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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.

Technical Data

Pump rate max. (50/60Hz) [m³/h]	1
Pump rate max. (50/60Hz) [l/min]	16.67
Final pressure without gas ballast [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 ₂ O ₃
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	Al ₂ O ₃ ; 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