

# VARIO® chemistry pumping unit PC 3004 VARIO select

[Link to the website](#)

## Product description

The PC 3004 VARIO select pumping unit precisely controls the vacuum level in order to achieve unparalleled process control. With its high pumping speed and deep ultimate vacuum, this pump is suitable for demanding applications with even high boiling point solvents. The integrated VACUU-SELECT controller provides an easy-to-use, application based interface that covers all common lab applications. The VACUU-SELECT controller has you covered. Use manual set-point-control for simple processes, run fully automated distillations, or create your own application with simple drag-and-drop editing. For solvent evaporation, the VACUU-SELECT controller continuously detects the boiling point and automatically adjusts the vacuum process as necessary. And the VARIO control algorithm maintains the desired vacuum level without running the motor faster than necessary. This prevents bumping and foaming, makes the pump whisper quiet, and extends maintenance intervals. The inlet separator, made of glass with a robust protective coating, prevents particles and liquid droplets from entering the pump, preventing damage and extending pump life. And the exhaust vapor condenser allows for nearly complete recovery of solvents when used with a chilled water line or recirculating chiller for economical recycling and environmental protection.

## 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
- powerful vacuum pump meets high vacuum requirements for most high boiling solvents
- extraordinary diaphragm life, therefore minimum operational and servicing costs
- excellent environmental compatibility through low energy consumption and efficient solvent recovery

## Ordering data

| Product name         | Nominal mains voltage   mains frequency | Plug type | Articleno. |
|----------------------|-----------------------------------------|-----------|------------|
| PC 3004 VARIO select | 200-230 V   50-60 Hz                    | CEE       | 20737550   |

## Items supplied

Pumping unit completely mounted, ready for use, with manual.

