

advanced quality
customized designs
made in europe and usa

**UNIVERSAL
HYDRAULIK**®
Your Partner for coolers and systems

OIL - AIR COOLING

Heat exchanger series LKI/LKI-HYD



- Application oriented dimensioning
- Powder coated housing
- ATEX-certificate
- Cooling capacity up to 150 kW
- Low noise level
- Optimized Air flow



Product description

With this new generation of Universal Hydraulik LKI oil-coolers, the manufacturer has succeeded in reducing the noise level. These coolers are ideally suited for stationary installations - for the cooling of hydraulic or lubricating oils. The range has been extended to include slow-running fans, and the housings have been optimized, in order to produce the very low noise level. In order to make the cooler range as comprehensive as possible, the smaller models are also available as single or dual versions, thus covering oil-cooling requirements for both low and high oil volume flows.

Product features

- Heat output capacity up to 150 kW
- Test pressure: 25 bar static according to DIN 50104
- Operating pressure: 16 bar (mind. 2 Mio. Cycles from 0-16 bar at 2 Hz and 60 °C)
- Compact oil-cooler
- High cooling performance
- Low pressure drop
- Max. operating temperature: 120 °C
- High flexibility owing to many options
- Additional 2" SAE-flange (from LKI 700 upward)
- Cooling of: Oil, HFA, HFB, HFC, HFD-fluids up to $\nu = 100$ cst. (higher viscosity on request), water/glycol min. 65:35 (under no circumstances water without corrosion prevention)
- Coolant: Air
- Variable motor: 230/400V / hydro / special voltage
- Max. operating pressure hydraulic motor: 11ccm = 275 bar, 22ccm = 235 bar (further motor sizes on request)

Optionen

- | | |
|---|---|
| ■ Frequency inverter controlled motors (+ control unit) | ■ Dust- and stoneguard |
| ■ US-version (motor electrical acc. to NEMA) | ■ Test pressure 40 bar |
| ■ See water-version (Off-Shore) | ■ Internal pressure bypass |
| ■ ATEX-certification | ■ Internal thermal bypass |
| ■ KTL-coating (Marine) | ■ External bypass- and filtration solutions |
| ■ Stainless steel- version (cooling package, housing, fan etc.) | ■ Thermo switch |
| ■ Wall- and ceiling bracket | |

Materials

	Standard	Option	Special versions (e.g. special ambient conditions)
Cooling package	Aluminium	Stainless steel	Materials on request
Housing	Steel (powder-coated)		
Fan	Glass fibre reinforced polyamide (PAG)	Elektrical conductive polyamid (e.g. for ATEX- areas)	
Protectiv grid	Steel (zinc plated)		
Bracking feet	Steel (zinc plated)		

Size LKI-51/61

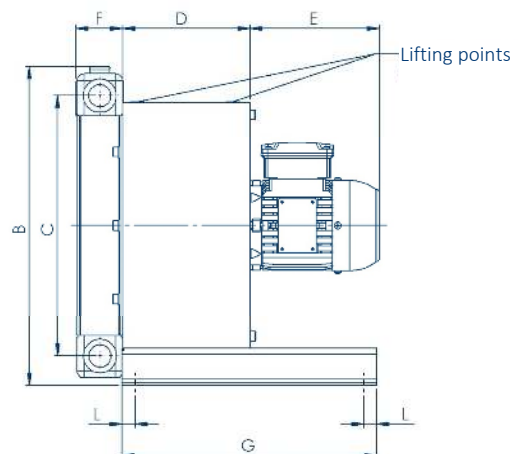
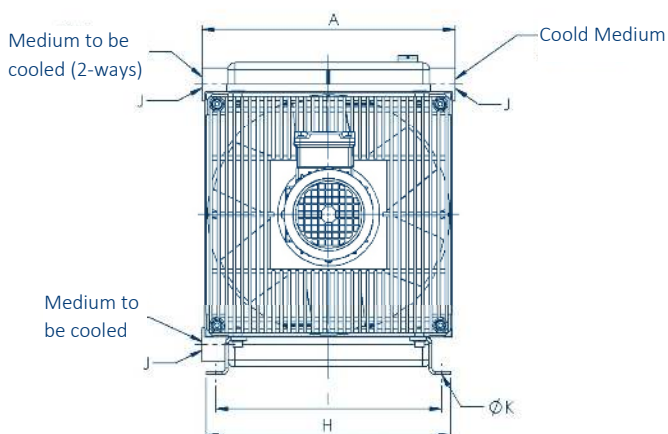
Typ	Motor performance KW	Power consumption* A	Rotation speed rpm	Air flow m³/s	Noise level** 1m / 7m dB(A)	Weight kg
LKI 51-400V-2	0,25	1,33	3000	0,42	75 / 60	16
LKI 51-400V-4	0,12	0,84	1500	0,2	63 / 49	16
LKI 61-400V-2	0,25	1,33	3000	0,42	75 / 60	16
LKI 61-400V-4	0,12	0,84	1500	0,2	63 / 49	16

