

# VARIO® diaphragm pump MV 2 VARIO select

[Link to the website](#)



## Product description

Four-stage diaphragm pumps - like the MV 2 VARIO select - are an excellent solution for continuous, oil-free pumping of non-corrosive gases at fractional millibar vacuum levels. Wetted parts are made of aluminum, stainless steel and carefully selected plastics suitable for a wide range of non-corrosive applications. The MV 2 VARIO select continuously adapts its motor speed to hold the desired vacuum level. That means the pump is whisper-quiet and generates ultra-low vibrations, and has high leak tightness. The highly flexible fabric-reinforced double FKM diaphragm is ideal for extended operating life. The VARIO® design includes the variable speed pump and the VACUU-SELECT vacuum controller with an external gauge head. The demand-responsive motor speed control on VARIO® models further extends the already long lifetimes of diaphragms and valves.

## Performance features

- VACUU-SELECT vacuum controller with graphical user interface and predefined applications simplifies work in the laboratory
- automatic boiling point detection and adjustment of the vacuum for short process times
- extraordinary diaphragm life for minimum operational and servicing costs
- contamination-free pumping and evacuation
- excellent ultimate vacuum, and even better ultimate vacuum with VARIO® version in TURBO-MODE for use as backing pump for turbo pumps

## Ordering data

Product name	Nominal mains voltage   mains frequency	Plug type	Articleno.
MV 2 VARIO select	200-230 V   50-60 Hz	CEE	20738150
MV 2 VARIO select	200-230 V   50-60 Hz	CH	20738151
MV 2 VARIO select	100-120 V   50-60 Hz	US	20738153
MV 2 VARIO select	200-230 V   50-60 Hz	CN	20738156

## Items supplied

Pump completely mounted, ready for use, with manual.

