

# NF 30 DIAPHRAGM LIQUID PUMP







### **ADVANTAGES**

- Self priming
- Extreme chemical resistance
- Dry running, durable and maintenance free
- Available with integrated overpressure relief valve (version .27)

Please visit our website www.knf.com to get more information.

### POSSIBLE AREAS OF USE

- Analysers
- Laborator
- Cleaning industry
- Printing

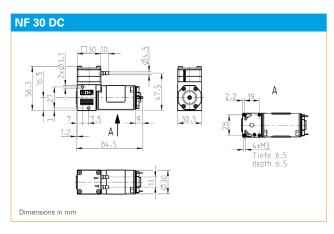
| Series model                         | NF 30      |      |           |       |        |      |
|--------------------------------------|------------|------|-----------|-------|--------|------|
| Material options                     | KP/KP .51* | KT   | TT        | FT    |        | XT   |
| Pump head                            | PP         | PP   | PVD       | F PTF | E      | PEEK |
| Diaphragm                            | EPDM       | PTFE | PTF       | E PTF | E      | PTFE |
| Valves                               | EPDM       | FFKM | FFK       | M FFK | М      | FFKM |
| Flow rate at atm. pressure (I/min)   | 0.3        |      |           |       |        |      |
| Suction height (mH2O)                | 6 5        |      | 4.5       |       |        |      |
| Pressure head (mH2O)                 | 10         |      |           |       |        |      |
| Permissible ambient temperature (°C) | +5 to +40  |      |           |       |        |      |
| Permissible liquid temperature (°C)  | +5 to +80  |      |           |       |        |      |
| IP protection factor pump            | 30         |      |           |       |        |      |
| ELECTRICAL DATA                      |            |      |           |       |        |      |
| Drive options                        | DC         |      | DCB-B**   | DCI   | 3-4B** |      |
| Operating voltage (V)                | 12/24      |      | 12/24     | 10-2  | 6.4    |      |
| Power consumption (W)                | 8.3/8.6    |      | 7.0/7.7   | 7.4   |        |      |
| I load max. (A)                      | 0.69/0.36  |      | 0.58/0.32 | 0.68  | 3-0.28 |      |
| IP protection factor motor           | 00         |      | 54        | 54    |        |      |
| Weight (g)                           | 210        |      |           |       |        |      |

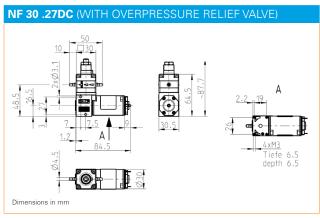
- \* Food grade conformity according to the standard NSF/ANSI 169
- \*\* Stands for brushless DC motor

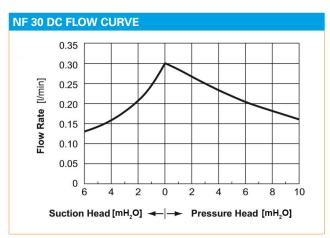
# NF 30 DC

| PERFORMANCE DATA |   |  |                                    |
|------------------|---|--|------------------------------------|
| Series model     | Flow rate<br>at atm.<br>pressure<br>(I/min) | Max.<br>suction<br>height<br>(mH <sub>2</sub> O) | Max.<br>pressure<br>head<br>(mH2O) |
| NF 30 DC         | 0.3   | 61)  | 10                                 |

 $<sup>^{1)}\</sup>mbox{For models}$  with PTFE diaphragm: max. 5 mWg







## NF 30 DCB-B

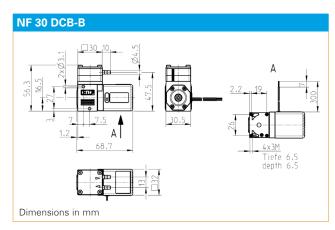
| PERFORMANCE DATA |   |  |                                    |
|------------------|---|--|------------------------------------|
| Series model     | Flow rate<br>at atm.<br>pressure<br>(I/min) | Max.<br>suction<br>height<br>(mH <sub>2</sub> O) | Max.<br>pressure<br>head<br>(mH2O) |
| NF 30 DCB-B      | 0.3   | 6 <sup>1)</sup>                                  | 10                                 |

