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Technical data

K8.70 - 1

With motor
NU 512-4/7

Project name Untitled project 2023-05-20 08:36:00.887

Project ID

Installation location

Date 20.05.2023

Operating data specification

Pumped fluid	Water
Operating temperature t A	30 °C
pH at t A	
Density at t A	998,3 kg/m ³
Kin. viscosity at t A	1,005 mm ² /s
Rated frequency	50
Rated flow	
Rated head	
Geodetic head	
Max. inlet pressure	
Installation type	Vertical installation

Duty point data

Volume flow	
Head	
Shaft power P ₂	P ₂
Pump efficiency	
Power input P ₁	P ₁
Required pump NPSH	
Speed	3000 1/min

Pump

Make	WILO
Pump type	K8.70
Frame size	8" (Ø192 - Ø216)
Sense of rotation	Counter clockwise
Max. operating pressure	3 bar
Stages	1
Impeller type	Semi axial impeller
Shut off head	30,1 m
Max. shaft power	6,36 kW
Weight of unit (without detachable Accessories)	

Discharge port

Pressure rating	PN63
Rated diameter	G 5 I
Standard	DIN ISO 228-1 (I)

Impeller Ø

Max.	143 mm
Min.	113 mm
designed	143 mm

Flow

	Referring to: Speed in operating point
Nominal	71,4 m ³ /h
Max-	124 m ³ /h
Min-	0 m ³ /h

Motor

	Referring to: Rated speed
Manufacturer / Type	NU 512-4/7
Specific design	NU (glycol filling)
Rated power	7,5 kW
Electric voltage	360 ~3 V
Power input with rated power	8,2 kW
Current input with rated power	14 A
Number of poles	4
Rated speed	3000 1/min
Load	125 / 100 / 75 / 50 / 25 %
cos phi	0,95/0,95/0,95/0,95/0,95
cos phi with starting	0
Efficiency	91,3/91/90/87,2/78,6
Operation type (VDE 0530)	S1 immersed
Max. fluid temperature	30°C
Min. flow velocity	0,16 m/s
Starting curr. d-o-l/ YD	14 A / 4,7 A
Starting torque	24 Nm
Inertia moment	0,0035 kg m ²
Starts per hour max.	20
Degree of protection	IP 68
Weight of motor	43 kg
Motor connection cable	4G4 S07BBH2-F

Application limits for operation with frequency inverter:

- Max. voltage rise: 500 V/µs
- Max. overvoltage (phase - phase): 1000 V

Pump materials - Material design

	C
Suction piece	1.4408
Stage- /guide casing	1.4408
Impeller	1.4408
Stationary wear ring	EPDM
Pump shaft	1.4462
clamp sleeve	1.4462
Bearing sleeve	EPDM
Connecting screws	A4
Nuts	A4
Non-return valve	1.4408 / AISI 316

Motor materials

According to IEC 60034-1

Pump curves in accordance with ISO 9906: 2012 2B



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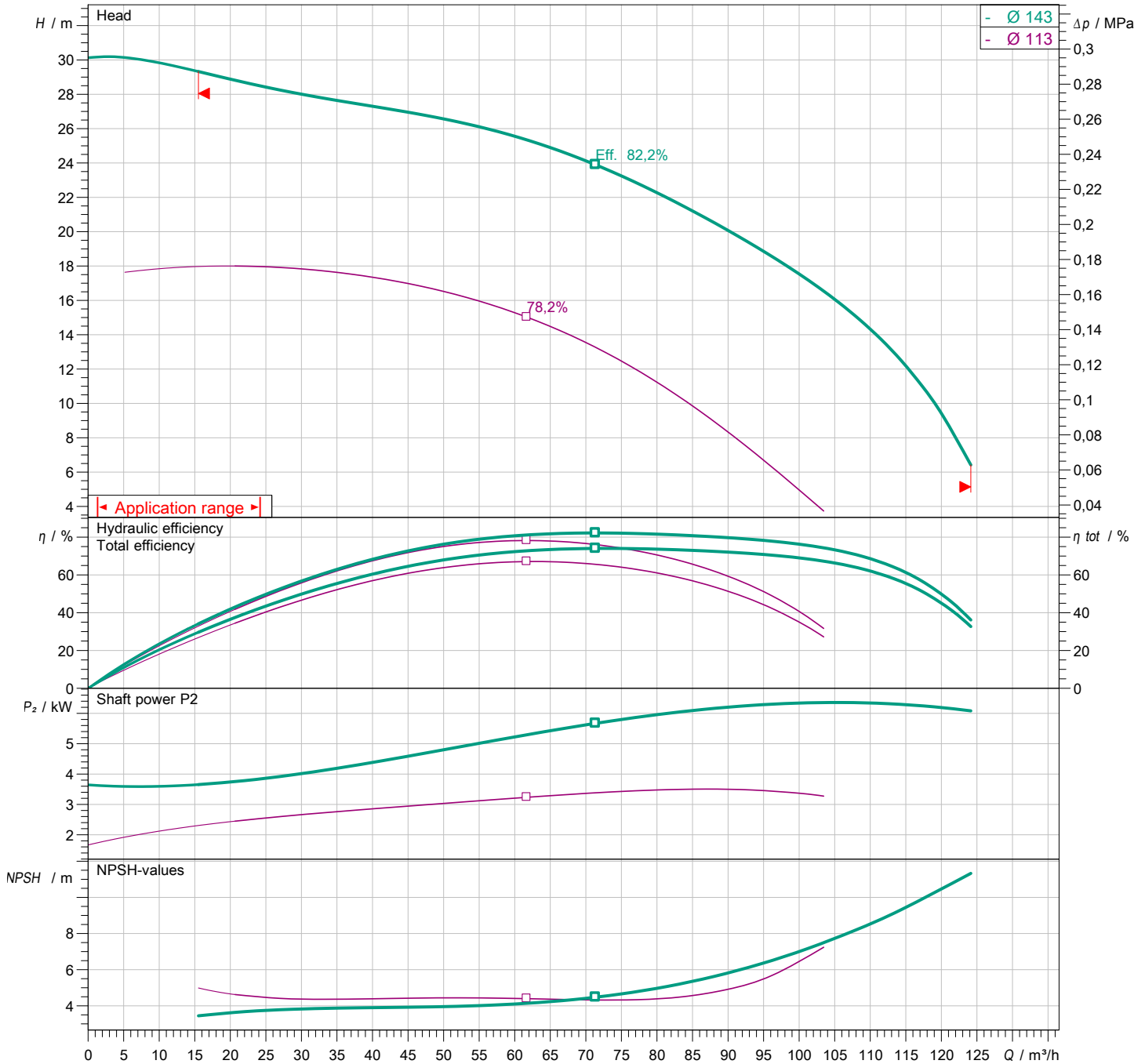
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Pump