* Nominal current at 400V

**May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L
LKI 51-400V-2	260	311	242	151	ca.224	45	250	298	278	G3/4*	Ø9	15
LKI 51-400V-4	260	311	242	151	ca.224	45	250	298	278	G3/4*	Ø9	15
LKI 61-400V-2	260	311	242	151	ca.224	65	250	298	278	G3/4*	Ø9	15
LKI 61-400V-4	260	311	242	151	ca.224	65	250	298	278	G3/4*	Ø9	15

Dimension data in mm



Size LKI-100/200

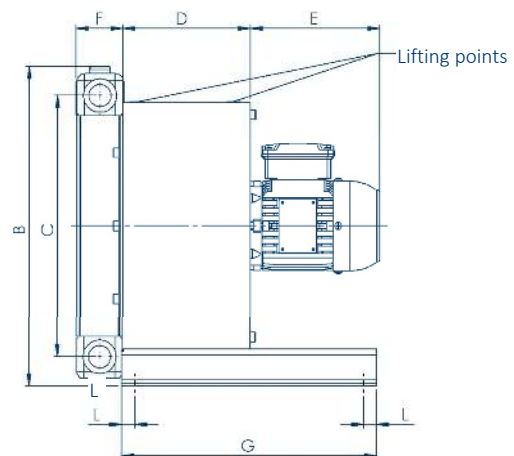
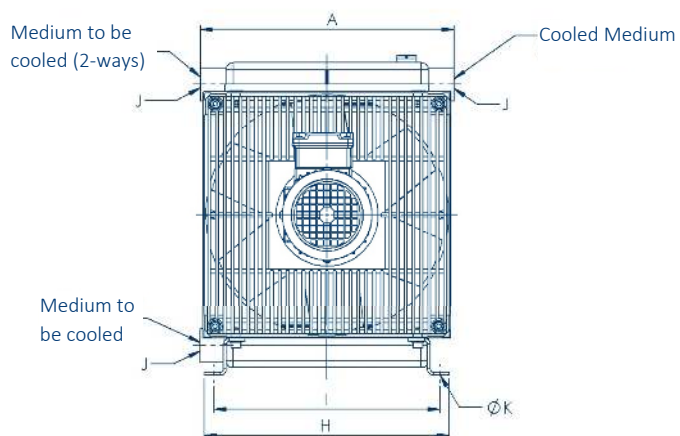
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	KW	A	rpm	m³/s	1m / 7m dB(A)	kg
LKI 110-400V-2	0,37	0,88	3000	1,29	77 / 62	17
LKI 120-400V-2	0,37	0,88	3000	1,29	77 / 62	17
LKI 110-400V-4	0,18	0,58	1500	0,49	64 / 50	17
LKI 120-400V-4	0,18	0,58	1500	0,49	64 / 50	17
LKI 210-400V-2	0,37	0,88	3000	1,18	79 / 64	20
LKI 220-400V-2	0,37	0,88	3000	1,18	79 / 64	20
LKI 210-400V-4	0,18	0,58	1500	0,50	64 / 50	20
LKI 220-400V-4	0,18	0,58	1500	0,50	64 / 50	20

* Nominal current at 400V

** May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L
LKI 110-400V-2	348	440	360	175	ca.205	63	350	336	310	G1"	Ø11	18
LKI 120-400V-2	348	440	360	175	ca.205	63	350	366	310	G1"	Ø11	18
LKI 110-400V-4	348	440	360	175	ca.177	63	350	336	310	G1"	Ø11	18
LKI 120-400V-4	348	440	360	175	ca.177	63	350	336	310	G1"	Ø11	18
LKI 210-400V-2	348	440	360	175	ca.205	94	350	336	310	G1"	Ø11	18
LKI 220-400V-2	348	440	360	175	ca.205	94	350	336	310	G1"	Ø11	18
LKI 210-400V-4	348	440	360	175	ca.177	94	350	336	310	G1"	Ø11	18
LKI 220-400V-4	348	440	360	175	ca.177	94	350	336	310	G1"	Ø11	18

