



High Pressure at Low Capacity

LKH-110 Multi-Stage Centrifugal Pump

PD 65401 GB4 2001-07

Application

LKH-110 is a highly efficient and economical multi-stage centrifugal pump, which meets the requirements of sanitary and gentle product treatment and chemical resistance. LKH-110 is available in 3 sizes, LKH-112, -113, -114 for 2, 3 and 4 stages.

Standard design

LKH-110 consist of a motor, stub shaft with key, me-chanical compression coupling, adaptor, back plate, impellers, pump casing, intermediate casing (3 or 4 stage), pump cover, impeller screw and shaft seal.

LKH-110 is designed for CIP with emphasis on large internal roundings and cleanable seals.

The sanitary version of LKH-110 has a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable stainless steel legs.

Shaft seals

LKH-110 can be fitted with two types of mechanical seals:

- Single internal seal.
- Flushed seal.

Both seal types have stationary seal rings of silicon carbide and rotating seal rings of carbon or silicon carbide:

The secondary seal of the flushed seal is a long lasting lip seal.

Materials

Product wetted steel parts:	Acid-resistant steel, AISI 316L.
Other steel parts:	Stainless steel, AISI 304.
Product wetted seals:	EPDM.
Other O-rings:	EPDM.
Finish:	Semi bright.



LKH-114 with shroud and legs.

Technical data

Max. outlet pressure:	4300 kPa (43 bar).
- Max. outlet pressure, limited by the strenght of pump casing:	43 bar.
- Special version LKH-110/P: if the inlet pressure >10 bar	
Temperature range:	-10°C to +140°C (EPDM).
Water pressure:	Normally atmospheric.
(Flushed seal)	(max. 1 bar).
Water consumption:	0.25 -0.5 l/min.
(Flushed seal)	
Noise level (at 1 m):	60-80 dB (A).

Versions

	LKH-110	LKH-110/P
Inlet pressure	0-10 bar	10-40 bar
Motor	Standard	Special
Back Plate	Standard	Reinforced
Shaft seal	C/SIC or SIC/SIC	SIC/SIC

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.

Motor types:

- Standard motor with a fixed ball bearing on drive side.
- Special motor with a fixed angular-contact double ball bearing on drive side.

Voltage and frequency

(3 ~, 50 Hz, 220-240V Δ /380-420VY \leq 4 kW)
(3 ~, 60 Hz, 250-280V Δ /440-480VY \leq 4.6 kW)

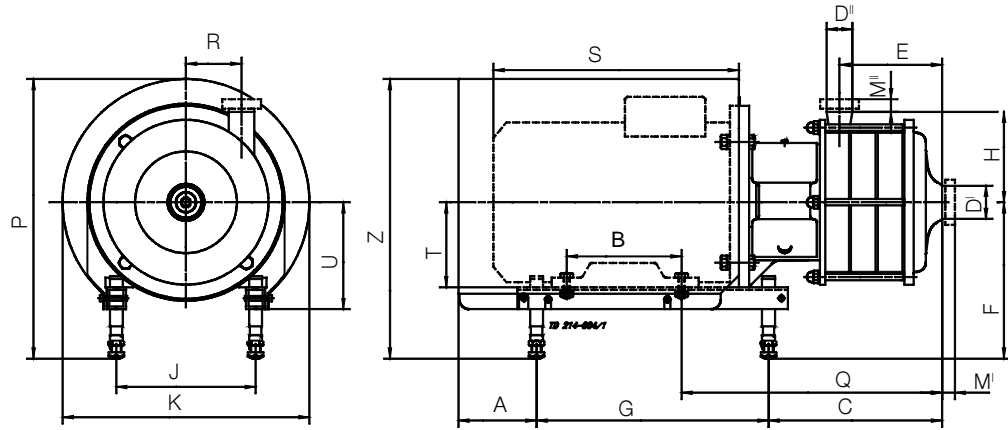
(3 ~, 50 Hz, 380-420V Δ /660-690VY \geq 5.5 kW)
(3 ~, 60 Hz, 440-480V Δ \geq 6.3 kW)

Motor sizes

50 Hz: 2.2, 3.0, 4.0, 5.5, 7.5, 11.0, 15.0, 18.5 kW.

60 Hz: 4.6, 6.3, 8.6, 12.5, 17.0, 21.0 kW.

Dimensions (mm)



LKH-112

Size	Motor			
	2.2 kw	3.0 kw	4.0 kw	5.5 kw
A	109	78	81	121
B	125	140	140	140
C	165	181	188	186
E	76	76	76	76
F min.	189	189	185	164
F max.	275	275	295	297
G	242	320	320	400
H	140	140	140	140
J	140	160	190	216
K	289	323	359	383
P min.	348	348	353	359
P max.	433	433	463	492
Q	225	276	283	321
R	86	86	86	86
T	100	100	112	132
U	124	144	144	166
*Z min.	311	321	310	347
*Z max.	397	431	443	480
Weight (kg)	47	55	64	83

