PSH Centrifugal pumps

Technical data

- Delivery rate
  Q_{max} = 1000 l/min
- Delivery head
  H_{max} = 54 m
- Temperature range
  T = -30°C to +80°C
- Kinematic viscosity
  ν_{max} = 30 mm^2/s

Quality Management
DIN EN ISO 9001:2008
Environmental Management
DIN EN ISO 14001
Health and Safety Management
OHSAS 18001

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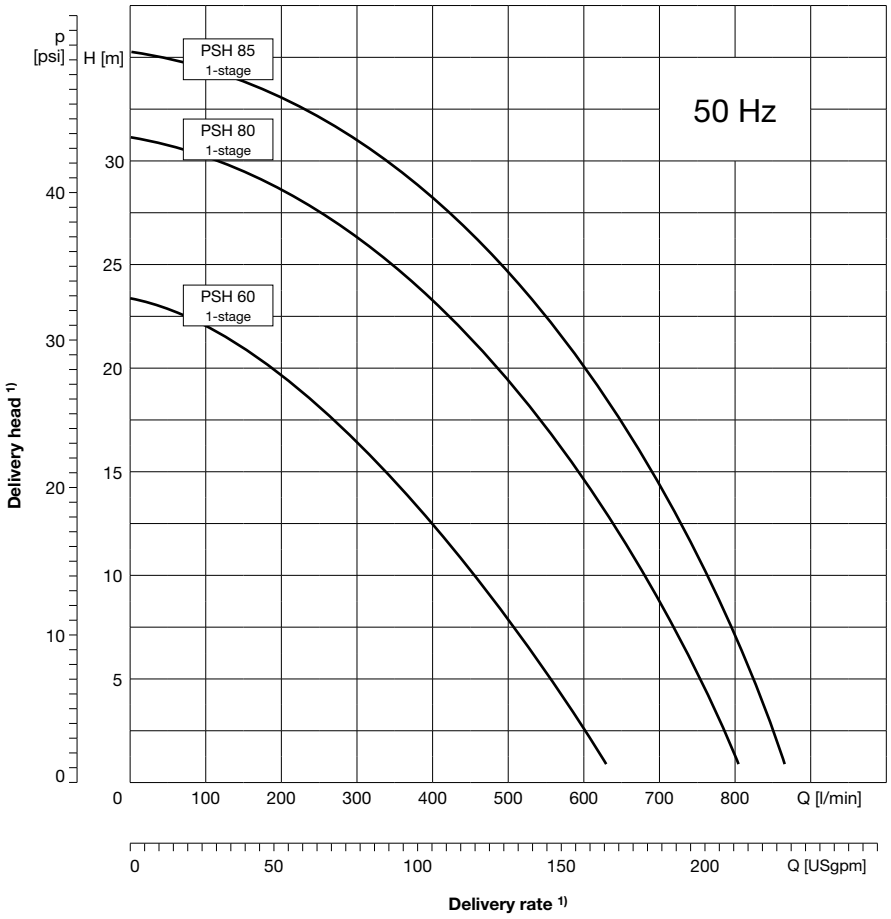
Industrie-Hydraulik Vogel & Partner GmbH .
Laugkfeld 21 . 01968 Senftenberg, Tel.: 03573 1480-0
info@vogel-gruppe.de . www.vogel-gruppe.de

PSH – Immersion pumps, sealless

50 Hz, singlestage, open impellers

Features

- Vertical singlestage centrifugal pump
- For delivery of for highly contaminated fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G1¼ (single stage)



Technical Data

Delivery rate Q_{max}	860 l/min
Delivery head H_{max}	32 m
Immersion depth t_{max}	550 mm
Kinematic viscosity	max. 30 mm^2/s
Delivery temperature	-30°C to +80°C
Grain size	max. Ø8 mm
Contamination	max. 9,5 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 antirust additive, heat transfer oils

