

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 200 hp
- 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 200 hp
- Test pressure: 360 psi static according to DIN 50104
- Operating pressure: 230 psi (mind. 2 Mio. Cycles from 0-230 psi at 2 Hz and 140 °F)
- Compact oil-cooler
- High cooling performance
- Low pressure drop
- Max. operating temperature: 248 °F
- 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/460V / hydro / special voltage
- Max. operating pressure hydraulic motor: 11ccm = 3990 psi, 22ccm = 3410 psi (further motor sizes on request)

Optionen

- Frequency inverter controlled motors (+ control unit)
- US-version (motor electrical acc. to NEMA)
- See water-version (Off-Shore)
- ATEX-certification
- KTL-coating (Marine)
- Stainless steel- version (cooling package, housing, fan etc.)
- Wall- and ceiling bracket
- Dust- and stoneguard
- Test pressure 580 psi
- Internal pressure bypass
- Internal thermal bypass
- External bypass- and filtration solutions
- Thermo switch

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

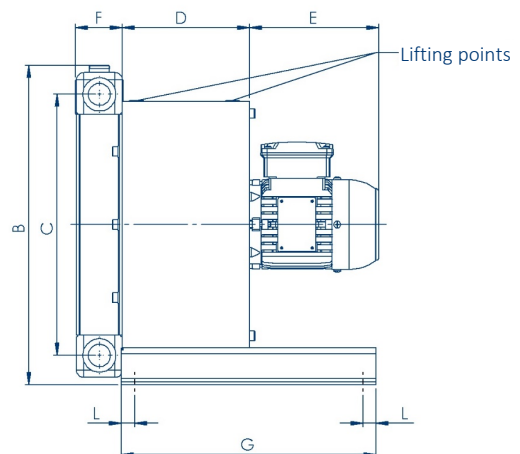
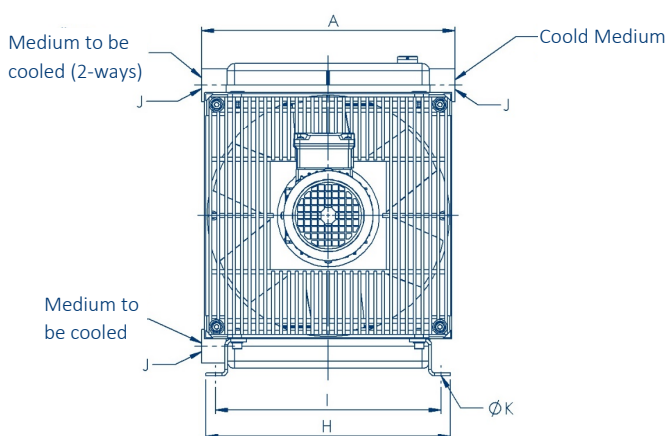
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 51-460V-2	0.33	0.70	3600	6657.14	75 / 60	7.3
LKI 51-460V-4	0.17	0.60	1800	3170.06	63 / 49	7.3
LKI 61-460V-2	0.33	0.70	3600	6657.14	75 / 60	7.3
LKI 61-460V-4	0.17	0.60	1800	3170.06	63 / 49	7.3

* Nominal current at 460V

**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 51-460V-2	10.2	12.2	9.5	5.9	ca. 8.8	1.8	9.8	11.7	10.9	G3/4*	$\emptyset 0.4$	0.6
LKI 51-460V-4	10.2	12.2	9.5	5.9	ca. 8.8	1.8	9.8	11.7	10.9	G3/4*	$\emptyset 0.4$	0.6
LKI 61-460V-2	10.2	12.2	9.5	5.9	ca. 8.8	2.6	9.8	11.7	10.9	G3/4*	$\emptyset 0.4$	0.6
LKI 61-460V-4	10.2	12.2	9.5	5.9	ca. 8.8	2.6	9.8	11.7	10.9	G3/4*	$\emptyset 0.4$	0.6

