Kennlinien 50 Hz

PX3- 80.0-2 VORTEX 1

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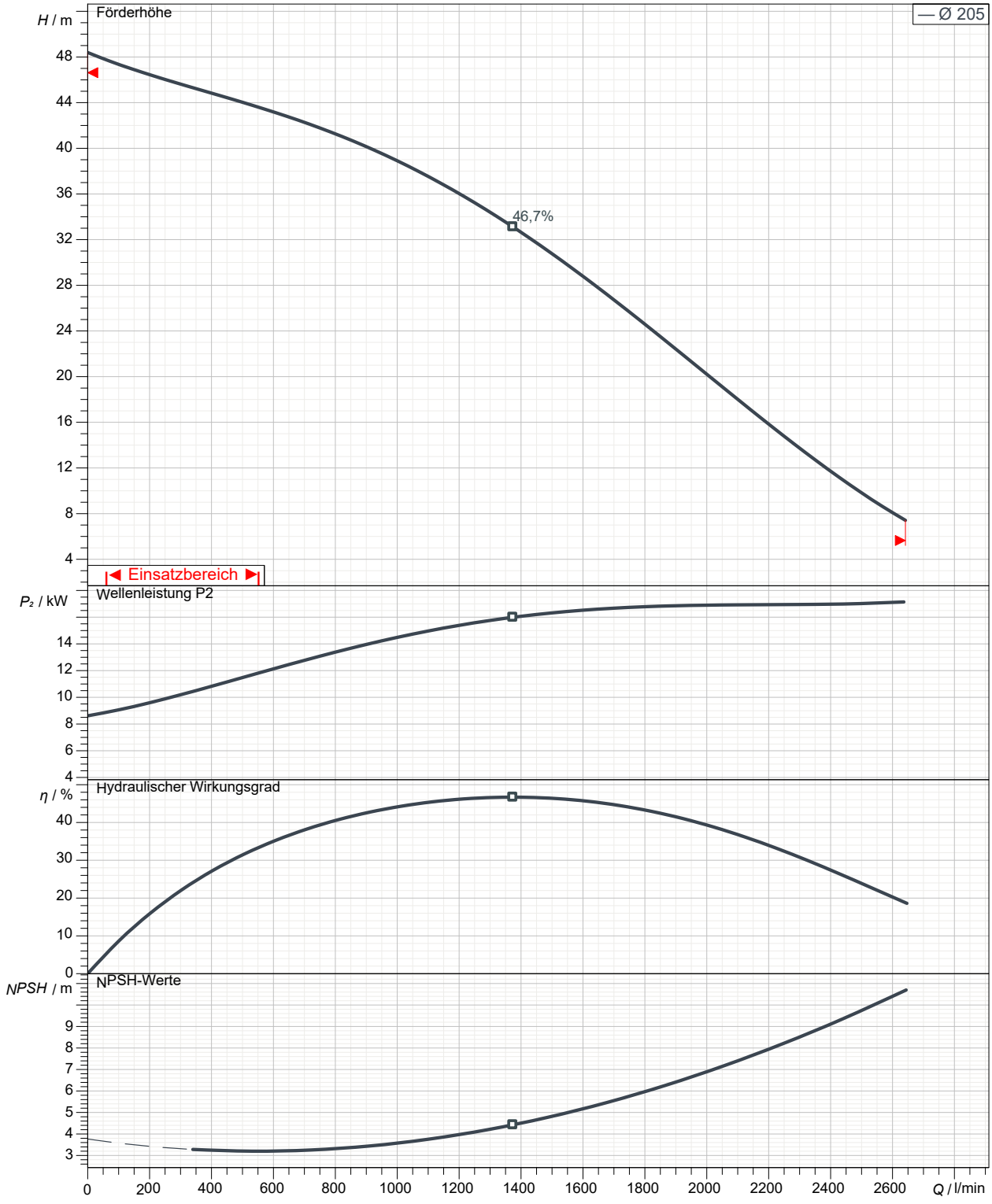
Pumpe	**PX3- 80.0-2 VORTEX 1**	1 Einzelpumpe		**Betriebspunkt**
Laufrad	VX3-80	Freistromrad	D=205 mm	Forderstrom :
Freier Durchgang :	70 mm	Drehzahl	2954 rpm	Forderhohe :
				Pumpenwirkungsgrad :
Motor :	**M3.1D-18,5 IE2**	3~ 50 Hz 2954 rpm		Leistung : (P2)
Nennleistung(P2) / Nennspannung / Nennstrom :	18,5 kW 400 V 34 A			Leistungsaufnahme : (P1)
Motorwirkungsgrad 4/4 :	90,9 %	Leistungsfaktor 4/4 (cos phi):	0,875	
Elektrokabel :	[1x]4x10mm² + 4x1,5mm² (DOL) / [2x]4x4mm² + 4x1,5mm² (SD)			