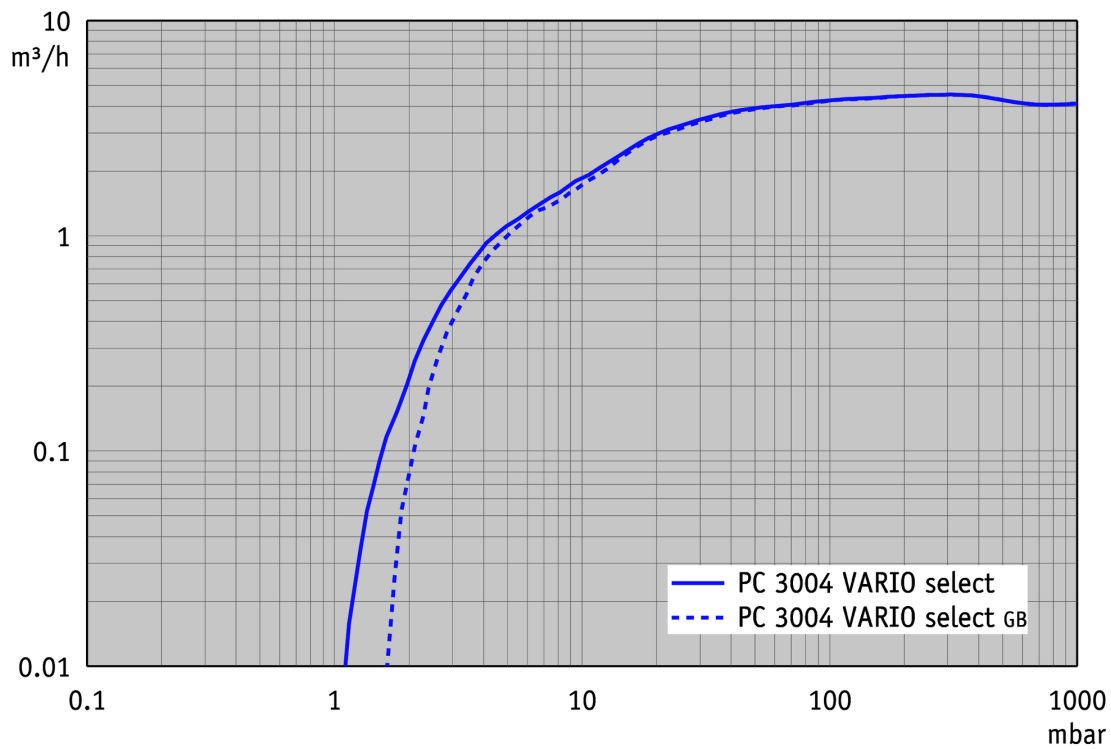
## Accessories

- Function extension for VACUU-SELECT controller VACUU-SELECT User Management (20700900)
- Vacuum tubing transparent DN 8 mm (20686061)
- Adjustable elbow DN 10/8 mm (20637873)
- Fluid level sensor for round bottom flask 500 ml 500 ml (20699908)
- Cooling water valve VKW-B (20674220)
- Set of diaphragms and valves MD 4C NT/VARIO / PC 3003 / PC 3004 (20696870)
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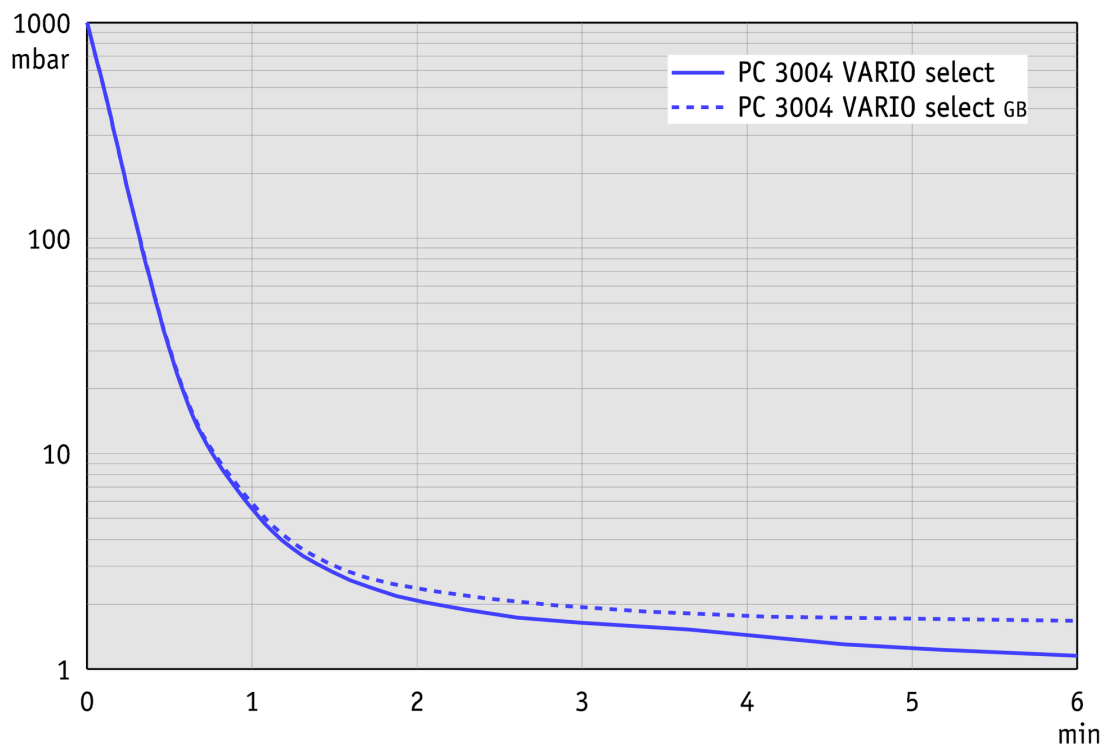
## Technical data