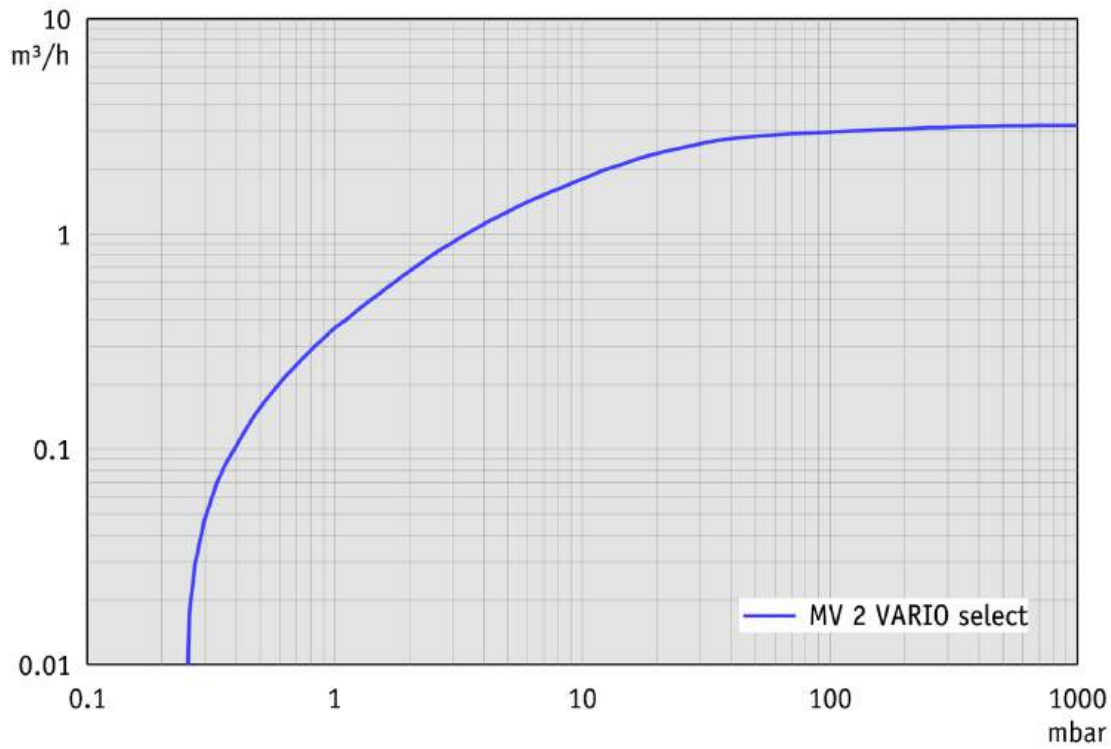
## Accessories

- Function extension for VACUU·SELECT controller VACUU·SELECT User Management (20700900)
- Rubber vacuum tubing DN 8 mm (20686001)
- Clamping ring for small flange KF DN 10/16 (20660000)
- External centring ring for small flange KF DN 10/16 (20660190)
- Small flange with hose nozzle KF DN 16 / DN 10 mm (20662806)
- Air admittance valve VB M-B (20674217)

