



The Premium Pump

LKH Centrifugal Pump

Applications

The LKH pump is a highly efficient and economical centrifugal pump, which meets the requirements of sanitary and gentle product treatment and chemical resistance.

LKH is available in thirteen sizes, LKH-5, -10, -15, -20, -25, -35, -40, -45, -50, -60, -70, -85 and -90.

Standard design

The LKH pump is designed for CIP with emphasis on large internal radii and cleanable seals. The sanitary version of LKH 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 an external single or a flushed shaft seal. Both have stationary seal rings made from stainless steel AISI 329 with sealing surface in silicon carbide and rotating seal rings in carbon. The secondary seal of the flushed seal is a long lasting lip seal. The pump may also be equipped with a double mechanical shaft seal.



TECHNICAL DATA

Materials

Product wetted steel parts: W. 1.4404 (316L).
Other steel parts: Stainless steel
Finish: Semi bright.
Product wetted seals: EPDM rubber.

Connections for FSS and DMSS:

6mm tube/Rp 1/8"

Motor sizes

50 Hz: 0.75 - 110 kW.
60 Hz: 0.9 - 125 kW.

Motor

Foot-flanged motor according to the IEC metric standard, 2 poles = 3000/3600 rpm at 50/60 Hz, 4 poles = 1500/1800 rpm at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F.

Min/max motor speed:

2 poles: 0,75 - 45 kW 900 - 4000 rpm
2 poles: 55 - 110 kW 900 - 3600 rpm
4 poles: 0,75 - 75 kW 900 - 2200 rpm

Warranty

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

OPERATING DATA

Pressure

Max. inlet pressure:
LKH-5: 600 kPa (6 bar)
LKH-10 - 70: 1000kPa (10 bar).
LKH-85 - 90: 500kPa (5 bar).

Temperature

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

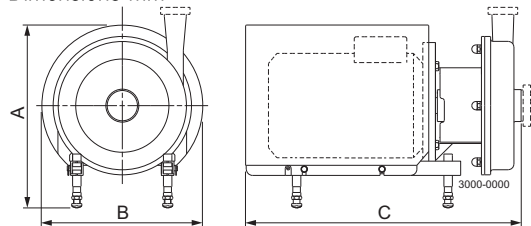
Flushed shaft seal:

Water pressure inlet: Max. 1 bar.
Water consumption: 0.25 -0.5 l/min.

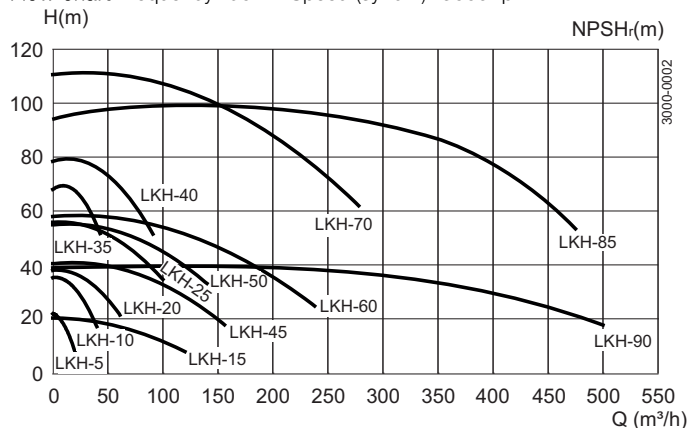
Double mechanical shaft seal:

Water pressure inlet, LKH-5 to -60: . . . Max. 500 kPa (5 bar).
Water pressure inlet, LKH-70 and -90: Max. 300 kPa (3 bar).
Water consumption: 0.25 -0.5 l/min.