Mechanical design

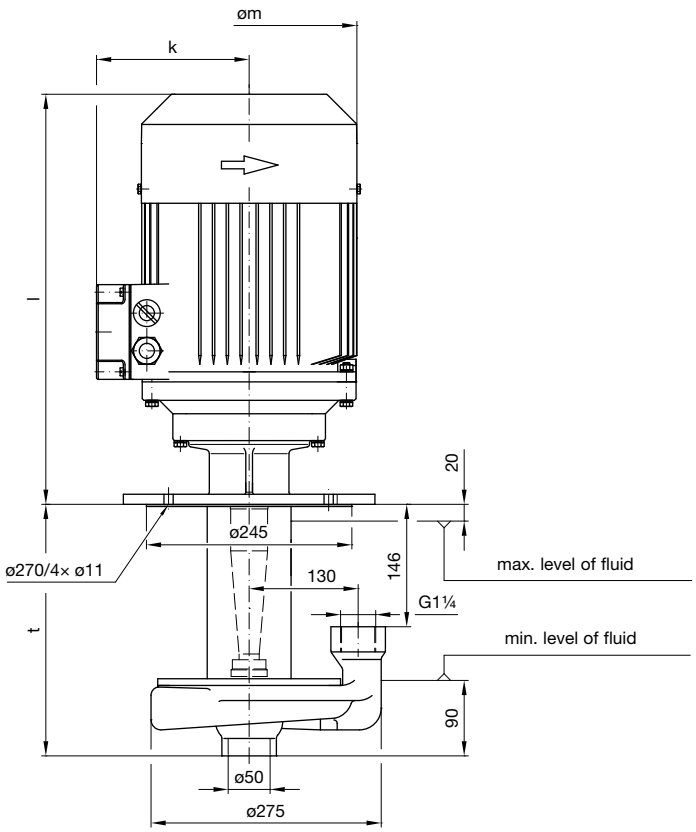
Component	Material
Flange	EN-GJL-200
Shaft	1.0762
Impeller	EN-GJL-200
Intermediate chamber	EN-GJL-200
Intermediate part	Aluminum (Al Cu Mg Pb F 38)
Pumps bottom	EN-GJL-200
Spray ring	1.0503

