



The premium ex Pump

Alfa Laval LKHex Centrifugal Pump

Applications

The LKHex pump is a highly efficient and economical centrifugal pump, which meets the requirements of the ATEX directive 94/9 IEC group II, categories 2 and 3, temperature class T3 and T4. LKHex is available in following sizes, LKHex-10, -15, -20, -25, -35, -40, -45, -50, -60, -70. The LKHex performance data are equal to the performance of LKH pump.

Standard design

The LKHex has a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable stainless steel legs.

Shaft seals

The LKH pump is equipped with either a single shaft seal or a double mechanical shaft seal (DMS). The seal ring is in acid-resistant steel AISI 329 with sealing surface in silicon carbide and rotating seal rings in carbon or silicon carbide.



TECHNICAL DATA

Materials

Product wetted steel parts: W. 1.4404 (316L).
 Other steel parts: Stainless steel.
 Finish: Standard blasted
 Product wetted seals: EPDM, NBR, FPM and FEP.

Connections for DMS:

6mm tube/R 1/8" (BSP) external thread.

Motor

Foot-flanged ATEX approved motor according to the IEC metric standard, 2 poles = 3000/3600 rpm. at 50/60 Hz.

Motor sizes

50-60 Hz: 1.5 - 75 kW.

OPERATING DATA

Pressure

Max. inlet pressure:
 LKHex 10-70: (50Hz) 1000kPa (10 bar).
 LKHex 10-60: (60Hz) 1000kPa (10 bar).
 LKHex 70: (60Hz) 500kPa (5 bar).

Temperature

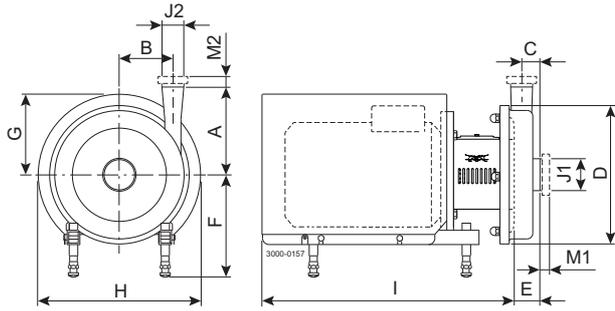
Product temperature (T4): -10°C to +80°C (NBR).
 -10°C to +110°C (EPDM, FPM, FEP).
 Product temperature (T3): -10°C to +80°C (NBR).
 -10°C to +110°C (EPDM).
 -10°C to +140°C (FPM, FEP).
 Ambient temperature: -10°C to +30°C

Double mechanical shaft seal (DMS):

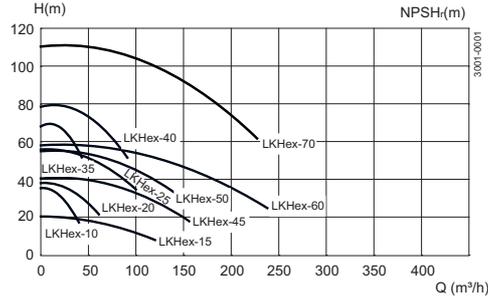
Water pressure inlet,
 LKH-10 to -70: Max. 500 kPa (5 bar).
 Water consumption: 0.25 -0.5 l/min.



Dimensions (mm)



Flow chart Frequency 50 Hz, Speed (Synchr): 3000 rpm



Note that most of the dimensions depend on motor supplier and motor size. Non-dependent dimensions are equal to the dimensions for LKH.