Dimension data in mm, Threads for lifting equipment: M8



Size LKI-300/400

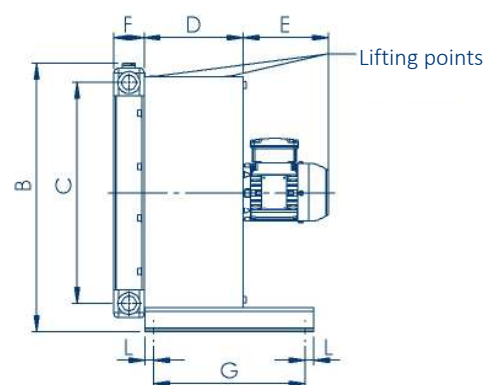
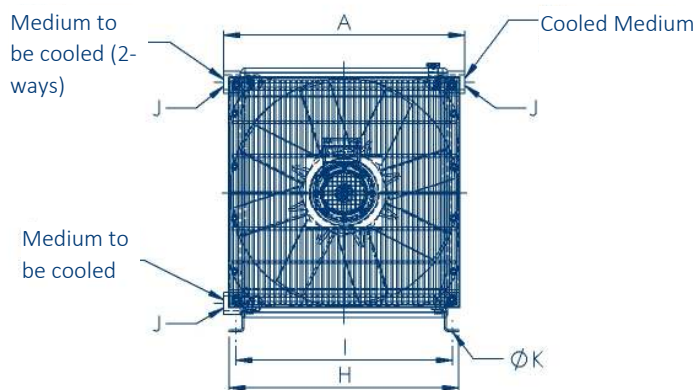
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	KW	A	rpm	m³/s	1m / 7m dB(A)	kg
LKI 310-400V-4	0,37	0,89	1500	0,74	73 / 58	25
LKI 320-400V-4	0,37	0,89	1500	0,74	73 / 58	25
LKI 310-400V-6	0,12	0,48	1000	0,59	65 / 51	26
LKI 320-400V-6	0,12	0,48	1000	0,59	65 / 51	26
LKI 410-400V-4	0,37	0,89	1500	0,76	75 / 63	32
LKI 420-400V-4	0,37	0,89	1500	0,76	75 / 63	32
LKI 410-400V-6	0,12	0,48	1000	0,55	67 / 53	33
LKI 420-400V-6	0,12	0,48	1000	0,55	67 / 53	33

* Nominal current at 400V

** May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L
LKI 310-400V-4	500	550	460	205	ca.205	63	350	476	450	G1"	Ø11	18
LKI 320-400V-4	500	550	460	205	ca.205	63	350	476	450	G1"	Ø11	18
LKI 310-400V-6	500	550	460	205	ca.177	63	350	476	450	G1"	Ø11	18
LKI 320-400V-6	500	550	460	205	ca.177	63	350	476	450	G1"	Ø11	18
LKI 410-400V-4	500	550	460	205	ca.205	94	350	476	450	G1"	Ø11	18
LKI 420-400V-4	500	550	460	205	ca.205	94	350	476	450	G1"	Ø11	18
LKI 410-400V-6	500	550	460	205	ca.177	94	350	476	450	G1"	Ø11	18
LKI 420-400V-6	500	550	460	205	ca.177	94	350	476	450	G1"	Ø11	18

Dimension data in mm, Threads for lifting equipment: M8



Size LKI-500/600

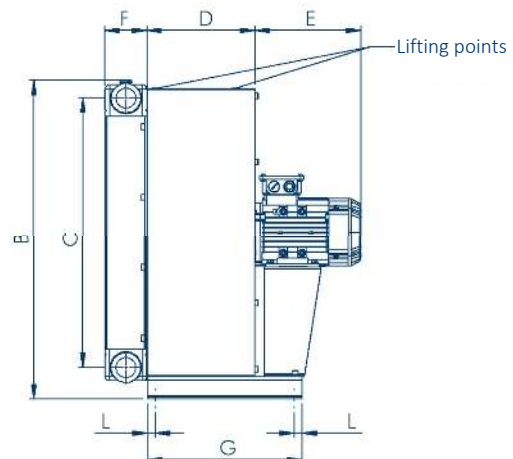
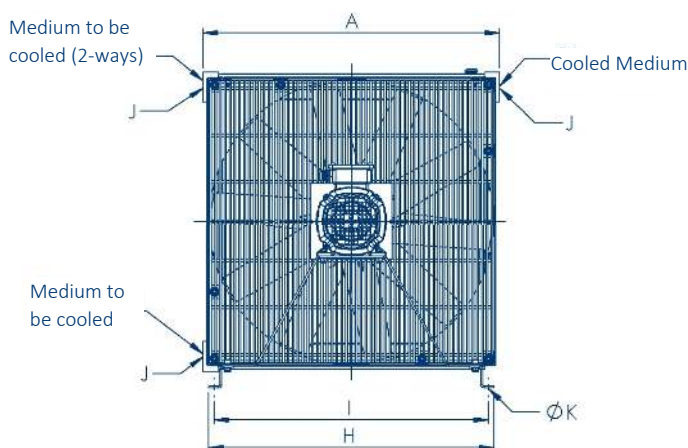
Typ	Motor performance	Power consumption**	Rotation speed	Air flow	Noise level**	Weight
	KW	A	rpm	m³/s	1m / 7m dB(A)	kg
LKI 510-400V-4	0,75	1,71	1500	1,70	80 / 70	40
LKI 520-400V-4	0,75	1,71	1500	1,70	80 / 70	40
LKI 510-400V-6	0,25	0,99	1000	1,06	70 / 57	37
LKI 520-400V-6	0,25	0,99	1000	1,06	70 / 57	37
LKI 610-400V-4	0,75	1,71	1500	1,50	80 / 70	49
LKI 620-400V-4	0,75	1,71	1500	1,50	80 / 70	49
LKI 610-400V-6	0,25	0,99	1000	0,95	70 / 57	49
LKI 620-400V-6	0,25	0,99	1000	0,95	70 / 57	49

