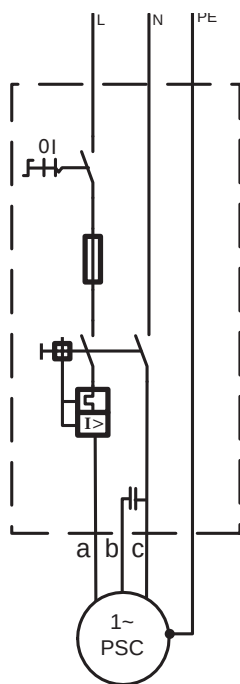




## PSC Winding resistance 50 Hz

| $P_N$<br>[kW] | $U_N$<br>[V] | Stator-Ref. # 304SS | Main phase<br>[Ohm] | Start phase<br>[Ohm] |
|---------------|--------------|---------------------|---------------------|----------------------|
| <b>0,25</b>   | 220 - 230    | 326 738 942         | 8,2 - 10,0          | 31,1 - 38,1          |
|               | 230 - 240    | 326 800 942         | 8,9 - 10,9          | 26,7 - 32,6          |
| <b>0,37</b>   | 220 - 230    | 326 739 942         | 6,7 - 8,1           | 21,7 - 26,5          |
|               | 230 - 240    | 326 801 942         | 7,2 - 8,8           | 20,8 - 25,4          |
| <b>0,55</b>   | 220 - 230    | 326 740 942         | 4,4 - 5,4           | 13,6 - 16,6          |
|               | 230 - 240    | 326 802 942         | 4,8 - 5,8           | 13,1 - 16,0          |
| <b>0,75</b>   | 220 - 230    | 326 741 942         | 3,3 - 4,1           | 8,1 - 9,9            |
|               | 230 - 240    | 326 803 942         | 3,7 - 4,6           | 7,7 - 9,4            |
| <b>1,1</b>    | 220 - 230    | 326 742 942         | 2,3 - 2,8           | 6,8 - 8,3            |
|               | 230 - 240    | 326 804 942         | 2,5 - 3,0           | 6,5 - 7,9            |
| <b>1,5</b>    | 220 - 230    | 326 743 942         | 1,8 - 2,2           | 4,7 - 5,7            |
|               | 230 - 240    | 326 805 942         | 1,9 - 2,4           | 4,4 - 5,4            |
| <b>2,2</b>    | 220 - 230    | 326 744 942         | 1,2 - 1,5           | 3,2 - 3,9            |
|               | 230 - 240    | 326 806 942         | 1,3 - 1,6           | 3,0 - 3,6            |

## Electrical connection PSC Motors

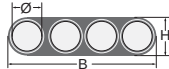
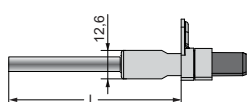


| a     | b     | c    | PE           |
|-------|-------|------|--------------|
| black | brown | grey | yellow/green |

## Motor Leads\*

### PSC Motor- VDE / ACS/ KTW Approved Flat Leads

| $\varnothing$ [mm <sup>2</sup> ] | B [mm]     | H [mm]    |
|----------------------------------|------------|-----------|
| 4X1,5                            | 14,6 ± 0,3 | 5,1 ± 0,3 |

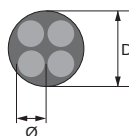
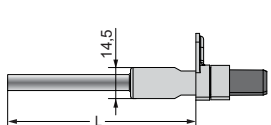



| L [m] | 304 SS / 316 SS |
|-------|-----------------|
| 1,5   | 310 178 501     |
| 2,5   | 310 178 502     |
| 5     | 310 178 505     |
| 10    | 310 178 510     |
| 15    | 310 178 515     |
| 20    | 310 178 520     |
| 30    | 310 178 530     |
| 40    | 310 178 540     |
| 50    | 310 178 550     |

\*Cables are designed for submerged operation. For air operation please consult Franklin Electric.

