PMS Centrifugal pumps

Technical data

- Delivery rate
  Q_{max} = 400 l/min
- Delivery head
  H_{max} = 45 m
- Delivery temperature
  T = 0°C bis +80°C
- Kinematic viscosity
  ν_{max} = 20 mm^2/s

Quality Management
DIN EN ISO 9001:2008

Environmental Management
DIN EN ISO 14001

Health and Safety Management
OHSAS 18001

www.spandaupumpen.com

Spandau pumpen®

VOGEL
HYDRAULIK · PNEUMATIK

VOGEL
HYDRAULIK · PNEUMATIK

Im Folgenden finden Sie Informationen zu einem Teil unseres Leistungs- und Serviceportfolios.

Sollten Sie hierzu oder zu anderen Produkten Fragen haben, treten Sie jederzeit gern in Kontakt mit uns:

Tel: 0800 770 90 90 (kostenfrei)
info@vogel-gruppe.de

- Parker Store
- Komponenten
- 3D-Rohrbiege-Service
- Wartung und Service
- Hydraulik & Pneumatik
- Aggregate- und Anlagenbau
- Mobiler Tag- und Nacht vor-Ort-Service
- Druckluft-Service
- Schmiertechnik

Hauptsitz Senftenberg
Laugkfeld 21, 01968 Senftenberg Tel: 03573 14 80-0
Bereitschaft: 0160 718 15 82 E-Mail: senftenberg@vogel-gruppe.de

Niederlassung Dresden
Niedersedlitzer Str. 75 . 01257 Dresden Tel: 0351 28 78 825
Bereitschaft: 0160 71 81 584 E-Mail: dresden@vogel-gruppe.de

Niederlassung Frankfurt/Oder
Wildbahn 8, 15236 Frankfurt/Oder Tel: 0335 52 15 081
Bereitschaft: 0160 71 81 584 E-Mail: frankfurt@vogel-gruppe.de

Niederlassung Genshagen & Rohrbiegezentrum
Seestr. 20, 14974 Genshagen Tel: 03378 87 90 67
Bereitschaft: 0171 22 65 930 E-Mail: genshagen@vogel-gruppe.de

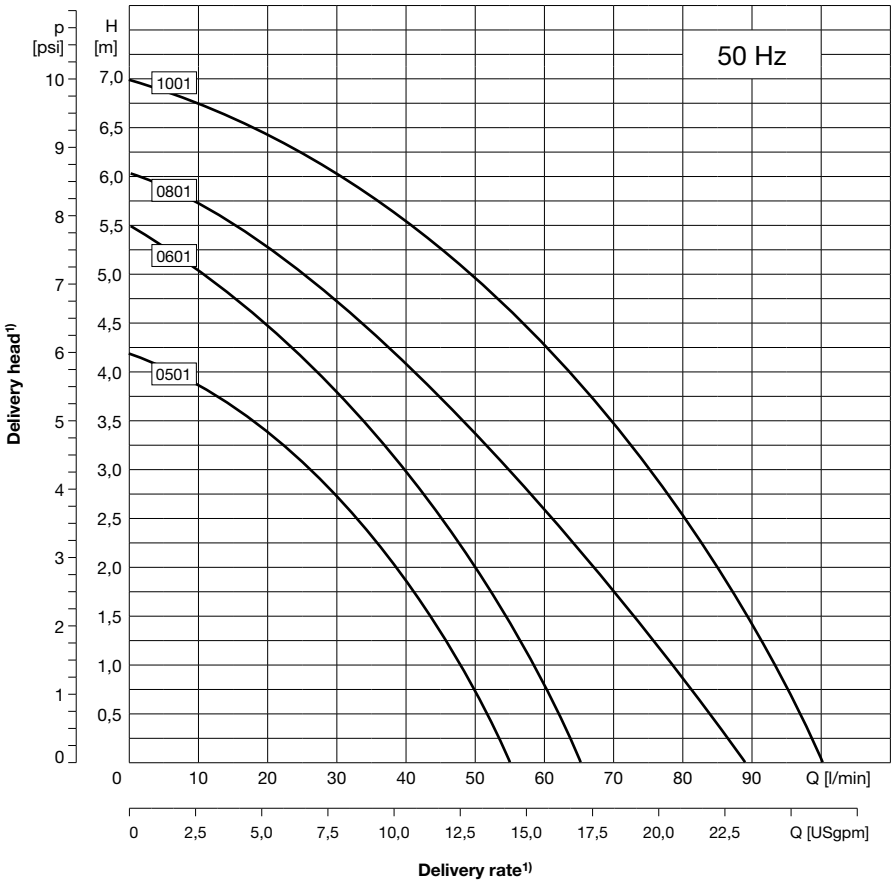
Vertriebsgebiet Leipzig
Tel.: +49 160 7181581 . E-Mail: leipzig@vogel-gruppe.de

Niederlassung Schöneiche
August-Borsig-Ring 15, 15566 Schöneiche Tel: 030 6501 380 - 0
Bereitschaft: 0160 71 81 590 E-Mail: schoeneiche@vogel-gruppe.de

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

PMS 05, 06, 08, 10 – Immersion pumps, sealless

50 Hz, open impellers



Features

- Vertical multistage pump
- Connecting dimensions according to DIN EN 12157
- For delivery of slightly contaminated types of fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G3/4
- Unventilated motor