LKH-114

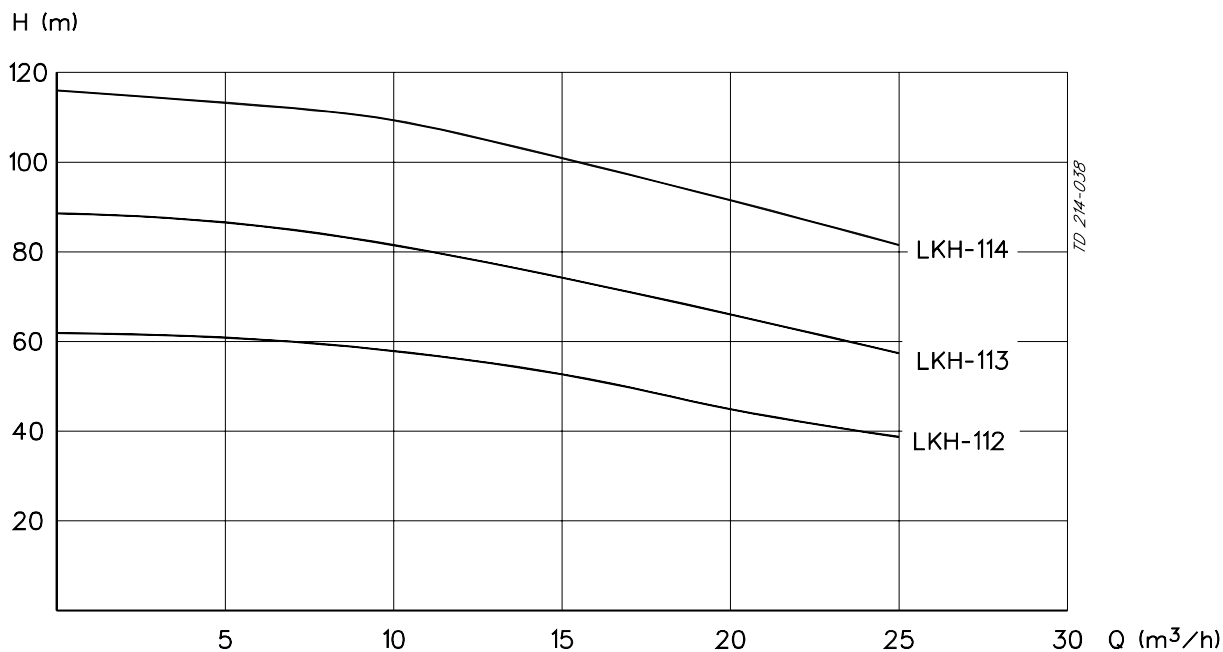
Size	Motor			
	5.5 kw	7.5 kw	11.0 kw	15.0 kw
A	121	121	106	106
B	140	178	210	210
C	269	269	299	299
E	159	159	159	159
F min.	184	184	228	228
F max.	317	317	345	345
G	242	320	320	400
H	400	400	483	483
J	216	216	254	254
K	383	383	485	485
P min.	376	376	486	486
P max.	509	509	603	603
Q	321	321	486	486
R	86	86	86	86
*S	381	381	486	486
T	132	132	160	160
U	166	166	194	194
*Z min.	347	347	438	438
*Z max.	480	480	555	555
Weight (kg)	98	98	141	150

LKH-113

Size	Motor			
	4.0 kw	5.5 kw	7.5 kw	11.0 kw
A	81	121	121	106
B	140	140	178	210
C	230	228	228	258
E	118	118	118	118
F min.	164	184	184	228
F max.	297	317	317	345
G	320	400	400	483
H	140	140	140	140
J	190	216	216	254
K	359	383	383	485
P min.	359	376	376	486
P max.	492	509	509	603
Q	325	363	363	410
R	86	86	86	86
*S	312	381	381	486
T	112	132	132	160
U	144	166	166	194
*Z min.	310	347	347	438
*Z max.	443	480	480	555
Weight (kg)	71	90	90	134

Note! *S, *Z for pumps with ABB motors.

Volumetric flow



Connections (mm)

LKH-112, -113, -114

D ^I 51 D ^{II} 38	ISO Clamp	ISO Male	DIN Male	SMS Male	BS Male
M ^I	21	21	23	21	22
M ^{II}	21	21	23	21	22

Options

Equipment

- A) Special motor for inlet pressure higher than 10 bar.
- B) Motor for other voltage and/or frequency.
- C) Motor with increased safety/flame proof motor.
- D) Flushed shaft seal.
- E) Impeller with reduced diameter.
- F) Counter flanges, seal rings and bolts for flanged connections (industrial version).

Material grades

- G) Product wetted seals of Nitrile (NBR), or Fluorinated rubber (FPM).
- H) Rotating seal ring of Silicon Carbide.

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. Use the following designation:
 - LKH-110: Inlet pressure (0-10 bar)
 - LKH-110/P: Inlet pressure > 10 bar
- Pump size.
- Version, sanitary or industrial.
- 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 PD 65036 and instruction IM 70777.

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.