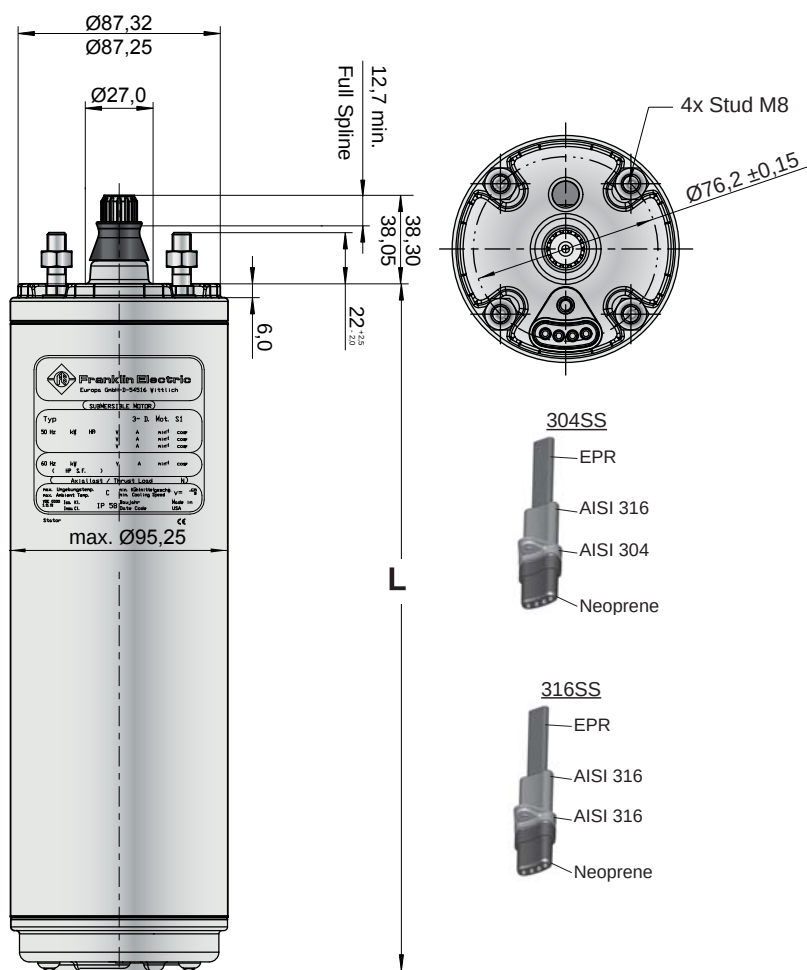
### PSC Motor- Pollution Recovery Round Leads

| $\varnothing$ [mm <sup>2</sup> ] | $\varnothing D$ [mm] |
|----------------------------------|----------------------|
| 4X1,5                            | 9,8 ± 0,3            |

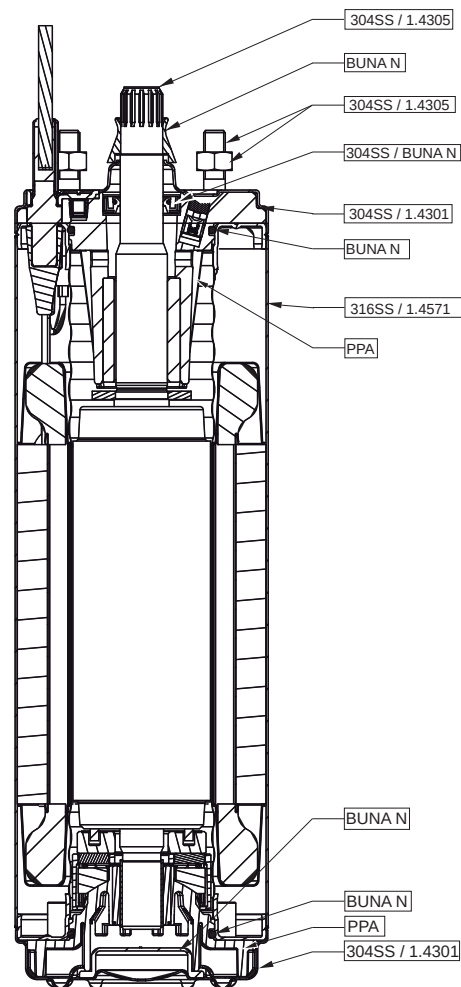
| L [m] | 304SS / 316 SS |
|-------|----------------|
| 1,5   | 310 318 501    |
| 2,5   | 310 318 502    |
| 5     | 310 318 505    |
| 10    | 310 318 510    |
| 15    | 310 318 515    |
| 20    | 310 318 520    |
| 30    | 310 318 530    |
| 40    | 310 318 540    |
| 50    | 310 318 550    |