Dimensions mm



Flow chart Frequency: 50 Hz Speed (synchr): 3000 rpm



| | LKH-5 | | | LKH-10 | | | | LKH-15 | | |
|-------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Motor kW | 0.75/1.1 | 1.5 | 2.2 | 1.5 | 2.2 | 3 | 4 | 3 | 4 | 5.5 |
| A (Min/Max) | 308-400 | 346-432 | 346-432 | 346-432 | 346-432 | 357-467 | 383-496 | 357-467 | 383-492 | 380-513 |
| B | 251 | 288 | 288 | 288 | 288 | 323 | 359 | 323 | 359 | 383 |
| C | 441 | 482 | 482 | 483 | 483 | 538 | 548 | 574 | 584 | 662 |

| | LKH-20 | | | | | LKH-25 | | | LKH-35 | |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Motor kW | 1.5 | 2.2 | 3 | 4 | 5.5/7.5 | 5.5/7.5 | 11/15 | 4 | 5.5/7.5 | 11/15 |
| A (Min/Max) | 346-432 | 346-432 | 357-467 | 383-496 | 380-513 | 380-513 | 490-607 | 383-496 | 380-513 | 490-607 |
| B | 288 | 288 | 323 | 359 | 383 | 383 | 485 | 359 | 383 | 485 |
| C | 496 | 496 | 550 | 560 | 638 | 644 | 845 | 551 | 629 | 830 |

| | LKH-40 | | | LKH-45 | | | LKH-50 | | |
|-------------|---------|------------|---------|---------|---------|---------|---------|------------|---------|
| Motor kW | 7.5 | 11/15/18.5 | 22 | 4 | 5.5/7.5 | 11/15 | 5.5/7.5 | 11/15/18.5 | 22 |
| A (Min/Max) | 380-513 | 490-607 | 546-671 | 383-496 | 380-513 | 490-607 | 380-513 | 490-607 | 546-671 |
| B | 383 | 485 | 533 | 359 | 383 | 485 | 383 | 485 | 534 |
| C | 639 | 840 | 905 | 580 | 658 | 859 | 652 | 853 | 917 |

| | LKH-60 | | | | LKH-70 | | | | |
|-------------|---------|------------|---------|---------|---------|------------|---------|----------|---------|
| Motor kW | 5.5/7.5 | 11/15/18.5 | 22 | 30 | 5.5/7.5 | 11/15/18.5 | 22 | 30/37/45 | 55/75 |
| A (Min/Max) | 380-513 | 490-607 | 546-671 | 661-786 | 380-513 | 490-607 | 546-671 | 661-786 | 811-872 |
| B | 383 | 485 | 534 | 673 | 383 | 485 | 534 | 673 | 753 |
| C | 731 | 932 | 996 | 1084 | 761 | 955 | 1020 | 1108 | 1396 |

| | LKH-85 | | | LKH-90 | |
|-------------|----------|---------|---------|----------|---------|
| Motor kW | 30/37/45 | 55/75 | 90/110 | 30/37/45 | 55/75 |
| A (Min/Max) | 689-786 | 811-872 | 841-902 | 689-786 | 811-872 |
| B | 673 | 753 | 960 | 673 | 753 |
| C | 1078 | 1283 | 1364 | 1032 | 1324 |

Options

- A. Impeller with reduced diameter.
- B. Impeller screw/nut (standard for LKH-70 - LKH-90).
- C. Motor with increased safety/flare proof motor.
- D. Inducer (only LKH-10 to -50).
- E. Flushed shaft seal.
- F. Double mechanical shaft seal.
- G. Surface roughness, product wetted parts: $R_a \leq 0.8 \mu\text{m}$.
- H. Product wetted seals of Nitrile (NBR), Fluorinated rubber (FPM) or FEP.
- I. Rotating seal ring of Silicon Carbide.

Ordering

Please state the following when ordering:

- Pump size.
- Connections.
- Impeller diameter.
- Motor size.
- Voltage and frequency.
- Flow, pressure and temperature.
- Density and viscosity of the product.
- Options.

Note!

For further details, see also IM 70737.

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

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