Technical data

Delivery rate Q_{max}	100 l/min
Delivery head H_{max}	7 m
Immersion depth t_{max}	350 mm
Kinematic viscosity	max. 20 mm^2/s
Delivery temperature Material "P" Material "G"	 0 °C to 60 °C 0 °C to 80 °C
Grain size	max. Ø5 mm
Contamination	max. 10 kg/m^3
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Various industrial use fluids, emulsions, also with chemical additives, oils, water with corrosion protection additive, water colors, heat transfer oils

Mechanical design

Component	Material
Flange	EN-GJL-200 and steel
Shaft	1.0762
Impeller	POM
Intermediate chamber	EN-GJL-200
Bushes	PTFE graphite
Pumps bottom material "P"	POM
Splash ring material "P"	NBR

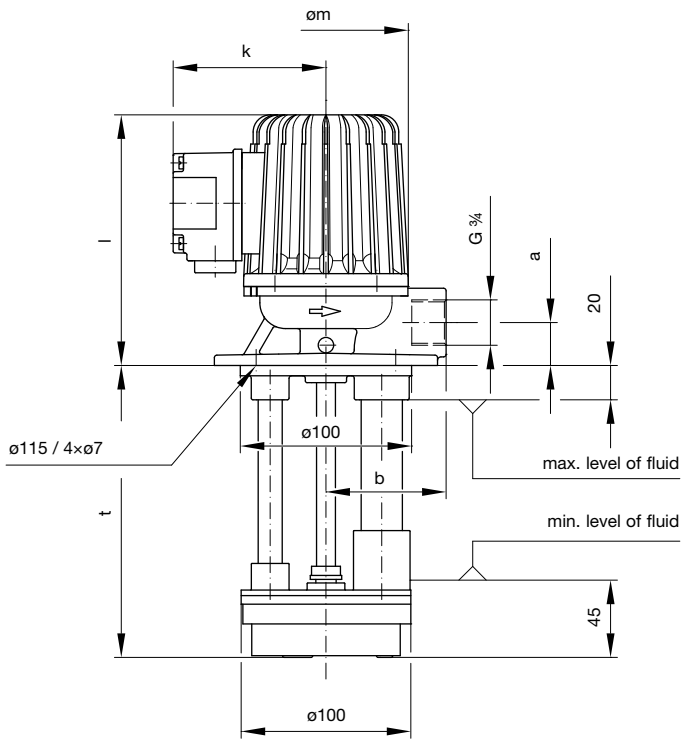
Variations

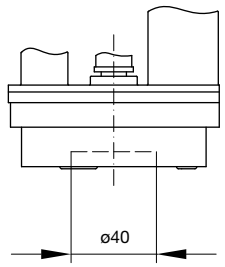
Component	Material
Bottom with extension tube "V"	EN-GJL-200
Impeller material "G"	EN-GJL-200
Bottom standard design "G"	EN-GJL-200
Splash ring material "G"	1.0718

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.

