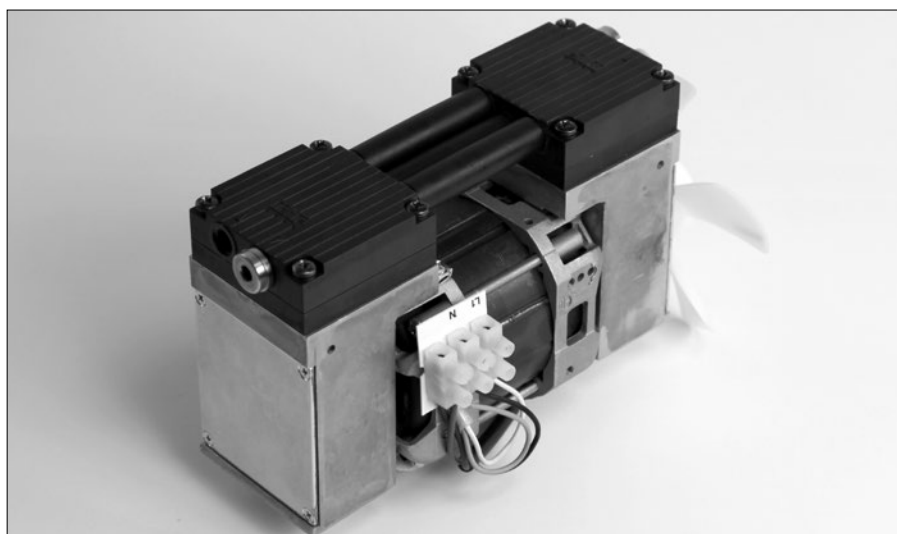


# MINI DIAPHRAGM VACUUM PUMP FOR FAST EVACUATING



N 916.50 KPE

## Concept

The mini diaphragm vacuum pumps from KNF are based on a simple principle – 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 with 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 vapor and condensation.

Thanks to the KNF modular system, the parts used to transfer the gases can be made from materials with varying degrees of resistance. 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 vapor 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.

## LEISTUNGSBEREICHE

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	Delivery at atm. pressure (l/min) <sup>1)</sup>	Max. operating pressure (bar g)	Ultimate vacuum (mbar abs.)
N 916.50 KPE	28	0.5	20

