

# VARIO® diaphragm pump MD 12 NT VARIO select

[Link to the website](#)



## Product description

This three-stage diaphragm pump is a powerful solution for continuous, oil-free pumping of non-corrosive gases to a vacuum level as deep as 1.5 mbar. With its high pumping speed, this pump is an excellent option for higher gas load applications or rapid pump down of vacuum chambers. All wetted parts are made of aluminum, stainless steel and carefully selected plastics suitable for a wide range of applications with non-corrosive gases. The MD 12 NT VARIO select automatically adapts its motor speed to hold the desired vacuum level. That also 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. And oil-free operation means that there is no risk of contamination from backstreaming.

## Performance features

- VACUU·SELECT vacuum controller with graphical user interface and predefined applications simplifies work in the laboratory
- extraordinary diaphragm life for minimum operational and servicing costs
- contamination-free pumping and evacuation
- high pumping speed and excellent ultimate vacuum and TURBO·MODE for use as backing pump for turbo pumps

## Ordering data

Product name	Nominal mains voltage   mains frequency	Plug type	Articleno.
MD 12 NT VARIO select	200-230 V   50-60 Hz	CEE	25743150
MD 12 NT VARIO select	100-120 V   50-60 Hz	US	25743153

## Items supplied

Pump completely mounted, ready for use, silencer, with manual.

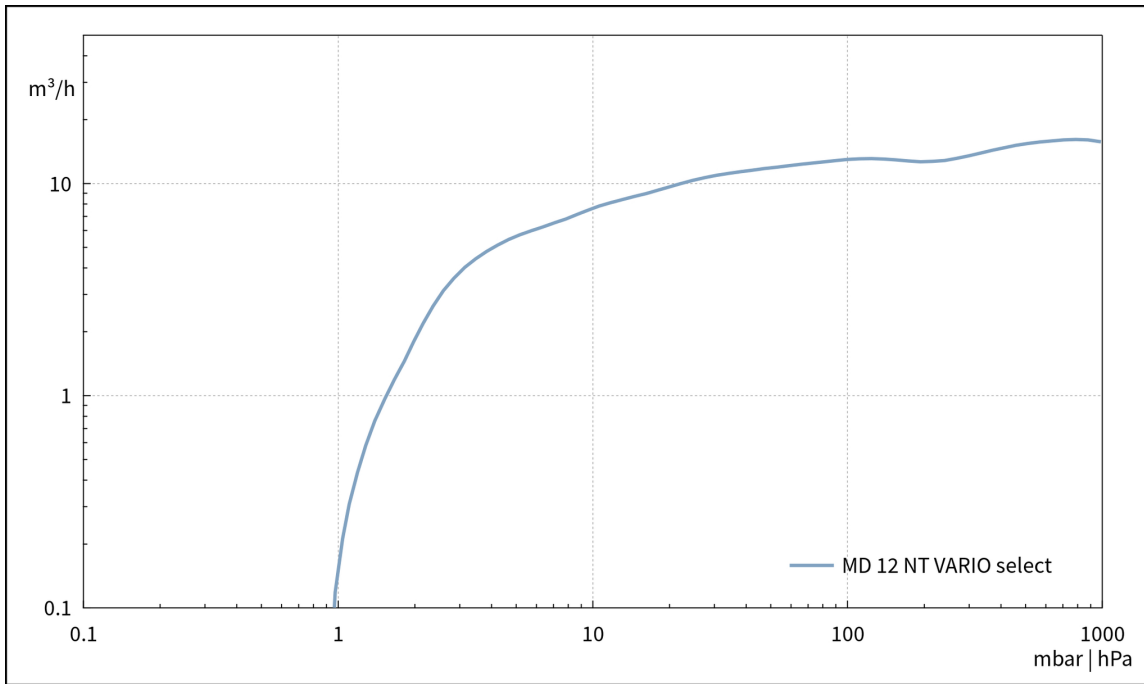
## Accessories

- Function extension for VACUU-SELECT controller VACUU-SELECT User Management (20700900)
- Clamping ring for small flange KF DN 20/25 (20660001)
- External centring ring for small flange KF DN 20/25 (20660196)
- Vacuum tubing PVC with internal stainless steel spiral, with small flanges KF DN 25 (20686021)
- Small flange with hose nozzle KF DN 25 / DN 10 mm (20662807)
- Rubber vacuum tubing DN 10 mm (20686002)
- Air admittance valve VB M-B (20674217)