PMS 05, 06, 08, 10 – Immersion pumps, sealless

50 Hz, open impellers



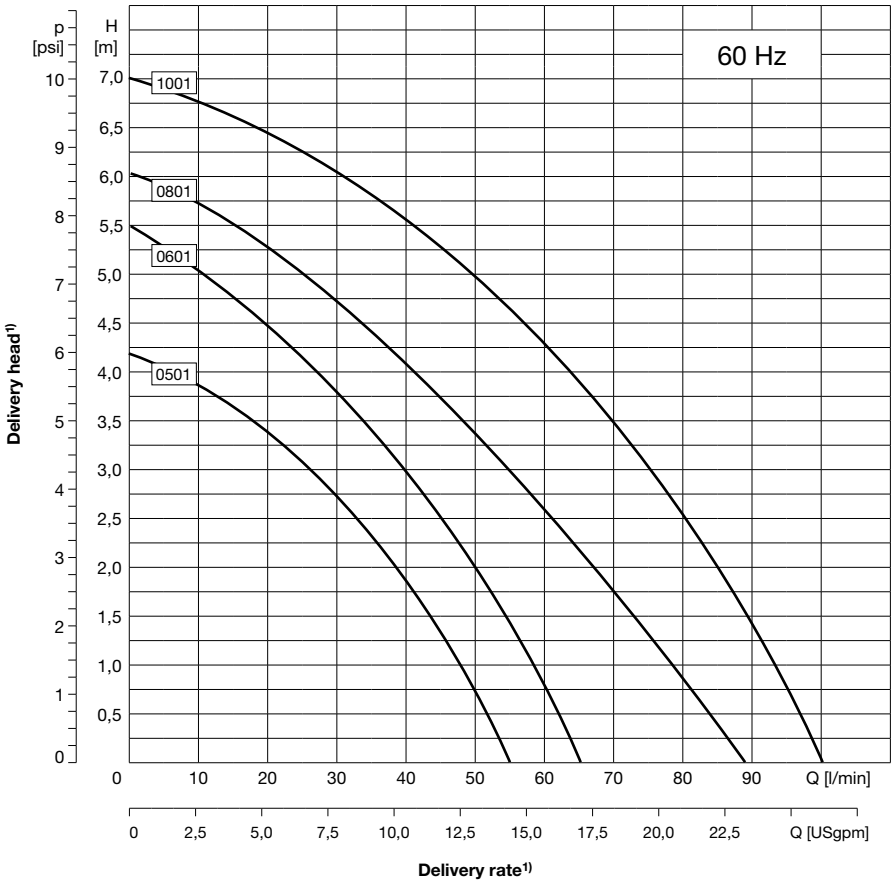


Electrical data, dimensions and weights at 50 Hz

Type of pump			Immersion depth t [mm]	Rated motor values					Dimensions [mm]					Weight [kg]	Sonic pressure [dBA]	Pressure port (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	Øa	b			
PMS	05	01	90 120 140 170 200 220 250 270 350	230/400	A	0,09	0,46/0,26	2618	96	89	146	25	70	4,4 – 5,0	46	G¾
	06	01	90 120 140 170 200 220 250 270 350	230/400	A	0,09	0,46/0,26	2618	96	89	146	25	70	4,4 – 5,0	46	
	08	01	120 170 220 250 270 350	230/400	B	0,12	0,50/0,29	2655	96	89	168	25	70	4,4 – 5,0	55	
	10	01	90 120 140 170 200 220 250 270 350	230/400	C	0,18	0,83/0,48	2788	120	99	160	25	70	6,3 – 7,3	55	

PMS 05, 06, 08, 10 – Immersion pumps, sealless

60 Hz, open impellers



Merkmale

- Vertical multistage pump
- Connecting dimensions according to DIN EN 12157
- For delivery of slightly contaminated types of fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G3/4
- Unventilated motor

PMS

Technical data

Delivery rate Q_{max}	100 l/min
Delivery head H_{max}	7 m
Immersion depth t_{max}	350 mm
Kinematic viscosity	max. 20 mm^2/s
Delivery temperature Material "P" Material "G"	 0 °C bis 60 °C 0 °C bis 80 °C
Grain size	max. Ø5 mm
Contamination	max. 10 kg/m^3
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Various industrial use fluids, emulsions, also with chemical additives, oils, water with corrosion protection additive, water colors, heat transfer oils

Mechanical design

Component	Material
Flange	EN-GJL-200 and steel
Shaft	1.0762
Impeller	POM
Intermediate chamber	EN-GJL-200
Bushes	PTFE graphite
Pumps bottom material "P"	POM
Splash ring material "P"	NBR

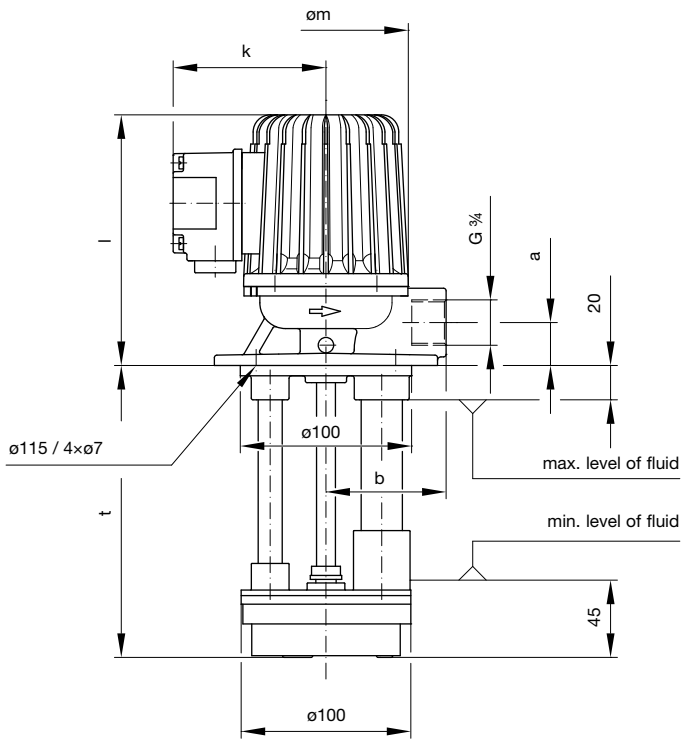
Variations

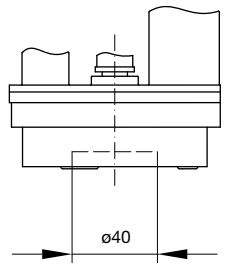
Component	Material
Bottom with extension tube "V"	EN-GJL-200
Impeller material "G"	EN-GJL-200
Bottom standard design "G"	EN-GJL-200
Splash ring material "G"	1.0718

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.

