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## Technical data

### Sprinkler K 86 - 4

With motor

### NU 801-2/40

Project ID Untitled project 2025-03-17 06:38:35.502

Project name

Installation location

Customer pos. No.

Date 2025-03-17

#### Operating data specification

|                           |                          |
|---------------------------|--------------------------|
| Pumped fluid              | Water                    |
| Operating temperature t A | 20 °C                    |
| pH at t A                 |                          |
| Density at t A            | 998.3 kg/m <sup>3</sup>  |
| Kin. viscosity at t A     | 1.005 mm <sup>2</sup> /s |
| Rated frequency           | 50                       |
| Rated flow                |                          |
| Rated head                |                          |
| Geodetic head             |                          |
| Max. inlet pressure       | 0 kPa                    |
| Installation type         | Vertical installation    |

#### Duty point data

|                                    |                |
|------------------------------------|----------------|
| Volume flow                        |                |
| Head                               |                |
| Shaft power P <sub>2</sub>         | P <sub>2</sub> |
| Hydr. efficiency η <sub>hyd.</sub> |                |
| Power input P <sub>1</sub>         | P <sub>1</sub> |
| Required pump NPSH                 |                |
| Rotational speed                   | 2931 1/min     |

#### Pump

|                                  |                     |
|----------------------------------|---------------------|
| Make                             | WILO                |
| Pump type                        | Sprinkler K 86      |
| Frame size                       | 8" (Ø192 - Ø205)    |
| Sense of rotation                | Counter clockwise   |
| Max. operating pressure          | 8.4 bar             |
| Stages                           | 4                   |
| Impeller type                    | Semi axial impeller |
| Shut off head                    | 86.1 m              |
| Max. shaft power                 | 24.4 kW             |
| Weight of unit                   | 183 kg              |
| (without detachable Accessories) |                     |

#### Discharge port

|                 |                   |
|-----------------|-------------------|
| Pressure rating | PN25              |
| Rated diameter  | G 5 I             |
| Standard        | DIN ISO 228-1 (I) |

#### Impeller Ø

|          |        |
|----------|--------|
| Max.     | 144 mm |
| Min.     | 144 mm |
| designed | 144 mm |

#### Flow

|         | Referring to: Speed in operating point |
|---------|--|
| Nominal | 22.3 l/s                               |
| Max-    | 29.5 l/s                               |
| Min-    | 0 l/s                                  |

#### Motor

|   | Referring to: Rated speed  |
|---|----------------------------|
| Manufacturer / Type                                       | NU 801-2/40                |
| Specific design   | NU (glycol filling)        |
| Rated power   | 28 kW                      |
| Electric voltage  | 400 V                      |
| Power input with rated power                              | 32.9 kW                    |
| Current input with rated power                            | 58 A                       |
| Number of poles   | 2                          |
| Rated speed   | 2912 1/min                 |
| Load  | 125 / 100 / 75 / 50 / 25 % |
| cos phi   | 0.86/0.82/0.75/0.64/0.44   |
| cos phi with starting                                     |                            |
| Efficiency  | 85.4/85.2/84.2/81.1/71.6   |
| Operation type (VDE 0530)                                 | S1 immersed                |
| Max. fluid temperature                                    | 25 °C                      |
| Min. flow velocity  |                            |
| Starting curr. d-o-l/ YD                                  | 315 A / 105 A              |
| Starting torque   | 150 Nm                     |
| Inertia moment  | 0.0254 kg m <sup>2</sup>   |
| Starts per hour max.                                      | 10                         |
| Degree of protection                                      | IP 68                      |
| Weight of motor   | 119 kg                     |
| Motor connection cable                                    | 4G16 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-GJL-250      |
| Stage- /guide casing     | EN-GJL-250      |
| Discharge PN 10-16       | EN-GJL-250      |
| Discharge PN 25-40       | EN-GJL-250      |
| Impeller                 | G-Cu Sn10       |
| Stationary wear ring     | 1.4580          |
| Pump shaft               | 1.4021          |
| Shaft sleeve             | 1.4021          |
| Pump end bearing         | Brass + NBR     |
| Screws / tightening bolt | A 2 - 80, A 2.3 |