Dimension data in inch



Size LKI-100/200

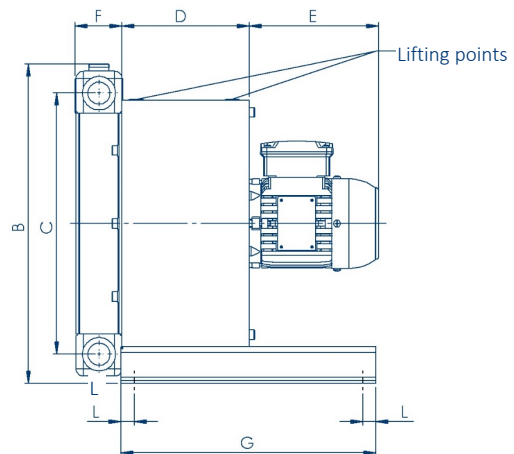
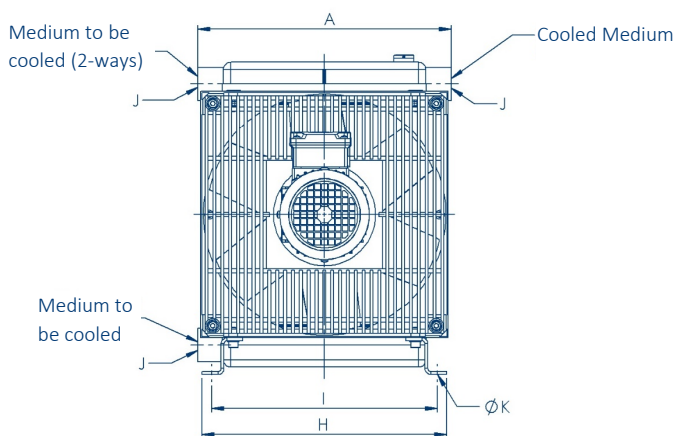
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	Lbs
LKI 110-460V-2	0.50	1.00	3600	20446.92	77 / 62	37.5
LKI 120-460V-2	0.50	1.00	3600	20446.92	77 / 62	37.5
LKI 110-460V-4	0.33	0.80	1800	7766.66	64 / 50	37.5
LKI 120-460V-4	0.33	0.80	1800	7766.66	64 / 50	37.5
LKI 210-460V-2	0.50	1.00	3600	18703.38	79 / 64	40.1
LKI 220-460V-2	0.50	1.00	3600	18703.38	79 / 64	40.1
LKI 210-460V-4	0.33	0.80	1800	7925.16	64 / 50	40.1
LKI 220-460V-4	0.33	0.80	1800	7925.16	64 / 50	40.1

* Nominal current at 460V

** 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 110-460V-2	13.7	17.3	14.2	6.9	ca.8.1	2.5	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 120-460V-2	13.7	17.3	14.2	6.9	ca.8.1	2.5	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 110-460V-4	13.7	17.3	14.2	6.9	ca.7.0	2.5	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 120-460V-4	13.7	17.3	14.2	6.9	ca.7.0	2.5	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 210-460V-2	13.7	17.3	14.2	6.9	ca.8.1	3.7	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 220-460V-2	13.7	17.3	14.2	6.9	ca.8.1	3.7	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 210-460V-4	13.7	17.3	14.2	6.9	ca.7.0	3.7	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7
LKI 220-460V-4	13.7	17.3	14.2	6.9	ca.7.0	3.7	13.8	14.4	12.2	G1"	$\varnothing 0.4$	0.7