| Max. pumping speed 50 Hz (m³/h)                                                                                  | 4.6 m³/h                                                                                                         |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Max. pumping speed 60 Hz (cfm)                                                                                   | 2.7 cfm                                                                                                          |
| Ultimate vacuum                                                                                                  | 1.5 mbar / 1.1 torr                                                                                              |
| Ultimate vacuum with gas ballast                                                                                 | 3 mbar / 2.2 torr                                                                                                |
| Number of heads                                                                                                  | 4                                                                                                                |
| 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                                                                                                 | Hose nozzle DN 8-10 mm                                                                                           |
| Outlet connection                                                                                                | Hose nozzle DN 8-10 mm                                                                                           |
| Coolant connection                                                                                               | 2 x hose nozzle DN 6-8 mm                                                                                        |
| 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)                                                                                           | 419 mm x 243 mm x 457 mm                                                                                         |
| Weight                                                                                                           | 21.1 kg                                                                                                          |
| Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU-PURE®) | 43 dBA                                                                                                           |
| ATEX conformity                                                                                                  | II 3/- G Ex h IIC T3 Gc X Internal Atm. only                                                                     |
| NRTL certification                                                                                               | No                                                                                                               |
| Interface                                                                                                        | Ethernet (RJ45): Modbus TCP / USB (Type A): Data transfer, software update, RS-232 (additional adapter required) |

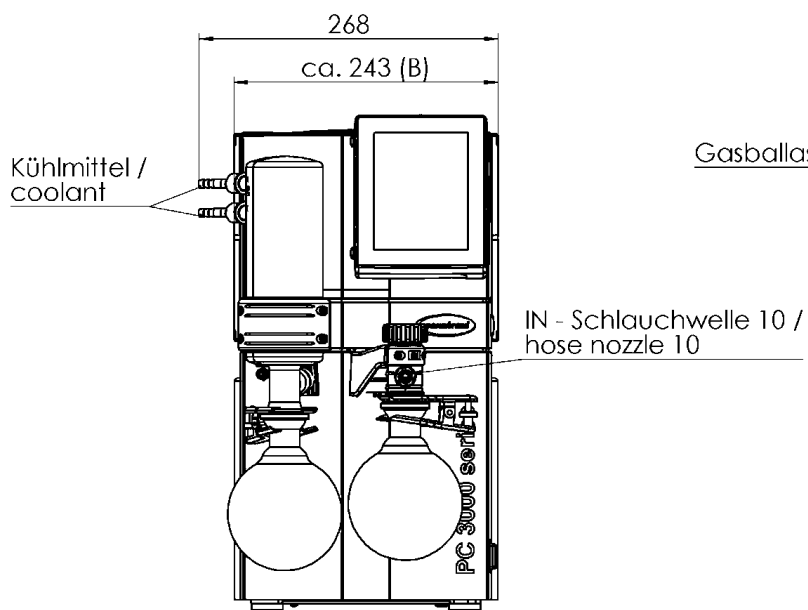
## Pumping speed graph at 50 Hz



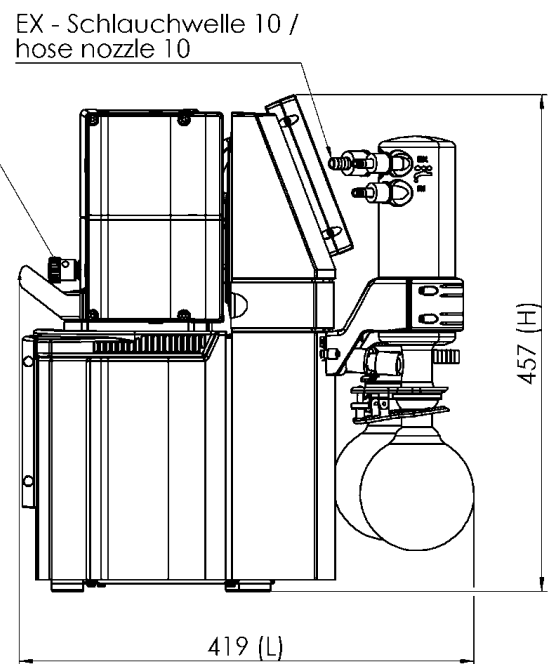
## Pump down graph at 50 Hz (10 l volume)



## Dimension sheet



Alle Maße / all dimensions (mm)  
Gewicht / weight: ca. 21,1 kg



VACUUBRAND PC 3004 select  
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