



# The Compact Pump

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

**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)

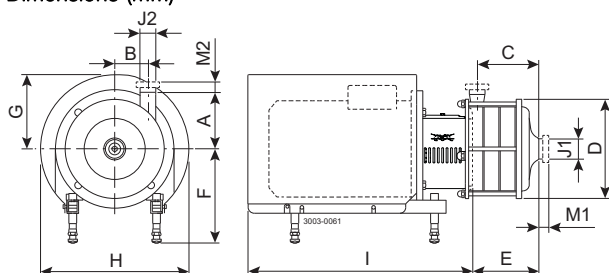
Noise level (at 1 m): . . . . . 60-80 dB (A).



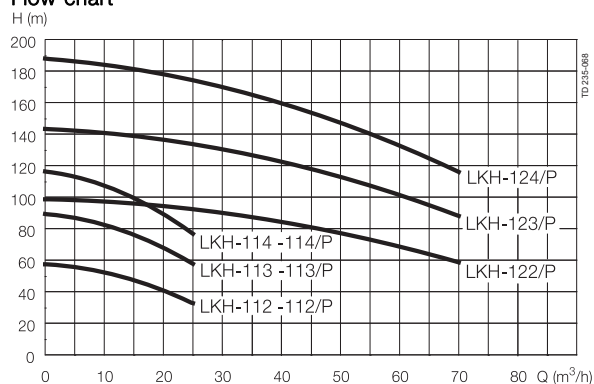
## Max. inlet pressure

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	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-113 LKH-114	LKH-112/P LKH-113/P LKH-114/P	LKH-122 LKH-123 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.

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## 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.