PSH

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

PSH – Immersion pumps, sealless

50 Hz, singlestage, open impellers

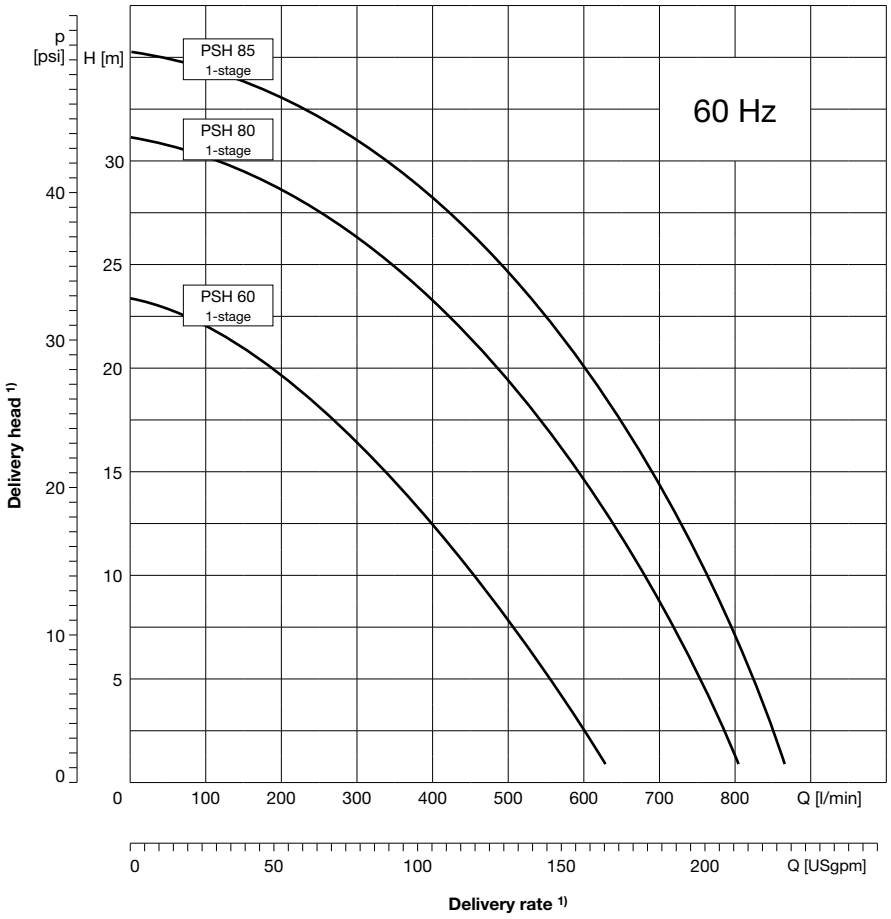


Electrical data, dimensions and weights at 50 Hz

Type of pump			Immersion depth t [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port (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}]	Øm	k	l			
PSH	60	01	300	230/400	L	3,0	10,0/5,75	2885	196	155	392	42,5	68-74	G1¼
			550									55,5		
	80	01	300	Δ 400	N	5,5	Δ 11,2	2900	257	182	488	65,2	68-75	G1¼
			550									78,2		
	85	01	300	Δ 400	N	5,5	Δ 11,2	2900	257	182	488	65,2	68-75	G1¼
			550									78,2		

PSH – Immersion pumps, sealless

60 Hz, singlestage, open impellers



Features

- Vertical singlestage centrifugal pump
- For delivery of for highly contaminated fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G1¼ (single stage)

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Delivery rate Q_{max}	860 l/min
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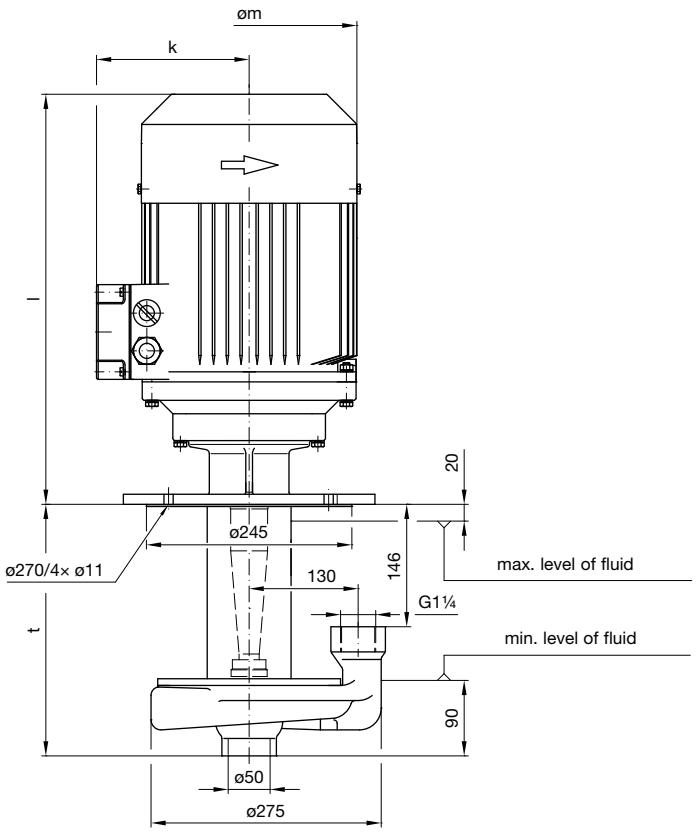
Intermediate part	Aluminum (Al Cu Mg Pb F 38)
Pumps bottom	EN-GJL-200
Spray ring	1.0503

