The Rigid Pump

LKHP Filtration Centrifugal Pump for High Inlet Pressure

Application
The LKHPF pump is a highly efficient and economical centrifugal pump, specially designed for high inlet pressures, e.g. for use in filtration systems. The LKHPF pump meets the requirements of sanitary and gentle product treatment and chemical resistance, and is available in nine sizes, LKHPF-10, -20, -25, -35, -40, -45, -50, -60, -70.

Standard Design
The LKHPF pump consists of a special motor, stub shaft, compression coupling, adaptor, back plate, impeller, pump casing and shaft seal.
The LKHPF pump is designed for CIP-cleaning with an emphasis on large internal radii and easily cleanable seals.
The LKHPF pump is a sanitary pump with a stainless steel shroud for protection of the motor. The complete unit is supported on four adjustable stainless steel legs.

Shaft Seals
The LKHPF pump can be fitted with two types of mechanical seal:
- Single internal seal.
- Flushed seal.

Both seal types have a stationary seal ring and rotating seal ring in silicon carbide.

The secondary seal of the flushed seal is a long-life lip seal.



LKHPF.

Materials
Product wetted steel parts: . . . . . .Acid-resistant steel 1.4404 (316L).
Other steel parts: . . . . . .Stainless steel 1.4301 (304).
Product wetted seals: . . . . . .EPDM rubber.
Finish: . . . . . .Semi bright.

Technical Data
Max. inlet pressure: . . . . . .4000 kPa (40 bar).
Temperature range: . . . . . .-10°C to +140°C (EPDM).
Water pressure: . . . . . .Max. 100 kPa (1 bar).
(Flushed seal)

Water consumption: . . . . . .Approx. 0.25-0.5 l/min.
(Flushed seal)

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

Connections for flushed shaft seal:
6 mm tube/Rp 1/8".

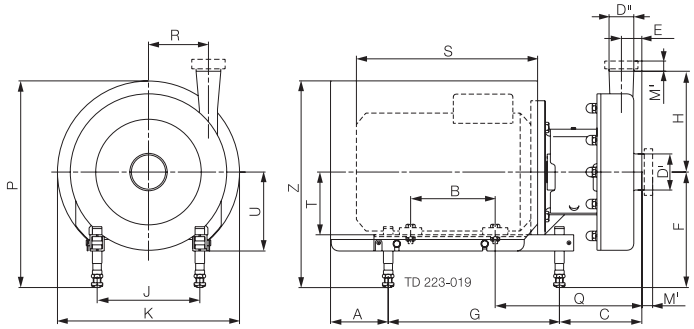
Motor
Foot-flanged special motor with a fixed angular contact bearing according to the IEC metric standard, 2 poles = 3000/3600 rpm at 50/60 Hz, IP 55 (with drain hole sealed with labyrinth plug), insulation class F.

Voltage and Frequency

Motor Sizes
50 Hz: 1.5, 2.2, 4.0, 5.5, 7.5, 11.0, 15.0, 18.5, 22.0, 30.0 37.0, 45.0, 55.0, 75.0 kW.
60 Hz: 1.75, 2.5, 4.6, 6.3, 8.6, 12.5, 17.0, 21.0, 25.0, 35.0, 43.0, 52.0, 63.0, 86.0 kW.

Warranty
Extended 3-year warranty on LKHPF pumps. The warranty covers all non- wear parts on the condition that genuine Alfa Laval spare parts are used.

Dimensions (mm)



LKHPF-10

Size	ABB motor		
	1.5 kW	2.2 kW	4 kW
A	79	79	81
B	100	125	140
C	143	143	158
E	29	29	29
F min.	189	189	184
F max.	275	275	297
G	272	272	320
H	142	142	142
J	140	140	190
K	288	288	359
P min.	346	346	383
P max.	432	432	496
Q	226	226	253
R	87	87	87
S	235	260	333
T	90	90	112
U	125	125	147
Z min.	316	316	330
Z max.	402	402	443
Weight (kg)	43	46	64

LKHPF-25

Size	ABB motor	
	5.5/7.5 kW	11/15 kW
A	81	170
B	178	210
C	174	203
E	38	38
F min.	184	228
F max.	317	345
G	400	483
H	193	193
J	216	254
K	383	485
P min.	380	490
P max.	513	607
Q	309	356
R	106	106
S	367	571
T	132	160
U	167	195
Z min.	348	438
Z max.	481	554
Weight (kg)	92	136/145