PMS 05, 06, 08, 10 – Immersion pumps, sealless

60 Hz, open impellers



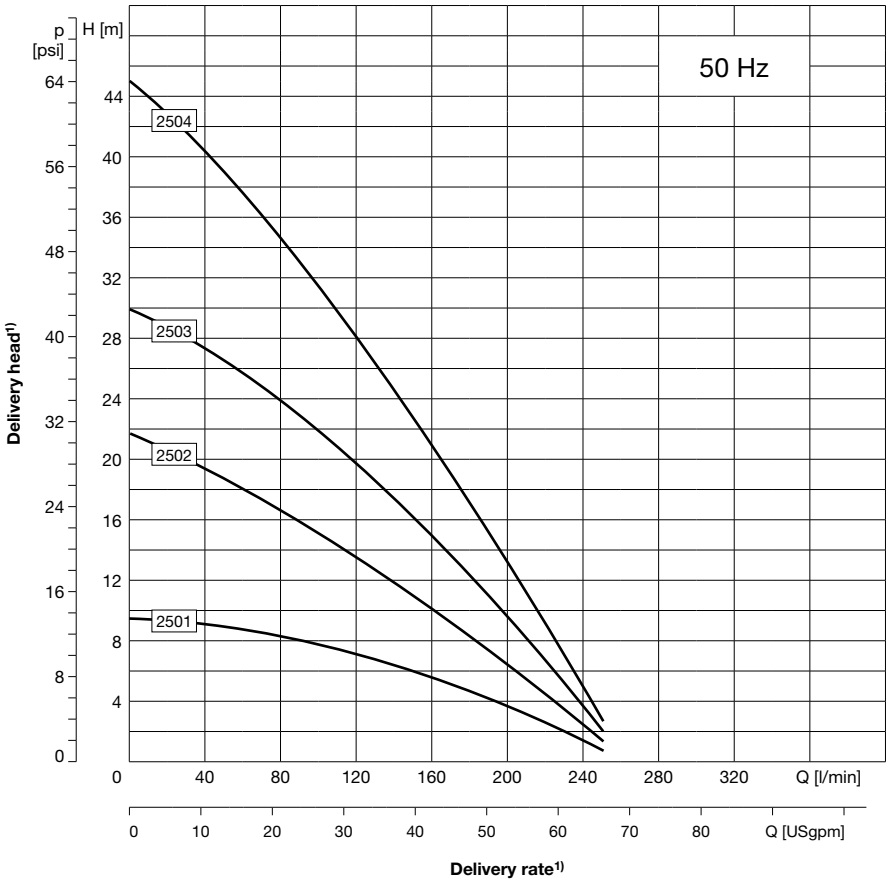


Electrical data, dimensions and weights at 60 Hz

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	Øa	b			
PMS	05	01	90 120 140 170 200 220 250 270 350	265/460	A	0,09	0,46/0,26	3257	96	89	146	25	70	4,4 – 5,0	46	G¾
	06	01	90 120 140 170 200 220 250 270 350	265/460	A	0,09	0,46/0,26	3257	96	89	146	25	70	4,4 – 5,0	46	
	08	01	120 170 220 250 270 350	265/460	B	0,12	0,50/0,29	3320	96	89	168	25	70	4,4 – 5,0	55	
	10	01	90 120 140 170 200 220 250 270 350	265/460	C	0,18	0,83/0,48	3437	120	99	160	25	70	6,3 – 7,3	55	

PMS 25 – Immersion pumps, sealless

50 Hz, open impellers



Merkmale

- Vertical multistage pump
- Connecting dimensions according to DIN EN 12157
- For delivery of slightly contaminated types of fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G1¼

PMS

Technical data

Delivery rate Q_{max}	250 l/min
Delivery head H_{max}	45 m
Immersion depth t_{max}	550 mm
Kinematic viscosity	max. 20 mm²/s
Delivery temperature Material "P" Material "G"	 0 °C bis 60 °C 0 °C bis 80 °C
Grain size	max. Ø8 mm
Contamination	max. 1,5% (proportion by weight)
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Various industrial use fluids, emulsions, also with chemical additives, oils, water with corrosion protection additive, water colors, heat transfer oils

Mechanical design

Component	Material
Flange	EN-GJL-200 and steel
Shaft	1.0762
Impeller	POM
Intermediate chamber	EN-GJL-200
Bushes	PTFE graphite
Pumps bottom material "P"	POM
Splash ring material "P"	NBR

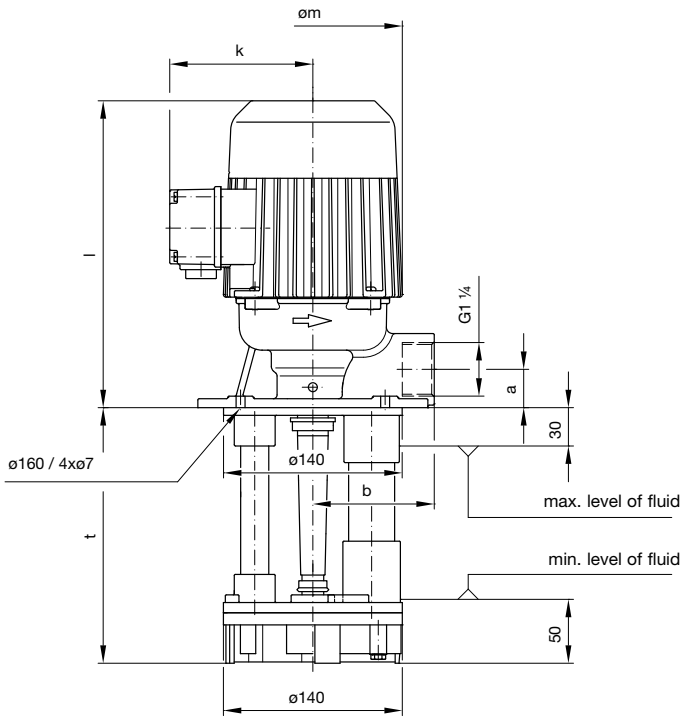
Variations

Component	Material
Bottom with extension tube "V"	EN-GJL-200
Impeller material "G"	EN-GJL-200
Bottom standard design "G"	EN-GJL-200
Splash ring material "G"	1.0718

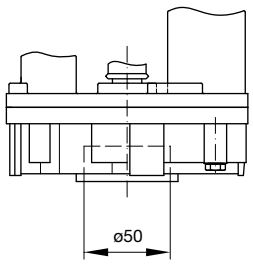
1) Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

