <b>439,5</b> |      |
|                     |             | 325   | 242,35 | -                   | <b>512,0</b> | <b>445,0</b> |      |
|                     |             | 330   | 246,08 | -                   | <b>520,0</b> | <b>452,0</b> |      |
|                     |             | 335   | 249,81 | -                   | <b>527,5</b> | <b>459,0</b> |      |
|                     |             | 340   | 253,54 | -                   | <b>535,0</b> | <b>466,0</b> |      |
|                     |             | 345   | 257,27 | -                   | <b>542,5</b> | <b>473,0</b> |      |
|                     |             | 350   | 260,99 | -                   | <b>550,0</b> | <b>480,0</b> |      |

Note: Calculated theoretical current in bold  
Intermediate Nominal Currents upon request.

# SUBMERSIBLE CABLE SELECTION CHART

| CABLE MAXIMUM LENGHT IN 220V THREE-PHASE 50Hz |            |            |                                         |     |     |     |     |      |     |     |     |     |     |     |    |    |
|-----------------------------------------------|------------|------------|-----------------------------------------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|----|----|
| MOTOR MODEL                                   | POWER (HP) | POWER (KW) | CABLE SECTION IN mm² - 220V THREE-PHASE |     |     |     |     |      |     |     |     |     |     |     |    |    |
|                                               |            |            | 2,5                                     |     | 4   |     | 6   |      | 10  |     | 16  |     | 25  |     | 35 |    |
|                                               |            |            | 4%                                      | 7%  | 4%  | 7%  | 4%  | 7%   | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4% | 7% |
| M4P2 / M4C2                                   | 0,5        | 0,37       | 313                                     | 548 | 499 | 872 | 738 | 1291 |     |     |     |     |     |     |    |    |
|                                               | 0,75       | 0,56       | 203                                     | 354 | 323 | 565 | 479 | 837  |     |     |     |     |     |     |    |    |
|                                               | 1          | 0,75       | 139                                     | 243 | 222 | 388 | 329 | 576  | 547 | 957 |     |     |     |     |    |    |
|                                               | 1,5        | 1,12       | 105                                     | 184 | 168 | 294 | 249 | 436  | 414 | 725 |     |     |     |     |    |    |
|                                               | 2          | 1,49       | 81                                      | 141 | 129 | 226 | 192 | 335  | 318 | 557 | 497 | 871 |     |     |    |    |
| M4P7 / M4A                                    | 2,5        | 1,86       | 78                                      | 136 | 124 | 217 | 184 | 321  | 304 | 532 | 473 | 827 |     |     |    |    |
|                                               | 3          | 2,24       | 61                                      | 107 | 97  | 170 | 144 | 253  | 239 | 419 | 373 | 654 |     |     |    |    |
|                                               | 3,5        | 2,61       | 47                                      | 82  | 74  | 130 | 110 | 193  | 183 | 321 | 287 | 501 | 439 | 769 |    |    |
|                                               | 4          | 2,98       | 39                                      | 69  | 63  | 110 | 94  | 164  | 156 | 272 | 243 | 426 | 374 | 655 |    |    |

| CABLE MAXIMUM LENGHT IN 380V THREE-PHASE 50Hz |            |            |                                         |      |     |     |     |      |     |     |    |    |    |    |    |    |
|-----------------------------------------------|------------|------------|-----------------------------------------|------|-----|-----|-----|------|-----|-----|----|----|----|----|----|----|
| MOTOR MODEL                                   | POWER (HP) | POWER (HP) | CABLE SECTION IN mm² - 380V THREE-PHASE |      |     |     |     |      |     |     |    |    |    |    |    |    |
|                                               |            |            | 2,5                                     |      | 4   |     | 6   |      | 10  |     | 16 |    | 25 |    | 35 |    |
|                                               |            |            | 4%                                      | 7%   | 4%  | 7%  | 4%  | 7%   | 4%  | 7%  | 4% | 7% | 4% | 7% | 4% | 7% |
| M4P2 / M4C2                                   | 0,5        | 0,37       | 736                                     | 1288 |     |     |     |      |     |     |    |    |    |    |    |    |
|                                               | 0,75       | 0,56       | 569                                     | 996  |     |     |     |      |     |     |    |    |    |    |    |    |
|                                               | 1          | 0,75       | 463                                     | 810  |     |     |     |      |     |     |    |    |    |    |    |    |
|                                               | 1,5        | 1,12       | 314                                     | 549  | 501 | 877 |     |      |     |     |    |    |    |    |    |    |
|                                               | 2          | 1,49       | 270                                     | 472  | 430 | 753 | 639 | 1118 |     |     |    |    |    |    |    |    |
| M4P7 / M4A                                    | 2,5        | 1,86       | 206                                     | 360  | 329 | 575 | 488 | 854  |     |     |    |    |    |    |    |    |
|                                               | 3          | 2,24       | 161                                     | 282  | 257 | 450 | 382 | 668  |     |     |    |    |    |    |    |    |
|                                               | 3,5        | 2,61       | 129                                     | 226  | 206 | 361 | 306 | 535  |     |     |    |    |    |    |    |    |
|                                               | 4          | 2,98       | 123                                     | 215  | 196 | 343 | 291 | 509  | 483 | 845 |    |    |    |    |    |    |

| CABLE MAXIMUM LENGHT IN 440V THREE-PHASE 50Hz |            |            |                             |      |     |      |     |     |    |    |    |    |    |    |    |    |
|-----------------------------------------------|------------|------------|-----------------------------|------|-----|------|-----|-----|----|----|----|----|----|----|----|----|
| MOTOR MODEL                                   | POWER (HP) | POWER (KW) | CABLE SECTION IN mm² - 440V |      |     |      |     |     |    |    |    |    |    |    |    |    |
|                                               |            |            | 2,5                         |      | 4   |      | 6   |     | 10 |    | 16 |    | 25 |    | 35 |    |
|                                               |            |            | 4%                          | 7%   | 4%  | 7%   | 4%  | 7%  | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% |
| M4P2 / M4C2                                   | 0,5        | 0,37       | 1237                        | 2165 |     |      |     |     |    |    |    |    |    |    |    |    |
|                                               | 0,75       | 0,56       | 928                         | 1624 |     |      |     |     |    |    |    |    |    |    |    |    |
|                                               | 1          | 0,75       | 721                         | 1262 |     |      |     |     |    |    |    |    |    |    |    |    |
|                                               | 1,5        | 1,12       | 478                         | 837  |     |      |     |     |    |    |    |    |    |    |    |    |
|                                               | 2          | 1,49       | 395                         | 692  | 631 | 1104 |     |     |    |    |    |    |    |    |    |    |
| M4P7 / M4A                                    | 2,5        | 1,86       | 287                         | 502  | 458 | 801  |     |     |    |    |    |    |    |    |    |    |
|                                               | 3          | 2,24       | 227                         | 398  | 363 | 635  | 540 | 945 |    |    |    |    |    |    |    |    |
|                                               | 3,5        | 2,61       | 192                         | 336  | 306 | 536  | 455 | 796 |    |    |    |    |    |    |    |    |
|                                               | 4          | 2,98       | 187                         | 327  | 298 | 522  | 443 | 775 |    |    |    |    |    |    |    |    |

## NOTE:

1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP 6.2.7)
2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP 30 ° C.
3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