* Nominal current at 400V

** May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L
LKI 510-400V-4	671	721	610	245	ca.224	63	350	646	620	G1 1/2"	Ø11	18
LKI 520-400V-4	671	721	610	245	ca.241	63	350	646	620	G1 1/2"	Ø11	18
LKI 510-400V-6	671	721	610	245	ca.205	63	350	646	620	G1 1/2"	Ø11	18
LKI 520-400V-6	671	721	610	245	ca.205	63	350	646	620	G1 1/2"	Ø11	18
LKI 610-400V-4	671	721	610	245	ca.239	94	350	646	620	G1 1/2"	Ø11	18
LKI 620-400V-4	678	721	610	245	ca.239	94	350	646	620	G1 1/2"	Ø11	18
LKI 610-400V-6	671	721	610	245	ca.205	94	350	646	620	G1 1/2"	Ø11	18
LKI 620-400V-6	671	721	610	245	ca.235	94	350	646	620	G1 1/2"	Ø11	18

Dimension data in mm, Threads for lifting equipment: M8



Size LKI-700

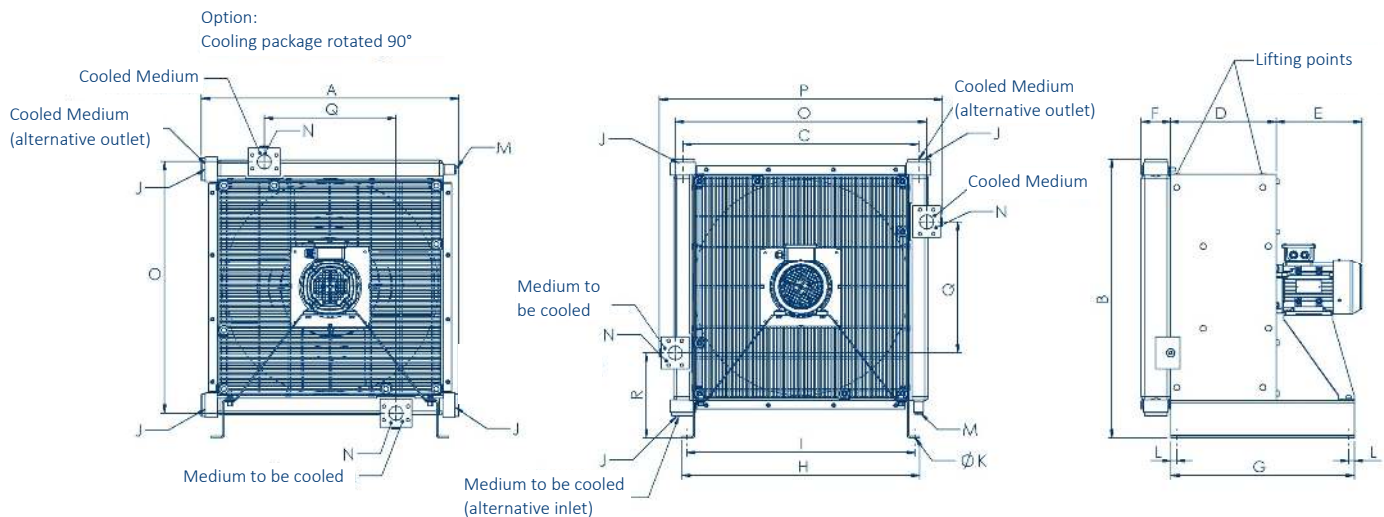
Typ	Motor performance KW	Power consumption* A	Rotation speed rpm	Air flow m ³ /s	Noise level** 1m / 7m dB(A)	Weight kg
LKI 710-400V-6	1,1	2,56	1000	2,14	77 / 62	91
LKI 710-400V-8	0,55	2,56	750	1,56	69 / 56	91