LKHPF-20

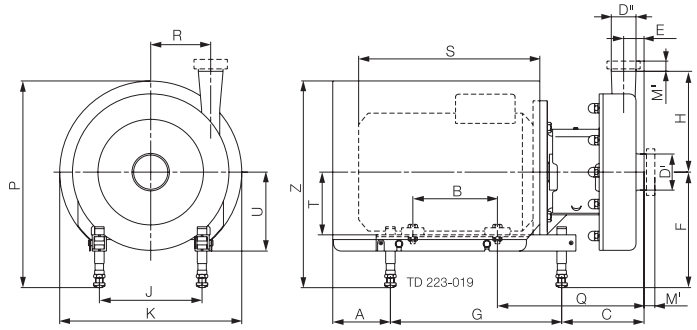
Size	ABB motor		
	2.2 kW	4 kW	5.5/7.5 kW
A	79	81	81
B	125	140	178
C	157	172	170
E	35	35	35
F min.	189	184	184
F max.	275	297	317
G	272	320	400
H	180	180	180
J	140	190	216
K	288	359	383
P min.	346	383	380
P max.	432	496	513
Q	240	267	305
R	88	88	88
S	260	333	367
T	90	112	132
U	125	147	167
Z	316	330	348
Z	402	443	481
Weight (kg)	50	68	86

LKHPF-35

Size	ABB motor		
	4 kW	5.5/7.5 kW	11/15 kW
A	81	81	170
B	140	178	210
C	160	158	187
E	28	28	28
F min.	184	184	228
F max.	297	317	345
G	320	400	483
H	193	193	193
J	190	216	254
K	359	383	485
P min.	383	380	490
P max.	496	513	607
Q	255	293	340
R	119	119	119
S	333	367	571
T	112	132	160
U	147	167	195
Z min.	330	348	438
Z max.	443	481	554
Weight (kg)	73	91	135/144

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Dimensions (mm)



LKHPF-40

Size	ABB motor		
	7.5 kW	11/15/18.5 kW	22 kW
A	81	170	196
B	178	210	241
C	169	198	211
E	33	33	33
F min.	184	228	260
F max.	317	345	365
G	400	483	508
H	212	212	212
J	216	254	279
K	383	485	533
P min.	380	490	546
P max.	513	607	671
Q	304	351	364
R	126	126	126
S	367	571	616
T	132	160	180
U	167	195	215
Z min.	348	438	484
Z max.	481	554	589
Weight (kg)	97	141/150/160	189

LKHPF-50

Size	ABB motor		
	5.5/7.5 kW	11/15/18.5 kW	22 kW
A	81	170	196
B	178	210	241
C	183	212	225
E	40	40	40
F min.	184	228	260
F max.	317	345	365
G	400	483	508
H	205	205	205
J	216	254	279
K	383	485	534
P min.	380	490	546
P max.	513	607	671
Q	318	365	378
R	118	118	118
S	367	571	616
T	132	160	180
U	167	195	215
Z min.	348	438	484
Z max.	481	554	589
Weight (kg)	101	145/154/164	189

LKHPF-45

Size	ABB motor		
	4 kW	5.5/7.5 kW	11/15 kW
A	81	81	170
B	140	178	210
C	187	185	214
E	46	46	46
F min.	184	184	228
F max.	297	317	345
G	320	400	483
H	193	193	193
J	190	216	254
K	359	383	485
P min.	383	380	490
P max.	496	513	607
Q	282	320	367
R	97	97	97
S	333	367	571
T	112	132	160
U	147	167	195
Z min.	330	347	438
Z max.	443	480	555
Weight (kg)	77	95	139/148

LKHPF-60

Size	ABB motor			
	5.5/7.5 kW	11/15/18.5 kW	22 kW	30 kW
A	81	170	196	246
B	178	210	241	305
C	185	214	228	239
E	42	42	42	42
F min.	184	228	260	274
F max.	317	345	365	385
G	400	483	508	534
H	262	262	262	262
J	216	254	279	318
K	383	485	534	673
P min.	380	490	546	661
P max.	513	607	671	786
Q	320	367	380	392
R	102	102	102	102
S	367	571	616	711
T	132	160	180	200
U	167	195	215	220
Z min.	348	437	484	571
Z max.	481	554	589	682
Weight (kg)	114	158/167/177	202	267