# SUBMERSIBLE CABLE SELECTION CHART

| CABLE MAXIMUM LENGHT IN 380V THREE-PHASE 50Hz |            |            |                                         |     |     |     |     |     |     |     |     |
|-----------------------------------------------|------------|------------|-----------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| MOTOR MODEL                                   | POWER (HP) | POWER (KW) | CABLE SECTION IN mm² - 380V THREE-PHASE |     |     |     |     |     |     |     |     |
|                                               |            |            | 70                                      | 95  | 120 | 150 | 185 | 240 | 300 | 400 | 500 |
|                                               |            |            | 5%                                      | 5%  | 5%  | 5%  | 5%  | 5%  | 5%  | 5%  | 5%  |
| M10                                           | 80         | 59,66      | 227                                     | 296 | 354 | 374 | 430 |     |     |     |     |
|                                               | 85         | 63,38      | 216                                     | 282 | 338 | 358 | 412 |     |     |     |     |
|                                               | 90         | 67,11      | 211                                     | 275 | 330 | 352 | 406 |     |     |     |     |
|                                               | 100        | 74,57      |                                         | 251 | 302 | 323 | 373 | 437 |     |     |     |
|                                               | 110        | 82,03      |                                         | 245 | 292 | 305 | 348 | 402 |     |     |     |
|                                               | 115        | 85,76      |                                         | 233 | 278 | 293 | 336 | 389 |     |     |     |
|                                               | 120        | 89,48      |                                         |     | 267 | 282 | 324 | 376 |     |     |     |
|                                               | 125        | 93,21      |                                         |     | 258 | 273 | 313 | 364 |     |     |     |
|                                               | 130        | 96,94      |                                         |     | 249 | 265 | 306 | 357 |     |     |     |
|                                               | 135        | 100,67     |                                         |     | 239 | 255 | 293 | 343 |     |     |     |
|                                               | 140        | 104,40     |                                         |     | 237 | 253 | 291 | 340 | 381 |     |     |
|                                               | 145        | 108,13     |                                         |     | 229 | 244 | 281 | 329 | 368 |     |     |
|                                               | 150        | 111,86     |                                         |     |     | 234 | 270 | 315 | 354 |     |     |
|                                               | 155        | 115,58     |                                         |     |     | 228 | 260 | 301 | 335 |     |     |
|                                               | 160        | 119,31     |                                         |     |     | 221 | 256 | 301 | 339 |     |     |
|                                               | 165        | 123,04     |                                         |     |     | 212 | 243 | 283 | 316 |     |     |
|                                               | 170        | 126,77     |                                         |     |     |     | 237 | 277 | 311 |     |     |
|                                               | 175        | 130,50     |                                         |     |     |     |     | 245 | 275 | 308 |     |
|                                               | 180        | 134,23     |                                         |     |     |     |     | 238 | 266 | 298 |     |
|                                               | 185        | 137,95     |                                         |     |     |     |     | 233 | 262 | 294 |     |
|                                               | 190        | 141,68     |                                         |     |     |     |     | 231 | 261 | 295 |     |
|                                               | 195        | 145,41     |                                         |     |     |     |     | 226 | 256 | 288 |     |
|                                               | 200        | 149,14     |                                         |     |     |     |     | 218 | 245 | 275 |     |
| M12                                           | 205        | 152,87     |                                         |     |     |     |     | 218 | 243 | 270 |     |
|                                               | 210        | 156,60     |                                         |     |     |     |     | 211 | 234 | 259 |     |
|                                               | 215        | 160,33     |                                         |     |     |     |     | 206 | 229 | 254 |     |
|                                               | 225        | 167,78     |                                         |     |     |     |     |     | 234 | 262 | 287 |
|                                               | 235        | 175,24     |                                         |     |     |     |     |     | 224 | 249 | 272 |
|                                               | 240        | 178,97     |                                         |     |     |     |     |     | 218 | 242 | 264 |
|                                               | 250        | 186,43     |                                         |     |     |     |     |     | 219 | 245 | 270 |
|                                               | 255        | 190,15     |                                         |     |     |     |     |     | 211 | 237 | 261 |
|                                               | 260        | 193,88     |                                         |     |     |     |     |     | 207 | 233 | 256 |
|                                               | 265        | 197,61     |                                         |     |     |     |     |     |     | 228 | 251 |
|                                               | 270        | 201,34     |                                         |     |     |     |     |     |     | 227 | 250 |
|                                               | 275        | 205,07     |                                         |     |     |     |     |     |     | 220 | 242 |
|                                               | 280        | 208,80     |                                         |     |     |     |     |     |     | 219 | 241 |
|                                               | 285        | 212,52     |                                         |     |     |     |     |     |     | 216 | 239 |
|                                               | 290        | 216,25     |                                         |     |     |     |     |     |     | 214 | 236 |
|                                               | 295        | 219,98     |                                         |     |     |     |     |     |     | 212 | 234 |
|                                               | 300        | 223,71     |                                         |     |     |     |     |     |     | 212 | 235 |
|                                               | 305        | 227,44     |                                         |     |     |     |     |     |     | 206 | 228 |
|                                               | 310        | 231,17     |                                         |     |     |     |     |     |     | 203 | 224 |
|                                               | 315        | 234,90     |                                         |     |     |     |     |     |     | 202 | 224 |
|                                               | 320        | 238,62     |                                         |     |     |     |     |     |     | 199 | 220 |
|                                               | 325        | 242,35     |                                         |     |     |     |     |     |     |     | 217 |
|                                               | 330        | 246,08     |                                         |     |     |     |     |     |     |     | 217 |
|                                               | 335        | 249,81     |                                         |     |     |     |     |     |     |     | 211 |
|                                               | 340        | 253,54     |                                         |     |     |     |     |     |     |     | 208 |
|                                               | 345        | 257,27     |                                         |     |     |     |     |     |     |     | 205 |
|                                               | 350        | 261,00     |                                         |     |     |     |     |     |     |     | 205 |

**NOTE:**

1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP. 6.2.7)

2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP: 30 ° C.