#### Motor materials

|                        |                 |
|------------------------|-----------------|
| Material version:      | A               |
| Shaft sealing:         | Mechanical seal |
| Stator tube:           | 1.4301          |
| Upper bearing housing: | EN - GJL 250    |
| Lower bearing housing: | EN - GJL 250    |
| Lower part:            | EN - GJL 250    |
| Shaft journal:         | 1.4021          |
| Rubber parts:          | EPDM            |
| Screws and nuts:       | A2 - 70         |

According to IEC 60034-1

No test norm defined for this product



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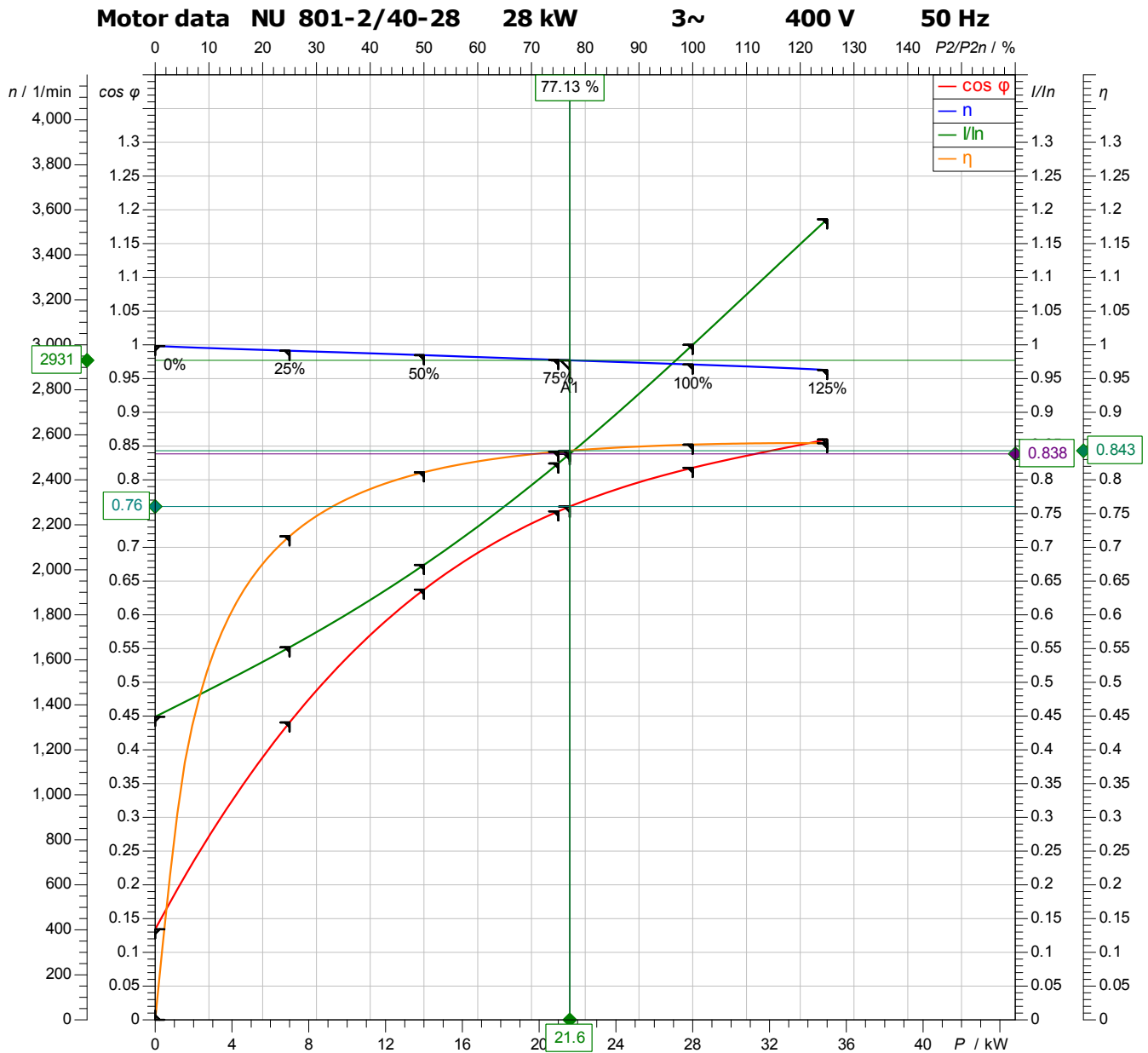
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#### Application data

|                         |    |
|-------------------------|----|
| Operation type immersed | S1 |
| Operation type dry      |    |
| Service factor          | 1  |
| Max. fluid temperature  | 25 |