	LKH10 Exe				LKH15 Exe			LKH20 Exe					LKH25 Exe		
	1.85kW	2.5kW	3.3kW	4.6kW	4.6-			1.85kW	2.5kW	3.3kW	4.6-		4.6-		
	3.3kW	4.6kW	5.5kW	1.85kW	2.5kW	3.3kW	5.5kW	7.5kW	5.5kW	7.5-12.5kW	15kW				
A min	358	370	392	432	392	432	432	358	370	392	432	532	432	532	581
A max	444	480	505	565	505	565	565	444	480	505	565	649	565	649	618
B	290	325	360	425	360	425	425	290	325	360	425	510	425	510	553
C	497	546	591	685	627	716	716	510	558	603	692	853	698	859	908

	LKH35 Exe			LKH40 Exe			LKH45 Exe			LKH50 Exe			
	4.6-5.5kW	7.5-12.5kW	15kW	7.5-12.5kW	15kW	20kW	4.6-5.5kW	7.5-12.5kW	15kW	5.5kW	7.5-12.5kW	15kW	20kW
A min	432	532	549	532	581	661	432	532	581	432	532	581	661
A max	565	649	666	649	686	786	565	649	686	565	649	686	786
B	425	510	553	510	553	673	425	510	553	425	510	553	673
C	683	844	888	854	899	989	712	873	917	706	867	911	1005

	LKH60 Exe				LKH70 Exe				
	5.5kW	7.5-12.5kW	15kW	20-24kW	12.5kW	15kW	20-24kW	36kW	47-58kW
A min	432	532	581	661	532	581	661	881	
A max	565	649	686	786	669	686	786	942	
B	425	510	553	673	510	425	673	800	
C NW 150	785	946	990	1084	969	1014	1108	1296	
C 4"	735	896	940	1034	879	924	1018	1206	
C 6"	775	936	980	1074	969	1014	1108	1296	

	LKH10 Exd , Exde			LKH15 Exd , Exde			LKH20 Exd , Exde				LKH25 Exd , Exde		
	1.5-2.2 kW	3kW	4kW	3kW	4kW	5.5kW	1.5-2.2 kW	3kW	4kW	5.5-7.5kW	4kW	5.5-7.5kW	11-15kW
A min	413	418	438	418	438	483	413	418	438	483	438	483	573
A max	499	528	551	528	551	616	499	528	551	616	551	616	690
B	290	325	360	325	360	425	290	325	360	425	360	425	510
C	532	561	591	546	627	716	545	573	603	692	608	698	537

	LKH35 Exd , Exde			LKH40 Exd , Exde			LKH45 Exd , Exde			LKH50 Exd , Exde		
	4kW	5.5-7.5kW	11-15kW	7.5kW	11-18.5kW	22kW	4kW	5.5-7.5kW	11-15kW	5.5-7.5kW	11-15kW	22kW
A min	438	483	573	483	573	625	438	483	573	483	573	625
A max	551	616	690	616	690	730	551	616	690	616	690	730
B	360	425	510	425	510	553	360	425	510	425	510	553
C	594	785	948	693	856	870	623	712	875	706	869	882

	LKH60 Exd , Exde			LKH70 Exd , Exde				
	5.5-7.5kW	11-18.5kW	22kW	30kW	11-18.5kW	22kW	30-37kW	55-75kW
A min	483	573	625	661	573	625	661	881
A max	616	690	730	786	710	730	786	942
B	425	510	553	673	510	553	673	800
C NW 150	785	948	991	1084	971	1015	1108	1296
C 4"	735	898	941	1034	881	925	1018	1206
C 6"	775	938	981	1074	971	1015	1108	1296

Options

- A. Impeller with reduced diameter.
- B. Counter flanges, seal rings and bolts for flanged connections (industrial version).
- C. Surface roughness, product wetted parts: $R_a \leq 0.8 \mu\text{m}$.
- D. Product wetted seals of Nitrile (NBR), Fluorinated rubber (FPM) or FEP.
- E. Rotating seal ring of Silicon Carbide.
- F. Impeller screw (standard for LKH-70)
- G. Double mechanical shaft seal

Note! For further details, see also ESE02224.

Ordering

Please state the following when ordering:

- Pump size.
- Connections.
- Impeller diameter.
- Motor size.
- Voltage and frequency.
- Flow, pressure, ambient and media temperature.
- Atmosphere ignition temperature.
- Group category and temperature class.
- Density and viscosity of the product.
- Options.

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