



|                                       | <b>Page</b> |
|---------------------------------------|-------------|
| <b>- SPECIFICATIONS</b>               | <b>200</b>  |
| PERFORMANCE CURVE and SELECTION CHART | 201         |
| TYPE KEY                              | 202         |
| CURVE SPECIFICATIONS                  | 202         |
| PERFORMANCE CURVE BEST ONE            | 203         |
| PERFORMANCE CURVE BEST ONE VOX        | 204         |
| <br>                                  |             |
| <b>- CONSTRUCTIONS</b>                | <b>300</b>  |
| SECTIONAL VIEW DRAWING                | 300         |
| SECTIONAL VIEW TABLE                  | 301         |
| BEARINGS                              | 302         |
| MECHANICAL SEAL                       | 302         |
| <br>                                  |             |
| <b>- DIMENSIONS AND WEIGHT</b>        | <b>400</b>  |
| PUMP                                  | 400         |
| PACKING                               | 401         |
| <br>                                  |             |
| <b>- TECHNICAL DATA</b>               | <b>500</b>  |
| MOTOR DATA                            | 500         |
| <br>                                  |             |
| <b>- INSTALLATION</b>                 | <b>600</b>  |
| <br>                                  |             |
| <b>- OPTIONAL</b>                     | <b>700</b>  |
| MINIMUM SUCTION SYSTEM                | 700         |

**SPECIFICATION**

50Hz

Rev. 0

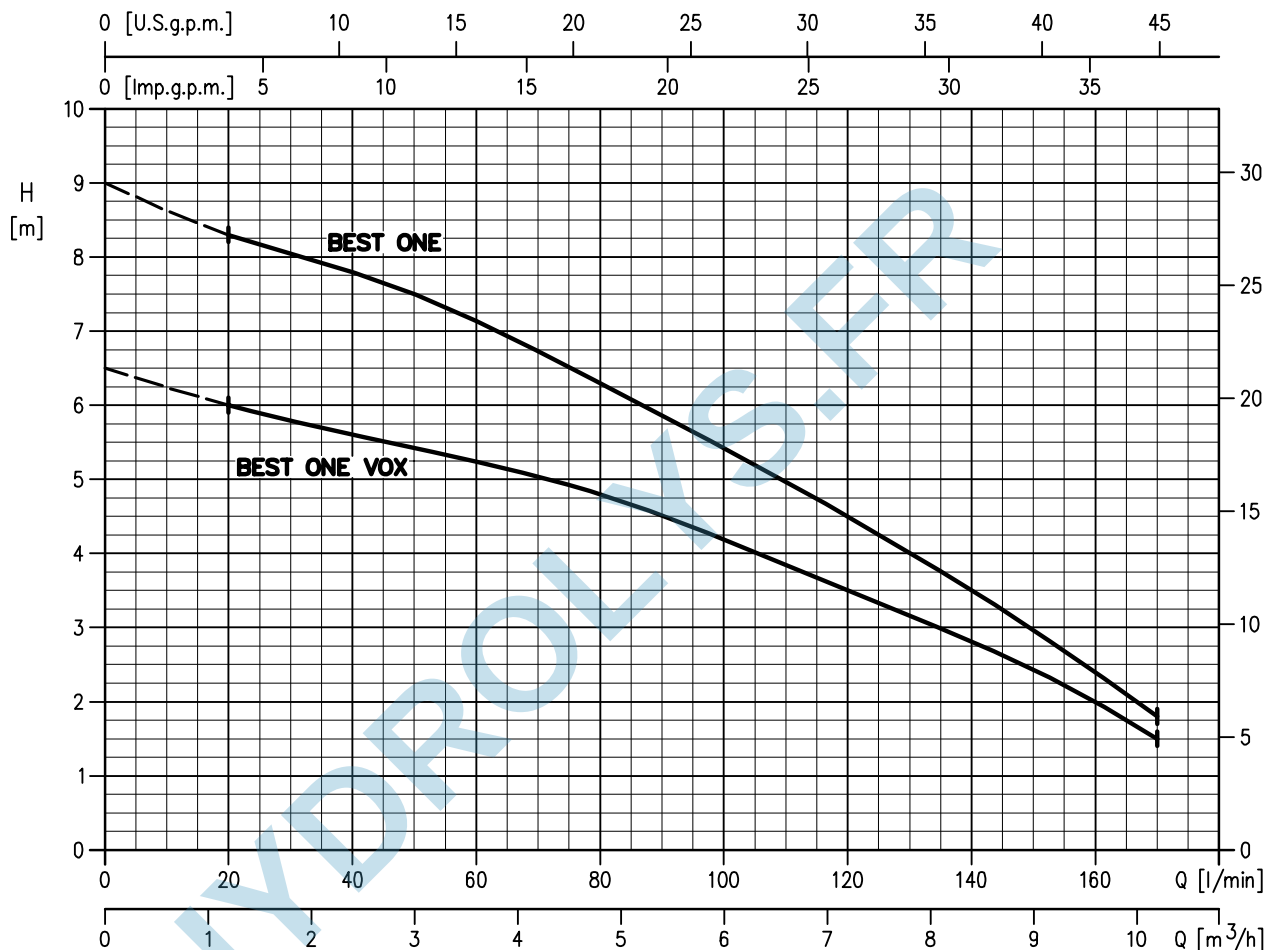
| <b>PUMP</b>                 |                         |                                                                     |
|-----------------------------|-------------------------|---------------------------------------------------------------------|
| Liquid Handled              | Type of liquid          | Clear water (Clean water for MS version)                            |
|                             | Max temperature [°C]    | 50                                                                  |
|                             | Max solids size [mm]    | 10<br>20 (for Vortex version)                                       |
| Maximum immersion [m]       |                         | 2 (with power cable length 5 m)<br>5 (with power cable length 10 m) |
| Construction                | Impeller                | Semi-open centrifugal type (BEST ONE)<br>Vortex type (BEST ONE VOX) |
|                             | Shaft seal type         | Oil lubricated mechanical seal (pump side) + lip seal (motor side)  |
|                             | Bearing                 | Sealed ball bearing                                                 |
| Pipe Connection             | Suction                 | Strainer                                                            |
|                             | Discharge nozzle [inch] | G1½": UNI ISO 228                                                   |
| Material                    | Pump casing             | AISI 304                                                            |
|                             | Impeller                | AISI 304                                                            |
|                             | Shaft seal              | Mechanical seal: Ceramic/Carbon/NBR<br>Lip seal: NBR                |
|                             | Casing cover            | AISI 304                                                            |
|                             | Shaft                   | AISI 303 + AISI 303 ceramic coated shaft sleeve                     |
|                             | Lubricating liquid      | White mineral oil: Esso Marcol 152                                  |
| Applicable standard of test |                         | ISO 9906:2012 – Grade 3B                                            |

