VACUUBRAND®

VARIO® chemistry diaphragm pump MD 4C EX VARIO



Link to the website

Product description

With the new ATEX VARIO® chemistry diaphragm pumps and vacuum systems, the vacuum can be precisely controlled by the motor speed. The VARIO® pump is driven by an additional control signal line. The optional vacuum controller VACUU·SELECT with ATEX vacuum sensor and Connection Box 100 enable fully automatic evaporations without the need for parameter settings or user programming. With the adaptive control it finds the boiling pressure independently and adjusts the vacuum continuously and optimally according to the vapor pressure. The vacuum controller and the Connection Box 100 are installed in a non-hazardous area.

Performance features

- full advantage of ATEX chemistry diaphragm pumps
- VARIO®: short process times due to hysteresis-free VARIO® vacuum control
- VARIO®: VARIO®-pump operates on demand only as fast as necessary – minimal power consumption, extended maintenance intervals, silent operation
- VARIO®: vacuum controller VACUU·SELECT (optional) for precise vacuum control and fully automatic processes
- Additional devices such as ATEX vacuum sensor and Connection Box 100 required for operation - also available from VACUUBRAND

Technical data are subject to change without notice
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Link to the website:
https://shop.vacuubrand.com/20696936

Ordering data

Product name	Nominal mains voltage | mains frequency	Plug type	Articleno.
MD 4C EX VARIO	230 V | 50 Hz	Open wires	20696936

Items supplied

Pump completely mounted, with manual. Speed control via 4-20 mA current loop (4 mA = 0 rpm, 20mA = 1500 rpm). Control signal and mains cable length 10 m, without plugs. Additional devices are required for operation, such as a connection box and controller.

Accessories

- Connection box for ATEX VARIO pumps Connection Box 100 (20635435)
- Vacuum sensor DMP 331i KF DN 16 (20635423)
- Vacuum sensor Cerabar PMP21 KF DN 16 (20635424)
- Vacuum controller CVC 3000 (20635028)
- PTFE-tubing (antistatic) with small flanges KF DN 16 (20686031)
- PTFE-tubing (antistatic) with small flanges KF DN 25 (20686033)
- Analog-I/O-Module IN 4-20mA/OUT 0-10V VACUU·BUS® VACUU·BUS® (20635425)
- Isolating amplifier, for the connection of the ATEX VARIO pump/s Isolating amplifier 0-10V/4-20mA EX (20635426)
- Ex-i power/input isolating amplifier (20635427)
- (20612090)
- VACUU·BUS cable 2 m with male plug and with litz wires VACUU·BUS® (20612462)
- Set of diaphragms and valves MZ 2C EX, MD 4C EX (2x), MV 10C EX (4x) (20696837)

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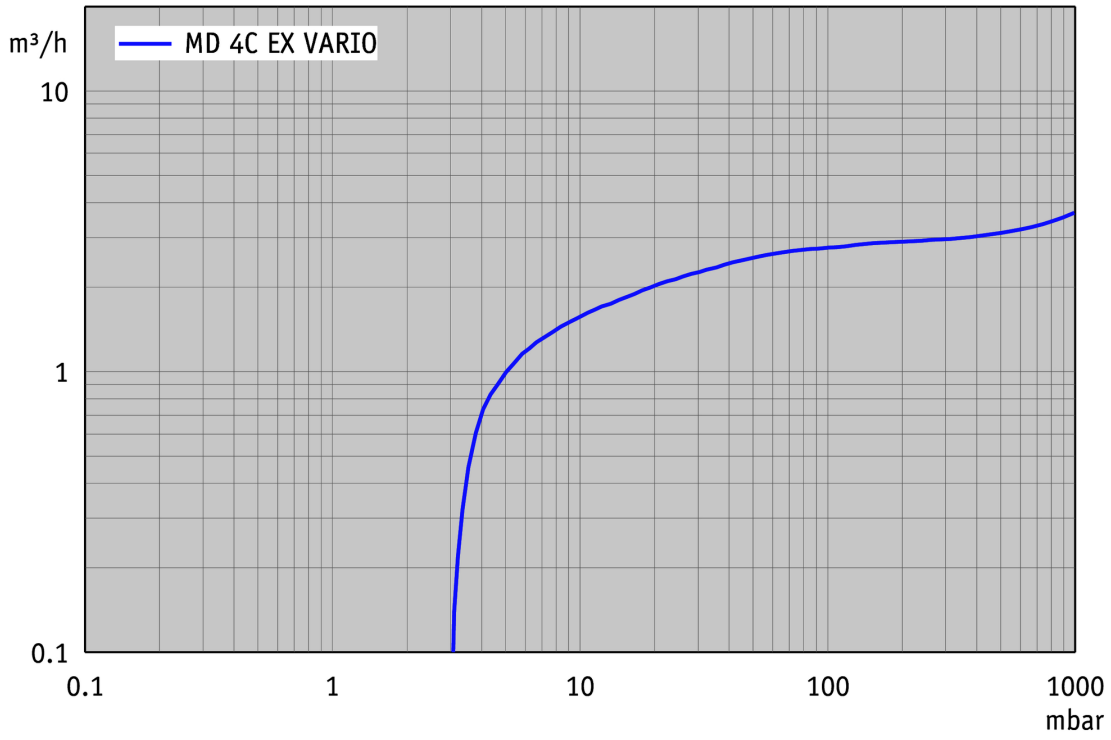
Technical data