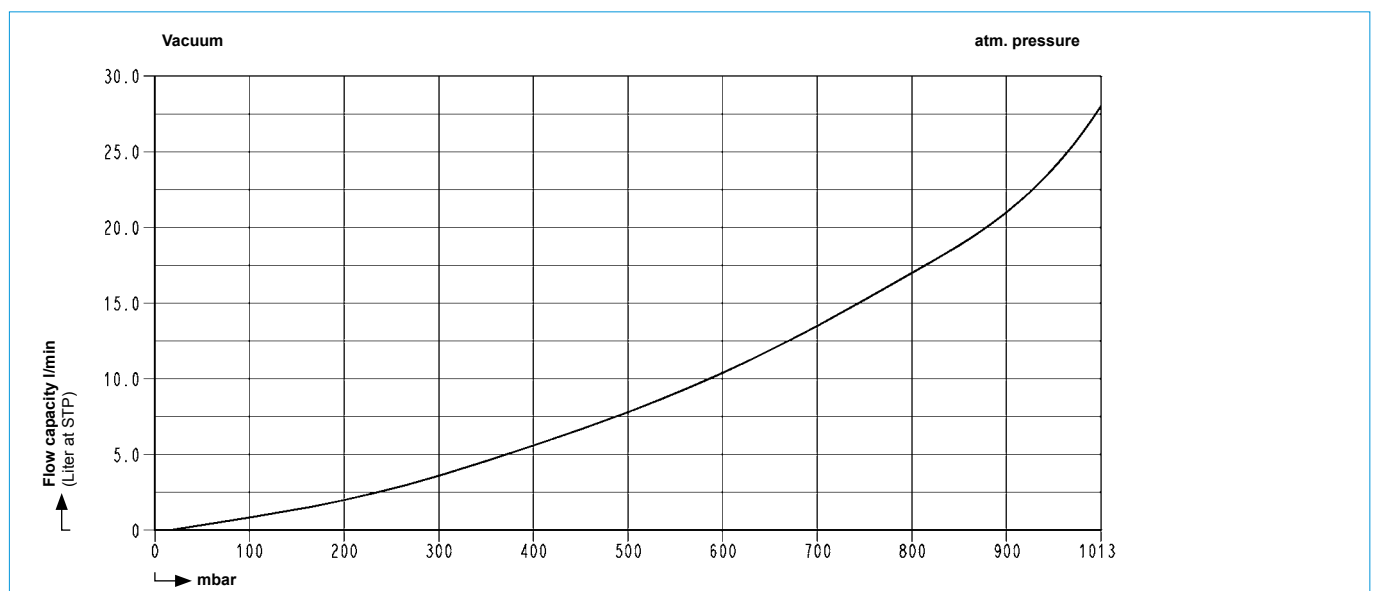
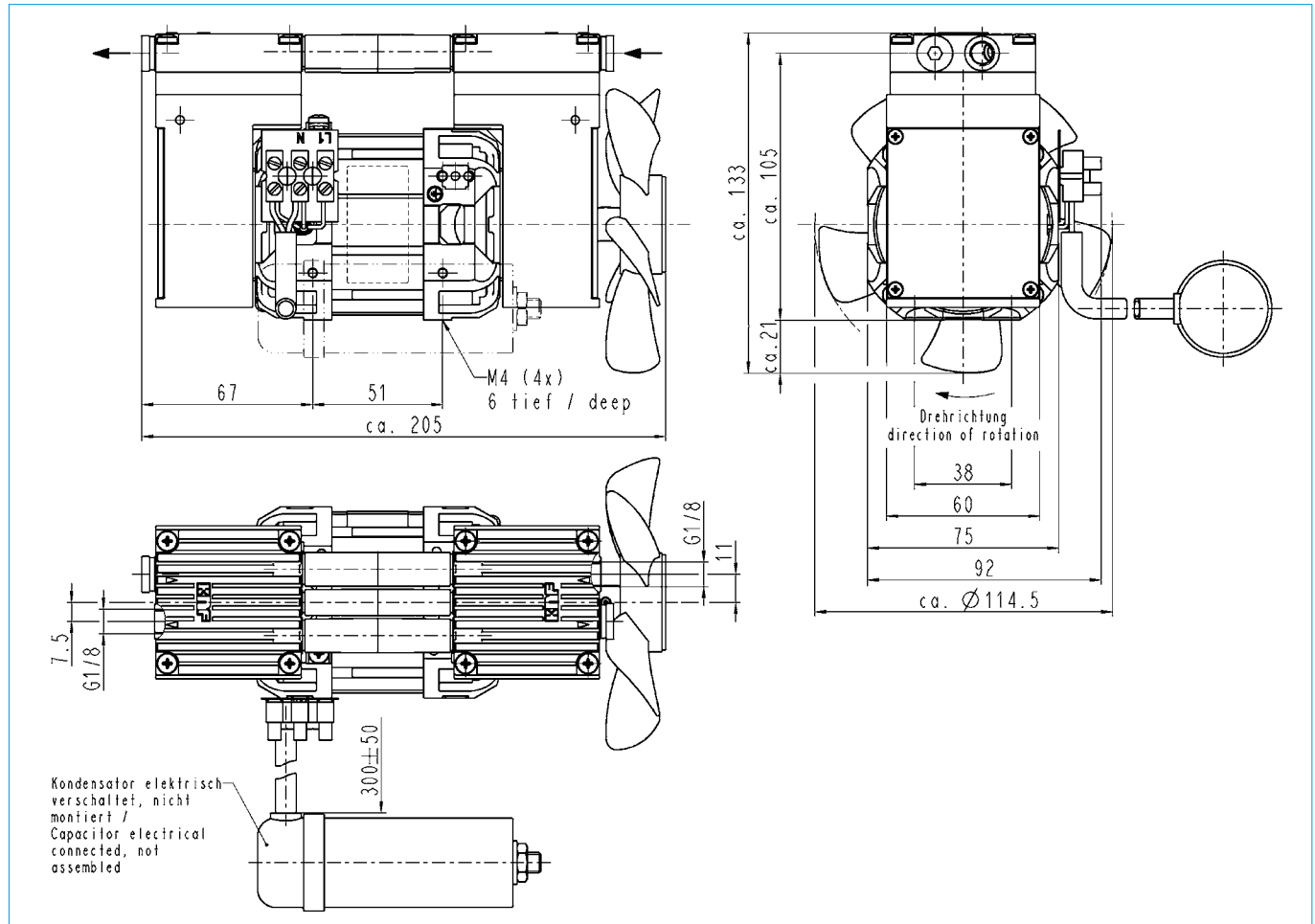
<sup>1)</sup> Liter at STP