| MOTOR                               |            |                                      |             |
|-------------------------------------|------------|--------------------------------------|-------------|
| Type                                |            | Submersible dry type                 |             |
|                                     |            | Single Phase                         | Three Phase |
| No. of Poles                        |            | 2                                    |             |
| Rotation speed [min <sup>-1</sup> ] |            | ≈2800                                |             |
| Insulation Class                    |            | F                                    |             |
| Protection degree                   |            | IP 68                                |             |
| Power rating                        | [kW]       | 0.25                                 |             |
|                                     | [HP]       | 0.33                                 |             |
| Frequency [Hz]                      |            | 50                                   |             |
| Voltage                             | [V]        | 230 ±10%                             | 400 ±10%    |
| Capacitor                           |            | Built in                             | -           |
| Over load protection                |            | Built in                             | -           |
| Casing material                     |            | AISI 304                             |             |
| Switch                              | float      | MA version (no maintenance required) | -           |
|                                     | magnetic   | MS version (maintenance required)    | -           |
| Float/magnetic switch cable         | material   | H07RN-F                              | -           |
|                                     | size       | 3G1                                  | -           |
| Power cable                         | length [m] | 5 (only for internal usage); 10      |             |
|                                     | material   | H05RN-F                              | H07RN-F     |
|                                     | size       | 3G0.75                               | 4G1         |
| Cable entry                         |            | Cable Gland                          |             |

**SELECTION CHART**

50Hz

Rev. O

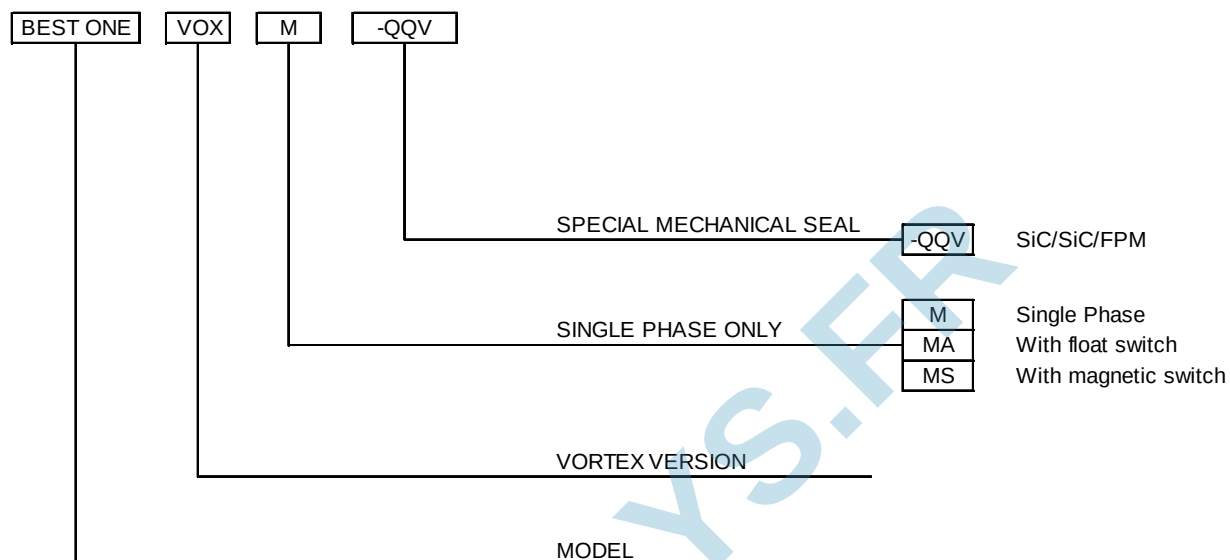
**PERFORMANCE CURVE****SELECTION CHART**

