

**Spandau  
pumpen**

by **EBARA**

## **PRA - Centrifugal pumps**

**Data Book 50/60Hz**



Quality Management  
ISO 9001: 2015

Environmental Management  
ISO 14001:2015



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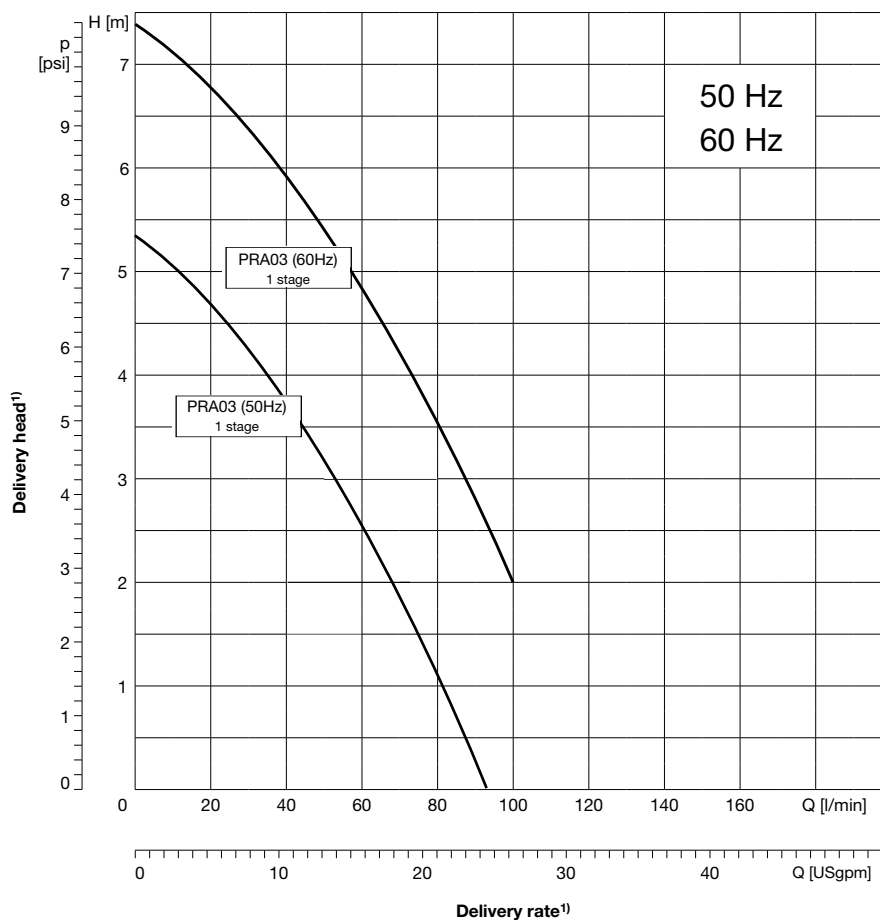
## PRA03 – Immersion pumps, sealless

dual frequency 50-60 Hz, open impellers



### Features

- Vertical multistage centrifugal pump
- For delivery of slightly contaminated fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G $\frac{3}{4}$



### Technical Data

|                           |                                                                            |
|---------------------------|----------------------------------------------------------------------------|
| Delivery rate $Q_{max}$   | 100 l/min                                                                  |
| Delivery head $H_{max}$   | 7,4 m                                                                      |
| Immersion depth $t_{max}$ | 270 mm                                                                     |
| Kinematic viscosity       | max. 20 mm <sup>2</sup> /s                                                 |
| Delivery temperature      | 5°C to 60°C                                                                |
| Grain size                | max. $\phi$ 4 mm                                                           |
| Contamination             | max. 94 g/m <sup>3</sup>                                                   |
| Direction of rotation     | anti-clockwise<br>(as viewed looking down on the motor's ventilation side) |
| Fluids delivered          | Emulsions, cooling and cutting oils, cleaning liquids, water, mild acids   |

### Mechanical design

| Component                        | Material (P) |
|----------------------------------|--------------|
| Flange                           | PPU          |
| Shaft                            | 1.4122       |
| Impeller                         | PPU          |
| Intermediate chamber             | PPU          |
| Pump bottom                      | PPU          |
| Elastomers (O-ring; splash ring) | FKM (FPM)    |

### Variations

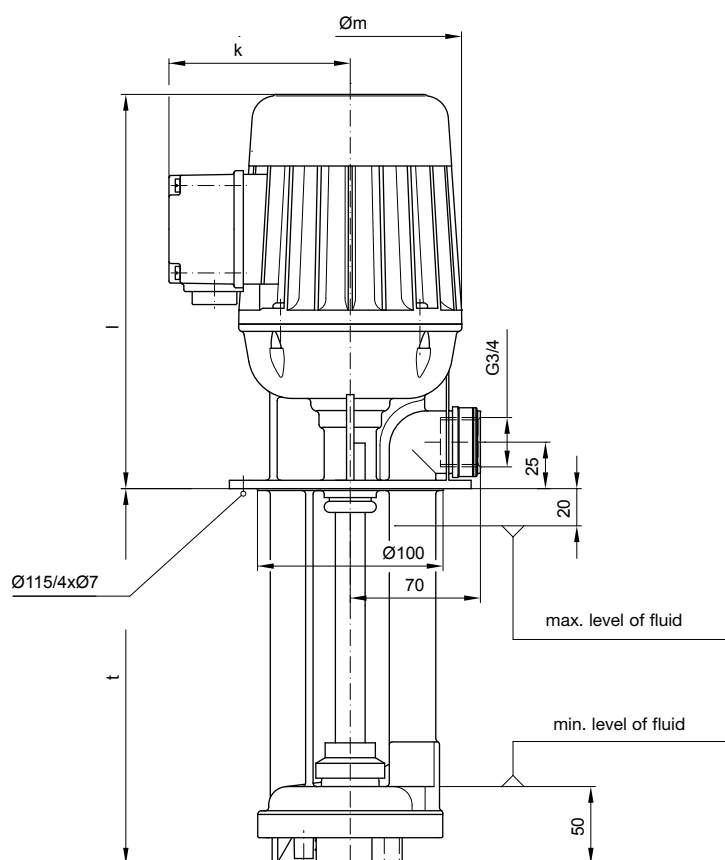
| Component                    | Material               |
|------------------------------|------------------------|
| Intake strainer              | Stainless steel 1.4301 |
| Extension tube <sup>2)</sup> | PP                     |
| Agitator blades              | Plastic                |