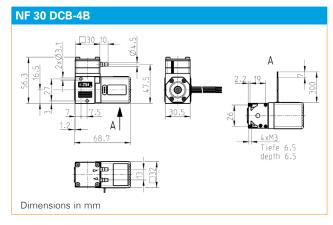
<sup>&</sup>lt;sup>1)</sup> For models with PTFE diaphragm: max. 5 mWg

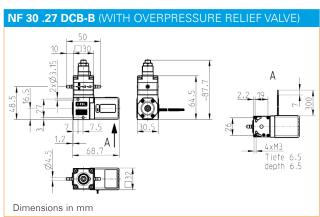
## NF 30 DCB-4B

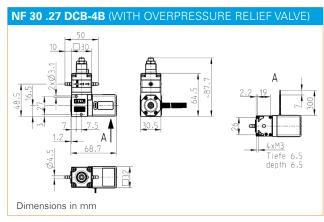
| PERFORMANCE DATA |   |                                     |   |
|------------------|---|-------------------------------------|---|
| Series model     | Flow rate<br>at atm.<br>pressure<br>(I/min) | Max.<br>suction<br>height<br>(mH2O) | Max.<br>pressure<br>head<br>(mH <sub>2</sub> O) |
| NF 30 DCB-4B     | 0.3   | 6 <sup>1)</sup>                     | 10  |

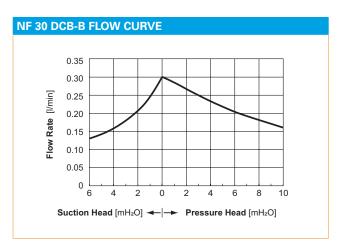
 $<sup>^{1)}\,\</sup>mathrm{For}$  models with PTFE diaphragm: max. 5 mWg

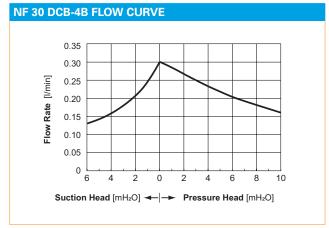












| <b>ELECTRIC SPECIFICATIONS</b> |                               |  |
|--------------------------------|-------------------------------|--|
| Wires                          | AWG 24                        |  |
| Wires assignment               | red = +VS<br>black = - VS/GND |  |

| ELECTRIC SPECIFICATIONS |  |  |  |
|-------------------------|--|--|--|
| Wires                   | AWG 24   |  |  |
| Wires assignment        | red = +VS<br>black = -VS/GND<br>white = Vctrl-input<br>green = FG-output |  |  |
| Input signal            | 0-5 V  |  |  |

| OPTIONS                                     |              |  |
|---|--------------|--|
| Description                                 | Illustration | Details  |
| Motors with special voltages or frequencies | S. Car       | Various voltage options, higher and lower service life                         |
| Electrical connectors                       |              | Specific customers requirements such as special connections (Molex, AMP, etc.) |
| Different hydraulic connection types        |              | Internal thread, compression fittings, manifold connection etc.                |



#### **NSF National Sanitary Foundation**

This certification will confirm that all of the pumps with the code .51 are certified for the use with foods/consumables.



#### **DIGITAL CUSTOMIZATION**

Thanks to digital technology, this pump can be quickly adapted to the customer's system. This is done by parametrizing the firmware of the motor at KNF.

| Description                      | Illustration | Details  |
|----------------------------------|--------------|--|
| Fastening elements               |              | Enabling additional mounting options   |
| Diaphragm pressure control valve |              | The pressure control valve can be used for a more accurate control of flow against a fluctuating back pressure, metering into a vacuum and from a pressurised system.      |
| Pulsation damper                 |              | This very versatile pulsation damper reduces the vibration in hoses and pipes and it helps to remove pulsation which is preventing the system from functionning correctly. |
| Filter                           | X-G          | KNF filters protect both pumps and other upstream instrumentation and hydraulic circuits against particulate, crystals and fibres which can improve optimum operation.     |

The performance values for the series models shown on this data sheet were determined under test conditions. The actual performance values may differ and depend in particular on the usage conditions and therefore on the specific application, on the parameters of the components involved in the user's system and on any technical modifications carried out which deviate from the standard configuration or the as delivered condition.

If individual designs have been created for specific customers on the basis of series models, other technical performance data may apply.

Before operation begins, the relevant operating instructions and/or assembly or installation instructions should be read and the safety information contained in these instructions should be noted.

KNF reserves the right to make changes to the product and the associated documentation without prior notice to the customer.

