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Technical data

KM 1302 - 4

With motor

NU 160-2/120

Project ID Untitled project 2025-03-05 07:23:27.463

Project name

Installation location

Customer pos. No.

Date 2025-03-05

Operating data specification

Pumped fluid	Water
Operating temperature t A	20
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	60
Rated flow	
Rated head	
Geodetic head	
Max. inlet pressure	0 kPa
Installation type	Vertical installation

Duty point data

Volume flow	
Head	
Shaft power P ₂	P ₂
Hydr. efficiency η_{hyd}	
Power input P ₁	P ₁
Required pump NPSH	
Rotational speed	3556 1/min

Pump

Make	WILO
Pump type	KM 1302
Frame size	20" (Ø430 - Ø440)
Sense of rotation	Counter clockwise
Max. operating pressure	42.6 bar
Stages	4
Impeller type	Semi axial impeller
Shut off head	435 m
Max. shaft power	601 kW
Weight of unit	1757 kg
(without detachable Accessories)	

Discharge port

Pressure rating	PN 64
Rated diameter	DN 200
Standard	EN 1092-2

Impeller Ø

Max.	239 mm
Min.	200 mm
designed	239 mm

Flow

Referring to: Speed in operating point

Nominal	157 l/s
Max-	172 l/s
Min-	49.2 l/s

Motor

Referring to: Rated speed

Manufacturer / Type	NU 160-2/120
Specific design	NU (glycol filling)
Rated power	650 kW
Electric voltage	690 V
Power input with rated power	709.6 kW
Current input with rated power	660 A
Number of poles	2
Rated speed	3552 1/min
Load	125 / 100 / 75 / 50 / 25 %
cos phi	0.91/0.9/0.89/0.88/0.8
cos phi with starting	0
Efficiency	90.9/91.6/90.4/88.2/82
Operation type (VDE 0530)	S1 immersed
Max. fluid temperature	20
Min. flow velocity	0.1
Starting curr. d-o-l/ YD	2,178 A / 726 A
Starting torque	1640 Nm
Inertia moment	1.0621 kg m ²
Starts per hour max.	5
Degree of protection	IP 68
Weight of motor	1311 kg
Motor connection cable	6X 1X95 + 1X95 S07BB

Application limits for operation with frequency inverter:

- Max. voltage rise: 500 V/μs

- Max. overvoltage (phase - phase): 1000 V

Pump materials - Material design

A

Suction piece	EN-GJS-600
Stage- /guide casing	EN-GJS-600
Discharge PN 25-40	EN-GJS-600
Discharge PN 64	EN-GJS-600
Impeller	G-CuAl10Ni
Stationary wear ring	1.4122
Pump shaft	1.4021
Shaft sleeve	1.4021
Pump end bearing	Brass + NBR
Connecting screws	A 2 - 80, A 2.3

Motor materials

Material version:	A
Shaft sealing:	Mechanical seal
Stator tube:	St
Upper bearing housing:	EN - GJL 200
Lower bearing housing:	EN - GJL 200
Lower part:	EN - GJL 200
Shaft journal:	1.4462
Rubber parts:	EPDM
Screws and nuts:	A2 - 70

