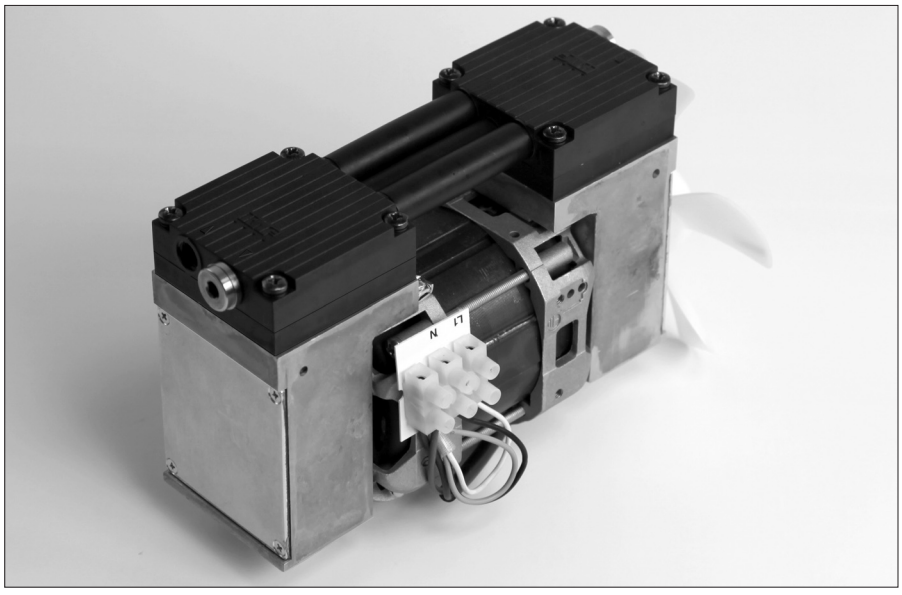
MINI DIAPHRAGM VACUUM PUMP FOR FAST EVACUATING

DATA SHEET E 018



N 916.50 KPE

Concept

The Mini Diaphragm Vacuum Pumps from KNF are based on a simple principal - an elastic diaphragm, fixed on its edge, moves up and down its central point by means of an eccentric. In this way the medium is transferred using automatic valves.

The pumps are equipped witht a parallel and series connection for the pump heads - resulting in a high pneumatic performance, a durable product and compact size. Special valves ensure that the product can cope easily with vapour and condensation.

Thanks to the KNF modular system, the parts used to tranfers the gases can be made from materials with varying degrees of durability. Various AC motors are available for pump drive.

Features

Uncontaminated flow
No contamination of the media due to oil-free operation

Specially developed for sterilisation and drying processes

Maintenance-free

Compact size

High performance

High level of gas tightness

Long product life

Very quiet and little vibration

Copes well with vapour and condensation

Ready for assembly

Can operate in any installed position

Areas of use

These pumps are specially designed to satisfy the requirements of steam sterilisation and vacuum drying, leading to very reliable operation.

The pumps are used for sucking gases, taking samples (even liquids in a vacuum) and evacuating vessels.

PERFORMANCE DATA

Type	Delivery (l/min)	Vacuum (mbar absolute)	atm. Press.	Pressure (bar g)	Weight (kg)
N 916.50 KPE	28	20		0.5	3.0

N 916.50 KPE

PERFORMANCE DATA

Type and Order No. [3]	Delivery at atm. pressure (l/min)[1]	Max. operating pressure (bar g)[2]	Ultimate vacuum (mbar abs.)
N 916.50 KPE	28	0.5	20

[1] Liter im Normzustand [2] im Dauerbetrieb

MOTOR DATA

Protection class	IP 00		
Voltage/Frequencies (V/Hz)	230/50		
Power P_1 (W)	120		
Operating current (A)	0.5		