## Outline Drawing PSC Motors



Tolerances according to NEMA MG 1-18.388

## Material Description

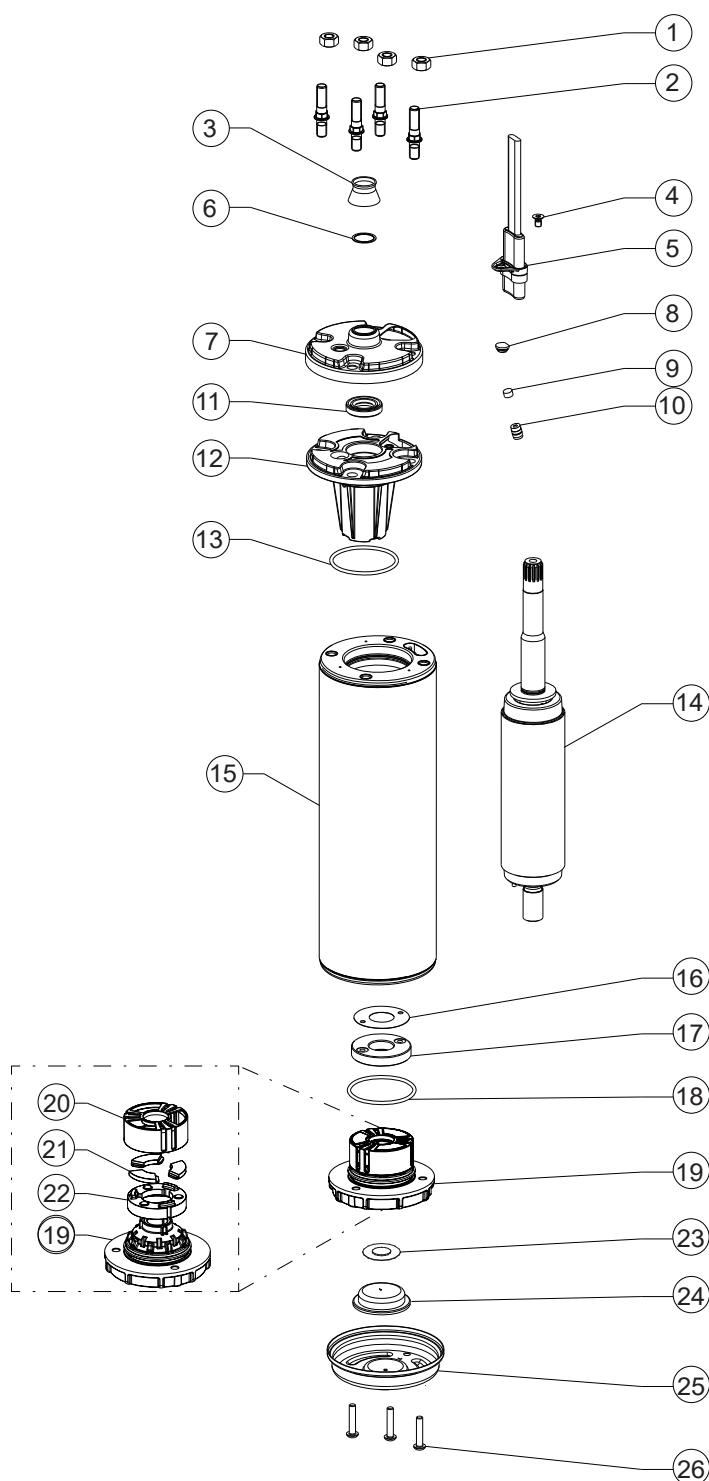


## 4" PSC Motors Lengths and Weights / Packing sizes

| P <sub>N</sub> |      | L<br>[mm] | M<br>[kg] | Motor with Lead<br>in single pack |       | Motor Package size<br>(40 motors per packing unit) |       |
|----------------|------|-----------|-----------|-----------------------------------|-------|----------------------------------------------------|-------|
|                |      |           |           | [mm]                              | [kg]  | [mm]                                               | [kg]  |
| 0,25           | 0,33 | 237,2     | 6,55      | 400 x 100 x 110                   | 7,25  | 800 x 500 x 870                                    | 262,0 |
| 0,37           | 0,50 | 251,1     | 7,20      | 400 x 100 x 110                   | 7,9   | 800 x 500 x 870                                    | 306,8 |
| 0,55           | 0,75 | 276,2     | 8,35      | 530 x 100 x 110                   | 9,05  | 800 x 500 x 870                                    | 352,8 |
| 0,75           | 1,00 | 297,2     | 9,30      | 530 x 100 x 110                   | 10,0  | 800 x 500 x 870                                    | 390,8 |
| 1,10           | 1,50 | 321,2     | 10,45     | 530 x 100 x 110                   | 11,15 | 800 x 500 x 870                                    | 436,8 |
| 1,50           | 2,0  | 353,2     | 11,90     | 796 x 100 x 110                   | 12,6  | 800 x 500 x 870                                    | 494,8 |
