

PS/PSL Centrifugal pumps

Technical Data

- Delivery rate
 $Q_{\max} = 1250 \text{ l/min}$
- Delivery head
 $H_{\max} = 110 \text{ m}$
- Delivery temperature
 $T = 0^{\circ}\text{C to } +80^{\circ}\text{C}$
- Kinematic viscosity
 $\nu_{\max} = 30 \text{ mm}^2/\text{s}$



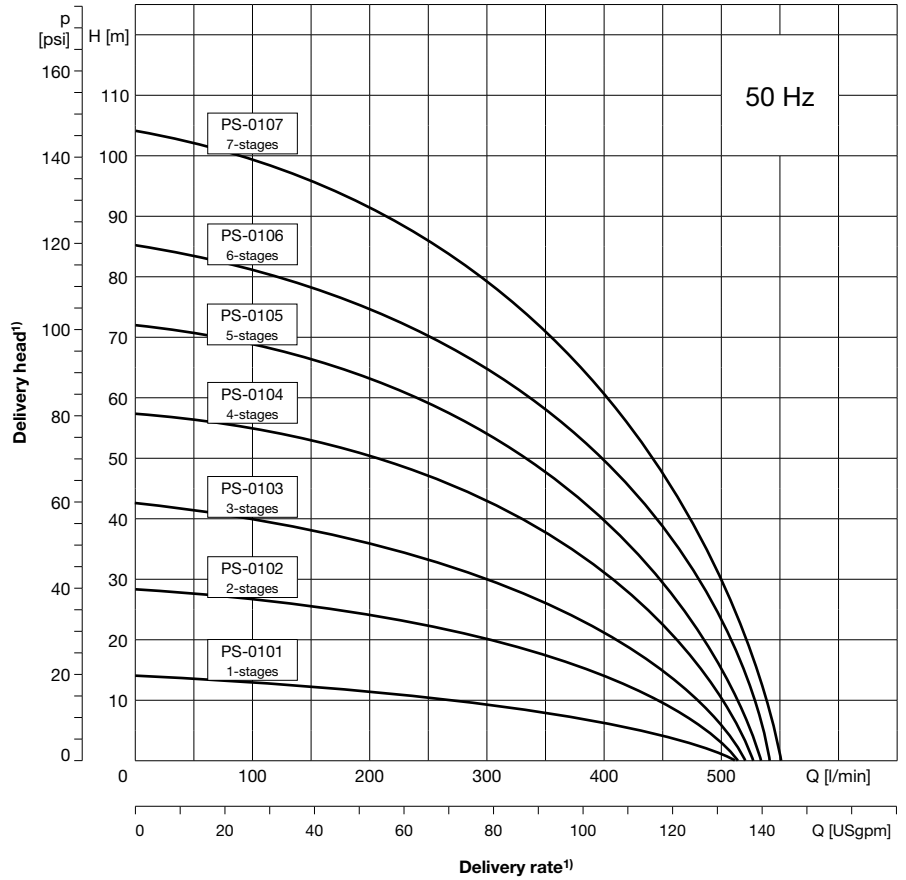
PS 01 – Immersion pumps, sealless

50 Hz, closed impellers



Features

- Vertical multistage coolant pump
- For delivery of clean, polluted and viscous types of fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G2



PS/PSL

Technical Data

Delivery rate Q_{max}	1250 l/min
Delivery head H_{max}	105 m
Immersion depth t_{max}	670 mm
Kinematic viscosity	max. 30 mm ² /s
Delivery temperature	0 °C to +80 °C
Grain size	max. Ø4 mm
Contamination	max. 8,2 kg/m ³
Direction of rotation	clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Emulsions, cooling and cutting oils, Water with rust-proofing additives, heat carrier oil

Mechanical design

Component	Material
Flange	EN-GJL-200
Shaft	1.0762
Impeller	EN-GJL-200
Intermediate chamber	EN-GJL-200
Bearings	Deep groove ball bearing with covering disk
Bushing	Sintered iron
Pumps bottom	EN-GJL-200