Leistungsdaten bezogen auf: Water; 20°C; 998,3kg/m³; 1,005mm²/s

Tolerances acc. ISO 9906 Annex A



FLOWSELECT rev. 2011-12-12

Submersible, centrifugal, non-clogging sewage pump PX3- 80.0-2 VORTEX 1 capable of handling raw,unscreened sewage.

The pumps manufactured within European Union with the latest manufacturing and environmental standards and practical standard features as :

-Freistromrad made in ductile iron GGG40 are of non clogging design

-Channel and vortex impellers can be accommodated in the same volute. This advance together with possibility to be trimmed allow to meet changing duties.

-Wear rings with 'reducer' clearances system allow to be re-positioned axially in order to reduce the clearances between the channel impeller and volute.

-Fast lock connection system latch bolts made in stainless steel for easy removal of the motor together with impeller from the volute.

Submersible motor type M3.1D-18,5 IE2 can be capable of operating continuously in submerged for wet installation.
Cooling jacket with Internal cooling system is available as option.
An internal impeller, fitted between the mechanical shaft seal, circulate a cooling liquid (Ecoflu) in a closed loop through a cooling jacket, and transfer the heat to the pumped liquid by a cooling flange (heat exchange).

-Electrical motor PXFLOW - SIEMENS high efficiency class IE2(premium efficiency IE3 as option) have Class F insulation (rated for 155 degrees Celsius)as standard (Class H as option)

-Separate sealed terminal connection area

-Rotor shaft oversized made in stainless steel and oversized ball bearings ensuring smooth and vibration free running with extended life time as result.

-Shaft sealing system consist of double mechanical seals built into a replaceable cartridge facilitate quick changes even on-site without special tools.

Motor protections :
-Three thermal overload switches, one per phase, internally wound to combat high temperature loads.
-Built-in moisture sensors to terminal connection area (upper motor side), inside the motor (lower side) and in oil chamber