| 2,20           | 3,0  | 451,2     | 16,65     | 796 x 100 x 110                   | 17,35 | 800 x 500 x 870                                    | 684,8 |



## 4" PSC Motor Part Description Design start: 07.2016



| Pos. | Part Description     | Qty. | Part No.    |
|------|----------------------|------|-------------|
| 1    | Nut M8               | 4    | Kit C       |
| 2    | Stud M8              | 4    | Kit C       |
| 3    | Protector, Spline    | 1    | Kit B       |
| 4    | Screw (Motor lead)   | 1    | Kit C       |
| 5    | Motor lead           | 1    | see page 11 |
| 6    | Washer               | 1    | Kit B       |
| 7    | Top Endbell, Cover   | 1    | Kit         |
| 8    | Plug                 | 1    | Kit B       |
| 9    | Filter               | 1    | Kit B       |
| 10   | Valve                | 1    | Kit         |
| 11   | Shaft Seal           | 1    | Kit B       |
| 12   | Top Endbell          | 1    | Kit         |
| 13   | O- Ring              | 1    | Kit B       |
| 14   | Rotor                | 1    | see page 9  |
| 15   | Stator               | 1    | see page 9  |
| 16   | Level washer         | 1    | Kit A       |
| 17   | Thrust disk assy     | 1    | Kit A       |
| 18   | O- Ring              | 1    | Kit B       |
| 19   | Bottom Endbell       | 1    | A1          |
| 20   | Bearing cage         | 1    | Kit A       |
| 21   | Segments             | 3    | Kit A       |
| 22   | Rocking Disk         | 1    | Kit A       |
| 23   | Diaphragm washer     | 1    | Kit B1      |
| 24   | Diaphragm            | 1    | Kit B       |
| 25   | Bottom Endbell Cover | 1    | 156 414 201 |
| 26   | Screw, Cover         | 3    | Kit C       |