PMS 25 – Immersion pumps, sealless

50 Hz, open impellers



Variation "V"
with bottom for extension tube

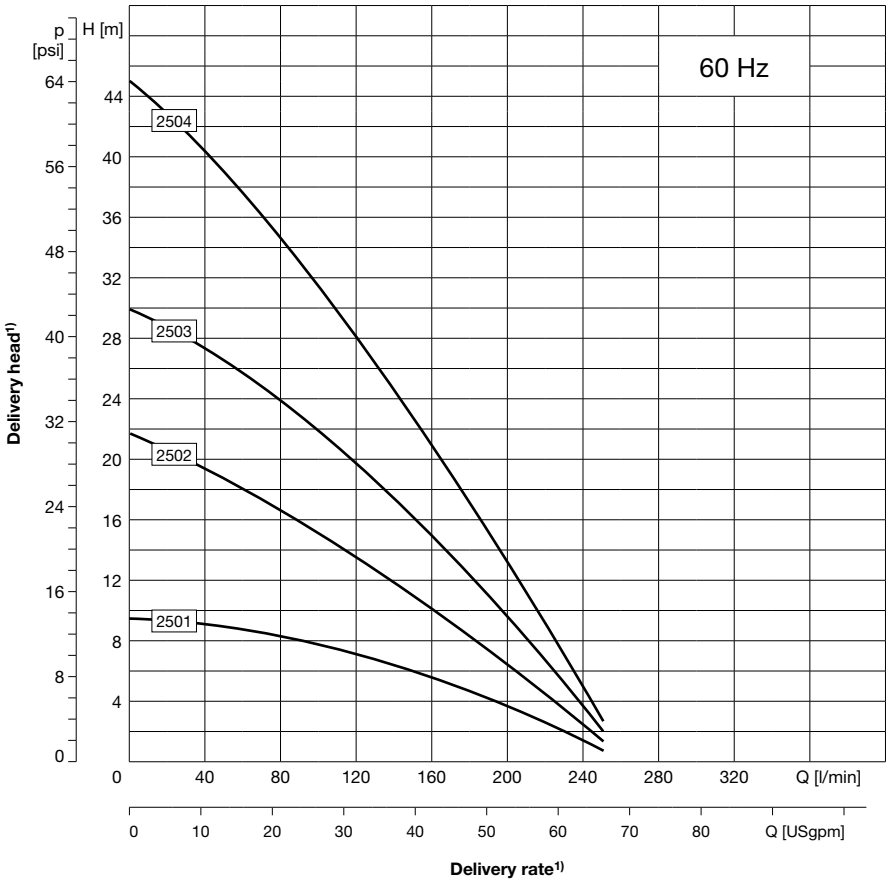


Electrical data, dimensions and weights at 50 Hz

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 Δ/Y I_N [A]	Speed n_N [min^{-1}]	Øm	k	l	Øa	b			
PMS	25	01	170	230/400	F	0,55	2,06/1,19	2836	140	114	241	30	95	13,2 – 16,3	59	G1¼
			200													
			270													
			350													
			440													
			550													
		02	270	230/400	J	1,5	4,95/2,86	2850	176	149	332	32	100	24,0 – 27,5	59	
			310													
			350													
			390													
			480													
		03	310	230/400	J	1,5	4,95/2,86	2850	176	149	332	32	100	26,5 – 29,0	65	
			350													
			390													
			430													
		04	350	230/400	L	3,0	10,0/5,75	2885	196	155	352	32	100	31,0	65	

PMS 25 – Immersion pumps, sealless

60 Hz, open impellers



Merkmale

- Vertical multistage pump
- Connecting dimensions according to DIN EN 12157
- For delivery of slightly contaminated types of fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G1¼

PMS

Technical data

Delivery rate Q_{max}	250 l/min
Delivery head H_{max}	45 m
Immersion depth t_{max}	550 mm
Kinematic viscosity	max. 20 mm²/s
Delivery temperature Material "P" Material "G"	 0 °C bis 60 °C 0 °C bis 80 °C
Grain size	max. Ø8 mm
Contamination	max. 1,5% (proportion by weight)
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Various industrial use fluids, emulsions, also with chemical additives, oils, water with corrosion protection additive, water colors, heat transfer oils

Mechanical design

Component	Material
Flange	EN-GJL-200 and steel
Shaft	1.0762
Impeller	POM
Intermediate chamber	EN-GJL-200
Bushes	PTFE graphite
Pumps bottom material "P"	POM
Splash ring material "P"	NBR

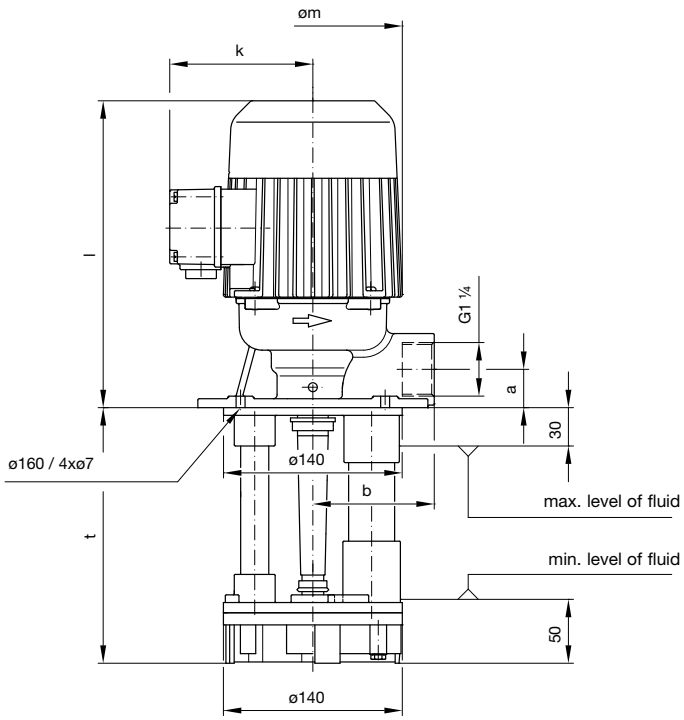
Variations

Component	Material
Bottom with extension tube "V"	EN-GJL-200
Impeller material "G"	EN-GJL-200
Bottom standard design "G"	EN-GJL-200
Splash ring material "G"	1.0718