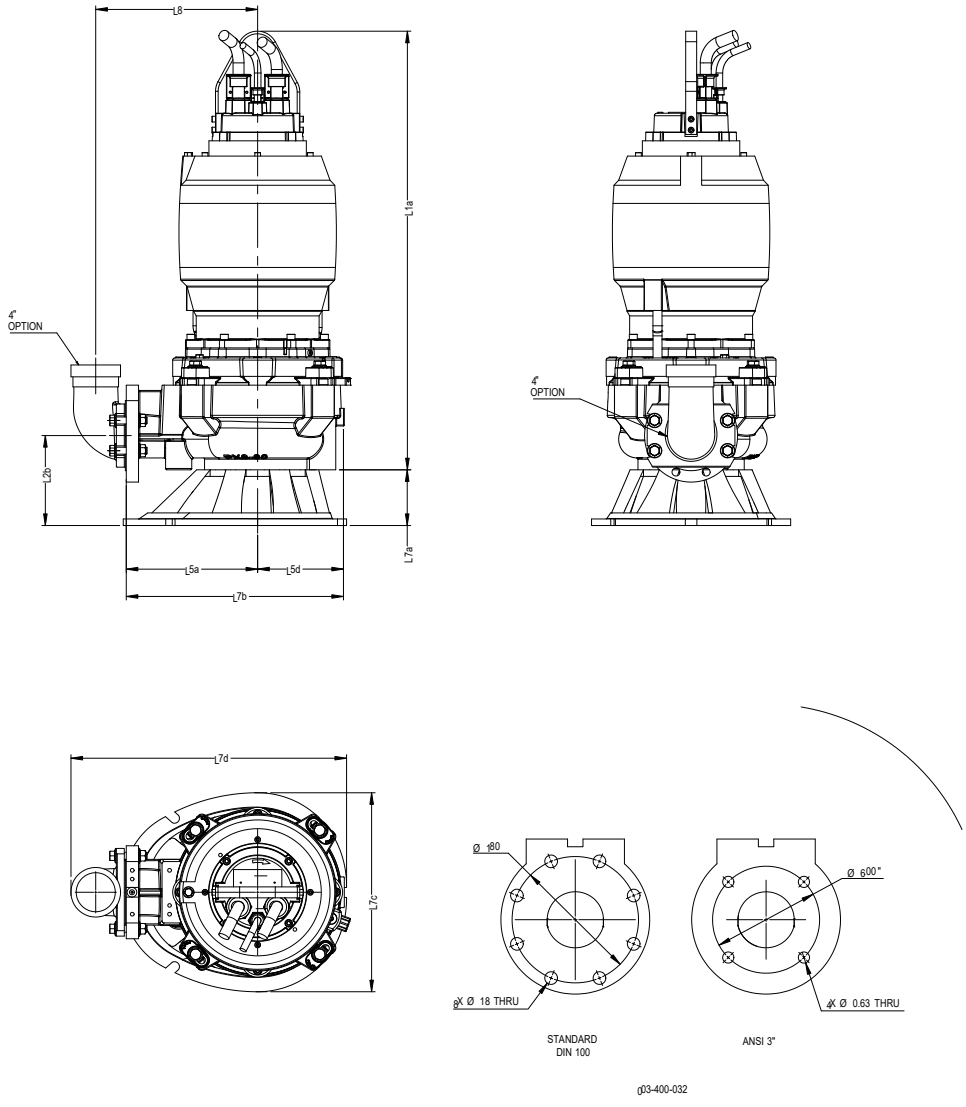
Materials
PX3- 80.0-2 VORTEX 1 (Freistromrad) +18,5 kW
-Motor housing, volute :cast iron GG -25
-Impeller : ductile iron
-Shaft, cartridge sleeve :stainless steel 431
-Shaft seal:Media side sic/sic
Cooling side sic/sic
-Bearings:upper:single row deep groove ball bearing
lower: double angular contact ball bearing

portable wet installation accesories set (on request)
base : ductile iron GGG40
discharge elbow : cast iron GG25

Aufstellvarianten

Portable (with cooling jacket) with base

PX3- 80.0-2 VORTEX 1 Mit Motor M3.1D-18,5 IE2



Abmessungen	mm	Abmessungen	mm
Name	Value	Name	Value
L1a	1000		
L2b	205		
L5a	299,5		
L5d	195,5		
L7a	127		
L7b	495		
L7c	454		
L7d	628		
L8	369		

Outlet for hose - Option : ¨ 100mm (4")
- Option : ¨ 80mm (3")

For pump :

Outlet flange - Standard : DN100 / PN16
- Option : DN80 / PN16
- Option : 3" ANSI class 125
- Option : 4" ANSI class 125

Suction flange - Standard : DN100 / PN16
- Option : 4" ANSI class 125

Weight of Pump with cooling jacket = 298 kg
(without cooling jacket : - 33,5 kg)
Weight of Base for Transportable = 16,5 kg

Technische Daten
PX3- 80.0-2 VORTEX 1

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Motor : **M3.1D-18,5 IE2** 3~ 50 Hz 2 2954 rpm

Motorhersteller : **PXFLOW - SIEMENS**

Nennleistung(P2) / Nennspannung / Nennstrom : 18,5 kW 400 V 34 A Schutzart IP 68

Anlaufstrom 265 A (DOL) / 88 A (Y-D) Schalthaufigkeit pro Stunde :15

Elektrokabel : [1x]4x10mm² + 4x1,5mm² (DOL) / [2x]4x4mm² + 4x1,5mm² (SD)

Leistungsdaten bezogen auf: 400 V Tolerances acc. VDE 0530

Symbol	Unbelastet	25 %	50 %	75 %	100 %	125 %
P_2 / kW		4,625	9,25	13,87	18,5	23,12
P_1 / kW		5,466	10,23	15,21	20,35	25,54
n / 1/min		2988	2977	2966	2954	2940
cos φ		0,546	0,768	0,844	0,874	0,89
I / A		14,45	19,23	26,02	33,61	41,43
s / %		0,4	0,7665	1,133	1,534	1,998
M / Nm		14,78	29,67	44,67	59,8	75,11
η / %		84,61	90,4	91,19	90,9	90,53