#### Motor

|                           |  |
|---------------------------|--|
| Sel. explosion protection |  |
| Ex-number                 |  |
| Ex-designation            |  |

#### Frequency

|  |            |
|--|------------|
| Motor connection cable for d-o-l starting      | 4G16 S07BB |
| Motor connection cable for star-delta starting |            |
| Max. possible motor connection cable           |            |

#### Duty point data

|                                   |                          |
|-----------------------------------|--------------------------|
| Power input with rated power      | 32.9 kW                  |
| Rated power                       | 28 kW                    |
| Rated speed                       | 2912 1/mir               |
| Current input with rated power    | 58 A                     |
| Starts per hour max.              | 10                       |
| Weight of motor                   | 119 kg                   |
| Efficiency with rated power       | 85.2 %                   |
| cos phi with rated power          | 0.82                     |
| Starting current, direct starting | 315 A                    |
| cos phi with starting             |                          |
| Starting torque                   | 150 Nm                   |
| Inertia moment                    | 0.0254 kg m <sup>2</sup> |

Subject to change

Software version Spaix® 5-2024.2 - 2024/09/18 (Build 140), 64 bit  
Data version 20.02.2025

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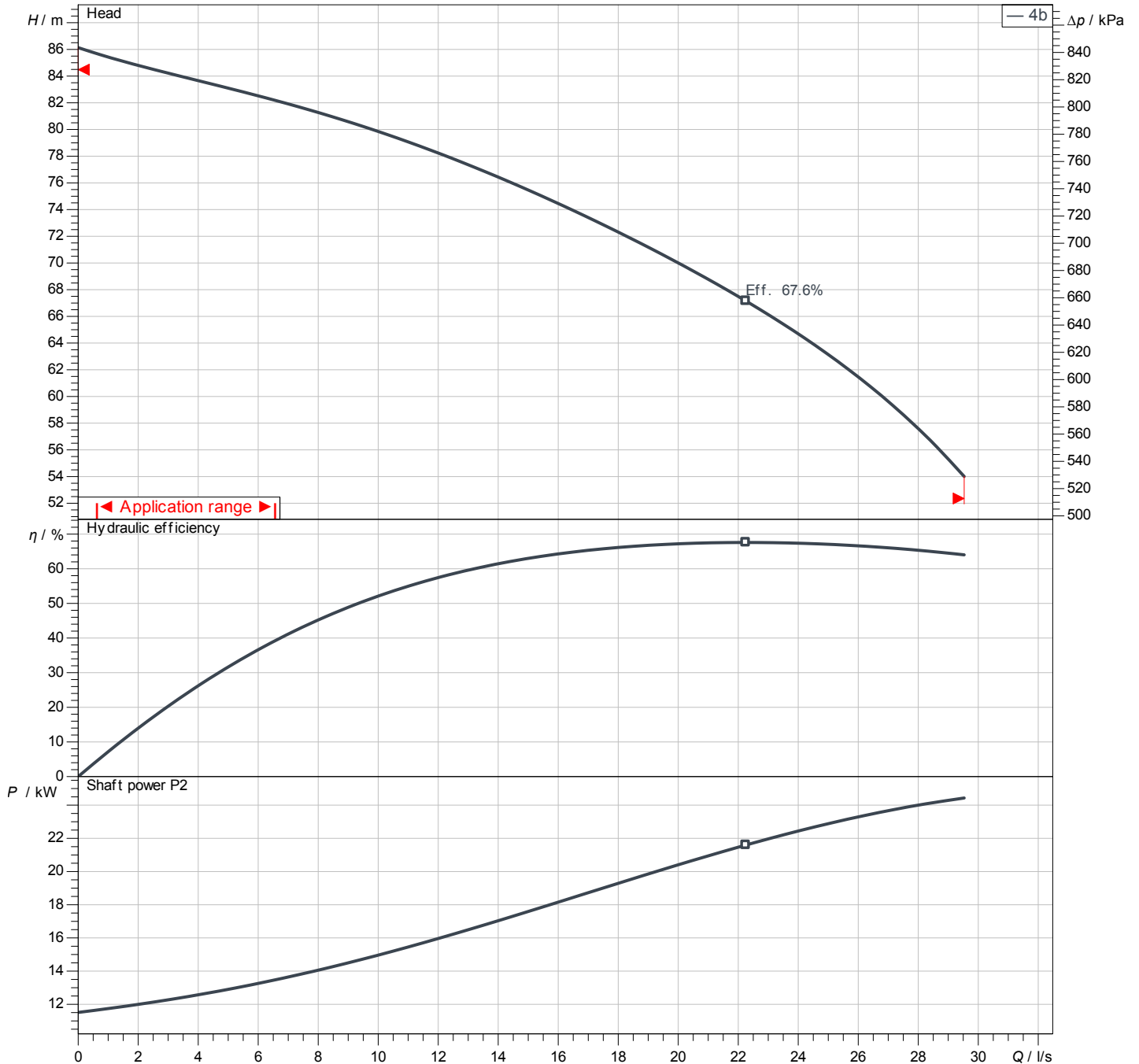
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#### Pump