Dimension data in inch, Threads for lifting equipment: M8



Size LKI-300/400

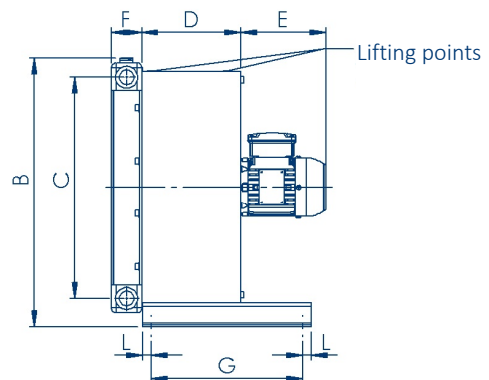
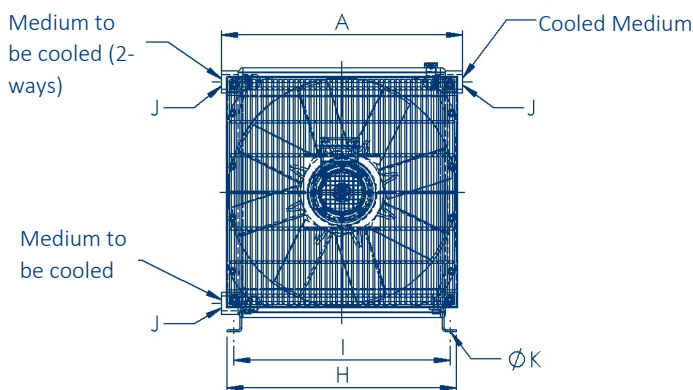
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 310-460V-4	0.50	1.00	1800	11729.24	73 / 58	56
LKI 320-460V-4	0.50	1.00	1800	11729.24	73 / 58	56
LKI 310-460V-6	0.17	0.70	1200	9351.69	65 / 51	58
LKI 320-460V-6	0.17	0.70	1200	9351.69	65 / 51	58
LKI 410-460V-4	0.50	1.00	1800	12046.25	75 / 63	71
LKI 420-460V-4	0.50	1.00	1800	12046.25	75 / 63	71
LKI 410-460V-6	0.17	0.70	1200	8717.68	67 / 53	73
LKI 420-460V-6	0.17	0.70	1200	8717.68	67 / 53	73

* Nominal current at 460V

** 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 310-460V-4	19.7	21.7	18.1	8.1	ca.8.1	2.5	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 320-460V-4	19.7	21.7	18.1	8.1	ca.8.1	2.5	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 310-460V-6	19.7	21.7	18.1	8.1	ca.4.6	2.5	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 320-460V-6	19.7	21.7	18.1	8.1	ca.4.6	2.5	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 410-460V-4	19.7	21.7	18.1	8.1	ca.8.1	3.7	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 420-460V-4	19.7	21.7	18.1	8.1	ca.8.1	3.7	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 410-460V-6	19.7	21.7	18.1	8.1	ca.4.6	3.7	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 420-460V-6	19.7	21.7	18.1	8.1	ca.4.6	3.7	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7

Dimension data in inch, Threads for lifting equipment: M8



Size LKI-500/600

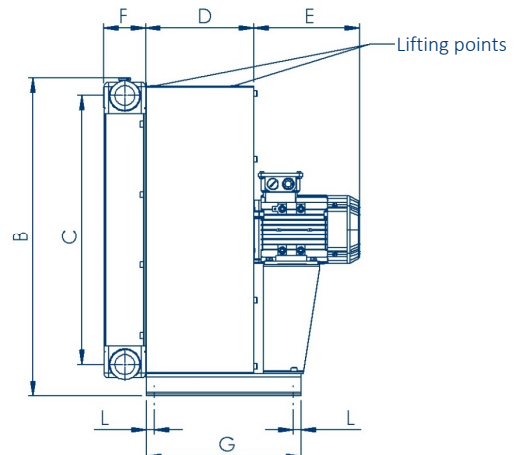
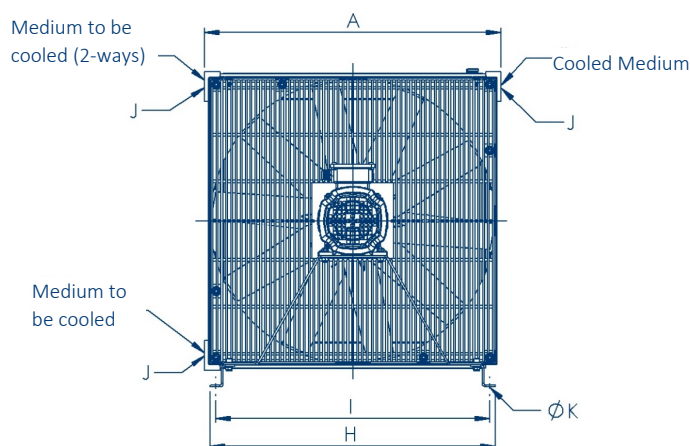
Typ	Motor performance	Power consumption**	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 510-460V-4	1.00	1.50	1800	26945.55	80 / 70	89
LKI 520-460V-4	1.00	1.50	1800	26945.55	80 / 70	89
LKI 510-460V-6	0.33	0.90	1200	16801.34	70 / 57	82
LKI 520-460V-6	0.33	0.90	1200	16801.34	70 / 57	82
LKI 610-460V-4	1.00	1.50	1800	23775.48	80 / 70	108
LKI 620-460V-4	1.00	1.50	1800	23775.48	80 / 70	108
LKI 610-460V-6	0.33	0.90	1200	8717.68	70 / 57	108
LKI 620-460V-6	0.33	0.90	1200	8717.68	70 / 57	108