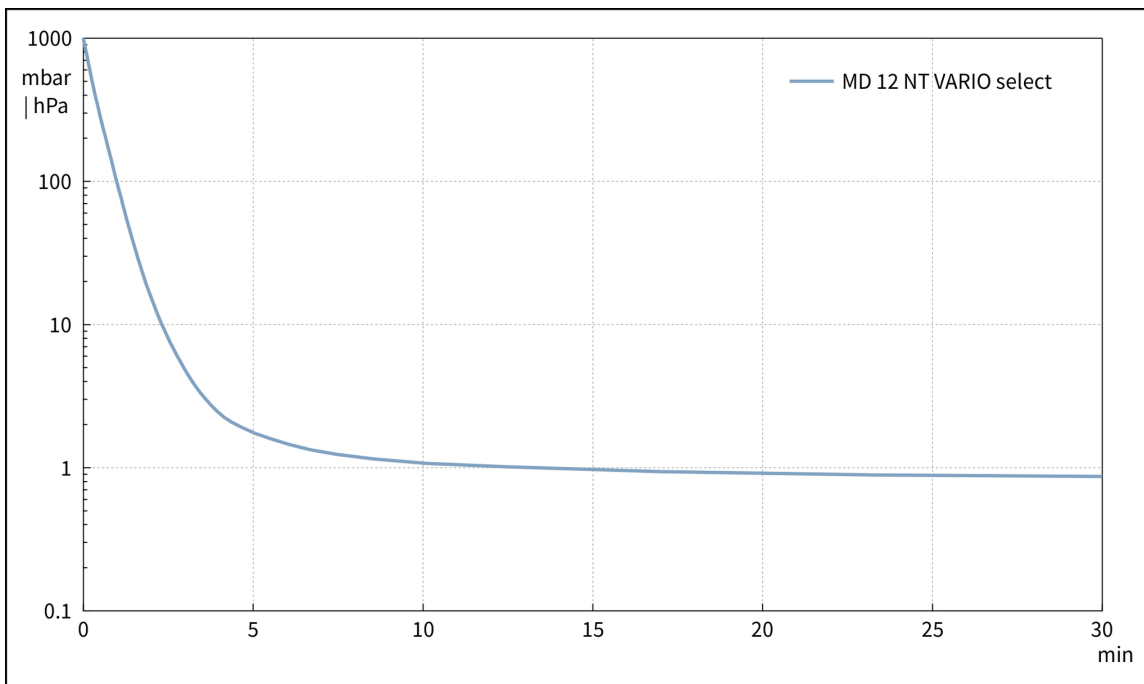
## Technical data

Max. pumping speed 50 Hz (mbar)	13.4 m <sup>3</sup> /h
Max. pumping speed 60 Hz (cfm)	7.9 cfm
Ultimate vacuum	1.5 mbar / 1.1 torr
Number of heads	8
Number of stages	3
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 25
Outlet connection	G1/2"
Rated motor power	0.53 kW
Motor speed range	30 - 2400 min <sup>-1</sup>
Protection class IEC 60529	IP 40
Dimensions (L x W x H)	552 mm x 260 mm x 450 mm
Weight	31.6 kg
Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU·PURE®)	50 dBA
NRTL certification	No
Interface	Ethernet (RJ45): Modbus TCP / USB (Type A): Data transfer, software update, RS-232 (additional adapter required)

