

# VARIO® chemistry pumping unit PC 3012 NT VARIO select

[Link to the website](#)

## Product description

The PC 3012 NT VARIO select pumping unit precisely controls the vacuum level in order to achieve unparalleled process control. With its combination of high pumping speed and deep ultimate vacuum, this pump is suitable for demanding applications with even high boiling point solvents. This pump is regularly used to support floor-standing rotary evaporators, vacuum drying ovens, distillation columns, and other similar work in miniplants, kilo labs, and scale-up facilities. 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. In addition, the VARIO control maintains the desired vacuum level by running the motor only as fast as 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
- meets high vacuum requirements for large quantities of most high boiling solvents
- extraordinary diaphragm life for 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 3012 NT VARIO select | 200-230 V   50-60 Hz                    | CEE       | 25743850   |
| PC 3012 NT VARIO select | 200-230 V   50-60 Hz                    | CN        | 25743851   |
| PC 3012 NT VARIO select | 200-230 V   50-60 Hz                    | UK        | 25743852   |
| PC 3012 NT VARIO select | 100-120 V   50-60 Hz                    | US        | 25743853   |
| PC 3012 NT VARIO select | 200-230 V   50-60 Hz                    | CN        | 25743856   |
| PC 3012 NT VARIO select | 200-230 V   50-60 Hz                    | IN        | 25743857   |