### 4" PSC Motor Spare Part Kits Design start: 07.2016

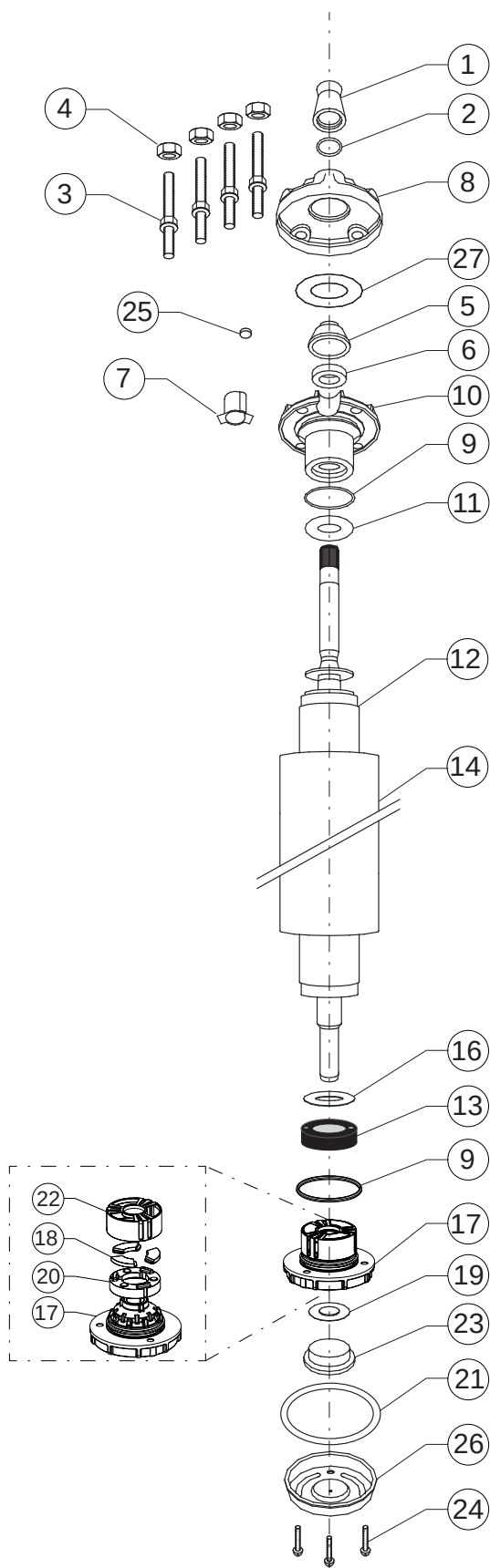
| <b>P<sub>N</sub><br/>[kW]</b> | <b>0,25 - 2,2kW</b>                                 |                                            |                    |
|-------------------------------|-----------------------------------------------------|--------------------------------------------|--------------------|
| <b>Kit A1</b>                 | <b>End bell, upper 304SS (Pos. 7 - 13)</b>          | incl. Pos.: 7 - 13                         | <b>308 462 901</b> |
| <b>Kit A2</b>                 | <b>Endbell lower incl. Thrust Bearing Kit 4000N</b> | incl. Pos.: 16 - 22                        | <b>308 464 911</b> |
| <b>Kit B1</b>                 | <b>Seal Kit 304SS</b>                               | incl. Pos.: 3, 6, 8, 9, 11, 13, 18, 23, 24 | <b>308 650 201</b> |
| <b>Kit B2</b>                 | <b>Seal Kit Pollution Recovery</b>                  | incl. Pos.: 3, 6, 8, 9, 11, 13, 18, 23, 24 | <b>308 650 202</b> |
| <b>Kit C</b>                  | <b>Fastener Kit 304SS</b>                           | incl. Pos.: 1, 2, 4, 26                    | <b>308 656 201</b> |

### PSC Replacement Stator (316SS) and Rotor 50 Hz

| <b>P<sub>N</sub><br/>[kW]</b> | <b>Volt</b> | <b>Motor Model No.</b> | <b>Stator</b> | <b>Rotor</b> |
|-------------------------------|-------------|------------------------|---------------|--------------|
| <b>0,25</b>                   | 220-230     | 254 803 6700 / L       | 305 491 701   | 178 165 951K |
|                               | 230-240     | 254 813 6700 / L       | 305 491 721   |              |
| <b>0,37</b>                   | 220-230     | 254 805 6700 / L       | 305 491 702   | 178 165 952K |
|                               | 230-240     | 254 815 6700 / L       | 305 491 722   |              |
| <b>0,55</b>                   | 220-230     | 254 807 6700 / L       | 305 491 703   | 178 165 953K |
|                               | 230-240     | 254 817 6700 / L       | 305 491 723   |              |
| <b>0,75</b>                   | 220-230     | 254 808 6700 / L       | 305 491 704   | 178 165 954K |
|                               | 230-240     | 254 818 6700 / L       | 305 491 724   |              |
| <b>1,10</b>                   | 220-230     | 254 809 6700 / L       | 305 491 705   | 178 165 955K |
|                               | 230-240     | 254 819 6700 / L       | 305 491 725   |              |
| <b>1,50</b>                   | 220-230     | 254 810 6700 / L       | 305 491 706   | 178 165 956K |
|                               | 230-240     | 254 820 6700 / L       | 305 491 726   |              |
| <b>2,20</b>                   | 220-230     | 254 811 6700 / L       | 305 491 707   | 178 165 957K |
|                               | 230-240     | 254 821 6700 / L       | 305 491 727   |              |