<sup>2)</sup> The extension tube is provided with a standard length of 250mm. It's up to the user to cut at desired length.

<sup>1)</sup> Data for viscosity of ~1 mm<sup>2</sup>/s at a density of ~1 kg/dm<sup>3</sup>. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

## PRA03 – Immersion pumps, sealless

### dual frequency 50-60 Hz, open impellers



#### Electrical data, dimensions and weights at 50 Hz

| Type of pump |               |        | Immersion depth $t$ [mm] | Rated motor values       |             |                   |                              |                                  | Dimensions [mm] |    |     | Weight [kg] | Sonic pressure [dBA] | Pressure port series (DIN ISO 228) |
|--------------|---------------|--------|--------------------------|--------------------------|-------------|-------------------|------------------------------|----------------------------------|-----------------|----|-----|-------------|----------------------|------------------------------------|
| Series       | Impeller size | Stages |                          | Voltage $\Delta/Y$ U [V] | Motor index | Output $P_N$ [kW] | Current $\Delta/Y$ $I_N$ [A] | Speed $n_N$ [min <sup>-1</sup> ] | $\varnothing m$ | k  | l   |             |                      |                                    |
| PRA          | 03            | 01     | 90                       | 230/400                  | C           | 0,18              | 1,1 / 0,6                    | 2825                             | 120             | 98 | 216 | 6,0         | 44                   | G $\frac{3}{4}$                    |
|              |               |        | 120                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 140                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 170                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 220                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 270                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |

#### Electrical data, dimensions and weights at 60 Hz

| Type of pump |               |        | Immersion depth $t$ [mm] | Rated motor values       |             |                   |                              |                                  | Dimensions [mm] |    |     | Weight [kg] | Sonic pressure [dBA] | Pressure port series (DIN ISO 228) |
|--------------|---------------|--------|--------------------------|--------------------------|-------------|-------------------|------------------------------|----------------------------------|-----------------|----|-----|-------------|----------------------|------------------------------------|
| Series       | Impeller size | Stages |                          | Voltage $\Delta/Y$ U [V] | Motor index | Output $P_N$ [kW] | Current $\Delta/Y$ $I_N$ [A] | Speed $n_N$ [min <sup>-1</sup> ] | $\varnothing m$ | k  | l   |             |                      |                                    |
| PRA          | 03            | 01     | 90                       | 265/460                  | C           | 0,21              | 1,0 / 0,6                    | 3420                             | 120             | 98 | 216 | 6,0         | 44                   | G $\frac{3}{4}$                    |
|              |               |        | 120                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 140                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 170                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 220                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |
|              |               |        | 270                      |                          |             |                   |                              |                                  |                 |    |     | 6,0         |                      |                                    |



