



Alfa Laval LKH-110, LKH-110/P and LKH-120/P Multistage Pumps

The Compact Pump

Application

LKH-110, -110/P and -120/P are highly efficient multistage centrifugal pumps, which meet the requirements of hygienic applications. The LKH-110, the LKH-110/P as the LKH-120/P are available with 2, 3 and 4 stages.

Standard design

Alfa Laval multistage pumps are designed to be cleaned in place. The pumps have a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable stainless steel legs.

Shaft seals

The multistage pumps are equipped with either an internal single or a flushed shaft seal. Both have stationary seal rings made from silicon carbide and rotating seal rings in carbon or silicon carbide. -

- SiC/C material combination, outlet pressure up to 20 bar
- SiC/SiC material combination, outlet pressure up to 40 bar



TECHNICAL DATA

Materials

Product wetted steel parts: . . . W. 1.4404 (316L) and Duplex steel

Other steel parts: Stainless steel.

Product wetted seals: EPDM.

Other O-rings: EPDM.

Finish: Standard blasted.

Connctions for FSS:

6mm tube/Rp 1/8"

Motor

Foot-flanged motor according to the IEC metric standard, 2 poles = 3000/3600 rpm. at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F.

Standard motors with a fixed ball bearing on drive side are fitted to LKH-110 pumps whereas special motors with special bearings are fitted to LKH-110/P and LKH-120/P pumps.

Min/max motor speed: All variants . . . 900 - 3600 rpm

Warranty

Extended 3-years warrenty on LKH pumps. The warrenty covers all non wear parts on the condition that genuie Alfa Laval Spare Parts are used.

OPERATING DATA

Technical data

Max. outlet pressure, LKH-110/P, LKH-120/P:

- Limited by the strength of the pump casing: 4000 kPa (40 bar) temperature < 40°C.
- Limited by the strength of the pump casing: 2000 kPa (20 bar) temperature > 40°C.

Temperature range: -10°C to +140°C (EPDM).

Water pressure: Normally atmospheric, max. 1 bar (flushed seal).

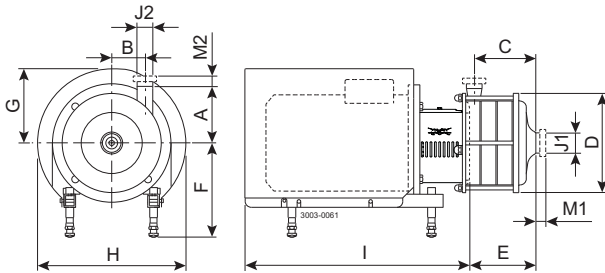
Water consumption: 0.25 -0.5 l/min. (flushed seal)

Noise level (at 1 m): 60-80 dB (A).

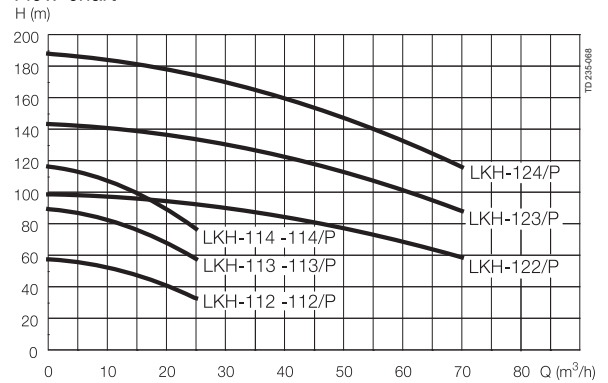
Max. inlet pressure

Pump size	Speed and shaft seal material				Motor	Backplate
	Max 50Hz		Max 60Hz			
	C/SiC	SiC/SiC	C/SiC	SiC/SiC		
Max inlet pressure (bar)						
LKH-112	10	10	10	10	Std	Std
LKH-113	10	10	10	10	Std	Std
LKH-114	10	10	10	10	Std	Std
LKH-112/P	N/A	30	N/A	30	Special	Reinforced
LKH-113/P	N/A	30	N/A <td 30	Special	Reinforced	
LKH-114/P	N/A	25	N/A	25	Special	Reinforced
LKH-122/P	10	30	N/A	30	Special	Std
LKH-123/P	10	30	N/A	30	Special	Std
LKH-124/P	N/A	25	N/A	20	Special	Std

Dimensions (mm)



Flow chart



Pump specific measures

Pump Model	LKH-112	LKH-113	LKH-114	LKH-122	LKH-123	LKH-124
A	140	140	140	265	265	265
B	86	86	86	112	112	112
C	76	76	76	85	142	200
D	256	256	256	335	335	335
E	108	138	178	112	169	226

Motor specific measures

Motor IEC	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180	IEC200	IEC250
Motor kW	2.2	3.0	4.0	5.5/7.5	11/15/18.5	22	30/37/45	55/75
F(max)*	262	282	285	304	332	352	372	446
G	157	185	198	196	262	286	399	394
H	288	325	359	383	485	533	670	738
I	434	516	497	597	791	842	980	1051

*Possible to reduce dimension F by min. 59 mm for all pump models. For smaller models it will be possible to reduce dimension F even further.

Motor overview

Pump Model	LKH-112	LKH-113	LKH-114	LKH-122	LKH-123	LKH-124
Motor range (IEC)	IEC90-IEC132	IEC112-IEC160	IEC132-IEC180	IEC180-IEC200	IEC180-IEC250	IEC200-IEC250

Dimensional data are based on 2 pole, ABB motors.

Connections

Pump Model		LKH-112	LKH-112/P	LKH-122
		LKH-113	LKH-113/P	LKH-123
		LKH-114	LKH-114/P	LKH-124
Clamp ISO 2037	M1	21		
	M2	21		
Union ISO(IDF)	M1	21		
	M2	21		
Union DIN/ISO	M1	22		
	M2	22		
Union SMS	M1	20		
	M2	20		
Union (BS)RJT	M1	27		
	M2	27		
Union DS	M1	20		
	M2	20		
Union DIN/DIN	M1	22		
	M2	22		
Clamp ASME BPE	M1	-		
	M2	-		
Heavy duty clamp	M1		29	29
	M2		29	29
Flange acc. To EN1092	M1		-	56
	M2		-	56
J1*		51 / 2"	51 / 2"	76.5 / 3"
J2*		38 / 1.5"	38 / 1.5"	63.8 / 2.5 "

* Other dimensions available on request.

ESE00266/4

Options

- A. Motor with increased safety/flare proof motor. (only LKH-110)
- B. Flushed shaft seal.
- C. Impeller with reduced diameter.
- D. Product wetted seals of Nitrile (NBR), or Fluorinated rubber (FPM).
- E. Rotating seal ring of Silicon Carbide.

Note!

For further details, see also instruction manual.

Ordering

Please state the following when ordering:

- If the inlet pressure is higher than 10 bar it is necessary to order a special version with a modified motor and a stronger backplate. For exact specification, please use the Anytime Configurator.
Use the following designation:
 - LKH-110: Inlet pressure (0-10 bar)
 - LKH-110/P: Inlet pressure > 10 bar
- Pump size.
- Version, hygienic or industrial.
- Connections.
- Impeller diameter.
- Motor size.
- Voltage and frequency.
- Flow, pressure and temperature.
- Density and viscosity of the product.
- Options.

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries
are continually updated on our website.
Please visit www.alfalaval.com to
access the information direct.