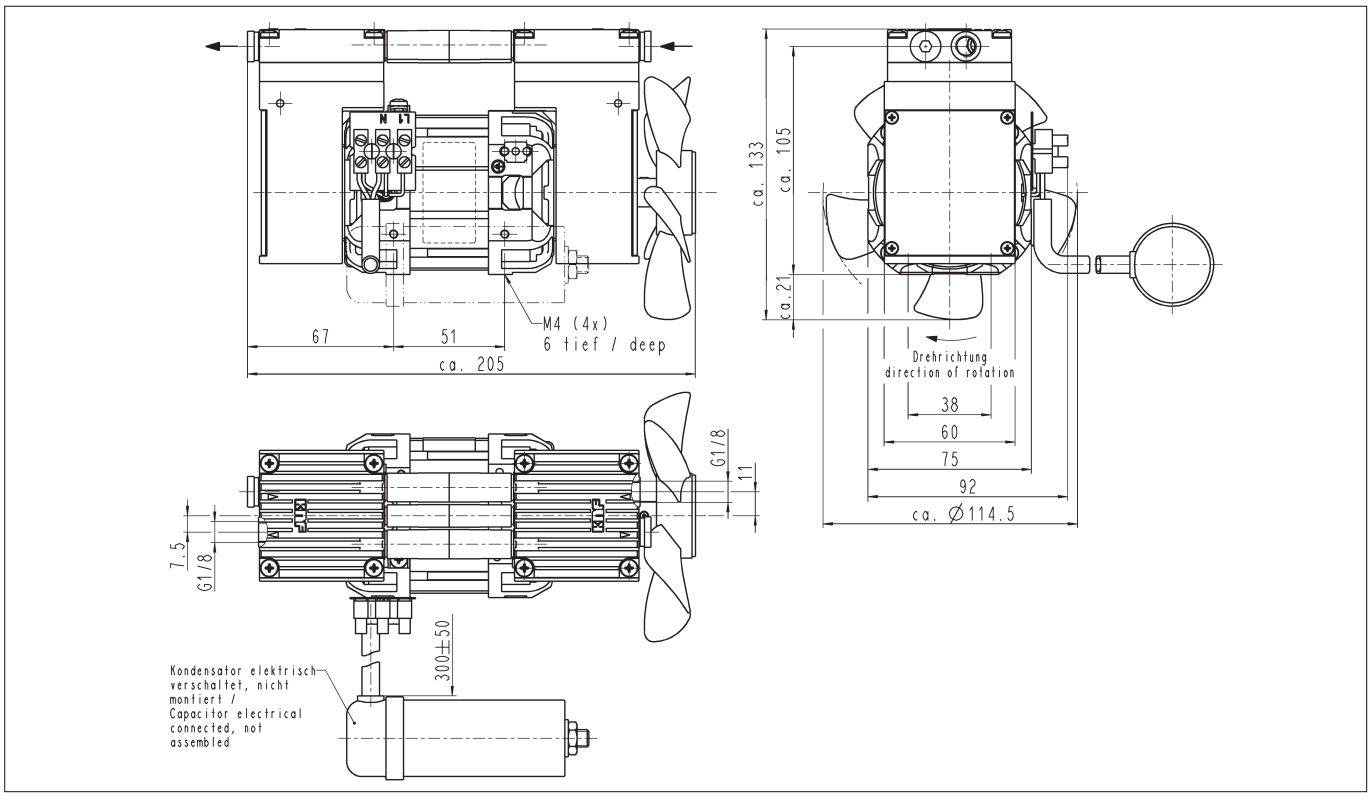
Motors with other voltages, frequencies and protection classes on request..

MODEL CODES AND MATERIALS

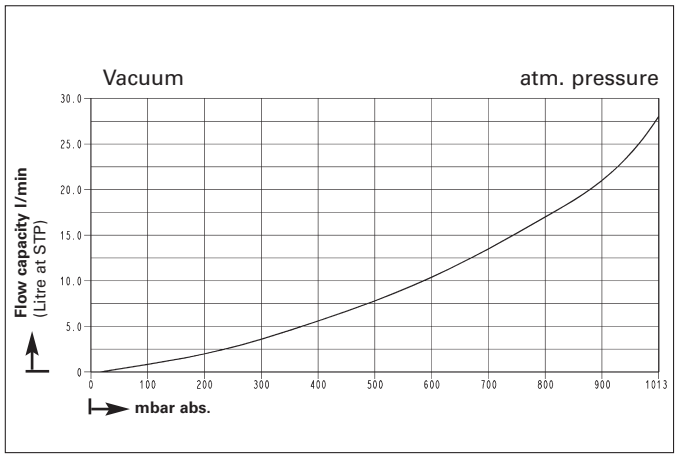
Typ und Bestell-Nr. [3]	**Pumpenkopf**	**Membrane**	**Ventilplatten/Dichtringen**
N 916.50 KPE	**PPS**	EPDM	EPDM

[3] See also „MODEL CODE FOR EASY ORDERING“

Dimensions [5] (mm)