## 4" PSC Standard Motor\* Part Description Design up to: 06.2016



| Pos. | Part Description           | Qty. | Part No.    |
|------|----------------------------|------|-------------|
| 1    | Protector, Spline          | 1    | Kit B       |
| 2    | Washer                     | 4    | Kit B       |
| 3    | Stud                       | 4    | Kit C       |
| 4    | Nut                        | 1    | Kit C       |
| 5    | Seal cover                 | 1    | Kit         |
| 6    | Shaft Seal                 | 1    | Kit B       |
| 7    | Connector boss             | 1    | 151 820 102 |
| 8    | Top Endbell, Cover         | 1    | Kit         |
| 9    | O-Ring                     | 2    | Kit B       |
| 10   | Top Endbell                | 1    | Kit         |
| 11   | Upthrust washer            | 1    | Kit         |
| 12   | Rotor                      | 1    | page 11     |
| 13   | Thrust disk assy           | 1    | Kit A       |
| 14   | Stator                     | 1    | page 9      |
| 15   | Leveling Disk (only 1500N) | 1    | Kit A       |
| 16   | Level washer               | 1    | Kit A       |
| 17   | Bottom Endbell             | 1    | Kit         |
| 18   | Segments                   | 3    | Kit A       |
| 19   | Diaphragm washer           | 1    | 151 314 101 |
| 20   | Rocking Disk               | 1    | Kit A       |
| 21   | Gasket                     | 1    | Kit B       |
| 22   | Bearing cage               | 1    | Kit A       |
| 23   | Diaphragm                  | 1    | Kit B       |
| 24   | Screw, Cover               | 3    | Kit C       |
| 25   | Filter                     | 1    | Kit B       |
| 26   | Bottom Endbell Cover       |      | 156 414 101 |
| 27   | Washer                     | 1    | Kit B       |

\* Spare Parts for Pollution Recovery and Brackish Water Motors on Request

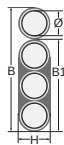
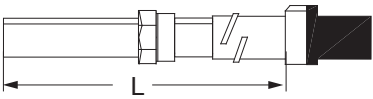
## 4" PSC Standard Motor\* Spare Part Kit's Design up to: 06.2016

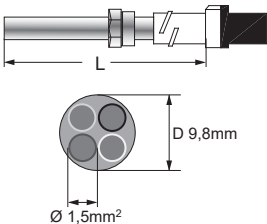
| P <sub>N</sub> [kW] | Thrust Bearing                                        | End bell, upper (Pos. 5 - 10, 27) | End bell, lower (Pos. 17)              | Up thrust washer (Pos. 11) |
|---------------------|-------------------------------------------------------|-----------------------------------|----------------------------------------|----------------------------|
| <b>0,25 - 0,55</b>  | Kit A1                                                | 177 231 904                       | Kit A1                                 | 150 954 102                |
| <b>0,75 - 1,5</b>   |                                                       | 177 233 904                       |                                        | 151 093 105                |
| <b>2,2</b>          |                                                       | (0,75 - 2,2kW)                    |                                        |                            |
| <b>Kit A1</b>       | End bell (lower) incl. Thrust bearing Kit 3000N/4000N |                                   | inkl. Pos.: 9, 13, 16, 17, 18, 20, 22  | <b>308 464 901</b>         |
| <b>Kit B1</b>       | Seals Kit                                             |                                   | inkl. Pos.: 1, 2, 6, 9, 21, 23, 25, 27 | <b>308 650 101</b>         |
| <b>Kit B2</b>       | Seals Kit (Viton)                                     |                                   | inkl. Pos.: 1, 2, 6, 9, 21, 23, 25, 27 | <b>308 650 104</b>         |
| <b>Kit C</b>        | Screws Kit                                            |                                   | inkl. Pos.: 3, 4, 24                   | <b>308 656 101</b>         |