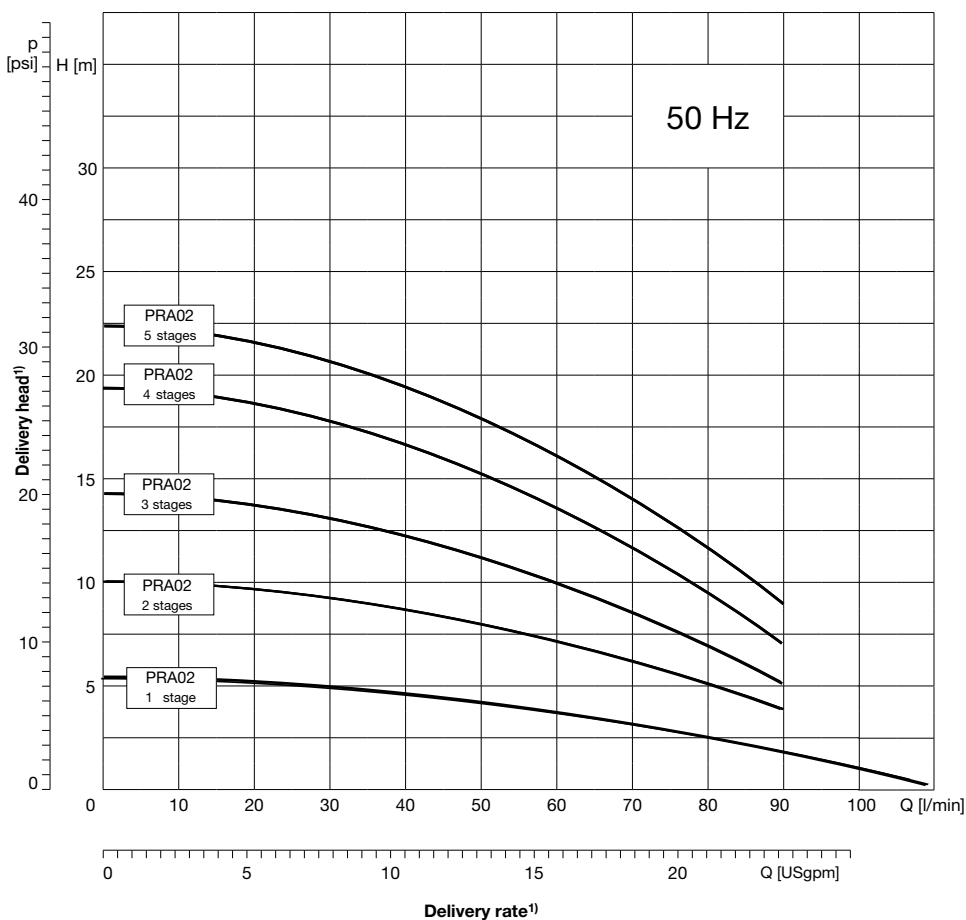
## PRA02 – Immersion pumps, sealless

dual frequency 50-60 Hz, open impellers



### Features

- Vertical multistage centrifugal pump
- For delivery of slightly contaminated fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G $\frac{3}{4}$



### Technical Data

|                            |                                                                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delivery rate $Q_{\max}$   | 110 l/min                                                                                                                                                                                             |
| Delivery head $H_{\max}$   | 22,5 m                                                                                                                                                                                                |
| Immersion depth $t_{\max}$ | 450 mm                                                                                                                                                                                                |
| Kinematic viscosity        | max. 20 mm <sup>2</sup> /s                                                                                                                                                                            |
| Delivery temperature       | 5°C to 60°C (P)<br>-100°C to 100°C (H)*                                                                                                                                                               |
| Grain size                 | max. $\phi$ 0,3 mm                                                                                                                                                                                    |
| Contamination              | max. 50 g/m <sup>3</sup>                                                                                                                                                                              |
| Direction of rotation      | anti-clockwise<br>(as viewed looking down on the motor's ventilation side)                                                                                                                            |
| Fluids delivered           | - Emulsions, cooling and cutting oils, cleaning liquids, water, mild acids (P)<br>- Cooling brines, thermal oils, lyes and acids, chemicals especially organics solvents, detergents and cleaners (H) |

### Mechanical design

| Component                        | Material (P)                    |
|----------------------------------|---------------------------------|
| Flange                           | PPU                             |
| Shaft                            | 1.4122                          |
| Impeller                         | PPU                             |
| Intermediate chamber             | PPU (LCP for 4-5 stages models) |
| Pumps bottom                     | PPU (LCP for 4-5 stages models) |
| Elastomers (O-ring; splash ring) | FKM (FPM)                       |

| Component                        | Material (H)       |
|----------------------------------|--------------------|
| Flange                           | LCP                |
| Shaft                            | 1.4404 (AISI 316L) |
| Impeller                         | LCP                |
| Intermediate chamber             | LCP                |
| Pumps bottom                     | LCP                |
| Elastomers (O-ring; splash ring) | FKM (FPM)          |

### Variations

| Component                    | Material               |
|------------------------------|------------------------|
| Intake strainer              | Stainless steel 1.4301 |
| Extension tube <sup>2)</sup> | PP                     |
| Agitator blades              | Plastic                |

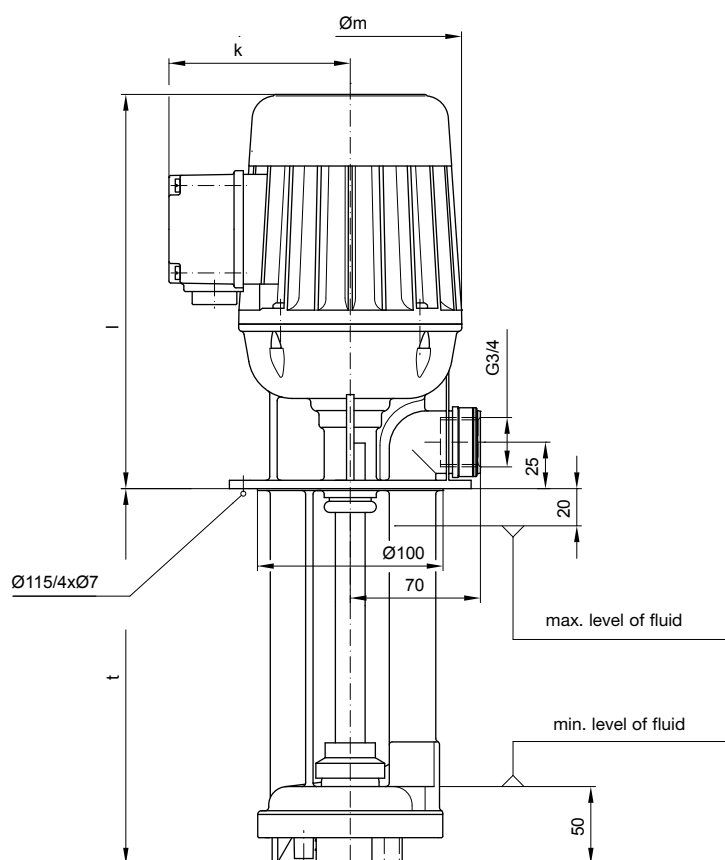
<sup>2)</sup> The extension tube is provided with a standard length of 250mm. It's up to the user to cut at desired length.