PSH – Immersion pumps, sealless

60 Hz, singlestage, open impellers



Electrical data, dimensions and weights at 60 Hz

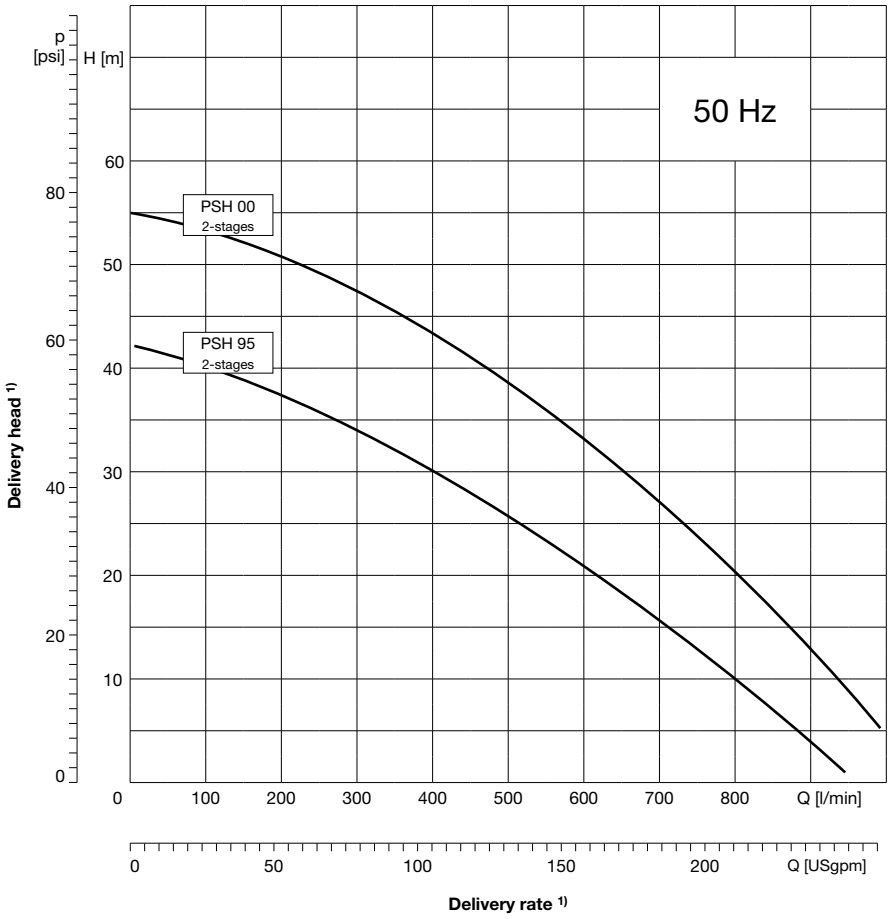
Type of pump			Immer-sion depth t [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port (DIN ISO 228)
Series	Frame size	Stages		Voltage Δ/Y U [V]	Motor index	Output P_N [kW]	Current Δ/Y I_N [A]	Speed n_N [min^{-1}]	Øm	k	l			
PSH	60	01	300	265/460	L	3,6	10,0/5,75	3500	196	155	392	42,5	68-74	G1¼
			550									55,5		
	80	01	300	Δ 460	N	6,2	Δ 11,2	3480	257	182	488	65,2	68-75	G1¼
			550									78,2		
	85	01	300	Δ 460	N	6,2	Δ 11,2	3480	257	182	488	65,2	68-75	G1¼
			550									78,2		

PSH – Immersion pumps, sealless

50 Hz, dualstage, open impellers

Features

- Vertical multistage centrifugal pump
- For delivery of for highly contaminated fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate
- Pressure port is designed with internal thread G1½ (dual stages)



Technical Data

Delivery rate Q_{max}	1000 l/min
Delivery head H_{max}	54 m
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Kinematic viscosity	max. 30 mm^2/s
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1) Data for viscosity of ~1 mm^2/s at a density of ~1 kg/dm^3. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