* Nominal current at 400V

** May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
LKI 710-400V-6	900	886	760	340	ca.280	94	590	765	735	G2"	Ø11	18	G1/2"	2"SAE	810	900	424	272
LKI 710-400V-8	900	886	760	340	ca.277	94	590	765	735	G2"	Ø11	18	G1/2"	2"SAE	810	900	424	272

Dimension data in mm, Threads for lifting equipment: M10



Size LKI-800

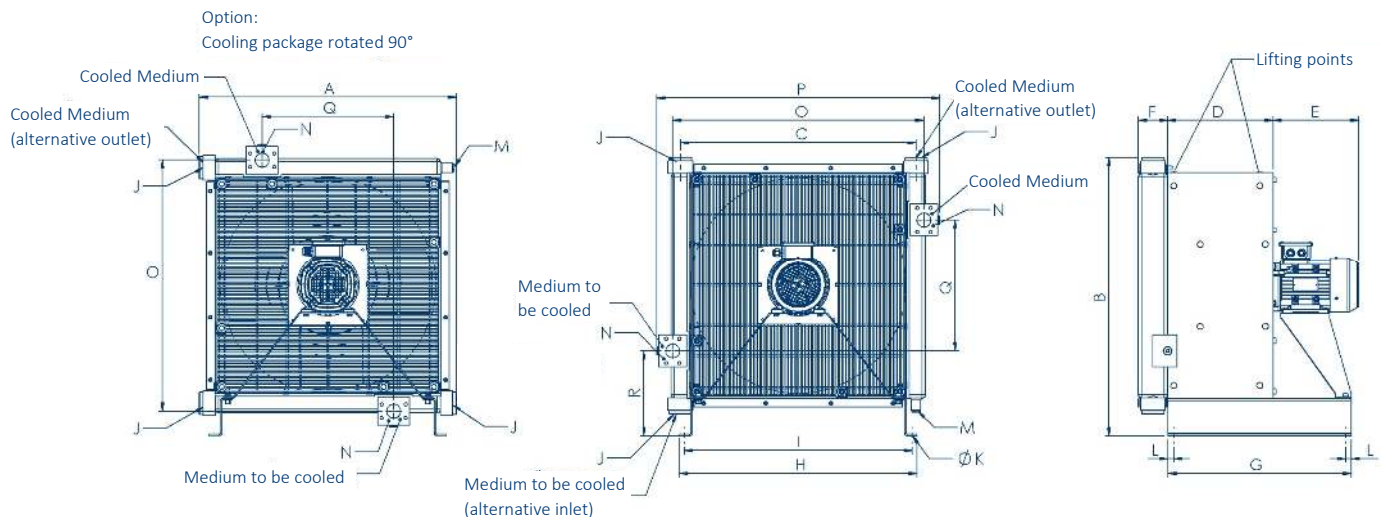
Typ	Motor performance KW	Power consumption* A	Rotation speed rpm	Air flow m ³ /s	Noise level** 1m / 7m dB(A)	Weight kg
LKI 810-400V-6	1,5	3,78	1000	3,38	79 / 68	111
LKI 810-400V-8	0,75	2,42	750	2,64	72 / 60	111

* Nominal current at 400V

** May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
LKI 810-400V-6	918	1011	860	340	ca.319	94	590	865	835	G2"	Ø11	18	G1/2"	2"SAE	910	1010	538	272
LKI 810-400V-8	918	1011	860	340	ca.301	94	590	865	835	G2"	Ø11	18	G1/2"	2"SAE	910	1010	538	272