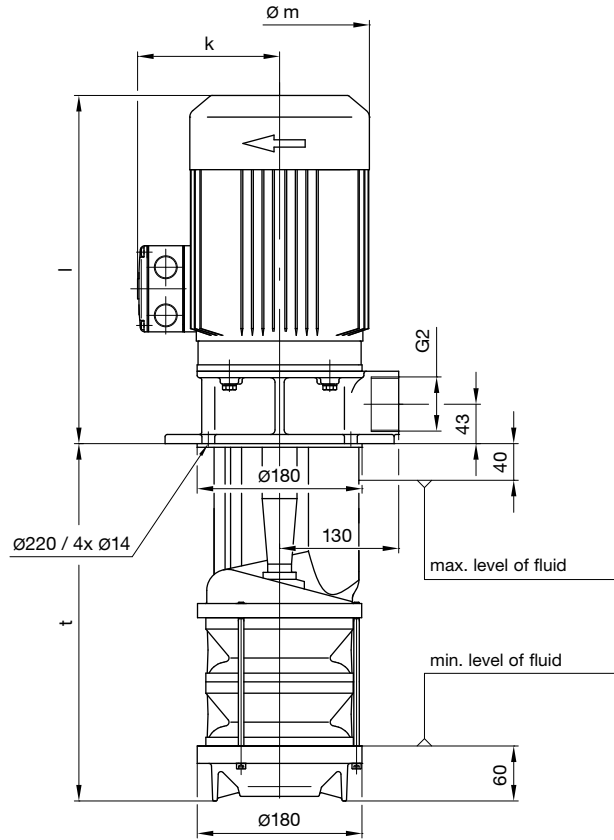
Variations

Component	Material
Mechanical seal	NBR
Extension tube	1.0308

¹⁾ Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

PS 01 – Immersion pumps, sealless

50 Hz, closed impellers



Electrical data, dimensions and weights at 50 Hz

Type of pump			Immer- sion depth t [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port (DIN ISO 228)
Series	Frame size	Stages		Voltage Δ/Y U [V]	Motor index	Output P_N [kW]	Current $\Delta/Y I_N$ [A]	Speed n_N [min ⁻¹]	$\varnothing m$	k	l			
PS PSL	01	01	250	230/400	H	1,1	4,07/2,35	2730	140	114	286	36	62-64	G2
			320									38		
			450									40		
			550									42		
		02	320		44	65-77								
			390		46									
			520		48									
			620		50									
		03	390		51	68-74								
			460		53									
			590		55									
		04	460		59	69-75								
			530		61									
			660		63									
05	530	85	68-75											
	600	87												
	600	91												
06	600	91	69-75											
07	670	105	72-75											
			$\Delta 400$	N	5,5	$\Delta 11,2$	2900	257	182	484				
				O	7,5	$\Delta 14,5$	2900	257	182	484				