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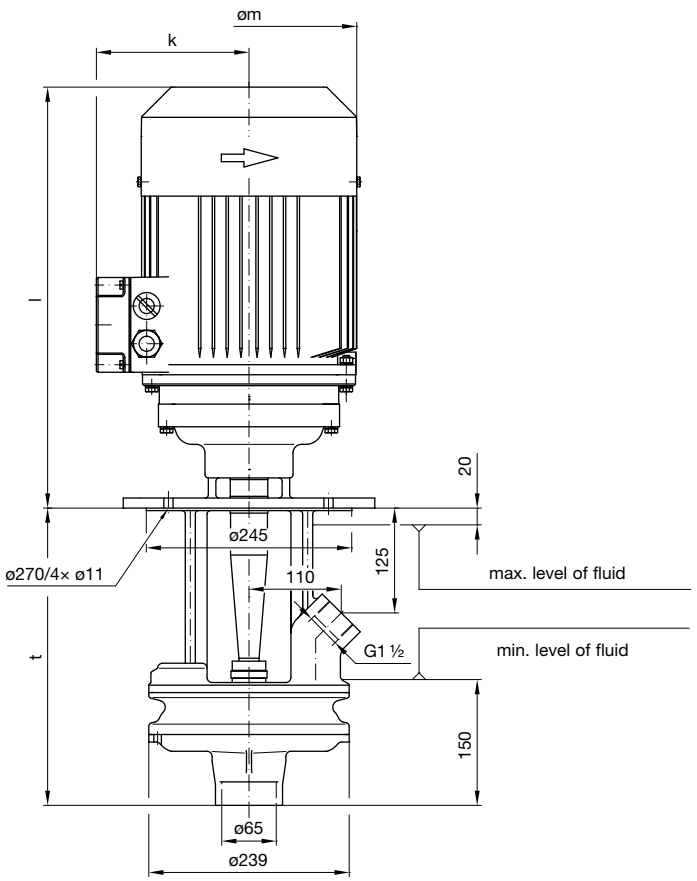
50 Hz, dualstage, open impellers



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 (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}]	Øm	k	l			
PSH	**95**	02	350	Δ 400	O	7,5	Δ 14,5	2900	257	182	501	77,9	72-75	G1½
	00	02	350	Δ 400	P	11,0	Δ 21	2920	257	182	539	115,2	75-79	

PSH – Immersion pumps, sealless

60 Hz, dualstage, open impellers

Features

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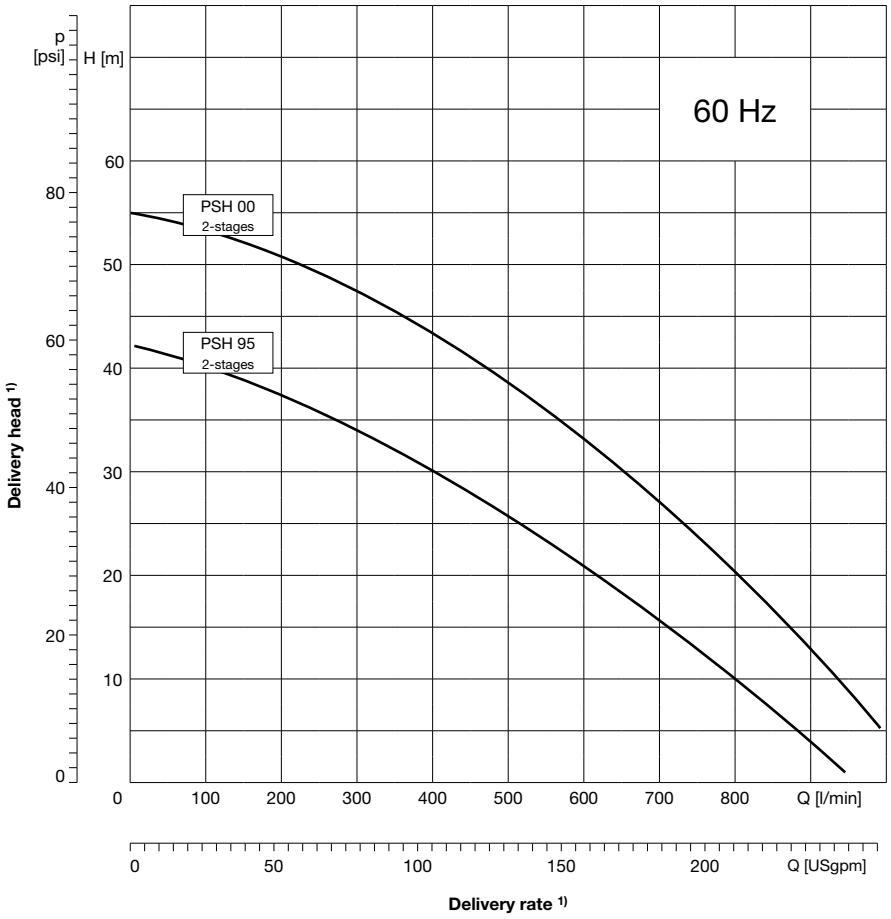