\*Please note: the maximum permissible operating temperature drops with a rising number of pump stages

<sup>1)</sup> Data for viscosity of ~1 mm<sup>2</sup>/s at a density of ~1 kg/dm<sup>3</sup>. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

## PRA02 – Immersion pumps, sealless

### dual frequency 50-60 Hz, open impellers



#### Electrical data, dimensions and weights at 50 Hz

| Type of pump |               |        | Immersion depth $t$ [mm] | Rated motor values       |             |                   |                              |                                  | Dimensions [mm] |     |     | Weight [kg] | Sonic pressure [dBA] | Pressure port series (DIN ISO 228) |
|--------------|---------------|--------|--------------------------|--------------------------|-------------|-------------------|------------------------------|----------------------------------|-----------------|-----|-----|-------------|----------------------|------------------------------------|
| Series       | Impeller size | Stages |                          | Voltage $\Delta/Y$ U [V] | Motor index | Output $P_N$ [kW] | Current $\Delta/Y$ $I_N$ [A] | Speed $n_N$ [min <sup>-1</sup> ] | $\varnothing m$ | $k$ | $l$ |             |                      |                                    |
| PRA          | 02            | 01     | 90                       | 230/400                  | D           | 0,25              | 0,5 / 0,85                   | 2865                             | 120             | 98  | 216 | 6,0         | 45                   | G $\frac{3}{4}$                    |
|              |               |        | 120                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 140                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 170                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 220                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 270                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
| PRA          | 02            | 02     | 130                      | 230/400                  | E           | 0,37              | 1,7 / 0,98                   | 2785                             | 120             | 98  | 216 | 6,0         | 48                   | G $\frac{3}{4}$                    |
|              |               |        | 160                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 180                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 210                      |                          |             |                   |                              |                                  |                 |     |     | 6,0         |                      |                                    |
|              |               |        | 260                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
|              |               |        | 310                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
| PRA          | 02            | 03     | 170                      | 230/400                  | E           | 0,37              | 1,7 / 0,98                   | 2785                             | 120             | 98  | 216 | 6,0         | 48                   | G $\frac{3}{4}$                    |
|              |               |        | 200                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
|              |               |        | 220                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
|              |               |        | 250                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
|              |               |        | 300                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
|              |               |        | 350                      |                          |             |                   |                              |                                  |                 |     |     | 6,5         |                      |                                    |
| PRA          | 02            | 04     | 200                      | 230/400                  | G           | 0,63              | 2,7 / 1,5                    | 2883                             | 140             | 104 | 322 | 13,0        | 54                   | G $\frac{3}{4}$                    |
|              |               |        | 230                      |                          |             |                   |                              |                                  |                 |     |     | 13,0        |                      |                                    |
|              |               |        | 250                      |                          |             |                   |                              |                                  |                 |     |     | 13,0        |                      |                                    |
|              |               |        | 280                      |                          |             |                   |                              |                                  |                 |     |     | 13,0        |                      |                                    |
|              |               |        | 330                      |                          |             |                   |                              |                                  |                 |     |     | 13,0        |                      |                                    |
|              |               |        | 450                      |                          |             |                   |                              |                                  |                 |     | 332 | 14,0        |                      |                                    |
| PRA          | 02            | 05     | 240                      | 230/400                  | H           | 1,1               | 4,3 / 2,5                    | 2830                             | 140             | 104 | 332 | 13,0        | 54                   | G $\frac{3}{4}$                    |
|              |               |        | 270                      |                          |             |                   |                              |                                  |                 |     |     | 13,0        |                      |                                    |
|              |               |        | 290                      |                          |             |                   |                              |                                  |                 |     |     | 13,5        |                      |                                    |
|              |               |        | 320                      |                          |             |                   |                              |                                  |                 |     |     | 13,5        |                      |                                    |
|              |               |        | 450                      |                          |             |                   |                              |                                  |                 |     |     | 14,0        |                      |                                    |
|              |               |        |                          |                          |             |                   |                              |                                  |                 |     |     |             |                      |                                    |