3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

# SUBMERSIBLE CABLE SELECTION CHART

| CABLE MAXIMUM LENGHT IN 440V THREE-PHASE 50Hz |            |            |                                         |     |     |     |     |     |     |     |     |
|-----------------------------------------------|------------|------------|-----------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| MOTOR<br>MODEL                                | POWER (HP) | POWER (KW) | CABLE SECTION IN mm² - 440V THREE-PHASE |     |     |     |     |     |     |     |     |
|                                               |            |            | 70                                      | 95  | 120 | 150 | 185 | 240 | 300 | 400 | 500 |
|                                               |            |            | 5%                                      | 5%  | 5%  | 5%  | 5%  | 5%  | 5%  | 5%  | 5%  |
| M10                                           | 80         | 59,66      | 301                                     | 392 | 469 | 496 | 569 |     |     |     |     |
|                                               | 85         | 63,38      | 286                                     | 373 | 447 | 474 | 546 |     |     |     |     |
|                                               | 90         | 67,11      | 279                                     | 365 | 438 | 467 | 538 |     |     |     |     |
|                                               | 100        | 74,57      | 254                                     | 333 | 400 | 428 | 494 |     |     |     |     |
|                                               | 110        | 82,03      | 265                                     | 342 | 407 | 424 | 483 |     |     |     |     |
|                                               | 115        | 85,76      |                                         | 310 | 370 | 388 | 443 |     |     |     |     |
|                                               | 120        | 89,48      |                                         | 296 | 354 | 373 | 427 |     |     |     |     |
|                                               | 125        | 93,21      |                                         | 288 | 344 | 360 | 412 |     |     |     |     |
|                                               | 130        | 96,94      |                                         | 274 | 329 | 351 | 405 |     |     |     |     |
|                                               | 135        | 100,67     |                                         | 268 | 322 | 343 | 396 |     |     |     |     |
|                                               | 140        | 104,40     |                                         | 266 | 320 | 341 | 393 | 458 |     |     |     |
|                                               | 145        | 108,13     |                                         | 256 | 308 | 330 | 381 | 446 |     |     |     |
|                                               | 150        | 111,86     |                                         |     | 296 | 317 | 366 | 428 | 481 |     |     |
|                                               | 155        | 115,58     |                                         |     | 291 | 306 | 351 | 407 | 453 |     |     |
|                                               | 160        | 119,31     |                                         |     | 276 | 298 | 345 | 407 | 459 |     |     |
|                                               | 165        | 123,04     |                                         |     | 265 | 289 | 337 | 399 | 453 |     |     |
|                                               | 170        | 126,77     |                                         |     |     | 275 | 317 | 370 | 415 |     |     |
|                                               | 175        | 130,50     |                                         |     |     | 245 | 282 | 330 | 370 |     |     |
|                                               | 180        | 134,23     |                                         |     |     |     | 274 | 320 | 359 | 402 |     |
|                                               | 185        | 137,95     |                                         |     |     |     | 269 | 315 | 354 | 397 |     |
|                                               | 190        | 141,68     |                                         |     |     |     | 260 | 304 | 341 | 381 | 419 |
| M12                                           | 195        | 145,41     |                                         |     |     |     | 253 | 295 | 331 | 371 | 407 |
|                                               | 200        | 149,14     |                                         |     |     |     | 248 | 291 | 327 | 367 | 404 |
|                                               | 205        | 152,87     |                                         |     |     |     | 277 | 321 | 358 | 399 | 436 |
|                                               | 210        | 156,60     |                                         |     |     |     | 271 | 314 | 349 | 388 | 423 |
|                                               | 215        | 160,33     |                                         |     |     |     | 266 | 309 | 344 | 383 | 419 |
|                                               | 225        | 167,78     |                                         |     |     |     | 260 | 307 | 348 | 393 | 436 |
|                                               | 235        | 175,24     |                                         |     |     |     |     | 280 | 313 | 349 | 382 |
|                                               | 240        | 178,97     |                                         |     |     |     |     | 265 | 295 | 329 | 359 |
|                                               | 250        | 186,43     |                                         |     |     |     |     | 270 | 306 | 347 | 386 |
|                                               | 255        | 190,15     |                                         |     |     |     |     | 263 | 299 | 338 | 376 |
|                                               | 260        | 193,88     |                                         |     |     |     |     | 246 | 276 | 310 | 340 |
|                                               | 265        | 197,61     |                                         |     |     |     |     |     | 268 | 299 | 328 |
|                                               | 270        | 201,34     |                                         |     |     |     |     |     | 263 | 295 | 324 |
|                                               | 275        | 205,07     |                                         |     |     |     |     |     | 259 | 290 | 318 |
|                                               | 280        | 208,80     |                                         |     |     |     |     |     | 254 | 284 | 313 |
|                                               | 285        | 212,52     |                                         |     |     |     |     |     | 251 | 281 | 308 |
|                                               | 290        | 216,25     |                                         |     |     |     |     |     | 250 | 280 | 309 |
|                                               | 295        | 219,98     |                                         |     |     |     |     |     | 244 | 273 | 300 |
|                                               | 300        | 223,71     |                                         |     |     |     |     |     | 243 | 273 | 301 |
|                                               | 305        | 227,44     |                                         |     |     |     |     |     | 240 | 269 | 296 |
|                                               | 310        | 231,17     |                                         |     |     |     |     |     |     | 266 | 293 |
|                                               | 315        | 234,90     |                                         |     |     |     |     |     |     | 265 | 293 |
|                                               | 320        | 238,62     |                                         |     |     |     |     |     |     | 258 | 285 |
|                                               | 325        | 242,35     |                                         |     |     |     |     |     |     | 255 | 281 |
|                                               | 330        | 246,08     |                                         |     |     |     |     |     |     | 254 | 281 |
|                                               | 335        | 249,81     |                                         |     |     |     |     |     |     | 250 | 276 |
|                                               | 340        | 253,54     |                                         |     |     |     |     |     |     | 247 | 272 |
|                                               | 345        | 257,27     |                                         |     |     |     |     |     |     | 243 | 268 |
|                                               | 350        | 261,00     |                                         |     |     |     |     |     |     | 239 | 264 |

NOTE:  
1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP 6.2.7)  
2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP. 30 ° C.  
3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

**CABLE MAXIMUM LENGHT IN 220V THREE-PHASE 50HZ**

**HEIGHT IN 220V THREE-PHASE 50Hz  
CABLE SECTION IN mm<sup>2</sup> - 220V THREE-PHASE**

1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP. 6.2.7)
2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP. 30 °C.
3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

| CABLE MAXIMUM LENGTH IN 220V THREE-PHASE 50Hz |               |               |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------------------------|---------------|---------------|-----------------------------------------------------|----|---|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MOTOR<br>MODEL                                | POWER<br>(HP) | POWER<br>(KW) | CABLE SECTION IN mm <sup>2</sup> - 220V THREE-PHASE |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               |               |               | 2.5                                                 | 4  | 6 | 10 | 16 | 25 | 35 | 50  | 70  | 95  | 120 | 150 | 185 | 240 | 300 | 400 |     |     |     |     |     |     |     |     |
| M8 / M8S                                      | 30            | 22,37         | 4%                                                  | 7% |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               | 32,5          | 24,24         |                                                     |    |   |    |    |    | 95 | 166 | 125 | 218 | 173 | 302 | 226 | 396 | 272 | 477 | 293 | 513 | 339 | 593 |     |     |     |     |
|                                               | 35            | 26,10         |                                                     |    |   |    |    |    | 85 | 149 | 112 | 196 | 155 | 272 | 204 | 356 | 245 | 429 | 264 | 462 | 305 | 534 |     |     |     |     |
|                                               | 37,5          | 27,96         |                                                     |    |   |    |    |    | 81 | 142 | 106 | 186 | 147 | 258 | 193 | 338 | 233 | 407 | 250 | 438 | 289 | 506 |     |     |     |     |
|                                               | 40            | 29,83         |                                                     |    |   |    |    |    |    |     | 102 | 178 | 142 | 248 | 186 | 326 | 225 | 394 | 244 | 427 | 284 | 497 |     |     |     |     |
|                                               | 45            | 33,56         |                                                     |    |   |    |    |    |    |     | 99  | 174 | 138 | 241 | 181 | 317 | 218 | 382 | 236 | 412 | 273 | 478 |     |     |     |     |
|                                               | 50            | 37,29         |                                                     |    |   |    |    |    | 89 | 155 | 123 | 215 | 162 | 283 | 195 | 341 | 211 | 368 | 244 | 427 | 287 | 503 |     |     |     |     |
|                                               | 55            | 41,01         |                                                     |    |   |    |    |    |    |     | 110 | 192 | 145 | 253 | 175 | 305 | 190 | 332 | 220 | 385 | 260 | 455 | 294 | 515 |     |     |
|                                               | 60            | 44,74         |                                                     |    |   |    |    |    |    |     | 95  | 167 | 125 | 220 | 152 | 265 | 165 | 288 | 191 | 335 | 226 | 395 | 255 | 447 | 289 | 505 |
|                                               | 65            | 48,47         |                                                     |    |   |    |    |    |    |     |     | 117 | 205 | 142 | 248 | 154 | 269 | 179 | 313 | 211 | 369 | 239 | 418 | 270 | 472 |     |
| M8S / M8S                                     | 70            | 52,20         |                                                     |    |   |    |    |    |    |     |     | 110 | 193 | 133 | 233 | 145 | 253 | 168 | 294 | 198 | 347 | 225 | 393 | 254 | 444 |     |
|                                               | 75            | 55,93         |                                                     |    |   |    |    |    |    |     |     | 103 | 181 | 125 | 219 | 136 | 239 | 159 | 278 | 188 | 329 | 213 | 373 | 242 | 423 |     |
|                                               | 80            | 59,66         |                                                     |    |   |    |    |    |    |     |     |     |     | 120 | 210 | 126 | 220 | 144 | 252 | 167 | 291 | 185 | 325 | 206 | 361 |     |
|                                               | 85            | 63,38         |                                                     |    |   |    |    |    |    |     |     |     |     | 114 | 199 | 124 | 216 | 144 | 252 | 170 | 297 | 192 | 336 | 217 | 380 |     |
|                                               | 90            | 67,11         |                                                     |    |   |    |    |    |    |     |     |     |     | 110 | 192 | 118 | 206 | 137 | 239 | 160 | 280 | 181 | 316 | 203 | 355 |     |
|                                               | 95            | 70,84         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     | 110 | 192 | 127 | 223 | 149 | 261 | 168 | 294 | 189 | 331 |     |
|                                               | 100           | 74,57         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     | 105 | 183 | 120 | 209 | 138 | 242 | 154 | 270 | 171 | 300 |     |
|                                               | 105           | 78,30         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     | 102 | 178 | 118 | 207 | 139 | 243 | 157 | 274 | 177 | 309 |     |
|                                               | 110           | 82,03         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     | 99  | 174 | 115 | 201 | 128 | 224 | 143 | 250 |     |     |     |
|                                               | 115           | 85,76         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     | 112 | 195 | 125 | 218 | 139 | 243 |     |
| M8S / M8S                                     | 120           | 89,48         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     | 109 | 190 | 122 | 213 | 136 | 238 |     |
|                                               | 125           | 93,21         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     | 105 | 185 | 118 | 207 | 132 | 232 |     |
|                                               | 130           | 96,94         |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     | 105 | 184 | 119 | 208 | 133 | 233 |     |
|                                               | 135           | 100,67        |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     | 106 | 186 | 121 | 211 | 137 | 239 |     |
|                                               | 140           | 104,40        |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     | 106 | 185 | 120 | 211 | 137 | 239 |     |
|                                               | 145           | 108,13        |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               | 150           | 111,86        |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               |               |               |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               |               |               |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               |               |               |                                                     |    |   |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