Dimension data in mm, Threads for lifting equipment: M10



Size LKI-900

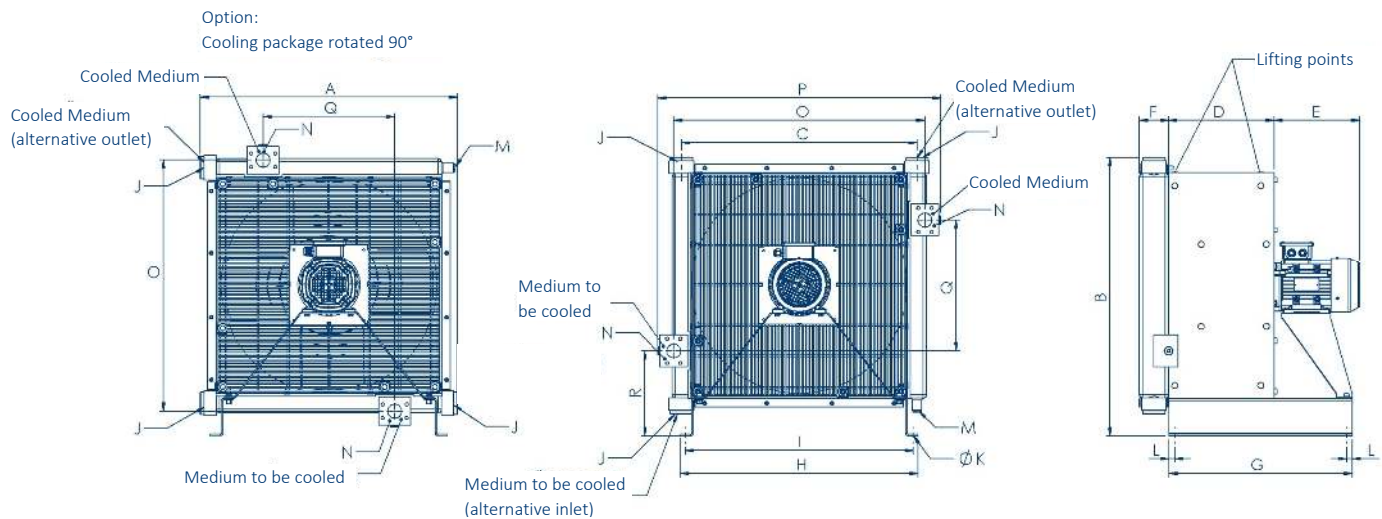
Typ	Motor performance KW	Power consumption* A	Rotation speed rpm	Air flow m ³ /s	Noise level** 1m / 7m dB(A)	Weight kg
LKI 910-400V-6	3,0	7,2	1000	4,32	85 / 72	137
LKI 910-400V-8	1,1	3,78	750	3,07	76 / 64	131

* Nominal current at 400V

** May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
LKI 910-400V-6	1018	1100	960	340	ca.370	94	590	965	935	G2"	Ø11	18	G1/2"	2"SAE	1010	1100	638	272
LKI 910-400V-8	1018	1100	960	340	ca.301	94	590	965	935	G2"	Ø11	18	G1/2"	2"SAE	1010	1100	638	272

Dimension data in mm, Threads for lifting equipment: M10



Size LKI-1000

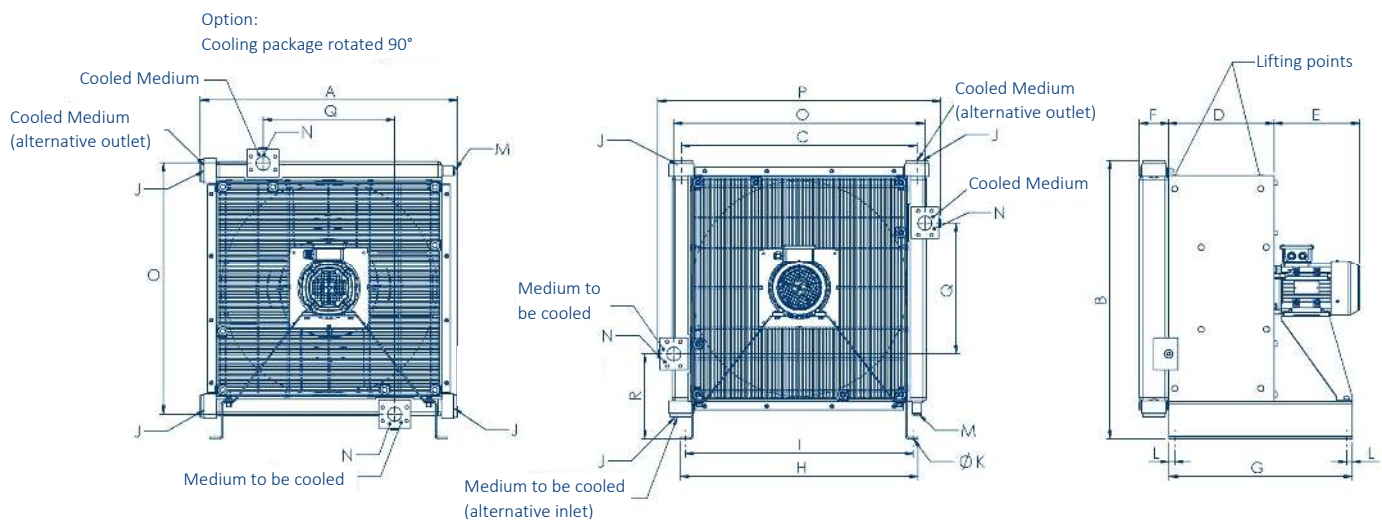
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	KW	A	rpm	m ³ /s	1m / 7m dB(A)	kg
LKI 1010-400V-6	3,0	7,2	1000	5,38	85 / 72	157
LKI 1010-400V-8	1,5	3,78	750	3,84	76 / 64	151