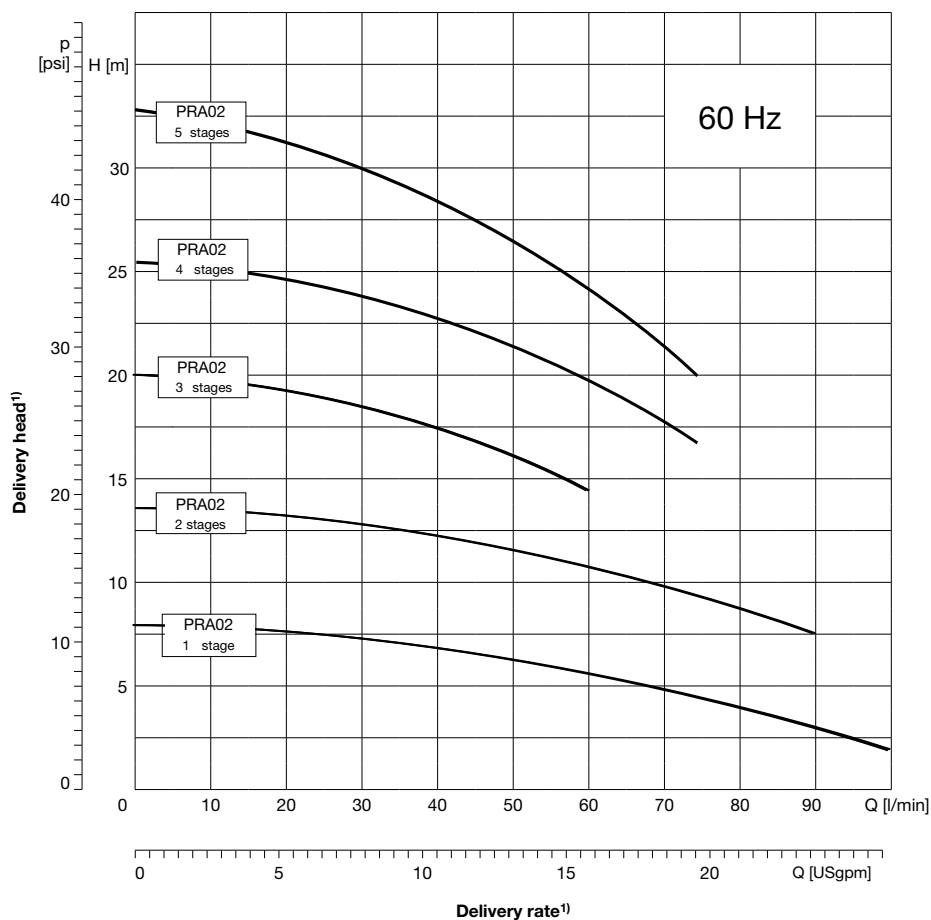
## PRA02 – Immersion pumps, sealless

dual frequency 50-60 Hz, open impellers



### Features

- Vertical multistage centrifugal pump
- For delivery of slightly contaminated fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G $\frac{3}{4}$



### Technical Data

|                            |                                                                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delivery rate $Q_{\max}$   | 140 l/min                                                                                                                                                                                             |
| Delivery head $H_{\max}$   | 33,0 m                                                                                                                                                                                                |
| Immersion depth $t_{\max}$ | 450 mm                                                                                                                                                                                                |
| Kinematic viscosity        | max. 20 mm <sup>2</sup> /s                                                                                                                                                                            |
| Delivery temperature       | 5°C to 60°C (P)<br>-100°C to 100°C (H)*                                                                                                                                                               |
| Grain size                 | max. $\phi$ 0,3 mm                                                                                                                                                                                    |
| Contamination              | max. 50 g/m <sup>3</sup>                                                                                                                                                                              |
| Direction of rotation      | anti-clockwise<br>(as viewed looking down on the motor's ventilation side)                                                                                                                            |
| Fluids delivered           | - Emulsions, cooling and cutting oils, cleaning liquids, water, mild acids (P)<br>- Cooling brines, thermal oils, lyes and acids, chemicals especially organics solvents, detergents and cleaners (H) |

### Mechanical design

| Component                        | Material (P)                    |
|----------------------------------|---------------------------------|
| Flange                           | PPU                             |
| Shaft                            | 1.4122                          |
| Impeller                         | PPU                             |
| Intermediate chamber             | PPU (LCP for 4-5 stages models) |
| Pumps bottom                     | PPU (LCP for 4-5 stages models) |
| Elastomers (O-ring; splash ring) | FKM (FPM)                       |

| Component                        | Material (H)       |
|----------------------------------|--------------------|
| Flange                           | LCP                |
| Shaft                            | 1.4404 (AISI 316L) |
| Impeller                         | LCP                |
| Intermediate chamber             | LCP                |
| Pumps bottom                     | LCP                |
| Elastomers (O-ring; splash ring) | FKM (FPM)          |

### Variations

| Component                    | Material               |
|------------------------------|------------------------|
| Intake strainer              | Stainless steel 1.4301 |
| Extension tube <sup>2)</sup> | PP                     |
| Agitator blades              | Plastic                |

<sup>2)</sup> The extension tube is provided with a standard length of 250mm. It's up to the user to cut at desired length.

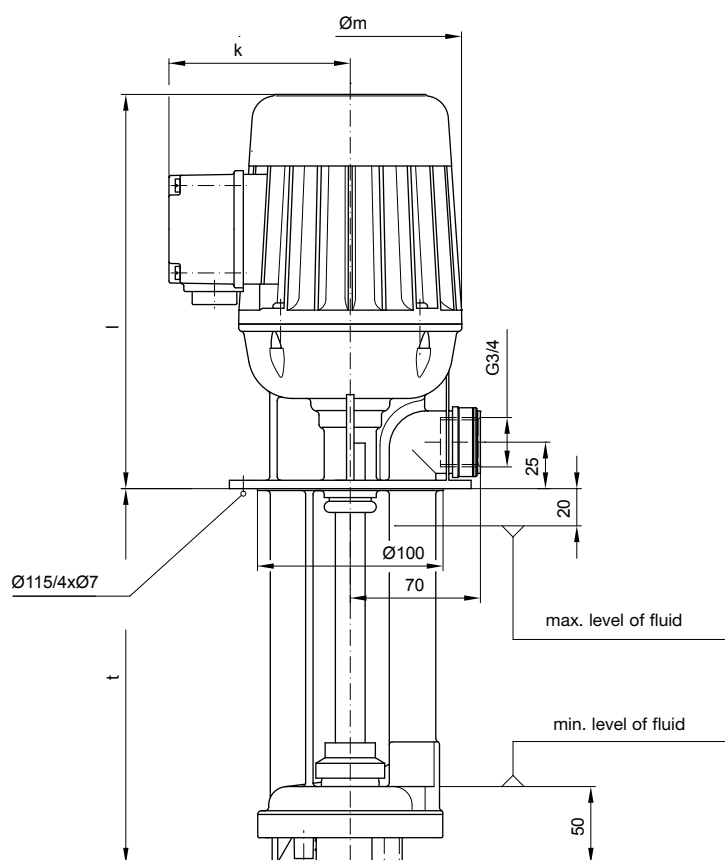
\*Please note: the maximum permissible operating temperature drops with a rising number of pump stages

<sup>1)</sup> Data for viscosity of ~1 mm<sup>2</sup>/s at a density of ~1 kg/dm<sup>3</sup>. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.