| Pump Type                         |              | Power |      | Q=Capacity        |     |     |     |     |     |     |      |
|-----------------------------------|--------------|-------|------|-------------------|-----|-----|-----|-----|-----|-----|------|
|                                   |              |       |      | l/min             | 0   | 20  | 40  | 80  | 120 | 160 | 170  |
| Single Phase                      | Three Phase  | [kW]  | [HP] | m <sup>3</sup> /h | 0   | 1,2 | 2,4 | 4,8 | 7,2 | 9,6 | 10,2 |
| H=Total manometric head in meters |              |       |      |                   |     |     |     |     |     |     |      |
| BEST ONE M                        | BEST ONE     | 0,25  | 0,33 |                   | 9,0 | 8,3 | 7,8 | 6,3 | 4,5 | 2,4 | 1,8  |
| BEST ONE VOX M                    | BEST ONE VOX | 0,25  | 0,33 |                   | 6,5 | 6,0 | 5,6 | 4,8 | 3,5 | 2,0 | 1,5  |

**PERFORMANCE CURVE**

50Hz

Rev. 0

**TYPE KEY****PERFORMANCE CURVE SPECIFICATIONS**

The specifications below qualify the curves shown on the following pages.

Tolerances according to ISO 9906:2012 – Grade 3B

The curves refer to effective speed of asynchronous motors at 50 Hz, 2 poles.

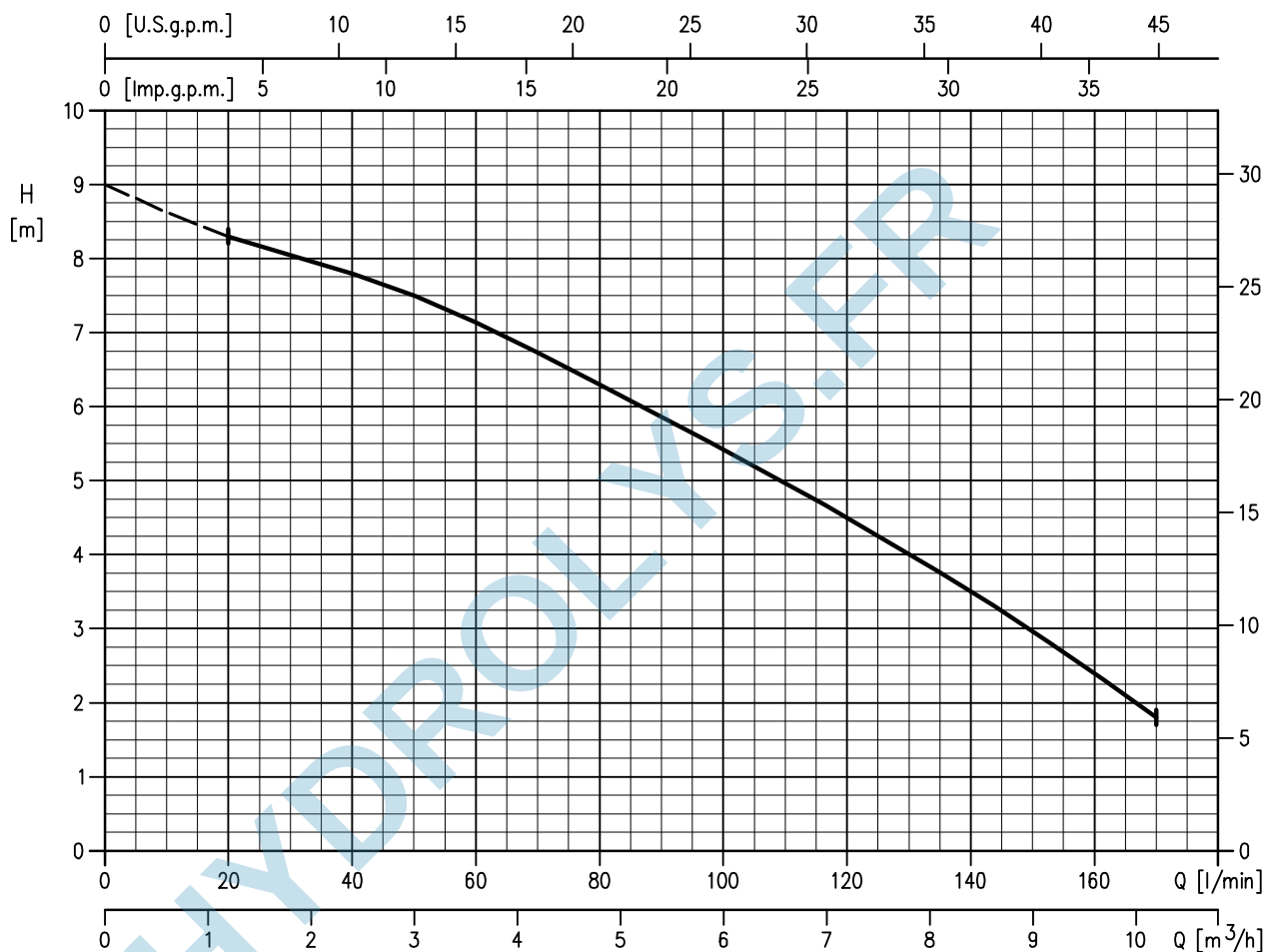
Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt)

In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.