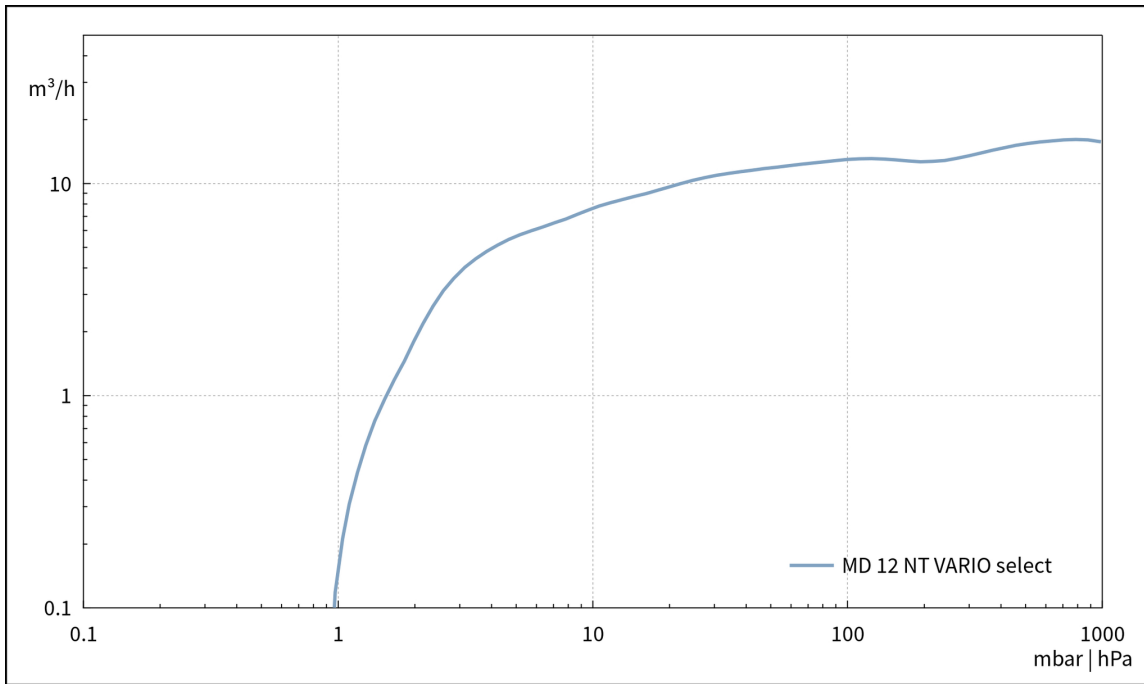
Pumping speed graph at 50 Hz



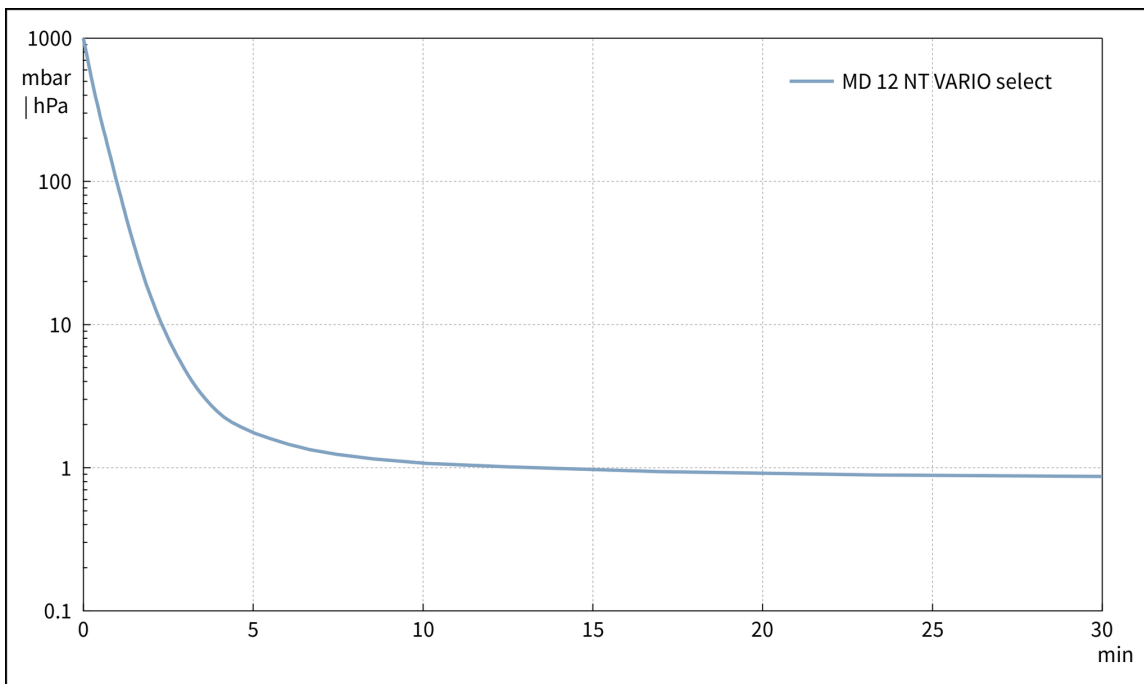
Pump down graph at 50 Hz (100 l volume)