* Nominal current at 460V

** 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 510-460V-4	26.4	28.4	24	9.6	ca.8.8	2.5	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 520-460V-4	26.4	28.4	24	9.6	ca.9.5	2.5	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 510-460V-6	26.4	28.4	24	9.6	ca.8.1	2.5	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 520-460V-6	26.4	28.4	24	9.6	ca.8.1	2.5	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 610-460V-4	26.4	28.4	24	9.6	ca.9.4	3.7	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 620-460V-4	26.7	28.4	24	9.6	ca.9.4	3.7	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 610-460V-6	26.4	28.4	24	9.6	ca.8.1	3.7	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 620-460V-6	26.4	28.4	24	9.6	ca.9.3	3.7	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7

Dimension data in inch, Threads for lifting equipment: M8



Size LKI-700

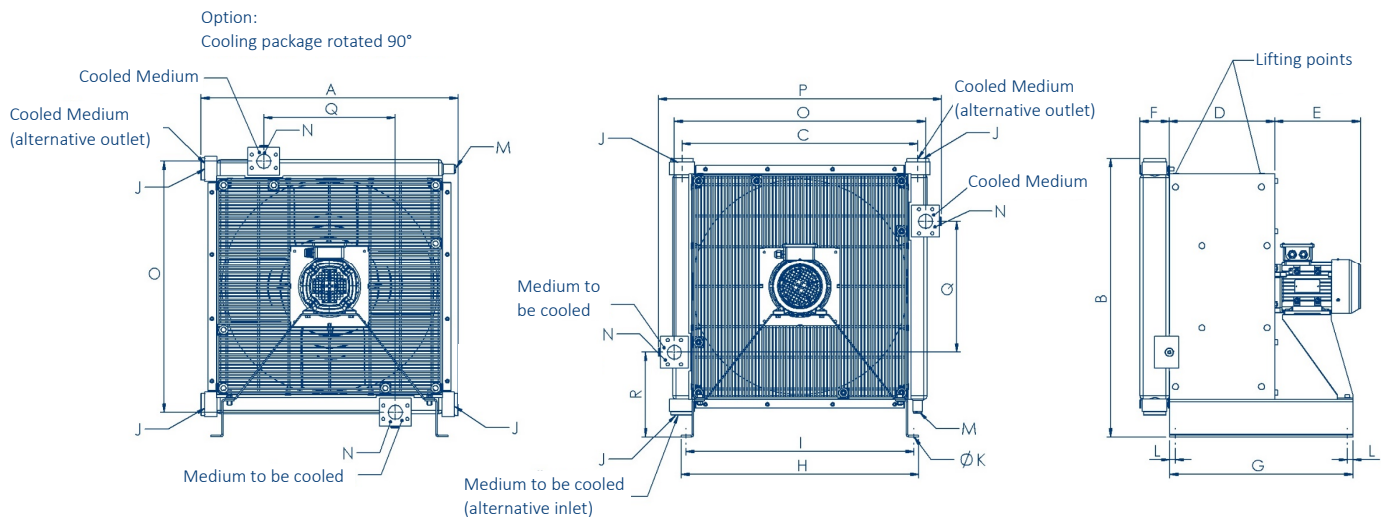
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 710-460V-6	1.50	2.40	1200	33919.69	77 / 62	200
LKI 710-460V-8	1.00	2.30	900	24726.50	69 / 56	200

* Nominal current at 460V

** 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 710-460V-6	35.4	34.9	29.9	13.4	ca. 11.0	3.7	23.2	30.1	28.9	G2"	$\emptyset 0.4$	0.7	G1/2"	2*SAE	31.9	35.4	16.7	1.07
LKI 710-460V-8	35.4	34.9	29.9	13.4	ca. 10.9	3.7	23.2	30.1	28.9	G2"	$\emptyset 0.4$	0.7	G1/2"	2*SAE	31.9	35.4	16.7	10.7