Max. pumping speed 50 Hz (m^3/h)	3.7 m^3/h
Ultimate vacuum	3 mbar / 2.3 torr
Ultimate vacumm with gas ballast	10 mbar / 7.5 torr
Number of heads	4
Number of stages	3
Vacuum controller	without controller
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	small flange KF DN 16
Rated motor power	0.25 kW
Motor speed range	30 - 1500 min^{-1}
Protection class IEC 60529	IP 54
Dimensions (L x W x H)	469 mm x 265 mm x 305 mm
Weight	28.9 kg
Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU·PURE®)	42 dBA
ATEX conformity	Pumping chamber (pumped gases): II 2G Ex h IIC T3 Gb X Environment with inert purge gas: II 2G Ex h IIB T4 Gb X Environment without inert purge gas: II 3G Ex h IIB T4 Gc X Motor: II 2G Ex db IIB T4 Gb
NRTL certification	No

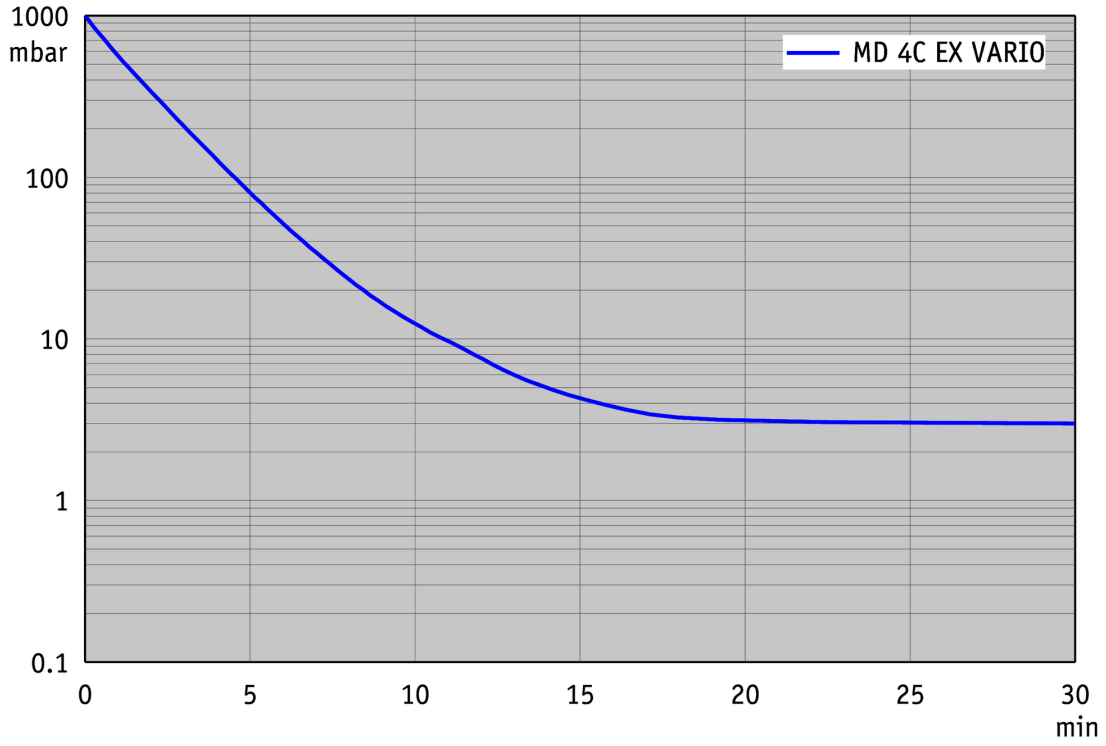
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Pumping speed graph at 50 Hz