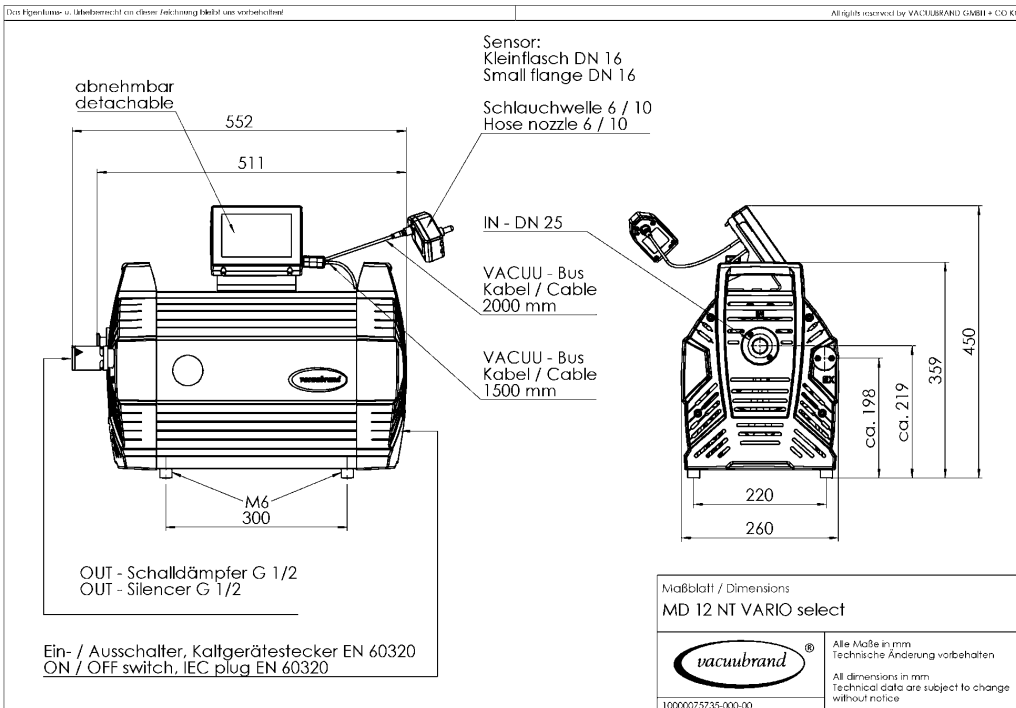
## Pumping speed graph at 60 Hz



## Pump down graph at 60 Hz (100 l volume)



Dimension sheet



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