## Items supplied

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

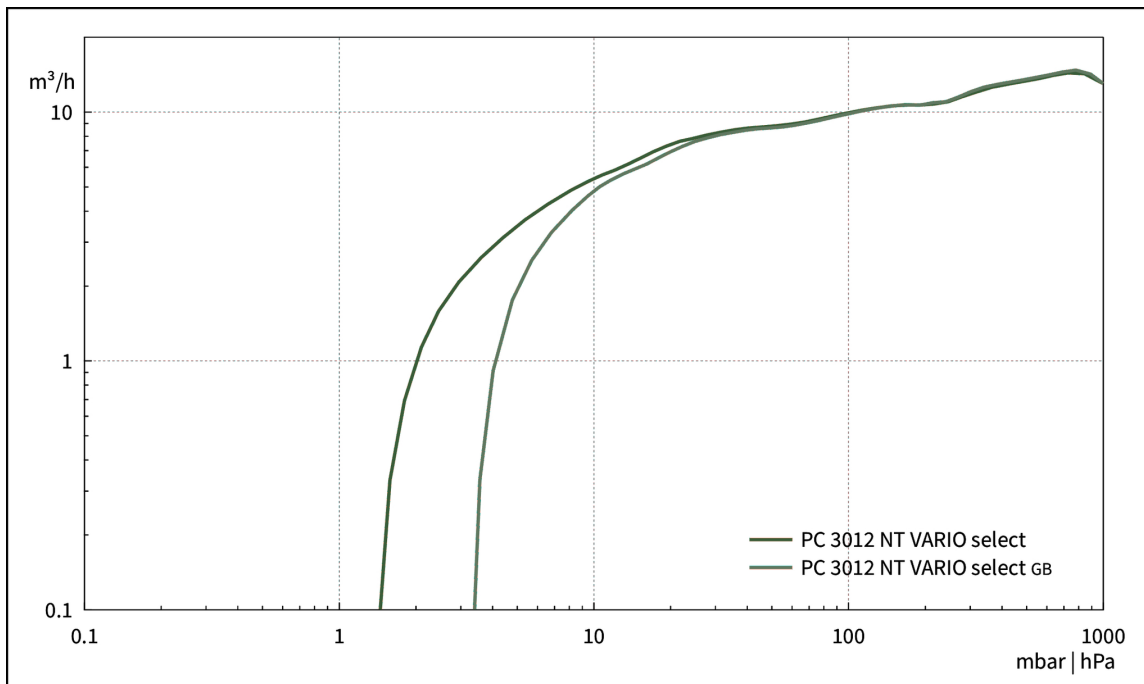
## Accessories

- 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)
- Fluid level sensor for round bottom flask 500 ml 500 ml (20699908)
- Cooling water valve VKW-B (20674220)
- Air admittance valve VB M-B (20674217)
- Set of diaphragms and valves MD 12C NT / MV 10C NT (20696839)
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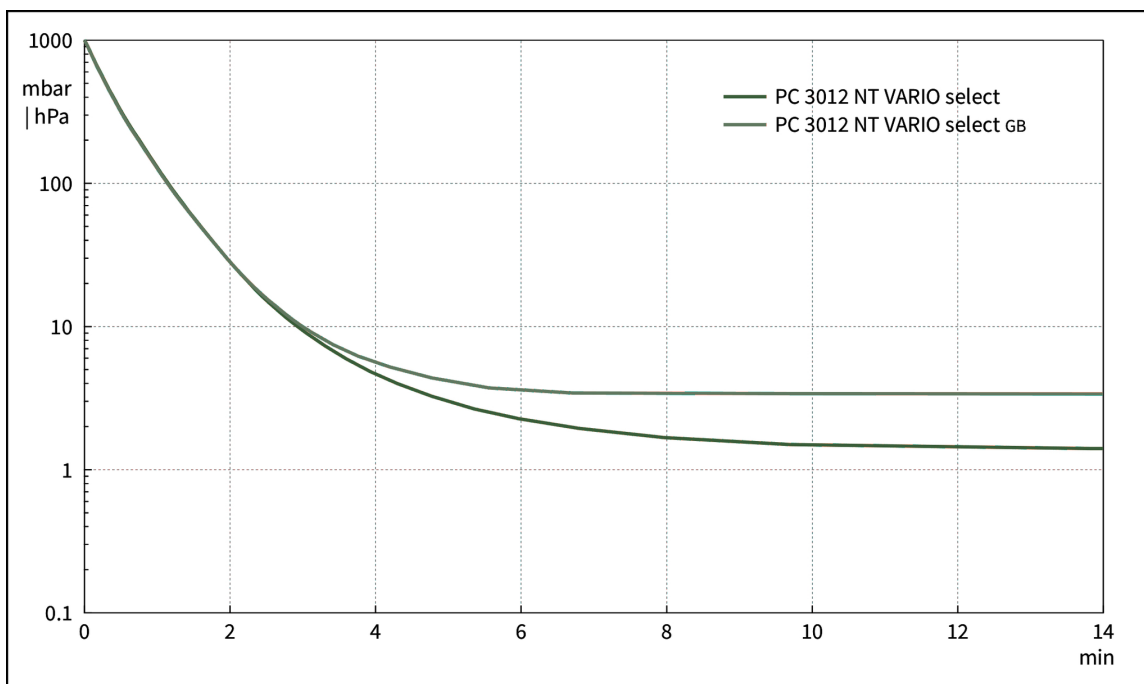
## Technical data

| Max. pumping speed 50 Hz (mbar)  | 14.3 m <sup>3</sup> /h   |
|--|--|
| Max. pumping speed 60 Hz (cfm)   | 8.4 cfm  |
| Ultimate vacuum  | 1.5 mbar / 1.1 torr  |
| Ultimate vacuum with gas ballast   | 3 mbar / 2.2 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 / hose nozzle DN 15 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 40  |
| Dimensions (L x W x H)   | 616 mm x 387 mm x 450 mm   |
| Weight   | 29.7 kg  |
| Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU-PURE®) | 47 dBA   |
| NRTL certification   | No   |
| Interface  | Ethernet (RJ45): Modbus TCP / USB (Type A): Data transfer, software update, RS-232 (additional adapter required) |

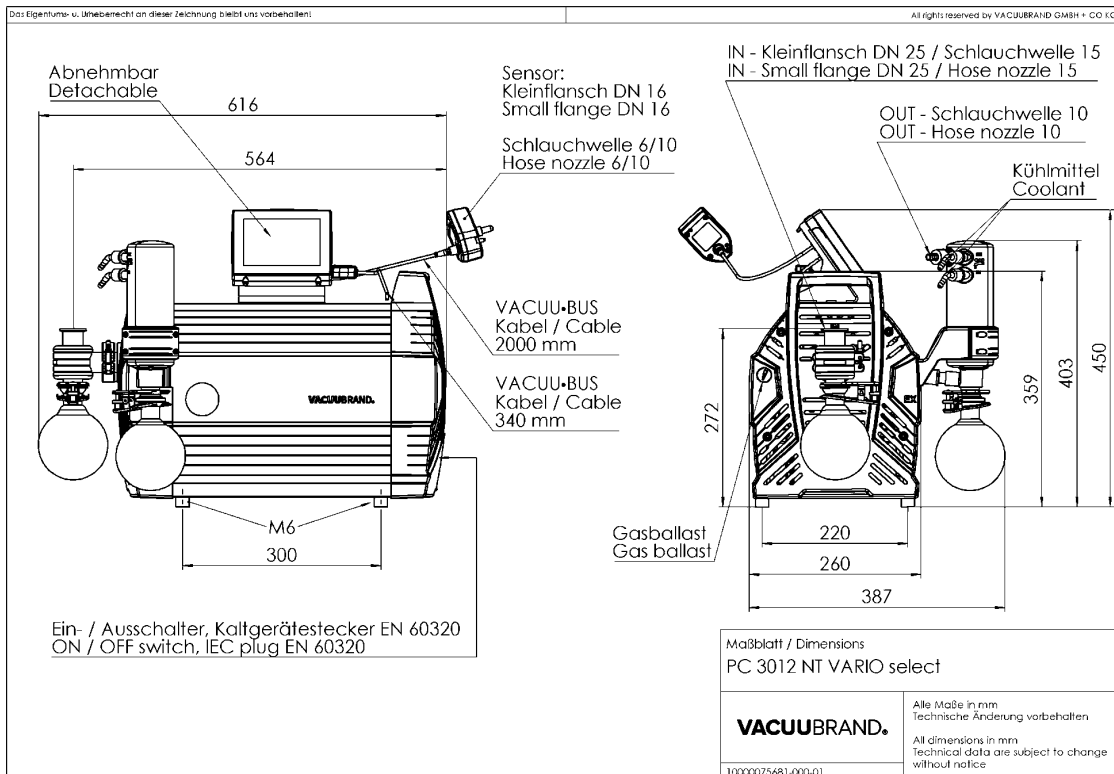
## Pumping speed graph at 50 Hz



## Pump down graph at 50 Hz (100 l volume)



## Dimension sheet



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