Dimension data in inch, Threads for lifting equipment: M10



Size LKI-800

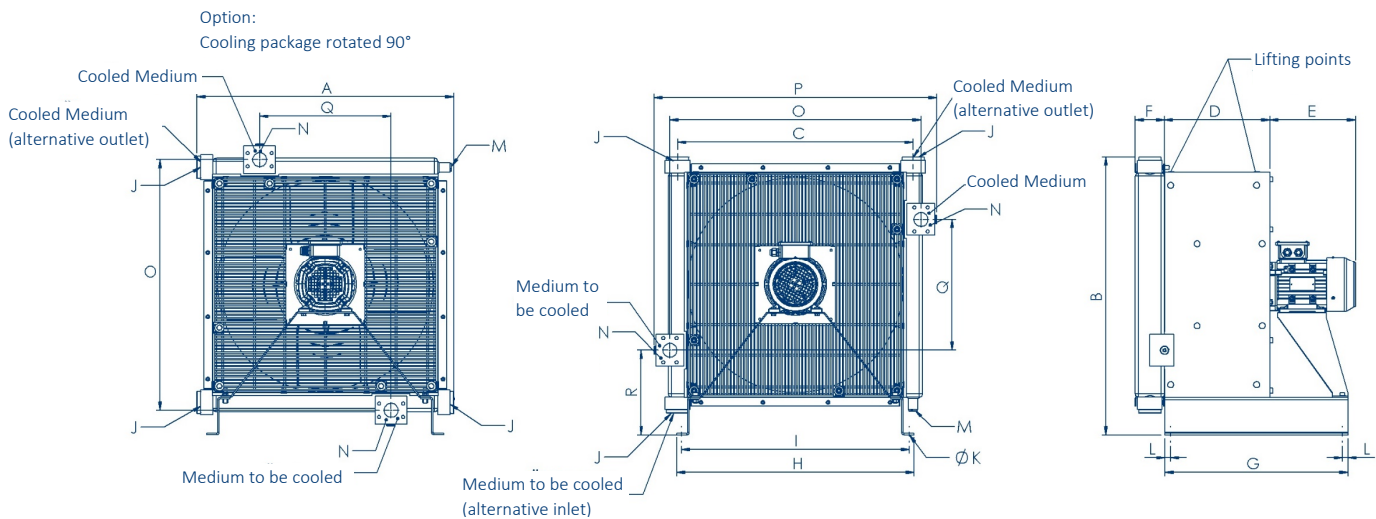
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 810-460V-6	2.00	3.50	1200	53574.09	79 / 68	245
LKI 810-460V-8	1.00	2.30	900	41844.85	72 / 60	245

* Nominal current at 460V

** 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 810-460V-6	36.1	39.8	33.9	13.4	ca.12.6	3.7	23.2	34.1	32.9	G2"	∅0.4	0.7	G1/2"	2*SAE	35.8	39.8	21.2	10.7
LKI 810-460V-8	36.1	39.8	33.9	13.4	ca.11.9	3.7	23.2	34.1	32.9	G2"	∅0.4	0.7	G1/2"	2*SAE	35.8	39.8	21.2	10.7

