



The premium ex Pump

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:	Semi bright.
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

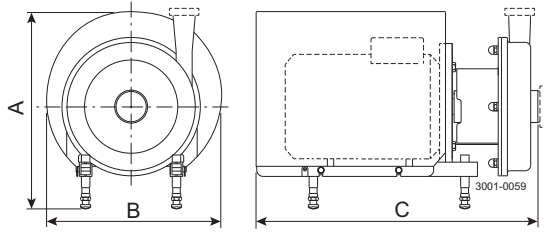
Product temperature (T4):	-10°C to +80°C (NBR).
	-10°C to +110°C (EPDM, FPM, FEP).
Product temperature (T3):	-10°C to +80°C (NBR).
	-10°C to +110°C (EPDM).
	-10°C to +140°C (FPM, FEP).
Ambient temperature:	-10°C to +30°C

Double mechanical shaft seal (DMS):

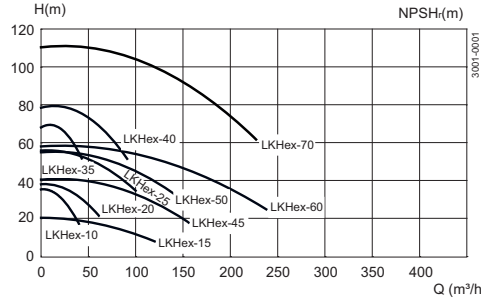
Water pressure inlet,	
LKH-10 to -70:	Max. 500 kPa (5 bar).
Water consumption:025 -0.5 l/min.



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.

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

kW	LKH35 Exe			LKH40 Exe			LKH45 Exe			LKH50 Exe			
	4.6-5.5	7.5-12.5	15	7.5-12.5	15	20	4.6-5.5	7.5-12.5	15	5.5	7.5-12.5	15	20
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

kW	LKH60 Exe				LKH70 Exe					
	5.5	7.5-12.5	15	20-24	12.5	15	20-24	36	47-58	
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		

kW	LKH10 Exd , Exde			LKH15 Exd , Exde			LKH20 Exd , Exde				LKH25 Exd , Exde		
	1.5-2.2	3	4	3	4	5.5	1.5-2.2	3	4	5.5-7.5	4	5.5-7.5	11-15
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	497	546	591	546	627	716	510	558	603	692	608	698	537

kW	LKH35 Exd , Exde			LKH40 Exd , Exde			LKH45 Exd , Exde			LKH50 Exd , Exde		
	4	5.5-7.5	11-15	7.5	11-18.5	22	4	5.5-7.5	11-15	5.5-7.5	11-15	22
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

kW	LKH60 Exd , Exde				LKH70 Exd , Exde			
	5.5-7.5	11-18.5	22	30	11-18.5	22	30-37	55-75
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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