NOTE:  
 1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP 6.2.7)  
 2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP. 30 ° C.  
 3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.



# SUBMERSIBLE CABLE SELECTION CHART

| CABLE MAXIMUM LENGTH IN 380V THREE-PHASE 50Hz |               |               |                                         |      |      |      |     |      |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|-----------------------------------------------|---------------|---------------|-----------------------------------------|------|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|----|--|--|
| MOTOR<br>MODEL                                | POWER<br>(HP) | POWER<br>(KW) | CABLE SECTION IN mm² - 380V THREE-PHASE |      |      |      |     |      |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               |               |               | 2.5                                     |      | 4    |      | 6   |      | 10  |     | 16  |     | 25  |     | 35  |     | 50  |     | 70  |     | 95 |    | 120 |    |  |  |
|                                               |               |               | 4%                                      | 7%   | 4%   | 7%   | 4%  | 7%   | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4% | 7% | 4%  | 7% |  |  |
| M6P / M6P                                     | 0.5           | 0.37          | 717                                     | 1254 | 1140 | 1995 |     |      |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 0.75          | 0.56          | 532                                     | 932  | 847  | 1482 |     |      |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 1             | 0.75          | 466                                     | 815  | 742  | 1298 |     |      |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 1.5           | 1.12          | 326                                     | 571  | 520  | 911  |     |      |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 2             | 1.49          | 264                                     | 462  | 421  | 737  | 626 | 1096 |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 2.5           | 1.86          | 216                                     | 378  | 345  | 604  | 512 | 897  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 3             | 2.24          | 184                                     | 322  | 294  | 515  | 437 | 765  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 3.5           | 2.61          | 157                                     | 275  | 251  | 439  | 373 | 654  |     |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 4             | 2.98          | 142                                     | 249  | 228  | 398  | 338 | 592  | 986 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 4.5           | 3.36          | 133                                     | 233  | 213  | 373  | 317 | 555  | 925 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 5             | 3.73          | 119                                     | 209  | 191  | 334  | 284 | 496  | 827 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 5.5           | 4.10          | 111                                     | 194  | 177  | 310  | 263 | 461  | 767 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 6             | 4.47          | 103                                     | 181  | 165  | 289  | 246 | 430  | 717 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 6.5           | 4.85          | 100                                     | 175  | 159  | 279  | 237 | 415  | 690 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
|                                               | 7             | 5.22          | 93                                      | 163  | 149  | 260  | 221 | 387  | 644 |     |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
| 7.5                                           | 5.59          | 86            | 151                                     | 138  | 242  | 205  | 359 | 598  | 536 | 937 |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
| 8                                             | 5.97          | 81            | 142                                     | 130  | 227  | 193  | 337 | 562  | 503 | 881 |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
| 9                                             | 6.71          | 70            | 123                                     | 112  | 196  | 167  | 292 | 485  | 434 | 759 |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
| 10                                            | 7.46          | 62            | 108                                     | 99   | 173  | 147  | 257 | 429  | 385 | 673 |     |     |     |     |     |     |     |     |     |     |    |    |     |    |  |  |
| 11                                            | 8.20          |               |                                         |      |      | 92   | 162 | 137  | 241 | 229 | 400 | 358 | 627 |     |     |     |     |     |     |     |    |    |     |    |  |  |
| 12                                            | 8.95          |               |                                         |      |      | 86   | 151 | 128  | 224 | 214 | 374 | 336 | 587 | 519 | 909 |     |     |     |     |     |    |    |     |    |  |  |
| 12.5                                          | 9.32          |               |                                         |      |      | 84   | 146 | 124  | 218 | 207 | 362 | 325 | 568 | 501 | 877 |     |     |     |     |     |    |    |     |    |  |  |
| 13                                            | 9.69          |               |                                         |      |      | 77   | 134 | 114  | 200 | 190 | 333 | 298 | 522 | 460 | 806 |     |     |     |     |     |    |    |     |    |  |  |
| 14                                            | 10.44         |               |                                         |      |      | 72   | 125 | 107  | 187 | 178 | 311 | 279 | 488 | 431 | 755 |     |     |     |     |     |    |    |     |    |  |  |
| 15                                            | 11.19         |               |                                         |      |      | 69   | 120 | 102  | 179 | 170 | 298 | 267 | 467 | 412 | 720 |     |     |     |     |     |    |    |     |    |  |  |
| M6G / M6G                                     | 16            | 11.93         |                                         |      |      |      |     | 93   | 162 | 154 | 269 | 241 | 421 | 370 | 648 | 500 | 875 |     |     |     |    |    |     |    |  |  |
|                                               | 17            | 12.68         |                                         |      |      |      |     | 88   | 154 | 146 | 256 | 229 | 401 | 353 | 617 | 477 | 835 |     |     |     |    |    |     |    |  |  |
|                                               | 18            | 13.42         |                                         |      |      |      |     | 83   | 145 | 138 | 241 | 216 | 378 | 333 | 582 | 450 | 788 |     |     |     |    |    |     |    |  |  |
|                                               | 19            | 14.17         |                                         |      |      |      |     | 79   | 138 | 131 | 229 | 206 | 360 | 317 | 555 | 430 | 752 |     |     |     |    |    |     |    |  |  |
|                                               | 20            | 14.91         |                                         |      |      |      |     |      |     | 127 | 222 | 199 | 348 | 307 | 537 | 416 | 728 |     |     |     |    |    |     |    |  |  |
|                                               | 22.5          | 16.78         |                                         |      |      |      |     |      |     | 114 | 199 | 179 | 312 | 277 | 484 | 376 | 658 | 496 | 869 |     |    |    |     |    |  |  |
|                                               | 25            | 18.64         |                                         |      |      |      |     |      |     | 107 | 187 | 167 | 293 | 258 | 452 | 350 | 613 | 460 | 805 |     |    |    |     |    |  |  |
|                                               | 27.5          | 20.51         |                                         |      |      |      |     |      |     | 104 | 182 | 163 | 285 | 250 | 438 | 338 | 592 | 442 | 773 |     |    |    |     |    |  |  |
|                                               | 30            | 22.37         |                                         |      |      |      |     |      |     |     |     | 145 | 253 | 223 | 391 | 303 | 530 | 398 | 697 |     |    |    |     |    |  |  |
|                                               | 32.5          | 24.24         |                                         |      |      |      |     |      |     |     |     | 129 | 226 | 200 | 349 | 271 | 474 | 357 | 624 |     |    |    |     |    |  |  |
|                                               | 35            | 26.10         |                                         |      |      |      |     |      |     |     |     | 116 | 203 | 180 | 314 | 244 | 427 | 322 | 564 |     |    |    |     |    |  |  |
|                                               | 37.5          | 27.96         |                                         |      |      |      |     |      |     |     |     | 112 | 195 | 172 | 302 | 234 | 410 | 308 | 539 |     |    |    |     |    |  |  |
|                                               | 40            | 29.83         |                                         |      |      |      |     |      |     |     |     | 105 | 183 | 162 | 283 | 220 | 385 | 290 | 507 |     |    |    |     |    |  |  |
|                                               | 45            | 33.56         |                                         |      |      |      |     |      |     |     |     |     |     |     | 147 | 257 | 199 | 349 | 262 | 458 |    |    |     |    |  |  |
|                                               | 50            | 37.29         |                                         |      |      |      |     |      |     |     |     |     |     |     | 135 | 237 | 184 | 322 | 242 | 424 |    |    |     |    |  |  |
| 55                                            | 41.01         |               |                                         |      |      |      |     |      |     |     |     |     |     |     |     | 166 | 290 | 217 | 380 |     |    |    |     |    |  |  |
| 60                                            | 44.74         |               |                                         |      |      |      |     |      |     |     |     |     |     |     |     | 150 | 263 | 198 | 346 |     |    |    |     |    |  |  |