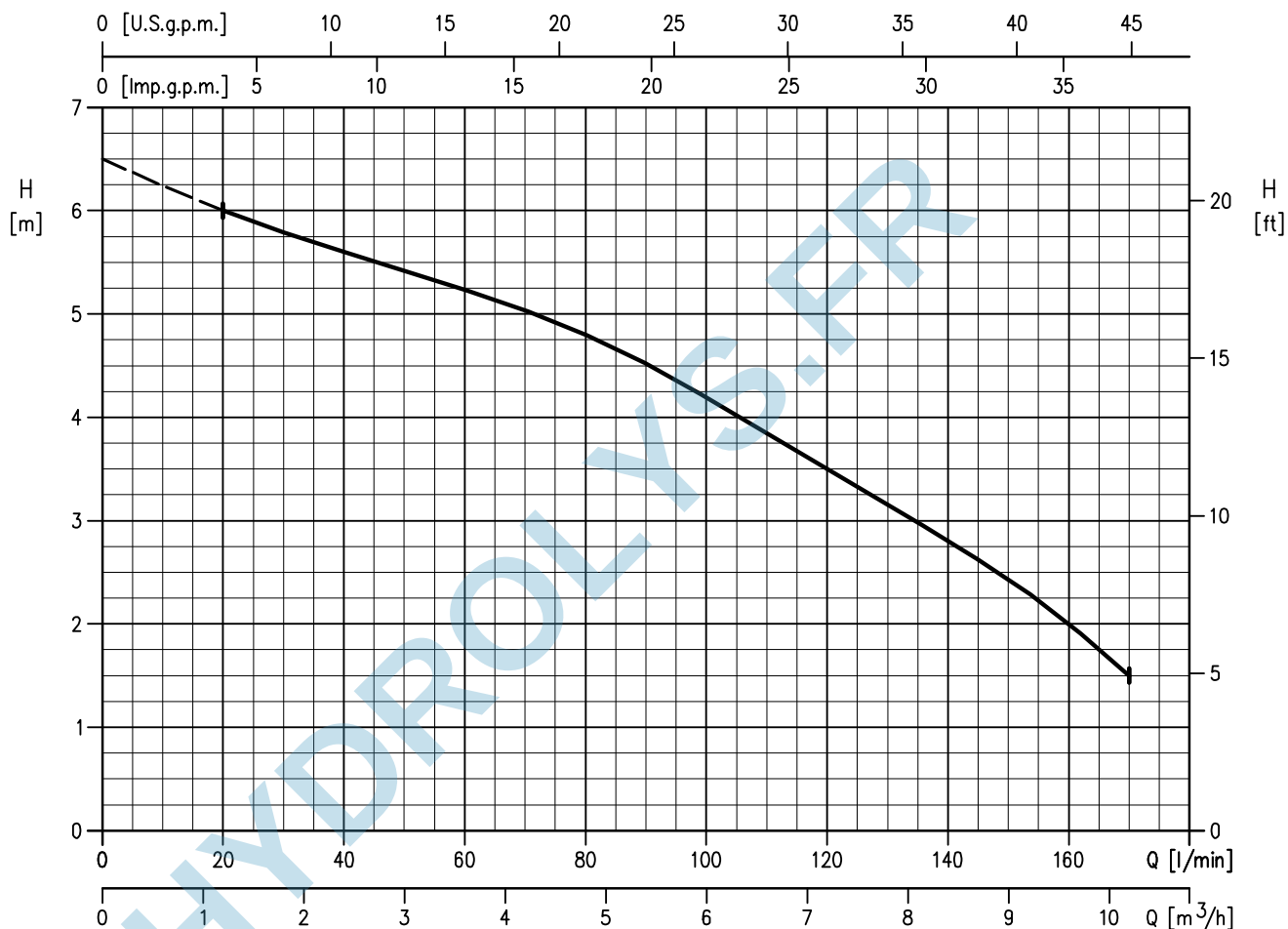
Symbols explanation:

Q = volume flow rate  
H = total head

**BEST ONE (0.25 kW) – impeller diameter = 85 mm**

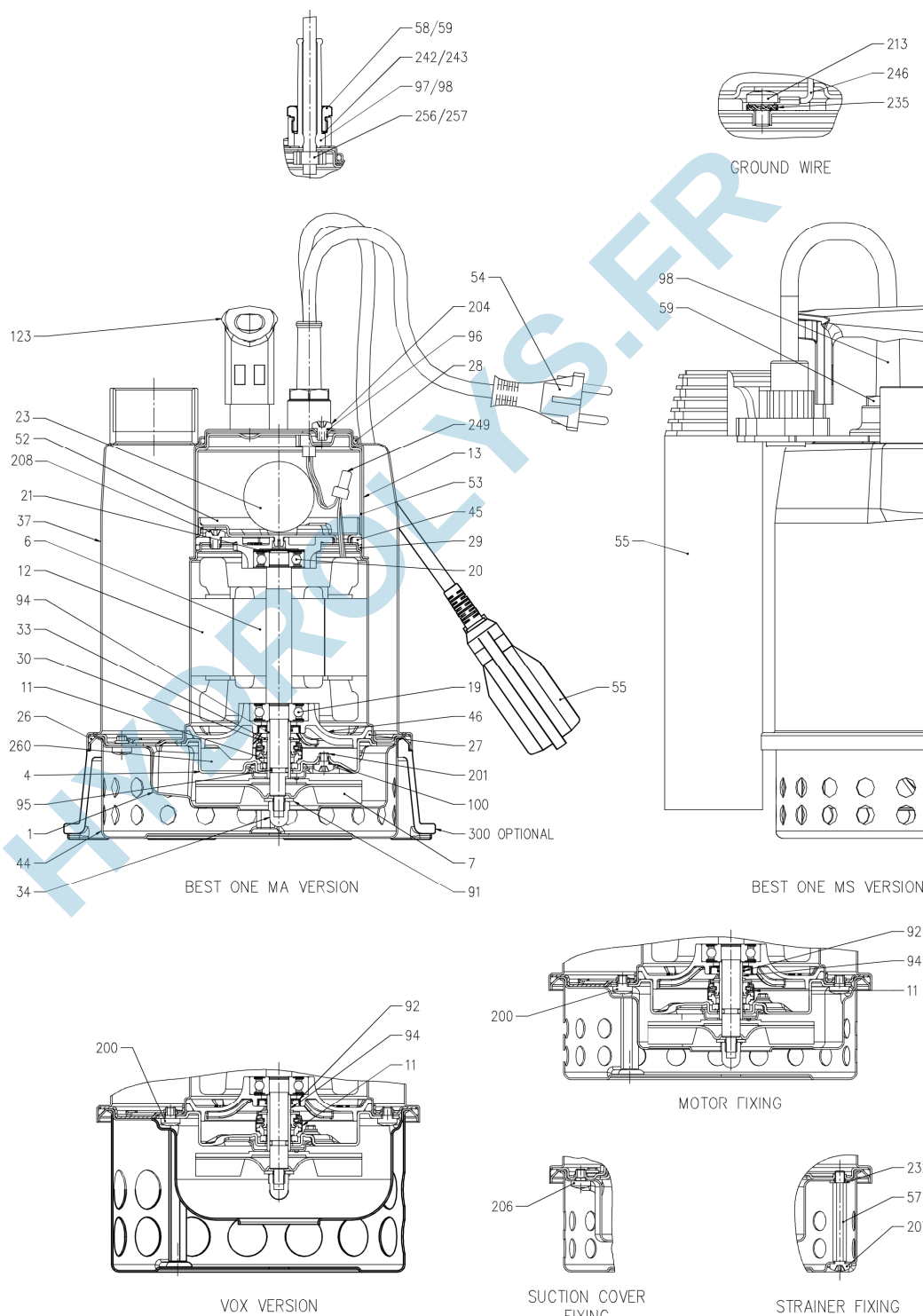


Rotation speed  $\approx 2800 \text{ min}^{-1}$   
 Test standard: ISO 9906:2012 – Grade 3B

**BEST ONE VOX (0.25 kW) – impeller diameter = 85 mm**

Rotation speed  $\approx 2800 \text{ min}^{-1}$   
Test standard: ISO 9906:2012 – Grade 3B