Dimension data in inch, Threads for lifting equipment: M10



Size LKI-900

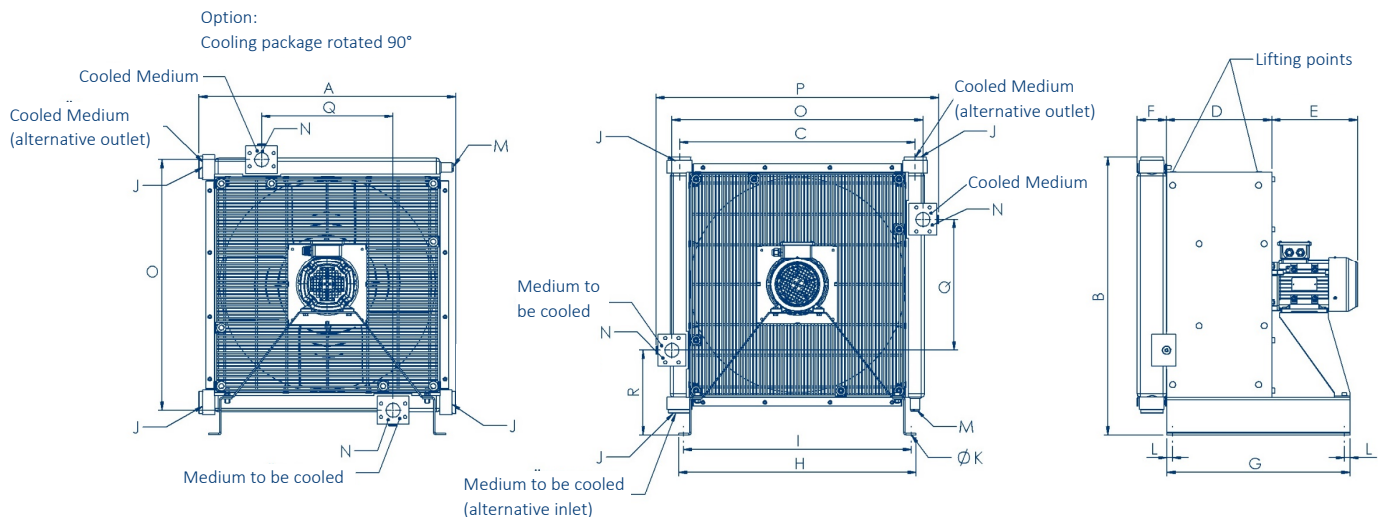
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 910-460V-6	5.00	7.40	1200	68473.40	85 / 72	302
LKI 910-460V-8	2.00	3.50	900	48660.49	76 / 64	288

* Nominal current at 460V

** 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 910-460V-6	40.1	43.3	37.8	13.4	ca. 14.6	3.7	23.2	38.0	36.8	G2"	$\emptyset 0.4$	0.7	G1/2"	2*SAE	39.8	43.3	25.1	10.7
LKI 910-460V-8	40.1	43.3	37.8	13.4	ca. 11.9	3.7	23.2	38.0	36.8	G2"	$\emptyset 0.4$	0.7	G1/2"	2*SAE	39.8	43.3	25.1	10.7

Dimension data in inch, Threads for lifting equipment: M10



Size LKI-1000

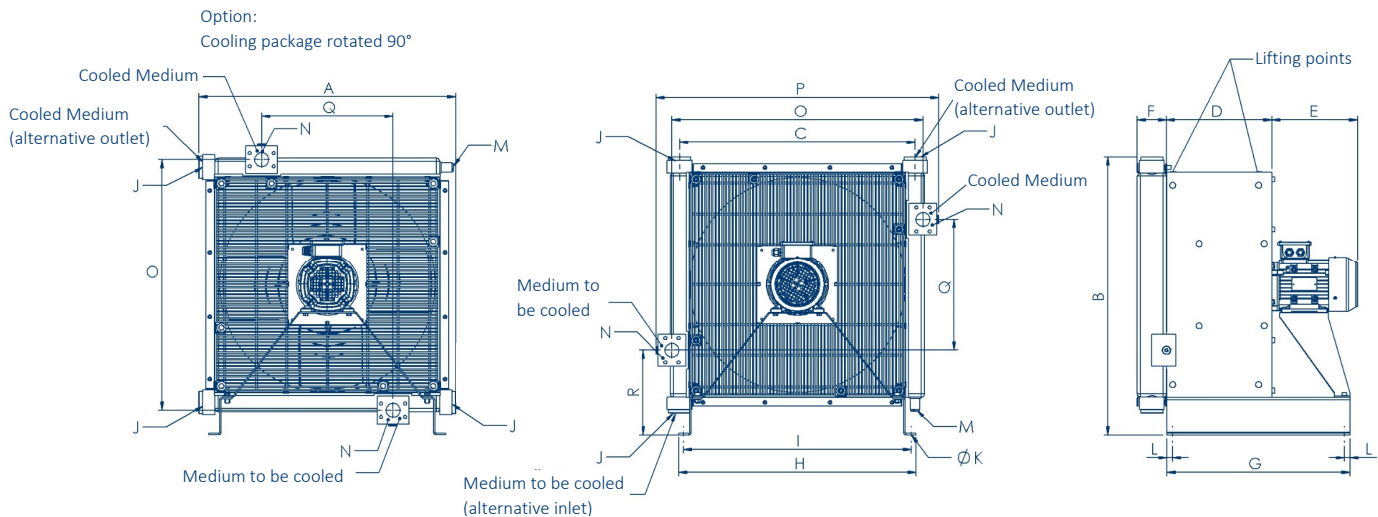
Typ	Motor performance	Power consumption*	Rotation speed	Air flow	Noise level**	Weight
	HP	A	rpm	gpm	1m / 7m dB(A)	lbs
LKI 1010-460V-6	5.0	7.40	1200	85274.74	85 / 72	346
LKI 1010-460V-8	2.5	3.50	900	60865.24	76 / 64	333