NOTE:  
1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP. 6.2.7)  
2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP. 30 ° C.  
3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

| CABLE MAXIMUM LENGTH IN 380V THREE-PHASE 50Hz |               |               |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------------------------|---------------|---------------|-----------------------------------------------------|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MOTOR<br>MODEL                                | POWER<br>(HP) | POWER<br>(KW) | CABLE SECTION IN mm <sup>2</sup> - 380V THREE-PHASE |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               |               |               | 2,5                                                 |    | 4  |    | 6  |    | 10 |     | 16  |     | 25  |     | 35  |     | 50  |     | 70  |     | 95  |     | 120 |     |
|                                               |               |               | 4%                                                  | 7% | 4% | 7% | 4% | 7% | 4% | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  |
| M8 / M8                                       | 30            | 22,37         |                                                     |    |    |    |    |    | 92 | 160 | 144 | 251 | 222 | 389 | 302 | 528 | 397 | 695 |     |     |     |     |     |     |
|                                               | 32,5          | 24,24         |                                                     |    |    |    |    |    |    |     | 129 | 226 | 200 | 350 | 271 | 475 | 357 | 625 | 494 | 865 |     |     |     |     |
|                                               | 35            | 26,10         |                                                     |    |    |    |    |    |    |     | 123 | 215 | 190 | 332 | 257 | 451 | 339 | 593 | 469 | 820 |     |     |     |     |
|                                               | 37,5          | 27,96         |                                                     |    |    |    |    |    |    |     | 117 | 204 | 181 | 316 | 246 | 430 | 324 | 568 | 450 | 788 |     |     |     |     |
|                                               | 40            | 29,83         |                                                     |    |    |    |    |    |    |     | 107 | 187 | 165 | 289 | 224 | 393 | 296 | 518 | 410 | 717 |     |     |     |     |
|                                               | 45            | 33,56         |                                                     |    |    |    |    |    |    |     |     |     | 148 | 258 | 200 | 351 | 264 | 462 | 366 | 640 | 481 | 841 |     |     |
|                                               | 50            | 37,29         |                                                     |    |    |    |    |    |    |     |     |     | 133 | 233 | 181 | 316 | 238 | 417 | 330 | 577 | 433 | 758 |     |     |
|                                               | 55            | 41,01         |                                                     |    |    |    |    |    |    |     |     |     |     |     | 155 | 271 | 204 | 357 | 283 | 496 | 373 | 653 |     |     |
|                                               | 60            | 44,74         |                                                     |    |    |    |    |    |    |     |     |     |     |     | 143 | 250 | 189 | 331 | 263 | 460 | 346 | 606 | 419 | 733 |
|                                               | 65            | 48,47         |                                                     |    |    |    |    |    |    |     |     |     |     |     | 136 | 239 | 180 | 315 | 250 | 438 | 330 | 578 | 399 | 699 |
| M8S / M8S                                     | 70            | 52,20         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     | 169 | 296 | 235 | 411 | 310 | 543 | 375 | 656 |
|                                               | 75            | 55,93         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     | 168 | 295 | 231 | 405 | 300 | 526 | 359 | 629 |
|                                               | 80            | 59,66         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     | 155 | 270 | 214 | 375 | 282 | 494 | 341 | 597 |
|                                               | 85            | 63,38         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     | 148 | 258 | 204 | 357 | 268 | 468 | 322 | 564 |
|                                               | 90            | 67,11         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     | 190 | 333 | 249 | 436 | 300 | 525 |
|                                               | 95            | 70,84         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     | 192 | 335 | 248 | 433 | 295 | 516 |
|                                               | 100           | 74,57         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     | 177 | 310 | 233 | 408 | 281 | 493 |
|                                               | 105           | 78,30         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     | 202 | 353 | 241 | 422 |
|                                               | 110           | 82,03         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     | 194 | 340 | 232 | 407 |
|                                               | 115           | 85,76         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     | 187 | 327 | 224 | 393 |
|                                               | 120           | 89,48         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     | 180 | 315 | 216 | 378 |
|                                               | 125           | 93,21         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     | 176 | 308 | 212 | 370 |
|                                               | 130           | 96,94         |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     | 207 | 363 |
|                                               | 135           | 100,67        |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     | 204 | 357 |
|                                               | 140           | 104,40        |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     | 197 | 344 |
|                                               | 145           | 108,13        |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     | 190 | 333 |
|                                               | 150           | 111,86        |                                                     |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     | 183 | 320 |

NOTE:

1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP. 6.2.7)
2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP 30 ° C.
3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

| CABLE MAXIMUM LENGTH IN 440V THREE-PHASE 50Hz |               |               |                                         |      |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|-----------------------------------------------|---------------|---------------|-----------------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|--|--|--|--|
| MOTOR<br>MODEL                                | POWER<br>(HP) | POWER<br>(KW) | CABLE SECTION IN mm² - 440V THREE-PHASE |      |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               |               |               | 2.5                                     |      | 4   |     | 6   |     | 10  |     | 16  |     | 25  |     | 35  |     | 50  |    | 70 |    | 95 |    |  |  |  |  |
|                                               |               |               | 4%                                      | 7%   | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7%  | 4%  | 7% | 4% | 7% | 4% | 7% |  |  |  |  |
| M6P / M6P                                     | 0.5           | 0.37          | 899                                     | 1573 |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 0.75          | 0.56          | 719                                     | 1258 |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 1             | 0.75          | 624                                     | 1091 |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 1.5           | 1.12          | 431                                     | 755  |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 2             | 1.49          | 350                                     | 613  | 559 | 979 |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 2.5           | 1.86          | 289                                     | 506  | 462 | 808 |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 3             | 2.24          | 223                                     | 391  | 357 | 625 |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 3.5           | 2.61          | 209                                     | 366  | 334 | 585 | 497 | 870 |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 4             | 2.98          | 185                                     | 324  | 296 | 518 | 441 | 771 |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 4.5           | 3.36          | 165                                     | 289  | 264 | 463 | 394 | 689 |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 5             | 3.73          | 158                                     | 276  | 253 | 442 | 376 | 658 |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 5.5           | 4.10          | 147                                     | 258  | 235 | 412 | 350 | 613 |     |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 6             | 4.47          | 129                                     | 227  | 207 | 362 | 308 | 540 | 514 | 900 |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 6.5           | 4.85          | 133                                     | 232  | 212 | 371 | 315 | 551 | 523 | 916 |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 7             | 5.22          | 123                                     | 216  | 197 | 345 | 293 | 513 | 487 | 853 |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 7.5                                           | 5.59          | 111           | 195                                     | 178  | 312 | 265 | 464 | 442 | 773 |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 8                                             | 5.97          | 108           | 189                                     | 173  | 302 | 257 | 450 | 428 | 750 |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 9                                             | 6.71          | 89            | 156                                     | 142  | 249 | 212 | 371 | 353 | 617 |     |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 10                                            | 7.46          | 83            | 145                                     | 133  | 232 | 198 | 346 | 329 | 576 | 517 | 905 |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 11                                            | 8.20          | 73            | 128                                     | 117  | 204 | 174 | 304 | 290 | 507 | 455 | 796 |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 12                                            | 8.95          | 72            | 126                                     | 115  | 202 | 172 | 301 | 287 | 501 | 450 | 787 |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 12.5                                          | 9.32          | 67            | 117                                     | 107  | 188 | 160 | 279 | 266 | 466 | 419 | 733 |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 13                                            | 9.69          |               | 101                                     | 177  | 150 | 263 | 250 | 438 | 393 | 687 |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 14                                            | 10.44         |               | 93                                      | 163  | 139 | 243 | 231 | 405 | 363 | 635 |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| 15                                            | 11.19         |               | 87                                      | 153  | 130 | 227 | 216 | 379 | 340 | 595 |     |     |     |     |     |     |     |    |    |    |    |    |  |  |  |  |
| M6G / M6G                                     | 16            | 11.93         |                                         | 84   | 147 | 125 | 218 | 207 | 362 | 324 | 567 | 498 | 872 |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 17            | 12.68         |                                         |      |     | 118 | 207 | 197 | 344 | 308 | 539 | 474 | 829 |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 18            | 13.42         |                                         |      |     | 112 | 197 | 187 | 327 | 293 | 513 | 451 | 789 |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 19            | 14.17         |                                         |      |     | 106 | 185 | 176 | 308 | 276 | 484 | 426 | 746 |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 20            | 14.91         |                                         |      |     | 102 | 179 | 171 | 298 | 267 | 468 | 413 | 722 |     |     |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 22.5          | 16.78         |                                         |      |     | 97  | 169 | 161 | 282 | 252 | 441 | 389 | 680 | 526 | 920 |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 25            | 18.64         |                                         |      |     |     |     | 148 | 260 | 232 | 407 | 358 | 626 | 483 | 846 |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 27.5          | 20.51         |                                         |      |     |     |     | 126 | 220 | 198 | 346 | 306 | 536 | 417 | 730 |     |     |    |    |    |    |    |  |  |  |  |
|                                               | 30            | 22.37         |                                         |      |     |     |     | 116 | 203 | 183 | 319 | 283 | 496 | 386 | 676 | 510 | 893 |    |    |    |    |    |  |  |  |  |
|                                               | 32.5          | 24.24         |                                         |      |     |     |     | 112 | 196 | 175 | 307 | 270 | 473 | 366 | 641 | 481 | 841 |    |    |    |    |    |  |  |  |  |
|                                               | 35            | 26.10         |                                         |      |     |     |     |     |     | 155 | 272 | 240 | 421 | 327 | 572 | 431 | 755 |    |    |    |    |    |  |  |  |  |
|                                               | 37.5          | 27.96         |                                         |      |     |     |     |     |     | 151 | 264 | 233 | 408 | 316 | 554 | 415 | 727 |    |    |    |    |    |  |  |  |  |
|                                               | 40            | 29.83         |                                         |      |     |     |     |     |     | 142 | 248 | 219 | 383 | 297 | 520 | 391 | 684 |    |    |    |    |    |  |  |  |  |
|                                               | 45            | 33.56         |                                         |      |     |     |     |     |     | 127 | 222 | 196 | 342 | 265 | 464 | 348 | 609 |    |    |    |    |    |  |  |  |  |
|                                               | 50            | 37.29         |                                         |      |     |     |     |     |     |     |     | 181 | 317 | 246 | 430 | 323 | 566 |    |    |    |    |    |  |  |  |  |
| 55                                            | 41.01         |               |                                         |      |     |     |     |     |     |     | 163 | 285 | 221 | 386 | 289 | 506 |     |    |    |    |    |    |  |  |  |  |
| 60                                            | 44.74         |               |                                         |      |     |     |     |     |     |     | 148 | 258 | 200 | 351 | 263 | 461 |     |    |    |    |    |    |  |  |  |  |

NOTE:  
 1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP 6.2.7)  
 2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP 30 ° C.  
 3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

# TABLAS PARA LA SELECCIÓN DE CABLES SUMERGIBLES

| CABLE MAXIMUM LENGHT IN 440V THREE-PHASE 50Hz |               |               |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|-----------------------------------------------|---------------|---------------|-----------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| MOTOR<br>MODEL                                | POWER<br>(HP) | POWER<br>(KW) | CABLE SECTION IN mm² - 440V THREE-PHASE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               |               |               | 2.5                                     |    | 4  |    | 6  |    | 10 |    | 16 |    | 25 |    | 35 |    | 50 |    | 70 |    | 95 |    |  |
|                                               |               |               | 4%                                      | 7% | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% | 4% | 7% |  |
| M8 / M8S                                      | 30            | 22,37         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 32,5          | 24,24         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 35            | 26,10         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 37,5          | 27,96         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 40            | 29,83         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 45            | 33,56         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 50            | 37,29         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 55            | 41,01         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 60                                            | 44,74         |               |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| M8S / M8S                                     | 65            | 48,47         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 70            | 52,20         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 75            | 55,93         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 80            | 59,66         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 85            | 63,38         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 90            | 67,11         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 95            | 70,84         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 100           | 74,57         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 105           | 78,30         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 110           | 82,03         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 115           | 85,76         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 120           | 89,48         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 125           | 93,21         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 130           | 96,94         |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|                                               | 135           | 100,67        |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 140                                           | 104,40        |               |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 145                                           | 108,13        |               |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 150                                           | 111,86        |               |                                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

NOTE:  
1. MAXIMUM VOLTAGE DROP ACCEPTED IN FACILITIES POWERED BY LOW VOLTAGE EXTENSION (4%), AND BY TRANSFORMER/GENERATOR (7%) AS PER NBR 5410 STANDARD (CAP 6.2.7)  
2. LENGTH IS MEASURED FROM THE CABLE ATTACHMENT TO THE CONTROL BOX. MAX. TEMP. 30 ° C.  
3. CABLES ARE SIZED CONSIDERING ROUND CABLES THAT MEET THE 7288 STANDARD.