### SECTIONAL VIEW DRAWING



## SECTIONAL VIEW TABLE

| N°  | PART NAME                  | MATERIAL                              | DIMENSIONS  | STANDARD | Q.TY  |
|-----|----------------------------|---------------------------------------|-------------|----------|-------|
| 1   | Suction cover              | EN 14301(AISI 304)                    | -           | -        | 1     |
| 4   | Casing cover               | EN 14301(AISI 304)                    | -           | -        | 1     |
| 6   | Shaft with rotor           | EN 14305 (AISI 303)                   | -           | -        | 1     |
| 7   | Impeller                   | EN 14301(AISI 304)                    | -           | -        | 1     |
| 11  | Mechanical seal [1]        | [1]                                   | [1]         | -        | 1     |
| 12  | Motor frame with stator    | EN 14301(AISI 304)                    | -           | -        | 1     |
| 13  | Motor cover                | EN 14301(AISI 304)                    | -           | -        | 1     |
| 19  | Lower ball bearing         | -                                     | -           | -        | 1     |
| 20  | Upper ball bearing         | -                                     | -           | -        | 1     |
| 21  | Adjusting ring             | -                                     | -           | -        | 1     |
| 23  | Capacitor [2]              | -                                     | -           | -        | 1     |
| 26  | O-ring                     | NBR                                   | 159,5x3     | -        | 1     |
| 27  | O-ring                     | NBR                                   | 88,5x3,53   | -        | 1     |
| 28  | O-ring                     | NBR                                   | 75,87x2,62  | -        | 1     |
| 29  | O-ring                     | NBR                                   | 75,87x2,62  | -        | 1     |
| 30  | Washer                     | EN 14301(AISI 304)                    | 12x2x1      | -        | 1     |
| 33  | Seeger ring                | Carbon steel TC80                     | 12          | UNI 7435 | 1     |
| 34  | Impeller nut               | A2 - 70 UNI 7323                      | M 6         | UNI 5721 | 1     |
| 37  | Pump casing                | EN 14301(AISI 304)                    | -           | -        | 1     |
| 44  | Strainer                   | EN 14301(AISI 304)                    | -           | -        | 1     |
| 45  | Upper bearing housing      | EN 1706 AC-46000 D                    | -           | -        | 1     |
| 46  | Lower bearing housing      | EN 1706 AC-46000 D                    | -           | -        | 1     |
| 52  | Terminal insulating base   | PA 6 class V-0                        | -           | -        | 1     |
| 53  | Terminal insulating box    | PA 6 class V-0                        | -           | -        | 1     |
| 54  | Power cable                | -                                     | -           | -        | 1     |
| 55  | Switch [3] [4]             | -                                     | -           | -        | 1     |
| 57  | Spacer                     | EN 14301(AISI 304)                    | -           | -        | 2     |
| 58  | Power cable connector      | OT 58 UNI 5705-65 Nickel-plated Brass | -           | -        | 1     |
| 59  | Switch cable connector [3] | OT 58 UNI 5705-65 Nickel-plated Brass | -           | -        | 1     |
| 91  | Washer                     | EN 14301(AISI 304)                    | -           | -        | 1     |
| 92  | Lip seal                   | NBR                                   | 22x12x4     | -        | 1     |
| 94  | Shaft sleeve               | EN 14305 (AISI 303) ceramic coated    | -           | -        | 1     |
| 95  | O-ring                     | NBR                                   | 6,07x1,78   | -        | 1     |
| 96  | O-ring                     | NBR                                   | 4,48x1,78   | -        | 1     |
| 97  | Power cable connector      | NBR                                   | -           | -        | 1     |
| 98  | Switch cable connector [3] | NBR                                   | -           | -        | 1     |
| 100 | O-ring                     | NBR                                   | 4,48x1,78   | -        | 1     |
| 123 | Handle                     | PP                                    | -           | -        | 1     |
| 200 | Screw                      | A2 - 70 UNI 7323                      | M 5x6       | UNI 7687 | 4     |
| 201 | Screw                      | A2 - 70 UNI 7323                      | M 5x6       | UNI 7687 | 1     |
| 204 | Screw                      | A2 - 70 UNI 7323                      | M 5x6       | UNI 7687 | 1     |
| 206 | Screw                      | A2 - 70 UNI 7323                      | M 5x6       | UNI 7687 | 3     |
| 207 | Screw                      | A2 - 70 UNI 7323                      | M 5x6       | UNI 7687 | 2     |
| 208 | Screw                      | A2 - 70 UNI 7323                      | M 5x6       | UNI 7687 | 3     |
| 213 | Screw                      | A2 - 70 UNI 7323                      | M 4x6       | UNI 7687 | 1     |
| 232 | Washer                     | PA 6                                  | 5,5x10x1    | -        | 1     |
| 235 | Washer                     | Zinked Steel                          | 4           | UNI 8842 | 1     |
| 242 | Washer                     | EN 14301(AISI 304)                    | 13,4x15,9x1 | -        | 1     |
| 243 | Washer [3]                 | EN 14301(AISI 304)                    | 13,4x15,9x1 | -        | 1     |
| 246 | Ground wire                | -                                     | -           | -        | 1     |
| 256 | Strain relief              | -                                     | -           | -        | 1     |
| 257 | Strain relief [3]          | -                                     | -           | -        | 1     |
| 260 | Oil                        | Esso Marco1 152                       | -           | -        | 40 cc |
| 300 | Minimum suction system [5] | Thermoplastic elastomer vulcanizate   | -           | -        | -     |

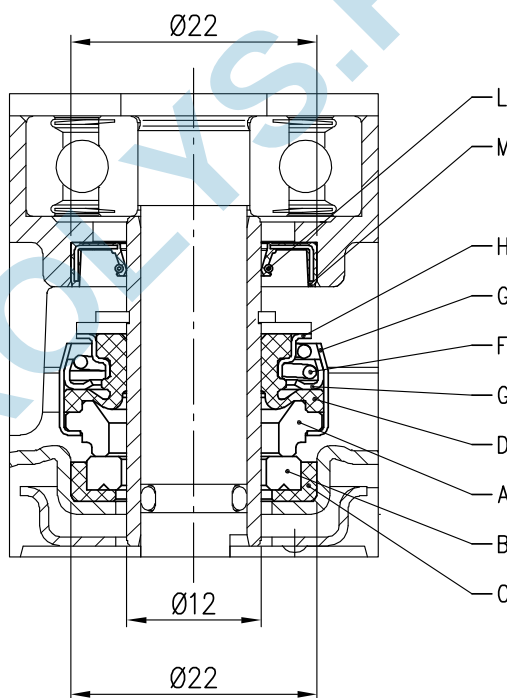
[1] See Mechanical Seal table at page.302