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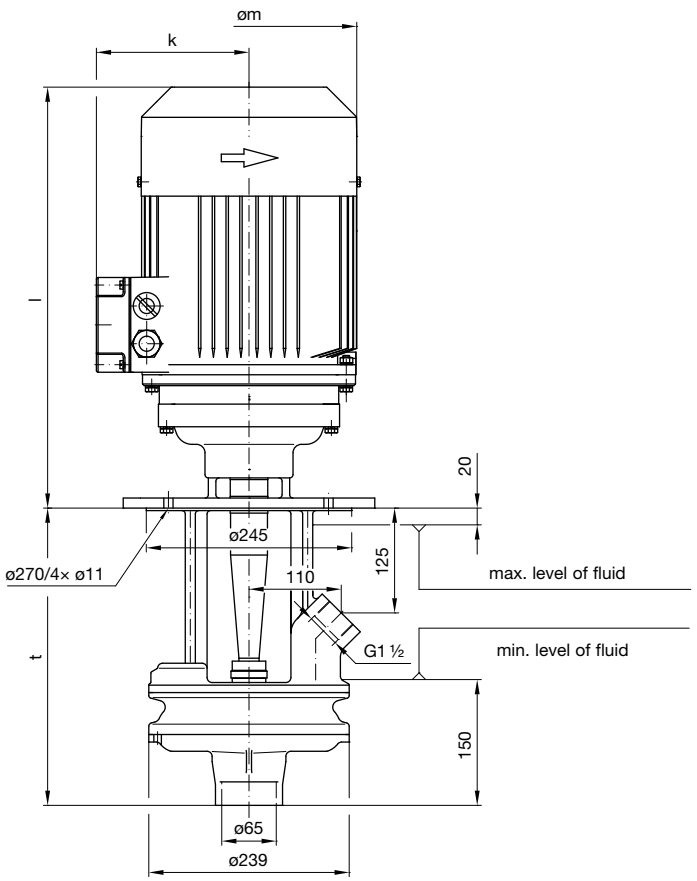

Electrical data, dimensions and weights at 60 Hz

Type of pump			Immersion depth t [mm]	Rated motor values					Dimensions [mm]			Weight [kg]	Sonic pressure [dBA]	Pressure port (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}]	Øm	k	l			
PSH	**95**	02	350	Δ 460	O	8,6	Δ 14,5	3480	257	182	501	77,9	72-75	G1½
	00	02	350	Δ 460	P	12,5	Δ 21	3500	257	182	539	115,2	75-79	

PSH – Immersion pumps, sealless

Order key

P S H [ ][ ] [ ][ ] [ ] [ ][ ] [ ][ ][ ] [ ] [ ][ ] [ ][ ]

Series

Frame size

To determine the desired frame size the corresponding characteristics has to be used.

60 = max. 600 l/min
80 = max. 800 l/min
85 = max. 850 l/min
95 = max. 950 l/min
00 = max. 1000 l/min

Stages

To determine the desired number of stages the corresponding characteristics has to be used.
01 = 1 stages
02 = 2 stages

Materials

G = gray cast iron (standard)

Seal

O = sealless (standard)

Pump design

S = standard design

Immersion depth in mm

300 = 300 mm
...
550 = 550 mm

Motor index

To determine the desired motor index the appropriate table "Electrical data, dimensions and weights" has to be used.
Example: **L** = 3,0 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: PSH8501GOS550N02BA
Series: **PSH**, Frame size: **85**, **01** stage, Material: **G** grey cast iron, Seal: **O** gap bush, Pump design: **S** standard design, Immersion depth: **550** mm, Motor index: **N** 5,5 kW, Power supply: **02** Δ400 V 50 Hz, Δ460 V 60 Hz, Motor design: **BA** Standard (IE2)

Notes

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.de

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