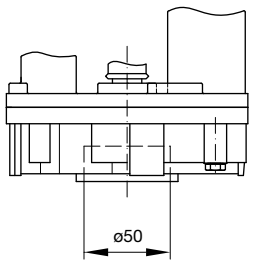
1) Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

PMS 25 – Immersion pumps, sealless

60 Hz, open impellers



Variation "V"
with bottom for extension tube

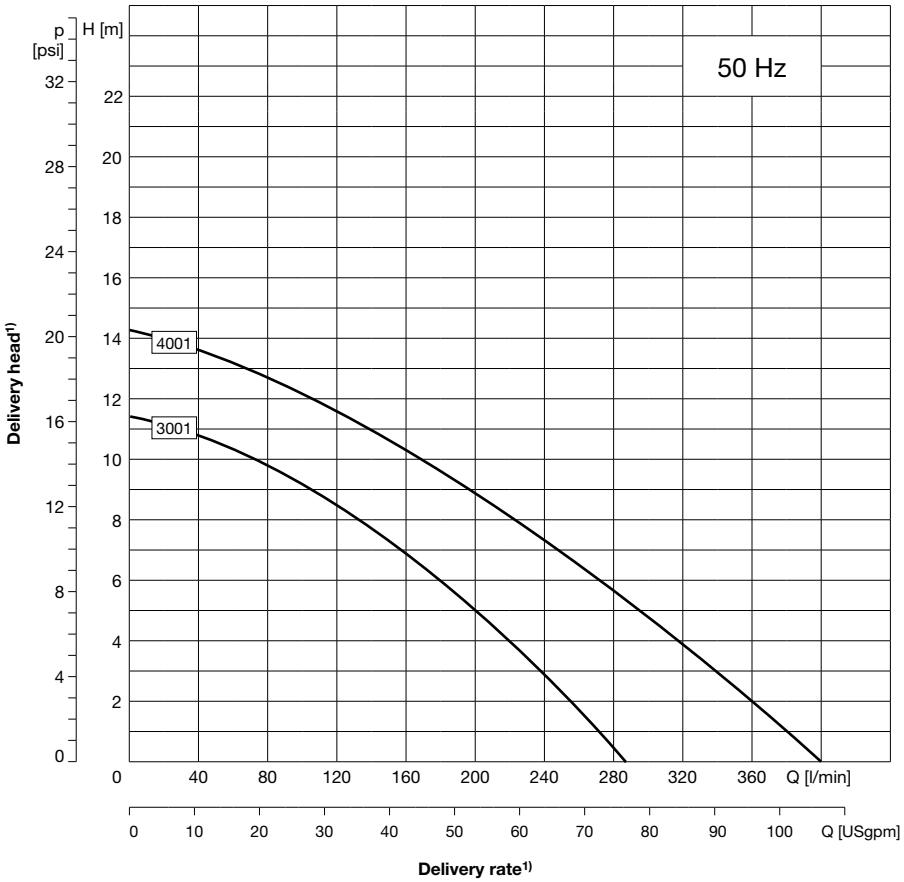


Electrical data, dimensions and weights at 60 Hz

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	Øa	b			
PMS	25	01	170	265/460	F	0,55	1,75/1,01	3446	140	114	241	30	95	13,2 – 16,3	59	G1¼
			200													
			270													
			350													
			440													
			550													
		02	270	265/460	J	1,5	4,33/2,5	3465	176	149	332	32	100	24,0 – 27,5	59	
			310													
			350													
			390													
			480													
		03	310	265/460	J	1,5	4,33/2,5	3465	176	149	332	32	100	26,5 – 29,0	65	
			350													
			390													
			430													
		04	350	265/460	L	3,0	8,65/5,0	3505	196	155	352	32	100	31,0	65	

PMS 30, 40 – Immersion pumps, sealless

50 Hz, open impellers



Merkmale

- Vertical multistage pump
- Connecting dimensions according to DIN EN 12157
- For delivery of slightly contaminated types of fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G1¼

Technical data

Delivery rate Q_{max}	400 l/min
Delivery head H_{max}	14 m
Immersion depth t_{max}	560 mm
Kinematic viscosity	max. 20 mm²/s
Delivery temperature Material "P" Material "G"	 0 °C bis 60 °C 0 °C bis 80 °C
Grain size	max. Ø8 mm
Contamination	max. 1,5% (proportion by weight)
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Various industrial use fluids, emulsions, also with chemical additives, oils, water with corrosion protection additive, water colors, heat transfer oils

Mechanical design

Component	Material
Flange	EN-GJL-200 and steel
Shaft	1.0762
Impeller	POM
Intermediate chamber	EN-GJL-200
Bushes	PTFE graphite
Pumps bottom material "P"	POM
Splash ring material "P"	NBR