According to IEC 60034-1

No test norm defined for this product

Subject to change

Software version

Data version

Spaix® 5-2024.2 - 2024/09/18 (Build 140), 64 bit

21.11.2024

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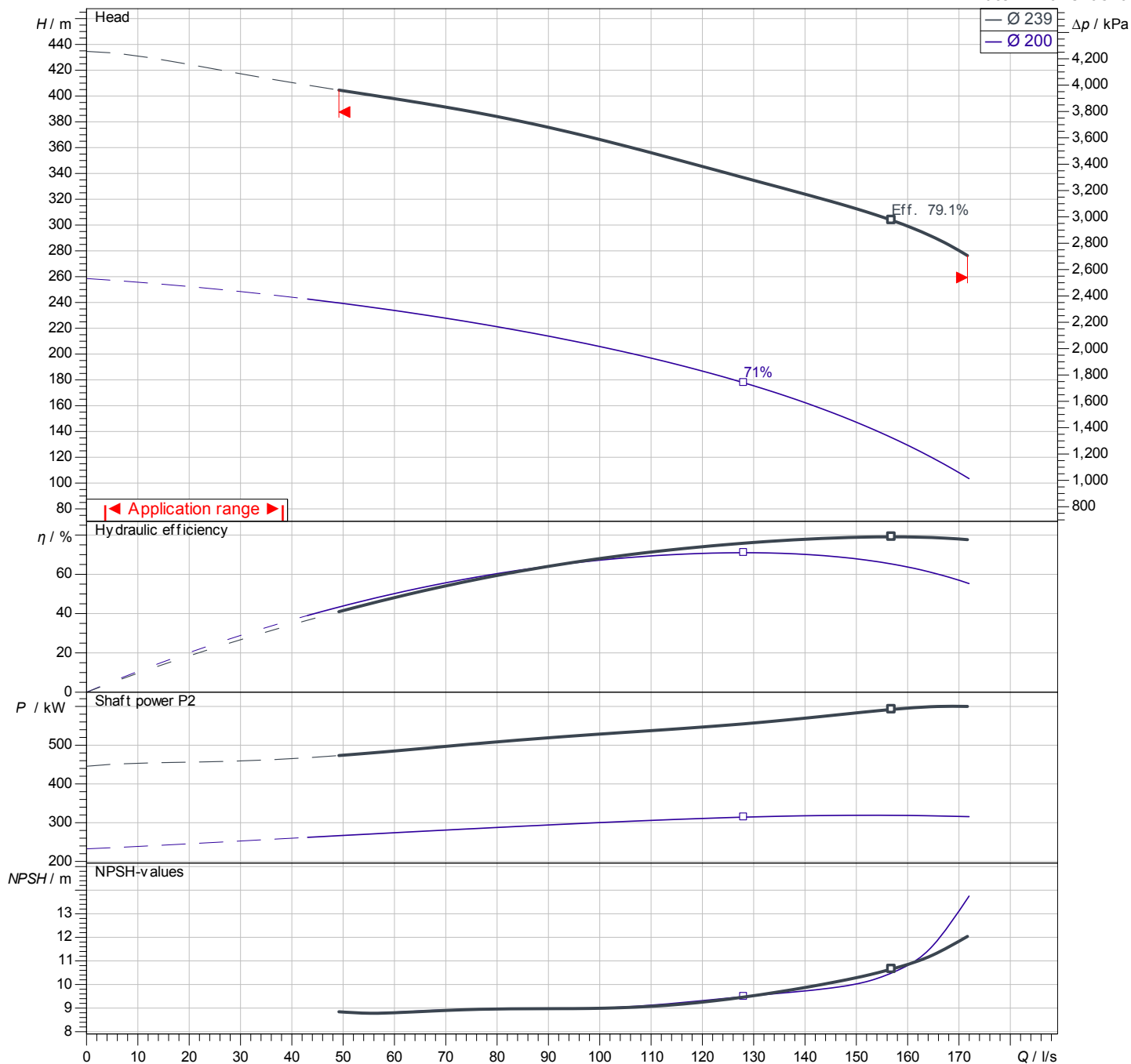
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Pump

Stages	4
Impeller Ø designed	239 mm
Nominal speed	3,500 1/min
Frequency	60 Hz
Impeller type	Semi axial impeller

Motor

Rated power	650 kW
Sel. explosion protection	

Duty point data

Volume flow	
Head	
Shaft power P2	P ₂
Hydr. efficiency η hyd.	
Power input P1	P ₁
Required pump NPSH	
Rotational speed	3556 1/min

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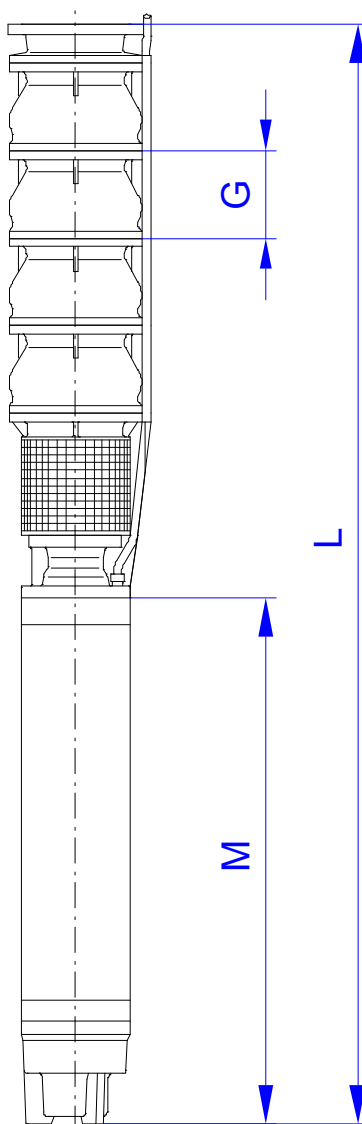
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Dimensions

Name	Value	Name	Value
G	220 mm		
L	3,654 mm		
M	2,408 mm		

Connections

Discharge port	DN 200 PN 64 PN 64
Intake piece	
Non-return valves	no