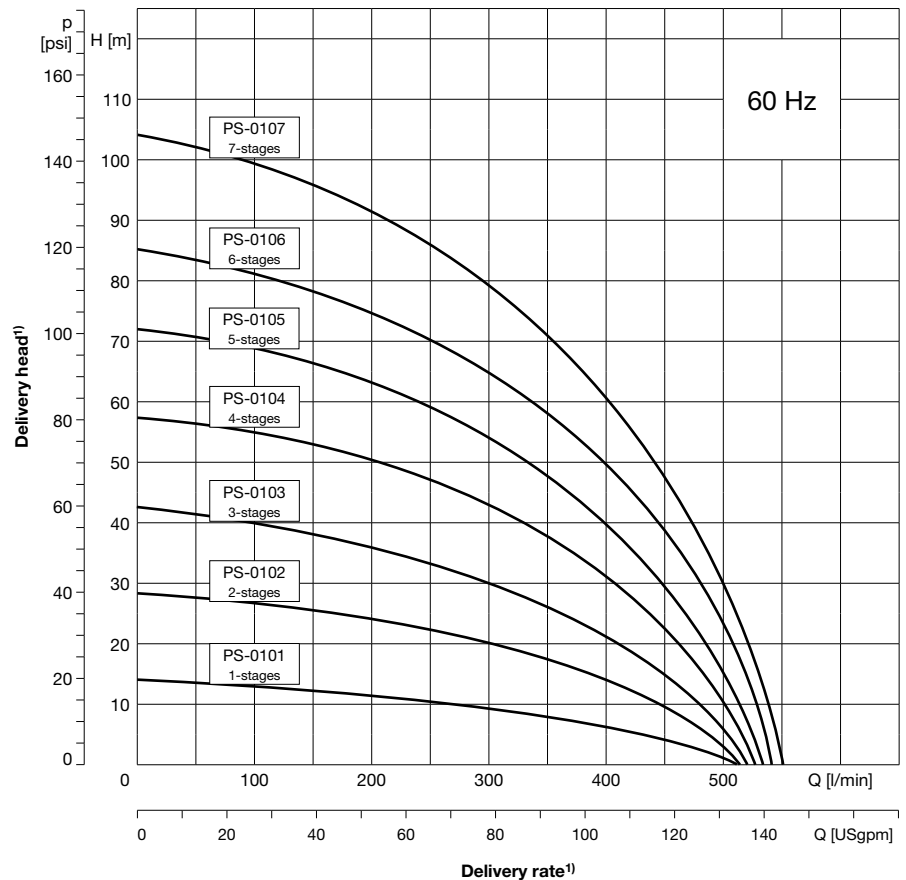
PS 01 – Immersion pumps, sealless

60 Hz, closed impellers



Features

- Vertical multistage coolant pump
- For delivery of clean, polluted and viscous types of fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G2



Technical Data

Delivery rate Q_{max}	1250 l/min
Delivery head H_{max}	105 m
Immersion depth t_{max}	670 mm
Kinematic viscosity	max. 30 mm ² /s
Delivery temperature	0 °C to +80 °C
Grain size	max. Ø4 mm
Contamination	max. 8,2 kg/m ³
Direction of rotation	clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Emulsions, cooling and cutting oils, Water with rust-proofing additives, heat carrier oil

Mechanical design

Component	Material
Flange	EN-GJL-200
Shaft	1.0762
Impeller	EN-GJL-200
Intermediate chamber	EN-GJL-200
Bearings	Deep groove ball bearing with covering disk
Bushing	Sintered iron
Pumps bottom	EN-GJL-200

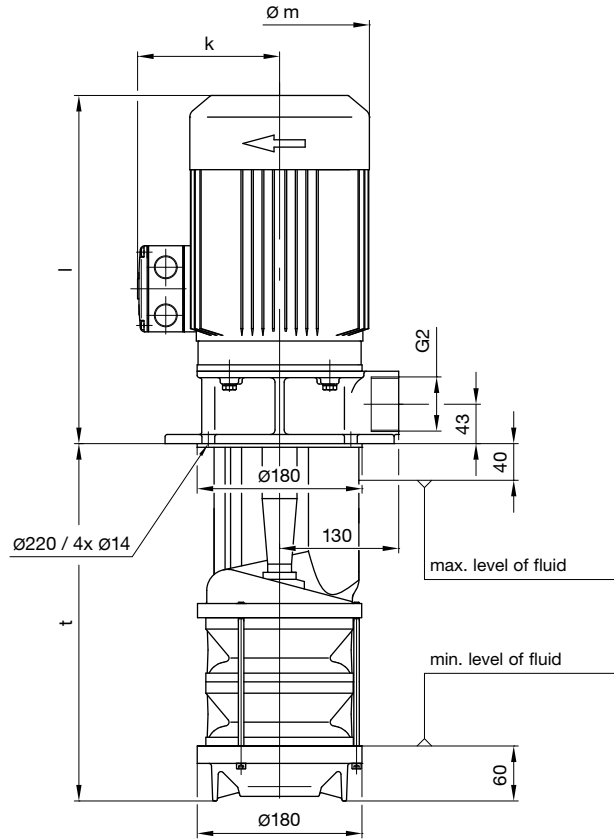
Variations

Component	Material
Mechanical seal	NBR
Extension tube	1.0308

¹⁾ Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

PS 01 – Immersion pumps, sealless

60 Hz, closed impellers



Electrical data, dimensions and weights at 60 Hz

Type of pump			Immer- sion depth t [mm]	Rated motor values				Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port (DIN ISO 228)	
Series	Frame size	Stages		Voltage Δ/Y U [V]	Motor index	Output P _N [kW]	Current Δ/Y I _N [A]	Speed n _N [min ⁻¹]	$\varnothing m$	k				l
PS PSL	01	01	250	265/460	H	1,26	4,07/2,35	3368	140	114	286	36	62-64	G2
			320									38		
			450									40		
			550									42		
		02	320		44	65-77								
			390		46									
			520		48									
			620		50									
		03	390		51	68-74								
			460		53									
			590		55									
		04	460		59	69-75								
			530		61									
			660		63									
05	530	85	68-75											
	600	87												
06	600	91	69-75											
07	670	105	72-75											
			Δ 460	N	6,2	Δ 11,2	3480	257	182	484				
				O	8,6	Δ 14,5	3480	257	182	484				