* Nominal current at 400V

**May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
LKI 1010-400V-6	1075	1157	1060	340	ca.370	94	590	1065	1035	G2"	Ø11	18	G1/2"	2"SAE	1110	1200	695	272
LKI 1010-400V-8	1075	1157	1060	340	ca.319	94	590	1065	1035	G2"	Ø11	18	G1/2"	2"SAE	1110	1200	695	272

Dimension data in mm, Threads for lifting equipment: M10



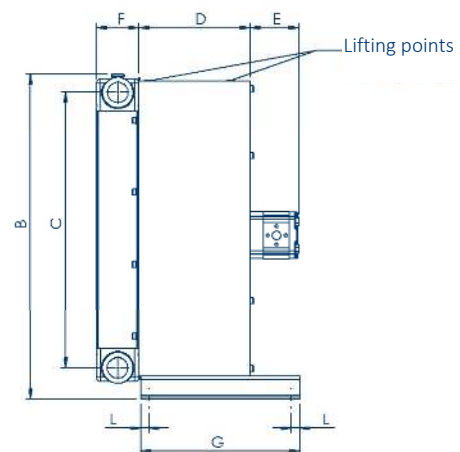
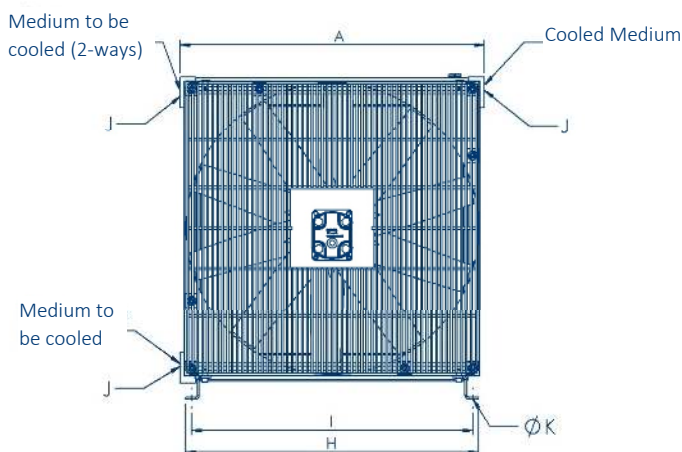
Size LKI-100-HYD - LKI-600-HYD

Typ	Rotation speed	Air flow	Noise level**	Weight
	rpm	m ³ /s	1m dB(A)	kg
LKI 110-HYD	3000	1,29	77 dB(A)	17
LKI 120-HYD	3000	1,29	77 dB(A)	17
LKI 210-HYD	3000	1,18	77 dB(A)	20
LKI 220-HYD	3000	1,18	77 dB(A)	20
LKI 310-HYD	1500	0,74	73 dB(A)	26
LKI 320-HYD	1500	0,74	73 dB(A)	26
LKI 410-HYD	1500	0,76	73 dB(A)	33
LKI 420-HYD	1500	0,76	73 dB(A)	33
LKI 510-HYD	1500	1,70	80 dB(A)	36
LKI 520-HYD	1500	1,70	80 dB(A)	36
LKI 610-HYD	1500	1,50	80 dB(A)	45
LKI 620-HYD	1500	1,50	80 dB(A)	45

****May vary by ±3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.**

Typ	A	B	C	D	E	F	G	H	I	J	K	L
LKI 100-HYD	340	430	360	175	ca.86	63	350	336	310	G1"	Ø11	18
LKI 200-HYD	340	430	360	175	ca.86	94	350	336	310	G1"	Ø11	18
LKI 300-HYD	480	550	460	205	ca.86	63	350	476	450	G1"	Ø11	18
LKI 400-HYD	480	550	460	205	ca.86	94	350	476	450	G1"	Ø11	18
LKI 500-HYD	671	721	610	245	ca.86	63	350	646	620	G1 1/2"	Ø11	18
LKI 600-HYD	671	721	614	245	ca.86	94	350	646	620	G1 1/2"	Ø11	18