[2] Only for single phase  
[3] Only for switch version

[4] It could be float or magnetic type  
[5] See pag.700 (OPTIONAL)

**BEARINGS**

| Type pumps   |             | Ball Bearing |            |
|--------------|-------------|--------------|------------|
| Single Phase | Three Phase | Lower side   | Upper side |
| BEST ONE M   | BEST ONE    | 6200 ZZ C3   | 6000 ZZ C3 |

**MECHANICAL SEAL**

| REF | PART NAME            | MATERIAL standard    | MATERIAL QQV |
|-----|----------------------|----------------------|--------------|
| A   | Rotary seal ring     | Carbon graphite      | SiC          |
| B   | Stationary seal ring | Ceramic              | SiC - Q6 (*) |
| C   | Gasket               | NBR                  | FPM          |
| D   | Bellows              | NBR                  | FPM          |
| F   | Self driving spring  | EN 1.4301 (AISI 304) |              |
| G   | Frame                | EN 1.4301 (AISI 304) |              |
| H   | Retainer ring        | EN 1.4301 (AISI 304) |              |
| L   | Spring               | EN 1.4318 (AISI 302) |              |
| M   | Lip                  | NBR                  |              |

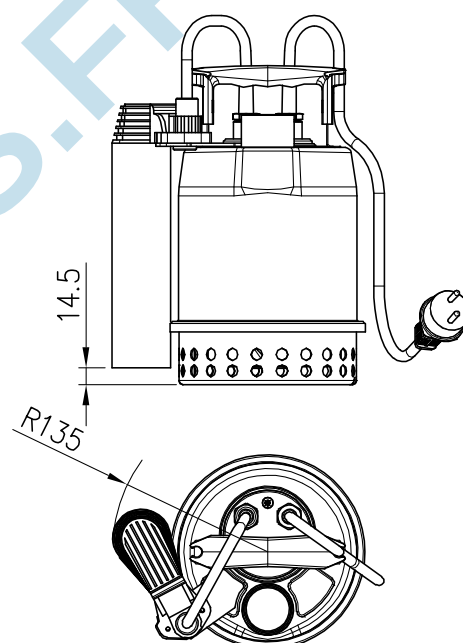
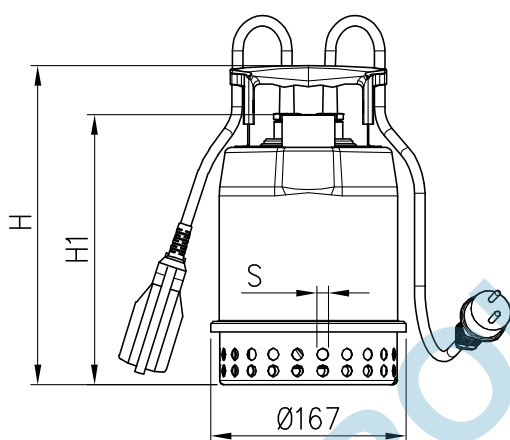
(\*) Special grade of SiC with microporosities filled with graphite

(\*\*) Only for model BEST ONE VOX MA

## PUMP

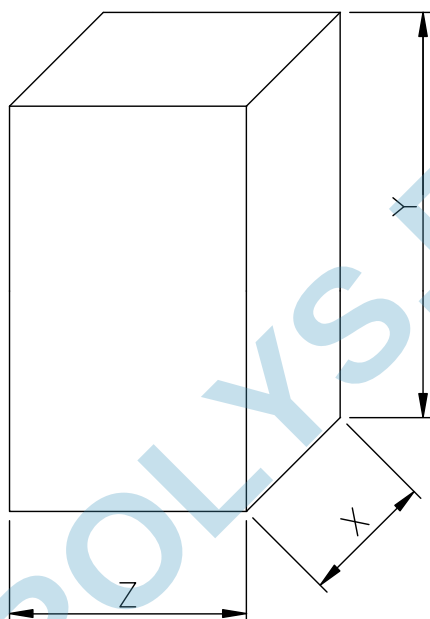
BEST ONE MA  
BEST ONE VOX MA

BEST ONE MS



| Pump Type       | Dimensions [mm] |     |    | Weight [kgf] |
|-----------------|-----------------|-----|----|--------------|
|                 | H               | H1  | S  |              |
| BEST ONE        | 273             | 231 | 10 | 4.3          |
| BEST ONE M      |                 |     |    | 4.4          |
| BEST ONE MA     |                 |     |    | 4.6          |
| BEST ONE MS     |                 |     |    | 4.8          |
| BEST ONE VOX    | 304             | 262 | 20 | 4.4          |
| BEST ONE VOX M  |                 |     |    | 4.5          |
| BEST ONE VOX MA |                 |     |    | 4.7          |