PS/PSL

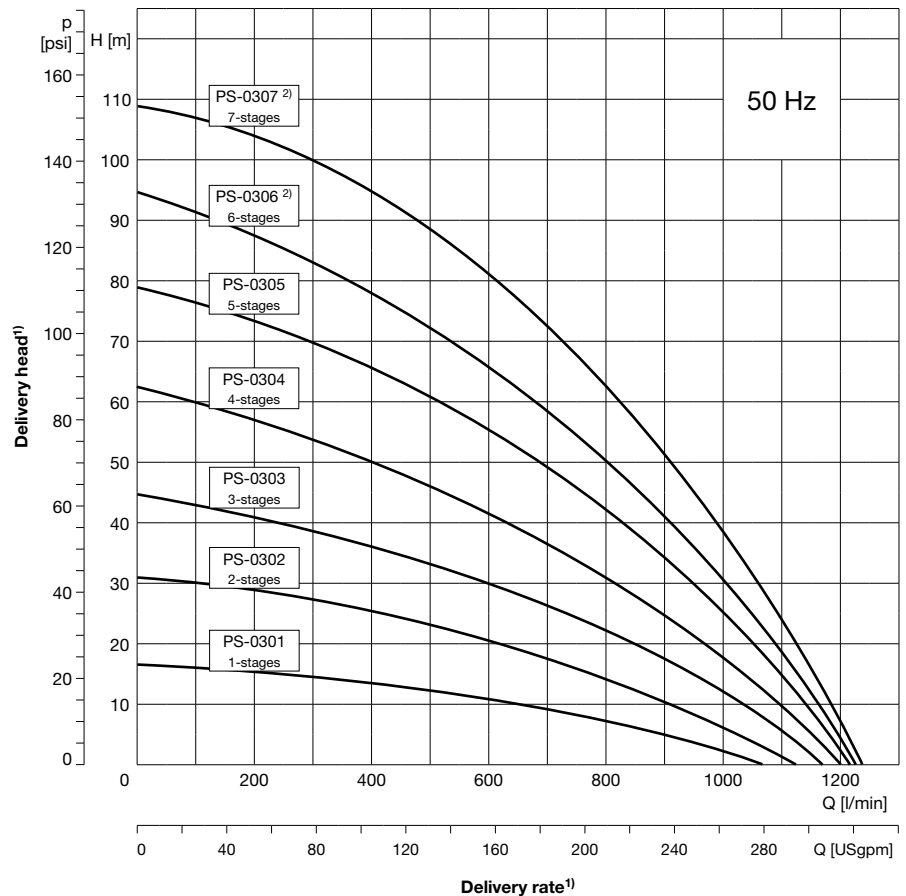
PS 03 – Immersion pumps, sealless

50 Hz, closed impellers



Features

- Vertical multistage coolant pump
- For delivery of clean, polluted and viscous types of fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G2



Technical Data

Delivery rate Q_{max}	1250 l/min
Delivery head H_{max}	105 m
Immersion depth t_{max}	670 mm
Kinematic viscosity	max. 30 mm ² /s
Delivery temperature	0 °C to +80 °C
Grain size	max. Ø4 mm
Contamination	max. 8,2 kg/m ³
Direction of rotation	clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Emulsions, cooling and cutting oils, Water with rust-proofing additives, heat carrier oil

Mechanical design

Component	Material
Flange	EN-GJL-200
Shaft	1.0762
Impeller	EN-GJL-200
Intermediate chamber	EN-GJL-200
Bearings	Deep groove ball bearing with covering disk
Bushing	Sintered iron
Pumps bottom	EN-GJL-200