* Nominal current at 460V

**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 1010-460V-6	42.3	45.6	41.7	13.4	ca.14.6	3.7	23.2	41.9	40.7	G2"	$\emptyset 0.4$	0.7	G1/2"	2*SAE	43.7	47.2	27.4	10.7
LKI 1010-460V-8	42.3	45.6	41.7	13.4	ca.12.6	3.7	23.2	41.9	40.7	G2"	$\emptyset 0.4$	0.7	G1/2"	2*SAE	43.7	47.2	27.4	10.7

Dimension data in inch, Threads for lifting equipment: M10



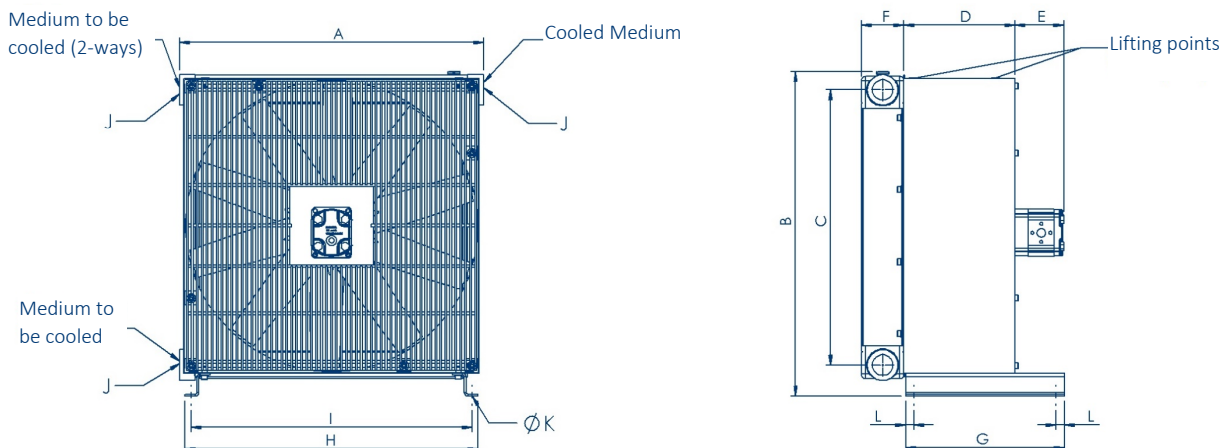
Size LKI-100-HYD - LKI-600-HYD

Typ	Rotation speed	Air flow	Noise level**	Weight
	rpm	gpm	1m dB(A)	lbs
LKI 110-HYD	3000	20446.92	77 dB(A)	37.5
LKI 120-HYD	3000	20446.92	77 dB(A)	37.5
LKI 210-HYD	3000	18703.38	77 dB(A)	44.1
LKI 220-HYD	3000	18703.38	77 dB(A)	44.1
LKI 310-HYD	1500	11729.24	73 dB(A)	57.3
LKI 320-HYD	1500	11729.24	73 dB(A)	57.3
LKI 410-HYD	1500	12046.25	73 dB(A)	72.8
LKI 420-HYD	1500	12046.25	73 dB(A)	72.8
LKI 510-HYD	1500	26945.55	80 dB(A)	79.4
LKI 520-HYD	1500	26945.55	80 dB(A)	79.4
LKI 610-HYD	1500	23775.48	80 dB(A)	99.2
LKI 620-HYD	1500	23775.48	80 dB(A)	99.2

**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	13.4	16.9	14.2	6.9	ca.3.4	2.5	13.8	13.2	12.2	G1"	$\emptyset 0.4$	0.7
LKI 200-HYD	13.4	16.9	14.2	6.9	ca.3.4	3.7	13.8	13.2	12.2	G1"	$\emptyset 0.4$	0.7
LKI 300-HYD	18.9	21.7	18.1	8.1	ca.3.4	2.5	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 400-HYD	18.9	21.7	18.1	8.1	ca.3.4	3.7	13.8	18.7	17.7	G1"	$\emptyset 0.4$	0.7
LKI 500-HYD	26.4	28.4	24.0	9.6	ca.3.4	2.5	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7
LKI 600-HYD	26.4	28.4	24.2	9.6	ca.3.4	3.7	13.8	25.4	24.4	G1 1/2"	$\emptyset 0.4$	0.7