## PACKING



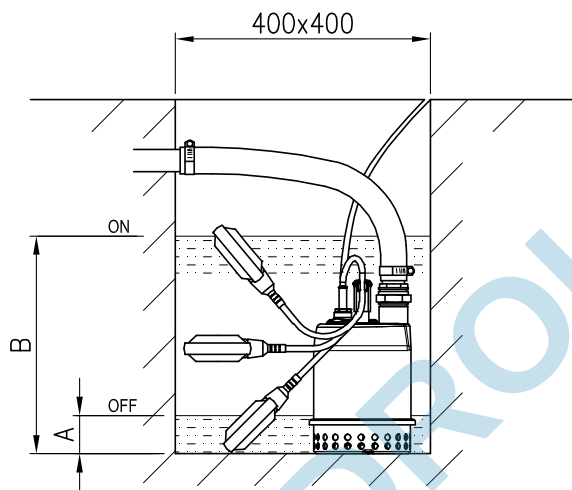
| Pump Type       | Dimensions [mm] |     |     | Weight [kgf] |
|-----------------|-----------------|-----|-----|--------------|
|                 | X               | Y   | Z   |              |
| BEST ONE        | 180             | 330 | 220 | 4.8          |
| BEST ONE M      |                 |     |     | 4.9          |
| BEST ONE MA     |                 |     |     | 5.1          |
| BEST ONE MS     |                 |     |     | 5.3          |
| BEST ONE VOX    |                 |     |     | 4.9          |
| BEST ONE VOX M  |                 |     |     | 5.0          |
| BEST ONE VOX MA |                 |     |     | 5.2          |

## MOTOR DATA

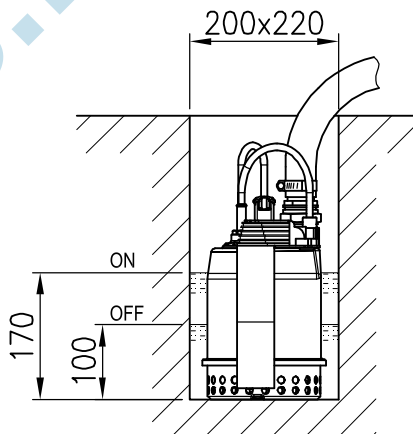
| Pump Type      |              | Power |      | Capacitor<br>Single Phase |      | Input<br>[kW]   |                | Full load current<br>[A] |             | Locked rotor current<br>[A] |             |
|----------------|--------------|-------|------|---------------------------|------|-----------------|----------------|--------------------------|-------------|-----------------------------|-------------|
| Single Phase   | Three Phase  | [kW]  | [HP] | [μF]                      | [Vc] | Single<br>Phase | Three<br>Phase | Single Phase             | Three Phase | Single Phase                | Three Phase |
| BEST ONE M     | BEST ONE     | 0.25  | 0.33 | 8                         | 450  | 0.51            | 0.47           | 2.3                      | 0.8         | 5.8                         | 2.7         |
| BEST ONE VOX M | BEST ONE VOX | 0.25  | 0.33 | 8                         | 450  | 0.50            | 0.44           | 2.2                      | 0.8         | 5.6                         | 2.7         |

INSTALLATION

BEST ONE MA  
BEST ONE VOX MA  
(With float switch)

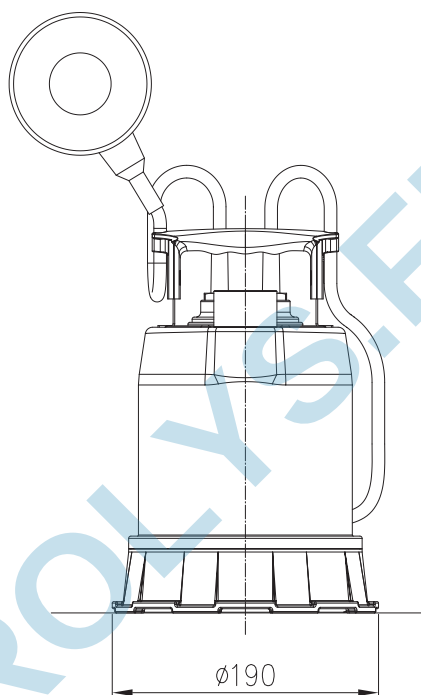


BEST ONE MS  
(With magnetic switch)



| Pump Type       | A   | B   |
|-----------------|-----|-----|
| BEST ONE MA     | 110 | 305 |
| BEST ONE VOX MA |     | 330 |

## MINIMUM SUCTION SYSTEM



| LEVEL                            |       |
|----------------------------------|-------|
| Minimum starting suction level   | 10 mm |
| Minimum suction level capability | 3 mm  |

| COMPATIBILITY |         |    |    |    |
|---------------|---------|----|----|----|
| Type pumps    | Version |    |    |    |
|               | 1~      |    |    | 3~ |
|               | M       | MA | MS |    |
| BEST ONE      | ✓       | ✓  | ✗  | ✓  |
| BEST ONE VOX  | ✗       | ✗  | *  | ✗  |

\* This model don't exist