LKHPF-70

Size		ABB motor		
		22 kW	30/37/45 kW	55/75 kW
A		196	246	389
B		241	305	310/349
C		231	255	294
E		25	25	25
F	min.	260	274	401
F	max.	365	385	462
G		508	534	640
H		254	254	254
J		279	318	406
K		534	673	753
P	min.	546	661	811
P	max.	671	786	872
Q		383	407	488
R		147	147	147
S		616	711	744
T		180	200	250
U		215	220	
Z	min.	484	571	776
Z	max.	589	682	837
Weight (kg)		269	338/363/336	457/412

Connections (mm)

LKHPF-10, 20, -35

	Heavy duty clamp	Flange acc. to DIN2635
DI	63.5	NW65
DII	51.1	NW50
MI	29	56
MII	29	48

LKHPF-25

	Heavy duty clamp	Flange acc. to DIN2635
DI	76.5	NW80
DII	63.8	NW65
MI	29	56
MII	29	56

LKHPF-45, -50, -70

	Heavy duty clamp	Flange acc. to DIN2635
DI	101.9	NW100
DII	76.5	NW80
MI	29	65
MII	29	56

LKHPF- 40

	Heavy duty clamp	Flange acc. to DIN2635
DI	76.5	NW80
DII	63.8	NW65
MI	29	56
MII	12	56

LKHPF- 60

	Heavy duty clamp	Flange acc. to DIN2635
DI	101.9	NW100
DII	101.9	NW100
MI	29	65
MII	29	65

Options

A. Impeller with reduced diameter.
B. Impeller screw.
C. Motor for other voltage and/or frequency.
D. Flushed shaft seal.
E. Seals in Nitrile (NBR) or Fluorinated rubber (FPM).
F. Surface roughness, product wetted parts: $R_a \leq 0.8 \mu m$

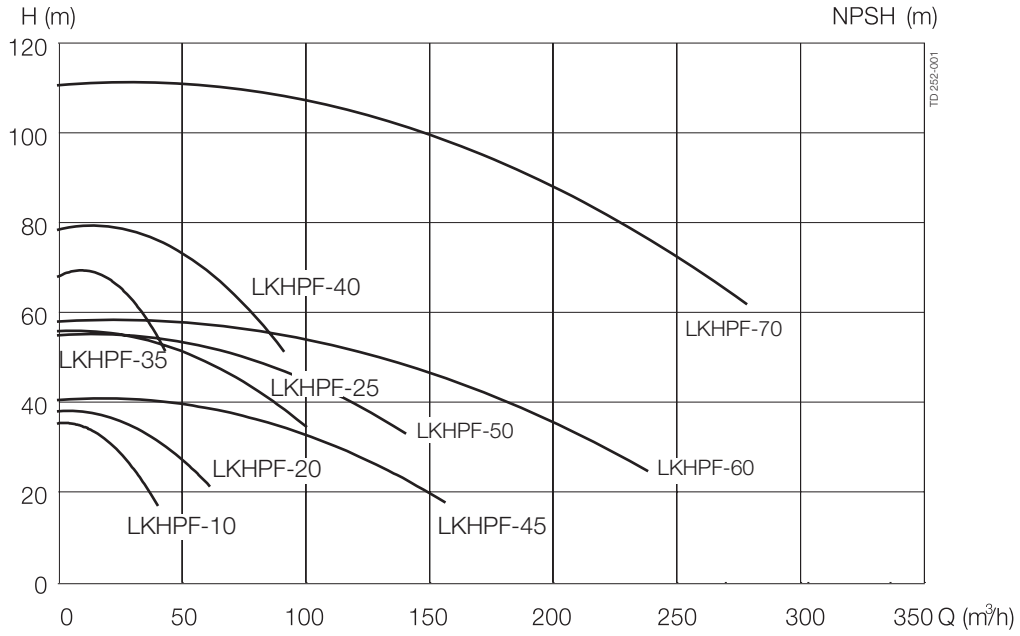
Ordering

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!

- The curves for LKHPF are identical to those for LKH.
- For further details, see also ESE01950.

Flow chart



Frequency: 50 Hz, Speed (Synchr.): 3000 rpm

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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