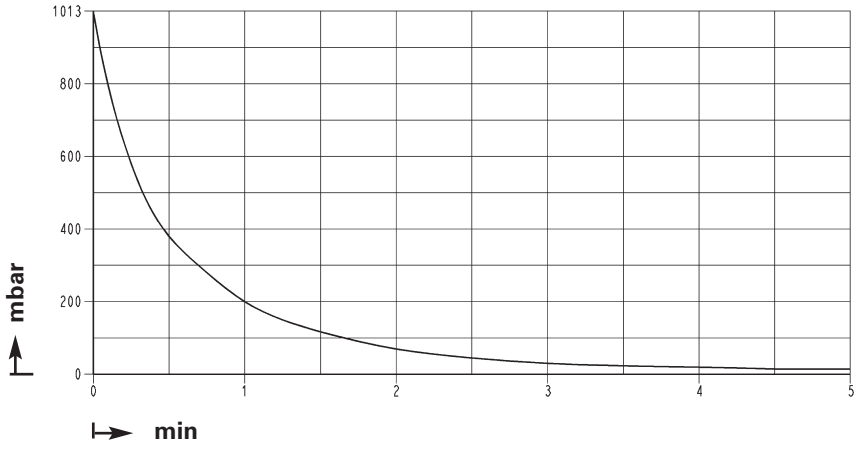


[5] All dimensional tolerances conform to DIN ISO 2768-1, Tolerance Class V



TECHNICAL INFORMATIONS

Pump down time 10 l receiver



MODEL CODE FOR EASY ORDERING

The model code is identical to the order number. It is made up as follows

N 916	.50	KP	E	230 V/50 Hz, IP 00

- Base model
- Head connection in parallel and series
- Head material
- OEM version with ac motor
- Other motor data e.g.:

In addition the motor data must be given in the purchase order (voltage, frequency, and protection class).

Accessories

Description	Order No.	Details
Silencer	000345	G 1/8
Hose connector	000360	PA, for tube ID 6 mm
Hose connector	055956	PP, for tube ID 6 mm

Hints on function, installation, and service: see back side

In our extensive program you are sure to find the pump you need for your particular application.

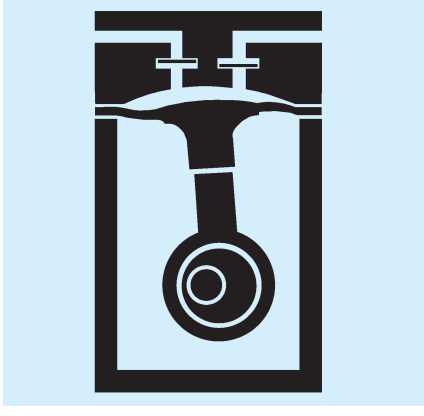
KNF - the competent partner for vacuum and compressor technology. Especially for unusual problems. Call us and talk to our application engineers.

HINTS ON FUNCTION, INSTALLATION AND SERVICE

FUNCTION OF KNF DIAPHRAGM VACUUM PUMPS AND COMPRESSORS

An elastic diaphragm is moved up and down by an eccentric (see illustration). On the down-stroke it draws the air or gas being handled through the inlet valve. On the up-stroke the diaphragm forces the medium through the exhaust valve and out of the head. The compression chamber is hermetically separated from the drive mechanism by the diaphragm. The pumps transfer, evacuate and compress completely oil-free.

Diaphragm pump



HINTS ON INSTALLATION AND OPERATION

- Range of use: Transfering air, gases and vapours at temperatures between +5 °C and +40 °C.
  Versions for higher temperature on request
- Please check the compatibility of the materials of the pump head, diaphragm and valves with the medium.
- The KNF product line contains pumps suitable for pumping aggressive gases and vapors - please contact us.
- Permissible ambient temperature: between +5 °C and +40 °C
- The standard pumps are not suitable for use in areas where there is a risk of explosion. In these cases there are other products in the KNF program - please ask us for details
- The pumps are not designed to start against pressure or vacuum; when a pump is switched on the pressure in the suction and pressure lines must be atmospheric. Pumps that start against pressure or vacuum are available on request
- To prevent the maximum operating pressure being exceeded, restriction or regulation of the air flow should only be carried out in the suction line
- Components connected to the pump must be designed to withstand the pneumatic performance of the pump
- Install the pump so that the fan can draw in sufficient cooling air
- Fit the pump at the highest point in the system, so that condensate cannot collect in the head of the pump - that prolongs working-life.

HINTS ON SERVICE

The diaphragm and valve plates are the only parts of the KNF diaphragm pumps subject to wear. They are easy to change, as no special tools are needed.

If you have any questions, please call our application engineers (see below for contact telephone number).

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