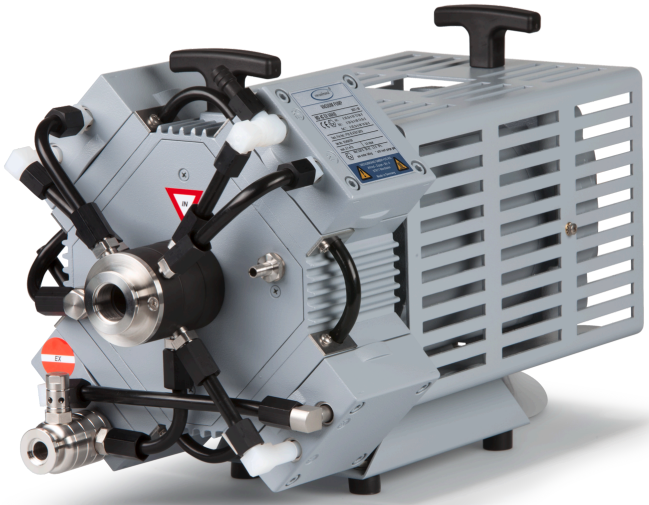
Pump down graph at 50 Hz (100 l volume)

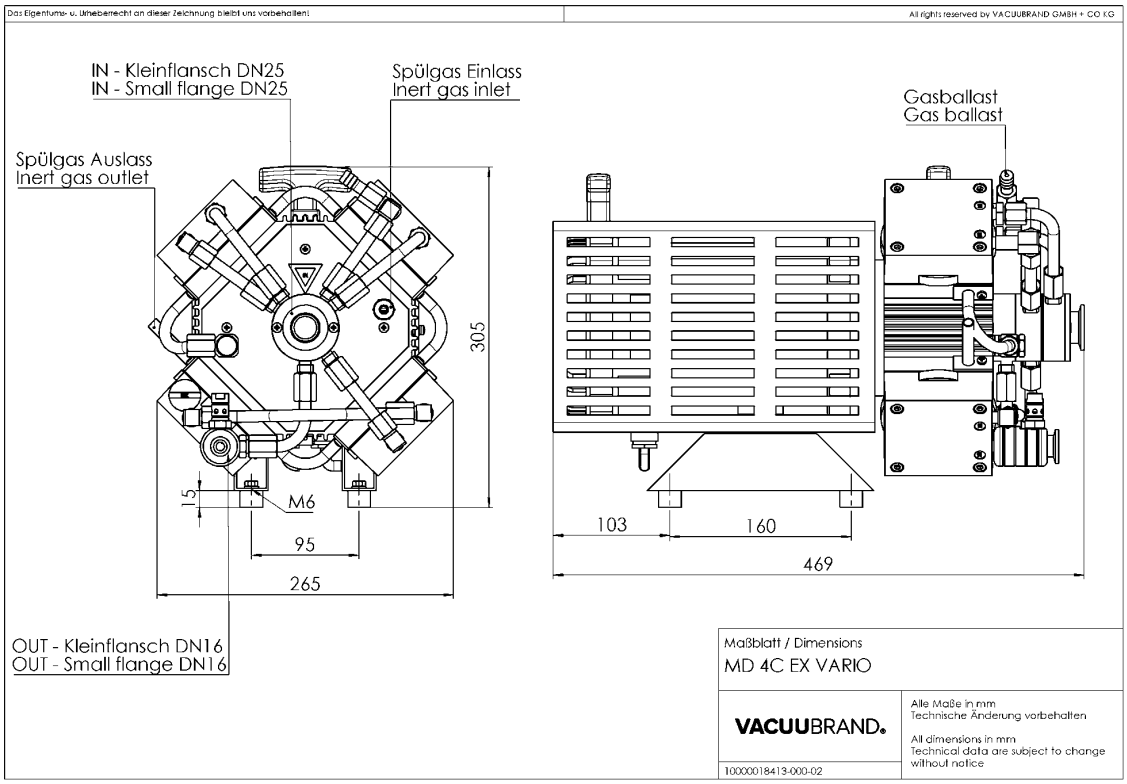


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Dimension sheet





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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.

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