
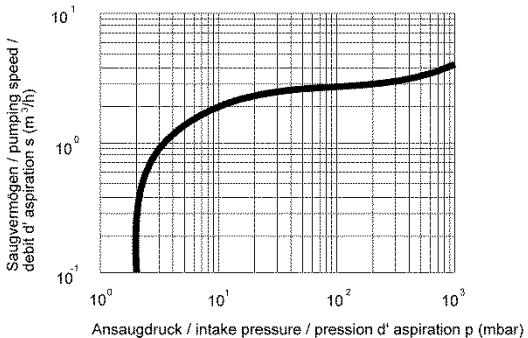


Data Sheet (EN)

Translation of the german original

WELCH
by Gardner Denver

Figure	Designation	Pumping speed / Intake pressure Diagram
	Laboratory-Vacuum-System Model: LVS 610 T ef Order no. 115254	

Technical Data		
Parameter	Data	Unit
Pumping speed at rated speed 1500 min ⁻¹	4.9	m³/h
Ultimate pressure at rated speed 1500 min ⁻¹	< 2	mbar
Ultimate pressure with gas ballast at rated speed 1500 min ⁻¹	9	
Max. Inlet - / Outlet pressure	1	bar
Reference surface sound pressure level DIN EN ISO 2151	< 44	dB (A)
Intake- / Exhaust connection	Hose nozzle DN 8 for hose inside Ø 8 mm	
Ambient temperature	+ 10 to + 40	°C
Max. operating gas temperature	+ 40	
Voltage, Frequency	230, 50/60	V, Hz
Motor power	370	W
Input Frequency changer (Apparent power)	800 / 6	W / A
Operating mode	S1	-
Type of protection DIN EN 60529	IP 54	-
Class of insulation DIN EN 600034-1	F (160°C)	-
Type Examination Certificate no.	WELCH_ATEX_03-01	-
Designation EX	II 3G IIC T3 X (internal Atm. only)	
Dimensions (W/D/H)	360 / 310 / 445	mm
Weight	26.8	kg

Controller / Sensor :		
Sensor type	ceramic sensor	-
Measuring range	1 - 1100	mbar
Measuring uncertainty	< ± 0.3 % FS	
Sensor interface:	3 conductor interface	-
- Scan frequency	10	Hz
- Resolution ADC	12	Bit
- Power supply	+ 5 stabilized	V
- Sensor signal	0.5 to 4.5 (option also 4..20 mA per jumper possible)	
Pressure indicator	digital and graphic	-
Switching accuracy / control accuracy	±1	digit
Switching outputs:	digital	-
- Voltage level	0; 24	V
- Control power, single	2 x 6	W
- Control power, total	24	
Switching outputs used: Ventilation valve, Water valve	2	-
Frequency converter output :	analog	-
- Voltage level	0 to 10	V
- Resolution DAC	8	Bit
Communication interface	RS 232	-
Power consumption - controller in normal operation	Max. 15 (depends upon the control power)	W
Fuse (internal controller)	5	A

Power pack : integrated	
Operating voltage	90 .. 260 V AC
Operating frequency	50 / 60 Hz
Output voltage	24 V DC
Output current	1.25 A
Output power	30 W






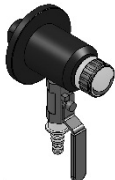

Connections :		
IN/OUT:	RS 232	SUB-D plug 9-pole
OUT:	Control line (frequency converter)	
OUT	Water valve	Binder socket 4-pole, 24 V DC
Connection:	Inert gas (integrated)	Hose nozzle DN 4

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Design	Areas of application
The Laboratory-Vacuum-System consists of a dry-running, chemically resistant diaphragm pump with frequency converter, the suction-side condensate and the pressure side insulated intensive cooler with round-bottomed flask and safety valve.	The Laboratory-Vacuum-System is especially suitable for applications for distillation and evaporation of solvents. It finds its use in physical and chemical laboratories or industry, specifically for pumping and compressing neutral and aggressive gases and vapors.

Accessories		Order no.
	Vacuum Control Box VCB 521 cv For measuring and regulation a vacuum. With integrated sensor and ventilation-, control- and check valve.	600053
	Operating Software „WELCH-Control 521“ on CD To connect the Controller VCB 521 cv to the PC.	620637
	Vacuum hose Rubber, 18 / 8 x 5 mm	828310-4
	Vacuum hose PTFE, 8 / 6 x 1 mm	828331
	Water valve WV 2 2 way water flow valve for the demand-responsive cooling water supply. Mounting possible in any direction. Input: G 3/4 inch sleeve nut Output: Hose nozzle for hose inside diameters 8 mm	700300-02
	netvac+ Set BC1 – 63 (for mounting on sheet metal wall) with integrated FFKM - check valve, dosing valve, hose nozzle and ball valve Area of application: Laboratory Suction connection: for hose DN 8-10 Connection thread: 1/4 "- outside Material of valve body: Polypropylene (PP) Dimensions (W/D/H): Ø 69 / 161 / 82 mm Mounting hole: Ø 25 to Ø 35 mm	700563-01
	netvac+ Set BC2 – 62 (for mounting on wood furniture) with integrated FFKM - check valve, dosing valve and hose nozzle Area of application: Laboratory Suction connection: for hose DN 8-10 Connection thread: 1/4 "- outside Material of valve body: Polypropylene (PP) Dimensions (W/D/H): Ø 69 / 69 / 82 mm Mounting hole: Ø 25 to Ø 35 mm	700562



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