Stages	1
Impeller Ø	designed 143 mm
Nominal speed	3000 1/min
Frequency	50 Hz
Impeller type	Semi axial impeller

Motor

Rated power	7,5 kW
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Sel. explosion protection

Subject to change

Duty point data

Volume flow	
Head	
Shaft power P ₂	P ₂
Pump efficiency	
Power input P ₁	P ₁
Required pump NPSH	
Speed	3000 1/min

Software version
Data version

Spaix, Version 4.3.13 - 2021/02/23 (Build 180)
22.04.2023

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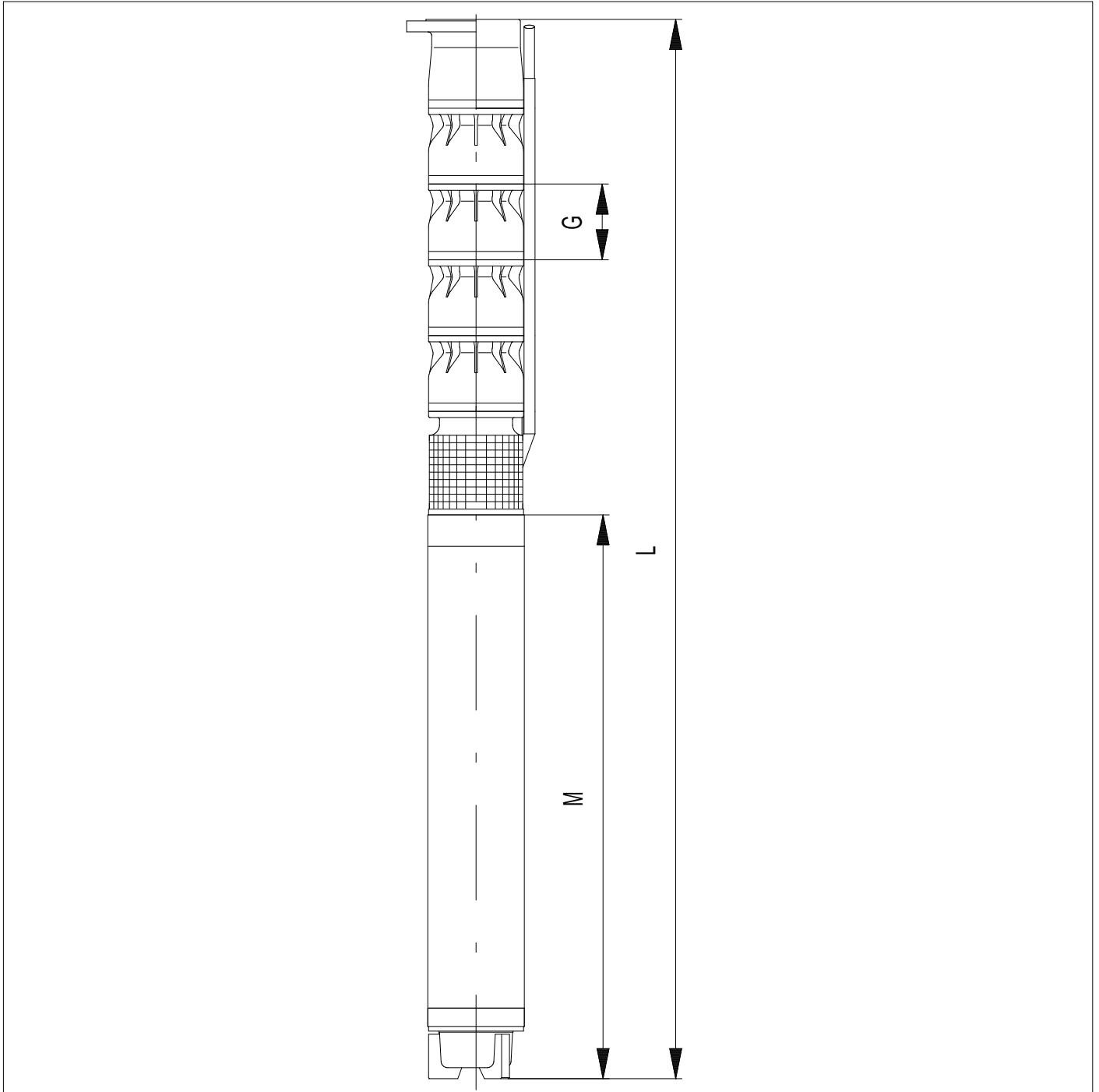
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Dimensions

Name	Value	Name	Value
G	135 mm		
M	626 mm		

Connections

Discharge port	G 5 I
Intake piece	PN63