# HEAD LOSS CHART

## HEAD LOSS FOR GALVONIZED STEEL PIPES (NBR 5580M)

| FLOW RATE<br>(m³/h) | PIPE NOMINAL DIAMETER (inches) |        |          |          |          |          |          |           |           |           |           |           |           |
|---------------------|--------------------------------|--------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                     | 3/4                            | 1      | 1 1/4    | 1 1/2    | 2        | 2 1/2    | 3        | 4         | 5         | 6         | 8         | 10        | 12        |
|                     | * (21,6)                       | * (27) | * (35,7) | * (41,6) | * (52,8) | * (68,6) | * (80,9) | * (105,3) | * (130,2) | * (155,1) | * (202,7) | * (254,4) | * (303,2) |
| 1                   | 5,59                           | 1,88   | 0,48     | 0,23     | 0,07     | 0,02     |          |           |           |           |           |           |           |
| 1,5                 | 11,98                          | 4,03   | 1,03     | 0,49     | 0,15     | 0,04     | 0,02     |           |           |           |           |           |           |
| 2                   | 20,58                          | 6,93   | 1,77     | 0,84     | 0,26     | 0,06     | 0,03     |           |           |           |           |           |           |
| 3                   | 44,11                          | 14,85  | 3,80     | 1,80     | 0,56     | 0,13     | 0,06     | 0,02      |           |           |           |           |           |
| 4                   | 75,76                          | 25,5   | 6,52     | 3,09     | 0,97     | 0,22     | 0,10     | 0,03      |           |           |           |           |           |
| 5                   |                                | 38,79  | 9,93     | 4,71     | 1,47     | 0,33     | 0,15     | 0,04      |           |           |           |           |           |
| 6                   |                                | 54,65  | 13,98    | 6,63     | 2,07     | 0,46     | 0,21     | 0,06      | 0,02      |           |           |           |           |
| 8                   |                                | 93,86  | 24,02    | 11,39    | 3,56     | 0,79     | 0,35     | 0,10      | 0,03      |           |           |           |           |
| 10                  |                                |        | 36,53    | 17,32    | 5,41     | 1,19     | 0,53     | 0,15      | 0,05      | 0,02      |           |           |           |
| 12                  |                                |        | 51,47    | 24,40    | 7,62     | 1,67     | 0,75     | 0,21      | 0,07      | 0,03      |           |           |           |
| 14                  |                                |        | 68,77    | 32,60    | 10,19    | 2,22     | 1,00     | 0,28      | 0,10      | 0,04      |           |           |           |
| 16                  |                                |        | 88,4     | 41,91    | 13,09    | 2,85     | 1,28     | 0,35      | 0,13      | 0,05      |           |           |           |
| 18                  |                                |        |          | 52,29    | 16,34    | 3,54     | 1,59     | 0,44      | 0,16      | 0,07      | 0,02      |           |           |
| 20                  |                                |        |          | 63,75    | 19,92    | 4,31     | 1,93     | 0,53      | 0,19      | 0,08      | 0,02      |           |           |
| 25                  |                                |        |          | 96,98    | 30,3     | 6,51     | 2,92     | 0,81      | 0,29      | 0,12      | 0,03      |           |           |
| 30                  |                                |        |          |          | 42,68    | 9,13     | 4,09     | 1,13      | 0,40      | 0,17      | 0,05      | 0,02      |           |
| 35                  |                                |        |          |          | 57,03    | 12,14    | 5,44     | 1,51      | 0,54      | 0,23      | 0,06      | 0,02      |           |
| 40                  |                                |        |          |          | 73,31    | 15,55    | 6,96     | 1,93      | 0,69      | 0,29      | 0,08      | 0,03      |           |
| 45                  |                                |        |          |          | 91,48    | 19,34    | 8,66     | 2,4       | 0,85      | 0,36      | 0,10      | 0,03      |           |
| 50                  |                                |        |          |          |          | 23,51    | 10,53    | 2,92      | 1,04      | 0,44      | 0,12      | 0,04      | 0,02      |
| 60                  |                                |        |          |          |          | 32,95    | 14,76    | 4,09      | 1,45      | 0,62      | 0,17      | 0,06      | 0,02      |
| 70                  |                                |        |          |          |          | 43,83    | 19,63    | 5,44      | 1,93      | 0,82      | 0,22      | 0,07      | 0,03      |
| 80                  |                                |        |          |          |          | 56,13    | 25,14    | 6,96      | 2,48      | 1,06      | 0,29      | 0,09      | 0,04      |
| 90                  |                                |        |          |          |          | 69,81    | 31,27    | 8,66      | 3,08      | 1,31      | 0,36      | 0,12      | 0,05      |
| 100                 |                                |        |          |          |          | 84,85    | 38,01    | 10,53     | 3,74      | 1,6       | 0,43      | 0,14      | 0,06      |
| 120                 |                                |        |          |          |          |          | 53,27    | 14,76     | 5,25      | 2,24      | 0,61      | 0,20      | 0,09      |
| 140                 |                                |        |          |          |          |          | 70,87    | 19,63     | 6,98      | 2,98      | 0,81      | 0,27      | 0,11      |
| 160                 |                                |        |          |          |          |          | 90,76    | 25,14     | 8,94      | 3,81      | 1,04      | 0,34      | 0,15      |
| 180                 |                                |        |          |          |          |          |          | 31,27     | 11,12     | 4,74      | 1,29      | 0,43      | 0,18      |
| 200                 |                                |        |          |          |          |          |          | 38,01     | 13,52     | 5,77      | 1,57      | 0,52      | 0,22      |
| 250                 |                                |        |          |          |          |          |          | 57,46     | 20,44     | 8,72      | 2,37      | 0,78      | 0,33      |
| 300                 |                                |        |          |          |          |          |          | 80,53     | 28,64     | 12,22     | 3,32      | 1,10      | 0,47      |
| 350                 |                                |        |          |          |          |          |          |           | 38,11     | 16,25     | 4,41      | 1,46      | 0,62      |
| 400                 |                                |        |          |          |          |          |          |           | 48,80     | 20,81     | 5,65      | 1,87      | 0,80      |
| 450                 |                                |        |          |          |          |          |          |           | 60,70     | 25,88     | 7,03      | 2,33      | 0,99      |
| 500                 |                                |        |          |          |          |          |          |           | 73,78     | 31,46     | 8,54      | 2,83      | 1,20      |

\* Internal Diameter (mm)

### NOTE

1- The figures show the head losses in 100m of new Galvanized Steel pipes formula calculated by Fair-Whipple-Hsiao for pipelines from 3/4 "to 2", above 2" calculated by the Hazen-Williams Formula (C = 125).