Dimension data in mm, Threads for lifting equipment: M8



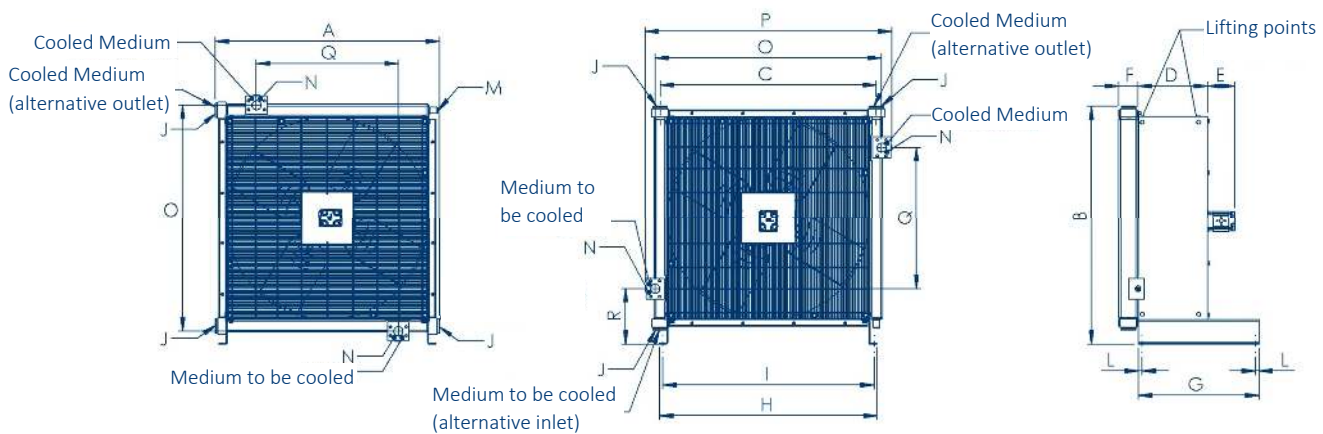
Size LKI-700-HYD – LKI-1000-HYD

Typ	Rotation speed rpm	Air flow m³/s	Noise level** 1m dB(A)	Weight kg
LKI 700-HYD	1000	2,14	77	80
LKI 800-HYD	1000	3,38	79	97
LKI 900-HYD	1000	4,32	85	113
LKI 1000-HYD	1000	5,38	85	133

**May vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Typ	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
LKI 700-HYD	840	900	760	340	ca.105	94	590	765	735	G2" Ø14	18	G1/2"	2"SAE	810	900	424	272	
LKI 800-HYD	963	1023	860	340	ca.105	94	590	865	835	G2" Ø14	18	G1/2"	2"SAE	910	1000	538	272	
LKI 900-HYD	1018	1112	960	340	ca.105	94	590	965	935	G2" Ø14	18	G1/2"	2"SAE	1010	1100	638	272	
LKI 1000-HYD	1075	1169	1060	340	ca.105	94	590	1065	1035	G2" Ø14	18	G1/2"	2"SAE	1110	1200	695	272	

Dimension data in mm, Threads for lifting equipment: M10



Ordering code

LKI 110 - 400V - 2 - ("Option")

Series abbreviation
LKI = Oil/Air-cooler
for industrial use

Unit Size
51
61
100-1000

Version
10 = 1 way
20 = 2 way
30 = 3 way
(on request)

Options
Equipment for Air-coolers
(see option table below)

Number of poles / Hydraulic drive volume (HYD)
2 = 2 pole / ca. 3000rpm
4 = 4 pole / ca. 1500rpm
6 = 6 pole / ca. 1000rpm
8 = 8 pole / ca. 750rpm
11 = Hydraulic motor 11ccm (HYD)
22 = Hydraulic motor 22ccm (HYD)

Drive
400V = 400V/50Hz (Standard)
HYD = Hydraulic motor
*Motors with special voltage or with explosion
protection available on request.*

Option table

LKI 110-400V-2 ("Option")

Ordering code acc. Data sheet
(see above)

Abbreviation for option

Option:	Abbreviation:	Info:
Air flow version	-D	Oppressive version
Set up version	-L	Horizontal version
Alignment of the cooling package	-G90 = 90° -G180 = 180° -G270 = 270°	Direction of rotation: clockwise
Dust- and stoneguard	-F	If nec. reduction of cooling capacity
Stone guard	-M	If nec. reduction of cooling capacity
Internal pressure bypass	-RP	
Internal thermal bypass	-RT	
External pressure bypass	-EP	
External thermal bypass	-ET	
ATEX-certification	-EX (classification)	
Motor according to the NEMA-Norm	-NEMA	
Motor according to CSA and UL	-CSA/UL	
Thermo switch	-TS	
KTL-coating (marine)	-C+(Typ)	
Cooling package in stainless steel	-SS	
Wall- and ceiling bracket	-WH/DH	

*The technical data of this sheet is depending on the described operational conditions and individual cases.
At different operational conditions and differing individual cases contact Universal Hydraulik.
Technical modifications reserved. Please also pay attention to our operation manuals and maintenance documentations.
In case of an order, binding dimensions can be found in the associated component drawing.*

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