
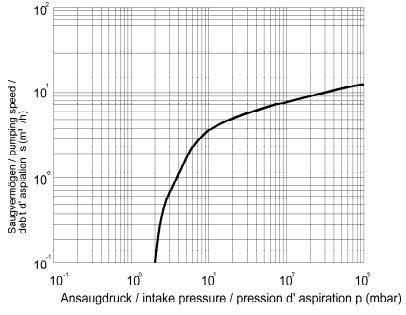



Data Sheet (EN)

Translation of the german original

WELCH
by Gardner Denver

Figure:	Designation:	Intake pressure-/Pumping speed-Diagram:
	<p>Laboratory-Vacuum-System</p> <p>Model LVSF 1210 T ef</p> <p>Order number 116264</p>	

Technical data:		
Parameter	Data	Unit
Pumping speed 50/60 Hz rated speed 1500 min ⁻¹	12.5	m ³ /h
Ultimate pressure rated speed 1500 min ⁻¹	< 2	mbar
Ultimate pressure with gas ballast rated speed 1500 min ⁻¹	< 3	
Max. Inlet - / Outlet pressure	1	bar
Noise level DIN EN ISO 2151	< 50	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
Betriebsart	S1	-
Type of protection DIN EN 60529	IP 54	-
Motor / Class of insulation DIN EN 600034-1	F (160°C)	-
Type Examination Certificate no.	WELCH_ATEX_03-01	-
Designation Ex	 II3G IIC T3 X (internal Atm. only)	-
Dimensions (W/D/H)	560 / 330 / 480	mm
Weight	38	kg

Vacuum Control-Box VCB 521 es / Sensor :		
Sensor type	capacitive sensor	-
Measuring range	1100 - 1	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 (optionally also 4..20 mA per jumper possible)	
Pressure indicator	digital and graphically	-
Switching accuracy / control accuracy	±1	digit
Switching outputs used:	2	-
- Control valve	voltage / power / resolution	24 / 4 / 1
- Vent valve	voltage / power / resolution	24 / 4 / 1
- Water valve	voltage / power / resolution	24 / 4 / 1
- Frequency changer	voltage / resolution	0 - 10 / 8
Communication interface	RS 232	-
Power consumption Controller in normal operation	max. 15 (depends upon the control power)	W
Fuse (controller internal)	5	A
Protective system - Entire unit	IP 20	-
Working temperature - Entire unit	15 - 40	°C

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 for Frequency changer	Binder socket 4-pole, 0-10V DC
OUT	Water valve	Binder socket 4-pole, 24 V DC
Connections	Inert gas	Hose nozzle DN 4 integrated






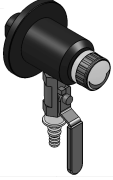

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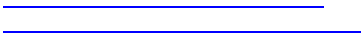
Translation of the german original



Design:	Materials of the medium-affecting parts:	
<p>The Laboratory-Vacuum-System (LVSF) is used for vacuum generation in local networks. It consists of a dry-running, three-stage chemical diaphragm pump with frequency converter and vacuum control-box, the suction side condensate separator (round bottom flask 500 ml) for collecting liquids and particles.</p> <p>An emission condenser is provided on the pressure side for solvent recovery, as an isolated intensive condenser with connections for cooling water supply and return, as well as a 500 ml round piston and safety valve.</p>	Seals	EPDM
	Screw fittings / Connection elements	PVDF
	Valves	PEEK
	Form diaphragms	Elastomer + PTFE layer
	Vacuum hoses	PTFE
	Connection heads / Pump heads	PTFE with carbon-fibre reinforcing
	Round-bottomed flask / Intensive cooler	Glass with plastic coating

Application:
<p>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.</p>

Accessories:		Order number:
	<p>Vacuum Control-Box VCB 521 cv For measuring and regulation of vacuum. With integrated sensor, airing -, control- and check valve</p>	600053
	<p>Operating software „WELCH-Control 521“ on CD to connect the controller VCB 521 cv to the PC</p>	620637
	Vacuum hose Rubber, 18 / 8 x 5 mm	828310-4
	Vacuum hose PTFE, 8 / 6 x 1 mm	828331
	<p>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 inside diameters 8 mm</p>	700300-02
	<p>netvac+ Set BC2 – 63 <i>for mounting on sheet metal wall</i> with integrated FFKM-Check valve, Dosing valve, Hose nozzle and Ball valve Suction connection: 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</p>	700563-01
	<p>netvac+ Set BC1 – 62 <i>for mounting on wood furniture</i> with integrated FFKM-Check valve, Dosing valve and Hose nozzle Suction connection: 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</p>	700562

	
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