## PRA02 – Immersion pumps, sealless

**dual frequency 50-60 Hz, open impellers**



### Electrical data, dimensions and weights at 60 Hz

| Type of pump |            |        | Immersion depth<br>t<br>[mm] | Rated motor values      |             |                               |                                   |                                              | Dimensions [mm] |     |     | Weight<br>[kg] | Sonic pressure<br>[dBA] | Pressure port series<br>(DIN ISO 228) |
|--------------|------------|--------|------------------------------|-------------------------|-------------|-------------------------------|-----------------------------------|----------------------------------------------|-----------------|-----|-----|----------------|-------------------------|---------------------------------------|
| Series       | Frame size | Stages |                              | Voltage<br>Δ/Y<br>U [V] | Motor index | Output<br>P <sub>N</sub> [kW] | Current<br>Δ/Y I <sub>N</sub> [A] | Speed<br>n <sub>N</sub> [min <sup>-1</sup> ] | Øm              | k   | l   |                |                         |                                       |
| PRA          | 02         | 01     | 90                           | 265/460                 | D           | 0,29                          | 1,4 / 0,8                         | 3470                                         | 120             | 98  | 216 | 6,0            | 45                      | G¾                                    |
|              |            |        | 120                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 140                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 170                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 220                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 270                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
| PRA          | 02         | 02     | 130                          | 265/460                 | E           | 0,42                          | 1,7 / 1,0                         | 3360                                         | 120             | 98  | 216 | 6,0            | 48                      | G¾                                    |
|              |            |        | 160                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 180                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 210                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 260                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 310                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
| PRA          | 02         | 03     | 170                          | 265/460                 | E           | 0,42                          | 1,7 / 1,0                         | 3360                                         | 120             | 98  | 216 | 6,0            | 48                      | G¾                                    |
|              |            |        | 200                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 220                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 250                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 300                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 350                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
| PRA          | 02         | 04     | 200                          | 265/460                 | G           | 0,75                          | 2,6 / 1,5                         | 3460                                         | 140             | 104 | 322 | 13,0           | 54                      | G¾                                    |
|              |            |        | 230                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 250                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 280                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 330                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 450                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
| PRA          | 02         | 05     | 240                          | 265/460                 | H           | 1,26                          | 4,1 / 2,4                         | 3440                                         | 140             | 104 | 332 | 13,0           | 54                      | G¾                                    |
|              |            |        | 270                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 290                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 320                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        | 450                          |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |
|              |            |        |                              |                         |             |                               |                                   |                                              |                 |     |     |                |                         |                                       |



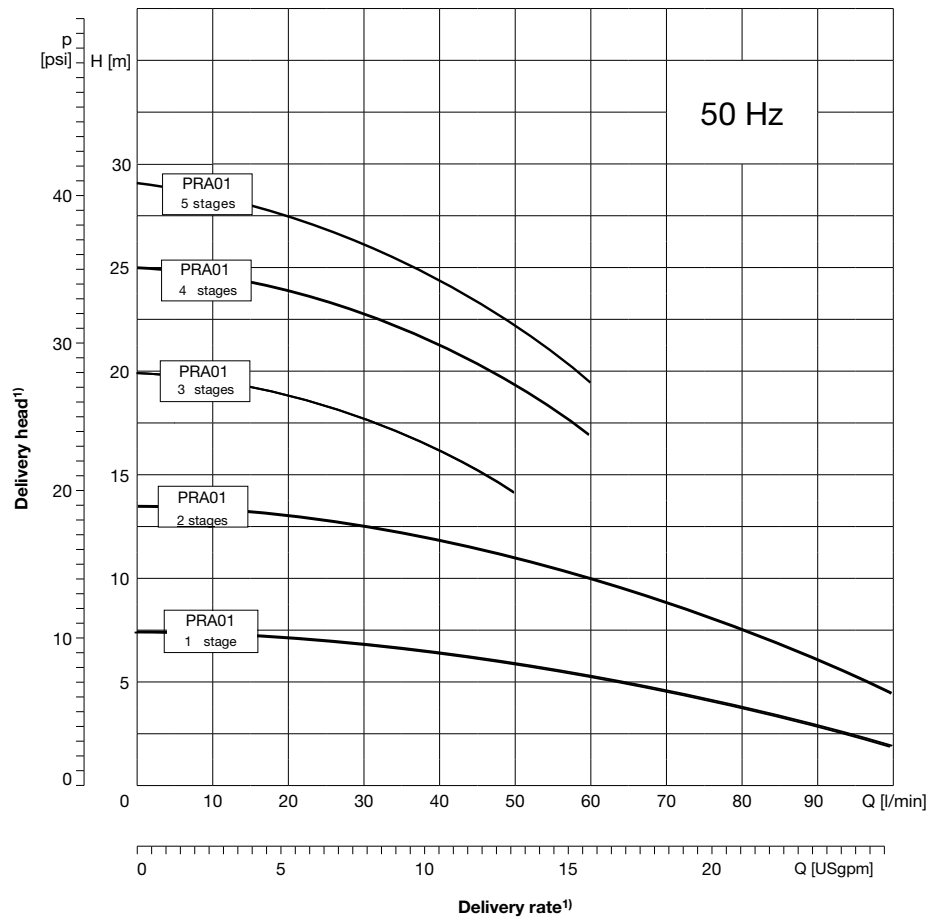
## PRA01 – Immersion pumps, sealless

50 Hz, open impellers



### Features

- Vertical multistage centrifugal pump
- For delivery of slightly contaminated fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G $\frac{3}{4}$