Variations

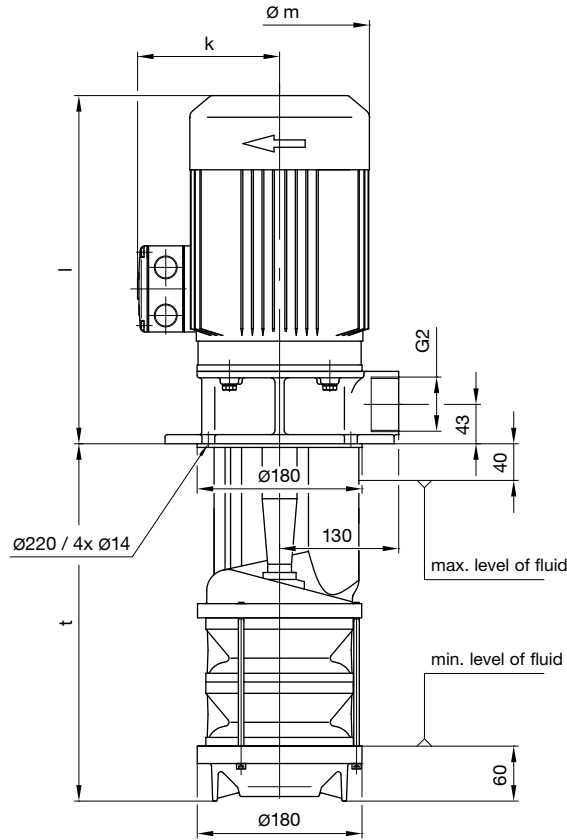
Component	Material
Mechanical seal	NBR
Extension tube	1.0308

¹⁾ Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

²⁾ Frame sizes PS/PSL 0306 and 0307 available on request.

PS 03 – Immersion pumps, sealless

50 Hz, closed impellers



Electrical data, dimensions and weights at 50 Hz

Type of pump			Immer- sion depth t [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port (DIN ISO 228)
Series	Frame size	Stages		Voltage $\Delta/Y U$ [V]	Motor index	Output P_N [kW]	Current $\Delta/Y I_N$ [A]	Speed n_N [min ⁻¹]	$\varnothing m$	k	l			
PS PSL	03	01	250	230/400	K	2,2	7,15/4,13	2840	176	149	360	38	63-65	G2
			320									40		
			450									42		
			550									44		
		02	320		M	4,0	13,0/7,5	2840	196	155	380	47	67-75	
			390									49		
			520									51		
			620									53		
		03	390	N	5,5	Δ 11,2	2900	257	182	484	73	70-77		
											460		75	
											590		77	
		04	460	O	7,5	Δ 14,5	2900	257	182	484	86	70-78		
											530		88	
		05	05	Y	9,5	Δ 17,5	2920	257	182	522	102	73-79		
530	104													
06*	06*	P	11	Δ 21	2920	257	182	522	120	75-79				
07*	600	Q	15	Δ 29	2900	257	182	566	136	75-80				

* Frame sizes PS/PSL 0306 and 0307 available on request.

