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## VACSTAR lite Advanced Solution Vacuum pump

/// Data Sheet

The VACSTAR lite Advanced Solution package is a modern and user-friendly solution for your vacuum applications in the laboratory. By combining the VC 10 pro vacuum controller with the VACSTAR lite vacuum pump, automatic boiling point detection is available via the integrated solvent library. The desired setpoint can also be conveniently set manually via the large, easy-to-read TFT display. In addition, the program mode enables the simple programming of several ramp steps in order to efficiently control complex simulations.

Perfectly suited for a wide range of classic laboratory applications, including separation, filtration and drying processes. Ideal for use in conjunction with rotary evaporators, reactors, temperature control cabinets, centrifuges and other



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laboratory equipment.

Advantages and technical features:

- Automatic boiling point detection: Automatically determines and maintains the boiling point of your solvent using the integrated solvent library with pre-configured parameters for common solvents.
- Integrated device communication: The vacuum controller seamlessly synchronizes with circulators, resulting in optimized lab operations and increased overall performance.
- Longer life cycle: An integrated valve cleaning function removes residual solvent, extending system life and reducing maintenance.
- USB/RS232 interfaces: These enable connection to labworldsoft® laboratory software for advanced process control.

For additional safety and to protect the environment, we recommend using the vacuum safety emission condenser VSE 1 (available as an accessory), which prevents solvents from escaping into the room air.

Scope of delivery

- VACSTAR lite
- VC 10 pro
- VC 10.600 Stand pole



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## Technical Data

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| Pump rate max. (50/60Hz) [m³/h]         | 1                                        |
| Pump rate max. (50/60Hz) [l/min]        | 16.67                                    |
| Final pressure [mbar]                   | 9                                        |
| Suction levels                          | 2                                        |
| Cylinder                                | 2                                        |
| Connection diameter suction side [mm]   | 8                                        |
| Connection diameter pressure side [mm]  | 8                                        |
| Input pressure [mbar]                   | 10 - 1030                                |
| Boiling point detection                 | yes                                      |
| Solvent library                         | yes                                      |
| Two-point control                       | yes                                      |
| Analog speed vacuum control             | yes                                      |
| Speed range [rpm]                       | 285 - 1100                               |
| Speed (50Hz) [rpm]                      | 1100                                     |
| Speed (60Hz) [rpm]                      | 1100                                     |
| Nominal speed [rpm]                     | 1100                                     |
| Display                                 | TFT                                      |
| Pressure unit / scale                   | mbar, hPa, mmHg, Torr                    |
| Vacuum sensor                           | yes                                      |
| Vacuum sensor type                      | ceramic Al <sub>2</sub> O <sub>3</sub>   |
| Pressure max. for pressure sensor [bar] | 1.6                                      |
| Measurement range (absolute) [mbar]     | 1 - 1100                                 |
| Control range [mbar]                    | 1 - 1100                                 |
| Resolution pressure [mbar]              | 1                                        |
| Measurement uncertainty [mbar]          | 1                                        |
| Medium temperature (gas) [°C]           | 5 - 40                                   |
| Vacuum valve                            | yes                                      |
| Venting valve                           | yes                                      |
| Connection for ext. temperature sensor  | PT1000                                   |
| Temperature unit                        | °C / °F                                  |
| Temperature measuring range [°C]        | -10 - 200                                |
| Temperature measurement resolution [K]  | 1                                        |
| Accuracy of temperature measurement [K] | ±1                                       |
| Timer                                   | yes                                      |
| Time setting min. [s]                   | 1                                        |
| Time setting max. [min]                 | 6000                                     |
| Noise at low. pressure [dB(A)]          | 54                                       |
| Material in contact with medium         | PTFE, FFPM, PPS, NBR                     |
| Housing material                        | alu-cast coating / thermoplastic polymer |
| Mode automatic                          | yes                                      |
| Mode manual                             | yes                                      |
| Mode pump %                             | yes                                      |
| Mode program                            | yes                                      |
| Graph function                          | yes                                      |
| Chiller control                         | yes                                      |
| Vacuum leakage test                     | yes                                      |
| Dimensions (W x H x D) [mm]             | 115 x 445 x 280                          |
| Weight [kg]                             | 10                                       |



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|                                            |                                                          |
|--------------------------------------------|----------------------------------------------------------|
| Permissible ambient temperature [°C]       | 5 - 40                                                   |
| Permissible relative humidity              | 80% (up to 31°C), decreasing linearly to max. 50 (@40°C) |
| Protection class according to DIN EN 60529 | IP 20                                                    |
| RS 232 interface                           | yes                                                      |
| USB interface                              | USB-C                                                    |
| Analog output                              | yes                                                      |
| Analog input                               | yes                                                      |
| Voltage [V]                                | 100 - 240                                                |
| Frequency [Hz]                             | 50/60                                                    |
| Power input [W]                            | 144                                                      |
| Power input standby [W]                    | 3.5                                                      |
| Fuse                                       | 2x T4A 250V                                              |