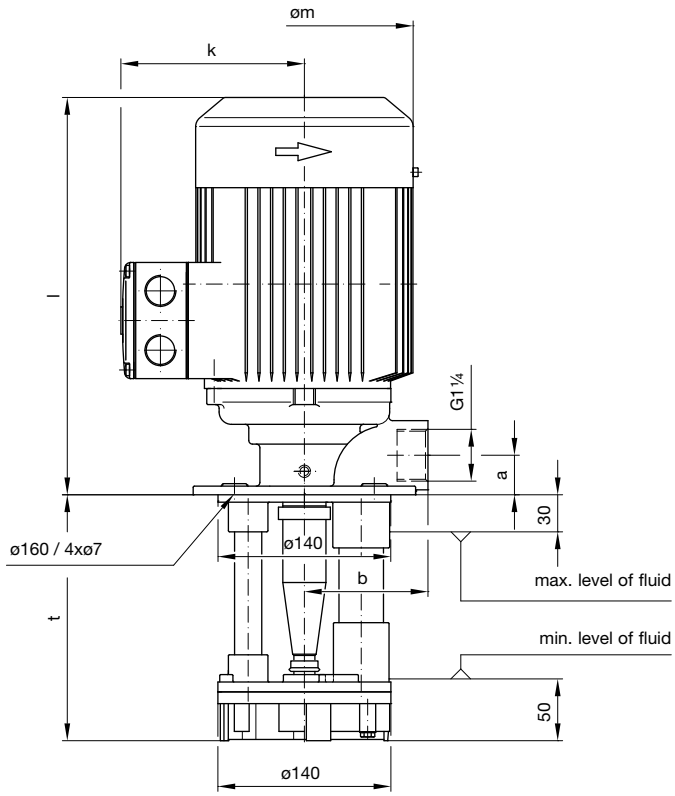
Variations

Component	Material
Bottom with extension tube "V"	EN-GJL-200
Impeller material "G"	EN-GJL-200
Bottom standard design "G"	EN-GJL-200
Splash ring material "G"	1.0718

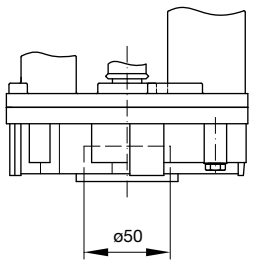
1) Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

PMS 30, 40 – Immersion pumps, sealless

50 Hz, open impellers



Variation "V"
with bottom for extension tube

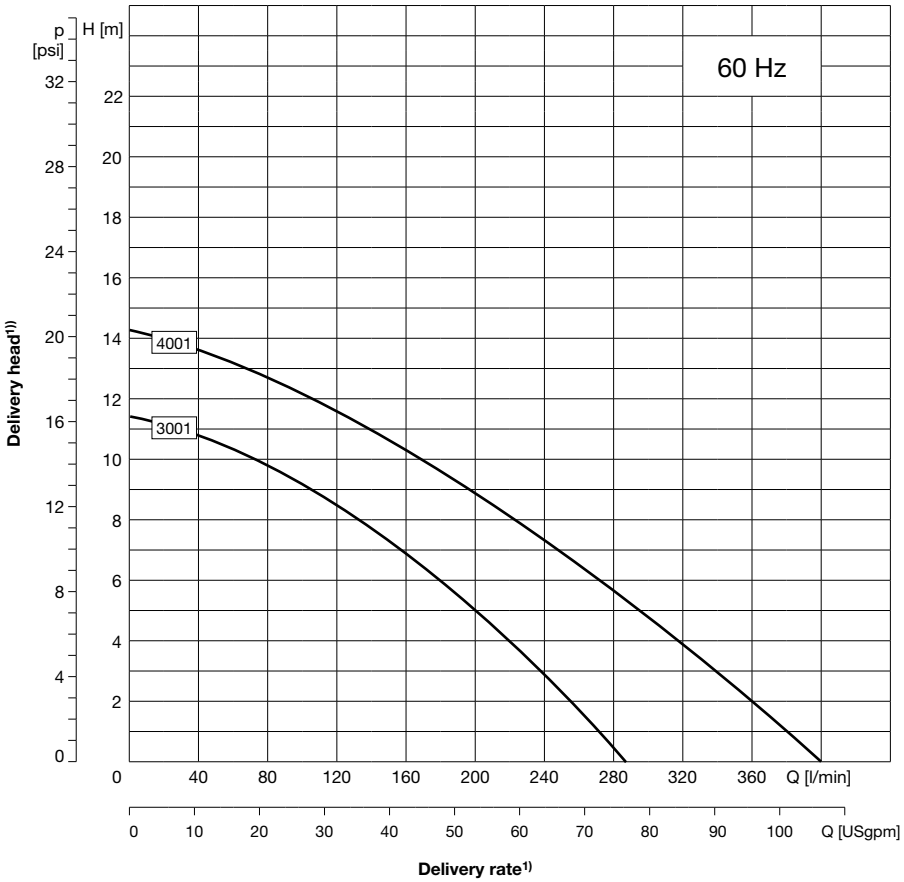


Electrical data, dimensions and weights at 50 Hz

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	Øa	b			
PMS	30	01	170	230/400	G	0,75	2,56/1,48	2870	140	114	241	30	95	13,2 – 16,3	59	G1¼
			200													
			270													
			350													
			440													
			550													
	40	01	210	230/400	J	1,5	4,95/2,86	2850	176	149	332	32	100	23,0 – 26,0	65	
			240													
			280													
			320													
			360													
			560													

PMS 30, 40 – Immersion pumps, sealless

60 Hz, open impellers



Merkmale

- Vertical multistage pump
- Connecting dimensions according to DIN EN 12157
- For delivery of slightly contaminated types of fluids
- Installation direcly into the reservoir
- Pressure port is located above the reservoir plate and designed with internal thread G1¼