## MOTOR DATA

Protection class	IP 00
Voltage (V)	230
Frequencies (Hz)	50
Power P <sub>1</sub> (W)	120
I <sub>max</sub> (A)	0.5

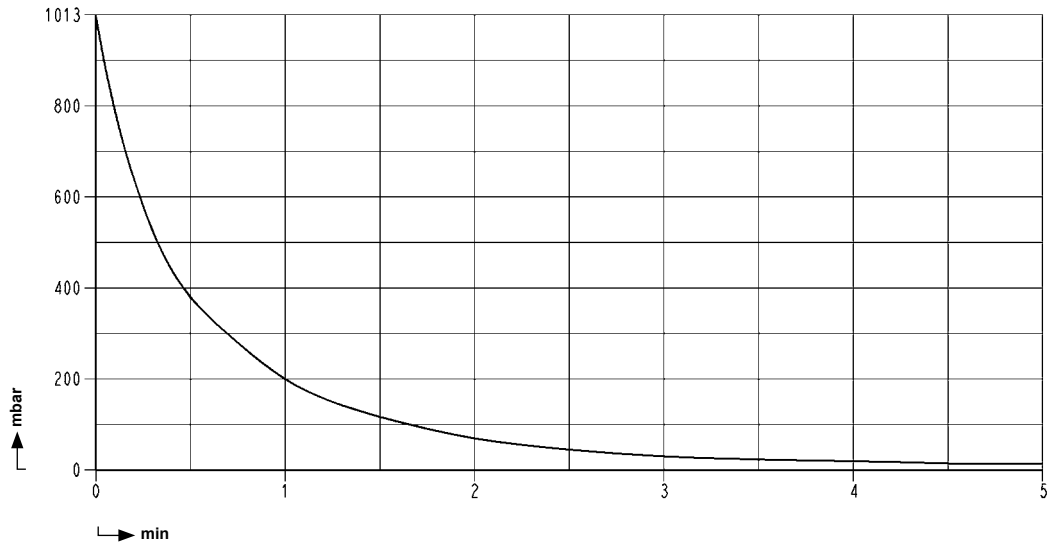
## PUMP MATERIAL

Type	Pump head	Diaphragm	Valve plates/ sealings
N 916.50 KPE	PPS	EPDM	EPDM



# TECHNICAL INFORMATION

## PUMP DOWN TIME FOR 10 LITER VESSEL



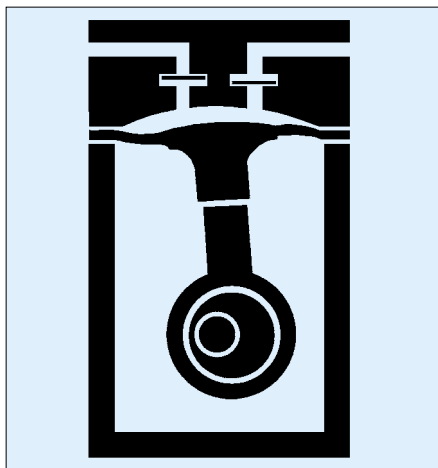
## ACCESSORIES

Description	Order No.	Details
Silencer/filter	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 AND INSTALLATION

## 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.



## Hints on installation and operation

- Range of use: Transferring air and gases at temperatures between +5 °C and +40 °C.
- Permissible ambient temperature: +5 °C ... +40 °C.
- 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.
- 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.

**KNF Neuberger GmbH**  
Alter Weg 3  
D 79112 Freiburg  
Tel. +49 7664 5909 0  
Fax +49 7664 5909 99  
info@knf.de  
www.knf.de