### Technical Data

|                           |                                                                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delivery rate $Q_{max}$   | 120 l/min                                                                                                                                                                                             |
| Delivery head $H_{max}$   | 29,0 m                                                                                                                                                                                                |
| Immersion depth $t_{max}$ | 450 mm                                                                                                                                                                                                |
| Kinematic viscosity       | max. 20 mm <sup>2</sup> /s                                                                                                                                                                            |
| Delivery temperature      | 5°C to 60°C (P)<br>-100°C to 100°C (H)*                                                                                                                                                               |
| Grain size                | max. $\phi$ 0,3 mm                                                                                                                                                                                    |
| Contamination             | max. 50 g/m <sup>3</sup>                                                                                                                                                                              |
| Direction of rotation     | anti-clockwise<br>(as viewed looking down on the motor's ventilation side)                                                                                                                            |
| Fluids delivered          | - Emulsions, cooling and cutting oils, cleaning liquids, water, mild acids (P)<br>- Cooling brines, thermal oils, lyes and acids, chemicals especially organics solvents, detergents and cleaners (H) |

### Mechanical design

| Component                        | Material (P)                    |
|----------------------------------|---------------------------------|
| Flange                           | PPU                             |
| Shaft                            | 1.4122                          |
| Impeller                         | PPU                             |
| Intermediate chamber             | PPU (LCP for 4-5 stages models) |
| Pumps bottom                     | PPU (LCP for 4-5 stages models) |
| Elastomers (O-ring; splash ring) | FKM (FPM)                       |

| Component                        | Material (H)       |
|----------------------------------|--------------------|
| Flange                           | LCP                |
| Shaft                            | 1.4404 (AISI 316L) |
| Impeller                         | LCP                |
| Intermediate chamber             | LCP                |
| Pumps bottom                     | LCP                |
| Elastomers (O-ring; splash ring) | FKM (FPM)          |

### Variations

| Component                    | Material               |
|------------------------------|------------------------|
| Intake strainer              | Stainless steel 1.4301 |
| Extension tube <sup>2)</sup> | PP                     |
| Agitator blades              | Plastic                |

<sup>2)</sup> The extension tube is provided with a standard length of 250mm. It's up to the user to cut at desired length.

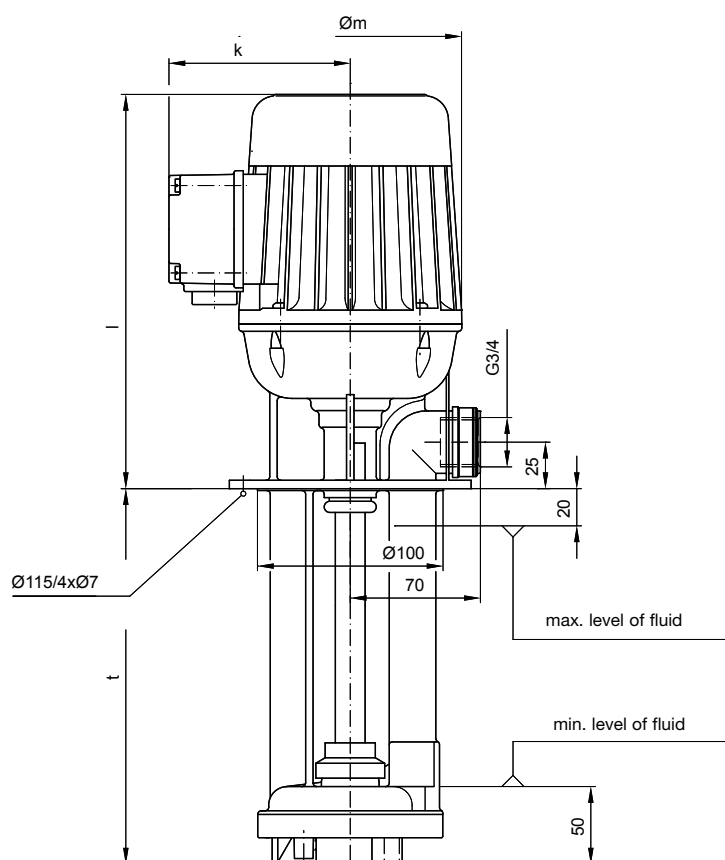
\*Please note: the maximum permissible operating temperature drops with a rising number of pump stages

<sup>1)</sup> Data for viscosity of ~1 mm<sup>2</sup>/s at a density of ~1 kg/dm<sup>3</sup>. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.