|                     |                     |
|---------------------|---------------------|
| Stages              | 4                   |
| Impeller Ø designed | 144 mm              |
| Nominal speed       | 2,900 1/min         |
| Frequency           | 50 Hz               |
| Impeller type       | Semi axial impeller |

#### Motor

|                           |       |
|---------------------------|-------|
| Rated power               | 28 kW |
| Sel. explosion protection |       |

#### Duty point data

|                         |                |
|-------------------------|----------------|
| Volume flow             |                |
| Head                    |                |
| Shaft power P2          | P <sub>2</sub> |
| Hydr. efficiency η hyd. |                |
| Power input P1          | P <sub>1</sub> |
| Required pump NPSH      |                |
| Rotational speed        | 2931 1/min     |

Subject to change

Software version  
Data version

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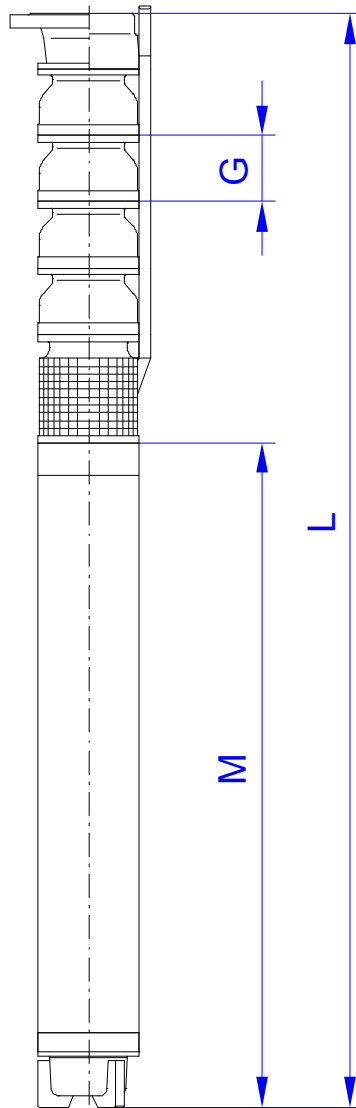
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#### Dimensions

| Name | Value    | Name | Value |
|------|----------|------|-------|
| G    | 120 mm   |      |       |
| L    | 1,773 mm |      |       |
| M    | 995 mm   |      |       |

#### Connections

|                   |                     |
|-------------------|---------------------|
| Discharge port    | G 5 I PN 25<br>PN25 |
| Intake piece      |                     |
| Non-return valves | no                  |