Technical data

Delivery rate Q_{max}	400 l/min
Delivery head H_{max}	14 m
Immersion depth t_{max}	560 mm
Kinematic viscosity	max. 20 mm²/s
Delivery temperature Material "P" Material "G"	 0 °C bis 60 °C 0 °C bis 80 °C
Grain size	max. Ø8 mm
Contamination	max. 1,5% (proportion by weight)
Direction of rotation	anti-clockwise (as viewed looking down on the motor's ventilation side)
Fluids delivered	Various industrial use fluids, emulsions, also with chemical additives, oils, water with corrosion protection additive, water colors, heat transfer oils

Mechanical design

Component	Material
Flange	EN-GJL-200 and steel
Shaft	1.0762
Impeller	POM
Intermediate chamber	EN-GJL-200
Bushes	PTFE graphite
Pumps bottom material "P"	POM
Splash ring material "P"	NBR

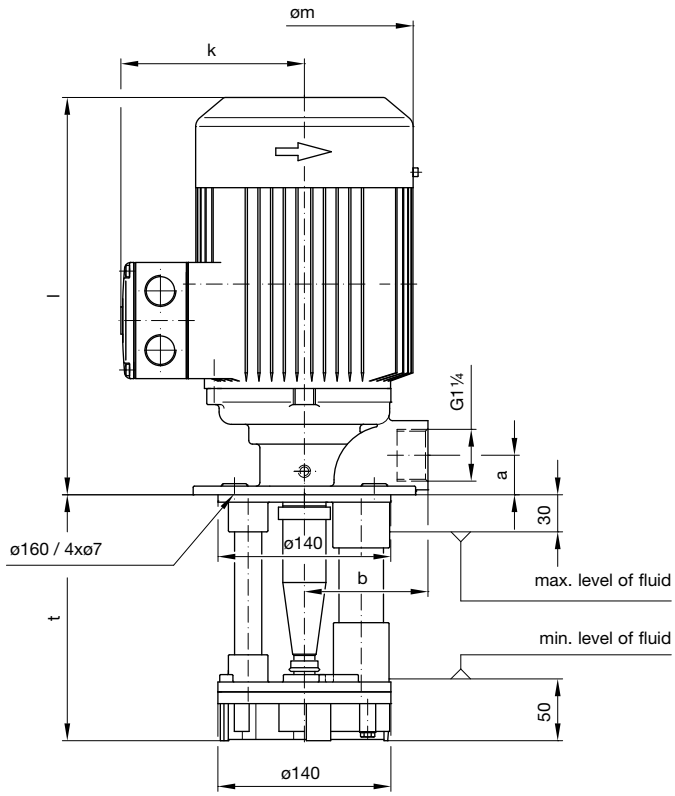
Variations

Component	Material
Bottom with extension tube "V"	EN-GJL-200
Impeller material "G"	EN-GJL-200
Bottom standard design "G"	EN-GJL-200
Splash ring material "G"	1.0718

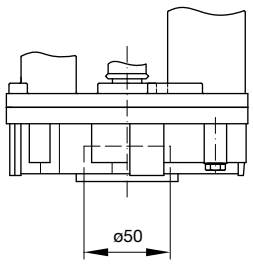
1) Data for viscosity of ~1 mm²/s at a density of ~1 kg/dm³. Minimum volumetric flow: 5 to 10 % of nominal delivery rate.

PMS 30, 40 – Immersion pumps, sealless

60 Hz, open impellers



Variation "V"
with bottom for extension tube



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	Øa	b			
PMS	30	01	170	265/460	G	0,75	2,27/1,31	3410	140	114	241	30	95	13,2 bis 16,3	59	G1¼
			200													
			270													
			350													
			440													
			550													
	40	01	210	265/460	J	1,5	4,33/2,5	3465	176	149	332	32	100	23,0 bis 26,0	65	
			240													
			280													
			320													
			360													
			560													

PMS – Immersion pumps, sealless

Order key

Series

Frame size

To determine the fram size the corresponding characteristics has to be used.
05, 06, 08, 10, 25, 30, 40

Stages

To determine the desired number of stages the corresponding characteristics has to be used.
01 = 1-stage
...
04 = 4-stages

Materials

P = plastic (Standard)
G = gray cast iron

Seal

B = gap bush

Pump design

S = standard design
V = bottom for extension tube

Immersion depth in mm

To determine the desired immersion depth the appropriate table "Electrical data, dimensions and weights" has to be used.
90 = 90 mm
...
560 = 560 mm

Motor index

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

Power supply

01 = 230/400 V at 50 Hz
265/460 V at 60 Hz
05 = **Standard für Europa**
230/400 V at 50 Hz
... further designs on request

Motor design

AA = standard up to 0,55 kW (insulation class F, IP 54, 2-pole)
BA = standard from 0,75 kW (insulation class F, IP 54, 2-pole, IE2)
... further designs on request

Order example: PMS4001GBS280J01BA
Series: **PMS**, Frame size: **40**, **01**-stage, Material: **G** grey cast iron, Seal: **B** gap bush, Pump design: **S** standard design, Immersion depth: **280** mm, Motor index: **J** 1,5 kW, Power supply: **01** 230/400 V at 50 Hz, 265/460 V at 60 Hz, Motor design: **BA** Standard (IE2)

* All data and measurements refer to the IE2-motors.

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.com

This brochure was presented by:

1-6033-EN 11/2015 Subject to change without notice.

VOGEL
HYDRAULIK · PNEUMATIK