## PRA01 – Immersion pumps, sealless

### 50 Hz, open impellers



### Electrical data, dimensions and weights at 50 Hz

| Type of pump |                  |        | Immersion<br>depth<br>t<br>[mm] | Rated motor values      |                |                               |                                   |                                              | Dimensions [mm] |     |     | Weight<br>[kg] | Sonic<br>pressure<br>[dBA] | Pressure<br>port<br>series<br>(DIN ISO 228) |
|--------------|------------------|--------|---------------------------------|-------------------------|----------------|-------------------------------|-----------------------------------|----------------------------------------------|-----------------|-----|-----|----------------|----------------------------|---------------------------------------------|
| Series       | Impeller<br>size | Stages |                                 | Voltage<br>Δ/Y<br>U [V] | Motor<br>index | Output<br>P <sub>N</sub> [kW] | Current<br>Δ/Y I <sub>N</sub> [A] | Speed<br>n <sub>N</sub> [min <sup>-1</sup> ] | Øm              | k   | l   |                |                            |                                             |
| PRA          | 01               | 01     | 90                              | 230/400                 | C              | 0,18                          | 1,1 / 0,6                         | 2825                                         | 120             | 98  | 216 | 5,0            | 45                         | G¾                                          |
|              |                  |        | 120                             |                         |                |                               |                                   |                                              |                 |     |     | 5,0            |                            |                                             |
|              |                  |        | 140                             |                         |                |                               |                                   |                                              |                 |     |     | 5,0            |                            |                                             |
|              |                  |        | 170                             |                         |                |                               |                                   |                                              |                 |     |     | 5,0            |                            |                                             |
|              |                  |        | 220                             |                         |                |                               |                                   |                                              |                 |     |     | 5,0            |                            |                                             |
|              |                  |        | 270                             |                         |                |                               |                                   |                                              |                 |     |     | 5,0            |                            |                                             |
| PRA          | 01               | 02     | 130                             | 230/400                 | E              | 0,37                          | 1,7 / 0,98                        | 2785                                         | 120             | 98  | 216 | 6,0            | 48                         | G¾                                          |
|              |                  |        | 160                             |                         |                |                               |                                   |                                              |                 |     |     | 6,0            |                            |                                             |
|              |                  |        | 180                             |                         |                |                               |                                   |                                              |                 |     |     | 6,0            |                            |                                             |
|              |                  |        | 210                             |                         |                |                               |                                   |                                              |                 |     |     | 6,0            |                            |                                             |
|              |                  |        | 260                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
|              |                  |        | 310                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
| PRA          | 01               | 03     | 170                             | 230/400                 | E              | 0,37                          | 1,7 / 0,98                        | 2785                                         | 120             | 98  | 216 | 6,0            | 48                         | G¾                                          |
|              |                  |        | 200                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
|              |                  |        | 220                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
|              |                  |        | 250                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
|              |                  |        | 300                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
|              |                  |        | 350                             |                         |                |                               |                                   |                                              |                 |     |     | 6,5            |                            |                                             |
| PRA          | 01               | 04     | 200                             | 230/400                 | G              | 0,63                          | 2,7 / 1,5                         | 2883                                         | 140             | 104 | 322 | 13,0           | 54                         | G¾                                          |
|              |                  |        | 230                             |                         |                |                               |                                   |                                              |                 |     |     | 13,0           |                            |                                             |
|              |                  |        | 250                             |                         |                |                               |                                   |                                              |                 |     |     | 13,0           |                            |                                             |
|              |                  |        | 280                             |                         |                |                               |                                   |                                              |                 |     |     | 13,0           |                            |                                             |
|              |                  |        | 330                             |                         |                |                               |                                   |                                              |                 |     |     | 13,0           |                            |                                             |
|              |                  |        | 450                             |                         |                |                               |                                   |                                              |                 |     | 332 | 14,0           |                            |                                             |
| PRA          | 01               | 05     | 240                             | 230/400                 | G              | 0,75                          | 3 / 1,7                           | 2845                                         | 140             | 104 | 332 | 13,0           | 54                         | G¾                                          |
|              |                  |        | 270                             |                         |                |                               |                                   |                                              |                 |     |     | 13,0           |                            |                                             |
|              |                  |        | 290                             |                         |                |                               |                                   |                                              |                 |     |     | 13,5           |                            |                                             |
|              |                  |        | 320                             |                         |                |                               |                                   |                                              |                 |     |     | 13,5           |                            |                                             |
|              |                  |        | 450                             |                         |                |                               |                                   |                                              |                 |     |     | 14,0           |                            |                                             |
|              |                  |        |                                 |                         |                |                               |                                   |                                              |                 |     |     |                |                            |                                             |



## PRA – Immersion pumps, hydrostatic sealing

### Order key

|                                                                                                                                                                              |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                                                                                                                                                                              | P | R | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Series                                                                                                                                                                       |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Impeller size                                                                                                                                                                |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>01 = 70x16mm; 02 = 60x16mm; 03 = 63x7,7mm</b>                                                                                                                             |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stages                                                                                                                                                                       |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To determine the desired number of stages the corresponding characteristics has to be used.<br><b>01 = 1 stage</b><br>...<br><b>05 = 5 stages</b>                            |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Materials                                                                                                                                                                    |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>P = PPU (standard)</b><br><b>H = LCP (available for PRA01 and PRA02)</b>                                                                                                  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Seal                                                                                                                                                                         |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>B = gap bush (standard)</b>                                                                                                                                               |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pump design                                                                                                                                                                  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>S = standard design; A = agitator; V = Extension tube</b><br><b>C = bottom equipped with intake strainer</b>                                                              |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Immersion depth in mm                                                                                                                                                        |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To determine the desired immersion depth the appropriate table "Electrical data, dimensions and weights" has to be used.<br><b>090 = 90 mm</b><br>...<br><b>450 = 450 mm</b> |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Motor index                                                                                                                                                                  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To determine the desired motor index the appropriate table "Electrical data, dimensions and weights" has to be used.<br>Example:<br><b>E = 0,37/0,42 kW</b>                  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Power supply                                                                                                                                                                 |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>01 = dual frequency: 230/400 V at 50 Hz; 265/460 V at 60Hz</b><br><b>05 = 230/400 V 50 Hz</b>                                                                             |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Motor design                                                                                                                                                                 |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**CA** = standard (insulation class F, IP 54, 2-pole, IE3)

#### Order example: PRA0105PBS450G05CA

Series: **PRA**, impeller size: **01**, **5** stages, material: **P** PPU plastic, seal: **B** gap bush, pump design: **S** standard design, immersion depth: **450** mm, motor index: **G** 0,75 kW, power supply: **05** 230/400 V 50 Hz; Motor design: **CA** standard (IE3)

**Spandau  
pumpen**

— by **EBARA**

[spandau.pumps.epe@ebara.com](mailto:spandau.pumps.epe@ebara.com)

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**EBARA Pumps Europe S.p.A.**

Via Torri di Confine 2/1 int. C  
36053 Gambellara (Vicenza), Italy  
Phone +39 0444 706811

[ebarpumps.epe@ebara.com](mailto:ebarpumps.epe@ebara.com)  
[www.ebaraeurope.com](http://www.ebaraeurope.com)

03/25

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