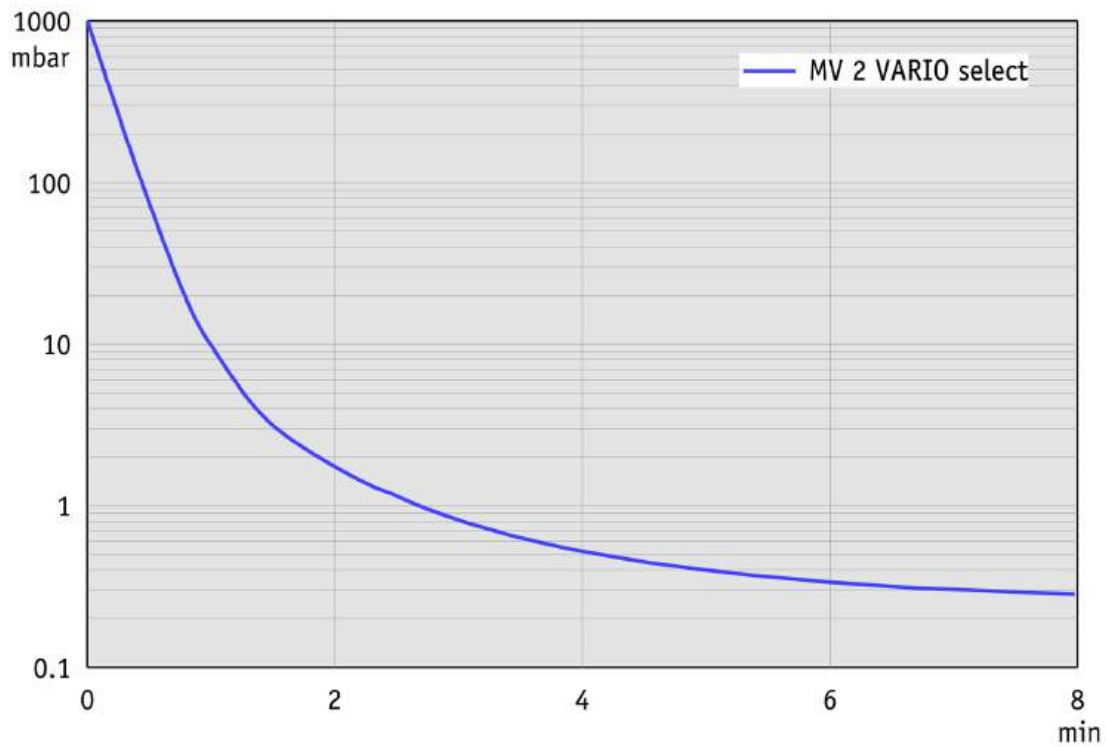
## Technical data

Max. pumping speed 50 Hz (mbar)	3.3 m <sup>3</sup> /h
Max. pumping speed 60 Hz (cfm)	1.9 cfm
Ultimate vacuum	0.3 mbar / 0.2 torr
Number of heads	4
Number of stages	4
Vacuum controller	VACUU-SELECT
Permissible ambient temperature range (operation)	10 - 40 °C
Permissible ambient temperature range (storage)	-10 - 60 °C
Max. outlet pressure (abs.)	1.1 bar
Inlet connection	small flange KF DN 16
Outlet connection	Silencer / G1/4"
Rated motor power	0.53 kW
Motor speed range	30 - 2400 min <sup>-1</sup>
Protection class IEC 60529	IP 20
Dimensions (L x W x H)	325 mm x 235 mm x 245 mm
Weight	19.1 kg
Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU-PURE®)	45 dBA
ATEX conformity	II 3/- G IIC T3 X Internal Atm. only
NRTL certification	No
Interface	Ethernet (RJ45): Modbus TCP / USB (Type A): Data transfer, software update, RS-232 (additional adapter required)

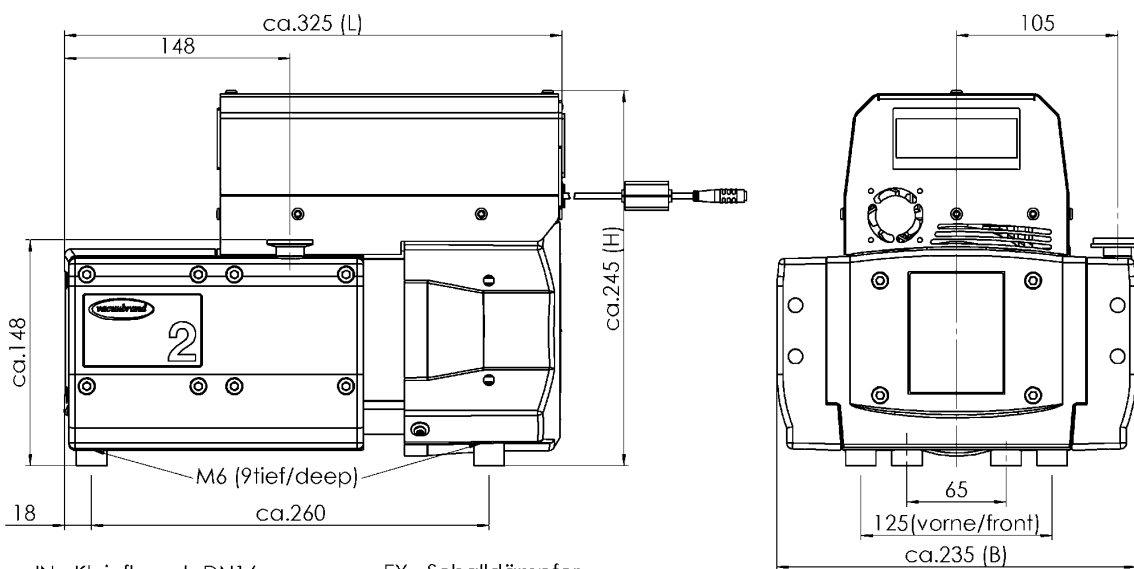
Pumping speed graph at 50 Hz



Pump down graph at 50 Hz (10 l volume)

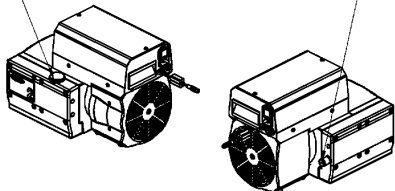


Dimension sheet



IN - Kleinflansch DN16  
small flange 16

EX - Schalldämpfer  
silencer



Alle Maße / all dimensions (mm)  
VACUUBRAND MV 2 NT VARIO  
Version 2013/07/26

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**VACUUBRAND®**

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With highly motivated and qualified employees, we manufacture the world's most comprehensive product family for vacuum generation, measurement and control for the rough and fine vacuum range in the laboratory.

**All with one goal:**

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