2- Pipe dimensions 3/4" up to 6" according to the NBR 58580 standard ; dimensions above 6" according to NBR 559C – SCH40

## HEAD LOSS IN THE ACCESSORIES (IN EQUIVALENTE PIPE METERS)

| Accessories | NOMINAL DIAMETER (inches) |       |       |      |       |      |      |      |      |
|-------------|---------------------------|-------|-------|------|-------|------|------|------|------|
|             | 1                         | 1 1/4 | 1 1/2 | 2    | 2 1/2 | 3    | 4    | 5    | 6    |
| CODO 60"    | 0,5                       | 0,6   | 0,7   | 0,9  | 1,1   | 1,3  | 1,8  | 2,2  | 2,7  |
| Curve 90"   | 0,5                       | 0,6   | 0,7   | 0,8  | 0,9   | 1,0  | 1,3  | 1,5  | 1,7  |
| Check Valve | 2,2                       | 3,1   | 3,7   | 5,2  | 6,4   | 8,2  | 11,6 | 15,2 | 19,2 |
| Globe Valve | 13,7                      | 16,5  | 18,0  | 21,3 | 23,5  | 28,6 | 36,5 | -    | -    |
| Gate Valve  |                           |       |       | 0,8  | 0,8   | 0,9  | 0,9  | 1,0  | 1,0  |

# HEAD LOSS TABLE

## PVC PIPELINE

| FLOW RATE<br>(m³/h) | PIPE DIAMETER |                |                |            |                |            |             |             |             |
|---------------------|---------------|----------------|----------------|------------|----------------|------------|-------------|-------------|-------------|
|                     | 1" (25 mm)    | 1 1/4" (32 mm) | 1 1/2" (40 mm) | 2" (50 mm) | 2 1/2" (60 mm) | 3" (75 mm) | 4" (100 mm) | 5" (125 mm) | 6" (150 mm) |
| 1                   | 1,49          | 0,42           | 0,22           | 0,07       | 0,02           |            |             |             |             |
| 1,5                 | 3,04          | 0,85           | 0,44           | 0,15       | 0,04           | 0,02       |             |             |             |
| 2                   | 5,02          | 1,40           | 0,72           | 0,25       | 0,07           | 0,03       |             |             |             |
| 2,5                 | 7,42          | 2,07           | 1,07           | 0,37       | 0,11           | 0,04       |             |             |             |
| 3                   | 10,21         | 2,85           | 1,47           | 0,53       | 0,15           | 0,06       | 0,02        |             |             |
| 3,5                 | 13,38         | 3,73           | 1,93           | 0,70       | 0,20           | 0,08       | 0,02        |             |             |
| 4                   | 16,90         | 4,72           | 2,43           | 0,90       | 0,25           | 0,11       | 0,03        |             |             |
| 4,5                 | 20,77         | 5,80           | 2,99           | 1,11       | 0,31           | 0,13       | 0,03        |             |             |
| 5                   | 24,97         | 6,97           | 3,60           | 1,35       | 0,38           | 0,16       | 0,04        |             |             |
| 6                   | 34,36         | 9,59           | 4,95           | 1,90       | 0,54           | 0,22       | 0,06        | 0,02        |             |
| 7                   | 45,00         | 12,56          | 6,48           | 2,52       | 0,71           | 0,30       | 0,08        | 0,03        |             |
| 8                   | 56,84         | 15,86          | 8,19           | 3,23       | 0,91           | 0,38       | 0,10        | 0,04        | 0,02        |
| 9                   | 69,85         | 19,49          | 10,06          | 4,02       | 1,14           | 0,48       | 0,13        | 0,04        | 0,02        |
| 10                  | 84,00         | 23,44          | 12,10          | 4,89       | 1,38           | 0,58       | 0,15        | 0,05        | 0,03        |
| 12                  |               | 32,25          | 16,64          | 6,85       | 1,93           | 0,81       | 0,21        | 0,07        | 0,04        |
| 14                  |               | 42,24          | 21,80          | 9,11       | 2,57           | 1,08       | 0,29        | 0,10        | 0,05        |
| 16                  |               | 53,35          | 27,53          | 11,67      | 3,30           | 1,38       | 0,37        | 0,13        | 0,06        |
| 18                  |               | 65,57          | 33,84          | 14,51      | 4,10           | 1,72       | 0,46        | 0,16        | 0,08        |
| 20                  |               | 78,84          | 40,69          | 17,64      | 4,98           | 2,09       | 0,55        | 0,19        | 0,09        |
| 22                  |               | 93,15          | 48,07          | 21,04      | 5,94           | 2,49       | 0,66        | 0,23        | 0,11        |
| 24                  |               | 108,47         | 55,98          | 24,72      | 6,98           | 2,93       | 0,78        | 0,27        | 0,13        |
| 26                  |               | 124,78         | 64,40          | 28,67      | 8,10           | 3,40       | 0,90        | 0,31        | 0,15        |
| 28                  |               | 142,06         | 73,32          | 32,89      | 9,29           | 3,90       | 1,03        | 0,36        | 0,18        |
| 30                  |               | 160,29         | 82,72          | 37,38      | 10,56          | 4,43       | 1,17        | 0,41        | 0,20        |

## PIPE SPECIFICATION

| NBR 5580-M<br>MIDDLE CLASS (DIN 2440) |                  |                                     |                        |                  | ASTM A-120<br>SCHEDULE 40 |                  |                                     |                        |                  |
|---------------------------------------|------------------|-------------------------------------|------------------------|------------------|---------------------------|------------------|-------------------------------------|------------------------|------------------|
| DIAMETER                              |                  | MAX. OPERATION PRESSURE<br>(Kg/cm²) | WALL THICKNESS<br>(mm) | WEIGHT<br>(Kg/m) | DIAMETER                  |                  | MAX. OPERATION PRESSURE<br>(Kg/cm²) | WALL THICKNESS<br>(mm) | WEIGHT<br>(Kg/m) |
| NOMINAL<br>(pol.)                     | EXTERNAL<br>(mm) |                                     |                        |                  | NOMINAL<br>(pol.)         | EXTERNAL<br>(mm) |                                     |                        |                  |
| 1                                     | 33,7             | 17                                  | 3,35                   | 2,27             | 1                         | 33,4             | 34                                  | 3,38                   | 2,50             |
| 1 1/4                                 | 42,4             | 17                                  | 3,35                   | 2,92             | 1 1/4                     | 42,2             | 34                                  | 3,56                   | 3,38             |
| 1 1/2                                 | 48,3             | 17                                  | 3,35                   | 3,71             | 1 1/2                     | 48,3             | 34                                  | 3,68                   | 4,05             |
| 2                                     | 60,3             | 17                                  | 3,75                   | 4,71             | 2                         | 60,3             | 34                                  | 3,91                   | 5,43             |
| 2 1/2                                 | 76,1             | 17                                  | 3,75                   | 6,69             | 2 1/2                     | 73,0             | 34                                  | 5,16                   | 8,62             |
| 3                                     | 88,9             | 17                                  | 4,05                   | 7,87             | 3                         | 88,9             | 34                                  | 5,49                   | 11,28            |
| 3 1/2                                 | 101,6            | 17                                  | 4,25                   | 10,20            | 3 1/2                     | 101,6            | 34                                  | 5,74                   | 13,56            |
| 4                                     | 114,3            | 17                                  | 4,50                   | 12,18            | 4                         | 114,3            | 34                                  | 6,02                   | 16,06            |
| 5                                     | 139,7            | 17                                  | 5,00                   | 16,61            | 5                         | 141,3            | 34                                  | 6,55                   | 21,76            |
| 6                                     | 165,1            | 17                                  | 5,30                   | 20,89            | 6                         | 168,3            | 34                                  | 7,11                   | 28,23            |
| 8                                     | 219,1            | 17                                  | 6,35                   | 33,33            | 8                         | 219,1            | 34                                  | 8,18                   | 42,49            |



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