## PSC Replacement Stator and Rotor 50 Hz

| P <sub>N</sub> [kW] | Volt    | Motor Model No.  | Stator      | Rotor        |
|---------------------|---------|------------------|-------------|--------------|
| <b>0,25</b>         | 220-230 | 254 803 1621 / L | 305 491 101 | 178 610 902K |
|                     | 230-240 | 254 813 1621 / L | 305 491 121 |              |
| <b>0,37</b>         | 220-230 | 254 805 1621 / L | 305 491 102 | 178 611 902K |
|                     | 230-240 | 254 815 1621 / L | 305 491 122 |              |
| <b>0,55</b>         | 220-230 | 254 807 1621 / L | 305 491 103 | 178 612 902K |
|                     | 230-240 | 254 817 1621 / L | 305 491 123 |              |
| <b>0,75</b>         | 220-230 | 254 808 1621 / L | 305 491 104 | 178 613 902K |
|                     | 230-240 | 254 818 1621 / L | 305 491 124 |              |
| <b>1,10</b>         | 220-230 | 254 809 1621 / L | 305 491 105 | 178 614 902K |
|                     | 230-240 | 254 819 1621 / L | 305 491 125 |              |
| <b>1,50</b>         | 220-230 | 254 810 1621 / L | 305 491 106 | 178 615 902K |
|                     | 230-240 | 254 820 1621 / L | 305 491 126 |              |
| <b>2,20</b>         | 220-230 | 254 811 2521 / L | 305 491 107 | 178 616 902K |
|                     | 230-240 | 254 821 2521 / L | 305 491 127 |              |

## VDE / ACS/ KTW Approved Standard Motor Leads\*

| Ø [mm²]                                                                                                                                                                 | B (mm)          | B1 (mm)     | H (mm)      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------|
| 3X1,5+1G1,5                                                                                                                                                             | 16,8 ± 0,3      | 10,7 ± 0,3  | 5,0 ± 0,3   |
|   |                 |             |             |
| L [m]                                                                                                                                                                   | PSC Motor Leads |             |             |
|                                                                                                                                                                         | Brass           | 304 SS      | 316 SS      |
| 1,5                                                                                                                                                                     | 310 113 001     | 310 113 401 | 310 113 501 |
| 2,5                                                                                                                                                                     | 310 113 002     | 310 113 402 | 310 113 502 |
| 5                                                                                                                                                                       | 310 113 005     | 310 113 405 | 310 113 505 |
| 10                                                                                                                                                                      | 310 113 010     | 310 113 410 | 310 113 510 |
| 15                                                                                                                                                                      | 310 113 015     | 310 113 415 | 310 113 515 |
| 20                                                                                                                                                                      | 310 113 020     | 310 113 420 | 310 113 520 |
| 30                                                                                                                                                                      | 310 113 030     | 310 113 430 | 310 113 530 |
| 40                                                                                                                                                                      | 310 113 040     | 310 113 440 | 310 113 540 |
| 50                                                                                                                                                                      | 310 113 050     | 310 113 450 | 310 113 550 |

| L   | Pollution Recovery Motor Leads |                                                                                       |
|-----|--------------------------------|---------------------------------------------------------------------------------------|
| [m] | Model number (only 316SS)      |                                                                                       |
| 1,5 | 310 313 501                    |  |
| 2,5 | 310 313 502                    |                                                                                       |
| 10  | 310 313 510                    |                                                                                       |
| 20  | 310 313 520                    |                                                                                       |
| 30  | 310 313 530                    |                                                                                       |
| 40  | 310 313 540                    |                                                                                       |
| 50  | 310 313 550                    |                                                                                       |

\*Cables are designed for submerged operation. For air operation please consult Franklin Electric.