Dimension data in inch, Threads for lifting equipment: M8



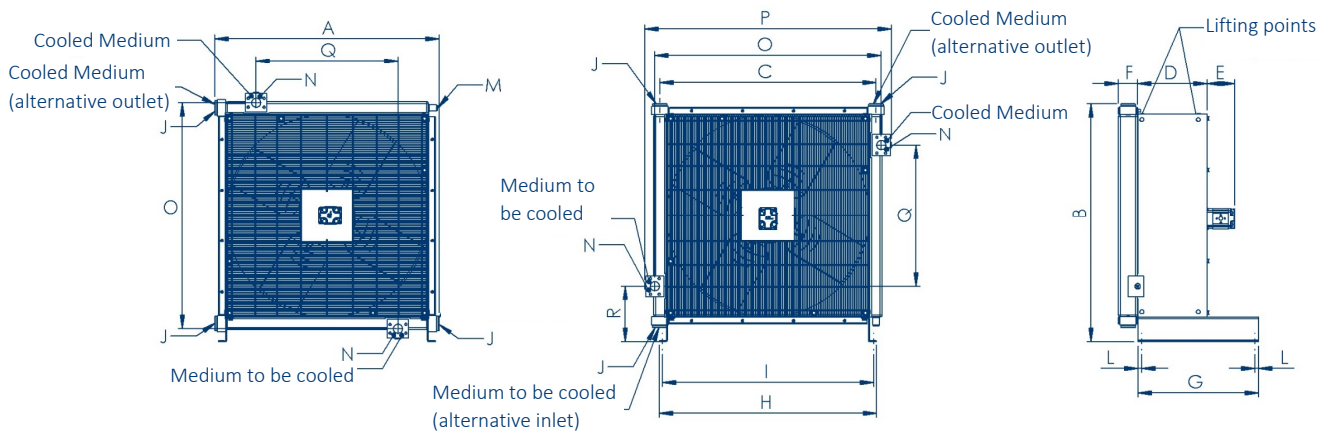
Size LKI-700-HYD – LKI-1000-HYD

Typ	Rotation speed	Air flow	Noise level**	Weight
	rpm	gpm	1m dB(A)	lbs
LKI 700-HYD	1000	33919.69	77	177
LKI 800-HYD	1000	53574.09	79	214
LKI 900-HYD	1000	68473.40	85	250
LKI 1000-HYD	1000	85274.74	85	294

**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	33.1	35.4	29.9	13.4	ca.4.1	3.7	23.2	30.1	28.9	G2"	\emptyset 0.6	0.7	G1/2"	2*SAE	31.9	35.4	16.7	10.7
LKI 800-HYD	37.9	40.3	33.9	13.4	ca.4.1	3.7	23.2	34.1	32.9	G2"	\emptyset 0.6	0.7	G1/2"	2*SAE	35.8	39.4	21.2	10.7
LKI 900-HYD	40.1	43.8	37.8	13.4	ca.4.1	3.7	23.2	38.0	36.8	G2"	\emptyset 0.6	0.7	G1/2"	2*SAE	39.8	43.3	25.1	10.7
LKI 1000-HYD	42.3	46.0	41.7	13.4	ca.4.1	3.7	23.2	41.9	40.7	G2"	\emptyset 0.6	0.7	G1/2"	2*SAE	34.7	47.2	27.4	10.7

Dimension data in inch, Threads for lifting equipment: M10



Ordering code

LKI 110 - 460V - 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. 3600rpm
4 = 4 pole / ca. 1800rpm
6 = 6 pole / ca. 1200rpm
8 = 8 pole / ca. 900rpm
11 = Hydraulic motor 11ccm (HYD)
22 = Hydraulic motor 22ccm (HYD)

Drive
460V = 460V/60Hz (Standard)
HYD = Hydraulic motor
Motors with special voltage or with explosion protection available on request.

Option table

LKI 110-460V-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 stone guard	-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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