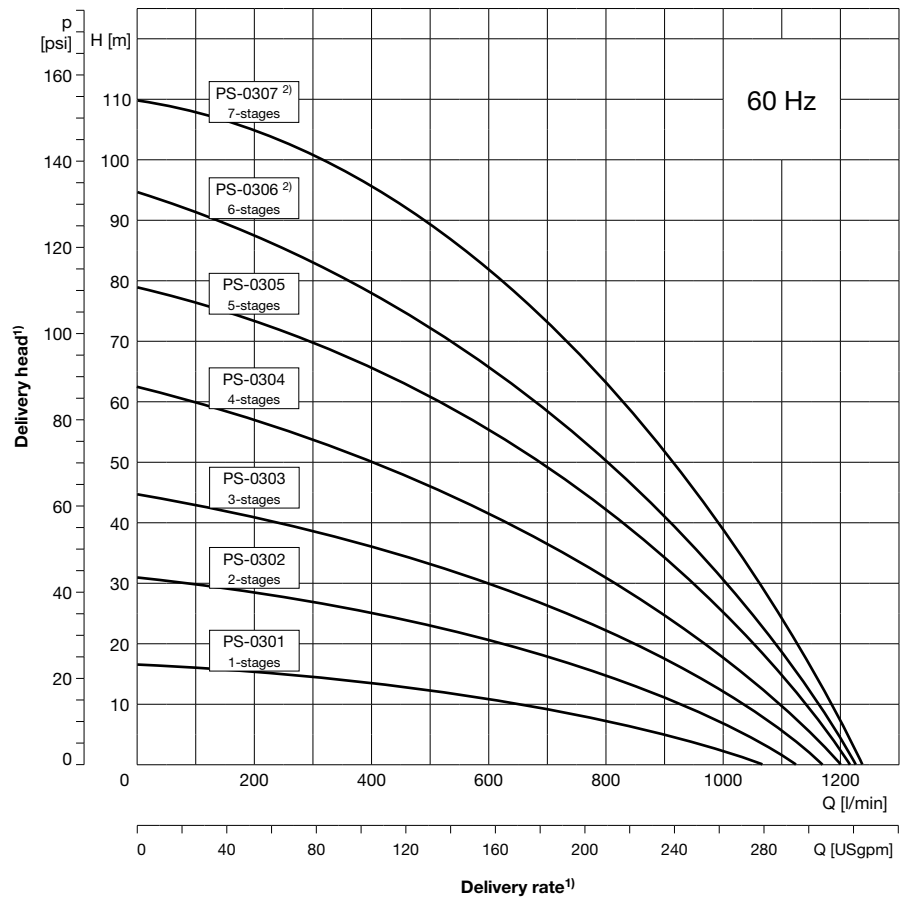
PS 03 – Immersion pumps, sealless

60 Hz, closed impellers



Features

- Vertical multistage coolant pump
- For delivery of clean, polluted and viscous types of fluids
- Installation directly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G2



Technical Data

Delivery rate Q_{max}	1250 l/min
Delivery head H_{max}	105 m
Immersion depth t_{max}	670 mm
Kinematic viscosity	max. 30 mm ² /s
Delivery temperature	0 °C to +80 °C
Grain size	max. Ø4 mm
Contamination	max. 8,2 kg/m ³
Direction of rotation	clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Emulsions, cooling and cutting oils, Water with rust-proofing additives, heat carrier oil

Mechanical design

Component	Material
Flange	EN-GJL-200
Shaft	1.0762
Impeller	EN-GJL-200
Intermediate chamber	EN-GJL-200
Bearings	Deep groove ball bearing with covering disk
Bushing	Sintered iron
Pumps bottom	EN-GJL-200

Variations

Component	Material
Mechanical seal	NBR
Extension tube	1.0308

¹⁾ Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

²⁾ Frame sizes PS/PSL 0306 and 0307 available on request.

PS/PSL – Immersion pumps, sealless

Order key

Series

PS- = Standard design
PSL = "Slurp" for air-polluted liquids

Frame size

To determine the frame size the corresponding characteristics has to be used.
01, 03

Stages

To determine the desired number of stages the corresponding characteristics has to be used.
01 = 1-stages
 ...
07 = 7-stages

Materials

G = gray cast iron (standard)

Seal

B = gap bush (standard)

Pump design

S = standard design
V = bottom for extension tube

Immersion depth in mm

250 = 250 mm
 ...
670 = 670 mm

Motor index

To determine the desired motor index the appropriate table "Electrical data, dimensions and weights" has to be used.
 Example: **J** = 1,5 kW

Power supply

01 = 230/400 V at 50 Hz (to 4 kW)
 265/460 V at 60 Hz (to 4,6 kW)
02 = Δ400 V at 50 Hz (from 5,5 kW)
 Δ460 V at 60 Hz (from 6,3 kW)
05 = **Standard for Europe**
 230/400 V at 50 Hz (from 4 kW)
 Δ400 V at 50 Hz (from 4 kW)
 ... further designs on request

Motor design

BA = standard (insulation class F, IP 54, 2-pole, IE2)
 ... further designs on request

Order example: PS-0104GBS460M01BA
 Series: **PS**, Frame size: **01, 04**-stages, Material: **G** grey cast iron, Seal: **B** gap bush, Pump design: **S** standard design, Immersion depth: **460** mm, Motor index: **M** 4,0 kW, Power supply: **01** 230/400 V 50 Hz, 265/460 V 60 Hz, Motor design: **BA** standard (IE2)

PS/PSL

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless our written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication, but no liability can be accepted for any loss or damage whether direct, indirect or consequential, arising out of use of the information contained herein.

SKF Lubrication Systems Germany GmbH
Product department Spandau Pumps

Motzener Strasse 35/37 · 12277 Berlin · Germany
PF 970444 · 12704 Berlin · Germany
Tel. +49 (0)30 72002-0 · Fax +49 (0)30 72002-261
SpandauPumpen@skf.com
www.spandaupumpen.com

This brochure was presented by: