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## VACSTAR lite Starter Plus Solution Vacuum pump

/// Data Sheet

The VACSTAR lite Starter Plus Solution package is a modern, user and environmentally friendly solution for your vacuum applications in the laboratory. By combining the VC 10 lite vacuum controller with the VACSTAR lite vacuum pump, the desired setpoint can be conveniently set manually via the large and easy-to-read TFT display. In addition, the program mode enables simple programming of several ramp steps to efficiently control complex simulations. The VSE 1 emission condenser prevents solvents from being released into the room air, thus protecting users and the environment.

This solution is perfect for a variety of classic laboratory applications, including separation, filtration and drying processes. Ideal for use in conjunction with rotary evaporators, reactors, tempering chambers, centrifuges and other



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laboratory equipment.

Advantages and technical features:

- Integrated device communication: the vacuum controller seamlessly synchronizes with circulators, resulting in optimized lab procedures and increased overall performance.
- Longer lifecycle: An integrated valve cleaning function removes solvent residues, extending system life and reducing maintenance.
- USB/RS232 interfaces: These allow connection to labworldsoft® laboratory software for advanced process control.
- Increased safety: The VSE 1 emission condenser ensures increased user safety by preventing solvent residues from entering 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
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 Al2O3
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
Venting valve	yes
Emission condenser	yes
Timer	yes
Time setting min. [s]	1
Time setting max. [min]	6000
Noise at low. pressure [dB(A)]	54
Material in contact with medium	Al2O3; PTFE; FFPM; PPS; NBR
Housing material	alu-cast coating / thermoplastic polymer
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]	260 x 502 x 377
Weight [kg]	11
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



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Power input [W]	144
Power input standby [W]	3.5
Fuse	2x T4A 250V